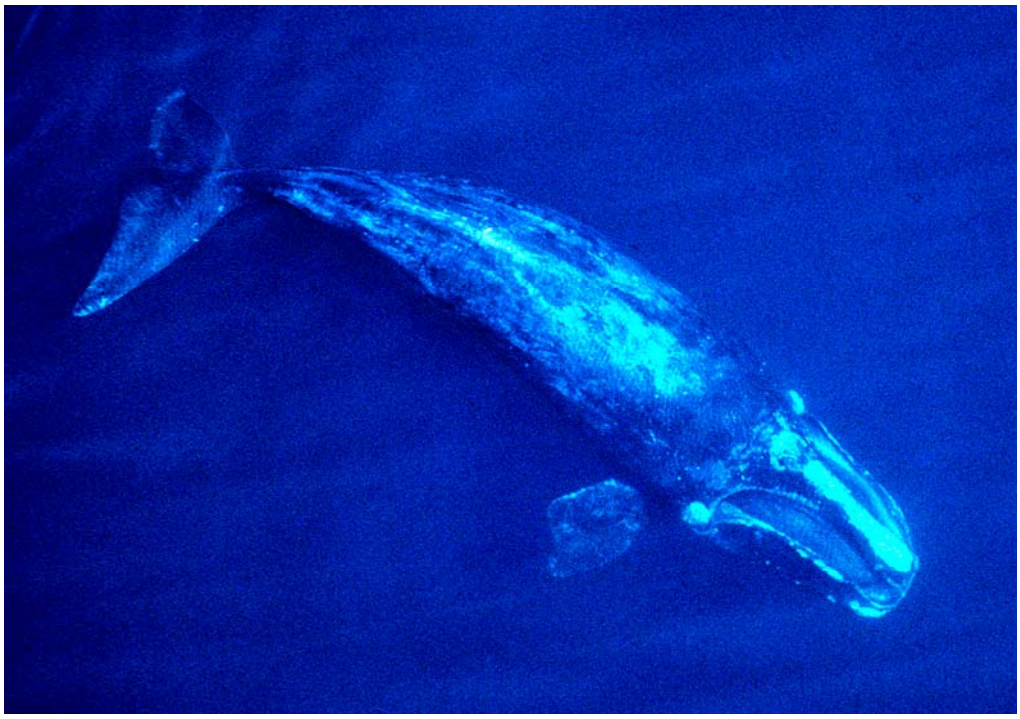
*Draft EIS Report* - **Appendix Volume**

# Economic Analysis for the Environmental Impact Statement of the North Atlantic Right Whale Ship Strike Reduction Strategy



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*Appendix A*

# DESCRIPTION AND REVIEW OF U.S. COAST GUARD VESSEL ARRIVAL DATA

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**Appendix A, Attachment 1. U.S. Coast Guard Data Fields on Vessel Arrivals, Vessel Characteristics and Ports**

| VESSEL ARRIVALS Column No. | Type | Column Name | 2002-2003 Data | 2004 Data | 2002-2003 Length | 2004 Length |
|---|---|---|---|---|---|---|
| 1 | char | Arrival-Id | Yes | Yes | 10 | 4 |
| 2 | char | Vessel Id | Yes | Yes | 10 | 4 |
| 3 | char | Arrival_DtTm | Yes | Yes | 10 | 10 |
| 4 | char | Departure DtTm | Yes | Yes | 10 | 10 |
| 5 | char | Arrival Status Type | Yes | Yes | 5 | 30 |
| 6 | char | AOR_Id | Yes | Yes | 10 | 4 |
| 7 | varchar | Port Abrv | Yes | Yes | 50 | 50 |
| 8 | char | Last AOR Id | Yes | Yes | 10 | 4 |
| 9 | varchar | Last_ Port Abrv | Yes | Yes | 20 | 250 |
| 10 | char | Next AOR Id | Yes | Yes | 10 | 4 |
| 11 | varchar | Next_ Port Abrv | Yes | Yes | 20 | 20 |
| 12 | char | Product Type Id | Yes | Yes | 3 | 1 |
| 13 | char | Cargo Amount | Yes | Yes | 10 | 4 |
| 14 | char | Cargo Unit Type Id | Yes | Yes | 3 | 1 |
| 15 | char | Low_ Value_ Bulk_Ind | Yes | Yes | 1 | 1 |
| 16 | varchar | Location_Desc | Yes | Yes | 150 | 150 |
| 17 | char | Contact _Party_Id | Yes | Yes | 10 | 4 |
| 18 | varchar | Contact_ Name | Yes | No | 30 | |
| 19 | char | Contact_ Phone Num | Yes | No | 12 | |
| 20 | char | Class Soc_Party_Id | Yes | Yes | 10 | 4 |
| 21 | char | Targeted Party_Id | Yes | Yes | 10 | 4 |
| 22 | char | Targeting Matrix Pts | Yes | Yes | 10 | 4 |
| 23 | char | Calc_Priority_Lvl | Yes | Yes | 5 | 2 |
| 24 | bit | Preliminary_Priority_Ind | Yes | Yes | 1 | 1 |
| 25 | char | Assigned Priority_Lvl | Yes | Yes | 5 | 2 |
| 26 | varchar | Assigned Priorit | Yes | Yes | 255 | 255 |
| 27 | varchar | Comments | Yes | Yes | 255 | 255 |
| 28 | char | Inspection Activity_Id | Yes | Yes | 10 | 4 |
| 29 | char | Last-Mod DtTm | Yes | No | 10 | |
| 30 | char | Last Mod Activity_Id | Yes | No | 10 | |
| 31 | char | Last-Mod-Unit-Id | Yes | No | 10 | |
| 32 | text | General Cargo Desc | Yes | Yes | 16 | 16 |
| 33 | varchar | Anchorage | Yes | Yes | 150 | 150 |
| 34 | varchar | Place_Of_Docking | Yes | Yes | 150 | 150 |
| 35 | varchar | Other_Port_Desc | Yes | Yes | 150 | 150 |
| 36 | char | SANS_ Id | Yes | Yes | 10 | 4 |
| 37 | char | AMVER_Id | Yes | Yes | 10 | 4 |
| 38 | char | Ext_Last_Mod_DtTm | Yes | No | 10 | |
| 39 | varchar | Docking Desc | Yes | Yes | 100 | 150 |
| 40 | varchar | Anchorage Desc | Yes | Yes | 100 | 150 |
| 41 | char | Voy_Num | Yes | Yes | 10 | 4 |
| 42 | varchar | Sans Comments | Yes | No | 250 | |
| 43 | varchar | Sans Discrepancies | Yes | No | 250 | |
| 44 | varchar | Sans_Cargo Desc | Yes | No | 250 | |
| 45 | char | Sans-Port-Id | Yes | No | 10 | |

| | | | | | |
|---|---|---|---|---|---|
| 46 varchar | Charterer | Yes | Yes | 100 | 100 |
| 47 char | Boarding Activity_Id | Yes | Yes | 10 | 4 |
| 48 varchar | sp - filler | Yes | Yes | 1 | 1 |

ARRIVAL PORTS

| Column No. | Type | Column Name | Length |
|---|---|---|---|
| 1 | char | Port-Id | 10 |
| 2 | varchar | Port_Abbr | 20 |
| 3 | varchar | Port Desc | 200 |
| 4 | char | Country_Code_Id | 5 |
| 5 | char | State_Abbr | 2 |
| 6 | varchar | City_Name | 50 |
| 7 | char | Location-Id | 10 |
| 8 | char | AMVER_Port_Ind | 1 |
| 9 | char | Active-Ind | 1 |
| 10 | char | Last_Mod_DtTm | 10 |
| 11 | char | Last-Mod-Unit-Id | 10 |
| 12 | varchar | Last_Mod_User | 30 |
| 13 | varchar | sp - filler | 1 |

Table Name: MisleVessel

| Column No. | Type | Column Name | Length |
|---|---|---|---|
| 1 | char | gk d vessel | 28 |
| 2 | char | vessel_ id | 15 |
| 3 | varchar | vessel_name | 33 |
| 4 | char | managing_owner_id | 28 |
| 5 | varchar | managing_ owner | 120 |
| 6 | varchar | gross ton | 8 |
| 7 | varchar | net_ ton | 8 |
| 8 | varchar | length | 7 |
| 9 | varchar | breadth | 7 |
| 10 | varchar | depth | 7 |
| 11 | varchar | itc breadth | 7 |
| 12 | varchar | itc depth | 7 |
| 13 | varchar | itc gross ton | 8 |
| 14 | varchar | itc length | 7 |
| 15 | varchar | itc net_ton | 8 |
| 16 | varchar | draft design | 8 |
| 17 | char | draft_ design_ units | 2 |
| 18 | char | dead_Weight ton | 8 |
| 19 | char | - | 2 |
| 20 | char | flag abbr | 2 |
| 21 | varchar | hailing_port | 50 |
| 22 | varchar | hailing_ state | 2 |
| 23 | varchar | hailing port port-province | 50 |
| 24 | varchar | route type | 50 |
| 25 | varchar | classification society | 80 |
| 26 | varchar | cargo authorization type | 30 |
| 27 | char | documented ind | 1 |
| 28 | varchar | documented status_type | 30 |
| 29 | char | inspected ind | 1 |
| 30 | varchar | inspected desc | 30 |
| 31 | char | state_ vessel ind | 1 |

| | | | |
|---|---|---|---|
| 32 | varchar | state_ vessel desc | 30 |
| 33 | char | lloyds ind | 1 |
| 34 | varchar | lloyds desc | 30 |
| 35 | char | solas_ind | 1 |
| 36 | varchar | solas_desc | 30 |
| 37 | varchar | insp.subchapter.type | 255 |
| 38 | varchar | vessel_ class | 50 |
| 39 | varchar | vessel_ type | 50 |
| 40 | varchar | vessel_ subtype | 50 |
| 41 | varchar | vessel_ service | 30 |
| 42 | varchar | max passengers allowed | 6 |
| 43 | varchar | max_crew | 6 |
| 44 | varchar | self  propelled ind | 1 |
| 45 | varchar | propulsion type | 30 |
| 46 | varchar | hull_ material | 30 |
| 47 | varchar | hull_ design_ type | 30 |
| 48 | varchar | hull_ double_ bottom_ type | 30 |
| 49 | varchar | hull.double.side.type | 30 |
| 50 | varchar | call_ sign | 8 |
| 51 | varchar | official_ number | 10 |
| 52 | varchar | hull number | 30 |
| 53 | varchar | rbs hull number | 30 |
| 54 | varchar | imo number | 30 |
| 55 | varchar | vessel_ age | 4 |
| 56 | varchar | build  shipyard | 50 |
| 57 | char | build_ year | 4 |
| 58 | varchar | hull build.party.name | 80 |
| 59 | varchar | - | 80 |
| 60 | varchar | horsepower_ ahead | 5 |
| 61 | varchar | horsepower_ astern | 5 |
| 62 | varchar | forebody_type_desc | 30 |
| 63 | varchar | hull_ configuration | 30 |
| 64 | varchar | hull_ shape | 30 |
| 65 | char | filler | 1 |

**Appendix A, Attachment 2. Reconciliation of Port Codes in USCG Vessel Arrival File and Port Description File**

| Port Code from Arrival File | Keep or drop | Port Code | Comment |
|---|---|---|---|
| 7 AGRIUM 0 | Drop | SCRMTO | Fresno, CA Nr Sacramento |
| 16 ALEXANDRIA B 0 | Drop | | Alexandria Bay on the St. Lawrence |
| 21 ALLIANCE 0 | Drop | | 5 arrivals |
| 34 ANGOON 0 | Drop | | Canadian icebreaker |
| 38 ANTIOCH 0 | Keep | SCRMTO | Antioch, CA nr Sacramento |
| 41 APRA HARBOR 0 | drop | | Guam could combine with apra |
| 42 ARABI 0 | drop | | St. Bernard port, Louisiana |
| 66 BANGOR/BREWE 0 | Keep | BANGME | Bangor ME |
| 69 BARBOURS C 0 | Keep | GALV | Barbours Cut Container terminal in Glaveston,TX |
| 70 BARBOURS CUT 0 | Keep | GALV | Barbours Cut Container terminal in Glaveston,TX |
| 73 BATON ROUG 0 | Keep | NRLNSSW | Baton Rouge |
| 76 BAYONNE 0 | Keep | BAYONN | Bayonne NJ |
| 77 BAYOU COSOTT 0 | Drop | | Off-shore drilling rig |
| 78 BAYPORT 0 | Keep | PASAD | Bayport nr Pasadena TX |
| 87 BELLINGHAM 0 | Keep | BELHAM | Bellingham, WA |
| 91 BERWICK 0 | Drop | | Berwick LA |
| 94 BIENVILLE 0 | Drop | | Port Bienvillle, MS |
| 95 BIGISL 0 | Drop | | Big Island HI |
| 100 BLOUNT ISL 0 | Keep | JAX | Blount Island Terminal, Jacksonville, FL |
| 101 BLOUNT ISLAN 0 | Keep | JAX | Blount Island Terminal, Jacksonville, FL |
| 104 BOLIVAR RO 0 | Drop | | Port Bolivar,TX |
| 109 BRAINTREE 0 | Keep | WEYMTH | weymouth, Fore River, Braintree, MA |
| 116 BREVORT 0 | drop | | Brevort, MI on Great Lakes |
| 117 BRIDGEPORT 0 | Keep | BRIDPT | Bridgeport, CT |
| 118 BRIDGEPORT A 0 | Keep | BRIDPT | Bridgeport, CT |
| 131 BURNS HARB 0 | Drop | | Burns Harbor ,IN on Lake Michigan |
| 136 CALCITE 0 | Drop | | Calcite, MI on Lake |
| 138 CAMERON 0 | Drop | | Cameron ,TX |
| 141 CAPE CANAV 0 | Keep | PCANAV | Port Canaveral, FL |
| 146 CAPE HENRY P 0 | Keep | VIRN A | Virginia Beach, VA |
| 150 CARYLSS 0 | Drop | | Lake Charles ,LA |
| 157 CEDARVILLE 0 | Drop | | Cedarville, MI |
| 160 CHANNEL VIEW 0 | Keep | PTARAS | Port Arkansas, TX |
| 164 CHARLEVOIX 0 | Drop | | Charlevoix, MI |
| 166 CHEBOYGAN 0 | Keep | CHBYGN | Cheboygan, MI on Lake |
| 172 CHERRY POI 0 | Keep | CHERPT | Cherry Point, WA |
| 175 CHESAPEAKE 0 | Keep | CHESLV | Cheasapeake, VA |
| 176 CHESAPEAKE C 0 | Keep | CHESLV | Cheasapeake, VA |
| 182 CHIGNIK 0 | Keep | SEA | Seattle, WA fishing vessels |
| 183 CHOCOLATE BA 0 | Drop | | Chocolate Bay, TX |
| 184 CHRISTIANS 0 | Keep | LIMETREE BA | LimetreeBay, St. Croix |
| 204 COON COVE 0 | Drop | | Coon Cove, Alaska |
| 209 CORPUS CHR 0 | Keep | CORPUS | Corpus Christi, TX |
| 222 DAMES POINT 0 | Keep | JAX | Jacksonville, FL |
| 223 DANIA 0 | Keep | FTLAUD | Fort lauderdale, FL |
| 230 DEER PARK 0 | Keep | PASAD | Deer Park nr Pasadena TX |
| 231 DESTREHAN 0 | Keep | DESTHN | Destrahan, LA |
| 233 DETOUR 0 | Drop | | DeTour, MI Lake Huron |
| 237 DODGE ISLAND 0 | Keep | MIAMI | Dodge Island nr Miami, FL |
| 242 DRUMMOND ISL 0 | Drop | | Drummond Island, MI |
| 246 DUTCH HARBOR 0 | Keep | DUTCHH | Dutch Harbour, AK |
| 248 EAST BOSTON 0 | Keep | BOSTON | Boston, MA |
| 254 EMPIRE 0 | Drop | | Empire, LA |
| 268 FERNANDINA 0 | Keep | FERNNA | Fernandina, FL |
| 277 FOURCHON 0 | Drop | | Port Fourchon, LA |
| 280 FREDERIKST 0 | Keep | FRDSTD | Fredericsted, St. Croix |
| 285 FRIDAY HARBO 0 | Drop | | Friday Harbor, WA |
| 291 GALES FERRY 0 | Keep | NLON | Near New London, CT |
| 305 GATEWAY TERM 0 | Keep | NHAV | New Haven, CT |

| Port Code from Arrival File | Keep or drop | Port Code | Comment |
|---|---|---|---|
| 309 GETTY PETROL 0 | drop | | two barges |
| 311 GLADSTONE 0 | drop | | Gladstone, MI |
| 313 GLOUCESTER 0 | Keep | GLOUST | Glocester, MA |
| 318 GRAMERCY 0 | Keep | GRAMCY | Gramercy, LA |
| 321 GREEN COVE 0 | Keep | JAX | nr Jacksonville, FL |
| 322 GREEN COVER 0 | Keep | JAX | nr Jacksonville, FL |
| 323 GREENPORT 0 | Keep | OYBAY | nr Oyster Bay, NY |
| 324 GREENS BAYOU 0 | Keep | HOU | Houston, TX |
| 329 GROTON/NEW L 0 | Keep | NLON | Near New London, CT |
| 337 GULFMEX 2 0 | drop | | Offshore termial |
| 338 GULFPORT 0 | Keep | GULFPT | Gulfport. MS |
| 344 HAWK INLET 0 | Keep | JUNEAU | Juneau, AK |
| 346 HAY 0 | Keep | ISLPK | Island Park, NY |
| 359 HOUMA 0 | Drop | NRLNSSW | nr New Orleans, LA |
| 363 HOVENSA 0 | Drop | | Hovensa, St Croix |
| 376 INDIANA HARB 0 | Keep | CHIC | East Chicago, IL |
| 381 JACINTOPORT 0 | Keep | HOU | Houston, TX |
| 382 JACKSONVIL 0 | Keep | JAX | Jacksonville, FL |
| 393 KAWAIHAE HAR 0 | Drop | | Kawaihae, HI |
| 399 KEYSPAN NORT 0 | Keep | ISLPK | Island Park, NY |
| 400 KEYSPAN PORT 0 | Keep | ISLPK | Island Park, NY |
| 402 KINGS BAY 0 | Keep | KINGBY | Kings Bay, FL nr jacksonville |
| 404 KIVILINA 0 | Keep | KIVLNA | Kivalina, AK |
| 417 LA PLACE 0 | Drop | | La Place, LA |
| 421 LACKAWANA 0 | Drop | | Lackawana, NY |
| 424 LAKE CHARL 0 | Keep | LCHAR | Lake Charles, LA |
| 438 LOCUS POINT 0 | Keep | BALTO | Baltimore, MD |
| 439 LOGISTICS TE 0 | Drop | | 2 records |
| 443 LOS ANGELE 0 | Keep | LA/LB | Los Angeles |
| 446 LUMMUS ISLAN 0 | Keep | MIAMI | Miami, FL |
| 448 MACKINAC 0 | Keep | MACN | Mackinac, Island, MI |
| 449 MACKINAW CIT 0 | Keep | MACN | Mackinaw City, MI |
| 450 MANCHESTER 0 | Keep | HOU | Houston, TX |
| 451 MANITOWOC 0 | Keep | MANTWC | Manitowoc, WI |
| 462 MATTITUCK 0 | Keep | ISLPK | MATTITUCK, NY |
| 475 MIAMI RIVER 0 | Keep | MIAMI | Miami, FL |
| 489 MORGAN'S POI 0 | Keep | GALV | Barbours Cut Container terminal in Glaveston,TX |
| 492 MOTIVA BRIDG 0 | Keep | WILMDL | Wilmington, DE |
| 493 MOTIVA NEW H 0 | Keep | WILMDL | Wilmington, DE |
| 497 MSD SITKA 0 | Keep | MSD SITKA | Sitka, AK |
| 498 MSO PORT ART 0 | Keep | MSOPort Ar | MSO Port Arthur, TX |
| 503 MYRTLE GRO 0 | Keep | MYRE | Myrtle Grove, LA |
| 504 MYRTLE GROVE 0 | Keep | MYRE | Myrtle Grove, LA |
| 507 NASHVILLE 0 | Keep | NRLNSSW | New Orleans, LA |
| 508 NASHVILLE AV 0 | Keep | NRLNSSW | New Orleans, LA |
| 518 NEW HAVEN AN 0 | Keep | NHAV | New Haven, CT |
| 521 NEW LONDON S 0 | Keep | NLON | New London, CT |
| 522 NEW ORLEAN 0 | Keep | NRLNSSW | New Orleans, LA |
| 523 NEW ORLEANS 0 | Keep | NRLNSSW | New Orleans, LA |
| 525 NEW YORK CIT 0 | Keep | NYC | New York City |
| 528 NEWBURYPORT 0 | Keep | SALEM | nr Salem, MA |
| 529 NEWIBERIA 0 | Keep | NRLNSSW | nr New Orleans, LA |
| 532 NEWPORT 0 | Keep | NEWPT | Newport, RI |
| 537 NIKISHKA 0 | DROP | | Nikishka, AK |
| 546 NORTHPORT AN 0 | Keep | ISLPK | North Long Island nr Huntington |
| 564 OFFSHORE LIG 0 | Keep | MTKPS | offshore Montauk |
| 571 OSTRICA 0 | Keep | OSTRCA | Ostricala, LA |
| 580 PANAMA CIT 0 | Keep | PANAMA | Panama City, FL |
| 588 PATMS-ALL PO 0 | Keep | PATMS-All P | MSO Port Arthur, TX |
| 590 PAULINA 0 | Keep | NRLNSSW | nr New Orleans, LA |
| 606 PHILLIPS 0 | Keep | ANCRGE | Nikiski, AK nr Anchorage |
| 607 PHILLIPS DOC 0 | Keep | ANCRGE | Nikiski, AK nr Anchorage |
| 624 POINT COMF 0 | DROP | | 9 Records |

| Port Code from Arrival File | Keep or drop | Port Code | Comment |
|---|---|---|---|
| 635 PORT ARTHU 0 | Keep | PATMS-All P | MSO Port Arthur, TX |
| 639 PORT CANAV 0 | Keep | PCANAV | Port Canaveral, FL |
| 643 PORT COVINGT 0 | Keep | BALTO | Baltimore, MD |
| 644 PORT DOLOMIT 0 | Drop | | Port Dolomite, MI near Cedarville |
| 645 PORT EVERG 0 | Keep | PTGLDS | Port Everglades, FL |
| 647 PORT FOURCHO 0 | Drop | | Port Fourchon, LA |
| 648 PORT HADLOCK 0 | Keep | PUGET | Port Hadlock, WA |
| 649 PORT HUENE 0 | Keep | PORHUE | Port Hueneme, CA |
| 652 PORT INLAND 0 | Drop | | Port Inland, MI |
| 653 PORT JEFFE 0 | Keep | PTJFSN | Port Jefferson, NY |
| 657 PORT MANAT 0 | Keep | TAMPA | Port Manatee, FL nr Tampa |
| 658 PORT MANATEE 0 | Keep | TAMPA | Port Manatee, FL nr Tampa |
| 660 PORT NECHE 0 | Keep | PTNECH | Port Neches, TX nr Por Arthur |
| 663 PORT OF NEW 0 | Drop | | 1 record |
| 665 PORT SUTTO 0 | Keep | TAMPA | Port Sutton, FL nr Tampa |
| 666 PORT SUTTON 0 | Keep | TAMPA | Port Sutton, FL nr Tampa |
| 673 PRESQUE ISLE 0 | Drop | | PresqueIsland, MI |
| 674 PRIBILOF ISL 0 | Drop | | Pribilof Islands,AK |
| 694 PUGET SOUN 0 | Keep | PUGET | Puget Sound, WA |
| 697 RATTLESNAKE 0 | Keep | TAMPA | Rattlesnke Point,FL nr Tampa |
| 700 REDWOOD CI 0 | Keep | REDWOD | Redwood City, CA nr SF |
| 703 RESERVE 0 | Keep | NRLNSSW | Reserve, LA nr New Orleans |
| 710 RIVERHEAD AN 0 | Keep | ISLPK | Riverhead, NY |
| 712 ROCHESTER 0 | Drop | | Rochester, NY |
| 715 ROCKPORT 0 | Keep | TAMPA | Rockport, FL nr Tampa |
| 716 RODEO 0 | Keep | SFRAN | Rodeo, CA nr SF |
| 719 ROSEY ROADS 0 | Drop | | Rosey Roads, Puerto Rico |
| 725 SABINE LIG 0 | Keep | SAB LGT | Sabine, TX |
| 728 SABINE RIVER 0 | Keep | SAB LGT | Sabine, TX |
| 729 SACRAMENTO 0 | Keep | SCRMTO | Sacremento, CA |
| 732 SAN FRANCI 0 | Keep | SFRAN | San Francisco, CA |
| 736 SAN JUAN 0 | Keep | SJUAN | San Juan, Puerto Rico |
| 738 SAN PEDRO 0 | Keep | SPEDRO | San Pedro, CA |
| 739 SAN PEDRO HA 0 | Keep | SPEDRO | San Pedro, CA |
| 741 SANDFILL 0 | Keep | SNDFIL | nr San Juan, Puerto Rico |
| 744 SAULT STE. M 0 | Drop | | Sault Ste. Marie Michigan |
| 745 SAV 0 | Keep | SAVGA | Savannah, GA |
| 753 SEABROOK 0 | Keep | GALV | Seabrook, TX nr Galveston |
| 758 SEATTLE 0 | Keep | SEA | Seattle, WA |
| 768 SHEMYA ISLAN 0 | Drop | | Shemya Island. AK |
| 770 SILVER BAY 0 | Drop | | Silver bay, MN near Duluth |
| 780 SOUTH BOSTON 0 | Keep | BSN | Boston, MA |
| 781 SOUTH LOCUST 0 | Keep | BALTO | Baltimore, MD |
| 782 SOUTH LOUISI 0 | Keep | NRLNSSW | New Orleans, LA |
| 784 SOUTHWEST 0 | Keep | NRLNSSW | Baton Rouge, LA |
| 785 SOUTHWEST HA 0 | drop | | 1 record |
| 794 ST, MICHAEL 0 | drop | | St. Michael. AK |
| 795 ST. AUGUSTIN 0 | Keep | STAUG | Saint Augustine, FL |
| 796 ST. CHARLES 0 | drop | | Port St. Charles, Barbados |
| 797 ST. CROIX 0 | Keep | STCROX | Saint Croix, VI |
| 798 ST. ELMO 0 | drop | | 1 record; looks west coast |
| 799 ST. GEORGE 0 | drop | | 2 records |
| 800 ST. JAMES 0 | Keep | SJAMES | St. James, LA |
| 801 ST. JOHN 0 | Keep | ST JOHN | St. John, VI |
| 802 ST. JOHNS 0 | Keep | STJOAC | St. Johns, Antigua |
| 804 ST. PAUL 0 | Keep | SPIH | Saint Paul Island, AK |
| 805 ST. PAUL ISL 0 | Keep | SPIH | Saint Paul Island, AK |
| 807 ST. ROSE 0 | Keep | NRLNSSW | New Orleans, LA |
| 808 ST. THOMAS 0 | Keep | STTHOM | St Thomas, VI |
| 813 STAR LAKE 0 | drop | | 3 records |
| 819 STONEPORT 0 | drop | | Stoneport, MI |
| 820 STONEY POINT 0 | Keep | STO I | Stony Point, CT |
| 823 STURGEON BAY 0 | Keep | STURBY | Sturgeon Bay, WI |

| Port Code from Arrival File | Keep or drop | Port Code | Comment |
|---|---|---|---|
| 830 SWP LIGHTERI 0 | Keep | SWP | Southwest Pass Lightering, LA |
| 832 SWPASS LIGHT 0 | Keep | SWP | Southwest Pass Lightering, LA |
| 835 TACONITE HAR 0 | Drop | | Taconite Harbor, MN near Duluth |
| 836 TAFT 0 | Keep | NRLNSSW | New Orleans, LA |
| 837 TALLABOA 0 | Keep | TALLBY | Tallaboa, Puerto Rico |
| 845 TINIAN 0 | Drop | | Tinian, Northern Marrianas |
| 848 TOKSOOK 0 | Drop | | Toksook Bay, AK |
| 851 TOLSTOI 0 | Drop | | 5 records |
| 853 TOSCO PORT J 0 | Keep | NYC | Tosco Bay, NJ |
| 854 TOSCO RIVERH 0 | Keep | NYC | Tosco Bay, NJ |
| 856 TRAVERSE CIT 0 | Drop | | Traverse City, MI |
| 864 VANCOUVER 0 | Keep | VANCOV | Vancouver |
| 872 WAGGAMAN 0 | Keep | NRLNSSW | Waggaman, LA |
| 875 WASHINGTON 0 | Keep | WASHDC | Washington, DC |
| 876 WEEDON ISLAN 0 | Keep | TAMPA | Weedon Island, FL nr Tampa |
| 882 WHITING 0 | Drop | | Whiting, IN |
| 884 WILLIAMS PIN 0 | Drop | | Wiliams Point, FL nr Indian River |
| 885 WILLIAMS T-D 0 | Keep | NHAV | William Terminal, New Haven, CT |
| 886 WILMINGTON 0 | Keep | WILMDL | Wilmington, DE |
| AMERICAN SAM | drop | | |
| AMERICAN SAM | drop | | |
| AMERICAN SAM | drop | | |
| FOX RIVER | drop | | MI |
| GUSTAVUS | drop | | AK |
| HUNMS | drop | | MS |
| JAMESTOWN | keep | HAMPTONRDS | |
| JAMESTOWN | keep | HAMPTONRDS | |
| JAMESTOWN | keep | HAMPTONRDS | |
| JAMESTOWN | keep | HAMPTONRDS | |
| LYNNHAVEN AN | keep | HAMPTONRDS | |
| PELICAN | drop | | AK |
| ST JOHNS BAR | drop | | FL |
| TENAKEE SPRI | drop | | AK |

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**Appendix A, Attachment 3. Reconciliation of Port /State Designations for Port Codes in USCG Port Description File without State Designations**

| Port_Abbreviation | State | Port_ Description |
|---|---|---|
| ALSEN | Drop | ALSEN |
| BALTPS | MD | BALTIMORE PILOT STA |
| DARRO | LA | DARROW |
| FJORD | AK | COLLEGE FJORD |
| GEISMAR | LA | GEISMAR |
| HOONAH | AK | HOONAH |
| LOOP | LA | LOOP |
| OFFSHORE | NY | LIGHTERING-OFFSHORE |
| PORT AL | LA | PORT ALLEN |
| PROVIDENCE | RI | PROVIDENCE |
| BOSTON | MA | BOSTON, MA |
| GEOTN | SC | GEORGETOWN, SC |

Note: There was only one vessel arrival from 2002-2004 to the port with port abbreviation ALSEN. This record did not have any other data entered in the vessel arrival fields. The state for this port was not able to be determined.

## Appendix A, Attachment 4. Match of USCG Port Codes with ANPR Port Regions and Port Areas

| State_Abbreviation | Port_Abbreviation | Port_Description | Arrivals | ANPR port area | ANPR Port Region | Restriction period1 | Restriction period2 |
|---|---|---|---|---|---|---|---|
| CT | BRIDPT | BRIDGEPORT, CONNECTICUT | 762 | BRIDPT | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | GLSFRRY | DOW CHEMICAL, ALLYNS POINT | 4 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | GROTON | GROTON | 26 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | HRTFD | HARTFORD | 1 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | MFORD | MILFORD | 5 | NHAV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | MIDTOWN | MIDDLETOWN | 13 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | MTKPS | MONTAUK PILOT STATION | 49 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | MTVILLE | MONTVILLE | 14 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | NHAV | NEW HAVEN | 1,616 | NHAV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | NHT | NEW HAVEN TERMINAL | 30 | NHAV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | NLON | NEW LONDON | 302 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | NRWLK | NORWALK | 23 | BRIDPT | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | PTLANDCT | PORTLAND | 1 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | STAM | STAMFORD | 47 | BRIDPT | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | STAO | STAMFORD | 71 | BRIDPT | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | STO I | STONY POINT, NEW YORK | 2 | NYC | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| CT | WETHFLD | WEATHERSFIELD | 1 | NLON | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| DE | CHES AND DEL CANAL | THE CHESAPEAKE & DELAWARE CANAL | 3 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| DE | DELAWARE CITY | DELAWARE CITY | 1 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| DE | WILMDL | WILMINGTON, DELAWARE | 26 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| FL | C CNVL | CAPE CANAVERAL | 197 | PCANAV | SE | 12/1-3/31 | |
| FL | FERNANDINA | MSO JACKSONVILLE | 248 | FERNANDINA | SE | 12/1-3/31 | |
| FL | FERNNA | FERNANDINA BEACH | 319 | FERNANDINA | SE | 12/1-3/31 | |
| FL | FNADNA | FERNADINA | 229 | FERNANDINA | SE | 12/1-3/31 | |
| FL | JACKSONVILL | JACKSONVILLE | 1 | JAX | SE | 12/1-3/31 | |
| FL | JAX | JACKSONVILLE | 7,142 | JAX | SE | 12/1-3/31 | |
| FL | KINGBY | KINGSBAY | 1 | JAX | SE | 12/1-3/31 | |
| FL | MAYPT | MAYPORT | 1 | JAX | SE | 12/1-3/31 | |
| FL | PCANAV | PORT CANAVERAL | 42 | PCANAV | SE | 12/1-3/31 | |
| FL | PTCD | PORT CANAVERAL | 2,369 | PCANAV | SE | 12/1-3/31 | |
| FL | STAUG | SAINT AUGUSTINE | 1 | JAX | SE | 12/1-3/31 | |
| GA | BRUNSWICK | BRUNSWICK | 972 | BRUNSWICK | MID-ATL SAV | 11/1-4/30 | |
| GA | BRUNWK | BRUNSWICK | 433 | BRUNSWICK | MID-ATL SAV | 11/1-4/30 | |
| GA | SAV | SAVANNAH | 20 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| GA | SAVANNAH | | 4,657 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| GA | SAVGA | SAVANNAH | 2,248 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| GA | SAVMS | MSO SAVANNAH | 78 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| MA | BEVL | BEVERLY | 1 | SALEM | NE RACE PT | 4/1-5/15 | |
| MA | BRAOPN | BRAYTON POINT | 4 | NWBDFD | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |

| State_Abbreviation | Port_Abbreviation | Port_Description | Arrivals | ANPR port area | ANPR Port Region | Restriction period1 | Restriction period2 |
|---|---|---|---|---|---|---|---|
| MA | BSN | BOSTON | 733 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | CCOD | MSFO CAPE COD | 100 | CCOD | NE CCOD | 1/1-4/30 | |
| MA | CHELSA | CHELSEA | 104 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | EVRET | EVERETT | 303 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | FALL RIVER | FALL RIVER LINE PIER | 4 | NWBDFD | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| MA | GLOUST | GLOUCESTER, MASSACHUSETTS | 6 | SALEM | NE RACE PT | 4/1-5/15 | |
| MA | NEWBED | MSFO NEW BEDFORD | 316 | NWBDFD | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| MA | NWBDFD | NEW BEDFORD | 4 | NWBDFD | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| MA | NWYMTH | NORTH WEYMOUTH | 8 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | QUINCY | QUINCY | 95 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | REVERE | REVERE | 63 | BSN | NE RACE PT | 4/1-5/15 | |
| MA | SALEM | SALEM | 35 | SALEM | NE RACE PT | 4/1-5/15 | |
| MA | SNDWCH | SANDWICH | 2 | CCOD | NE CCOD | 1/1-4/30 | |
| MA | SOMSET | SOMERSET | 1 | NWBDFD | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| MA | WEYMTH | WEYMOUTH, MASSACHUSETTS | 10 | BSN | NE RACE PT | 4/1-5/15 | |
| MD | ANNOS | ANNAPOLIS | 22 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | ANNOS ANCH | ANNAPOLIS ANCHORAGE | 14 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | BALMS | HAWKINS POINT | 1 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | BALTO | BALTIMORE | 5,299 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | BALTO ANCH | BALTIMORE ANCHORAGE | 3 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | BALTPS | BALTIMORE PILOT STATION | 3 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | COVPN | COVE POINT | 61 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | CURSA | CURTIS BAY | 3 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | SPRWPT | SPARROWS POINT | 116 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| MD | STMICHAELS | ST. MICHAELS | 1 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| ME | BANGME | BANGOR, MAINE | 21 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | BARHBR | BAR HARBOR | 209 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | BUCKSPORT | COTP | 38 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | BUCPT | BUCKSPORT | 47 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | CASTIN | CASTINE | 3 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | EASTPT | EASTPORT | 111 | EASTPT | NE GOM | 1/1-12/31 | |
| ME | PORTLAND | COTP | 3,505 | PORTLAND | NE GOM | 1/1-12/31 | |
| ME | PORTLD | PORTLAND, MAINE | 17 | PORTLAND | NE GOM | 1/1-12/31 | |
| ME | ROCKLD | ROCKLAND | 3 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | SEARPT | SEARSPORT | 320 | SEARPT | NE GOM | 1/1-12/31 | |
| ME | WINRR | WINTERPORT | 1 | SEARPT | NE GOM | 1/1-12/31 | |
| NC | BEAUNC | BEAUFORT | 1 | MORCTY | MID-ATL MORCTY | 12/1-4/30 | |
| NC | MORCTY | MOREHEAD CITY | 303 | MORCTY | MID-ATL MORCTY | 12/1-4/30 | |
| NC | SUNYPT | SUNNY POINT | 5 | WILMNC | MID-ATL WILMNC | 12/1-4/30 | |
| NC | WILMNC | WILMINGTON (N. CAROLINA) | 1,974 | WILMNC | MID-ATL WILMNC | 12/1-4/30 | |
| NH | NEWING | NEWINGTON | 17 | PORTSMOUTH | NE GOM | 1/1-12/31 | |
| NH | PORD | NH-MA BORDER TO KENNEBUNKPORT, ME | 514 | PORTSMOUTH | NE GOM | 1/1-12/31 | |

| State_Abbreviation | Port_Abbreviation | Port_Description | Arrivals | ANPR port area | ANPR Port Region | Restriction period1 | Restriction period2 |
|---|---|---|---|---|---|---|---|
| NH | PORTSMOUTH | COTP | 190 | PORTSMOUTH | NE GOM | 1/1-12/31 | |
| NJ | BAYONN | BAYONNE, NEW JERSEY | 2 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NJ | BURLINGTON | BURLINGTON | 1 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| NJ | ELIZNJ | ELIZABETH | 2 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NJ | GLOUCESTER, NEW JERSEY | GLOUCESTER, NEW JERSEY | 1 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| NJ | NEWARK | NEWARK | 10 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NJ | PAMBOY | PERTH AMBOY | 1 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NJ | PTNWRK | PORT NEWARK | 2 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | AMBROS | AMBROSE LV | 1 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | CDSPNGHAR | COLD SPRING HARBOR | 16 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | ISLPK | ISLAND PARK | 36 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | LONI U | LONG ISL SOUND | 227 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | MNTKPT | MONTAUK POINT | 6 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | NORPT | NORTHPORT | 128 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | NYC | NEW YORK | 37 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | NYCMI | NEW YORK CITY | 15,448 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | NYK | NEW YORK | 7 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | OCNSDE | OCEANSIDE | 83 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | OFFSHORE | LIGHTERING-OFFSHORE | 61 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | OYBAY | OYSTER BAY | 350 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | PMISLND | PLUM ISLAND | 6 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | PTCHEST | PORT CHESTER | 52 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | PTJFSN | PORT JEFFERSON | 676 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | RIVRHD | RIVERHEAD | 537 | LONI U | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| NY | SINY | STATEN ISLAND | 2 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| NY | STPLTN | STAPLETON | 1 | NYC | MID-ATL NY | 2/1-4/30 | 9/1-10/31 |
| PA | CHESTR | CHESTER, PENNSYLVANIA | 13 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| PA | MARHK | MARCUS HOOK | 8 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| PA | MORSVL | MORRISVILLE | 1 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| PA | PHILA | PHILADELPHIA | 72 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| PA | PHILPS | PHILADELPHIA - DEL BAY ENT | 66 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| PA | PHIMS | PHILADELPHIA, DELAWARE, SOUTH JERSEY | 7,224 | PHIL | MID-ATL DEL | 2/1-4/30 | 10/1-12/31 |
| RI | BLOCKI | BLOCK ISLAND | 2 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | BRENRF | BRENTON REEF | 7 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | BRSTOL | BRISTOL, RHODE ISLAND | 1 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | DAVSVL | DAVISVILLE | 175 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | MELVIL | MELVILLE | 2 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | NARBAY | NARRAGANSETT BAY | 183 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | NEWPT | NEWPORT, RHODE ISLAND | 138 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | PROV | PROVIDENCE,RHODE ISLAND | 267 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | PROVIDENCE | | 166 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| RI | PTSMRI | PORTSMOUTH, RHODE ISLAND | 2 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |

| State_Abbreviation | Port_Abbreviation | Port_Description | Arrivals | ANPR port area | ANPR Port Region | Restriction period1 | Restriction period2 |
|---|---|---|---|---|---|---|---|
| RI | TIVRTN | TIVERTON | 1 | PROV | MID-ATL BIS | 3/1-4/30 | 9/1-10/31 |
| SC | BUFTSC | BEAUFORT | 8 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| SC | CHARLESTON | | 4,337 | CHARLESTON | MID-ATL-CHARL | 10/1-4/30 | |
| SC | CHASN | CHARLESTON | 2,147 | CHARLESTON | MID-ATL-CHARL | 10/1-4/30 | |
| SC | GEOTN | GEORGETOWN, S. CAROLINA | 82 | GEOTN | MID-ATL GEOTN | 10/1-4/30 | |
| SC | PORT ROYAL | PORT ROYAL | 43 | SAVGA | MID-ATL SAV | 11/1-4/30 | |
| SC | WANDO | WANDO | 411 | CHARLESTON | MID-ATL-CHARL | 10/1-4/30 | |
| VA | ALEXVA | ALEXANDRIA | 4 | BALTO | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | CAPCHAZ | CAPE CHARLES | 6 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | CHEH N | CHEATHAM ANNEX | 3 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | CHENRY | CAPE HENRY | 4 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | CHESLV | CHESAPEAKE LV | 189 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | HAMPRD | HAMPTON ROADS | 45 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | HAMPTONRDS | HAMPTON ROADS | 1 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | HOPE | HOPEWELL | 73 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | JAMSTN | JAMESTOWN, VIRGINIA | 1 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | LCREEK | LITTLE CREEK | 15 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | LYNANN | LYNNHAVEN ANCHORAG | 8 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | NORFOLK | NORFOLK INTERNATIONAL | 983 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | NORVA | NORFOLK | 3,974 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | NPTNWS | NEWPORT NEWS | 945 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | PINYPT | PINEY POINT | 58 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | PTSMVA | PORTSMOUTH, VIRGINIA | 984 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | RICHMD | RICHMOND | 135 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | VIRN A | VIRGINIA BEACH | 26 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |
| VA | YORKTN | YORKTOWN | 130 | HAMPTONRDS | MID-ATL CHES BAY | 2/1-4/30 | 11/1-12/31 |

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## *The GLM Procedure*

| Class Level Information | | |
|---|---|---|
| **Class** | **Levels** | **Values** |
| **nathan_vessel_classification** | 15 | Bulk Carrier Combination Carrier (e.g. OBO) Container Ship Fishing Vessel Freight Barge General Dry Cargo Ship Industrial Vessel Passenger Ship Refrigerated Cargo Ship Research Vessel Ro-Ro Cargo Ship School Ship Tank Barge Tank Ship Towing Vessel |

| | |
|---|---|
| **Number of Observations Read** | 6044 |
| **Number of Observations Used** | 6044 |

## *The GLM Procedure*

***Dependent Variable: dead_Weight_ton Dead Weight Ton***

| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| **Model** | 15 | 1.5432356E13 | 1.0288237E12 | 14861.0 | <.0001 |
| **Error** | 6029 | 417385991862 | 69229721.656 | | |
| **Uncorrected Total** | 6044 | 1.5849742E13 | | | |

| R-Square | Coeff Var | Root MSE | dead_Weight_ton Mean |
|---|---|---|---|
| 0.934126 | 20.97180 | 8320.440 | 39674.42 |

| Source | DF | Type I SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| **gross_ton*nathan_ves** | 15 | 1.5432356E13 | 1.0288237E12 | 14861.0 | <.0001 |

| Source | DF | Type III SS | Mean Square | F Value | Pr > F |
|---|---|---|---|---|---|
| **gross_ton*nathan_ves** | 15 | 1.5432356E13 | 1.0288237E12 | 14861.0 | <.0001 |

| Parameter | Estimate | Standard Error | t Value | Pr > \|t\| |
|---|---|---|---|---|
| **gross_ton*nathan_ves Bulk Carrier** | 1.771673315 | 0.00687489 | 257.70 | <.0001 |
| **gross_ton*nathan_ves Combination Carrier (e.g. OBO)** | 1.705058159 | 0.02797845 | 60.94 | <.0001 |
| **gross_ton*nathan_ves Container Ship** | 1.157478039 | 0.00832494 | 139.04 | <.0001 |
| **gross_ton*nathan_ves Fishing Vessel** | 0.565705107 | 0.74522650 | 0.76 | 0.4478 |
| **gross_ton*nathan_ves Freight Barge** | 1.676291420 | 0.31260983 | 5.36 | <.0001 |
| **gross_ton*nathan_ves General Dry Cargo Ship** | 1.251286201 | 0.01510447 | 82.84 | <.0001 |
| **gross_ton*nathan_ves Industrial Vessel** | 0.919024058 | 0.14352300 | 6.40 | <.0001 |
| **gross_ton*nathan_ves Passenger Ship** | 0.109716432 | 0.01609201 | 6.82 | <.0001 |
| **gross_ton*nathan_ves Refrigerated Cargo Ship** | 1.082925402 | 0.05196361 | 20.84 | <.0001 |

***The GLM Procedure***

***Dependent Variable: dead_Weight_ton Dead Weight Ton***

| Parameter | Estimate | Standard Error | t Value | Pr > \|t\| |
|---|---|---|---|---|
| **gross_ton*nathan_ves Research Vessel** | 0.431074591 | 1.69074763 | 0.25 | 0.7988 |
| **gross_ton*nathan_ves Ro-Ro Cargo Ship** | 0.447431311 | 0.01027650 | 43.54 | <.0001 |
| **gross_ton*nathan_ves School Ship** | 0.523009686 | 0.43331290 | 1.21 | 0.2275 |
| **gross_ton*nathan_ves Tank Barge** | 2.058201277 | 0.09863496 | 20.87 | <.0001 |
| **gross_ton*nathan_ves Tank Ship** | 1.718735517 | 0.00488654 | 351.73 | <.0001 |
| **gross_ton*nathan_ves Towing Vessel** | 0.753318686 | 1.74255941 | 0.43 | 0.6655 |

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## Appendix A, Attachment 6. Summary Vessel Type from Four USCG Vessel Description Fields

| vessel_class | vessel_type | vessel_subtype | vessel_service | Nathan_Vessel_Classification |
|---|---|---|---|---|
| Barge | Bulk Liquid Cargo (Tank) Barge | | Tank Barge | Tank Barge |
| Barge | Bulk Liquid Cargo (Tank) Barge | General | Tank Barge | Tank Barge |
| Barge | Bulk Liquid Cargo (Tank) Barge | Liquid Chemical Cargo Barge | Tank Barge | Tank Barge |
| Barge | Bulk Liquid Cargo (Tank) Barge | Non-Flammable Liquid Cargo Barge | Tank Barge | Tank Barge |
| Barge | Bulk Liquid Cargo (Tank) Barge | Oil Cargo Barge | Tank Barge | Tank Barge |
| Barge | Bulk Liquid Cargo (Tank) Barge | UNSPECIFIED | Tank Barge | Tank Barge |
| Barge | Container Barge | | Freight Barge | Freight Barge |
| Barge | Container Barge | UNSPECIFIED | Freight Barge | Freight Barge |
| Barge | Deck Barge | General | Freight Barge | Freight Barge |
| Barge | Deck Barge | Roll-on Roll-off | Freight Barge | Freight Barge |
| Barge | Dry Cargo Barge | General | Freight Barge | Freight Barge |
| Barge | Dry Cargo Barge | Open General Cargo | Freight Barge | Freight Barge |
| Barge | General | | Freight Barge | Freight Barge |
| Barge | General | UNSPECIFIED | Freight Barge | Freight Barge |
| Barge | Industrial Barge | Derrick/Crane Barge | Industrial Vessel | Freight Barge |
| Barge | Industrial Barge | General | Industrial Vessel | Freight Barge |
| Barge | Industrial Barge | Pipe laying Barge | Industrial Vessel | Freight Barge |
| Barge | Integrated Tug and Barge (Barge) | Bulk Liquid | Tank Barge | Tank Barge |
| Barge | UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Freight Barge |
| Bulk Carrier | Cement Carrier | | Freight Ship | Bulk Carrier |
| Bulk Carrier | Cement Carrier | UNSPECIFIED | Freight Ship | Bulk Carrier |
| Bulk Carrier | Cement Carrier | UNSPECIFIED | UNSPECIFIED | Bulk Carrier |
| Bulk Carrier | Combination Carrier (e.g. OBO) | Bulk/Oil | Freight Ship | Combination Carrier (e.g. OBO) |
| Bulk Carrier | Combination Carrier (e.g. OBO) | General | Freight Ship | Combination Carrier (e.g. OBO) |
| Bulk Carrier | Combination Carrier (e.g. OBO) | Ore/Bulk/Oil | Freight Ship | Combination Carrier (e.g. OBO) |
| Bulk Carrier | Combination Carrier (e.g. OBO) | UNSPECIFIED | Freight Ship | Combination Carrier (e.g. OBO) |
| Bulk Carrier | General | | Freight Ship | Bulk Carrier |
| Bulk Carrier | General | General | Freight Ship | Bulk Carrier |
| Bulk Carrier | General | Self-Discharging | Freight Ship | Bulk Carrier |
| Bulk Carrier | General | UNSPECIFIED | Freight Ship | Bulk Carrier |
| Bulk Carrier | General | UNSPECIFIED | UNSPECIFIED | Bulk Carrier |
| Bulk Carrier | Ore Carrier | General | Freight Ship | Bulk Carrier |
| Bulk Carrier | Ore Carrier | Self-Discharging | Freight Ship | Bulk Carrier |
| Bulk Carrier | Ore Carrier | UNSPECIFIED | Freight Ship | Bulk Carrier |
| Bulk Carrier | UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Bulk Carrier |
| Bulk Carrier | Woodchips Carrier | General | Freight Ship | Bulk Carrier |
| Bulk Carrier | Woodchips Carrier | Self-Discharging | Freight Ship | Bulk Carrier |
| Fishing Vessel | Fish Catching Vessel | General | Commercial Fishing Vessel | Fishing Vessel |
| Fishing Vessel | Fish Catching Vessel | Pot/Trap | Commercial Fishing Vessel | Fishing Vessel |
| Fishing Vessel | Fish Catching Vessel | Trawler, Stern | Commercial Fishing Vessel | Fishing Vessel |
| Fishing Vessel | Fishing Catching/Processing Vessel | General | Commercial Fishing Vessel | Fishing Vessel |
| Fishing Vessel | Fishing Catching/Processing Vessel | General Catcher/Processor | Commercial Fishing Vessel | Fishing Vessel |
| General Dry Cargo Ship | Barge Carrier (e.g. LASH) | LASH Carrier | Freight Ship | General Dry Cargo Ship |
| General Dry Cargo Ship | Container Ship | | Freight Ship | Container Ship |
| General Dry Cargo Ship | Container Ship | Bulk/Container Carrier | Freight Ship | Container Ship |
| General Dry Cargo Ship | Container Ship | General | Freight Ship | Container Ship |
| General Dry Cargo Ship | Container Ship | General Cargo/Container | Freight Ship | Container Ship |
| General Dry Cargo Ship | Container Ship | UNSPECIFIED | Freight Ship | Container Ship |
| General Dry Cargo Ship | Container Ship | UNSPECIFIED | UNSPECIFIED | Container Ship |
| General Dry Cargo Ship | General | | Freight Ship | General Dry Cargo Ship |
| General Dry Cargo Ship | General | UNSPECIFIED | Freight Ship | General Dry Cargo Ship |
| General Dry Cargo Ship | General | UNSPECIFIED | UNSPECIFIED | General Dry Cargo Ship |
| General Dry Cargo Ship | Heavy Load Carrier | | Freight Ship | General Dry Cargo Ship |

| vessel_class | vessel_type | vessel_subtype | vessel_service | Nathan_Vessel_Classification |
|---|---|---|---|---|
| General Dry Cargo Ship | Heavy Load Carrier | UNSPECIFIED | Freight Ship | General Dry Cargo Ship |
| General Dry Cargo Ship | Pallets Carrier | | Freight Ship | General Dry Cargo Ship |
| General Dry Cargo Ship | UNSPECIFIED | UNSPECIFIED | Freight Ship | General Dry Cargo Ship |
| Miscellaneous Vessel | Cable laying Vessel | | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Cable laying Vessel | UNSPECIFIED | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Cutter/Dredger | General | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Cutter/Dredger | Hopper | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Cutter/Dredger | Suction/Hopper | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Drydock, Floating | | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | General | | Unclassified | Industrial Vessel |
| Miscellaneous Vessel | General | UNSPECIFIED | Unclassified | General Dry Cargo Ship |
| Miscellaneous Vessel | Ice Breaker | | Public Vessel, Unclassified | Industrial Vessel |
| Miscellaneous Vessel | Oil Recovery Vessel | General | Oil Recovery | Industrial Vessel |
| Miscellaneous Vessel | Pipe laying | | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Repair Vessel | | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | Supply Vessel (not OSV) | | Industrial Vessel | Industrial Vessel |
| Miscellaneous Vessel | UNSPECIFIED | | UNSPECIFIED | General Dry Cargo Ship |
| Miscellaneous Vessel | UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | General Dry Cargo Ship |
| Offshore | Offshore Supply Vessel | General | Offshore Supply Vessel | General Dry Cargo Ship |
| Offshore | Offshore Supply Vessel | General | Towing Vessel | Towing Vessel |
| Passenger Ship | Attraction Vessel | General (6 or Fewer) | Passenger (6 or Fewer) | Passenger Ship |
| Passenger Ship | Cruise Ship Launch/Tender | UNSPECIFIED | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Excursion/Tour Vessel | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Ferry | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Ferry | General (More Than 6) | Public Freight | Passenger Ship |
| Passenger Ship | Ferry | Non Ro-Ro Ferry (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Ferry | Ro-Ro Ferry (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Gaming Vessel | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | General | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | General | General (More Than 6) | Passenger Barge (More Than 6) | Passenger Ship |
| Passenger Ship | Harbor Cruise Vessel | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Ocean Cruise Vessel | General (6 or Fewer) | Passenger (6 or Fewer) | Passenger Ship |
| Passenger Ship | Ocean Cruise Vessel | General (More Than 6) | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | Ocean Cruise Vessel | UNSPECIFIED | Passenger (More Than 6) | Passenger Ship |
| Passenger Ship | UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Passenger Ship |
| Recreational | Motor Propelled Vessels | General | Recreational | Recreational |
| Recreational | Motor Propelled Vessels | UNSPECIFIED | Recreational | Recreational |
| Recreational | Motor Propelled Vessels | Yacht, Luxury | Recreational | Recreational |
| Recreational | Sailing Vessels | General | Recreational | Recreational |
| Recreational | Sailing Vessels | Motor sailer | Recreational | Recreational |
| Recreational | UNSPECIFIED | UNSPECIFIED | Recreational | Recreational |
| Refrigerated Cargo Ship | Container Ship | | Freight Ship | Refrigerated Cargo Ship |
| Refrigerated Cargo Ship | Container Ship | UNSPECIFIED | UNSPECIFIED | Refrigerated Cargo Ship |
| Refrigerated Cargo Ship | General | | Freight Ship | Refrigerated Cargo Ship |
| Refrigerated Cargo Ship | General | UNSPECIFIED | Freight Ship | Refrigerated Cargo Ship |
| Research Ship | General | | Research Vessel | Research Vessel |
| Research Ship | General | UNSPECIFIED | Research Vessel | Research Vessel |
| Research Ship | Oceanographic | | Research Vessel | Research Vessel |
| Ro-Ro Cargo Ship | General | | Freight Ship | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | General | UNSPECIFIED | Freight Ship | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | General | UNSPECIFIED | UNSPECIFIED | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | Ro-Ro/Container | | Freight Ship | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | Ro-Ro/Container | UNSPECIFIED | Freight Ship | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | Ro-Ro/Container | UNSPECIFIED | UNSPECIFIED | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | Vehicle Carrier | | Freight Ship | Ro-Ro Cargo Ship |
| Ro-Ro Cargo Ship | Vehicle Carrier | UNSPECIFIED | Freight Ship | Ro-Ro Cargo Ship |

| vessel_class | vessel_type | vessel_subtype | vessel_service | Nathan_Vessel_Classification |
|---|---|---|---|---|
| Ro-Ro Cargo Ship | Vehicle Carrier | UNSPECIFIED | UNSPECIFIED | Ro-Ro Cargo Ship |
| School Ship | General | | School Ship | School Ship |
| School Ship | General | UNSPECIFIED | School Ship | School Ship |
| School Ship | Sailing School | UNSPECIFIED | School Ship | School Ship |
| School Ship | Training | | School Ship | School Ship |
| Tank Ship | Chemical Tank Ship | Chemical Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Chemical Tank Ship | General | Tank Ship | Tank Ship |
| Tank Ship | Chemical Tank Ship | Oil & Chemical Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Chemical Tank Ship | UNSPECIFIED | Tank Ship | Tank Ship |
| Tank Ship | Chemical Tank Ship | UNSPECIFIED | UNSPECIFIED | Tank Ship |
| Tank Ship | Gas Carrier | Anhydrous Ammonia | Tank Ship | Tank Ship |
| Tank Ship | Gas Carrier | General | Tank Ship | Tank Ship |
| Tank Ship | Gas Carrier | LNG | Tank Ship | Tank Ship |
| Tank Ship | Gas Carrier | LPG | Tank Ship | Tank Ship |
| Tank Ship | General | | Tank Ship | Tank Ship |
| Tank Ship | General | UNSPECIFIED | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | Asphalt, Bitumen Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | Crude & Products Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | Crude & Products Tank Ship | UNSPECIFIED | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | Crude Oil Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | General | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | Oil Products Tank Ship | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | UNSPECIFIED | Tank Ship | Tank Ship |
| Tank Ship | Petroleum Oil Tank Ship | UNSPECIFIED | UNSPECIFIED | Tank Ship |
| Tank Ship | UNSPECIFIED | UNSPECIFIED | Tank Ship | Tank Ship |
| Tank Ship | Vegetable Oil Tank Ship | | Tank Ship | Tank Ship |
| Towing Vessel | General | | Towing Vessel | Towing Vessel |
| Towing Vessel | General | UNSPECIFIED | Towing Vessel | Towing Vessel |
| Towing Vessel | General | UNSPECIFIED | UNSPECIFIED | Towing Vessel |
| Towing Vessel | Integrated Tug and Barge (Tug) | | Towing Vessel | Towing Vessel |
| Towing Vessel | Integrated Tug and Barge (Tug) | UNSPECIFIED | Towing Vessel | Towing Vessel |
| Towing Vessel | Integrated Tug and Barge (Tug) | UNSPECIFIED | UNSPECIFIED | Towing Vessel |
| Towing Vessel | Pushing Ahead (Towboat) | | Towing Vessel | Towing Vessel |
| Towing Vessel | Pushing Ahead (Towboat) | UNSPECIFIED | Towing Vessel | Towing Vessel |
| Towing Vessel | Ship Assist Tug | | Towing Vessel | Towing Vessel |
| Towing Vessel | Towing Behind (Tug) | | Towing Vessel | Towing Vessel |
| Towing Vessel | Towing Behind (Tug) | UNSPECIFIED | Towing Vessel | Towing Vessel |
| Towing Vessel | Towing Behind (Tug) | UNSPECIFIED | UNSPECIFIED | Towing Vessel |
| UNSPECIFIED | General | UNSPECIFIED | Freight Ship | General Dry Cargo Ship |
| UNSPECIFIED | UNSPECIFIED | | UNSPECIFIED | General Dry Cargo Ship |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Freight Barge | Freight Barge |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Freight Ship | General Dry Cargo Ship |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Industrial Vessel | Industrial Vessel |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Offshore Supply Vessel | Industrial Vessel |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Public Freight | General Dry Cargo Ship |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Public Tankship/Barge | Tank Barge |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Public Vessel, Unclassified | General Dry Cargo Ship |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Tank Barge | Tank Barge |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Tank Ship | Tank Ship |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Towing Vessel | Towing Vessel |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Drop |
| UNSPECIFIED | UNSPECIFIED | UNSPECIFIED | Unclassified | Drop |

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## Appendix A, Attachment 7 Comparison of 2003 Arrivals by Port Region and Vessel Classification

| Port Region | 2003 Arrivals Reported in April 2005 Report | Revised 2003 Arrivals |
|---|---|---|
| MID-ATL BIS | 2,462 | 2,241 |
| MID-ATL CHES BAY | 4,571 | 4,486 |
| MID-ATL DEL | 2,530 | 2,479 |
| MID-ATL GEOTN | 3 | 63 |
| MID-ATL MORCTY | 126 | 123 |
| MID-ATL NY | 5,676 | 5,426 |
| MID-ATL SAV | 2,618 | 2,398 |
| MID-ATL WILMNC | 646 | 628 |
| MID-ATL-CHARL | 2,361 | 2,277 |
| NE CCOD | 22 | 22 |
| NE GOM | 2,013 | 1,055 |
| NE RACE PT | 399 | 492 |
| SE | 4,114 | 3,842 |
| Total: | 27,541 | 25,532 |

| Vessel Classification | 2003 Arrivals Reported in April 2005 Report | Revised 2003 Arrivals |
|---|---|---|
| Bulk Carrier | 3,114 | 2,743 |
| Combination Carrier (e.g. OBO) | 167 | 150 |
| Container Ship | 9,215 | 8,623 |
| Fishing Vessel | 4 | 3 |
| Freight Barge | 252 | 243 |
| General Dry Cargo Ship | 1,883 | 1,752 |
| Industrial Vessel | 72 | 65 |
| Passenger Ship | 1,197 | 1,229 |
| Refrigerated Cargo Ship | 650 | 621 |
| Research Vessel | 11 | 11 |
| Ro-Ro Cargo Ship | 3,504 | 3,107 |
| School Ship | 4 | 3 |
| Tank Barge | 1,251 | 1,127 |
| Tank Ship | 5,755 | 5,439 |
| Towing Vessel | 462 | 416 |
| Total | 27,541 | 25,532 |

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*Appendix B*

# VESSEL ARRIVALS BY PORT AREA AND VESSEL DWT

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Table B-1. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Total East Coast

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 76 | 197 | 177 | 249 | 109 | 317 | 193 | 334 | 324 | 262 | 136 | 123 | 215 | 14 | - | 2 | 11 | 4 | 2,743 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 16 | - | 27 | 9 | - | 36 | 17 | 25 | 18 | - | 2 | 150 |
| Container Ship | 184 | 382 | 323 | 359 | 434 | 254 | 1,118 | 679 | 1,108 | 794 | 1,844 | 1,135 | - | 8 | - | 1 | - | - | 8,623 |
| Freight Barge | 33 | 16 | 107 | 85 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 243 |
| General Dry Cargo Ship | 257 | 376 | 263 | 159 | 145 | 114 | 72 | 108 | 145 | 113 | - | - | - | - | - | - | - | - | 1,752 |
| Passenger Ship | 455 | 684 | 90 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,229 |
| Refrigerated Cargo Ship | 4 | 197 | 281 | 56 | 7 | 7 | 47 | - | - | - | 22 | - | - | - | - | - | - | - | 621 |
| Ro-Ro Cargo Ship | 156 | 66 | 913 | 986 | 324 | 199 | 31 | 55 | 169 | 16 | 191 | - | 1 | - | - | - | - | - | 3,107 |
| Tank Barge | 282 | 437 | 141 | 176 | 84 | 3 | 4 | - | - | - | - | - | - | - | - | - | - | - | 1,127 |
| Tanker | 368 | 93 | 275 | 194 | 103 | 185 | 299 | 721 | 604 | 827 | 137 | 405 | 142 | 47 | 389 | 279 | 210 | 161 | 5,439 |
| Towing Vessel | 416 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 416 |
| Other a/ | 47 | 23 | 7 | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | 82 |
| Total | 2,278 | 2,471 | 2,577 | 2,264 | 1,207 | 1,079 | 1,770 | 1,913 | 2,350 | 2,039 | 2,339 | 1,663 | 394 | 86 | 414 | 300 | 221 | 167 | 25,532 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 62 | 261 | 237 | 238 | 139 | 366 | 191 | 410 | 288 | 281 | 182 | 171 | 304 | 9 | - | - | 3 | 7 | 3,149 |
| Combination Carrier (e.g. OBO) | 2 | 2 | - | - | - | - | 3 | 31 | - | 16 | 3 | 4 | 20 | 12 | 1 | 12 | - | - | 106 |
| Container Ship | 204 | 352 | 324 | 261 | 502 | 306 | 1,184 | 957 | 1,069 | 810 | 1,682 | 1,234 | 1 | - | - | - | - | - | 8,886 |
| Freight Barge | 73 | 39 | 73 | 79 | 7 | - | 3 | - | - | - | - | - | - | - | - | - | - | - | 274 |
| General Dry Cargo Ship | 200 | 378 | 300 | 150 | 156 | 137 | 48 | 117 | 182 | 175 | - | - | - | - | - | - | - | - | 1,843 |
| Passenger Ship | 598 | 922 | 100 | 46 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1,666 |
| Refrigerated Cargo Ship | - | 215 | 168 | 55 | 1 | 39 | 49 | - | 2 | - | 19 | - | - | - | - | - | - | - | 548 |
| Ro-Ro Cargo Ship | 135 | 88 | 808 | 977 | 274 | 258 | 79 | 54 | 153 | 25 | 202 | - | 1 | - | - | - | - | - | 3,054 |
| Tank Barge | 346 | 530 | 265 | 217 | 114 | 7 | 8 | 2 | - | 3 | - | - | - | - | - | - | - | - | 1,492 |
| Tanker | 344 | 72 | 197 | 186 | 110 | 160 | 343 | 750 | 473 | 989 | 121 | 411 | 182 | 38 | 348 | 364 | 196 | 229 | 5,513 |
| Towing Vessel | 745 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 745 |
| Other a/ | 78 | 20 | 5 | 3 | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | 109 |
| Total | 2,787 | 2,879 | 2,477 | 2,212 | 1,303 | 1,273 | 1,911 | 2,321 | 2,167 | 2,299 | 2,209 | 1,820 | 508 | 59 | 349 | 376 | 199 | 236 | 27,385 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-2. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Eastport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 6 | 3 | - | - | 2 | - | 3 | 1 | - | - | - | - | - | - | - | - | 16 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | - | - | - | - | 1 | 2 | 1 | - | - | - | - | - | - | - | - | 5 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 4 | 5 | 3 | - | - | - | 1 | 3 | 3 | - | - | - | - | - | - | - | - | 19 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 6 | 11 | 6 | - | - | 2 | 2 | 8 | 5 | - | - | - | - | - | - | - | - | 40 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 9 | 8 | - | - | - | - | - | 2 | 3 | - | - | - | - | - | - | - | 22 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 2 | 2 | - | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | 17 | - | - | - | - | - | - | - | - | 17 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 9 | 8 | - | - | - | - | 2 | 21 | 3 | - | - | - | - | - | - | - | 43 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-3. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Searsport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | - | - | 1 | 5 | - | 1 | - | - | 1 | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 19 | 44 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 66 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | 1 | 10 | 10 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Tanker | - | 2 | 33 | - | - | 4 | 18 | 13 | 7 | 6 | 3 | 2 | - | - | - | 1 | - | - | 89 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 23 | 62 | 46 | 1 | 2 | 9 | 18 | 14 | 7 | 6 | 5 | 2 | - | - | - | 1 | - | - | 196 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | - | - | 1 | - | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | 10 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | 2 |
| Freight Barge | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | 34 | 46 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 81 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | 2 | 8 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tanker | 3 | - | 2 | - | - | 3 | 14 | 26 | 4 | 21 | 4 | 1 | - | - | - | - | - | - | 78 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 46 | 57 | 12 | 2 | 1 | 3 | 15 | 27 | 5 | 22 | 4 | 1 | 1 | - | - | - | - | - | 196 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-4. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Portland, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 6 | 10 | 2 | 5 | 14 | 8 | 5 | 9 | 3 | 1 | - | - | - | - | - | - | 66 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 13 | - | - | 14 |
| Container Ship | - | 1 | - | - | 1 | 2 | 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | 9 |
| Freight Barge | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 1 | 10 | 17 | 3 | - | - | - | 3 | 2 | 2 | - | - | - | - | - | - | - | - | 38 |
| Passenger Ship | 4 | 12 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 50 | - | 4 | 3 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| Tank Barge | 1 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Tanker | 18 | 4 | 39 | 1 | 1 | 8 | 35 | 27 | 31 | 26 | 4 | 1 | 1 | - | 57 | 112 | 16 | 15 | 396 |
| Towing Vessel | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 86 | 34 | 71 | 18 | 4 | 16 | 52 | 39 | 39 | 37 | 7 | 2 | 1 | - | 58 | 125 | 16 | 15 | 620 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | 6 | 11 | 4 | 4 | 18 | 3 | 5 | 4 | 6 | 3 | 1 | - | - | - | - | - | 71 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 | - | - | 4 |
| Container Ship | - | 2 | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | 3 | 14 | 1 | - | 2 | 1 | 1 | 1 | 5 | - | - | - | - | - | - | - | - | 28 |
| Passenger Ship | 8 | 13 | 4 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 29 | 2 | 1 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Tank Barge | 1 | 10 | 10 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Tanker | 19 | - | 5 | - | 1 | 5 | 26 | 34 | 35 | 44 | 1 | 4 | 2 | 1 | 51 | 123 | 15 | 29 | 395 |
| Towing Vessel | 47 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 47 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 106 | 36 | 40 | 19 | 10 | 11 | 45 | 38 | 41 | 53 | 9 | 7 | 3 | 1 | 51 | 127 | 15 | 29 | 641 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-5. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Portsmouth, NH

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | - | 1 | 8 | 2 | 26 | 16 | 5 | 2 | 1 | - | - | - | - | - | - | 63 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | 3 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | 1 | - | 1 | 1 | 3 | - | 2 | 1 | - | - | - | - | - | - | - | - | - | 10 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | 3 | 9 | 5 | 4 | 3 | 8 | 2 | 33 | 21 | 19 | 9 | 1 | - | - | - | - | - | - | 117 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 7 | 11 | 9 | 5 | 5 | 19 | 4 | 63 | 38 | 24 | 12 | 2 | - | - | - | - | - | - | 199 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 1 | 3 | 4 | 1 | 26 | 9 | 5 | 2 | - | - | - | - | - | - | - | 51 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 3 |
| Container Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | - | - | - | 3 | 4 | 2 | 3 | 1 | - | - | - | - | - | - | - | - | - | 16 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 7 | 4 | 2 | 3 | 1 | 15 | 23 | 13 | 13 | 5 | 1 | - | - | - | - | - | - | 87 |
| Towing Vessel | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Other a/ | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 14 | 11 | 5 | 3 | 9 | 9 | 18 | 55 | 23 | 18 | 7 | 1 | - | - | - | - | - | - | 173 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-6. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Salem, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 1 | 3 | 2 | - | - | 1 | - | - | - | - | - | 7 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | - | - | - | - | 1 | 3 | 2 | - | 1 | 1 | - | - | - | - | - | 9 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 6 | - | - | - | 2 | 1 | - | - | - | - | - | 9 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 3 | - | - | - | - | - | 6 | - | - | - | 2 | 1 | - | - | - | - | - | 15 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-7. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Boston, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | 11 | 2 | 5 | 1 | 2 | 5 | 2 | - | 2 | 2 | - | - | - | - | - | 34 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | 15 | - | 1 | 3 | 2 | 1 | 2 | 23 | 9 | 21 | - | - | - | - | - | - | - | 77 |
| Freight Barge | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | 3 | 2 | 1 | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 8 |
| Passenger Ship | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 94 |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | 27 | - | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 55 | - | 8 | 1 | 1 | 9 | 11 | 67 | 47 | 19 | 1 | 4 | 2 | - | - | - | - | - | 225 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 185 | 22 | 14 | 16 | 6 | 17 | 13 | 73 | 75 | 30 | 22 | 6 | 4 | - | - | - | - | - | 483 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | 11 | 2 | 5 | 1 | 2 | 5 | 2 | - | 2 | 2 | - | - | - | - | - | 34 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | 15 | - | 1 | 3 | 2 | 1 | 2 | 23 | 9 | 21 | - | - | - | - | - | - | - | 77 |
| Freight Barge | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | 3 | 2 | 1 | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 8 |
| Passenger Ship | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 94 |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | 27 | - | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 55 | - | 8 | 1 | 1 | 9 | 11 | 67 | 47 | 19 | 1 | 4 | 2 | - | - | - | - | - | 225 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 185 | 22 | 14 | 16 | 6 | 17 | 13 | 73 | 75 | 30 | 22 | 6 | 4 | - | - | - | - | - | 483 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-8. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Cape Cod, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 7 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 2 | 1 | 7 | 3 | - | - | - | - | - | 13 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 7 | 2 | - | - | - | - | - | - | - | 2 | 1 | 7 | 3 | - | - | - | - | - | 22 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 3 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | - | - | - | 1 | - | 1 | 7 | - | 7 | 5 | - | - | - | - | - | 21 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | 10 | 1 | - | - | - | 1 | - | 1 | 7 | - | 7 | 5 | - | - | - | - | - | 36 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-9. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: New Bedford, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 7 | - | 2 | 18 | 4 | 5 | 3 | 12 | 7 | - | - | - | - | - | 58 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 8 | 8 | 5 | - | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 25 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | 2 | 4 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 12 | 22 | 9 | 3 | 12 | 1 | 2 | 18 | 4 | 5 | 3 | 12 | 7 | - | - | - | - | - | 110 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 4 | 4 | 1 | 15 | 5 | 2 | 1 | 14 | 8 | - | - | - | - | - | 54 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 7 | 9 | 6 | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 24 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Ro-Ro Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 6 | 2 | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 10 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 9 | 18 | 12 | 2 | 6 | 4 | 2 | 16 | 5 | 2 | 1 | 14 | 8 | - | - | - | - | - | 99 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-10. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Providence, RI

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | 13 | 2 | 3 | 17 | 11 | 13 | 12 | 2 | 2 | 1 | - | - | - | - | - | 77 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | 1 | - | - | - | - | - | 2 |
| Container Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 6 | 14 | 1 | - | 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | 24 |
| Passenger Ship | 13 | 19 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35 |
| Refrigerated Cargo Ship | - | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | - | 1 | 43 | 32 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 77 |
| Tank Barge | 2 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | 5 | 3 | 4 | 1 | 1 | 5 | 7 | 23 | 38 | 23 | 4 | 4 | 3 | - | 1 | - | - | - | 122 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 24 | 35 | 66 | 47 | 3 | 10 | 24 | 37 | 51 | 35 | 6 | 6 | 5 | - | 1 | - | - | - | 350 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 21 | 5 | 17 | 11 | 12 | 11 | 3 | 4 | 2 | - | - | - | - | - | - | 86 |
| Combination Carrier (e.g. OBO) | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | 2 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | 8 | 1 | 7 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | 21 |
| Passenger Ship | 20 | 18 | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 43 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 36 | 23 | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 62 |
| Tank Barge | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tanker | 4 | 3 | - | 1 | - | 7 | 7 | 17 | 13 | 37 | 4 | - | - | 1 | - | - | - | - | 94 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 31 | 23 | 51 | 52 | 13 | 28 | 19 | 29 | 24 | 40 | 8 | 2 | - | 2 | - | - | - | - | 322 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-11. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: New London, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 5 | - | 1 | - | 3 | 5 | 6 | - | - | - | - | - | - | - | - | 20 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 1 | - | - | 2 | 1 | 3 | - | 3 | - | - | - | - | - | - | - | - | 10 |
| Passenger Ship | 32 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 20 | 27 | 7 | - | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 61 |
| Tanker | - | 1 | - | 1 | - | - | 1 | - | - | 5 | - | - | - | - | - | - | - | - | 8 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 54 | 28 | 8 | 6 | 7 | 3 | 2 | 7 | 5 | 15 | - | - | - | - | - | - | - | - | 135 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | - | - | 3 | 1 | - | 2 | 4 | 2 | 2 | 1 | - | - | - | - | - | - | 17 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 1 | 6 | 1 | - | - | - | - | - | - | - | - | 8 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | 6 | - | - | 3 | 6 | 10 | - | - | - | - | - | - | - | - | 26 |
| Passenger Ship | 54 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 57 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 10 | 17 | 22 | 1 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| Tanker | 1 | - | - | 4 | - | - | - | 1 | - | 5 | - | - | - | - | - | - | - | - | 11 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 69 | 22 | 22 | 5 | 17 | 1 | - | 7 | 16 | 18 | 2 | 1 | - | - | - | - | - | - | 180 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-12. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: New Haven, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 1 | 6 | 16 | 8 | 4 | 5 | 6 | 5 | 2 | - | - | - | - | - | - | 54 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | 2 |
| Container Ship | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | 4 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | - | - | 11 | 3 | 8 | 3 | 1 | 1 | - | 6 | - | - | - | - | - | - | - | - | 33 |
| Passenger Ship | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 36 | 99 | 39 | 57 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 236 |
| Tanker | 35 | - | 1 | - | - | 5 | 6 | 53 | 52 | 38 | 3 | 1 | - | - | 1 | - | - | - | 195 |
| Towing Vessel | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 95 | 100 | 52 | 62 | 19 | 24 | 15 | 58 | 57 | 52 | 8 | 3 | - | 1 | 1 | - | - | - | 547 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | 1 | 8 | 6 | 9 | 3 | 7 | 6 | - | - | - | - | - | - | - | 41 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 2 | - | - | - | 3 | - | - | 1 | - | - | - | - | - | - | - | - | - | 6 |
| Freight Barge | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | - | 7 | 8 | 5 | 2 | 4 | 1 | 2 | 1 | 4 | - | - | - | - | - | - | - | - | 34 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 56 | 205 | 61 | 112 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | 442 |
| Tanker | 31 | 1 | 2 | 2 | 1 | - | 7 | 29 | 39 | 31 | 2 | 3 | 3 | - | - | - | - | - | 151 |
| Towing Vessel | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 114 | 216 | 71 | 119 | 12 | 15 | 14 | 40 | 44 | 42 | 8 | 3 | 3 | - | - | - | - | - | 701 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-13. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Bridgeport, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | - | - | - | - | - | - | 11 | - | 2 | 14 | - | - | - | - | - | 28 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | 7 | 39 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 54 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 60 | 44 | 22 | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 176 |
| Tanker | 35 | - | - | - | - | - | - | 4 | 1 | 2 | 1 | 2 | - | - | 2 | - | 1 | 1 | 49 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 104 | 54 | 62 | 58 | - | - | - | 4 | 1 | 13 | 1 | 4 | 14 | - | 2 | - | 1 | 1 | 319 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 30 | - | - | - | - | - | - | 12 | - | 4 | 23 | - | - | - | - | - | 69 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | 8 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 114 | 44 | 50 | 50 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 258 |
| Tanker | 29 | - | - | - | - | - | - | 2 | - | 2 | - | - | - | - | - | - | - | - | 33 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 149 | 52 | 98 | 50 | - | - | - | 2 | - | 14 | - | 4 | 23 | - | - | - | - | - | 392 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-14. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Long Island, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | 2 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 32 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 146 | 224 | 49 | 45 | 57 | - | - | - | - | - | - | - | - | - | - | - | - | - | 521 |
| Tanker | 104 | - | 2 | 15 | - | - | 1 | 1 | 2 | 5 | 2 | 25 | 5 | 1 | 23 | 8 | 18 | 6 | 218 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 287 | 226 | 51 | 60 | 57 | - | 1 | 1 | 2 | 5 | 2 | 25 | 6 | 1 | 24 | 8 | 18 | 6 | 780 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 38 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 38 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 154 | 238 | 94 | 46 | 65 | - | - | - | - | - | - | - | - | - | - | - | - | - | 597 |
| Tanker | 112 | - | - | - | - | - | - | 12 | - | 13 | 4 | 35 | 9 | - | 14 | 3 | 7 | 16 | 225 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 313 | 238 | 94 | 46 | 65 | - | - | 12 | - | 13 | 4 | 35 | 9 | - | 14 | 3 | 7 | 16 | 869 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-15. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: New York City, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 9 | 20 | 43 | 6 | 34 | 25 | 49 | 68 | 55 | 32 | 8 | 14 | 2 | - | - | - | - | 366 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | 5 | 4 | - | 14 | 8 | 7 | - | - | - | 39 |
| Container Ship | 2 | 20 | 187 | 105 | 84 | 78 | 322 | 201 | 243 | 231 | 523 | 404 | - | - | - | - | - | - | 2,400 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 8 | 17 | 8 | 3 | 8 | 11 | 4 | 2 | 2 | 2 | - | - | - | - | - | - | - | - | 65 |
| Passenger Ship | 66 | 114 | 46 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 226 |
| Refrigerated Cargo Ship | - | - | 8 | - | - | 7 | - | - | - | - | 4 | - | - | - | - | - | - | - | 19 |
| Ro-Ro Cargo Ship | 25 | 44 | 181 | 201 | 48 | 45 | 5 | 10 | 49 | 2 | 86 | - | - | - | - | - | - | - | 696 |
| Tank Barge | 10 | 15 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 28 |
| Tanker | 78 | 22 | 41 | 48 | 32 | 58 | 75 | 205 | 195 | 278 | 51 | 160 | 71 | 21 | 140 | 51 | 24 | 8 | 1,558 |
| Towing Vessel | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 |
| Other a/ | 7 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Total | 217 | 243 | 492 | 401 | 179 | 233 | 431 | 468 | 557 | 573 | 700 | 572 | 99 | 31 | 147 | 51 | 24 | 8 | 5,426 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 29 | 23 | 45 | 12 | 45 | 21 | 56 | 39 | 72 | 28 | 3 | 4 | 1 | - | - | - | 1 | 380 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 9 | - | 2 | 2 | - | 9 | 3 | 1 | 1 | - | - | 27 |
| Container Ship | 1 | 25 | 174 | 80 | 92 | 94 | 347 | 289 | 260 | 214 | 475 | 448 | - | - | - | - | - | - | 2,499 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 7 | 10 | 5 | 7 | 5 | 6 | 6 | 9 | 7 | 6 | - | - | - | - | - | - | - | - | 68 |
| Passenger Ship | 80 | 154 | 32 | 41 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 307 |
| Refrigerated Cargo Ship | - | - | 10 | - | - | 16 | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Ro-Ro Cargo Ship | 20 | 50 | 156 | 181 | 57 | 57 | 10 | 9 | 45 | 3 | 95 | - | - | - | - | - | - | - | 683 |
| Tank Barge | 10 | 4 | 6 | - | - | - | - | 1 | - | 2 | - | - | - | - | - | - | - | - | 23 |
| Tanker | 33 | 14 | 45 | 29 | 31 | 28 | 107 | 241 | 169 | 315 | 40 | 119 | 70 | 25 | 115 | 73 | 10 | 21 | 1,485 |
| Towing Vessel | 47 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 47 |
| Other a/ | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Total | 204 | 286 | 451 | 383 | 197 | 246 | 491 | 614 | 520 | 614 | 640 | 570 | 83 | 29 | 116 | 74 | 10 | 22 | 5,550 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-16. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Philadelphia, PA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 30 | 21 | 31 | 15 | 51 | 16 | 48 | 36 | 34 | 15 | 9 | 6 | - | - | - | - | - | 312 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | 14 | 2 | - | 2 | 19 |
| Container Ship | 49 | 106 | 15 | 75 | 69 | 5 | 32 | 9 | 13 | 19 | 74 | 1 | - | - | - | - | - | - | 467 |
| Freight Barge | - | 4 | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| General Dry Cargo Ship | 11 | 62 | 44 | 38 | 8 | 11 | 10 | 5 | 3 | 3 | - | - | - | - | - | - | - | - | 195 |
| Passenger Ship | 13 | 11 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Refrigerated Cargo Ship | 3 | 113 | 183 | 42 | 4 | - | 47 | - | - | - | 9 | - | - | - | - | - | - | - | 401 |
| Ro-Ro Cargo Ship | 11 | 3 | 56 | 67 | 10 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 148 |
| Tank Barge | 2 | 2 | 2 | 5 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Tanker | 4 | 17 | 25 | 39 | 18 | 11 | 37 | 64 | 27 | 54 | 8 | 39 | 5 | 15 | 152 | 95 | 139 | 115 | 864 |
| Towing Vessel | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 112 | 348 | 348 | 309 | 124 | 80 | 142 | 126 | 79 | 111 | 106 | 49 | 11 | 15 | 166 | 97 | 139 | 117 | 2,479 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 36 | 19 | 24 | 23 | 57 | 15 | 58 | 40 | 34 | 23 | 20 | 9 | - | - | - | - | - | 360 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | 1 | 2 | 1 | - | - | 2 | - | - | 8 |
| Container Ship | 52 | 91 | 12 | 68 | 75 | 13 | 33 | 7 | 9 | 19 | 71 | - | - | - | - | - | - | - | 450 |
| Freight Barge | - | 1 | 14 | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24 |
| General Dry Cargo Ship | 6 | 93 | 74 | 35 | 7 | 23 | 9 | 5 | 10 | 8 | - | - | - | - | - | - | - | - | 270 |
| Passenger Ship | 11 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| Refrigerated Cargo Ship | - | 139 | 109 | 53 | 1 | 1 | 49 | - | 2 | - | 10 | - | - | - | - | - | - | - | 364 |
| Ro-Ro Cargo Ship | 9 | 13 | 50 | 58 | 13 | 3 | - | - | - | - | 1 | - | - | - | - | - | - | - | 147 |
| Tank Barge | - | - | 1 | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | 11 | 9 | 20 | 53 | 28 | 15 | 36 | 82 | 23 | 67 | 9 | 38 | 8 | 3 | 155 | 143 | 142 | 102 | 944 |
| Towing Vessel | 54 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 54 |
| Other a/ | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 148 | 405 | 299 | 301 | 147 | 112 | 142 | 155 | 84 | 128 | 115 | 60 | 18 | 3 | 155 | 145 | 142 | 102 | 2,661 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-17. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Baltimore, MD

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 22 | 28 | 16 | 10 | 25 | 13 | 26 | 12 | 19 | 19 | 29 | 74 | 6 | - | - | 2 | 2 | 304 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | 1 | - | 4 | 1 | - | - | - | - | 8 |
| Container Ship | 6 | 11 | 1 | 10 | 12 | 26 | 100 | 26 | 72 | 32 | 71 | 1 | - | - | - | - | - | - | 368 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 8 | 33 | 24 | 35 | 57 | 5 | 2 | 8 | 13 | 19 | - | - | - | - | - | - | - | - | 204 |
| Passenger Ship | 6 | 34 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40 |
| Refrigerated Cargo Ship | - | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Ro-Ro Cargo Ship | 9 | - | 216 | 199 | 80 | 44 | 9 | 15 | 32 | 6 | 43 | - | - | - | - | - | - | - | 653 |
| Tank Barge | 1 | 1 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Tanker | 1 | 12 | 19 | 15 | 3 | 3 | 10 | 4 | 12 | 57 | 7 | 15 | 21 | - | 3 | 2 | - | 8 | 192 |
| Towing Vessel | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Other a/ | 2 | 14 | 4 | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Total | 50 | 130 | 299 | 275 | 162 | 103 | 137 | 81 | 141 | 133 | 141 | 45 | 99 | 7 | 3 | 2 | 2 | 10 | 1,820 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 25 | 31 | 18 | 10 | 22 | 12 | 51 | 28 | 22 | 24 | 48 | 92 | 3 | - | - | - | 1 | 387 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | 1 | 3 | 1 | - | - | - | - | 6 |
| Container Ship | - | 4 | 1 | 4 | 13 | 28 | 118 | 54 | 74 | 32 | 73 | 1 | - | - | - | - | - | - | 402 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 38 | 34 | 32 | 50 | 8 | 4 | 12 | 12 | 20 | - | - | - | - | - | - | - | - | 212 |
| Passenger Ship | 15 | 60 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 75 |
| Refrigerated Cargo Ship | - | 4 | 3 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Ro-Ro Cargo Ship | 15 | 3 | 186 | 199 | 55 | 69 | 23 | 18 | 31 | 8 | 44 | - | - | - | - | - | - | - | 651 |
| Tank Barge | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tanker | 10 | 12 | 14 | 20 | 7 | 6 | 13 | 12 | 4 | 60 | 11 | 21 | 25 | 2 | 1 | - | 7 | 45 | 270 |
| Towing Vessel | 13 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Other a/ | 1 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Total | 56 | 151 | 279 | 273 | 135 | 135 | 170 | 148 | 149 | 142 | 152 | 71 | 120 | 6 | 1 | - | 7 | 46 | 2,041 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-18. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Hampton Roads, VA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 15 | 20 | 16 | 12 | 15 | 19 | 15 | 44 | 27 | 12 | 6 | 29 | 71 | 6 | - | 2 | 9 | 2 | 320 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | 2 | - | 15 | 7 | 2 | 3 | - | - | 30 |
| Container Ship | 18 | 34 | 46 | 56 | 97 | 39 | 252 | 141 | 259 | 143 | 374 | 289 | - | - | - | - | - | - | 1,748 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 8 | 28 | 30 | 12 | 10 | 20 | 15 | 7 | 6 | 2 | - | - | - | - | - | - | - | - | 138 |
| Passenger Ship | 17 | 7 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 31 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | 4 | 3 | 17 | 27 | 26 | 8 | 5 | 8 | 22 | 2 | 51 | - | 1 | - | - | - | - | - | 174 |
| Tank Barge | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | 2 | 12 | 12 | 5 | 7 | 7 | 20 | 5 | 9 | 28 | 7 | 27 | 18 | 6 | 9 | 8 | 12 | 8 | 202 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | 9 | 1 | 1 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Total | 79 | 107 | 131 | 112 | 155 | 93 | 309 | 206 | 323 | 187 | 440 | 345 | 105 | 19 | 11 | 13 | 21 | 10 | 2,666 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 17 | 38 | 24 | 17 | 17 | 39 | 8 | 44 | 20 | 11 | 14 | 48 | 129 | 5 | - | - | 3 | 5 | 439 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 2 | 3 | - | - | - | 1 | 7 | 7 | - | 5 | - | - | 25 |
| Container Ship | 13 | 23 | 45 | 26 | 115 | 50 | 263 | 197 | 247 | 140 | 289 | 317 | - | - | - | - | - | - | 1,725 |
| Freight Barge | 1 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | 5 | 40 | 31 | 8 | 12 | 18 | 9 | 7 | 8 | 9 | - | - | - | - | - | - | - | - | 147 |
| Passenger Ship | 29 | 31 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 64 |
| Refrigerated Cargo Ship | - | - | - | - | - | 10 | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Ro-Ro Cargo Ship | 14 | 1 | 9 | 21 | 11 | 3 | 5 | 9 | 24 | 4 | 50 | - | 1 | - | - | - | - | - | 152 |
| Tank Barge | - | 1 | 1 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Tanker | 4 | 8 | 9 | 11 | 6 | 8 | 17 | 12 | 6 | 23 | 10 | 27 | 25 | 4 | 9 | 19 | 14 | 10 | 222 |
| Towing Vessel | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 |
| Other a/ | 10 | 5 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Total | 115 | 150 | 124 | 83 | 166 | 128 | 305 | 272 | 305 | 187 | 363 | 393 | 162 | 16 | 9 | 24 | 17 | 15 | 2,834 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-19. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Morehead City, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 1 | - | 3 | 8 | 6 | - | - | 3 | 2 | 2 | 1 | - | - | - | - | - | 29 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | 1 | - | - | 4 | 1 | - | - | 7 | - | - | - | - | - | - | - | - | - | 14 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 7 | 3 | - | 2 | 5 | 13 | - | 1 | 1 | - | - | - | - | - | - | - | - | - | 32 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Ro-Ro Cargo Ship | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 3 | 3 | 2 | 22 | 7 | 2 | - | 2 | - | 1 | - | - | - | - | - | - | 42 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 11 | 8 | 5 | 6 | 14 | 44 | 13 | 3 | 8 | 5 | 2 | 3 | 1 | - | - | - | - | - | 123 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 7 | 1 | 2 | 3 | 9 | 4 | 2 | 7 | 8 | 1 | 2 | 2 | - | - | - | - | - | 49 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 1 | - | - | - | - | 5 | - | - | 8 | - | - | - | - | - | - | - | - | - | 14 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 5 | 3 | - | 1 | 3 | 8 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | 22 |
| Passenger Ship | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 5 | 2 | 2 | 30 | 5 | 4 | - | 8 | - | - | - | - | - | - | - | - | 56 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 16 | 10 | 6 | 5 | 8 | 52 | 11 | 6 | 16 | 16 | 1 | 2 | 2 | - | - | - | - | - | 151 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-20. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Wilmington, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 12 | 12 | 7 | 10 | 2 | 20 | 7 | 13 | 14 | 8 | 5 | - | 1 | - | - | - | - | - | 111 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 6 | - | - | 1 | - | - | - | - | - | 7 |
| Container Ship | 3 | 2 | 3 | 5 | 1 | 2 | 5 | 6 | 21 | 25 | 16 | 3 | - | - | - | - | - | - | 92 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 16 | 13 | 6 | 14 | 8 | 5 | 6 | 15 | 24 | 11 | - | - | - | - | - | - | - | - | 118 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | 1 | 1 | - | 2 | 3 | - | - | - | 15 | - | 1 | - | - | - | - | - | - | - | 23 |
| Tank Barge | - | 6 | - | 9 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Tanker | 19 | - | 38 | 14 | 12 | 12 | 21 | 28 | 32 | 53 | 7 | 20 | - | 1 | - | - | - | - | 257 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 52 | 35 | 55 | 54 | 28 | 39 | 39 | 62 | 106 | 103 | 29 | 23 | 2 | 1 | - | - | - | - | 628 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 6 | 8 | 17 | 18 | 6 | 23 | 13 | 14 | 10 | 7 | 6 | 3 | 4 | - | - | - | - | - | 135 |
| Combination Carrier (e.g. OBO) | 1 | - | - | - | - | - | - | 1 | - | 2 | - | - | - | - | - | - | - | - | 4 |
| Container Ship | 2 | 2 | 3 | 1 | - | 1 | 1 | 10 | 12 | 47 | 4 | 1 | - | - | - | - | - | - | 84 |
| Freight Barge | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 25 | 8 | 13 | 6 | 4 | 6 | 1 | 15 | 28 | 17 | - | - | - | - | - | - | - | - | 123 |
| Passenger Ship | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | - | 1 | 3 | 4 | 3 | - | - | - | 18 | - | - | - | - | - | - | - | - | - | 29 |
| Tank Barge | - | 6 | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 15 | 6 | 40 | 21 | 3 | 3 | 36 | 31 | 20 | 64 | 5 | 22 | - | - | - | - | - | - | 266 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | 1 | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 62 | 32 | 76 | 51 | 18 | 33 | 54 | 71 | 88 | 137 | 15 | 26 | 4 | - | - | - | - | - | 667 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-21. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Georgetown, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 11 | 5 | 4 | 6 | 2 | - | 4 | 6 | 5 | - | - | - | - | - | - | - | 43 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | - | - | - | 2 | - | - | 3 | 8 | 3 | - | - | - | - | - | - | - | - | 18 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 2 | 1 | 11 | 5 | 6 | 7 | 2 | 3 | 12 | 9 | 5 | - | - | - | - | - | - | - | 63 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 4 | 4 | 11 | 4 | 4 | 8 | 5 | 3 | - | 2 | - | - | - | - | - | - | - | 45 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | 3 |
| Container Ship | - | 2 | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | - | 2 | 1 | 2 | 1 | - | 8 | - | - | - | - | - | - | - | - | - | 16 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | 9 | 4 | 13 | 6 | 6 | 9 | 7 | 12 | - | 2 | - | - | - | - | - | - | - | 69 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-22. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Charleston, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 12 | 3 | 30 | 5 | 10 | 11 | 27 | 32 | 9 | 4 | 7 | 11 | - | - | - | - | - | 162 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | 2 |
| Container Ship | 3 | 9 | 42 | 18 | 22 | 30 | 248 | 173 | 249 | 111 | 413 | 181 | - | 4 | - | - | - | - | 1,503 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 4 | 15 | 2 | 4 | 6 | 7 | 8 | 18 | 16 | 12 | - | - | - | - | - | - | - | - | 92 |
| Passenger Ship | 19 | 17 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40 |
| Refrigerated Cargo Ship | - | 6 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Ro-Ro Cargo Ship | 3 | 3 | 49 | 88 | 26 | 32 | 1 | 3 | 10 | - | 8 | - | - | - | - | - | - | - | 223 |
| Tank Barge | - | - | 1 | 3 | 9 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Tanker | 1 | 1 | 11 | 1 | - | 7 | 12 | 34 | 43 | 68 | 11 | 24 | - | 1 | - | - | - | - | 214 |
| Towing Vessel | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Other a/ | 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Total | 49 | 64 | 114 | 144 | 68 | 86 | 281 | 257 | 350 | 200 | 436 | 212 | 11 | 5 | - | - | - | - | 2,277 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 9 | 5 | 6 | 6 | 10 | 14 | 34 | 19 | 12 | 11 | 3 | 16 | - | - | - | - | - | 145 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 3 |
| Container Ship | 2 | 11 | 43 | 6 | 40 | 35 | 273 | 250 | 317 | 119 | 398 | 155 | - | - | - | - | - | - | 1,649 |
| Freight Barge | - | 4 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| General Dry Cargo Ship | 9 | 20 | 5 | 9 | 5 | 6 | 3 | 26 | 24 | 16 | - | - | - | - | - | - | - | - | 123 |
| Passenger Ship | 49 | 11 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 64 |
| Refrigerated Cargo Ship | - | - | 3 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | 1 | 4 | 49 | 84 | 20 | 33 | 9 | - | 2 | - | 9 | - | - | - | - | - | - | - | 211 |
| Tank Barge | - | - | - | - | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tanker | 2 | 2 | 10 | 9 | 3 | 4 | 9 | 23 | 23 | 85 | 9 | 29 | 1 | 1 | - | - | - | - | 210 |
| Towing Vessel | 39 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 39 |
| Other a/ | 5 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Total | 107 | 64 | 119 | 116 | 85 | 90 | 308 | 334 | 385 | 233 | 427 | 187 | 17 | 1 | - | - | - | - | 2,473 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-23. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Savannah, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 6 | 38 | 39 | 26 | 19 | 47 | 32 | 26 | 30 | 18 | 8 | - | - | - | - | - | - | - | 289 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | 11 | - | - | - | - | - | - | - | - | 14 |
| Container Ship | 20 | 16 | 17 | 54 | 51 | 28 | 105 | 104 | 158 | 204 | 316 | 255 | - | 4 | - | - | - | - | 1,332 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 26 | 54 | 33 | 22 | 11 | 13 | 15 | 8 | 27 | 25 | - | - | - | - | - | - | - | - | 234 |
| Passenger Ship | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | 9 | - | - | - | - | - | - | - | 9 |
| Ro-Ro Cargo Ship | 14 | 6 | 22 | 26 | 30 | 9 | 8 | 18 | 32 | 4 | 1 | - | - | - | - | - | - | - | 170 |
| Tank Barge | - | 3 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | 5 | 26 | 38 | 15 | 19 | 20 | 86 | 38 | 21 | 6 | 44 | 12 | - | 1 | - | - | - | 331 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 79 | 124 | 137 | 167 | 126 | 116 | 180 | 245 | 285 | 283 | 340 | 299 | 12 | 4 | 1 | - | - | - | 2,398 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 42 | 27 | 21 | 26 | 61 | 27 | 35 | 23 | 20 | 9 | 2 | 2 | - | - | - | - | - | 302 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 8 | - | 4 | - | - | - | - | - | - | - | - | 12 |
| Container Ship | - | 27 | 22 | 46 | 60 | 26 | 104 | 129 | 72 | 207 | 312 | 312 | - | - | - | - | - | - | 1,317 |
| Freight Barge | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 15 | 29 | 36 | 20 | 13 | 18 | 3 | 7 | 25 | 34 | - | - | - | - | - | - | - | - | 200 |
| Passenger Ship | 48 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 49 |
| Refrigerated Cargo Ship | - | 1 | - | - | - | 8 | - | - | - | - | 9 | - | - | - | - | - | - | - | 18 |
| Ro-Ro Cargo Ship | 11 | 4 | 45 | 15 | 17 | 14 | 24 | 18 | 31 | 6 | 1 | - | - | - | - | - | - | - | 186 |
| Tank Barge | - | 2 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 3 |
| Tanker | 10 | 7 | 23 | 26 | 18 | 23 | 17 | 83 | 28 | 36 | 5 | 64 | 29 | - | - | - | 1 | 6 | 376 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 101 | 113 | 153 | 129 | 134 | 150 | 175 | 280 | 179 | 308 | 336 | 378 | 31 | - | - | - | 1 | 6 | 2,474 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-24. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Brunswick, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 34 | 5 | 1 | 11 | 1 | 12 | 1 | 3 | 10 | 5 | 1 | 2 | - | - | - | - | - | - | 86 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 3 | - | - | - | 1 | 1 | - | 6 | 15 | - | - | 1 | - | - | - | - | - | - | 27 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 5 | 6 | 8 | 1 | 4 | 2 | 18 | 8 | - | - | - | - | - | - | - | - | - | 54 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | 2 | 9 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Ro-Ro Cargo Ship | - | - | 110 | 83 | 37 | 35 | 1 | - | 7 | - | - | - | - | - | - | - | - | - | 273 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | 1 | 2 | - | - | - | - | 1 | - | - | - | - | - | - | 4 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 40 | 12 | 126 | 104 | 40 | 53 | 6 | 27 | 40 | 5 | 1 | 4 | - | - | - | - | - | - | 458 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 28 | 8 | 4 | 11 | 2 | 8 | 5 | 11 | 7 | 3 | 1 | 4 | - | - | - | - | - | - | 92 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | 1 | 1 | - | - | 6 | 2 | - | - | - | - | - | - | - | - | - | 11 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 4 | 7 | 10 | 6 | 7 | 2 | 1 | 14 | 11 | 1 | - | - | - | - | - | - | - | - | 63 |
| Passenger Ship | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Refrigerated Cargo Ship | - | 3 | 7 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Ro-Ro Cargo Ship | - | - | 71 | 97 | 43 | 46 | 2 | - | 2 | 1 | - | - | - | - | - | - | - | - | 262 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 40 | 22 | 92 | 117 | 53 | 56 | 9 | 31 | 22 | 5 | 1 | 4 | - | - | - | - | - | - | 452 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-25. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Fernandina, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 1 | - | - | - | 1 | 1 | 1 | - | 4 | - | - | - | - | - | - | - | 9 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 5 | 65 | 8 | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | 80 |
| Freight Barge | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | 37 | 25 | 27 | 2 | - | - | - | 2 | 9 | 9 | - | - | - | - | - | - | - | - | 111 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | 5 | 28 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Ro-Ro Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 57 | 98 | 64 | 6 | - | - | 1 | 3 | 12 | 9 | 5 | - | - | - | - | - | - | - | 255 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 22 | - | - | - | 1 | - | 3 | - | 2 | - | - | - | - | - | - | - | 28 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 3 | 57 | 9 | - | - | - | - | - | 4 | 2 | - | - | - | - | - | - | - | - | 75 |
| Freight Barge | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | 39 | 34 | 20 | - | - | - | - | 1 | 11 | 12 | - | - | - | - | - | - | - | - | 117 |
| Passenger Ship | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Refrigerated Cargo Ship | - | 8 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 18 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | 24 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 85 | 101 | 61 | - | - | - | 1 | 1 | 18 | 14 | 3 | - | - | - | - | - | - | - | 284 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-26. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Jacksonville, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 4 | 7 | 11 | 2 | 25 | 13 | 9 | 24 | 29 | 15 | 13 | 12 | - | - | - | - | - | 166 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | 3 | - | - | - | - | - | - | - | - | 4 |
| Container Ship | 70 | 97 | 3 | 35 | 89 | 39 | 48 | 6 | 36 | 17 | 36 | - | - | - | - | - | - | - | 476 |
| Freight Barge | 6 | 9 | 107 | 71 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 195 |
| General Dry Cargo Ship | 102 | 71 | 7 | 2 | 17 | 13 | 4 | 4 | 14 | 11 | - | - | - | - | - | - | - | - | 245 |
| Passenger Ship | 7 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Refrigerated Cargo Ship | - | 5 | 4 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Ro-Ro Cargo Ship | 6 | 3 | 185 | 253 | 64 | 19 | 2 | 1 | 2 | 2 | - | - | - | - | - | - | - | - | 537 |
| Tank Barge | - | 1 | - | 3 | 1 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 8 | 1 | 3 | 5 | 6 | 6 | 10 | 70 | 47 | 114 | 8 | 21 | 1 | 1 | - | 1 | - | - | 302 |
| Towing Vessel | 274 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 274 |
| Other a/ | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Total | 484 | 196 | 316 | 380 | 182 | 104 | 80 | 91 | 123 | 176 | 59 | 34 | 13 | 1 | - | 1 | - | - | 2,240 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | 9 | 3 | 7 | 26 | 16 | 8 | 21 | 37 | 33 | 10 | 11 | - | - | - | - | - | 187 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 7 | - | - | - | - | - | - | - | - | 7 |
| Container Ship | 129 | 90 | 15 | 28 | 102 | 49 | 44 | 10 | 19 | 18 | 37 | - | - | - | - | - | - | - | 541 |
| Freight Barge | 23 | 28 | 57 | 66 | 7 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 183 |
| General Dry Cargo Ship | 60 | 50 | 9 | 12 | 29 | 24 | 4 | 7 | 20 | 5 | - | - | - | - | - | - | - | - | 220 |
| Passenger Ship | 37 | 52 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 89 |
| Refrigerated Cargo Ship | - | 4 | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Ro-Ro Cargo Ship | 3 | 5 | 160 | 287 | 54 | 29 | 6 | - | - | 3 | - | - | - | - | - | - | - | - | 547 |
| Tank Barge | - | 1 | - | - | 9 | 4 | 3 | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Tanker | 5 | 2 | 3 | 3 | 5 | 16 | 9 | 44 | 44 | 136 | 9 | 30 | 1 | - | - | - | - | - | 307 |
| Towing Vessel | 369 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 369 |
| Other a/ | 37 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Total | 663 | 238 | 262 | 399 | 213 | 148 | 84 | 69 | 104 | 206 | 79 | 40 | 12 | - | - | - | - | - | 2,517 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table B-27. Arrivals of Vessels 150 GRT and Above by Port Area and Vessel DWT, 2003 and 2004

Port Area: Port Canaveral, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 4 | 30 | 4 | 11 | 6 | 17 | 5 | 14 | 7 | 5 | 4 | 2 | - | - | - | - | - | - | 109 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | 2 |
| Container Ship | 3 | 1 | 1 | - | - | - | 2 | 2 | 7 | - | - | - | - | - | - | 1 | - | - | 17 |
| Freight Barge | 13 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| General Dry Cargo Ship | 13 | 17 | 22 | 6 | - | 1 | 4 | 4 | 8 | 2 | - | - | - | - | - | - | - | - | 77 |
| Passenger Ship | 108 | 417 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 547 |
| Refrigerated Cargo Ship | - | 36 | 4 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 41 |
| Ro-Ro Cargo Ship | 4 | 2 | 26 | 1 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Tank Barge | - | - | - | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | - | - | 1 | - | - | - | 4 | 2 | 2 | 7 | 4 | 5 | - | 1 | - | 1 | - | - | 27 |
| Towing Vessel | 14 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 161 | 503 | 80 | 19 | 8 | 22 | 16 | 24 | 24 | 14 | 8 | 7 | - | 1 | - | 2 | - | - | 889 |
| 2004 Total arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 34 | 4 | 10 | - | 19 | 8 | 16 | 26 | 15 | 4 | - | - | - | - | - | - | - | 136 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 2 | 11 | - | - | - | - | - | - | - | - | - | 13 |
| Freight Barge | 33 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| General Dry Cargo Ship | 9 | 19 | 23 | 5 | 1 | 3 | - | 4 | 8 | 11 | - | - | - | - | - | - | - | - | 83 |
| Passenger Ship | 27 | 498 | 54 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 579 |
| Refrigerated Cargo Ship | - | 35 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 36 |
| Ro-Ro Cargo Ship | 6 | 3 | 39 | - | - | 2 | - | - | - | - | 1 | - | - | - | - | - | - | - | 51 |
| Tank Barge | 1 | - | - | 5 | 1 | 3 | 5 | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Tanker | - | 1 | 1 | - | - | 2 | 12 | 6 | 4 | 3 | 2 | 6 | 2 | 1 | 3 | 3 | - | - | 46 |
| Towing Vessel | 66 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 66 |
| Other a/ | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 146 | 590 | 122 | 20 | 2 | 29 | 25 | 28 | 49 | 29 | 7 | 6 | 2 | 1 | 3 | 3 | - | - | 1,062 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

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*Appendix C*

# U.S. EAST COAST FERRY VESSELS AND ROUTES

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Table C-1. Ferry Vessels Operating on U.S. East Coast, 2000

| State and Vessel Name | City | State | Type | Typical Speed (Knots) | Length (ft) | Gross Tons |
|---|---|---|---|---|---|---|
| Maine | | | | | | |
| Scotia Prince | Portland | ME | RoRo | 18 | 469 | 11,968 |
| Margaret Chase Smith | Rockland | ME | RoRo | 14 | 152.8 | 99 |
| Captain Charles Philbrook | Rockland | ME | RoRo | 12 | 127 | 288 |
| Captain Neal Burgess | Rockland | ME | RoRo | 12 | 127 | 288 |
| Captain Henry Lee | Rockland | ME | RoRo | 12 | 127 | 288 |
| Governor Curtis | Rockland | ME | RoRo | 12 | 123.2 | 303 |
| Machigonne II | Portland | ME | RoRo | 9 | 116.4 | 88 |
| Everett Libby | Rockland | ME | RoRo | 10 | 104.8 | 198 |
| North Haven | Rockland | ME | RoRo | 10 | 84.8 | 143 |
| Bay Mist | Portland | ME | Passenger | 9 | 83.9 | 95 |
| Maquoit II | Portland | ME | RoRo | 9 | 77.9 | 97 |
| Balmy Days II | Boothbay Harbor | ME | Passenger | 12 | 64.9 | 97 |
| Island Romance | Portland | ME | Passenger | 9 | 64.7 | 78 |
| Elizabeth Ann | Port Clyde | ME | Passenger | 10.5 | 64 | 48 |
| Island Holiday | Portland | ME | Passenger | 9 | 59.9 | 84 |
| Laura B. | Port Clyde | ME | Passenger | 9 | 58.1 | 46 |
| Hardy III | New Harbor | ME | Passenger | 11 | 56 | 66 |
| Islander | Chebeague Island | ME | Passenger | 7.5 | 52 | 46 |
| Miss Lizzie | Stonington | ME | Passenger | n.a. | 49 | 20 |
| Novelty | Boothbay Harbor | ME | Passenger | 9 | 46.7 | 38 |
| Big Squaw | Chebeague Island | ME | Passenger | 7.5 | 46 | 33 |
| Sea Queen | Cranberry Isles | ME | Passenger | 9 | 44 | 26 |
| Mink | Stonington | ME | Passenger | n.a. | 41.7 | 34 |
| New Hampshire | | | | | | |
| M.V. Thomas Laighton | Portsmouth | NH | Passenger | n.a. | 83.4 | 59 |
| M.V. Oceanic | Portsmouth | NH | Passenger | n.a. | 70.59 | 95 |
| Massachusetts | | | | | | |
| Governor | Woods Hole | MA | RoRo | 12 | 242 | 678 |
| Martha's Vineyard | Woods Hole | MA | RoRo | 13 | 224.1 | 1,297 |
| Eagle | Woods Hole | MA | RoRo | 12 | 219.5 | 276 |
| Nantucket | Woods Hole | MA | RoRo | 12 | 219.5 | 1,152 |
| Gay Head | Woods Hole | MA | RoRo | 13 | 218.3 | 99 |
| Katama | Woods Hole | MA | RoRo | 13 | 215.8 | 99 |
| Islander | Woods Hole | MA | RoRo | 10.5 | 191.7 | 855 |
| Sankaty | Woods Hole | MA | RoRo | 13 | 180.3 | 351 |
| Provincetown II | Boston | MA | Passenger | 16 | 176.8 | 96 |
| Great Point | Hyannis | MA | Passenger | 16 | 169.5 | 71 |
| Flying Cloud | Woods Hole | MA | Passenger | 36 | 134.5 | 99 |
| Schamonchi | New Bedford | MA | Passenger | 14 | 129.8 | 91 |
| Brant Point | Hyannis | MA | Passenger | 12 | 112.4 | 97 |
| Grey Lady II | Hyannis | MA | Passenger | 30 | 106 | 74 |
| Eugina Louise | Boston | MA | Passenger | 18 | 105.8 | 97 |
| Cross Rip | Hyannis | MA | Passenger | 11 | 103.8 | 97 |
| Point Gammon | Hyannis | MA | Passenger | 11 | 103 | 99 |
| Island Queen | Falmouth | MA | Passenger | 14 | 101.3 | 99 |
| James J. Doherty | Boston | MA | Passenger | 18 | 100.7 | 98 |
| Laura | Boston | MA | Passenger | 18 | 100.7 | 98 |
| Lulu E | Boston | MA | Passenger | 18 | 100.7 | 98 |
| Matthew J. Hughes | Boston | MA | Passenger | 18 | 100.7 | 98 |
| Chimera | Plymouth | MA | Passenger | 19 | 100 | 97 |
| Bay State | Boston | MA | Passenger | 11 | 97.8 | 98 |
| Fort Independence | Boston | MA | Passenger | 10 | 89.9 | 98 |
| Capt. Red | Newburyport | MA | Passenger | 25 | 88.8 | 94 |
| Massachusetts | Boston | MA | Passenger | 20 | 87.6 | 99 |
| Capt. John & Son IV | Plymouth | MA | Passenger | 19 | 85.9 | 96 |
| Frederick L. Nolan, Jr. | Boston | MA | Passenger | 10 | 82.9 | 98 |

| State and Vessel Name | City | State | Type | Typical Speed (Knots) | Length (ft) | Gross Tons |
|---|---|---|---|---|---|---|
| East Chop | Hyannis | MA | Passenger | 10 | 79.9 | 99 |
| Capt. John & Son | Plymouth | MA | Passenger | 17 | 76.9 | 79 |
| Capt. John & Son II | Plymouth | MA | Passenger | 17 | 76.59 | 76 |
| Capt. John & Son III | Plymouth | MA | Passenger | 17 | 76.59 | 78 |
| Flying Cloud | Quincy | MA | Passenger | 30 | 75.8 | 45 |
| Lightning | Quincy | MA | Passenger | 30 | 75.8 | 45 |
| Yankee Freedom | Gloucester | MA | Passenger | 18 | 72.2 | 94 |
| Native Son | Boston | MA | Passenger | 10 | 65 | 93 |
| Freedom | Harwich Port | MA | Passenger | 20 | 62.4 | 67 |
| Alert II | New Bedford | MA | Passenger | n.a. | 61.6 | 66 |
| Anna | Boston | MA | Passenger | 20 | 61.3 | 56 |
| On Time III | Edgartown | MA | RoRo | 4 | 60.2 | 26 |
| Edward Rowe Snow | Boston | MA | Passenger | 10 | 58.6 | 59 |
| Bostonian II | Boston | MA | Passenger | 10 | 56.6 | 49 |
| On Time II | Edgartown | MA | RoRo | 4 | 52.5 | 28 |
| Patriot Too | Falmouth | MA | Passenger | 9 | 47 | 35 |
| Betty Joe Tyler | Boston | MA | Passenger | 10 | 46.1 | 33 |
| Quickwater | Falmouth | MA | Passenger | 15 | 45 | 28 |
| Breeds Hill | Boston | MA | Passenger | 10 | 40.9 | 22 |
| Bunker Hill | Boston | MA | Passenger | 10 | 40.9 | 22 |
| Minuteman | Falmouth | MA | Passenger | 14 | 40 | 19 |
| Alison | Boston | MA | Passenger | 10 | 39.29 | 32 |
| Rhode Island | | | | | | |
| Prudence Ferry | Bristol | RI | Passenger | n.a. | 91.9 | 78 |
| Prudence Ferry | Bristol | RI | RoRo | n.a. | 61.5 | 94 |
| Connecticut | | | | | | |
| Cape Henlopen | New London | CT | RoRo | 11 | 307.6 | 1,492 |
| Susan Anne | New London | CT | RoRo | 15 | 237.6 | 1,348 |
| John H. | New London | CT | RoRo | 13 | 229.7 | 96 |
| New London | New London | CT | RoRo | 13 | 198.9 | 94 |
| Block Island | New London | CT | RoRo | 12.5 | 187.3 | 98 |
| Carol Jean | New London | CT | RoRo | 12.5 | 167.4 | 88 |
| North Star | New London | CT | RoRo | 10 | 157.9 | 238 |
| Sassacus | New London | CT | Passenger | 45 | 137.8 | 95 |
| Tatobam | New London | CT | Passenger | 45 | 137.8 | 318 |
| Nelseco | New London | CT | RoRo | 12.5 | 124.5 | 89 |
| Caribbean | New London | CT | RoRo | 10 | 116 | 94 |
| Sea Jet I | New London | CT | Passenger | 28 | 109.6 | 99 |
| Shuttle VI | New London | CT | Passenger | 15 | 99.3 | 98 |
| Zelinsky | Danbury | CT | Passenger | 28 | 84.6 | 96 |
| Selden III | Newington | CT | RoRo | 6 | 64.8 | 87 |
| Hollister III | Newington | CT | RoRo | 4 | 64 | 29 |
| Cumberland | Newington | CT | RoRo | 4 | 28.4 | 10 |
| New York | | | | | | |
| Railcar Float #29 | Brooklyn | NY | Rail | 4 | 360 | n.a. |
| Railcar Float #30 | Brooklyn | NY | Rail | 4 | 360 | n.a. |
| Samuel I. Newhouse | Staten Island | NY | Passenger | 16 | 310 | 3,335 |
| Andrew J. Barberi | Staten Island | NY | Passenger | 16 | 310 | 3,335 |
| P.T. Barnum | Port Jefferson | NY | RoRo | 18 | 290.3 | 1,595 |
| Railcar Float #16 | Brooklyn | NY | Rail | 4 | 290 | n.a. |
| Railcar Float #17 | Brooklyn | NY | Rail | 4 | 290 | n.a. |
| The Gov. Herbert H. Lehman | Staten Island | NY | RoRo | 16 | 277 | 2,109 |
| American Legion | Staten Island | NY | RoRo | 16 | 277 | 2,109 |
| John F. Kennedy | Staten Island | NY | RoRo | 16 | 277 | 2,109 |
| Park City | Port Jefferson | NY | RoRo | 15 | 261.2 | 1,129 |
| Grand Republic | Port Jefferson | NY | RoRo | 14.5 | 260.7 | 1,237 |
| John A. Noble | Staten Island | NY | Passenger | 16 | 207 | 499 |
| Alice Austen | Staten Island | NY | Passenger | 16 | 207 | 499 |
| Anna C. | Orient Point | NY | RoRo | 15 | 179.7 | 98 |

| State and Vessel Name | City | State | Type | Typical Speed (Knots) | Length (ft) | Gross Tons |
|---|---|---|---|---|---|---|
| Race Point | Fishers Island | NY | RoRo | 11 | 162 | 87 |
| Miss Circle Line | New York | NY | Passenger | n.a. | 139.69 | 369 |
| Circle Line XIV | New York | NY | Passenger | n.a. | 123.2 | 580 |
| Miss Ellis Island | New York | NY | Passenger | n.a. | 122.9 | 93 |
| Miss New Jersey | New York | NY | Passenger | n.a. | 122.9 | 93 |
| Miss New York | New York | NY | Passenger | n.a. | 122.9 | 94 |
| Miss Freedom | New York | NY | Passenger | n.a. | 121.6 | 98 |
| Miss Liberty | New York | NY | Passenger | n.a. | 121.5 | 98 |
| Miss Gateway | New York | NY | Passenger | n.a. | 120.9 | 95 |
| Viking Starship | Montauk | NY | Passenger | 12 | 117.4 | 98 |
| Munnatawket | Fishers Island | NY | RoRo | 10.5 | 115.5 | 95 |
| Viking Starliner | Montauk | NY | Passenger | 11 | 97.8 | 99 |
| Southern Cross | Shelter Island | NY | RoRo | 8 | 90.4 | 72 |
| Viking Star | Montauk | NY | Passenger | 11 | 88.2 | 87 |
| Greenport | Shelter Island Heights | NY | RoRo | 7 | 84.7 | 95 |
| New Prospect | Shelter Island Heights | NY | RoRo | 7 | 84.7 | 95 |
| Firebird | Bay Shore | NY | Passenger | 19 | 81.8 | 72 |
| Shelter Island | Shelter Island Heights | NY | RoRo | 7 | 81.3 | 90 |
| Islander | Shelter Island Heights | NY | RoRo | 7 | 81.2 | 90 |
| Voyager | Bay Shore | NY | Passenger | 19 | 79.09 | 62 |
| Explorer | Bay Shore | NY | Passenger | 19 | 79.09 | 62 |
| South Bay Clipper | Sayville | NY | Passenger | 20 | 76.8 | 63 |
| Kiki | Patchogue | NY | Passenger | 18 | 75 | 68 |
| Fire Island Clipper | Sayville | NY | Passenger | 20 | 73.4 | 71 |
| Vagabond | Bay Shore | NY | Passenger | 9 | 71.59 | 73 |
| Capt. Patterson | Bay Shore | NY | Passenger | 18 | 70.7 | 58 |
| Fire Island Miss | Bay Shore | NY | Passenger | 18 | 70.7 | 58 |
| Traveler | Bay Shore | NY | Passenger | 18 | 70.7 | 58 |
| Fireball | Bay Shore | NY | Passenger | 18 | 70.59 | 56 |
| Pathfinder II | Patchogue | NY | Passenger | 18 | 65.3 | 99 |
| Quaiapen | Patchogue | NY | Passenger | 16 | 63.7 | 87 |
| Fire Island Belle | Bay Shore | NY | Passenger | 17 | 62.4 | 59 |
| Fire Island Duchess | Sayville | NY | Passenger | 15 | 62.3 | 77 |
| Zee Whiz | Bay Shore | NY | Passenger | 18 | 62.3 | 73 |
| Zee Lion | Bay Shore | NY | Passenger | 17 | 62 | 79 |
| Beach Comber IV | Sayville | NY | Passenger | 1 | 61.3 | 9 |
| Fire Island Empress | Sayville | NY | Passenger | 15 | 61.2 | 63 |
| Fire Island Trader | Bay Shore | NY | Passenger | 9 | 60.8 | 33 |
| Michael Cosgrove | Staten Island | NY | Passenger | 8 | 60.75 | 139 |
| Point O'Woods VI | Long Island | NY | Passenger | n.a. | 60.4 | 70 |
| Stranger | Bay Shore | NY | Passenger | 17 | 60.1 | 65 |
| Highlander | Patchogue | NY | Passenger | 18 | 58.3 | 13 |
| North Haven | Shelter Island | NY | RoRo | 6 | 58.2 | 97 |
| South Ferry II | Shelter Island | NY | RoRo | 8 | 57.5 | 95 |
| Capt. Ed Cartwright | Shelter Island | NY | RoRo | 7 | 54.2 | 99 |
| Roamer II | Sayville | NY | Passenger | 15 | 51.5 | 14 |
| Merrimac II | Sayville | NY | Passenger | 15 | 51.2 | 38 |
| Monitor II | Sayville | NY | Passenger | 15 | 49 | 38 |
| Mehsomac | Patchogue | NY | Passenger | 18 | 40.79 | 35 |
| Bemus Point - Stow Ferry | Mayville | NY | RoRo | n.a. | n.a. | n.a. |
| | | | | | | |
| New Jersey | | | | | | |
| currently unnamed | Highlands | NJ | Passenger | 42 | 125 | 90 |
| Bravest | Highlands | NJ | Passenger | 34 | 114.1 | 93 |
| City Express | Little Falls | NJ | Passenger | 20 | 100 | 98 |
| Port Imperial New Jersey | Weehawken | NJ | Passenger | n.a. | 94.6 | 96 |
| Empire State | Weehawken | NJ | Passenger | n.a. | 92 | 95 |
| Garden State | Weehawken | NJ | Passenger | n.a. | 92 | 95 |
| Henry Hudson | Weehawken | NJ | Passenger | n.a. | 92 | 95 |
| Robert Fulton | Weehawken | NJ | Passenger | n.a. | 92 | 95 |
| Abraham Lincoln | Weehawken | NJ | Passenger | n.a. | 87.3 | 95 |
| Alexander Hamilton | Weehawken | NJ | Passenger | n.a. | 87.3 | 95 |

| State and Vessel Name | City | State | Type | Typical Speed (Knots) | Length (ft) | Gross Tons |
|---|---|---|---|---|---|---|
| George Washington | Weehawken | NJ | Passenger | n.a. | 87.3 | 95 |
| Thomas Jefferson | Weehawken | NJ | Passenger | n.a. | 87.3 | 95 |
| Port Imperial Manhattan | Weehawken | NJ | Passenger | n.a. | 87.2 | 94 |
| Express I | Little Falls | NJ | Passenger | 30 | 77.7 | 90 |
| Express II | Little Falls | NJ | Passenger | 30 | 77.7 | 90 |
| Port Imperial | Weehawken | NJ | Passenger | n.a. | 76.8 | 69 |
| Yogi Berra | Weehawken | NJ | Passenger | n.a. | n.a. | n.a. |
| LaGuardia | Weehawken | NJ | Passenger | n.a. | n.a. | n.a. |
| Christopher Columbus | Weehawken | NJ | Passenger | n.a. | n.a. | n.a. |
| Frank Sinatra | Weehawken | NJ | Passenger | n.a. | n.a. | n.a. |
| Pennsylvania | | | | | | |
| Riverlink | Philadelphia | PA | Passenger | n.a. | 90.8 | 98 |
| Frederick | Uniontown | PA | RoRo | n.a. | 64 | 35 |
| Roaring Bull V | Millersburg | PA | RoRo | n.a. | n.a. | n.a. |
| Delaware | | | | | | |
| Twin Capes | Wilmington | DE | RoRo | 12.5 | 301.2 | 2,262 |
| Cape May | Wilmington | DE | RoRo | 12.5 | 299.2 | 2,165 |
| Cape Henlopen | Wilmington | DE | RoRo | 12.5 | 284.89 | 2,120 |
| Delaware | Wilmington | DE | RoRo | 12.5 | 284 | 2,108 |
| New Jersey | Wilmington | DE | RoRo | 12.5 | 284 | 2,108 |
| Whale Watcher | Wilmington | DE | Passenger | 31 | 106.4 | 99 |
| American River | Wilmington | DE | Passenger | 21 | 95.9 | 96 |
| Virginia C | Georgetown | DE | RoRo | 3 | 64.9 | 35 |
| Delafort | Wilmington | DE | Passenger | 10 | 55 | 39 |
| Lady Christina | Wilmington | DE | Passenger | 8 | 47 | 5 |
| Maryland | | | | | | |
| General Jubal A. Early | Dickerson | MD | RoRo | n.a. | 84 | 68 |
| Steven Thomas | Crisfield | MD | Passenger | 9 | 78.3 | 99 |
| Talbot | Royal Oak | MD | RoRo | 7.5 | 64.5 | 43 |
| Capt. Tyler | Ewell | MD | Passenger | 12 | 64 | 84 |
| Whitehaven Ferry | Salisbury | MD | RoRo | 4 | 60 | 21 |
| Chelsea Lane Tyler | Ewell | MD | Passenger | 14 | 60 | 42 |
| Upper Ferry | Salisbury | MD | RoRo | 4 | 50 | n.a. |
| Island Belle II | Ewell | MD | Passenger | n.a. | 38.1 | 21 |
| Capt. Jason | Tylerton | MD | Passenger | n.a. | 38.1 | 19 |
| Capt. Jason II | Tylerton | MD | Passenger | n.a. | 38.1 | 23 |
| Virginia | | | | | | |
| Nandua | Cape Charles | VA | Rail | 6 | 407.6 | 2,105 |
| Pocahontas | Surry | VA | RoRo | 8.5 | 263.3 | 1,197 |
| Williamsburg | Surry | VA | RoRo | 8.5 | 200 | 837 |
| Surry | Surry | VA | RoRo | 8.5 | 189.9 | 825 |
| Virginia | Surry | VA | RoRo | 8.5 | 152 | 327 |
| Chesapeake Breeze | Reedville | VA | Passenger | 15 | 95.7 | 97 |
| Captain Evans | Reedville | VA | Passenger | 9 | 64.7 | 60 |
| James C. Echols (Elizabeth Ferry I) | Hampton | VA | Passenger | 4 | 60 | 60 |
| Elizabeth River Ferry II | Hampton | VA | Passenger | 4 | 60 | 60 |
| Elizabeth River Ferry III | Hampton | VA | Passenger | 4 | 60 | 60 |
| The Lancaster | Lancaster | VA | RoRo | 12 | 44.25 | 30 |
| Northumberland | Lottsburg | VA | RoRo | 12 | 44.25 | 30 |
| Hatton Ferry | Charlottesville | VA | RoRo | 0.5 | 40 | 20 |
| North Carolina | | | | | | |
| Silver Lake | Morehead City | NC | RoRo | 10 | 210.2 | 736 |
| Pamlico | Morehead City | NC | RoRo | 10 | 210 | 735 |
| Cedar Island | Morehead City | NC | RoRo | 10 | 207.8 | 648 |
| Carteret | Morehead City | NC | RoRo | 10 | 207.5 | 687 |
| Governor Daniel Russell | Morehead City | NC | RoRo | 10 | 172.8 | 469 |
| Southport | Morehead | NC | RoRo | 10 | 167.7 | 374 |

| State and Vessel Name | City | State | Type | Typical Speed (Knots) | Length (ft) | Gross Tons |
|---|---|---|---|---|---|---|
| Neuse | Morehead City | NC | RoRo | 10 | 167.7 | 380 |
| Floyd J. Lupton | Morehead City | NC | RoRo | 10 | 167.7 | 374 |
| Fort Fisher | Morehead City | NC | RoRo | 10 | 167.7 | 374 |
| Governor Hyde | Morehead City | NC | RoRo | 9 | 161 | 574 |
| Baum | Morehead City | NC | RoRo | 10 | 143.6 | 283 |
| Lupton | Morehead City | NC | RoRo | 10 | 143.6 | 248 |
| Cape Point | Morehead City | NC | RoRo | 10 | 140.3 | 276 |
| Chicamacomico | Morehead City | NC | RoRo | 10 | 140.3 | 276 |
| Frisco | Morehead City | NC | RoRo | 10 | 140.3 | 275 |
| Kinnakeet | Morehead City | NC | RoRo | 10 | 140.3 | 280 |
| Ocracoke | Morehead City | NC | RoRo | 10 | 140.1 | 276 |
| Governor James B. Hunt, Jr. | Morehead City | NC | RoRo | 10 | 125.1 | 323 |
| Beaufort | Morehead City | NC | RoRo | 9 | 124.1 | 287 |
| Alpheus W. Drinkwater | Morehead City | NC | RoRo | 9 | 122.4 | 199 |
| Conrad Wirth | Morehead City | NC | RoRo | 9 | 112.4 | 199 |
| Herbert C. Bonner | Morehead City | NC | RoRo | 9 | 112.4 | 199 |
| Sans Souci | Bald Head Island | NC | Passenger | 18 | 72 | 93 |
| Adventure | Bald Head Island | NC | Passenger | 18 | 64.8 | 76 |
| Revenge | Bald Head Island | NC | Passenger | 18 | 62.2 | 67 |
| Capt. Alger | Davis | NC | RoRo | 5 | 51 | 35 |
| Capt Alex | Bald Head Island | NC | RoRo | 6 | 50 | 47 |
| Green Grass | Atlantic | NC | RoRo | n.a. | 47.8 | 34 |
| Elwell | Raleigh | NC | RoRo | 5 | 46.9 | 22 |
| San Souci | Raleigh | NC | RoRo | 5 | 46.2 | 22 |
| Parker | Raleigh | NC | RoRo | 5 | 46.2 | 22 |
| Catherine T. | Davis | NC | RoRo | 5 | 40 | n.a. |
| Miss Anne | Davis | NC | RoRo | 7 | 32.2 | 9 |
| H.I.F.C. I | Harkers Island | NC | Passenger | 20 | 24 | 2 |
| Last Cast | Harkers Island | NC | Passenger | 25 | 20 | 1 |
| South Carolina | | | | | | |
| Daufuskie Clipper I | Hilton Head Island | SC | Passenger | n.a. | 58 | 48 |
| Haig Point I | Hilton Head Island | SC | Passenger | 19 | 55.25 | 40 |
| Haig Point II | Hilton Head Island | SC | Passenger | 19 | 55.2 | 39 |
| Daufuskie Clipper IV | Hilton Head Island | SC | Passenger | n.a. | 54 | 20 |
| Daufuskie Clipper II | Hilton Head Island | SC | Passenger | n.a. | 48.9 | 38 |
| Daufuskie Clipper III | Hilton Head Island | SC | Passenger | n.a. | 48.9 | 38 |
| South Island | Columbia | SC | RoRo | 2 | 46 | 23 |
| Haig Point Pelican | Hilton Head Island | SC | Passenger | 22 | 46 | 28 |
| Haig Point Osprey | Hilton Head Island | SC | Passenger | 22 | 45 | 28 |
| Haig Point III | Hilton Head Island | SC | Passenger | 16 | 35.79 | 22 |
| Georgia | | | | | | |
| Cumberland Princess | St. Marys | GA | Passenger | 10 | 65 | 50 |
| Annemarie | Sapelo Island | GA | Passenger | 12 | 64.8 | 61 |
| Cumberland Queen | St. Marys | GA | Passenger | 10 | 64.3 | 55 |
| Sapelo Queen | Sapelo | GA | Passenger | 12 | 60 | 82 |
| Florida | | | | | | |
| Blackbeard | Jacksonville | FL | RoRo | 6 | 170.3 | 537 |
| Jean Ribault | Jacksonville | FL | RoRo | 6 | 153.6 | 497 |
| Drayton Island Ferry | Palatka | FL | RoRo | n.a. | 48 | n.a. |
| Ruby B. | Carrabelle | FL | Passenger | 7 | 38 | 14 |
| Fort Gates Ferry | Crescent City | FL | RoRo | 3 | 36 | n.a. |
| Fort Gates Ferry | Crescent City | FL | RoRo | 3 | n.a. | n.a. |

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, National Ferry Database

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Table C-2. Ferry Routes Operating on U.S. East Coast, 2000

| Sate and Route | Metro Area | Waterbody Crossed | Type | Data Year | Passengers | Vehicles | Season Start | Season End |
|---|---|---|---|---|---|---|---|---|
| Maine | | | | | | | | |
| Yarmouth (NS) - Bar Harbor (ME) | Bar Harbor | Gulf of Maine | Passenger | 1998 | 223,000 | 61,000 | 6/1/2000 | 10/22/2000 |
| Yarmouth (NS) - Portland (ME) | Portland | Bay of Fundy | Passenger | 1999 | 160,000 | 30,000 | 5/1/2000 | 10/26/2000 |
| Bass Harbor (ME) - Frenchboro (ME) | Bangor | Blue Hill Bay | Passenger | 1999 | 3,539 | 1,514 | Year-round | |
| Bass Harbor (ME) - Swans Island (ME) | Bangor | Blue Hill Bay | Passenger | 1999 | 68,849 | 32,112 | Year-round | |
| Boothbay Harbor (ME) - Monhegan Island (ME) | Portland | Coastal Atlantic Ocean | RoRo | 1999 | 10,810 | n.a. | 5/27/2000 | 10/9/2000 |
| Boothbay Harbor (ME) - Squirrel Island (ME) | Portland | Boothbay Harbor | RoRo | 1999 | 17,193 | n.a. | 3/1/2000 | 11/30/2000 |
| Lincolnville (ME) - Islesboro (ME) | Bangor | Penobscot Bay | Passenger | 1999 | 191,360 | 91,954 | Year-round | |
| Northeast Harbor (ME) - Islesford, Little Cranberry Island (ME) | Bangor | Coastal Atlantic Ocean | RoRo | 1999 | 29,011 | n.a. | Year-round | |
| Cousins Island (ME) - Chebeague Island, Stone Wharf (ME) | Portland | Casco Bay | Passenger | 1999 | 118,000 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Bailey Island (ME) | Portland | Casco Bay | RoRo | 1999 | 8,664 | n.a. | 6/30/2000 | 9/4/2000 |
| Portland, Casco Bay Ferry Terminal (ME) - Chebeague Island, Chandler Cove Landing (ME) | Portland | Casco Bay | RoRo | 1999 | 11,546 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Cliff Island (ME) | Portland | Casco Bay | RoRo | 1999 | 27,764 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Diamond Cove, Great Diamond Island (ME) | Portland | Casco Bay | RoRo | 1999 | 64,596 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Little Diamond Island (ME) | Portland | Casco Bay | RoRo | 1999 | 16,590 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Great Diamond Island (ME) | Portland | Casco Bay | RoRo | 1999 | 35,941 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Long Island (ME) | Portland | Casco Bay | RoRo | 1999 | 103,794 | n.a. | Year-round | |
| Portland, Casco Bay Ferry Terminal (ME) - Peaks Island (ME) | Portland | Casco Bay | Passenger | 1999 | 659,699 | 17,000 | Year-round | |
| Stonington (ME) - Duck Harbor, Isle Au Haut (ME) | Stonington | Isle Au Haut Bay | RoRo | n.a. | n.a. | n.a. | 6/12/2000 | 9/9/2000 |
| Stonington (ME) - Isle Au Haut (ME) | Stonington | East Penobscot Bay | RoRo | n.a. | n.a. | n.a. | 4/3/2000 | 10/14/2000 |
| Port Clyde (ME) - Monhegan Island (ME) | Portland | Coastal Atlantic Ocean | RoRo | 1999 | 15,000 | n.a. | Year-round | |
| New Harbor (ME) - Monhegan Island (ME) | Portland | Muscongus Bay | RoRo | n.a. | n.a. | n.a. | 5/15/2000 | 10/15/2000 |
| Rockland (ME) - Matinicus Island (ME) | Portland | Penobscot Bay | Passenger | 1999 | 653 | 221 | Year-round | |
| Rockland (ME) - North Haven (ME) | Portland | Penobscot Bay | Passenger | 1999 | 54,163 | 19,788 | Year-round | |
| Rockland (ME) - Vinalhaven (ME) | Portland | Penobscot Bay | Passenger | 1999 | 138,916 | 38,755 | Year-round | |
| New Hampshire | | | | | | | | |
| Portsmouth (NH) - Star Island, Gosport Harbor (NH) | Portsmouth | Coastal Atlantic Ocean | RoRo | n.a. | n.a. | n.a. | 6/15/2000 | 9/30/2000 |
| Massachussetts | | | | | | | | |
| World Trade Center, Boston (MA) - Provincetown (MA) (high speed service) | Boston | Masschusetts Bay | RoRo | 1999 | 16,000 | n.a. | 5/20/2000 | 10/15/2000 |
| Rowes Wharf, Boston (MA) - Logan Airport, East Boston, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 122,411 | n.a. | Year-round | |
| Long Wharf, Boston (MA) - Provincetown (MA) | Boston | Massachusetts Bay | RoRo | 2000 | 20,000 | n.a. | 5/5/2000 | 10/9/2000 |
| Charlestown Navy Yard, Charlestown, Boston (MA) - Lovejoy Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 18,331 | n.a. | Year-round | |
| Long Wharf, Boston (MA) - Georges Island, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 87,320 | n.a. | 4/29/2000 | 10/9/2000 |
| Hingham, Hingham Shipyard (MA) - Georges Island, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 15,340 | n.a. | 4/29/2000 | 10/9/2000 |
| Hingham, Hingham Shipyard (MA) - Rowes Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 90,000 | n.a. | Year-round | |
| Hingham, Hingham Shipyard (MA) - Rowes Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 829,866 | n.a. | Year-round | |
| Salem, Blaney St. ferry landing (MA) - Georges Island, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 15,340 | n.a. | 5/20/2000 | 10/31/2000 |
| Fore River, Quincy (MA) - Logan Airport, East Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 110,000 | n.a. | Year-round | |
| Logan Airport, East Boston, Boston (MA) - Long Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 7,260 | n.a. | Year-round | |
| Pemberton Point, Hull (MA) - Long Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 22,000 | n.a. | Year-round | |
| Falmouth, Falmouth Harbor (MA) - Oak Bluffs, Marthas Vineyard (MA) | Boston | Vineyard Sound | RoRo | 1999 | 287,000 | n.a. | 5/26/2000 | 10/9/2000 |
| Falmouth Harbor, Falmouth (MA) - Oak Bluffs, Marthas Vineyard (MA) | Boston | Vineyard Sound | RoRo | 1999 | 25,000 | n.a. | Year-round | |
| Edgartown, Memorial Wharf (MA) - Chappaquiddick (MA) | Boston | Edgartown Harbor | Passenger | 1998 | 355,691 | 202,207 | Year-round | |
| Long Wharf, Boston (MA) - Charlestown Navy Yard, Charlestown, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 383,736 | n.a. | Year-round | |
| Lovejoy Wharf, Boston (MA) - US Federal Courthouse, Fan Pier, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 30,984 | n.a. | Year-round | |
| US Federal Courthouse, Fan Pier, Boston (MA) - World Trade Center, Boston (MA) | Boston | Boston Harbor | RoRo | n.a. | n.a. | n.a. | Year-round | |

| Sate and Route | Metro Area | Waterbody Crossed | Type | Data Year | Passengers | Vehicles | Season Start | Season End |
|---|---|---|---|---|---|---|---|---|
| World Trade Center, Boston (MA) - Lovejoy Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Hyannis (MA) - Nantucket (MA) | Boston | Nantucket Sound | RoRo | 1999 | 235,000 | n.a. | Year-round | |
| Hyannis (MA) - Nantucket (MA) | Boston | Nantucket Sound | RoRo | 1999 | 137,396 | n.a. | Year-round | |
| Hyannis (MA) - Nantucket (MA) | Boston | Nantucket Sound | Passenger | 1999 | 435,000 | 122,600 | Year-round | |
| Hyannis (MA) - Nantucket (MA) | Boston | Nantucket Sound | RoRo | 1999 | 206,176 | n.a. | 5/8/2000 | 10/28/2000 |
| Hyannis (MA) - Oak Bluffs, Marthas Vineyard (MA) | Boston | Nantucket Sound | RoRo | 1999 | 154,135 | n.a. | 5/8/2000 | 10/28/2000 |
| Harwich Port, Saquatucket Harbor (MA) - Nantucket (MA) | Boston | Nantucket Sound | RoRo | 1999 | 32,000 | n.a. | 5/15/2000 | 10/14/2000 |
| World Trade Center, Boston (MA) - Provincetown (MA) (conventional service) | Boston | Massachusetts Bay | RoRo | 1999 | 28,000 | n.a. | 6/21/2000 | 9/6/2000 |
| Falmouth Harbor, Falmouth (MA) - Cuttyhunk (MA) | Boston | Vineyard Sound and Buzzard | RoRo | 1999 | 1,000 | n.a. | 7/1/2000 | 8/31/2000 |
| Plymouth (MA) - Provincetown (MA) | Boston | Massachusetts Bay | RoRo | 1999 | 10,000 | n.a. | 5/20/2000 | 10/13/2000 |
| Woods Hole (MA) - Oak Bluffs, Marthas Vineyard (MA) | Boston | Vineyard Sound | Passenger | 1999 | 300,000 | 55,000 | 5/18/2000 | 10/26/2000 |
| Woods Hole (MA) - Vineyard Haven, Marthas Vineyard (MA) | Boston | Vineyard Sound | Passenger | 1999 | 2,000,000 | 351,400 | Year-round | |
| Salem, Blaney St. ferry landing (MA) - Long Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 15,000 | n.a. | 4/1/2000 | 11/1/2000 |
| Nantucket (MA) - Oak Bluffs, Marthas Vineyard (MA) | Boston | Nantucket Sound | RoRo | 1999 | 24,084 | n.a. | 6/5/2000 | 9/17/2000 |
| New Bedford (MA) - Cuttyhunk (MA) | New Bedford | Buzzards Bay | RoRo | n.a. | n.a. | n.a. | Year-round | |
| New Bedford, Schamonchi Dock (MA) - Vineyard Haven, Marthas Vineyard (MA) | New Bedford | Buzzards Bay | RoRo | n.a. | n.a. | n.a. | 5/18/2000 | 10/9/2000 |
| Fore River, Quincy (MA) - Long Wharf, Boston (MA) | Boston | Boston Harbor | RoRo | 1999 | 250,000 | n.a. | Year-round | |
| New London, Ferry Street (CT) - Vineyard Haven, Marthas Vineyard (MA) | New London | Rhode Island Sound | RoRo | 1999 | 45,000 | n.a. | 5/15/2000 | 9/4/2000 |
| Rhode Island | | | | | | | | |
| Bristol (RI) - Hog Island (RI) | Providence | Narragansett Bay | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Bristol (RI) - Homestead, Prudence Island (RI) | Providence | Narragansett Bay | Passenger | n.a. | n.a. | n.a. | Year-round | |
| Point Judith (RI) - Block Island, Old Harbor (RI) | Providence | Block Island Sound | Passenger | n.a. | n.a. | n.a. | Year-round | |
| Montauk (NY) - Vineyard Haven, Marthas Vineyard (MA) | Montauk | Rhode Island Sound; Vineya | RoRo | 1999 | 40 | n.a. | 8/6/2000 | 8/8/2000 |
| Providence, Point Street Landing (RI) - Newport, Perrotti Park (RI) | Providence | Narragansett Bay | RoRo | 2000 | 28,500 | n.a. | Year-round | |
| Providence, Point Street Landing (RI) - Portsmouth, Mount Hope Maritime Terminal (RI) | Providence | Narragansett Bay | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Portsmouth, Mount Hope Maritime Terminal (RI) - Newport, Perrotti Park (RI) | Providence | Narragansett Bay | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Connecticut | | | | | | | | |
| New London, Ferry Street (CT) - Block Island, Old Harbor (RI) | New London | Block Island Sound | Passenger | n.a. | n.a. | n.a. | 6/10/2000 | 9/10/2000 |
| New London, State Street (CT) - Fishers Island (NY) | Hartford | Fishers Island Sound | Passenger | 1999 | 164,000 | 47,000 | Year-round | |
| New London, Ferry Street (CT) - Glen Cove (NY) | New York | Long Island Sound | RoRo | n.a. | n.a. | n.a. | Year-round | |
| New London, Ferry Street (CT) - Orient Point (NY) (conventional RoRo service) | Southold | Long Island Sound | Passenger | 1999 | 919,183 | 379,885 | Year-round | |
| New London, Ferry Street (CT) - Orient Point (NY) (high speed service) | Southold | Long Island Sound | RoRo | 1999 | 215,000 | n.a. | 3/31/2000 | 11/26/2000 |
| New York | | | | | | | | |
| Atlantic Highlands (NJ) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | New York Bay | RoRo | 1999 | 156,000 | n.a. | Year-round | |
| Bay Shore (NY) - Atlantique, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 49,032 | n.a. | 5/20/2000 | 9/6/2000 |
| Bay Shore (NY) - Dunewood, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 65,376 | n.a. | 3/31/2000 | 10/25/2000 |
| Bay Shore (NY) - Fair Harbor, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 89,892 | n.a. | 3/1/2000 | 12/25/2000 |
| Bay Shore (NY) - Kismet, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 89,892 | n.a. | 4/1/2000 | 11/1/1931 |
| Bay Shore (NY) - Ocean Bay Park, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 114,409 | n.a. | 3/1/2000 | 11/1/1931 |
| Bay Shore (NY) - Ocean Beach, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 167,097 | n.a. | Year-round | |
| Bay Shore (NY) - Point O'Woods, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 15,600 | n.a. | 4/15/2000 | 11/1/2000 |
| Bay Shore (NY) - Saltaire, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 101,720 | n.a. | Year-round | |
| Bay Shore (NY) - Seaview, Fire Island (NY) | Islip | Great South Bay | RoRo | 1999 | 122,581 | n.a. | 3/1/2000 | 10/31/2000 |
| Bemus Point (NY) - Stow (NY) | Buffalo | Lake Chautauqua | Passenger | 1999 | 2,880 | 2,400 | 5/31/2000 | 9/4/1931 |
| Patchogue, Davis Park Ferry Terminal (NY) - Davis Park, Fire Island (NY) | New York | Great South Bay | RoRo | n.a. | n.a. | n.a. | 3/15/2000 | 12/1/2000 |
| Patchogue, NPS Ferry Terminal (NY) - Watch Hill, Fire Island (NY) | New York | Great South Bay | RoRo | 1999 | 25,815 | n.a. | 5/15/2000 | 10/15/2000 |
| E 34th Street Ferry Terminal (NY) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | East River | RoRo | n.a. | n.a. | n.a. | Year-round | |
| La Guardia Airport, Queens (NY) - E 34th Street Ferry Terminal, Manhattan (NY) | New York | East River | RoRo | 1999 | 56,126 | n.a. | Year-round | |

| Sate and Route | Metro Area | Waterbody Crossed | Type | Data Year | Passengers | Vehicles | Season Start | Season End |
|---|---|---|---|---|---|---|---|---|
| Liberty State Park, Liberty Landing Marina (NJ) - Statue of Liberty (NY) | New York | New York Harbor | RoRo | 1999 | 1,120,108 | n.a. | Year-round | |
| Lincoln Harbor, Weehawken (NJ) - W 38th Street Ferry Terminal, Manhattan (NY) | New York | Hudson River | RoRo | 1999 | 631,677 | n.a. | Year-round | |
| Montauk (NY) - Block Island, New Harbor (RI) | Montauk | Block Island Sound | RoRo | 1999 | 15,000 | n.a. | 4/15/2000 | 10/12/2000 |
| Montauk (NY) - New London, Ferry Street (CT) | Montauk | Block Island Sound | RoRo | n.a. | n.a. | n.a. | 5/26/2000 | 9/4/2000 |
| North Haven (NY) - Shelter Island (NY) | New York | Shelter Island Sound | Passenger | 1999 | 1,015,047 | 602,994 | Year-round | |
| Sayville, Long Island (NY) - Barrett Beach, Fire Island (NY) | New York | Great South Bay | RoRo | 1999 | 340 | n.a. | 7/1/2000 | 9/6/2000 |
| Sayville, Long Island (NY) - Cherry Grove, Fire Island (NY) | New York | Great South Bay | RoRo | 1999 | 180,000 | n.a. | Year-round | |
| Sayville, Long Island (NY) - Fire Island Pines, Fire Island (NY) | New York | Great South Bay | RoRo | 1999 | 210,000 | n.a. | Year-round | |
| Sayville, Long Island (NY) - Sailors Haven, Sunken Forest (NY) | New York | Great South Bay | RoRo | 1999 | 60,500 | n.a. | 5/12/2000 | 10/31/2000 |
| Sayville, Long Island (NY) - Water Island, Fire Island (NY) | New York | Great South Bay | RoRo | 1999 | 3,000 | n.a. | 5/12/2000 | 10/12/2000 |
| Saint George, Staten Island (NY) - South Ferry, Whitehall Ferry Terminal (NY) | New York | New York Harbor | Passenger | 1999 | 19,270,397 | 367,594 | Year-round | |
| Highlands (NJ) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | New York Bay | RoRo | 1999 | 105,000 | n.a. | Year-round | |
| Wall Street Ferry Terminal, Pier 11 (NY) - E 34th Street Ferry Terminal (NY) | New York | New York Harbor | RoRo | 1999 | 91,000 | n.a. | Year-round | |
| Greenville Piers, Jersey City (NJ) - Atlantic Basin (Redhook), Brooklyn (NY) | New York | Upper New York Bay | Rail | 1999 | n.a. | 1,000 | Year-round | |
| Bridgeport (CT) - Port Jefferson (NY) | New York | Long Island Sound | Passenger | 1999 | 800,000 | 345,000 | Year-round | |
| Hoboken, Hoboken Rail Terminal (NJ) - World Financial Center, Battery Park City, Manhattan (NY) | New York | Hudson River | RoRo | 1999 | 2,352,317 | n.a. | Year-round | |
| Hunters Point, Queens (NY) - E 34th Street Ferry Terminal, Manhattan (NY) | New York | East River | RoRo | 1999 | 70,601 | n.a. | Year-round | |
| Brooklyn Army Terminal, Brooklyn (NY) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | New York Harbor | RoRo | 1999 | 50,000 | n.a. | Year-round | |
| Haverstraw (NY) - Ossining (NY) | New York | Hudson River | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Statue of Liberty (NY) - Ellis Island (NY) | New York | New York Harbor | RoRo | 1999 | 3,543,907 | n.a. | Year-round | |
| Ellis Island (NY) - World Financial Center, Battery Park City (NY) | New York | New York Harbor | RoRo | 1999 | 1,447,629 | n.a. | Year-round | |
| Ellis Island (NY) - Liberty State Park, Liberty Landing Marina (NJ) | New York | New York Harbor | RoRo | 1999 | 436,741 | n.a. | Year-round | |
| Greenport, Long Island (NY) - Shelter Island Heights, Long Island (NY) | New York | Shelter Island Sound | Passenger | 1999 | 1,153,669 | 615,816 | Year-round | |
| Harborside, Exchange Place (NJ) - World Financial Center, Battery Park City (NY) | New York | Hudson River | RoRo | 1999 | 242,360 | n.a. | Year-round | |
| Colgate Palmolive, Exchange Place (NJ) - World Financial Center, Battery Park City (NY) | New York | Hudson River | RoRo | 1999 | 621,895 | n.a. | Year-round | |
| Highlands (NJ) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | New York Bay | RoRo | 1999 | 160,000 | n.a. | Year-round | |
| Port Imperial, Weehawken (NJ) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | Hudson River | RoRo | 1999 | 120,730 | n.a. | Year-round | |
| Port Imperial, Weehawken (NJ) - W 38th Street Ferry Terminal (NY) | New York | Hudson River | RoRo | 1999 | 2,955,129 | n.a. | Year-round | |
| Port Liberte, Jersey City (NJ) - Wall Street Ferry Terminal, Pier 11 (NY) | New York | Hudson River | RoRo | 1999 | 160,584 | n.a. | Year-round | |
| Greenville Piers, Jersey City (NJ) - Bush Terminal, Brooklyn (NY) | New York | Upper New York Bay | Rail | 1999 | n.a. | 4,000 | Year-round | |
| World Financial Center, Battery Park City (NY) - Statue of Liberty (NY) | New York | New York Harbor | RoRo | 1999 | 4,308,169 | n.a. | Year-round | |
| Pennsylvania | | | | | | | | |
| Penns Landing, Philadelphia (PA) - Camden (NJ) | Philadelphia | Delaware River | RoRo | 1999 | 300,000 | n.a. | 4/1/2000 | 12/31/2000 |
| Delaware | | | | | | | | |
| Woodland, County Road 79 (DE) - Bethel, State Route 78 (DE) | Salisbury | Nanticoke River | Passenger | 1999 | 100,710 | 83,925 | Year-round | |
| Delaware City (DE) - Fort Delaware, Pea Patch Island (DE) | Philadelphia | Delaware River | RoRo | 1999 | 20,000 | n.a. | 4/20/2000 | 10/31/2000 |
| Fort Mott (NJ) - Fort Delaware, Pea Patch Island (DE) | Philadelphia | Delaware River | RoRo | 1999 | 7,500 | n.a. | 4/20/2000 | 10/31/2000 |
| Lewes (DE) - Cape May (NJ) | Atlantic City | Delaware Bay | Passenger | 1999 | 1,258,799 | 394,235 | Year-round | |
| Maryland | | | | | | | | |
| Crisfield (MD) - Ewell, Smith Island (MD) | Salisbury | Chesapeake Bay | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Crisfield (MD) - Ewell, Smith Island (MD) | Salisbury | Chesapeake Bay | RoRo | 1999 | 6,549 | n.a. | 5/27/2000 | 10/15/2000 |
| Crisfield (MD) - Ewell, Smith Island (MD) | Salisbury | Tangier Sound | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Oxford (MD) - Bellevue (MD) | Baltimore | Tred Avon River | Passenger | n.a. | n.a. | n.a. | 3/1/2000 | 11/30/2000 |
| Allen (MD) - Catchpenny (MD) | Salisbury | Wicomico River | Passenger | 1998 | 139,245 | 116,038 | Year-round | |
| Whitehaven, State Route 352 (MD) - Widgeon, State Route 362 (MD) | Salisbury | Wicomico River | Passenger | 1998 | 94,910 | 79,092 | Year-round | |
| Point Lookout State Park (MD) - Ewell, Smith Island (MD) | Washington | Chesapeake Bay | RoRo | 1999 | 8,950 | n.a. | 6/15/2000 | 9/15/2000 |
| Virginia | | | | | | | | |

| Sate and Route | Metro Area | Waterbody Crossed | Type | Data Year | Passengers | Vehicles | Season Start | Season End |
|---|---|---|---|---|---|---|---|---|
| Portside, Portsmouth (VA) - High Street Landing, Portsmouth (VA) | Norfolk | Elizabeth River | RoRo | 1999 | 98,210 | n.a. | Year-round | |
| Waterside, Norfolk (VA) - High Street Landing, Portsmouth (VA) | Norfolk | Elizabeth River | RoRo | 1999 | 194,626 | n.a. | Year-round | |
| Waterside, Norfolk (VA) - Portside, Portsmouth (VA) | Norfolk | Elizabeth River | RoRo | 1999 | 123,660 | n.a. | Year-round | |
| Hatton, Route 625 (south bank) (VA) - Hatton, Route 625 (north bank) (VA) | Charlottesville | James River | Passenger | 1999 | 2,730 | 1,092 | 4/15/2000 | 10/15/2000 |
| Scotland, Scotland Wharf (VA) - Jamestown, Jamestown Wharf (VA) | Norfolk | James River | Passenger | 1999 | 2,100,000 | 880,485 | Year-round | |
| Portside, Portsmouth (VA) - Harbor Park, Norfolk (VA) | Norfolk | Elizabeth River | RoRo | 1999 | 5,957 | n.a. | Year-round | |
| Reedville (VA) - Ewell, Smith Island (MD) | Richmond | Chesapeake Bay | RoRo | n.a. | n.a. | n.a. | 5/1/2000 | 10/15/2000 |
| Reedville (VA) - Tangier (VA) | Richmond | Chesapeake Bay | RoRo | 1999 | 15,000 | n.a. | 5/1/2000 | 10/15/2000 |
| Cape Charles (VA) - Little Creek (VA) | Hampton | Chesapeake Bay | Rail | 1999 | n.a. | 4,400 | Year-round | |
| Crisfield (MD) - Tangier (VA) | Salisbury | Chesapeake Bay | RoRo | n.a. | n.a. | n.a. | 5/15/2000 | 10/31/2000 |
| Sunnybank, State Route 644 (VA) - Kayan, State Route 644 (VA) | Richmond | Little Wicomico River | Passenger | 1999 | 18,189 | 8,855 | Year-round | |
| Hampton, Public Pier (VA) - Norfolk, on Waterside Dr. (VA) | Norfolk | Hampton Roads | RoRo | 1999 | 60,000 | n.a. | Year-round | |
| North Carolina | | | | | | | | |
| Elwell (NC) - Carvers Creek (NC) | Wilmington | Cape Fear River | Passenger | 1999 | 25,544 | 14,099 | Year-round | |
| Cedar Island (NC) - Ocracoke (NC) | Greenville | Pamlico Sound | Passenger | 1999 | 242,397 | 95,470 | Year-round | |
| Cherry Branch (NC) - Minnesott Beach (NC) | Greenville | Neuse River | Passenger | 1999 | 478,395 | 290,058 | Year-round | |
| Como, State Route 1306 (NC) - Winton, State Route 1175 (NC) | Norfolk | Meherrin River | Passenger | 1999 | 3,903 | 6,997 | Year-round | |
| Hatteras (NC) - Ocracoke (NC) | Washington DC | Hatteras Inlet | Passenger | 1999 | 925,806 | 358,962 | Year-round | |
| Ocracoke (NC) - Swan Quarter (NC) | Greenville | Pamlico Sound | Passenger | 1999 | 49,712 | 23,721 | Year-round | |
| Sans Souci (NC) - Woodard (NC) | Greenville | Cashie River | Passenger | 1999 | 5,110 | 3,667 | Year-round | |
| Southport (NC) - Fort Fisher (NC) | Wilmington | Cape Fear River | Passenger | 1999 | 426,642 | 149,533 | Year-round | |
| Atlantic (NC) - Core Banks, Cape Lookout Natl. Seashore (NC) | Morehead City | Core Sound | Passenger | n.a. | n.a. | n.a. | 3/13/2000 | 12/17/2000 |
| Davis (NC) - Core Banks, Cape Lookout Natl. Seashore (NC) | Morehead City | Core Sound | Passenger | n.a. | n.a. | n.a. | 3/1/2000 | 12/31/2000 |
| Harkers Island (NC) - Cape Lookout (NC) | Morehead City | Back Sound | RoRo | 1999 | 3,461 | n.a. | 4/1/2000 | 12/1/2000 |
| Atlantic (NC) - Portsmouth Village, Portsmouth Island (NC) | Morehead City | Core Sound | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Southport (NC) - Bald Head Island (NC) | Wilmington | Cape Fear River | Passenger | n.a. | n.a. | n.a. | Year-round | |
| Aurora (NC) - Bayview (NC) | Greenville | Pamlico River | Passenger | 1999 | 135,397 | 73,243 | Year-round | |
| Southport, Indigo Plantation (NC) - Bald Head Island (NC) | Wilmington | Cape Fear River | RoRo | 1999 | 233,158 | n.a. | Year-round | |
| Currituck (NC) - Knotts Island (NC) | Norfolk | Currituck Sound | Passenger | 1999 | 82,931 | 24,043 | Year-round | |
| South Carolina | | | | | | | | |
| Hilton Head Island, Opossum Point Landing (SC) - Daufuskie Island, Haig Point (SC) | Savannah | Atlantic Intracoastal Waterwa | RoRo | 1999 | 150,500 | n.a. | Year-round | |
| Hilton Head Island, Broad Creek Marina (SC) - Daufuskie Island, Cooper River Landing (SC) | Savannah | Atlantic Intracoastal Waterwa | RoRo | 1999 | 10,664 | n.a. | Year-round | |
| Jenkins Island, Hilton Head (SC) - Daufuskie Island, Cooper River Landing (SC) | Savannah | Atlantic Intracoastal Waterwa | RoRo | 1999 | 4,578 | n.a. | Year-round | |
| Hilton Head Island, Harbortown (SC) - Daufuskie Island, Cooper River Landing (SC) | Savannah | Calibogue Sound | RoRo | 1999 | 31,040 | n.a. | Year-round | |
| South Island (SC) - Georgetown, State Highway S-22-18 (SC) | Charleston | Atlantic Intracoastal Waterwa | Passenger | 1999 | 9,160 | 7,300 | Year-round | |
| Hilton Head Island, Salty Fare Village (SC) - Daufuskie Island, Cooper River Landing (SC) | Savannah | Atlantic Intracoastal Waterwa | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Georgia | | | | | | | | |
| St. Marys (GA) - Plum Orchard, Cumberland Island (GA) | Jacksonville | Atlantic Intracoastal Waterwa | RoRo | 1999 | 300 | n.a. | Year-round | |
| St. Marys (GA) - Cumberland Island (GA) | Jacksonville | Cumberland Sound | RoRo | 1999 | 44,644 | n.a. | Year-round | |
| Meridian (GA) - Sapelo Island, Natl. Estuarine Research Reserve (GA) | Savannah | Doboy Sound | RoRo | 1999 | 70,000 | n.a. | Year-round | |
| Hutchinson Island, Savannah Cove (GA) - Daufuskie Island, Cooper River Landing (SC) | Savannah | Savannah River and Atlantic | RoRo | 1999 | 15,616 | n.a. | Year-round | |
| Florida | | | | | | | | |
| De Land (FL) - Hontoon Island State Park (FL) | Orlando | Saint Johns River | RoRo | n.a. | n.a. | n.a. | Year-round | |
| Georgetown (FL) - Drayton Island (FL) | Jacksonville | Lake George | Passenger | n.a. | n.a. | n.a. | Year-round | |
| Mayport (FL) - Fort George Island (FL) | Jacksonville | St. Johns River | Passenger | 1999 | 374,785 | 374,785 | Year-round | |
| Welaka Landing, Fort Gates Ferry Rd. (FL) - Fort Gates, Salt Springs Road (FL) | Daytona Beach | St. Johns River | Passenger | n.a. | n.a. | n.a. | Year-round | |

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, National Ferry Database.

*Appendix D*

# PORT AREA SOCIOECONOMIC PROFILES

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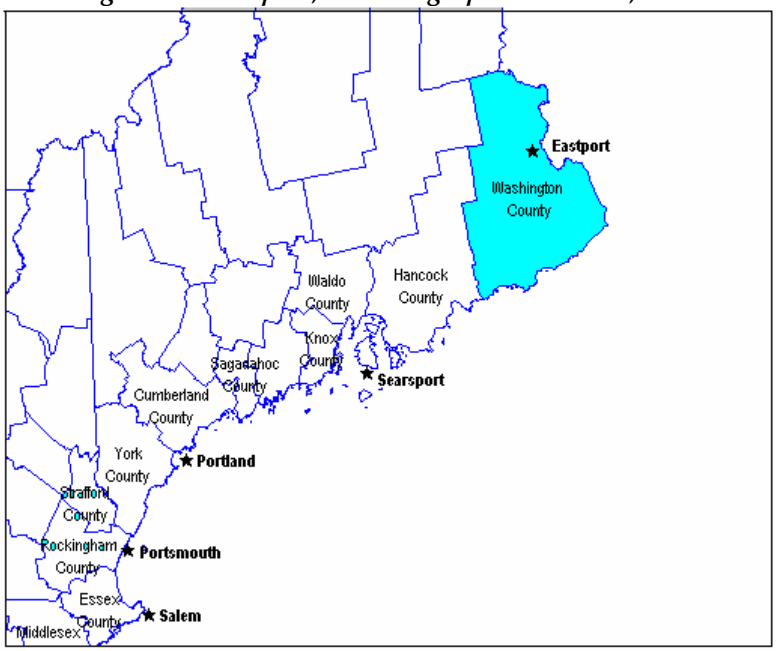
# 1. Eastport, ME

## Location and Background Information

The Port of Eastport is located in Washington County, Maine. It is the easternmost port in the United States and is nestled in a safe harbor behind Canada's Campobello Island. The waters of Passamaquoddy Bay and Cobscook Bay converge in Eastport generating some of the highest tidal ranges in the United States. This massive flow keeps the local waters clean and productive as Eastport is home to one of the largest salmon aquaculture operations in the US. Eastport is also centrally located to many of the State's forest products industries.[1]

*Figure 1-1. Eastport, ME: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

Washington County, Maine has a total population of 33,941 according to the 2000 US Census. Of the total population, 17,365 are females; representing 51.2 percent of the total population and 16,576 are males, representing 48.8 percent of the total population. The median age for the population is 40.5 years: 39.7 for males and 41.2 for females. The majority of the population is located between the 40 – 49 age range bracket, both for males and females (Figure 1-2).

The majority of the population of this county is white (93.4 percent), followed by 'others' (include American Indians and Alaska Natives, Native Hawaiian and Pacific Islanders, other races and a combination of two or more races), which represent 5.8 percent of the total population. The Asian

[1] Maine Port Authority website. URL http://www.maineports.com/water_eastport.html

population represents 0.5 percent of the total population, closely followed by the Black or African American population (0.3 percent). (Figure 1-3). In terms of ethnic structure and makeup, only 0.9 percent of the total population is of Hispanic or Latino origin.[2]

***Figure 1-2. Eastport, ME: Structure of the Population by Age Group, 2000***

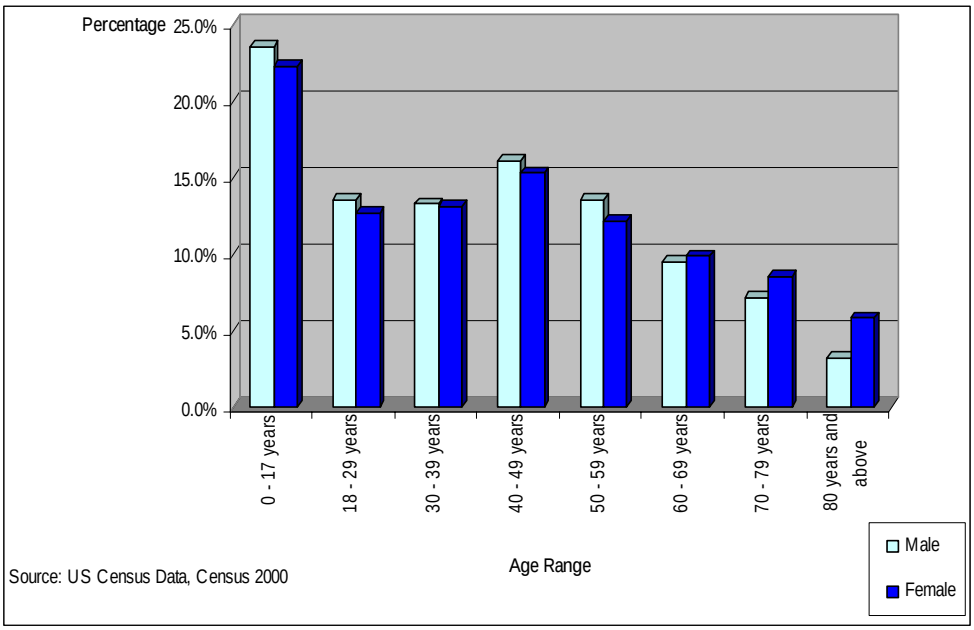
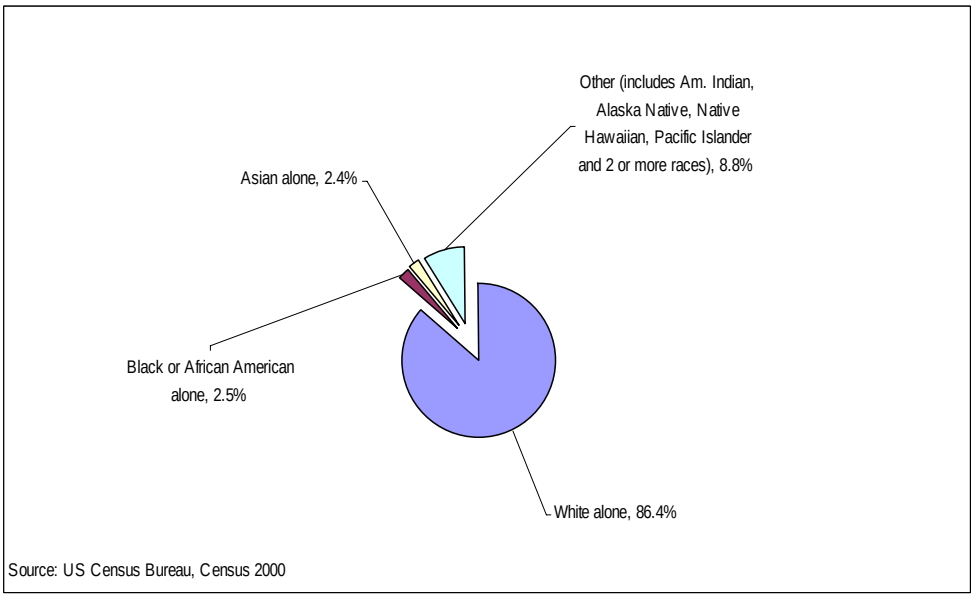


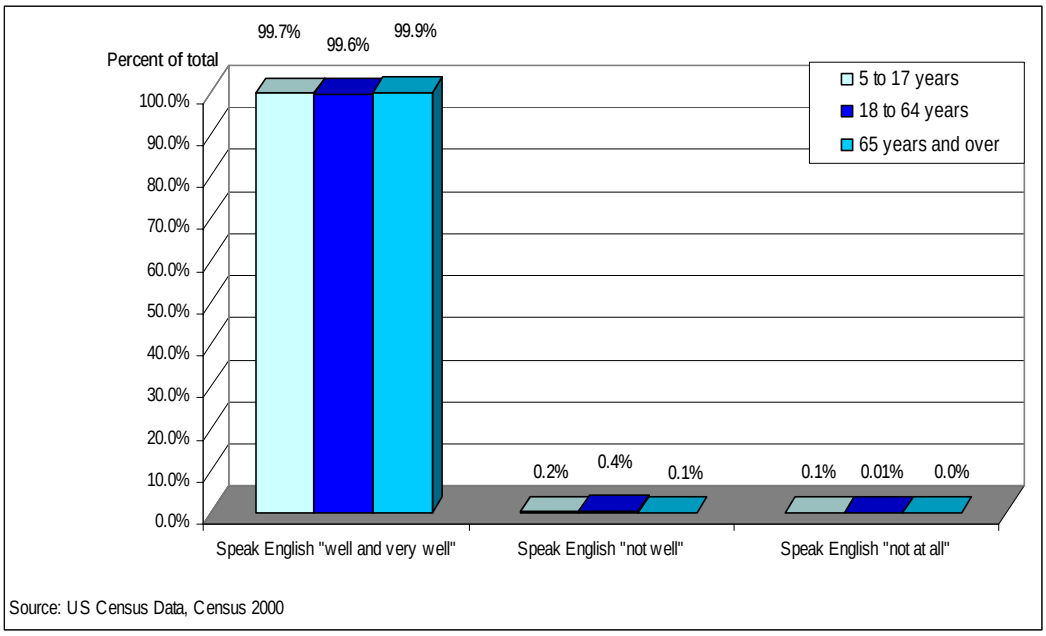

***Figure 1-3. Eastport, ME: Population by Race, 2000***




[2] US Census Data, Census 2000

It is evident from the data specified in Figure 1-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 1-4. Eastport, ME: Ability to Speak English by Age Group, 2000***

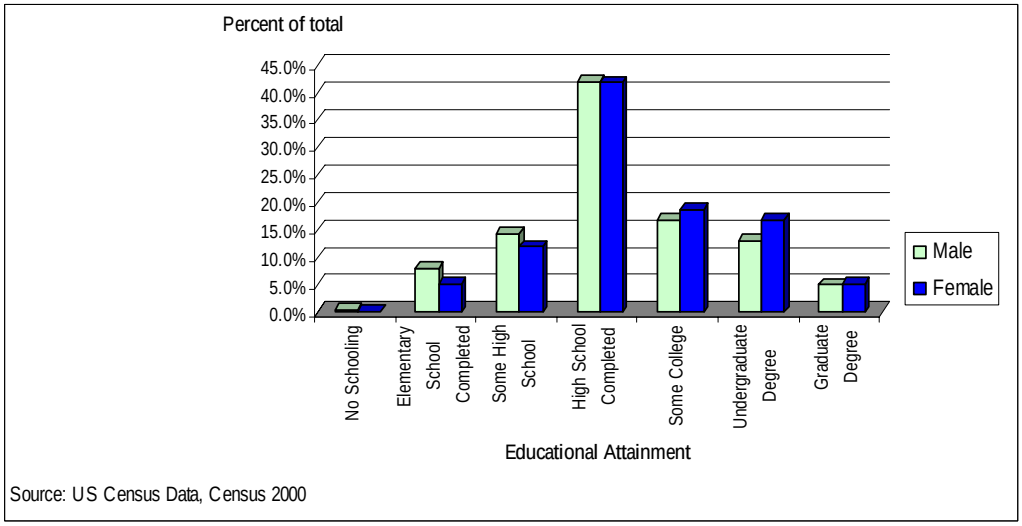



## EDUCATION

Almost half of the population of Washington County, ME has completed High School and 13.1 percent of males and 16.9 percent of females have obtained an undergraduate degree. It is interesting to observe that females' educational attainment is higher than male's post high school. (Figure 1-5).

There are only two 4-year colleges in the county of Washington in Maine: Washington County Community College and the University of Maine - Machias.

***Figure 1-5. Eastport, ME: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



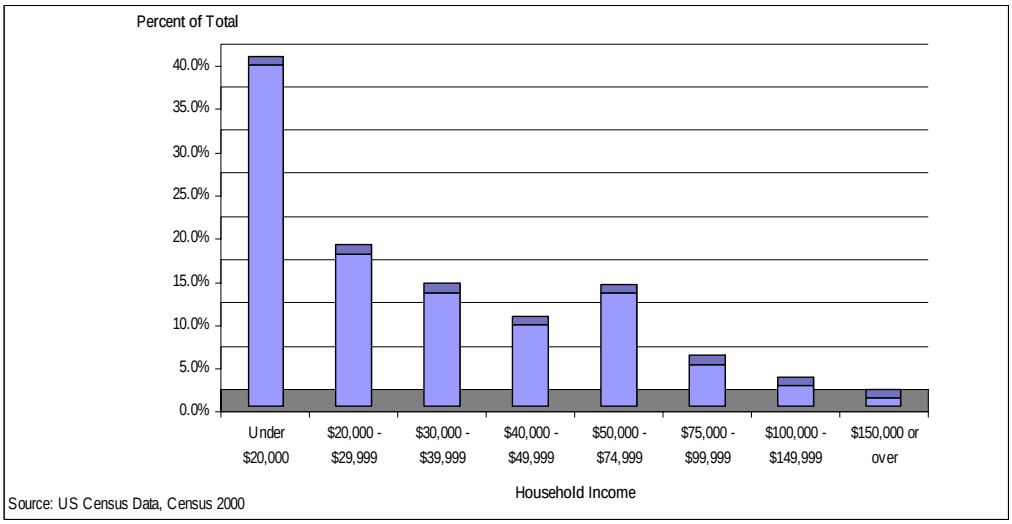
# Socio-Economic Characteristics

## INCOME

Over 40 percent of households in Washington County, ME have an income level under $20,000. About 17.5 percent of households fall under the income bracket of $20,000 - $29,999. Nearly 15 percent of all households have incomes between $30,000 and $39,999 and an equal percentage have an income between $50,000 and $74,999. (Figure 1-6).

Household median income in this county as of 1999, according to the 2000 US Census, was $25,869.00. The per capita income for 1999, according to the 2000 US Census, was $14,119.00. The percentage of people under the poverty line in the region was 19 in the year 2000. Average household size in Washington County is 2.34.[3]

***Figure 1-6. Eastport, ME: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As is evident from Figure 1-7, most females in Washington County, Maine are employed in the education, health and social services industry (42.5 percent), followed their employment in 'other' industries, which include the arts, entertainment, recreation, food services, public administration and information (20.4 percent). For males, the distribution of employment among industries fluctuates less. The highest participation is distributed amongst three industry categories: agriculture, forestry, fishing, hunting and mining (19 percent); manufacturing (18 percent); and 'other' (16 percent).

An estimated 9.3 percent of males and 7.5 percent of females are unemployed in Washington County, Maine. [4]

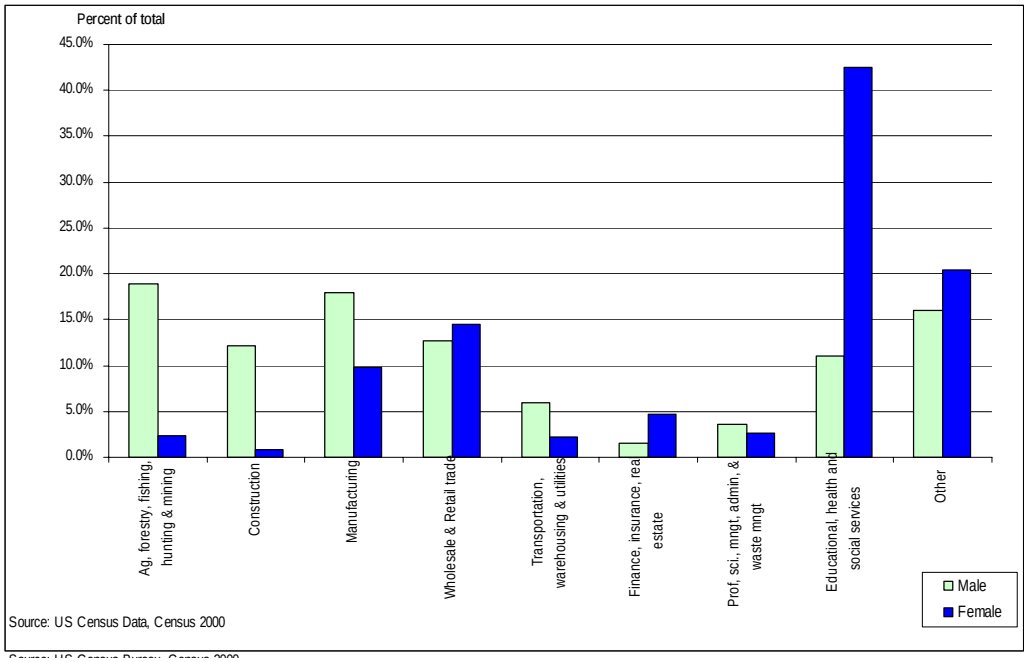
As can be observed in Figure 1-7, an estimated 14.9 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 24 percent of males and 9.9 percent of females are employed in production, transportation and material moving occupations. The

[3] US Census Data, Census 2000

[4] US Census Data, Census 2000

aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.8 percent of men's occupations and 0.3 percent of female's occupations.

***Figure 1-7. Eastport, ME: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000***




## MARITIME INFORMATION

The Eastport Breakwater Terminal has berthing for a vessel of up to 700 ft. An equipment maintenance shop, the Eastport Port Authority office, US Customs, and Coast Station Eastport are located just off the pier. The downtown Fish Pier berths the Port's two tugboats, Ahoskie and Pleon, on the North side, and has slips for transient boats on the South side. Approach depths to the Breakwater are over 100 feet and the mean low water depth is 42 feet. The Breakwater is also used by the aquaculture industry, commercial fishermen, and recreational boaters and fishermen.

Located at the downtown area of Eastport, the Breakwater offers cruise ships a direct docking within close proximity to all of Eastport's offerings. Estes Head Cargo Terminal can accommodate a ship of 900 feet in Berth A and one up to 550 feet in Berth B. Berth B is also an excellent berth for barges. EHCT's 43 acre site has several open storage areas, three 20,000 square foot, drive-thru warehouses, and one 43,000 square foot warehouse. The operations are easily supervised from the Federal Marine Terminals' office located just above the Estes Head pier. Approach depths to this pier are also well in excess of 100 feet and the mean low water depth is 64 feet. [5]

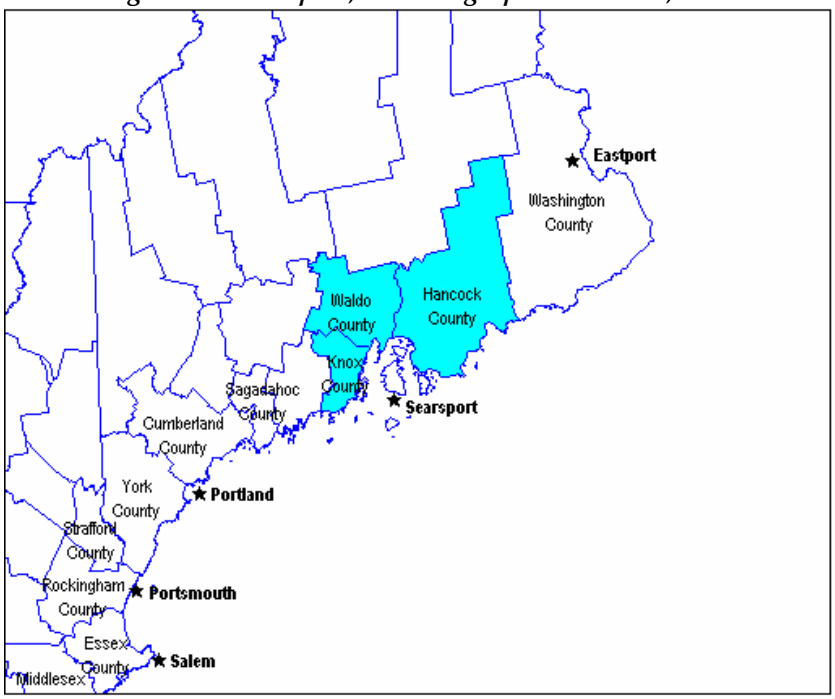
[5] http://www.portofeastport.org/facilities.html

# 2. Searsport, ME

## Location and Background Information

Searsport is part of Knox County, Hancock County and Waldo County, Maine. The Port of Searsport is located at the heart of Penobscot Bay. The port has recently undergone a major reconstruction effort to effectively serve the needs of shippers moving product both into and out of Maine, and through the onsite rail yard of the Montreal, Maine & Atlantic Railway, to provide service to the heartlands of both the US and Canada.[1]

*Figure 2-1. Searsport, ME: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of Knox, Hancock and Waldo counties, Maine is 127,689, according to the 2000 US Census. Of the total population, 17,825 are males (49.1 percent) and 18,455 are females (50.9 percent). The median age for the population is 39.3 years: 38.5 for males and 39.3 for females. It is evident from Figure 2-2 that over 15 percent of the population in this port area falls within the 40 – 49 years age bracket and about 25 percent of males and nearly the same percent of females are between the ages of 0 and 17 years.

[1] Maine Port Authority: http://www.maineports.com/water_searsport.html

As can be observed in Figure 2-3, the majority of the population in the region is white (97.8 percent), followed by 'others' (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), which represent 1.7 percent of the total population. The Asian population represents 0.3 percent of the total population, closely followed by the Black or African American population (0.2 percent). Moreover, in terms of ethnic structure, only 0.6 percent of the total population is considered to be of Hispanic or Latino origin.[2]

***Figure 2-2. Searsport, ME: Structure of the Population by Age Group, 2000***

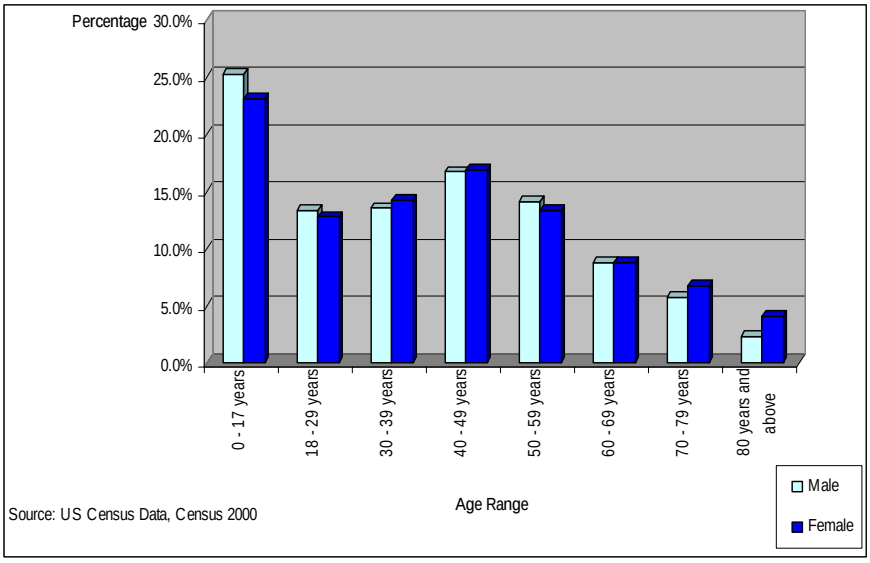
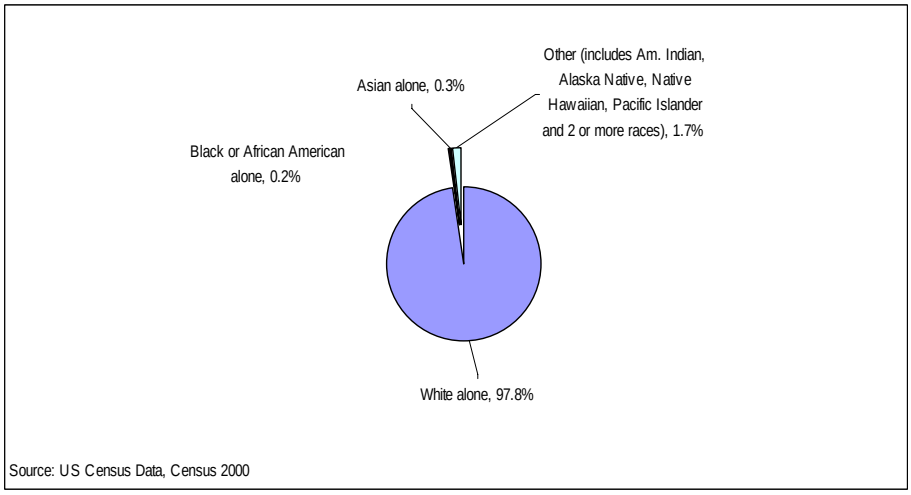


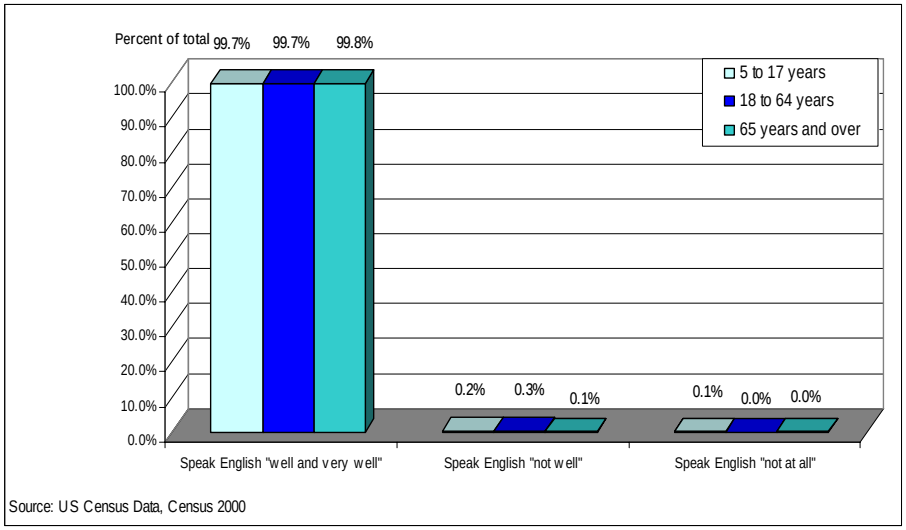

***Figure 2-3. Searsport, ME: Population by Race, 2000***




[2] US Census Data, Census 2000

It is evident from the data specified in Figure 2-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 2-4. Searsport, ME: Ability to Speak English by Age Group, 2000***

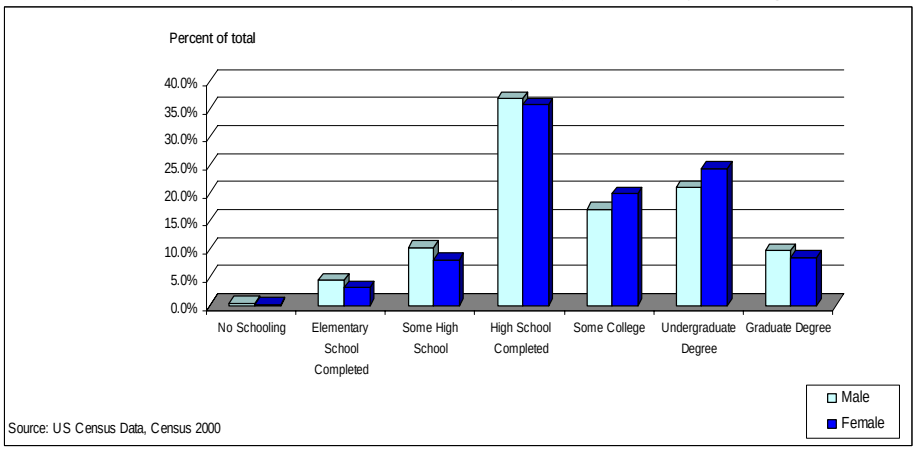



## EDUCATION

About 35 percent of males and females, ages 25 and over, have completed high school. Around 20 percent of males and 24 percent of females have obtained an undergraduate degree (Figure 2-5).

The three main colleges in the area are: College of the Atlantic, Maine Maritime Academy in Hancock County and Unity College in Waldo County. [3]

***Figure 2-5. Searsport, ME: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[3] Searsport Community Profile: http://www.epodunk.com/

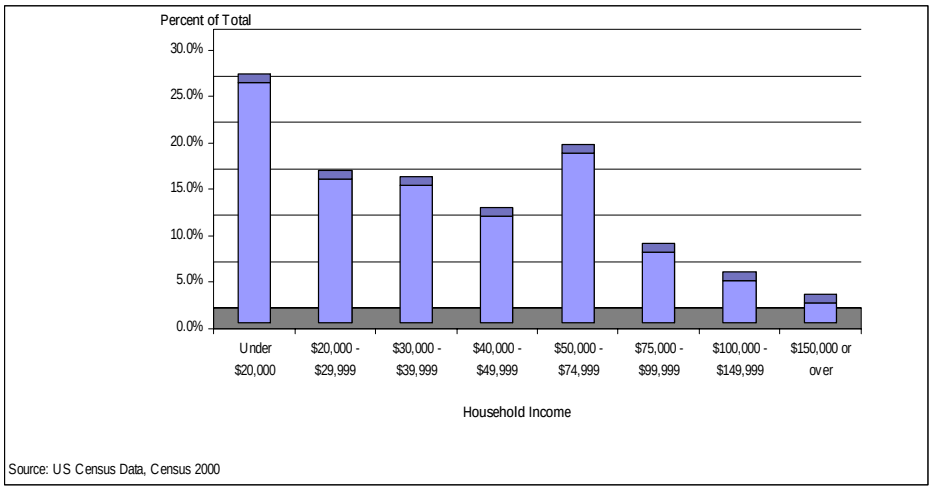
# Socio-Economic Characteristics

## INCOME

Household median income in the region in 1999 was $35,606.50 and per capita income was $19,188.70. The percentage of people under the poverty line in the region was 11.3 in the year 2000. The average household size in the area in 2000 was 2.43.[4]

About 27 percent of households in the region in 1999 had incomes of under $20,000 and approximately 20 percent of households had incomes between $50,000 and $74,999 (Figure 2-6).

***Figure 2-6. Searsport, ME: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As is portrayed by Figure 2-7, around 34 percent of working females are employed in the education, health and social services industry, followed by their employment in 'other industries', such as arts, entertainment, recreation, food services, public administration and information (about 23 percent). Most males are employed in 'other industries' (19 percent), followed by construction (about 16 percent) and wholesale and retail trade (16 percent).

An estimated 4.5 percent of males and 5.1 percent of females were unemployed in the area in the year 2000.[5]

According to the 2000 US Census, an estimated 6.7 percent of males and 0.8 percent of females are employed in farming, fishing and forestry occupations. About 18.9 percent of males and 7.8 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.9 percent of male's occupations and 0.1 percent of female's occupations.

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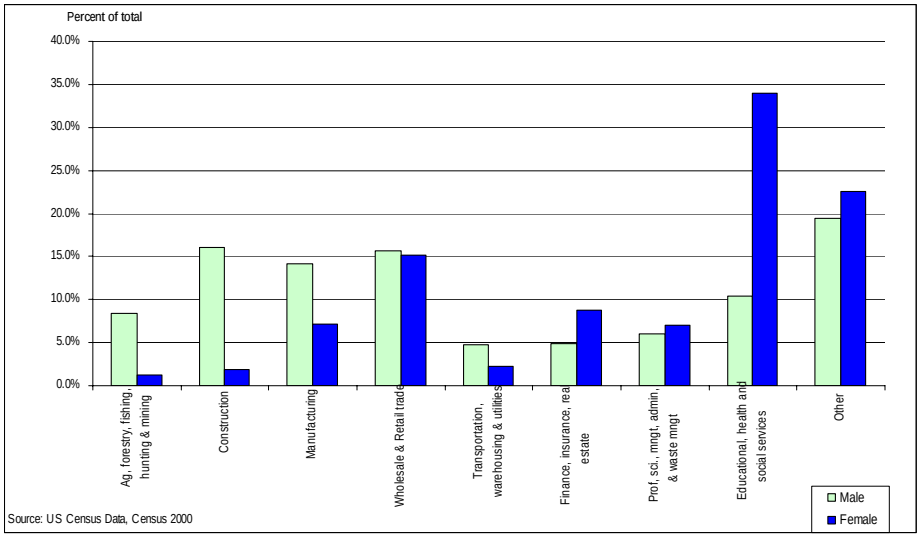
[4] US Census Data, Census 2000.

[5] US Census Data, Census 2000.

*Figure 2-7. Searsport, ME: Employed Civilian population by Sex and Industry 16 Years and Over, 2000*




# MARITIME INFORMATION

The Port of Searsport consists of the Sprague Energy Terminal on Mack Point. The facility is being redeveloped in partnership with the MDOT over the next 2 years. In the mid-1800s in Searsport, there were eight shipbuilding yards which built wooden vessels of exceptional quality. While residents built the ships, they sailed them as well. Searsport was home to one-tenth of the deep water captains in the American Merchant Marine, and produced more shipmasters per square mile than any town of its size in the world. Searsport's presence as a major seaport has been long and successful. The Sprague Energy Terminal at Mack Point in Searsport had a solid year in 2000 handling bulk and liquid cargoes. The cargo handled included items such as coal, road salt, gypsum, and coke. In 1999, the Port of Searsport also handled over 3 million barrels of liquid petroleum products.

The dry cargo pier has a working surface of 100′ x 560′ and a deck load capacity of 1,000 psf. It has two berths, both are 800 feet long. The liquid cargo pier has a multi purpose hose platform, with 2 berths, one that is 700 feet long and the other is 500 feet long. The port has 1.6 million barrel active tank capacity and truck and rail loading racks. It has truck and rail access and a 90,000 sq. ft. warehouse. Intermodal Truck to Rail Facility. It has over 6,500 feet of on-site rail siding interconnected with the Canadian Pacific for double stack service to the US Midwest, central Canada, and Vancouver. [6]

[6] Maine Department of Transportation website: http://www.state.me.us/mdot/freight/searsport.php

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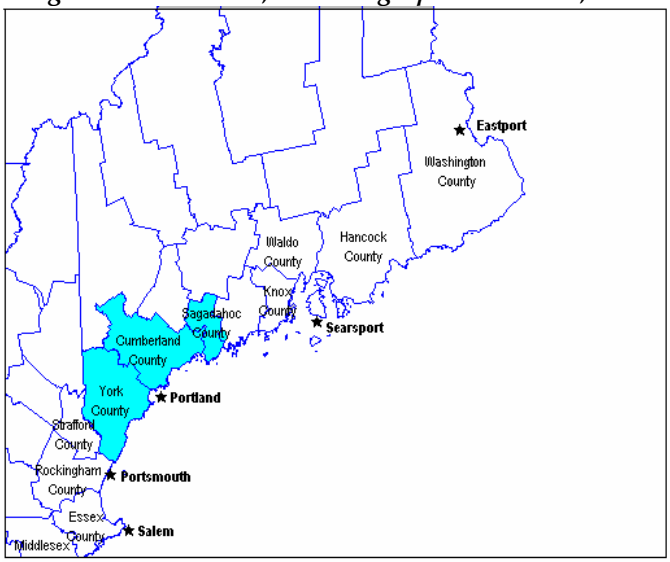
# 3. Portland, ME

## Location and Background Information

The port of Portland is located in the Portland-South Portland-Biddeford, Maine Metropolitan Statistical Area (MSA). Portland Harbor, at the western end of Casco Bay, is the most important port on the coast of Maine. The ice-free harbor offers secure anchorage to deep draft vessels in all weather. There is considerable domestic and foreign commerce in petroleum products, paper, wood pulp, scrap metal, coal, salt and containerized goods. It is also the Atlantic terminus pipeline for shipments of crude oil to Montreal and Ontario. In 1998, Portland became the largest port in the Northeast based on throughput tonnages. A rail system connects the Port to a national network that also reaches into Canada, one of the reasons shippers bypass the crowded and more costly port cities of southern New England and the Mid-Atlantic.[1]

*Figure 3-1. Portland, ME: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the Metropolitan Statistical area is 487,568 according to the 2000 US Census. Of the total population 236,585 are males or 48.5 percent of the population and 250,983 are females or 51.5 percent of the population. The median age for the population of the area is 38.0 years: 36.9 for males and 39.0 for females. Over 15 percent of the population is located between the 40 – 49 years age range brackets, in this case of both males and females and about 25 percent of males and about 23 percent of females are between the ages of 0 to 17 years (Figure 3-2).

[1] http://www.portofportlandmaine.org/navigation.html

As is evident from Figure 3-3, the majority of the population in the area is white (96.6 percent), followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), representing 1.7 percent of the total population. The Asian population represents 0.9 percent of the total population, closely followed by the Black and African American population (0.7 percent). Moreover, in terms of ethnic makeup, 0.9 percent of the total population is of Hispanic or Latino origin.[2]

***Figure 3-2. Portland, ME: Structure of the Population by Age Group, 2000***

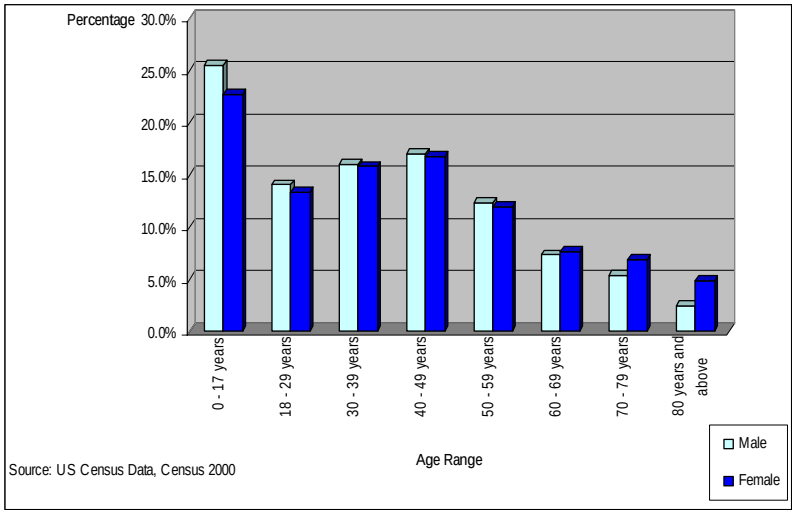
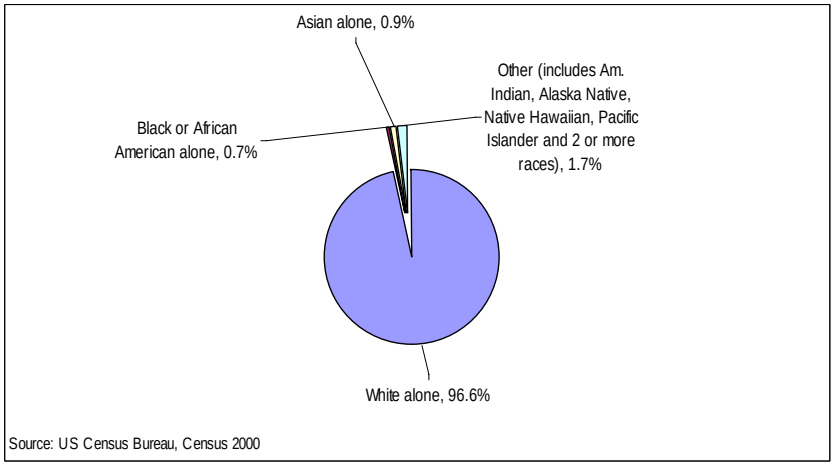


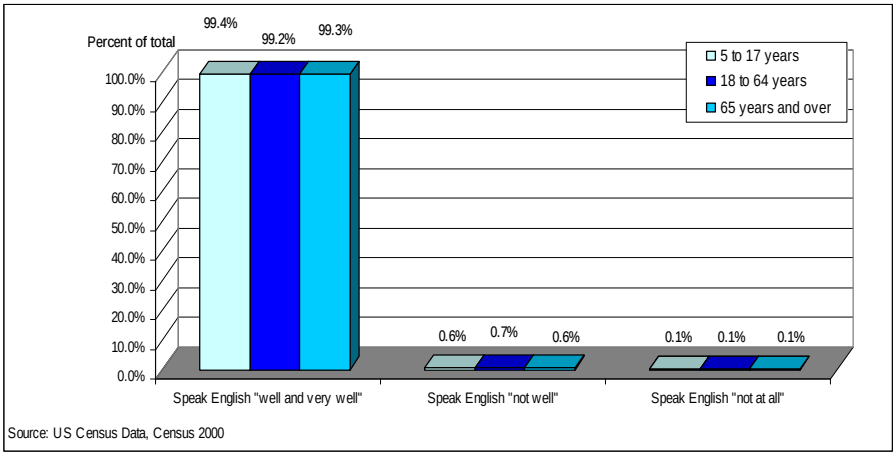

***Figure 3-3. Portland, ME: Population by Race, 2000***




[2] Source: US Census Data, Census 2000.

It is evident from the data specified in Figure 3-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 3-4. Portland, ME: Ability to Speak English by Age Group, 2000***

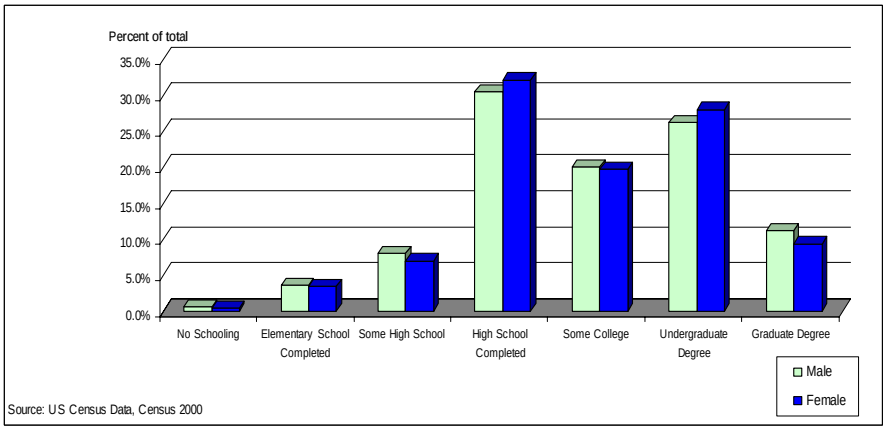



## EDUCATION

As portrayed by Figure 3-5, around 30 percent of males and females in this region have completed high school and approximately 25 percent of males and females have obtained an undergraduate degree. This percentage is followed by those who have only completed some college (about 18 – 19 percent).

Some of the colleges and universities in the area are: Bowdoin College, Maine College of Art, Saint Joseph's College and the University of Southern Maine in Cumberland County; and the University of New England and York County Community College in York County, Maine.[3]

***Figure 3-5. Portland, ME: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[3] Portland Community Profile: http://www.epodunk.com/cgi-bin/gayInfo.php?locIndex=2303

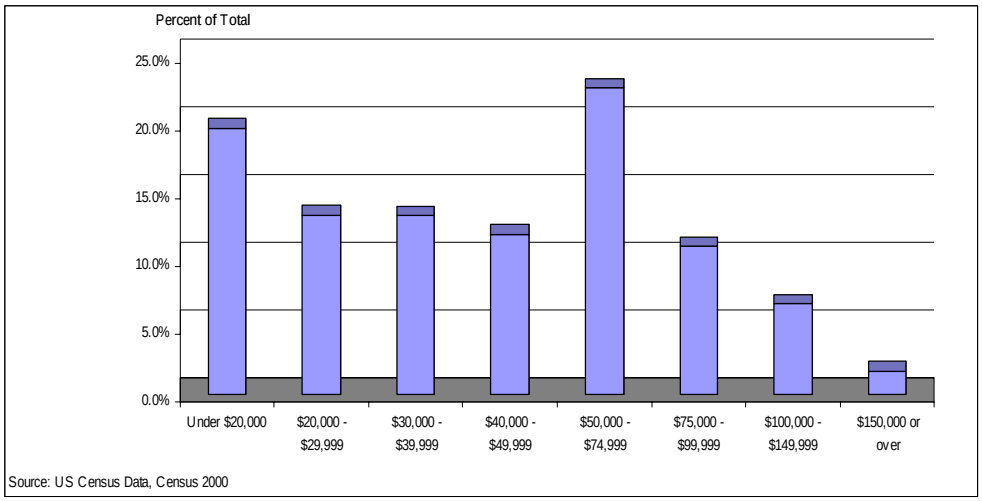
# Socio-Economic Characteristics

## INCOME

About 23 percent of households in this MSA have incomes within the $50,000 - $74,999 income bracket. This is followed by a rate of 20 percent of households that have incomes of under $20,000 (Figure 3-6).

Household median income in the region in 1999 was $43,735.62 and per capita income was $22,647.78. The percentage of people under the poverty line in the region was 8.0 in the year 2000. Average household size in the year 2000 was 2.42.[4]

***Figure 3-6. Portland, ME: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Around 35 percent of working females are employed in educational, health and social services occupations; followed by 20 percent of females, who are employed within the 'other' category. This category includes arts, recreation, entertainment, food services, public opinion and information occupations. Males' occupations are a bit more evenly distributed among industries, yet the majority of males are employed in manufacturing and wholesale and retail trade (around 19 percent), followed by 'other' which represents about 18 percent (Figure 3-7).

An estimated 3.6 percent of males and 3.5 percent of females were unemployed in 2000.[5]

According to the 2000 US Census, an estimated 1.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 19.7 percent of males and 6.7 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.7 percent of male's occupations and 0.1 percent of female's occupations.

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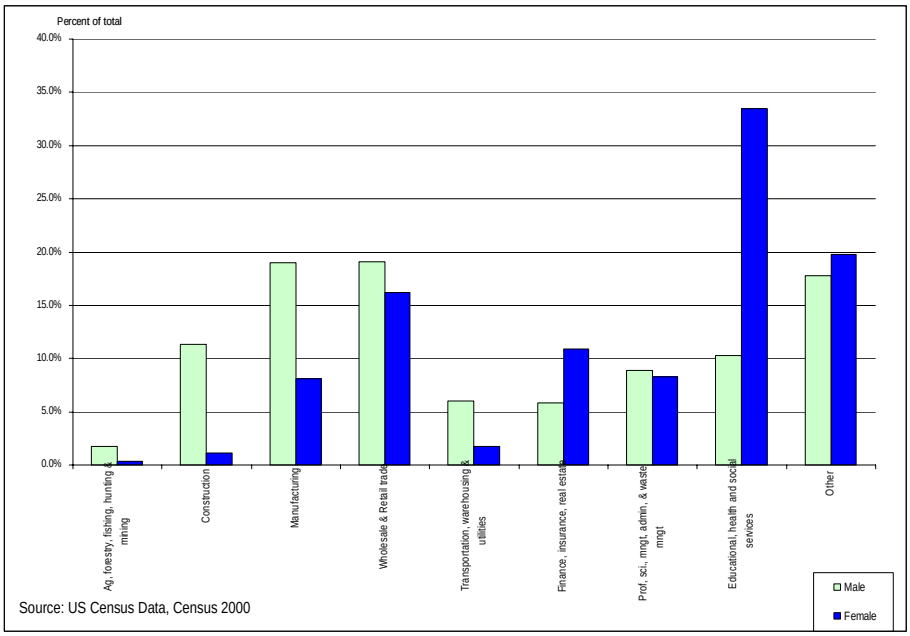
[4] US Census Data, Census 2000.

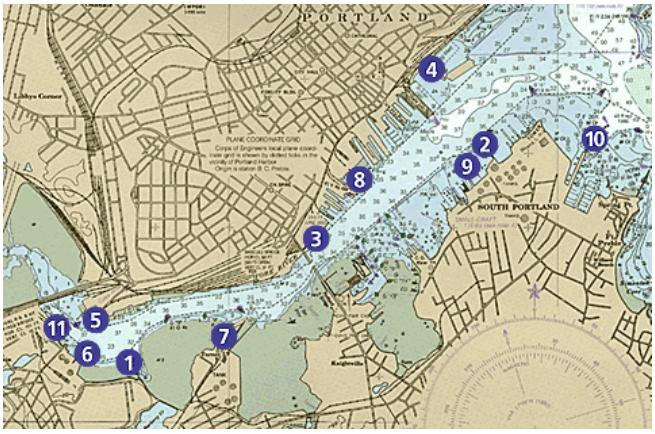
[5] US Census Data, Census 2000.

*Figure 3-7. Portland, ME: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

Terminal information at the Port of Portland:




1. Cargill Petroleum
2. Gulf Oil Terminal
3. International Marine Terminal
4 Maine State Pier (Portland Ocean Terminal, Casco Bay Lines)
5. Merrill Marine Terminal
6. Mobil Oil Terminal
7. Motiva Terminal
8. Portland Fish Pier
9 & 10. Portland Pipe Line Pier One (9) and Pier Two (10)
11. Sprague Energy Terminal

### PORTLAND FISH EXCHANGE

The Portland Fish Exchange is an all-display fresh fish and seafood auction operated in Portland, Maine. The Exchange offers a fair and open marketplace, bringing together Commercial Fishing Vessels (Sellers) with Wholesalers and Processors (Buyers). Fresh fish and seafood products are unloaded from fishing vessels daily and displayed for Buyers to make purchasing decisions. A daily auction is conducted at midday. Products purchased are destined for restaurants, markets, and processing plants within hours of vessel landings.

The Portland Fish Exchange is recognized throughout the Fish and Seafood Industry as a leader in innovation, quality, and integrity. Located on the waterfront in Portland, the Exchange offers ample pier and berthing space for boats. The 22,000-square-foot facility also offers numerous shipping bays for convenient loading and transport of products. Fish and Seafood can be landed at ports other than Portland and shipped via motor vehicle and/or aircraft to the auction facility for display and sale.

**PILOTAGE**

Pilots board 1.0 nautical mile north of the ELN Racon "PAPA" buoy at position 43-31.6 North and 70-05.5 West. Portland Pilots monitor VHF 16 and 11. Pilotage is compulsory for all foreign vessels and US vessels under register in the foreign trade drawing over nine feet. Pilotage is optional for coastwise or fishing vessels under enrollment or license that have onboard a pilot licensed by the Federal Government. The Pilot boats are black-hulled with a white superstructure with the word PILOT on both sides. One is 48 feet LOA and the other is 65 feet LOA. Vessels are requested to provide 48 and 24 hours notice of ETA and to update any appreciable changes. The pilots do not maintain the boat on station. Distance from the pilot station to the inner harbor is approximately 10 miles. [6]

[6] Source: http://www.portofportlandmaine.org/commercial_idx.html

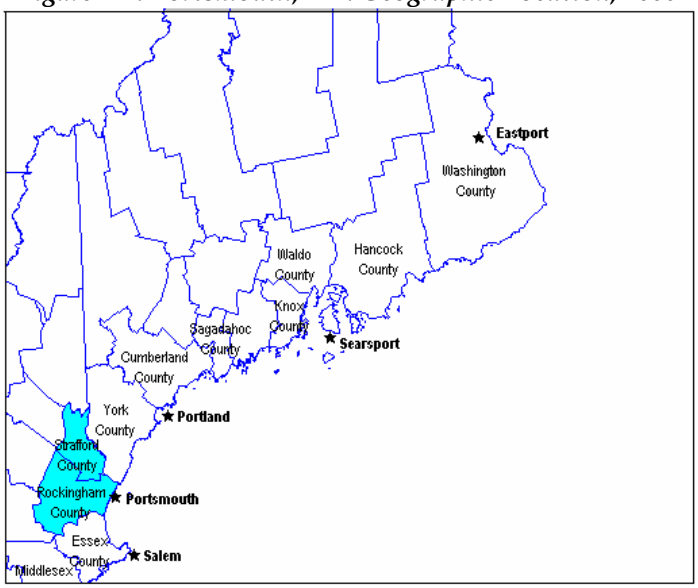
# 4. Portsmouth, NH

## Location and Background Information

The Port of Portsmouth, New Hampshire is part of the Rockingham County-Strafford County, New Hampshire Metropolitan Division of the Boston-Cambridge-Quincy, MA-NH Metropolitan Statistical Area (MSA). This Metropolitan division is comprised by Rockingham County, NH and Strafford County, NH.

With a deep natural harbor and river, Portsmouth is one of the oldest working ports in the United States. The Piscataqua River Basin's recorded seafaring history began with a visit in 1603 by English explorer Martin Pring and it has witnessed increasing maritime activity ever since. In 1957 the New Hampshire State Legislature created the New Hampshire State Port Authority as an autonomous state agency overseen by a board of directors appointed by the Governor and Executive Council. Today, activity at the Port includes pleasure boating and sport and commercial fishing in addition to bulk and general cargo transport to and from points worldwide. [1]

***Figure 4-1. Portsmouth, NH: Geographic Location, 2000***




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of this Metropolitan Division is 389,592, according to the 2000 US Census. Of this total, 191,592 or 49.1 percent are males and 198,246 or 50.9 percent are females. The median age in the area is 36.4 years; 35.9 for males and 36.9 for females. As Figure 4-2 portrays, over 15 percent of males and females are between the ages of 30 and 39, and about 17 percent are between 40 and 49 years of age. Over 25 percent of males and nearly that percentage of females are between 0 and 17 years old.

[1] Port of Portsmouth profile: http://www.seacoastnh.com/business/port.html

As shown in Figure 4-3, 96.7 percent of the population in this Metropolitan Division is white, followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), representing 1.6 percent of the population. The Asian population represents 1.1 percent of the total population, closely followed by the Black or African American population (0.6 percent). In terms of ethnic makeup, 1.2 percent of the total population is considered to be of Hispanic or Latino origin.[2]

***Figure 4- 2. Portsmouth, NH: Structure of the Population by Age Group, 2000***

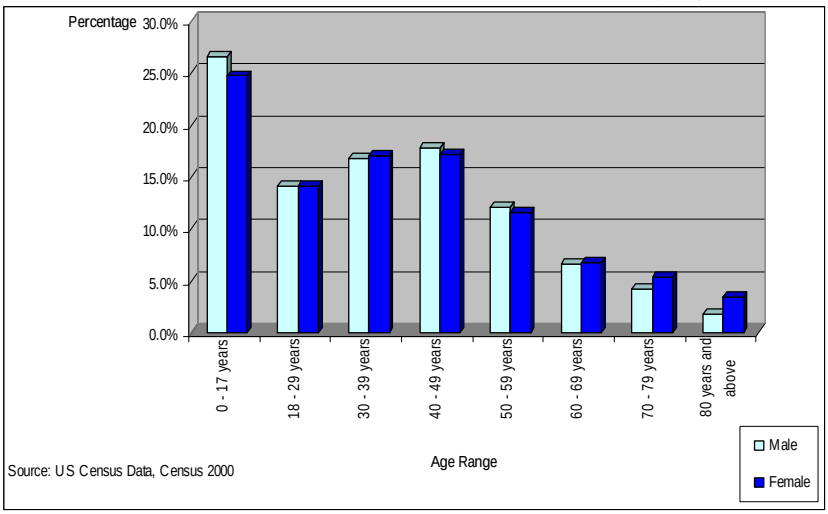
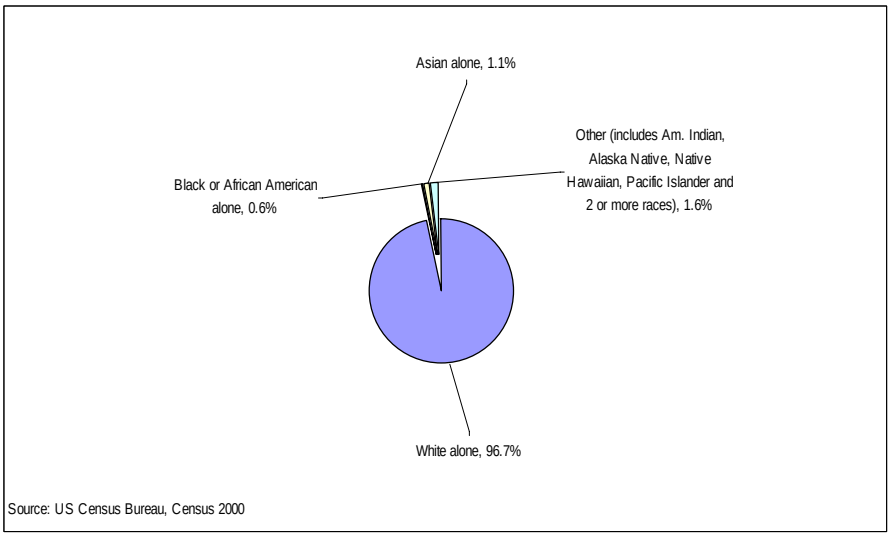


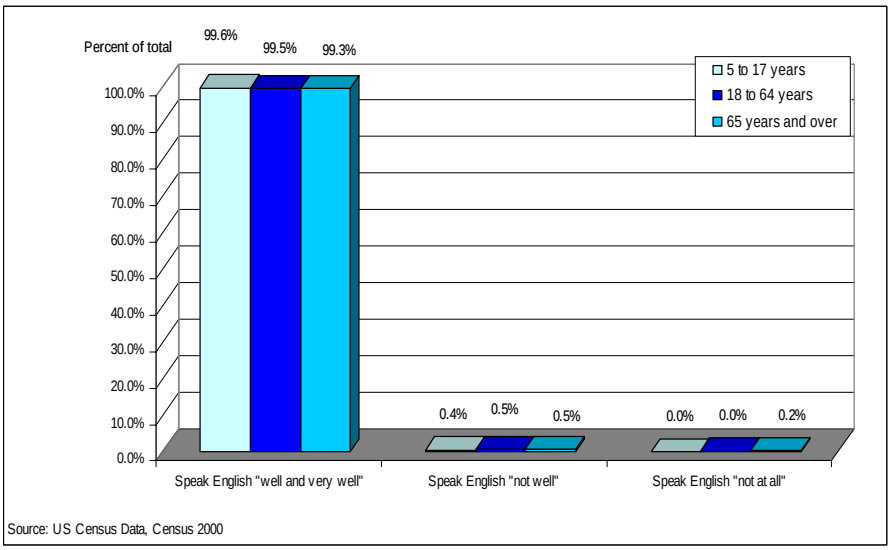

***Figure 4-3. Portsmouth, NH: Population by Race, 2000***




[2] US Census Data, Census 2000.

It is evident from the data specified in Figure 4-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 4-4. Portsmouth, NH: Ability to Speak English by Age Group, 2000***

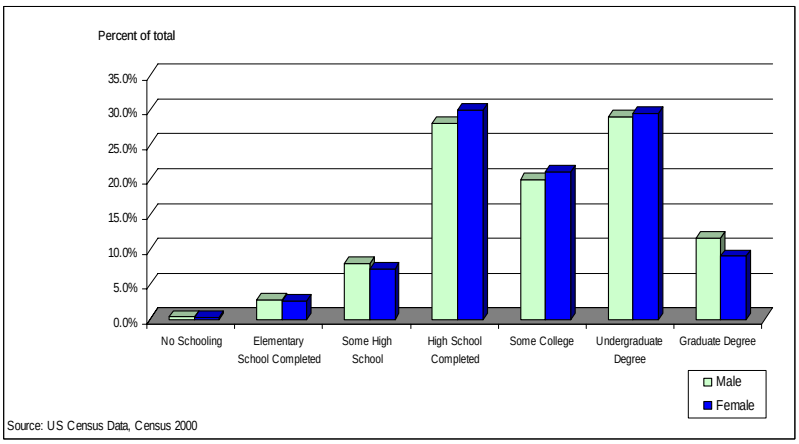



## EDUCATION

As evidenced by Figure 4-5, most of the population in this Metropolitan Division has completed high school and has obtained an undergraduate degree (about 30 percent of males and females for each category).

Some of the colleges in the area are: Chester College of New England in Rockingham County and the University of New Hampshire in Strafford County.[3]

***Figure 4-5. Portsmouth, NH: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[3] Portsmouth, NH Community Profile: http://www.epodunk.com/

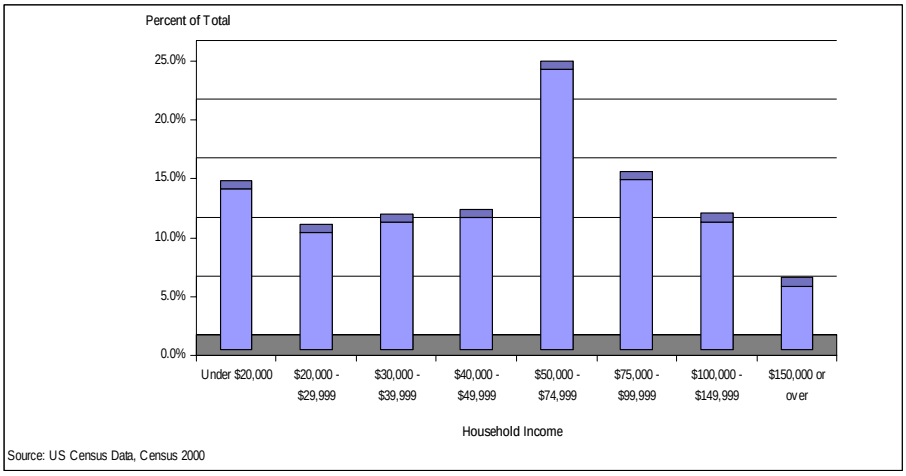
# Socio-Economic Characteristics

## INCOME

The majority of households in this region have incomes that between $50,000 and $74,999 (about 23 percent). Around 15 percent of households in the region have incomes in the $75,000 - $99,999 income bracket. The rest of households' incomes are more evenly distributed (Figure 4-6).

Household median income for 1999, according to the 2000 US Census, was $54,291.43 and per capita income was $24,876.54. The percentage of people under the poverty line in the region was 5.8 in the year 2000.The average household size in this Metropolitan Division in 2000 was 2.59.[4]

***Figure 4-6. Portsmouth, NH: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

About 30 percent of females in this Metropolitan Division are employed in the education, health and social services industry. This is followed by 19 percent employment of females in 'other' industries, which include the arts, entertainment, recreation, public administration, food services and information. About 24 percent of males are employed in manufacturing and approximately 19 percent of males are employed in the wholesale and retail trade industry (Figure 4-7).

An estimated of 3.1 percent males and 3.1 percent of females were unemployed in this region in the year 2000.[5]

According to the 2000 US Census, an estimated 0.5 percent of males and 0.3 percent of females are employed in farming, fishing and forestry occupations. About 18.7 percent of males and 8.5 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.1 percent of female's occupations.

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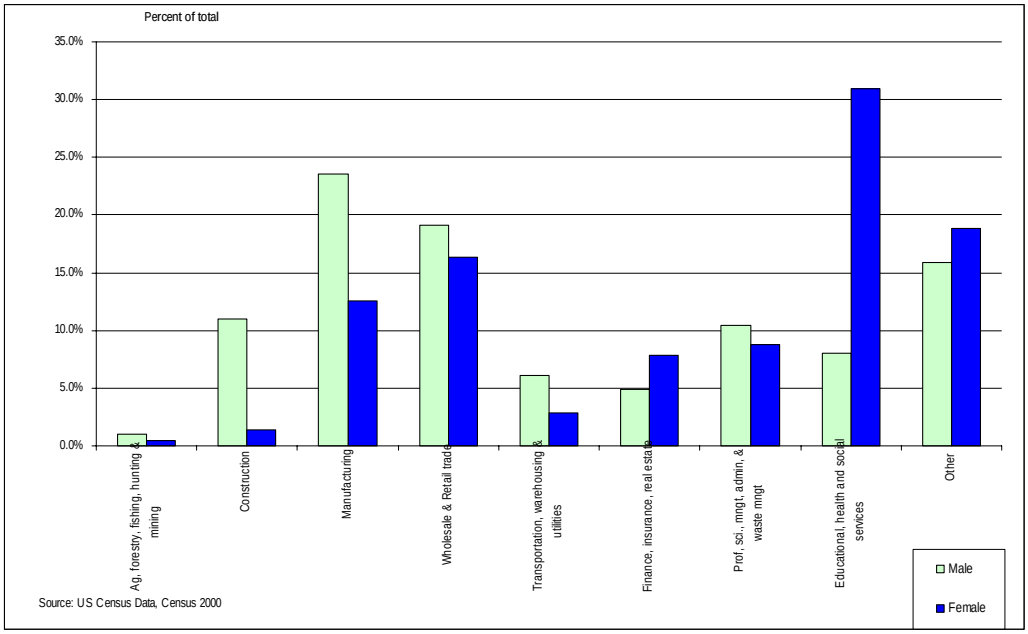
[4] US Census Data, Census 2000.

[5] US Census Data, Census 2000.

*Figure 4-7. Portsmouth, NH: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*



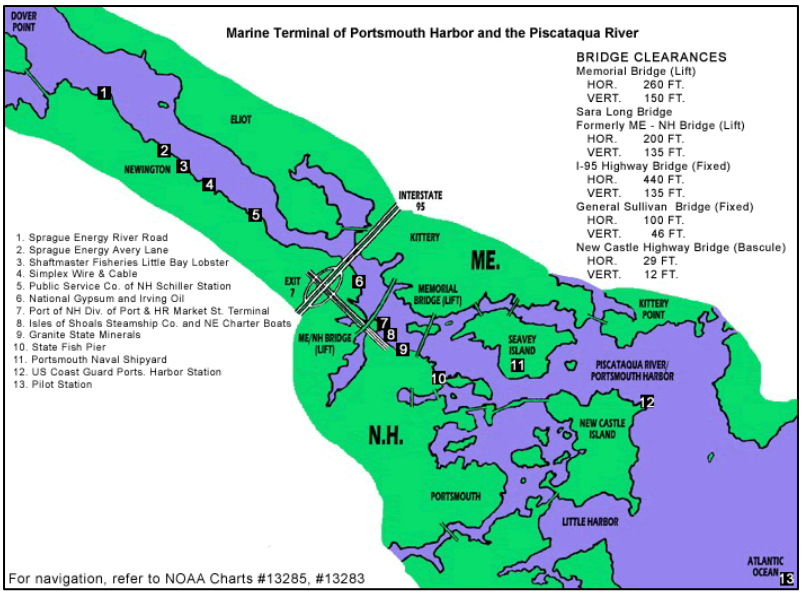

## MARITIME INFORMATION

The Port's strategic location makes it ideal for import/export with European trading partners as well as businesses in the Middle East, Africa and the Pacific Rim. The Port, ice-free year round, is the closest such port to Europe, with the transit from sea buoy 2KR only three miles. Rail service is available to the Port Authority and many other private facilities, while access to Interstate Highway 95 is only a half mile away. Pease International Tradeport is two miles away in Newington. The port channel is maintained at 35 feet and has bridge clearances between 135 and 150 feet. In total, about five million tons of cargo enter or exit Portsmouth Harbor each year. Vessels of all types visit the Port Authority, including general purpose liners, bulk carriers, passenger ships, container carriers, feeder vessels and barges. Fresh water, stores, bunkers, telephones and a heliport site are available.[6]

### Terminal Information

The DPH Market Street Marine Terminal, located on the Piscataqua River, is the only public access, general cargo terminal on the River. The Piscataqua is a year-round, ice-free, deep draft river. The Market Street Terminal offers 8 acres of paved outside lay down area, 50,000 sq. ft. of covered warehouse, onsite rail access, 600 ft berth, 35 ft/MLW, 312 ft berth, 22 ft/MLW. It has cargo handling capabilities for bulk cargo (scrap, salt, wood chips); break bulk (industrial and machinery parts, construction materials); project cargo (power plant components, vacuum tanks) and container cargo.

[6] Port of Portsmouth profile: http://www.seacoastnh.com/business/port.html




Charter boats operate from 3 of the Division's facilities: Hampton Harbor Marina, Hampton, NH; Rye Harbor Marina, Rye, NH; Market Street Marine Terminal-Burge Wharf, Portsmouth, NH. The vessels range from the 6 passenger (6 pack) boats to 45 passenger vessels. The boats are chartered for fishing for stripers, bluefish, cod or blue fin tuna; scuba diving excursions to the Isles of Shoals or the scallop beds; cocktail or lobster bakes; lobster trap-hauling demonstrations.

There are several party fishing boats, half-day and full-day, that operate from the Hampton and Rye Harbor Marinas. These vessels range in size up to 75 feet in length and carry up to 150 passengers. Some companies are: Atlantic Fishing Fleet, Sushi Hunter Charters, Northeast charter Boat Company, Northwind and Seafari.

Some passenger vessels offer whale watching trips that operate from the Hampton and Rye Harbor Marinas. The Isles of Shoals Steamship Company provides ferry service to Star Island at the Isles of Shoals from the Market Street Marine Terminal-Barker Wharf. The Isles of Shoals is a group of islands located approximately 7 miles off the coast of New Hampshire. The majority of activity on the islands is at the hotel/conference center on Star Island. The DPH is responsible for more than 1,500 moorings in 29 mooring fields.

**Commercial Fishing**

Pursuant to State Statute RSA 12-G:43(b), the Division of Ports and Harbors (DPH) shall, "aid in the development of salt water fisheries and associated industries." The DPH has responsibility for and jurisdiction over the state-owned commercial fishing piers and facilities at Portsmouth, New Hampshire; Rye Harbor, New Hampshire; and Hampton Harbor, New Hampshire. Berths and slips are only available at Portsmouth. Due to physical limitations at Rye and Hampton, no long-term or overnight berthing is available. Commercial fishermen wishing to use the facilities must be issued a "Pier Use" permit. Bulk fuel is available through permitted vendors; contact the DPH for a list of these vendors. Ice and chandlery is available at Portsmouth. The DPH is the Grantee of Foreign-Trade Zone #81, which includes 5 sites and 1 subzone (Westinghouse Electric): The Market Street Terminal is 11 acres; Portsmouth Industrial Park is 75 acres; Dover Industrial Park, is 50 acres; Manchester Airport is 1400 acres and Pease International Tradeport, 1900 acres. [7]

[7] Port of New Hampshire website: http://www.portofnh.org/who.html

# 5. Boston, MA

## Location and Background Information

The Port of Boston is located in the Boston-Cambridge-Quincy, Massachusetts-New Hampshire Metropolitan Statistical Area (MSA). Boston is the oldest continually active major port in the Western Hemisphere. Though it did not become an international cargo port until 1630, for at least four thousand years previously, it had served as a settlement and trading area for Native American tribes. After the Massachusetts Bay Colony was formed, the port became a very busy place.

Concerned about their utter dependence on British trading ships, they sought greater independence by starting a vigorous shipbuilding industry of their own, and began to establish independent trading links with other colonies and countries to the north and south. For most of the century, Boston was America's largest and busiest port, serving the rapidly expanding colonies with imports of English finished goods in exchange for exports of lumber, fully constructed vessels, rum and salted fish.

Since 1980, container traffic has tripled and Boston has become one of the most modern and efficient container ports in the U.S. General cargo tonnage growth has averaged 3.6% growth each year. The passenger ship industry is also expanding in the Port of Boston. Numerous four and five star cruise lines such as Cunard, Norwegian Majesty, Hapag-Lloyd and Silversea regularly call the port. With more than 62 ship calls last year alone, the port is now considered one of the fastest-growing high-end cruise markets in the country.

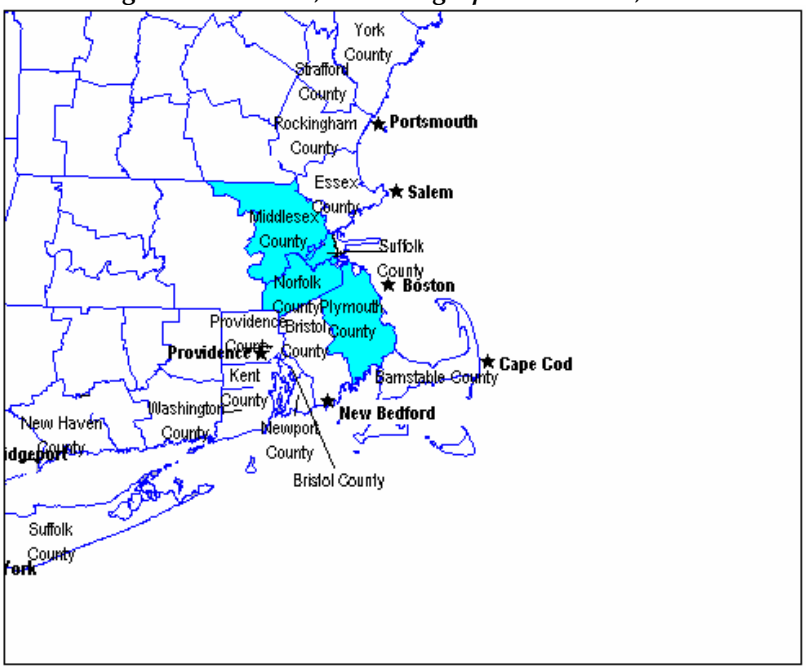
Boston also hosts an enormous complex of privately owned petroleum and liquefied natural gas terminals, which supply more than 90% of Massachusetts' petroleum consumption needs. The port is home to two shipyards, numerous public and private ferry operations, world-renowned marine research institutions, marinas, a major Coast Guard facility and is one of America's highest-value fishing ports.

Boston is one of the most modern and efficient container ports in the U.S. Conley Terminal for containerized cargo shipments and Moran Terminal, currently leased to Boston Autoport for the import and distribution of automobiles handle more than 1.3 million tons of general cargo, 1.5 million tons of non-fuels bulk cargo and 12.8 million tons of bulk fuel cargos yearly.

With 101 passenger ships scheduled to call in the 2005 season, Cruiseport Boston is now considered one of the fastest growing high-end cruise markets in the country. The Black Falcon Cruise Terminal, located in the Boston Marine Industrial Park will serve over 210,000 cruise passengers this year. Another full cruise season is planned for 2006 between the months of April and October.[1]

[1] Massachusetts Port Authority website: http://www.massport.com/ports/about.html

*Figure 5-1. Boston, MA: Geographic Location, 2000*




*Source: Table 3-1*

# Demographics

## POPULATION

The total population of the Boston-Cambridge-Quincy, Massachusetts-New Hampshire Metropolitan Statistical Area is of 3,278,333, according to the 2000 US Census. Of this total, 1,582,659 or 48.3 percent are males and 1,695,674 or 51.7 percent are females. The median age in this region is 35.8 years; 34.7 for males and 36.9 for females. The majority of the population in this area falls within two age brackets, 18 – 29 years and 30 – 39 years; accounting for approximately 34 percent of males and 32 percent of females (Figure 5-2).

The majority of the population in this area is white (81 percent), followed by the Black or African American population, which represents 7.3 percent of the total population. The 'other' category (which includes American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represents 6.2 percent of the total population, followed by the Asian population, which represents 5.5 percent of the total population (Figure 5-2). In terms of ethnic makeup, 6.0 percent of the total population is considered to be of Hispanic or Latino origin.[2]

[2] US Census Data, Census 2000.

*Figure 5-2. Boston, MA: Structure of the Population by Age Group, 2000*

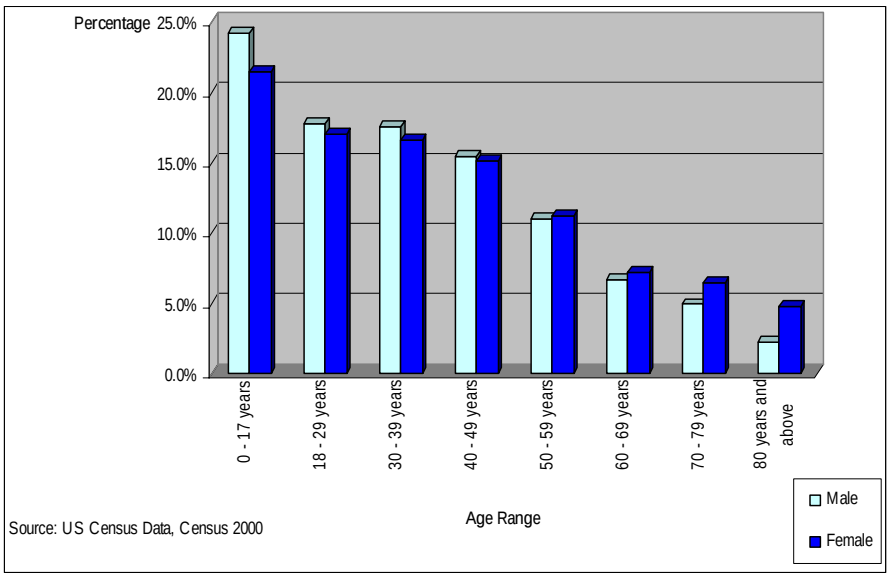
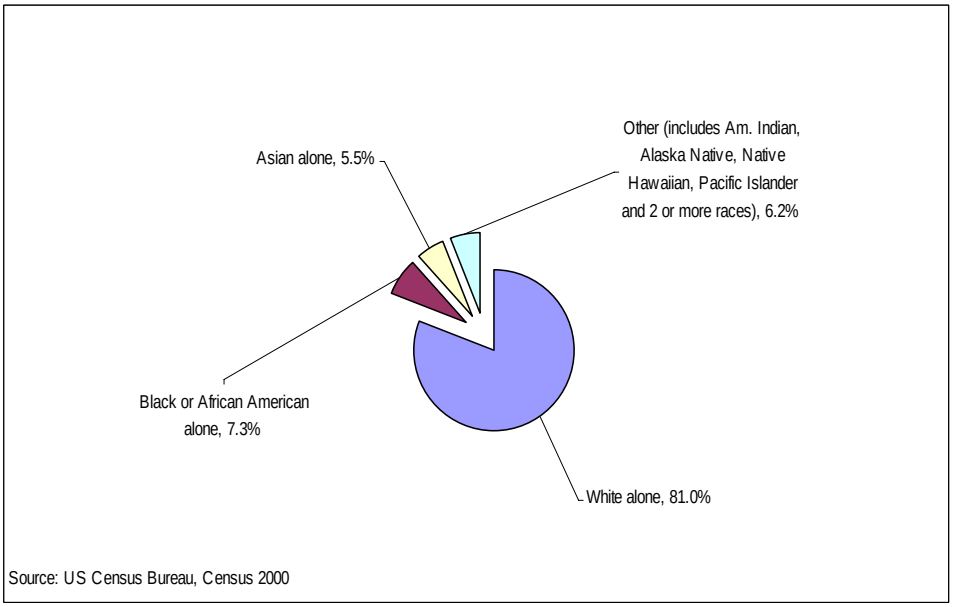
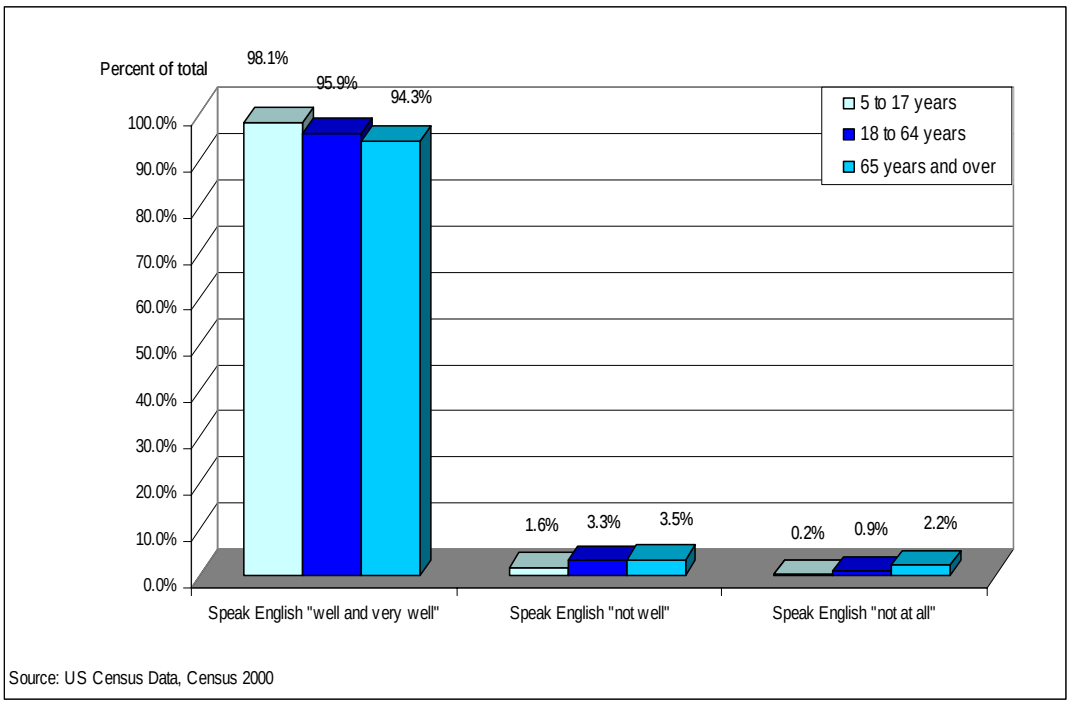



*Figure 5-3. Boston, MA: Population by Race, 2000*




It is evident from the data specified in Figure 5-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. The older population groups dominate the language less fluently, about 5.7 percent of the population that is 65 years and over and about 4.2 percent of the population in the 18 – 64 years age bracket don't speak English well or do not speak English at all.

*Figure 5-4. Boston, MA: Ability to Speak English by Age Group, 2000*

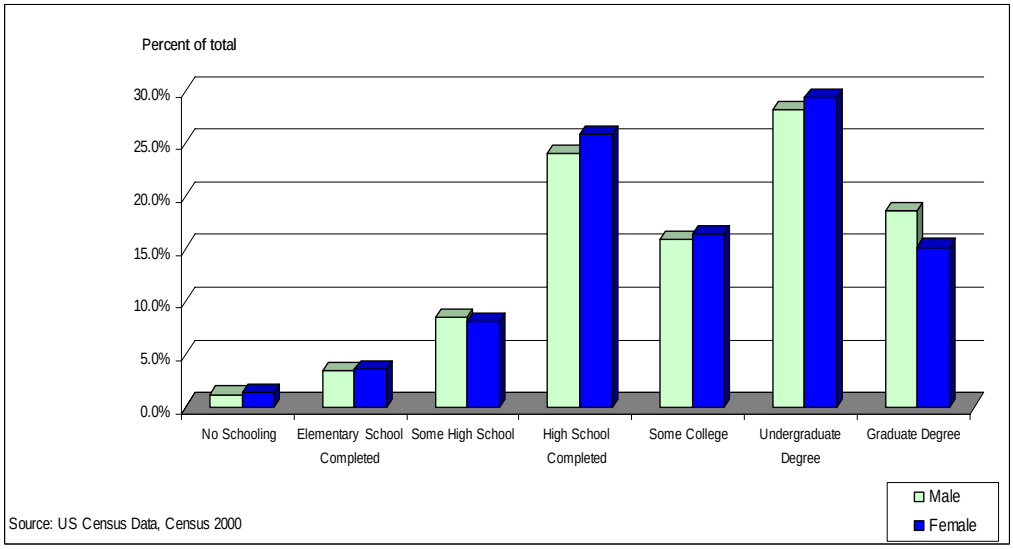



## EDUCATION

It is evident from Figure 5-5 that the majority of the population in this area has completed high school (between 24 – 25 percent) and has obtained an undergraduate degree (27 – 29 percent). Around 14 – 18 percent of the population has obtained a graduate degree.

The city of Boston is known for having one of the highest concentrations of colleges and universities in the nation. Some of the finest educational institutions in the country are located in this region, among them Harvard University and MIT. Other well-known colleges in the area are: Boston University, Tufts University, University of Massachusetts Boston, Northeastern University, Emerson College, Boston College and Wellesley College.

*Figure 5-5. Boston, MA: Educational Attainment of Population by Sex Ages 25 and Over, 2000*



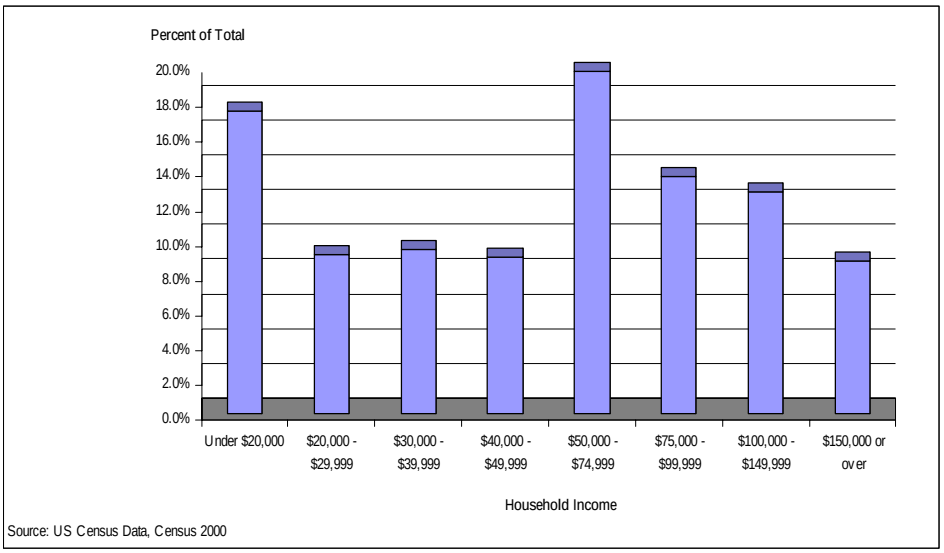
# Socio-Economic Characteristics

## INCOME

As is apparent from Figure 5-6, most households in the area fall within the income bracket of $60,000 - $74,999 (about 20 percent), followed by 18 percent of households that have incomes under $20,000.

Household median income for the area for the year of 1999, according to the 2000 US Census, was $55,882.15 and per capita income was $28,754.99. The percentage of people under the poverty line in the region was 8.8 in the year 2000. The average household size in this area in 2000 was 2.52.[3]

***Figure 5-6. Boston, MA: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

It is evident from Figure 5-7 that about 35 percent of females are employed in the education, health and social industry; whereas males are mostly concentrated in 'other' industries such as the arts, entertainment, recreation, food services, public administration and information (20 percent). Women also have a high representation in the previous category (approximately 19 percent). Slightly over 15 percent of males are employed in professional, science management, administration and waste management services industries.

An estimated 4.3 percent of males and 4.1 percent of females were unemployed in this metropolitan statistical area in the year 2000.[4]

According to the 2000 US Census, an estimated 0.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 12.5 percent of males and 4.7 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.04 percent of female's occupations.

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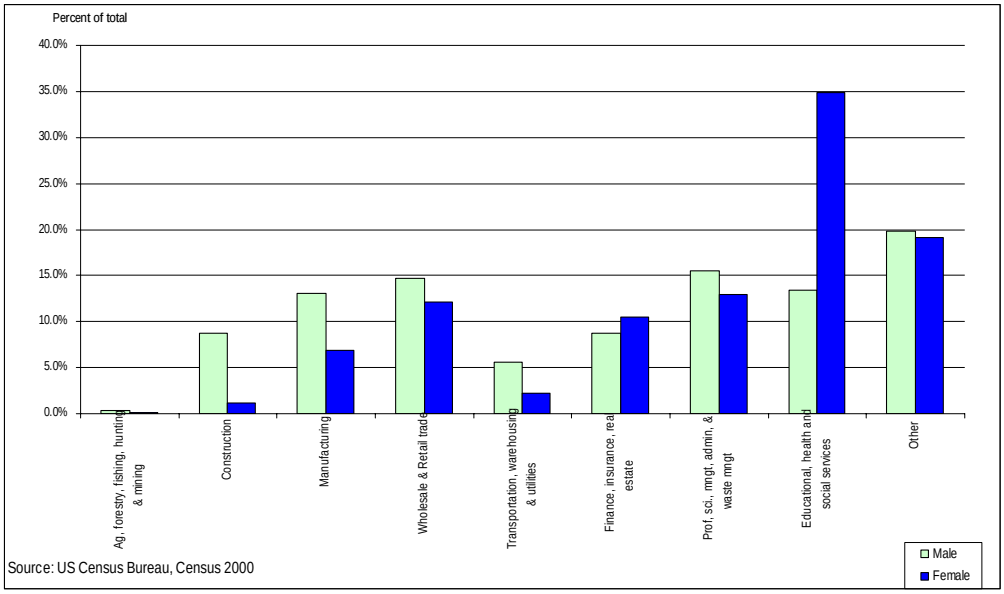
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 5-7. Boston, MA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Boston Harbor Navigation Improvement Project (BHNIP), already underway, will deepen key portions of Boston's Inner Harbor, its tributary channels, and berth areas to allow the significantly larger "post-Panamax" class of vessels to call in the Port. A total of approximately 2.3 million cubic yards of material will be dredged from key portions of the channels and berths. The completion of this project, coupled with the harbor's nine foot tide swing, will allow even the largest vessels to enter the harbor safely. Boston's channels will be deeper than those of many of the east coast ports, greatly enhancing the Port of Boston's competitive position and providing a significant economic benefit to the New England region.

Dredging of Boston's Inner Harbor began in August 1998 by Great Lakes Dredge & Dock Company. Dredging is proceeding rapidly with most of the silt material already removed from the Reserved Channel and the Mystic River. Three disposal cells have been constructed, filled, and capped in the Mystic River, and three other cells are currently open and being used for disposal in the Mystic and Chelsea Rivers. Several of the berths adjoining the project have been dredged and project benefits are already beginning to be realized.

Massport, in cooperation with The Massachusetts Highway Department and the City of Boston, has developed a permitted overweight container route between Conley Terminal, near-dock sites in Boston, and the CSX rail transfer facility four miles to the west. Companies that pay the federal Harbor Maintenance Tax for goods moving through Massachusetts ports, are eligible for a dollar-for-dollar Massachusetts tax credit. This credit applies to containerized cargo, break bulk, and road vehicles.

Multiple off-dock transloading facilities including warehouse space and cooler facilities for perishables, and several trucking operations are available close to Massport maritime facilities. The Massachusetts Seaport Bond Bill provides partial funding for Double stack rail clearances in the state, and Massport is working with the Executive Office of Transportation and Construction to expedite signing of the Master Agreement between the railroads. Furthermore, Massport works closely with the U.S. Department of Agriculture and private companies to provide fumigation services as needed for cargo in the port.[5]

[5] Massachusetts Port Authority website: http://www.massport.com/ports/about_value.html

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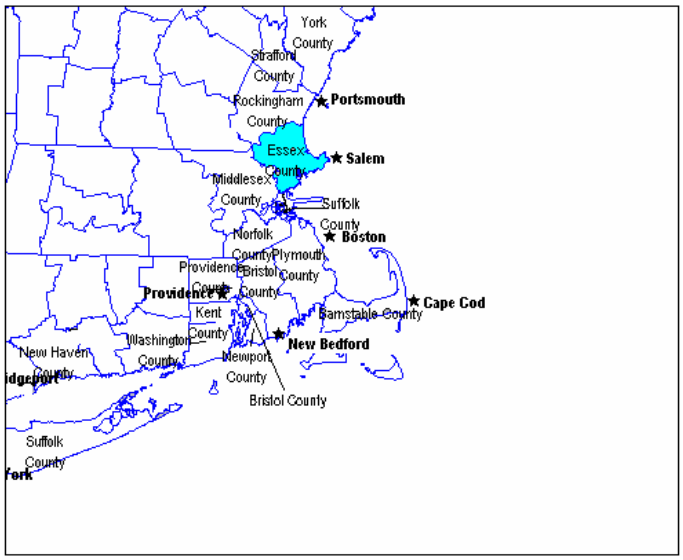
# 6. Salem, MA

## Location and Background Information

The Port of Salem is located in the Essex County, MA Metropolitan Division, which is part of the Boston-Cambridge-Quincy, Massachusetts – New Hampshire Metropolitan Statistical Area (MSA). Founded in 1626, Salem became one of the first and most significant commercial seaports in colonial America. Located along the northeastern coast of Massachusetts, Salem is the second largest and deepest natural harbor of the commonwealth. [1]

*Figure 6-1. Salem, MA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of Essex County, MA is 723,419, according to the 2000 US Census. Of this total, 346,421 or 47.9 percent are males and 376,998 or 52.1 percent are females. The median age in the county is 37.5 years; 36.2 for males and 38.6 for females. The majority of the population is concentrated in two age brackets: 30 – 39 years and 40 – 49 years; approximately 32 percent of males and 30 percent of females (Figure 6-2).

As evidenced by Figure 6-3, the majority of the population in the county is white (86.4 percent), followed by 8.8 percent of 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone). The Black or African American population represents 2.5 percent of the total population, closely followed by the Asian population (2.4 percent). In terms of ethnic structure, 11.0 percent of the total population is considered to be of Hispanic or Latino origin.[2]

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[1] Seaport Advisory Council webpage: http://www.mass.gov/seaports/salem.htm

[2] Source: US Census Data, Census 2000.

*Figure 6-2. Salem, MA: Structure of the Population by Age Group, 2000*

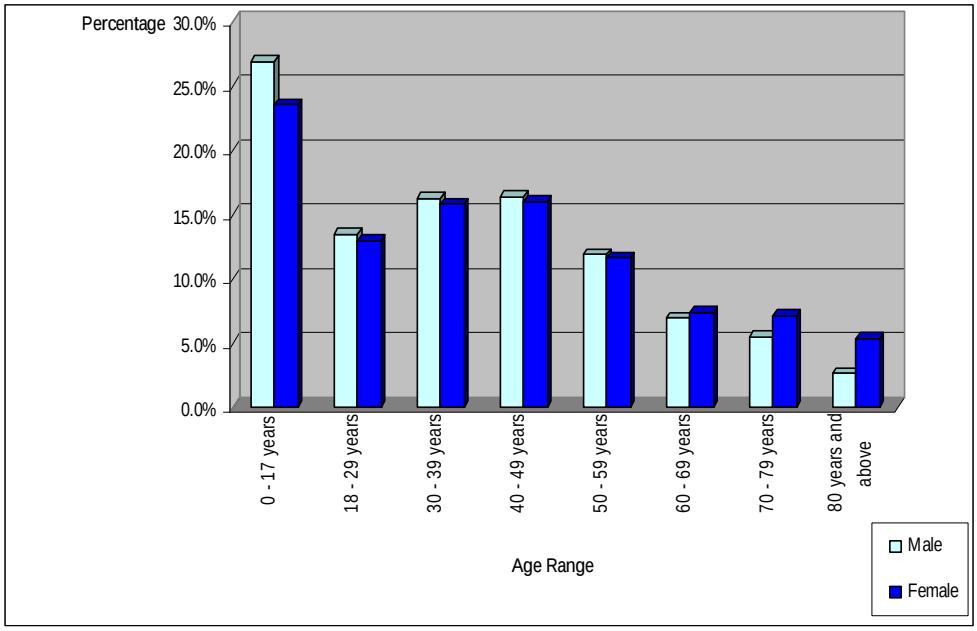
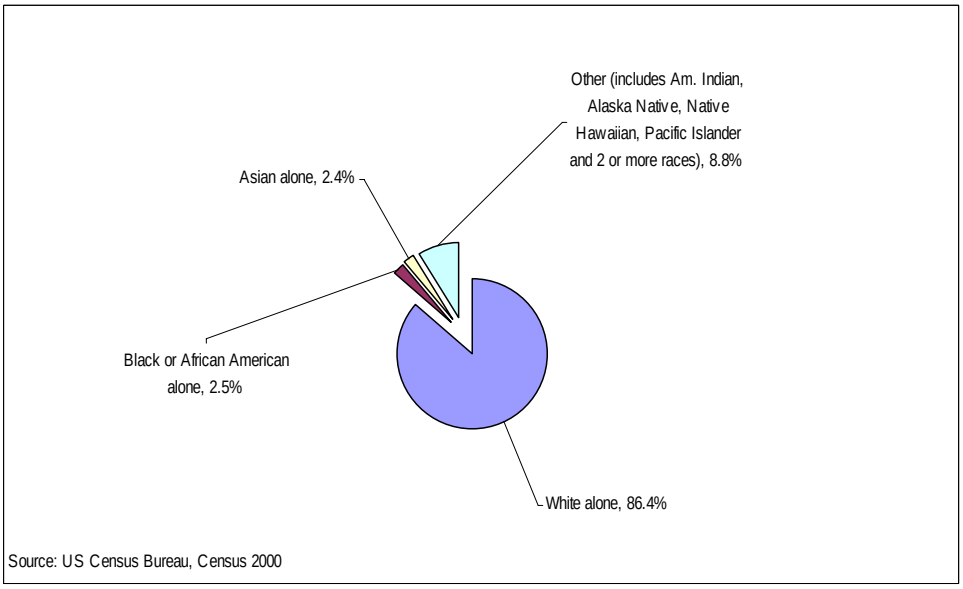
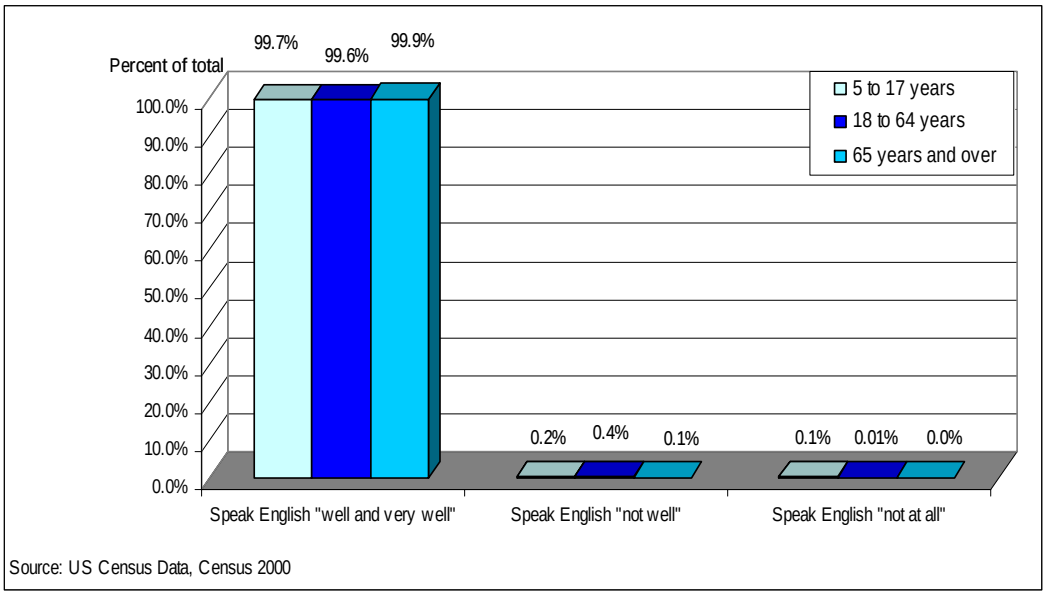



*Figure 6-3. Salem, MA: Population by Race, 2000*



It is evident from the data specified in Figure 6-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

*Figure 6-4. Salem, MA: Ability to Speak English by Age Group, 2000*

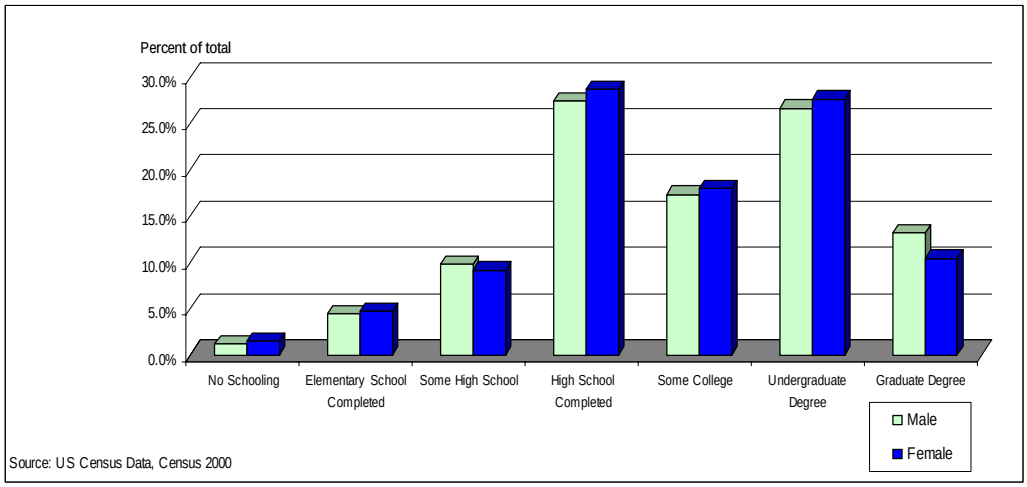



## EDUCATION

About 26 percent of males and 27 percent of females have completed high school in the area, and about 25 – 26 percent of males and females have obtained an undergraduate degree (Figure 6-5).

Salem is home to Salem State College and Marian Court College.[3]

*Figure 6-5. Salem, MA: Educational Attainment of Population by Sex Ages 25 and Over, 2000*




[3] Salem Community Profile: http://www.epodunk.com/

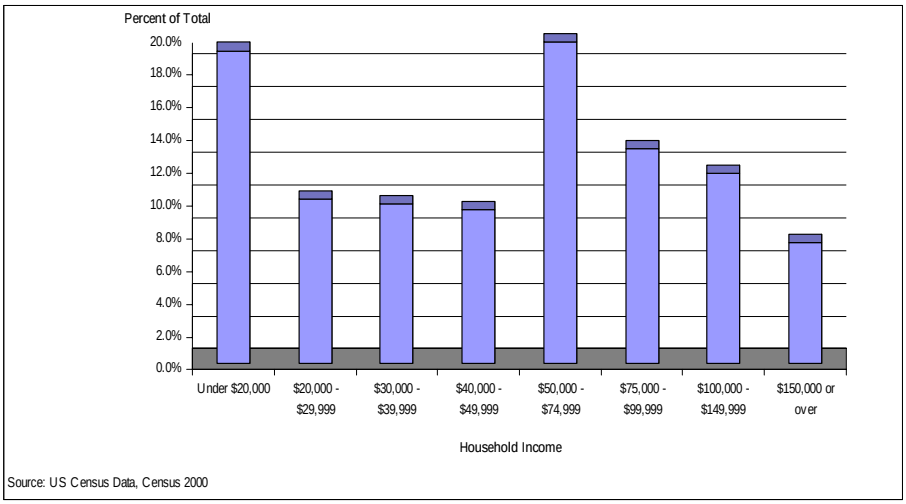
# Socio-Economic Characteristics

## INCOME

As is portrayed by Figure 6-6, most households in Essex County, MA have an income of under $20,000 or in the bracket of $50,000 - $74,999 (20 percent in each category).

Household median income in 1999, according to the 2000 US Census, was $51,576 and per capita income was $26,358. The percentage of people under the poverty line in the region was 8.9 in the year 2000. The average household size in 2000 was 2.57.[4]

***Figure 6-6. Salem, MA: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Around 34 percent of working females in this region are employed in educational, health and social services industries and around 19 percent of them are employed in 'other' industries, including occupations in the arts, entertainment, recreation, food services, public administration and information. Approximately 21 percent of males are employed in the manufacturing sector, and 18 percent of them are employed in 'other' industries (Figure 6-7).

An estimated 4.5 percent of males and 4.7 percent of females were unemployed in 2000.[5]

According to the 2000 US Census, an estimated 0.5 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 17.0 percent of males and 7.4 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.043 percent of female's occupations.

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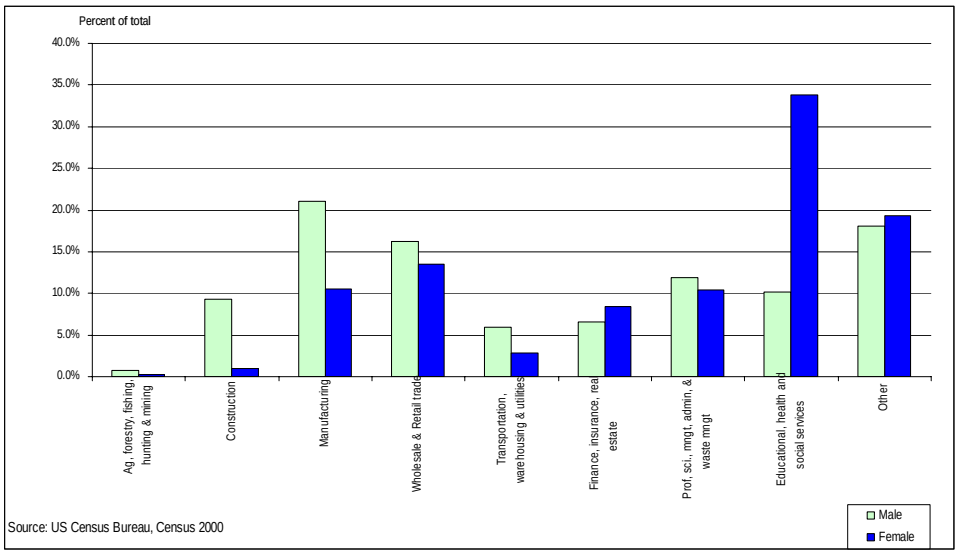
[4] US Census Data, Census 2000.

[5] US Census Data, Census 2000.

*Figure 6-7. Salem, MA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Port of Salem won early fame as the center of an active shipping trade to the ports of Asia. Salem's vessels and sea captains established lucrative trading routes to China, Japan, Polynesia and throughout the Pacific Basin. Between 1750 and 1810, thousands of sailing voyages began and ended in the Port of Salem. Shipping activity diminished after the War of 1812, and Salem lost its prominence to emerging ports with facilities for new, larger clipper ships. Commercial shipping returned to Salem Harbor in 1940 with the construction by New England Power Company of an electric generating plant. A new deep-water channel was dredged to allow for fuel delivery, and these facilities are the base for all bulk cargo shipments today. Salem's port facilities receive more than one million tons of coal and three million barrels of petroleum products each year. These products arrive in vessels as large as 800 feet in length and 34 feet of draft. A major port expansion project, now underway, will enlarge port capacity, increase allowed draft and produce a new ship berth facility designed to serve cruise vessels and coastal ferry operations. This $18-million infrastructure improvement will reestablish the regional prominence of this historic seaport.

Attractions such as the Peabody-Essex Museum, House of Seven Gables, Salem Witch Museum and the National Maritime Historic Site of the National Park Service are among the key attractions in Salem.[6] The Port of Salem is located on the Northeastern coast of Massachusetts, 12 miles north of Boston. It has one 800-foot berth and is operated by the New England Power Company. Salem has a cargo of more than one million tons of coal and three million barrels of oil annually. Its main trade is with South America and other states in the United States.

The Port has storage capacity for 100,000 tons of bulk and one million barrels of oil and it offers fuel, water and stores services. The Port is one mile away from an existing rail and is three miles away from Route 128/I-95. Future plans include the expansion of the existing ship basin and the construction of a second 600-foot pier and cruise terminal.[7]

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[6] Seaport Advisory Council website: http://www.mass.gov/seaports/salem.htm

[7] Port Advisory Council website: http://www.mass.gov/seaports/salem.htm

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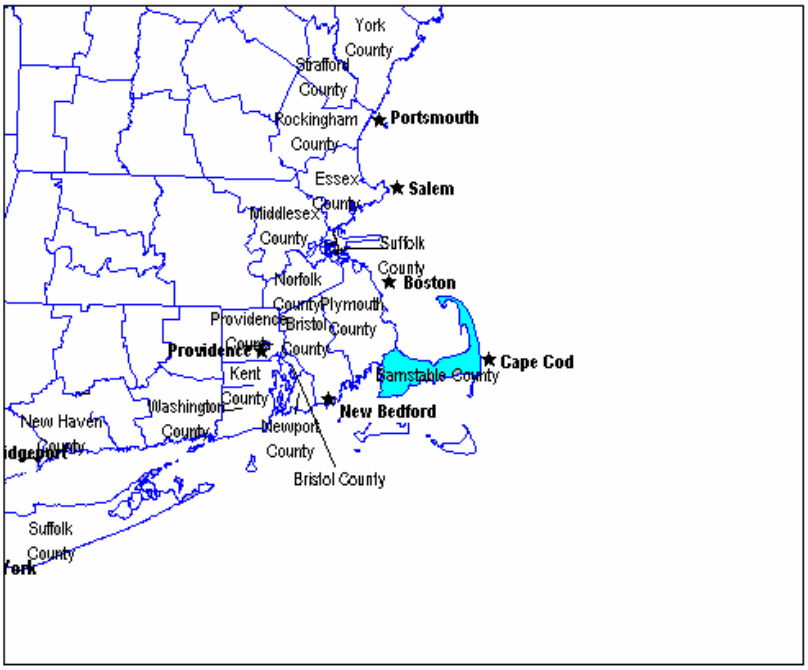
# 7. Cape Cod Bay, MA

## Location and Background Information

The Port of Cape Cod is located in the Barnstable Town, Massachusetts Metropolitan Statistical Area (MSA). This MSA is comprised by Barnstable County, MA.

*Figure 7-1. Cape Cod Bay, MA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

Total population of the Barnstable Town, MA MSA is 222,230; according to the 2000 US Census. Of this total, 105,199 or 47.3 percent are males and 117,031 or 52.7 percent are females. The median age for the region is 44.6; 42.9 for males and 46.1 for females.

As Figure 7-2 shows, the majority of the population in this county is white (94.3 percent), followed by 'others' (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), which represent 3.5 percent of the total population. The Black or African American population represents 1.5 percent of the total population, closely followed by Asian population (0.6 percent). In terms of ethnic makeup, 1.3 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000

*Figure 7-2. Cape Cod Bay: Structure of the Population by Age Group, 2000*

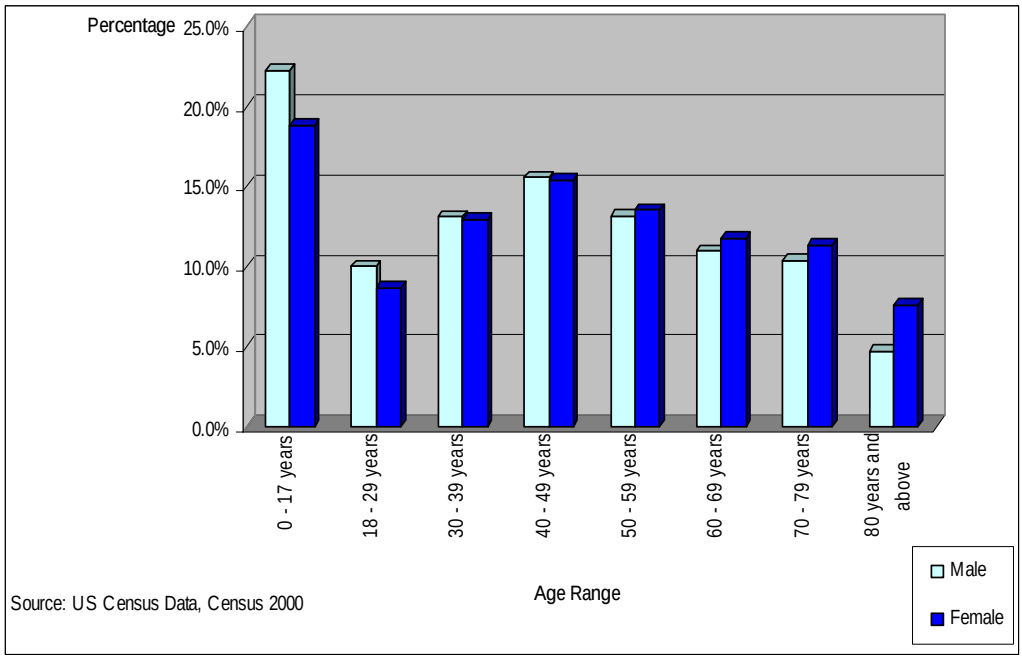
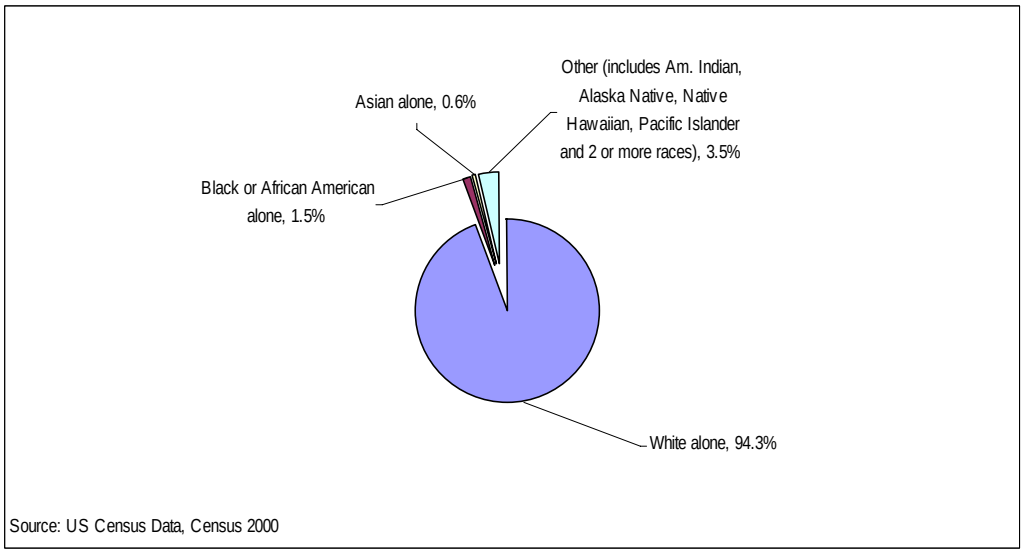
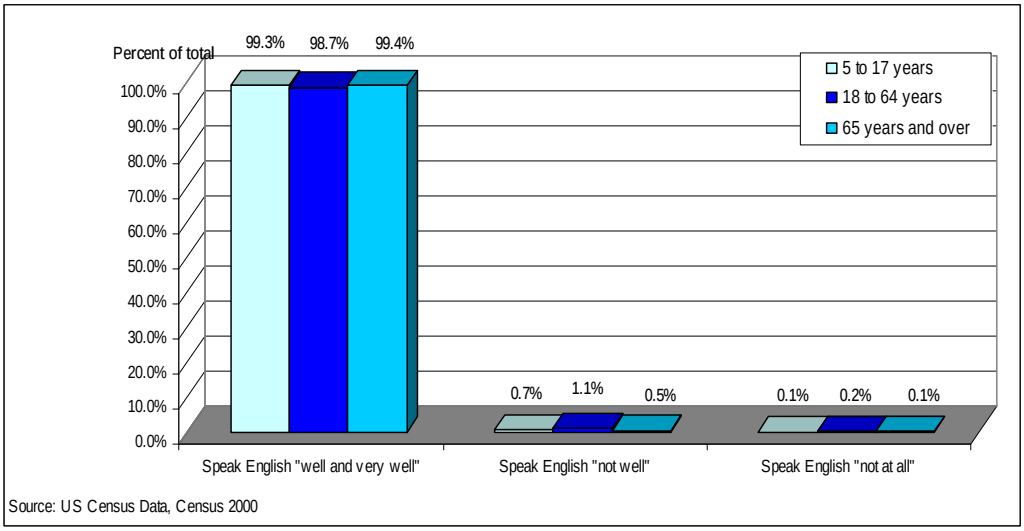



*Figure 7-3. Cape Cod Bay: Population by Race, 2000*



It is evident from the data specified in Figure 7-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

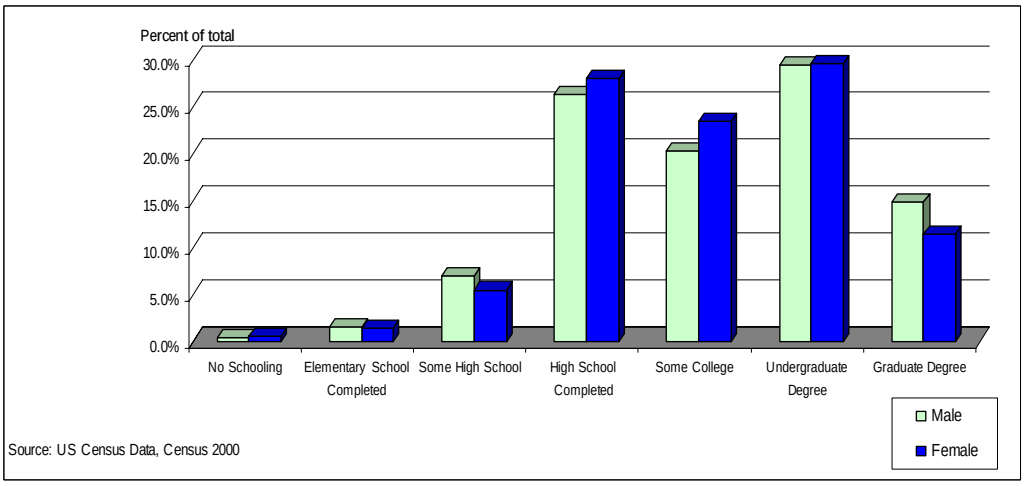
***Figure 7-4. Cape Cod Bay: Ability to Speak English by Age Group, 2000***




## EDUCATION

Most of the population in the region has obtained an undergraduate degree and has completed college. In lesser numbers, some people have finished some college or obtained a graduate degree (Figure 7-5).

***Figure 7-5. Cape Cod Bay: Educational Attainment of Population by Sex Ages 25 and over, 2000***



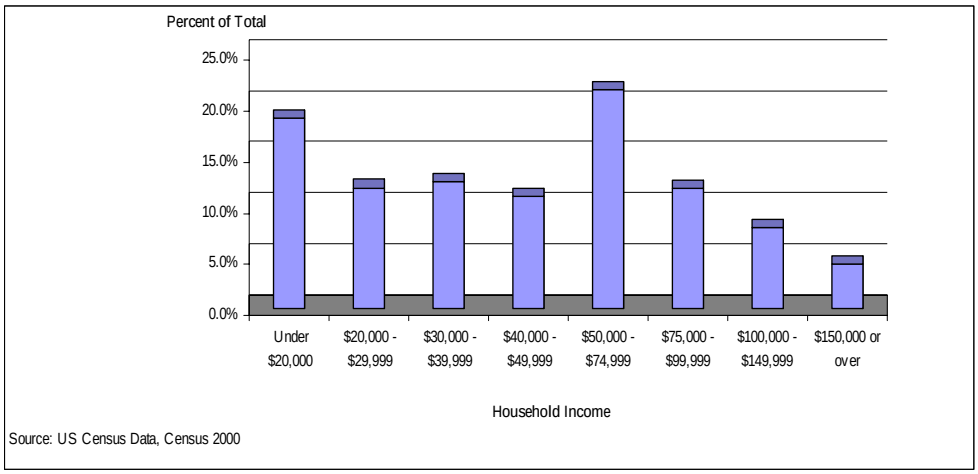
# Socio-Economic Characteristics

## INCOME

About 22 percent of households in the region have incomes that fall within the $60,000 - $74,999 income bracket. Twenty percent of households have incomes under $20,000.

Household median income in the Cape Cod Bay area in 1999, according to the 2000 US Census, was $45,933.00. The per capita income for 1999, according to the 2000 US Census, was $25,318. The percentage of people under the poverty line in the region was 6.9 in the year 2000. The average household size is 2.28.

***Figure 7-6. Cape Cod Bay: Distribution of Households by Household Income Level, 1999***



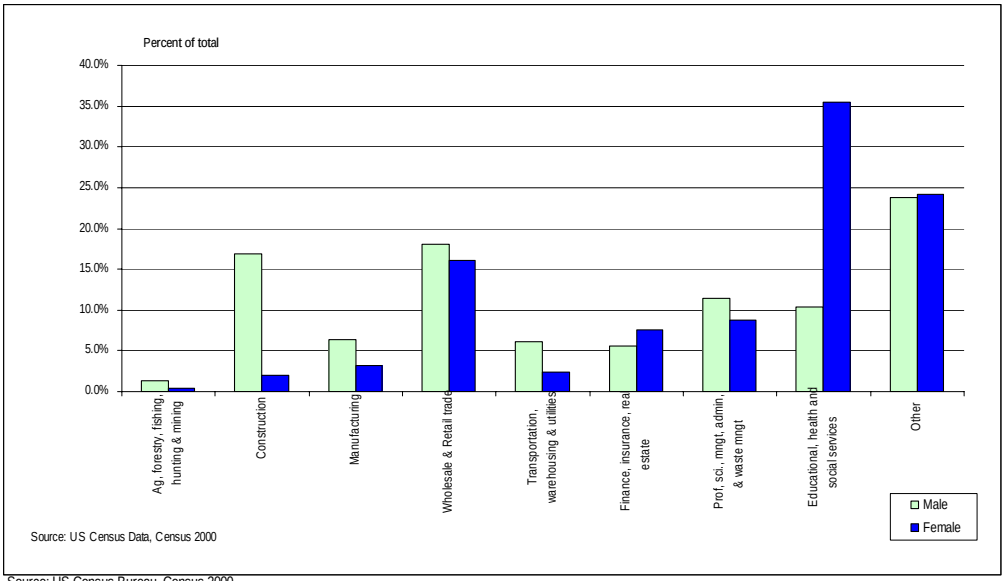

## EMPLOYMENT

Around 35 percent of working females in this region are employed in educational, health and social services sectors and around 24 percent of them are employed in 'other' industries, including occupations in the arts, entertainment, recreation, food services, public administration and information. Approximately 23 percent of males are employed in 'other' industries and 18 percent of them are employed in the wholesale and retail sector (Figure 6-7).

An estimated 5.6 percent of males and 4.6 percent of females are unemployed.

According to the 2000 US Census, an estimated 1.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 11.2 percent of males and 3.5 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.9 percent of male's occupations and 0.1 percent of female's occupations.

*Figure 7-7. Cape Cod Bay: Employed Civilian population by Sex and Industry 16 years and over, 2000*



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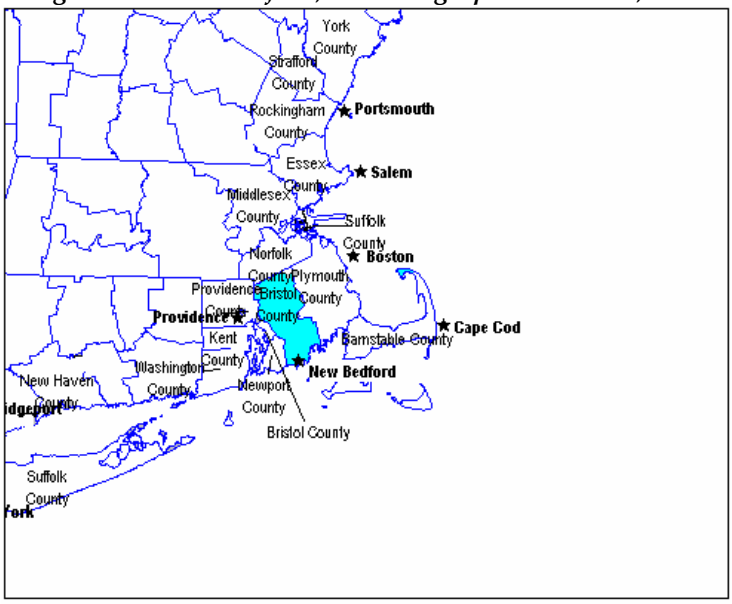
# 8. New Bedford, MA

## Location and Background Information

The Port of New Bedford is part of the Providence-New Bedford-Fall River, Rhode Island – Massachusetts Metropolitan Statistical Area (MSA). New Bedford is located in Bristol County, MA. New Bedford is centrally located on the southeastern coast of Massachusetts. It provides easy access to New England and Canadian markets and has established itself as one of the busiest ports in Massachusetts. Since the early 1960s, the Port of New Bedford has been one of the area's largest handlers of perishable goods, servicing vessels from around the world. Shipments include fruit, vegetables, and bulk commodities of frozen fish and meat products. Currently, New Bedford has various vessel berths and is able to accommodate the largest refrigerated vessels afloat. [1]

*Figure 8-1. New Bedford, MA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of Bristol County, MA is of 534,678, according to the 2000 US Census. Of this total, 256,747 or 48 percent are males and 277,931 or 52 percent are females. The median age of the population is 36.7 years; 35.4 for males and 38 for females. As evidenced by Figure 8 – 2, about 30 percent of males and females fall within the 30 – 39 and 40 – 49 years age bracket.

The majority of the population in the county is white (91 percent), followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), which represent 5.6 percent of the total population. The African American or Black population

[1] Seaport Advisory Council: http://www.mass.gov/seaports/newbed.htm

represents 2 percent of the total population; closely followed by the Asian population, which represents only 1.4 percent (Figure 8-3). Moreover, in terms of ethnic structure, 3.6 percent of the total population is considered to be of Hispanic or Latino origin.[2]

*Figure 8- 2. New Bedford, MA: Structure of the Population by Age Group, 2000*

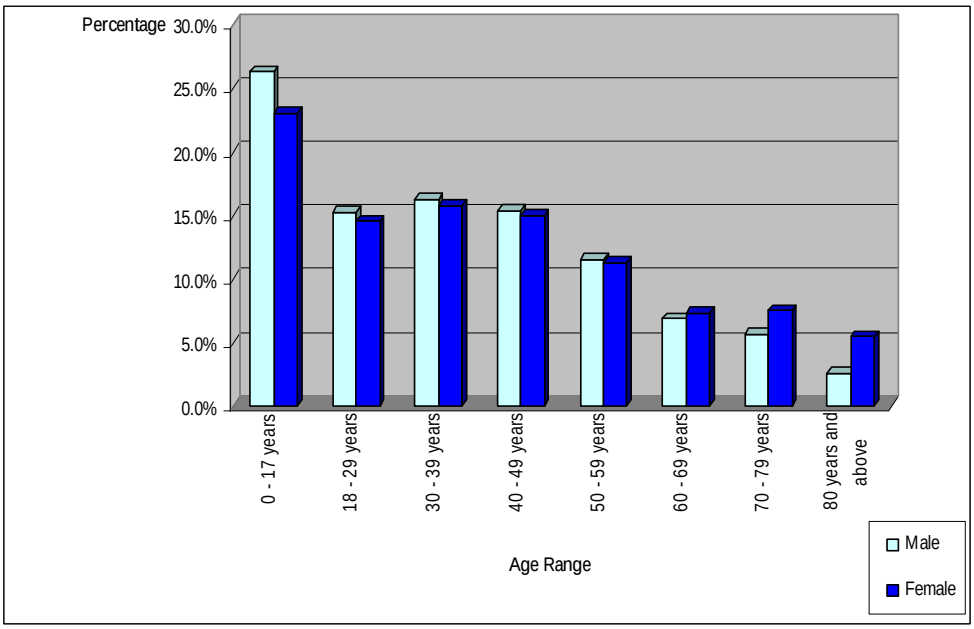
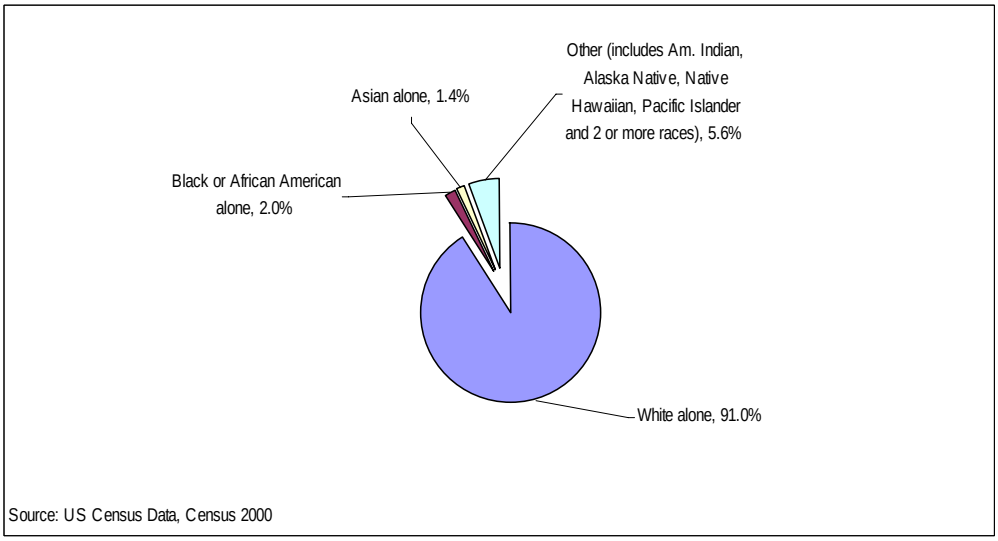


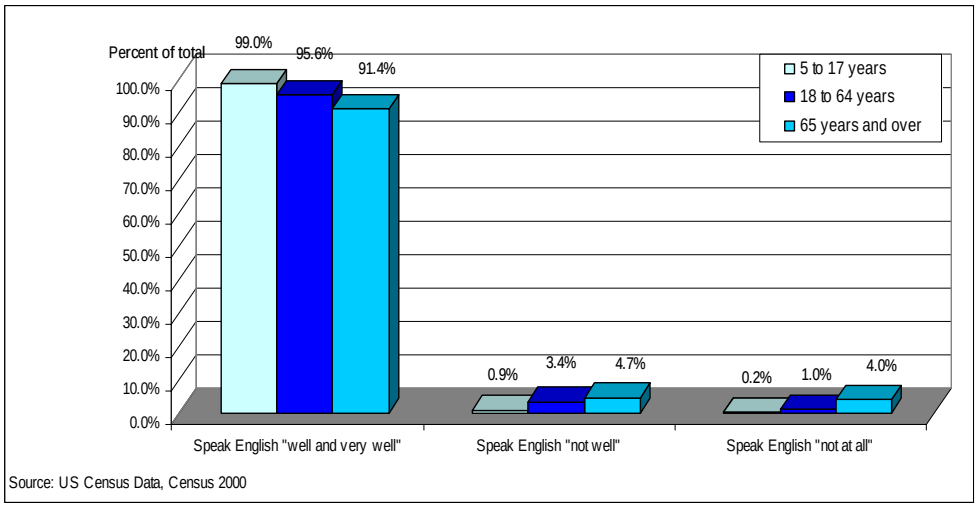

*Figure 8-3. New Bedford, MA: Population by Race, 2000*




[2] US Census Data, Census 2000

It is evident from the data specified in Figure 8-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. However, an estimated 8.7 percent of the population in the age range of 65 years and over, do not dominate the English language completely.

***Figure 8-4. New Bedford, MA: Ability to Speak English by Age Group, 2000***

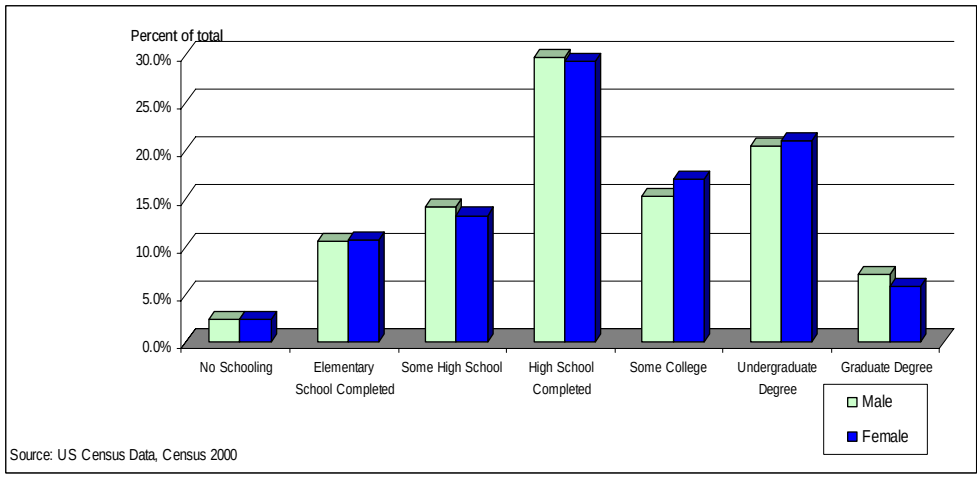



## EDUCATION

As is evident from Figure 8-5, almost 30 percent of females and males, ages 25 or over, have completed high school. About 20 percent of both sexes have an undergraduate degree and around 15 percent of both sexes have completed some college.

There are several colleges and universities in Bristol County, MA, among them: Southern New England School of Law, Stonehill College, University of Massachusetts - Dartmouth, Wheaton College and Bristol Community College.

***Figure 8-5. New Bedford, MA: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



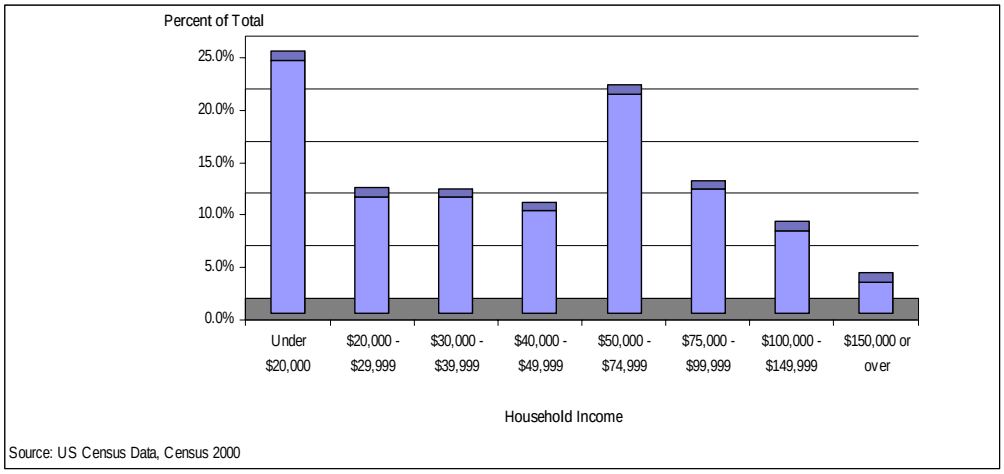
# Socio-Economic Characteristics

## INCOME

Figure 8-6 clearly portrays that about 25 percent of households in Bristol County, MA have an income of under $20,000. This percentage is closely followed by households in the $50,000 - $74,999 income bracket, which represent about 20 percent of all households. Less than 5 percent of households in the region have incomes of $150,000 or over.

Household median income in 1999 in the area, according to the 2000 US Census, was $43,496 and per capita income was $20,978. The percentage of people under the poverty line in the region was 10 in the year 2000. The average household size in 2000 was 2.54.[3]

***Figure 8-6. New Bedford, MA: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Around 35 percent of females of the employed civilian population in the region ages 16 or over are employed within the educational, health and social services industry; about 17 percent are employed in 'other' industries, such as the arts, entertainment, recreation, food services, public administration and information. About 22 percent of working males are employed in the manufacturing industry, approximately 18 percent are employed in the wholesale and retail trade industry and nearly 17 percent are employed in 'other' industries.

An estimated 6.3 percent of males and 5.2 percent of females were unemployed in Bristol County, MA in the year 2000.[4]

According to the 2000 US Census, an estimated 0.6 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 23.3 percent of males and 11.9 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.05 percent of female's occupations.

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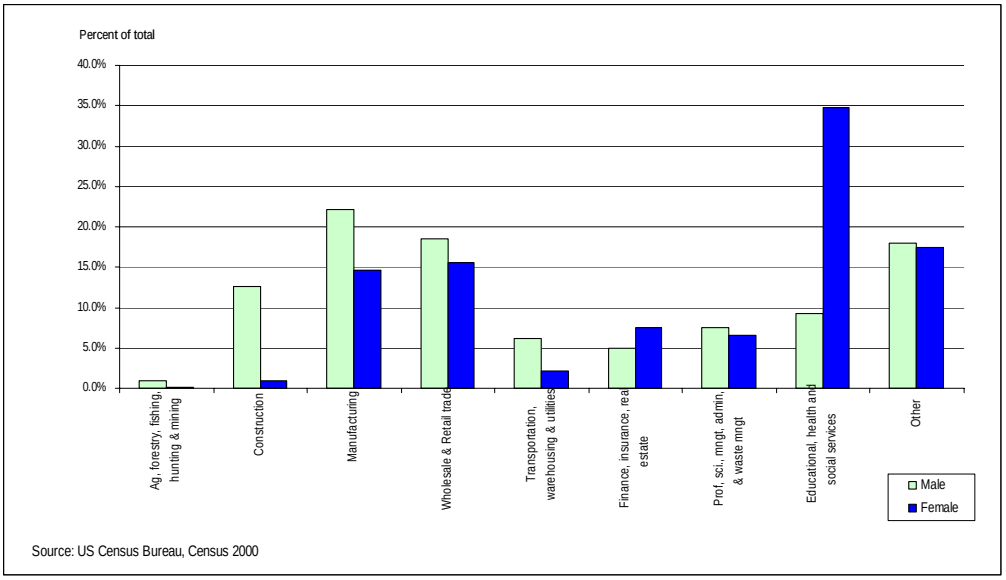
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 8-7. New Bedford, MA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




# MARITIME INFORMATION

New Bedford Harbor is at the mouth of the Acushnet River, which flows south into Buzzards Bay and the Atlantic Ocean. The entrance to the harbor is only nine nautical miles from the beginning of the Cape Cod Canal shipping channel. The Port of New Bedford is a deep-water port with depths of 30 feet. The harbor features a hurricane barrier that stretches across the water from the south end of New Bedford to the Town of Fairhaven. The barrier's 150-foot opening is closed during hurricane conditions and coastal storms. As a result, the harbor is one of the safest havens on the eastern seaboard.

The port has a history of seafaring traditions that continue today with an active fishing fleet, ferry services, and cruise ship docking. The port is supported by the city's outstanding, multi-ethnic work force and international distribution services, which include an adjacent airport as well as rail and interstate highway connections. With over 950 recreational boat slips, New Bedford Harbor also is an important center for recreational boating.

New Bedford Harbor is one of the nation's major fishing ports. The port has ranked first in the U.S. for the last three years, based on value of product landed (source: National Marine Fisheries Service). The fishing fleet includes more than 250 vessels operating out of the port. These vessels consist mainly of steel hull construction and are rigged for ground fish and scallops, providing the highest quality seafood products worldwide. The harbor's seafood processing industry has grown in recent years to become a nationally and internationally recognized industry center.

Across the harbor, shipyards line the Fairhaven waterfront. Marine service and vessel repair industries in Fairhaven have established reputations along the East Coast. Two major shipyards, D.N. Kelley & Son and Fairhaven Shipyard, are known internationally for quality repair on all types of boats.

Support industries include vessel maintenance and repair conducted at dockside or at repair facilities along the New Bedford Waterfront. Equipment and provisions to support the fishing fleet and other commercial and recreational vessels, such as food, ice, fuel, oils, electronics, and other products, also are available at the port.

The Port of New Bedford is the largest breakbulk handler of perishable items in Massachusetts and adjacent states. Commodities brought by refrigerated vessels from around the world primarily include fresh fruit and fish, as well as substantial volumes of frozen fish. The Port has direct Atlantic service from Norway calling at Maritime International Terminal every two weeks to satisfy the needs of Massachusetts fish processors and distributors. With its waterfront warehouse capacity, Maritime International has one of the largest U.S. Department of Agriculture-approved cold treatment centers on the East Coast for the use of restricted imported fruit. The terminal receives approximately 25 vessels a year. Each vessel carries about 1,000 tons of fish or, if carrying fruit, about 2,000 to 3,000 tons of fruit. Port calls vary between one and two days per discharge.

Ferry services are available in the port, including passenger and cargo service to Cuttyhunk Island and passenger service to Martha's Vineyard. Launch, water taxi, and charter boat services also operate in the port.

Like many modern working ports, New Bedford/Fairhaven Harbor balances maritime interests and local economic needs with environmental concerns. Several economic and environmental designations, such as the Foreign Trade Zone and No Discharge Area, currently apply to the port. Long-term projects, such as the Superfund cleanup and restoration of federal navigation channels, are taking place in the port. These projects and designations will improve the harbor's environmental health and enhance its economic growth.

**Designated Port Area (DPA)**
The Massachusetts Office of Coastal Zone Management has classified portions of the waterfront in New Bedford and Fairhaven as a Designated Port Area (DPA) under a program to preserve and promote maritime industry. The DPA classification encourages the creation or expansion of water-dependent industrial facilities, such as fish processing plants, in developed harbor areas. DPAs are subject to specific provisions, including land use restrictions, under Massachusetts General Law Chapter 91, which is administered by the state's Department of Environmental Protection. DPAs also are officially identified as priority areas for federal and state funding, including funds available under the Seaport Bond. (Original source: MA Coastal Zone Management Web site: www.mass.gov/czm)

**New Bedford Foreign Trade Zone**
The Port of New Bedford, New Bedford Regional Airport, and adjacent areas form the New Bedford Foreign Trade Zone (FTZ), which provides duty-free manufacturing opportunities for importers and exporters. The City of New Bedford is grantee or holder of Foreign Trade Zone (FTZ) number 28. An FTZ is a designated area that, for Customs purposes, is considered outside the U.S. Nearly any imported merchandise can be brought into the FTZ for almost any kind of manipulation duty-free, unless it enters the U.S. market. Goods in the FTZ can be assembled, manufactured or processed and final products re-exported without paying Customs duties. If the final products enter the U.S., the duty rate may be lower than the duty applicable to the product itself or its parts.

New Bedford offers international distribution services that support the FTZ. The city is accessible by sea, air, and rail services, as well as interstate highway systems. The port has shipping agencies, freight forwarding and stevedore services, and warehouse and truck-brokering facilities. The New Bedford Regional Airport is located within the FTZ. New Bedford is serviced by the CSX interstate railway. The city is adjacent to the interstate highway system and is within overnight truck delivery distance of most major cities in the Northeast industrial corridor. Long-haul trucking service to Canada and U.S. inland states also is available.

New Bedford Foreign Trade Zone number 28 is a direct port of entry to European and Latin American markets. FTZ number 28 is able to sponsor expanded general purpose sites within a 60-mile radius of the city. In addition, the FTZ has the potential to sponsor qualified subzones anywhere in Massachusetts. The FTZ Corporation recently created a subzone near the port's South Terminal area outside the Hurricane Barrier.

**No Discharge Area**

The U.S. Environmental Protection Agency (EPA) has designated Buzzards Bay, including New Bedford Harbor, as a No Discharge Area (NDA). In NDAs, the discharge of all boat sewage, even if it is treated, is prohibited. The Coast Guard enforces restrictions in NDAs. To help boaters comply with federal law, pumpout facilities have been established throughout the area. Pumpouts are wet vacuums that draw sewage out of boat holding tanks for proper disposal. Many of these facilities have been funded by federal grants and are available at little or no cost to boaters. (Original source: MA Coastal Zone Management Web site: www.mass.gov/czm)

**New Bedford Federal Navigation Project**

The restoration of federally authorized channel depths in New Bedford/Fairhaven Harbor is one of the federal navigation - or dredging - projects maintained by the U.S. Army Corps of Engineers/New England District. The main deep-draft channel to New Bedford has an authorized depth of 30 feet, while shallow draft channels for the fishing fleet at Fairhaven have depths of 15 and 10 feet. The shallower channels on the Fairhaven side of the harbor require maintenance dredging of about 70,000 cubic yards of shoal material. The deeper channels serving the New Bedford waterfront would require dredging of about 1.3 million cubic yards to restore the authorized project dimensions.

The Army Corps assisted the Massachusetts Office of Coastal Zone Management (CZM) in preparation of a Dredged Material Management Plan to identify a disposal site for maintenance dredging of navigation channels in New Bedford and Fairhaven. The state study examined the dredging needs of the federal navigation project for New Bedford and numerous state, municipal, and private facility dredging needs for a 20-year period. Environmental permitting on the project has been completed. The New Bedford Harbor Development Commission is working with the Army Corps and Environmental Protection Agency to coordinate implementation of the 20-year maintenance dredging and the Superfund cleanup. (Original source: Army Corps Web site: www.nae.usace.army.mil)

**New Bedford Superfund Site Cleanup**

The 18,000-acre New Bedford Harbor Superfund site extends from the northern reaches of the Acushnet River estuary south through the commercial harbor of New Bedford and into Buzzards Bay. The site contains sediments that are contaminated with polychlorinated biphenyls (PCBs) and heavy metals. The city's main working port, which houses the fishing fleet and cruise ship terminal, is not affected by the cleanup that is taking place primarily in the far north region of the harbor.

EPA issued a Record of Decision for the upper and lower harbor in 1998. The cleanup includes dredging approximately 450,000 cubic yards of PCB-contaminated sediment from the harbor. The dredged sediment will be contained in shoreline confined disposal facilities (CDFs) or transported offsite to a licensed landfill. Seawater will be removed from the sediments, treated, and discharged back into the harbor. Once completed, the CDFs will be available for reuse as shoreline open space and parks.

Steps taken to date, including posting warning signs, fencing contaminated shoreline areas and dredging the most highly contaminated hot spot sediments, have reduced threats posed by the site. Progress towards the remaining cleanup continues. EPA and the City of New Bedford have agreed on an innovative approach to increase the environmental benefit of the remedy in the north terminal section of the harbor. Once the cleanup is complete, the City will be able to reuse EPA's six-acre shoreline sediment processing facility as part of its working waterfront and intermodal, multi-user

transportation facility. Construction and minor dredging to support the main cleanup began in 2002. (Original source: EPA Web site: www.epa.gov).[5]

New Bedford offers international distribution services, including an adjacent airport. The port has its own ship agency, freight forwarding, stevedoring services, blast freezing, warehouse and truck brokering facilities all in one location, providing customers with "one-stop shopping." Deepwater berths and U.S. Customs-bonded refrigerated warehouses enable the port to maintain a "cold chain" for perishable products from ship to refrigerated storage. New Bedford's cold treatment facility is, in fact, the largest of its kind in North America.

The port and adjacent areas form the New Bedford Free Trade Port, which provides manufacturing opportunities for various importers and exporters. Future plans include expansion of the seaport through harbor dredging and construction of additional cold storage facilities. Marketed as a "Real Port" offering full turnkey services, New Bedford will take advantage of these improvements to promote further its capabilities for handling perishable goods.[6]

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[5] Port of New Bedford website: http://www.ci.new-bedford.ma.us/ECONOMIC/HDC/wtrgeneral.htm

[6] Seaport Advisory Council website: http://www.mass.gov/seaports/newbed.htm

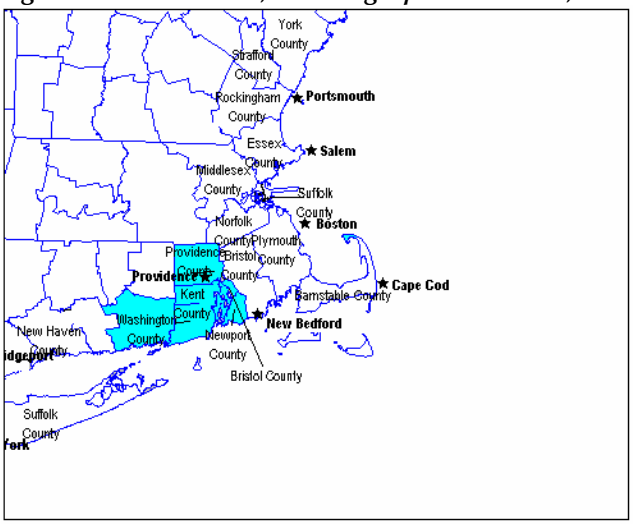
# 9. Providence, RI

## Location and Background Information

The Port of Providence is located in the Providence – New Bedford – Fall River, Rhode Island – Massachusetts Metropolitan Statistical Area (MSA). International commerce started in this port in the 1700's when the Port of Providence first established trade with China. Less than a century later, Providence is New England's third largest city and the Northeast's premiere deep water multimodal facility for international and domestic trade.

The Port of Portland, or ProvPort, was officially founded in 1994 as a fully licensed, bonded Deep Water Port specializing in Bulk and Break Bulk commodities. While China continues to be one of its main trading partners, the port has expanded its partnerships and trading status with Central and South America, Europe, the Far East, Russia, Africa, Australia and New Zealand.[1]

*Figure 9-1. Providence, RI: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of this region is 1,048,319 according to the 2000 US Census. Of this total, 503,635 or 48 percent are males and 544,684 or 52 percent are females. The median age in the region is 36.7 years; 35.3 for males and 37.9 for females.[2] As is shown in Figure 9-2, about 25 percent of males and 22 percent of females are between the ages of 0 and 17 years. Nearly 45 percent of the population (15 percent approximately per age group) is between 18 and 49 years old.

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[1] Providence Port Authority website: http://www.provport.com

[2] US Census Data, Census 2000.

The majority of the population in this MSA is white (85 percent), followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), which represent 8.4 percent of the total population. The Black or African American population represents 4.3 percent, followed by the Asian population, which represents only 2.3 percent of the total population (Figure 9-3). Moreover, in terms of ethnic makeup, 8.6 percent of the total population is considered to be of Hispanic or Latino origin.[3]

***Figure 9-2. Providence, RI: Structure of the Population by Age Group, 2000***

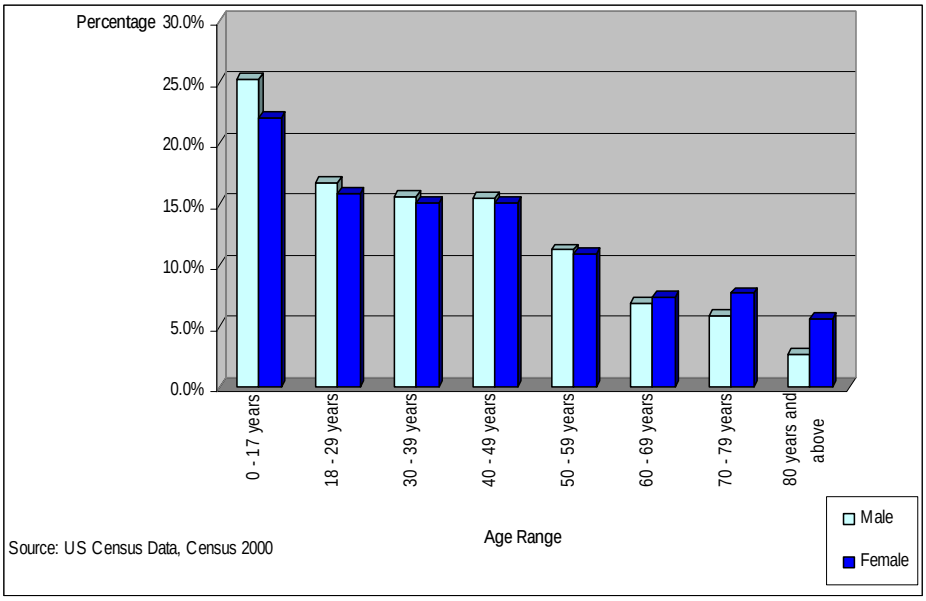
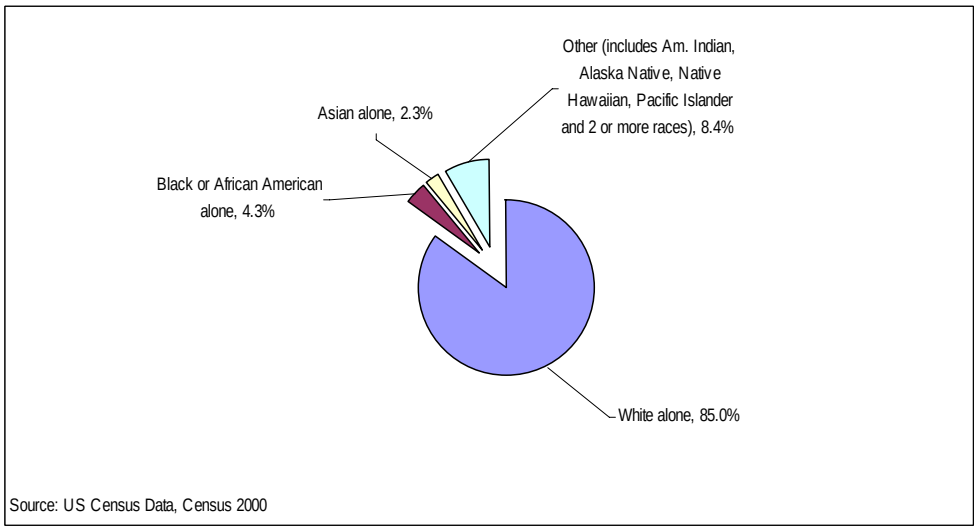



***Figure 9-3. Providence, RI: Population by Race, 2000***

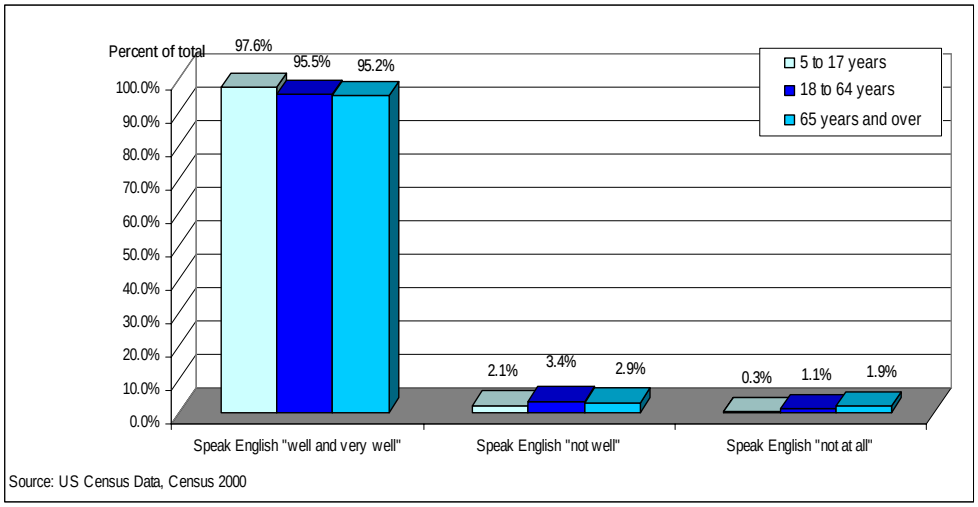



It is evident from the data specified in Figure 9-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. Approximately 2.3 percent of the

[3] US Census Data, Census 2000

population ages 5 – 17, 4.5 percent of the population ages 18 – 64 years and 4.8 percent of the population ages 65 years or older do not speak English well or do not speak English at all.

***Figure 9-4. Providence, RI: Ability to Speak English by Age Group, 2000***

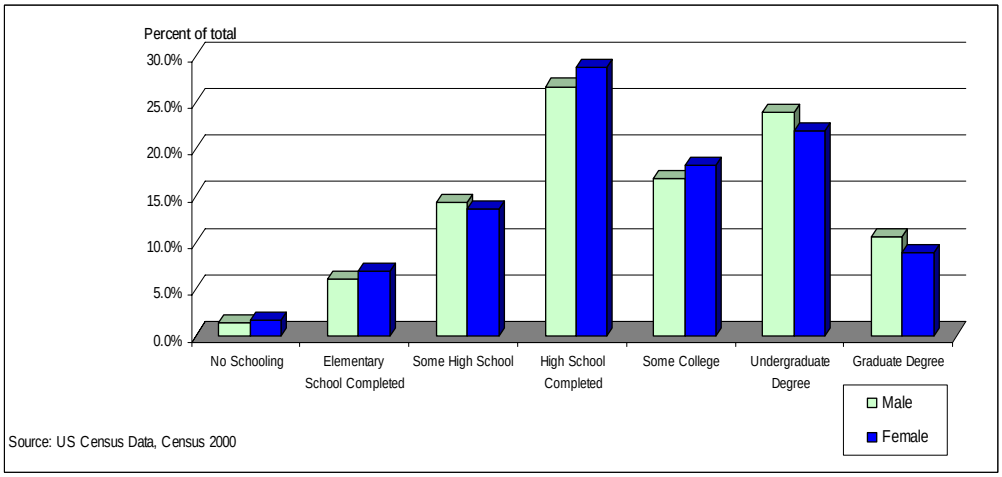



## EDUCATION

Around 25 percent of males and 27 percent of females in the region, ages 25 and over, have completed high school. Approximately 23 percent of males and 21 percent of females have obtained an undergraduate degree in this region and less than 10 percent of the population has obtained a graduate degree (Figure 9-5).

There are a number of four year colleges and universities in the region. Some of these institutions include: Brown University, Rhode Island School of Design, Johnson & Wales University, Bryant College, Providence College, New England Institute of Technology and the Rhode Island Hospital Schools of Medical Technology, Nuclear Medicine, Radiologic Technology and Ultra Sonography. [4]

***Figure 9-5. Providence, RI: Educational Attainment of Population by Sex Ages 25 and over, 2000***




[4] Providence Community Profile: http://www.epodunk.com

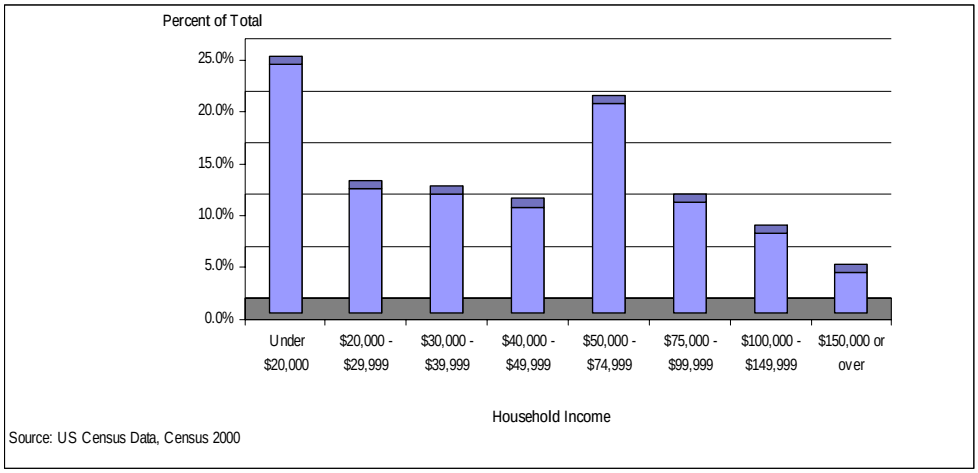
# Socio-Economic Characteristics

## INCOME

Nearly 25 percent of households in the region had incomes of under $20,000 in 1999; and around 21 percent of households fell within the $50,000 - $74,999 income bracket. About 5 percent of households in the region had incomes of $150,000 or over (Figure 9-6).

Household median income in this MSA in 1999, according to the 2000 US Census, was $42,369.92 and per capita income was $21,687.55. The percentage of people under the poverty line in the region was 11.9 in the year 2000. The average household size in 2000 was 2.47.[5]

***Figure 9-6. Providence, RI: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

About 35 percent of females in this region (of the employed civilian population 16 years and over) are employed in educational, health and social services industries and around 20 percent are employed in 'other' industries. These industries include the arts, entertainment, recreation, food services, public administration and information. Males' employment is more evenly distributed among industries, with manufacturing, and 'other' industries as the most dominant ones, representing 20 percent of male's participation; followed by 16 percent participation in wholesale and retail trade (Figure 9-7).

An estimated 5.6 percent of males and females were unemployed in the region in the year 2000.[6]

According to the 2000 US Census, an estimated 0.6 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 20.7 percent of males and 9.4 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.05 percent of female's occupations.

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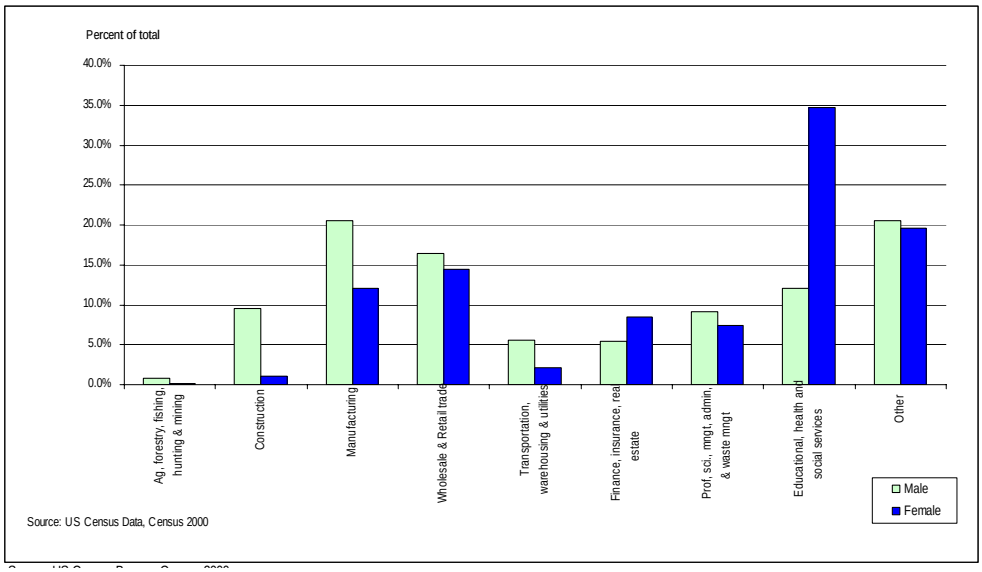
[5] US Census Data, Census 2000.

[6] US Census Data, Census 2000.

*Figure 9-7. Providence, RI: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

ProvPort (the Port of Portland) is centrally located on the Atlantic East Coast shoreline just 150 miles from New York, 50 miles from Boston and 200 miles within major city and ports of Eastern Canada. Located just 1 mile from New England's primary Interstate I-95, ProvPort offers overnight access to all of the Northeast states and Eastern Canada.

ProvPort specializes in the handling of both Dry and Liquid Bulk and Break Bulk commodities for both imports and exports. Over 15 tons of cargo has moved across the facility since its establishment in 1994. ProvPort handles commodities such as cement, chemicals, coal, cobblestone, heavy machinery, liquid petroleum products, lumber, pearlite, salt, scrap, metal and steel products.

ProvPort's premises are 105 acres and include 6 deep water berths totaling 3500 linear feet combined, 3 warehouses totaling 300,000 square feet with 10 loading bay doors, over 20 acres of paved open storage area and on-dock rail access with 3 rail spurs.

**Berths**

ProvPort completed in January of 2004 its dredging project to deepen its 6 berths to a maximum depth of 40' @ MLW. The project, in conjunction with the U.S. Army Corps of Engineers New England district also involved dredging more than 6 million CY of material in Providence River to return a 7 mile stretch of the authorized Federal navigation project to full authorized dimensions of 40' deep and 600 feet wide. ProvPort offers a total of 3500 L.F. usable dockage space spread over 6 deep water berths as follows:

**Petroleum Tank Farm**

ProvPort is the owner of its own Petroleum Tank Farm totaling 335,000 barrels / 12 million gallons with storage capacity in 13 above ground storage tanks. In addition, a fuel depot station consisting of

an eight bay loading rack system is available along with a 40 meter operating scale and a secured scale house and operation center.

**Cement Storage**
With two separate on-dock cement storage facilities, Glens Falls Lehigh Cement has storage capacity of over 55,000 tons of cement. Its most recent investment of $15 million dollars enabled GFLC to create and establish the New England Distribution Center at ProvPort capable of loading and transporting it product by truck or rail to their customer base around the clock.

**Warehousing**
ProvPort offers 3 separate on dock covered warehouses totaling over 300,000 square feet used for both short and long term storage as well as viable distribution centers for the Northeast corridor. Ranging from 64,000 square feet to 130,000 square feet, ProvPort also has available 10,000 square feet of office space if required, truck bays and rail access for dock side loading/unloading.

The Marine Terminal Building is 116,000 square feet, has 10,000 square feet of office space and 10 truck bays; it is adjacent to berths 1, 2 & 3. The Ace Warehouse is 131,000 square feet, it has dock side loading, and is adjacent to berths 4 & 5. The Terminal Building is 64,000 square feet, it has dock side loading and is adjacent to berths C & 1. [7]

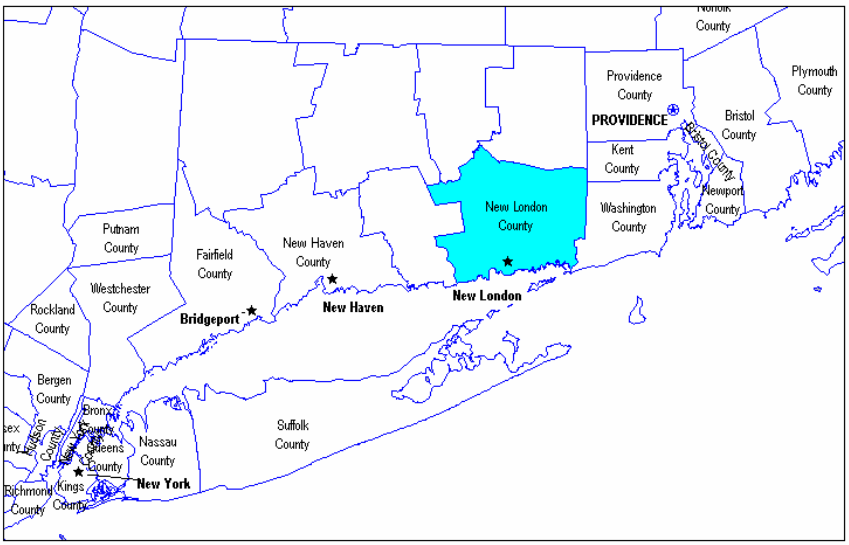
[7] Providence Port Authority website: http://www.provport.com/index.html

# 10. New London, CT

## Location and Background Information

The Port of New London is located in the Norwich – New London, Connecticut Metropolitan Statistical Area (MSA). This MSA is comprised of New London County, CT.

*Figure 10-1. New London, CT: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

New London County has a total population of 259,088, according to the 2000 US Census. Of this total, 128,172 or 49.5 percent are males and 130,916 or 50.5 percent are females. The median age in the region is 37 years; 35.9 for males and 38 for females. About 45 percent of males fall within the age brackets of 18 – 29, 30 – 39 and in the 40 – 49 years age range (15 percent approximately in each age group). About 15 percent of females fall within the 30 – 39 and the same percentage in the 40 – 49 years age bracket (Figure 10-2).

The majority of the population in New London county is white (86.9 percent); followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), representing 6.2 percent of the total population. The Black or African American population represents 5.1 percent of the total population, whereas the Asian population represents roughly 1.9 percent of the total population (Figure 10-3). Moreover, in terms of ethnic makeup, 5.2 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 10-2. New London, CT: Structure of the Population by Age Group, 2000*

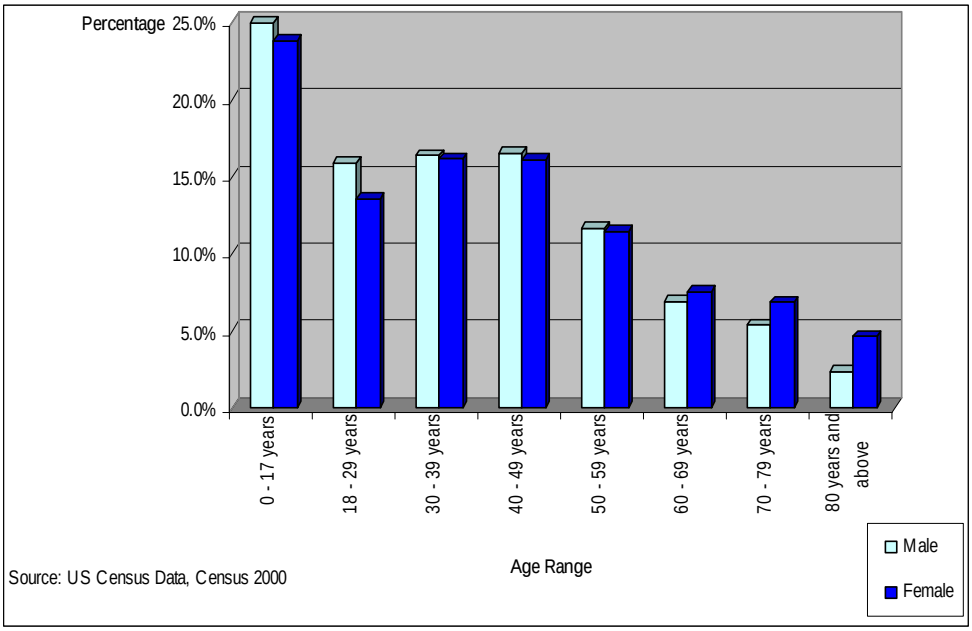
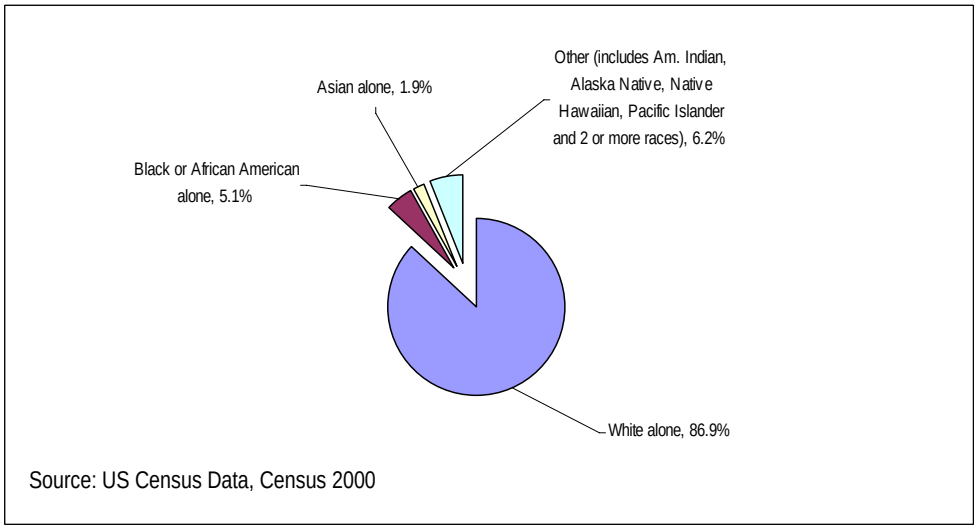
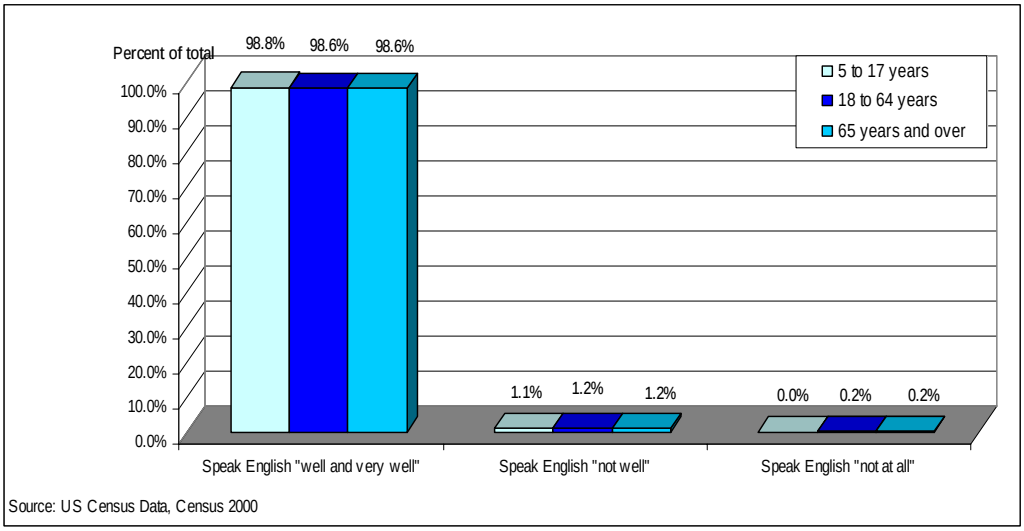



*Figure 10-3. New London, CT: Population by Race, 2000*



It is evident from the data specified in Figure 10-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 10-4. New London, CT: Ability to Speak English by Age Group, 2000***

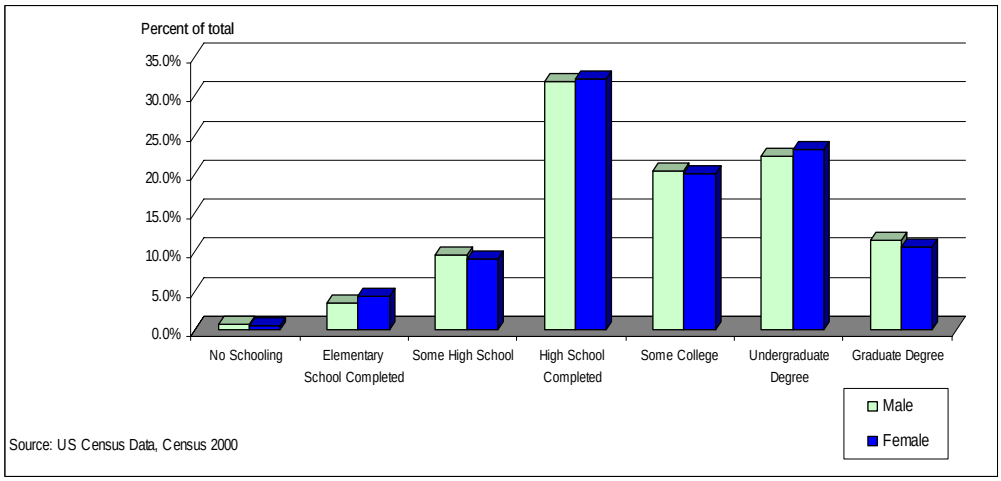



## EDUCATION

Of the population in New London County, ages 25 and over, about 30 percent of males and females have completed high school. Nearly 26 percent of males and females have obtained undergraduate degrees. This percentage is very closely followed by the rate of males and females that have finished only some college. About 10 percent of males and females have obtained graduate degrees in the region (Figure 10-5).

There are only three colleges in New London County: Connecticut College, Mitchell College and the U.S. Coast Guard Academy.

***Figure 10-5. New London, CT: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 10-6, nearly 25 percent of households in New London County in 1999 had incomes between $50,000 and $74,999. About 15.8 percent of households had incomes under $20,000 and 13 percent fell within the $75,000 - $99,999 income bracket. About 5 percent of households in the region had incomes of $150,000 or over (Figure10-6).

Household median income in this county in 1999 was $50,646 and per capita income was $24,678. The percentage of people under the poverty line in the region was 6.4 in the year 2000. Average household size in 2000 was 2.4. [2]

***Figure 10-6. New London, CT: Distribution of Households by Household Income Level, 1999***

## EMPLOYMENT

As the data in Figure 10-7 shows, of the employed civilian population in the region, ages 16 or over, nearly 35 percent of working females are employed in the educational, health and social services industries and about 29 percent of them are employed in 'other' industries which include the arts, entertainment, recreation, food services, public administration and information. Males are employed in 'other' industries (25 percent); followed in a smaller proportion by occupations in the manufacturing industry (20 percent) and the wholesale and retail trade industry (15 percent).

An estimated 4.0 percent of males and 3.8 percent of females were unemployed in the area in 2000.[3]

According to the 2000 US Census, an estimated 0.6 percent of males and 0.3 percent of females are employed in farming, fishing and forestry occupations. About 16.1 percent of males and 5.1 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.7 percent of male's occupations and 0.1 percent of female's occupations.

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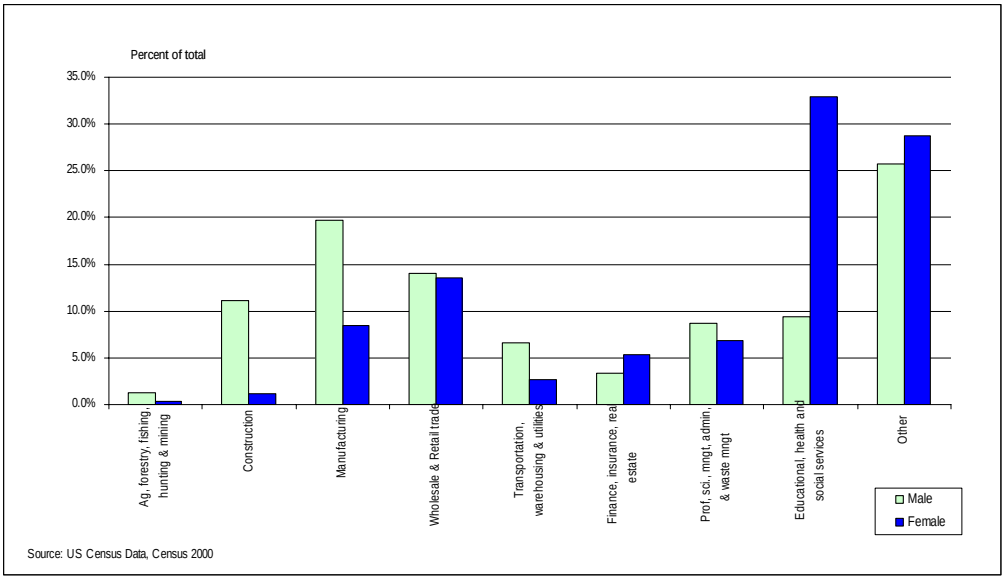
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure10-7. New London, CT: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

Picture Source: Connecticut Department of Transportation.[4]

The Port of New London is serviced by the Port of Hartford.[5]

There is a Naval Submarine Base in New London, CT.

[4] Connecticut Department of Transportation website: http://www.ct.gov/dot/cwp/view.asp?a=1380&Q=259734&dot PNavCtr=|40046|#40049

[5] US Customs and Border Protection website: http://www.customs.gov/xp/cgov/toolbox/ contacts/ports/ct/0413.xml

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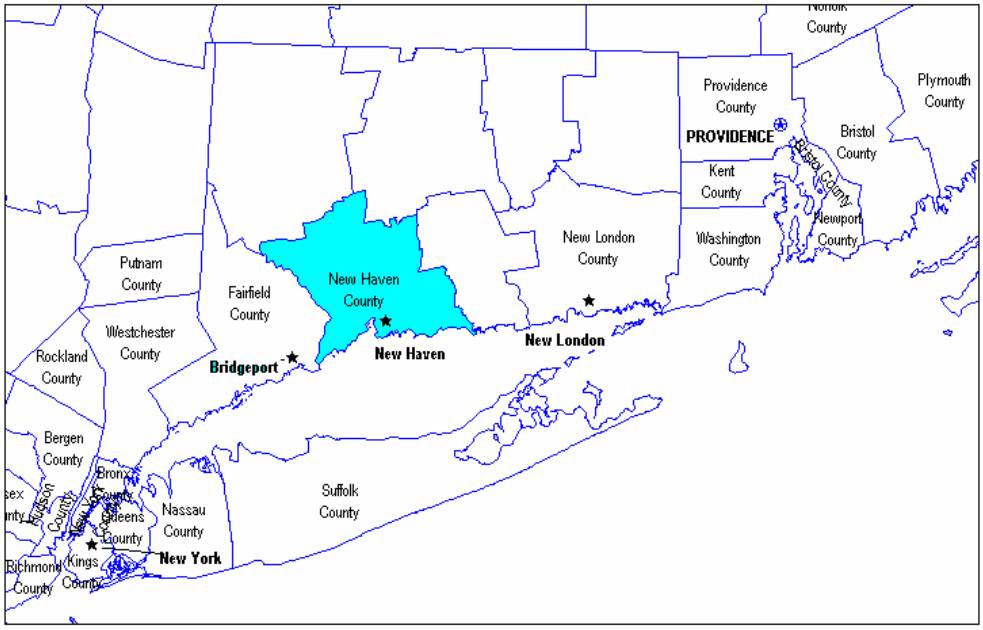
# 11. New Haven, CT

## Location and Background Information

The Port of New Haven, Connecticut is located in the New Haven – Milford, Connecticut Metropolitan Statistical Area (MSA). This MSA is comprised of New Haven County, CT.

*Figure 11- 1. New Haven, CT: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The population of New Haven County in 2000 was 824,008, according to the 2000 US Census. Of this total, 395,931 or 48.0 percent are males and 428,077 or 52.0 percent are females. The median age for the population in 2000 was 37 years; 35.6 for males and 38.3 for females. As shown in Figure 11-2, about 45 percent of the population is between 18 and 49 years of age (15 percent approximately per age group).

The majority of the population in New Haven County is white (79.3 percent), followed by the Black or African American population, which represents 11.2 percent of the total population. This population is followed by 'others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), who represent 7.1 percent of the population. The Asian population represents 2.4 percent of the total population (Figure 11-3). Moreover, 5 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 11-2. New Haven, CT: Structure of the Population by Age Group, 2000*

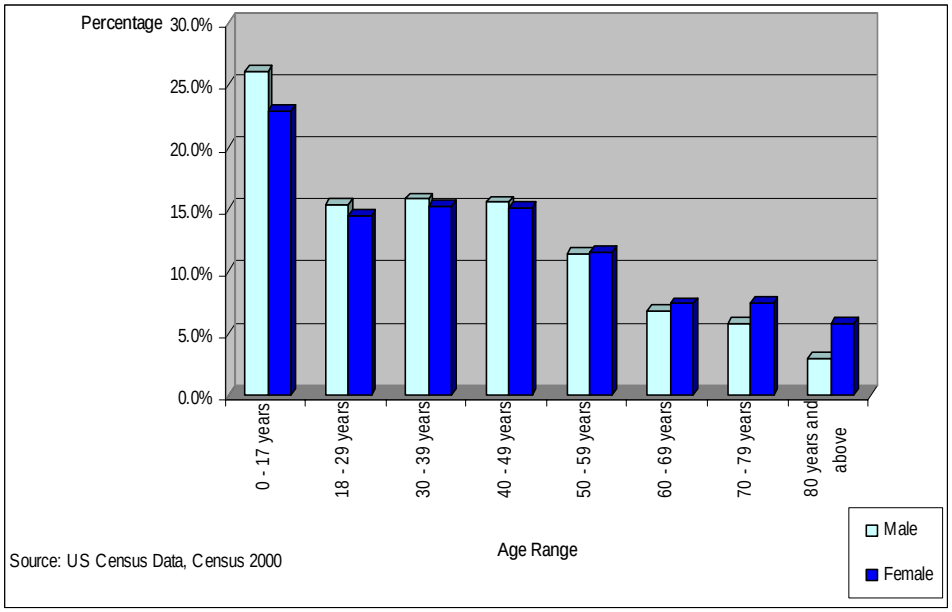
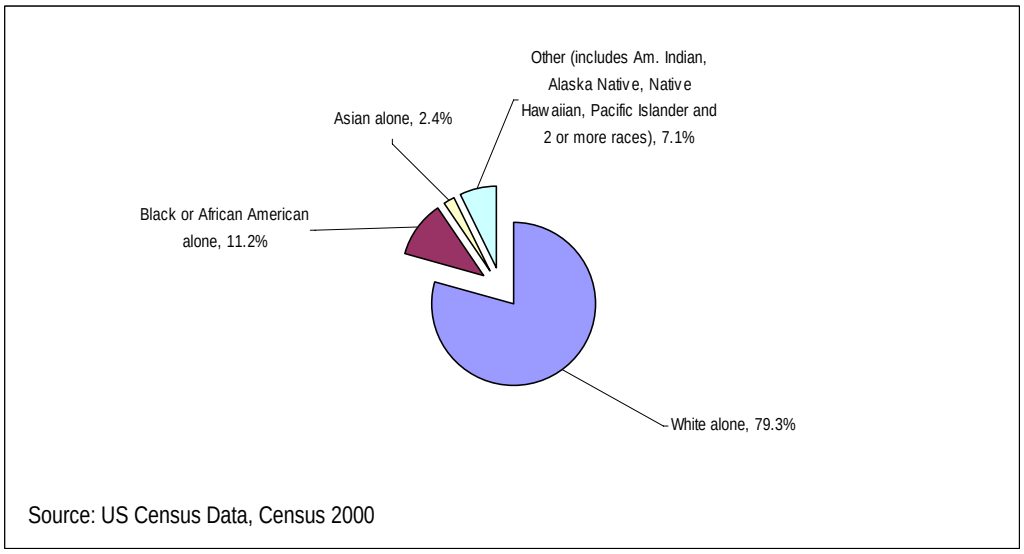
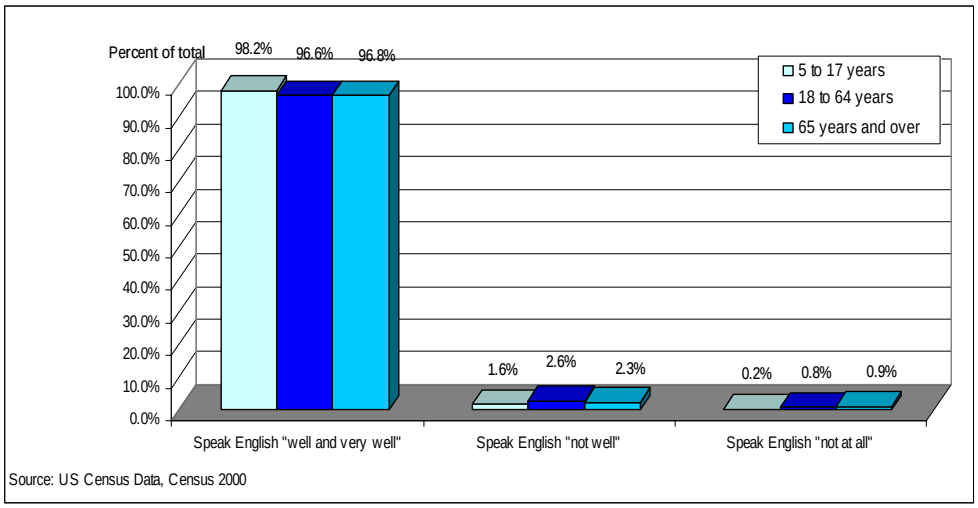



*Figure 11-3. New Haven, CT: Population by Race, 2000*




It is evident from the data specified in Figure 11- 4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. Around 3 percent of the population in the 18 – 64 age bracket and the 65 years and over age bracket do not speak English well or don't speak English at all.

*Figure 11- 4. New Haven, CT: Ability to Speak English by Age Group, 2000*

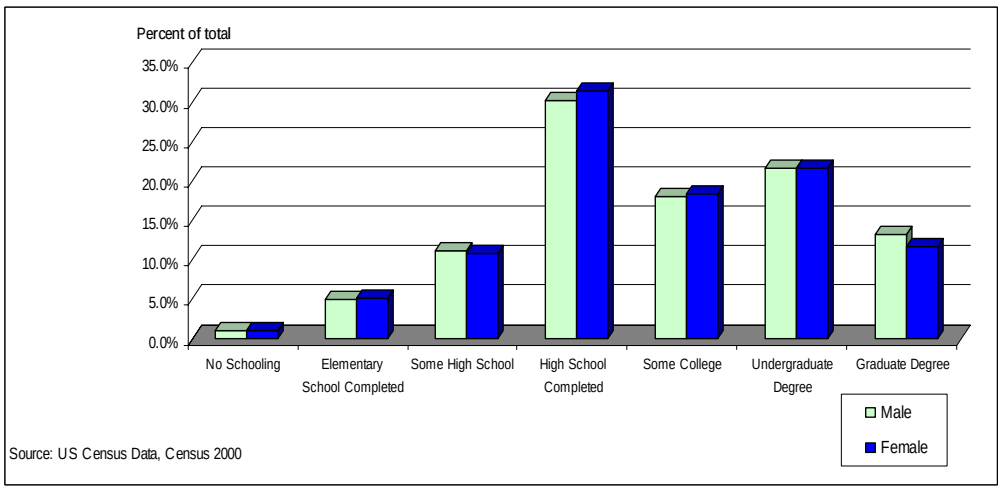



## EDUCATION

Of the population in the region, ages 25 and over, nearly 30 percent of males and females have completed high school, and 20 percent have obtained undergraduate degrees. Over 15 percent of the population has completed some college and a little over 10 percent has obtained a graduate degree (Figure 11-5).

There are several universities in New Haven County, among them: Yale University, Southern Connecticut State University, Albertus Magnus College, Gateway Community-Technical College, Quinnipac University and University of New Haven.

*Figure 11- 5. New Haven, CT: Educational Attainment of Population by Sex Ages 25 and Over, 2000*



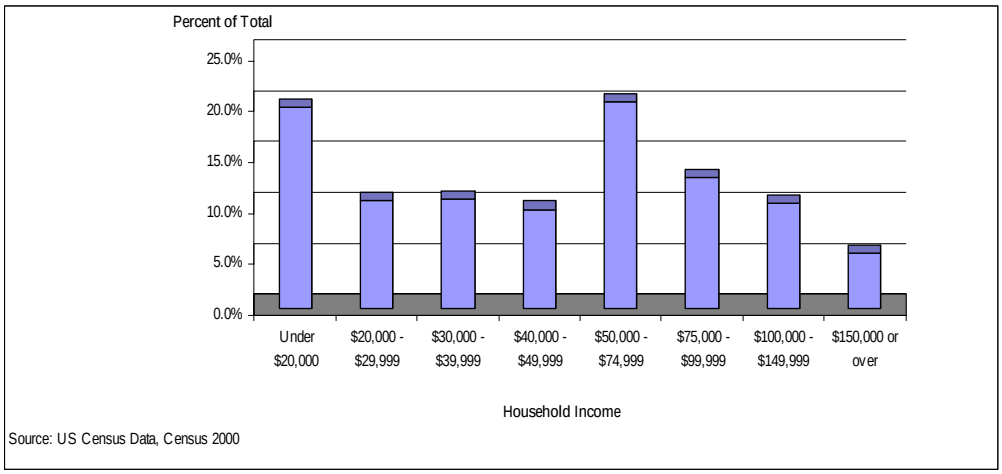
# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 11- 6, about 20 percent of the households in this area in 1999 had incomes of under $20,000. About 20 percent of households' incomes fell in the $50,000 - $74,999 income bracket. Less than 7 percent of households in the region had incomes of $150,000 or over.

Household median income in New Haven, CT in 1999 was $48,834 and per capita income in the same year was $24,439. The percentage of people under the poverty line in the region was 9.5 in the year 2000. Average household size in 2000 was 2.5.[2]

***Figure 11- 6. New Haven, CT: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in the region, ages 16 or over, nearly 40 percent of females are employed in the educational, health and social services industry, and over 15 percent are employed in 'other' industries, including the arts, recreation, entertainment, food services, public administration and information. Over 20 percent of males are employed in manufacturing and over 17 percent are employed in 'other' industries (Figure 11-7).

An estimated 6.2 percent of males and 5.6 percent of females were unemployed in the county in 2000.[3]

According to the 2000 US Census, an estimated 0.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 19.1 percent of males and 7.8 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.4 percent of male's occupations and 0.1 percent of female's occupations.

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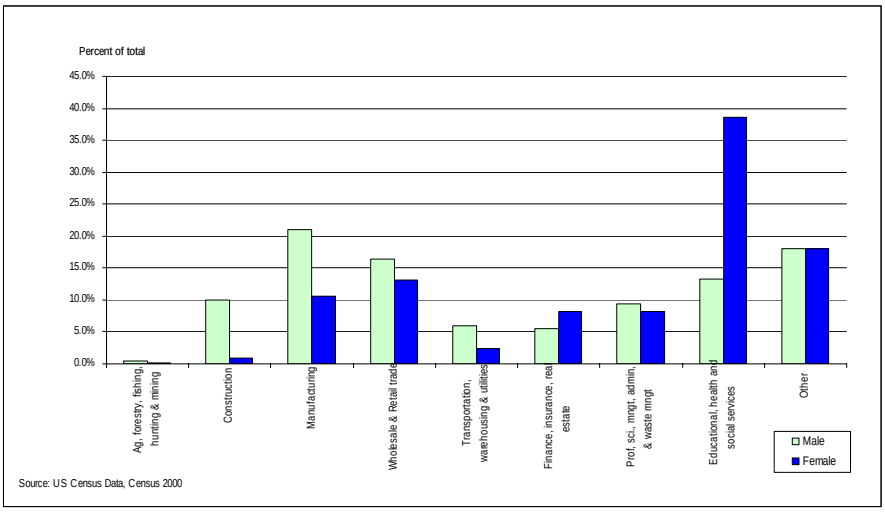
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 11- 7. New Haven, CT: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The port of New Haven is located on the New Haven Harbor, less than 500 yards from Exit 49 off I-95; with immediate access to I-91 and Route 1. The ports serve vessels, barge, truck and rails. It has three berths, 2 @ 36'. MLW 1 @ 39' MLW

The Port also has capability for loading up to 200 trucks per day from the ground or via loading docks. New Haven port is serviced by the Providence and Worcester railroad, connecting with CONRAIL, New England railroad CN and CP. There is private siding for loading and unloading of box cars, gondolas, flat cars, etc.

There are approximately 400,000 square feet of inside storage and approximately 50 acres of outside storage space, as well as bonded storage available. There is LME approved warehousing available for Zinc, Aluminum, Lead, Tin and Nickel. The port possesses 5 shore cranes up to 250 ton capacity; with 61 forklifts up to 26 tons capacity. The facility currently handles Steel, Copper, Zinc, Aluminum, Tin, Containers, Paper, Woodpulp, Lumber, Heavy lifts, Crane parts and Automobiles; yet facilities are capable of handling any type of Break-Bulk cargo.[4]

[4] Source: Connecticut Department of Transportation http://www.ct.gov/dot/cwp/view.asp?a= 1380&Q= 259730&dotPNavCtr= | 40046 | #40048

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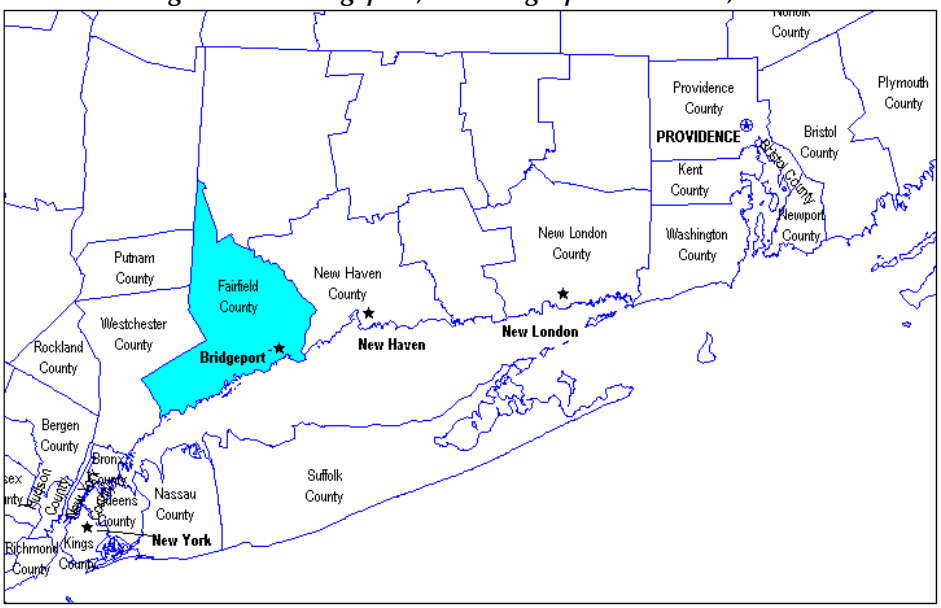
# 12. Bridgeport, CT

## Location and Background Information

The Port of Bridgeport is located in the Bridgeport-Stamford-Norwalk, Connecticut Metropolitan Statistical Area (MSA); comprised of Fairfield County, CT. The port is located in Bridgeport Harbor, 1/4 of a mile South of I-95 at Exit 29.

*Figure 12-1. Bridgeport, CT: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the MSA in 2000 was 882,567, according to the 2000 US Census. Of this total, 426,127 or 48.3 percent are males and 456,440 or 51.7 percent are females. The average age in the region in 2000 was 37.3 years; 36.1 for males and 38.4 for females. As shown in Figure 12-2, about 30 percent of males and females are between the ages of 18 and 39 years (15 percent approximately per age group).

The majority of the population in the region is white (79.2 percent), followed by the Black or African American population, which represents 10 percent of the total population. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 7.6 percent of the population, whereas only 3.2 percent of the population is Asian (Figure 12-3). Moreover, in terms of ethnic makeup, 11.8 percent of the total population is of Hispanic or Latino origin. [1]

[1] US Census Data, Census 2000.

*Figure 12-2. Bridgeport, CT: Structure of the Population by Age Group, 2000*

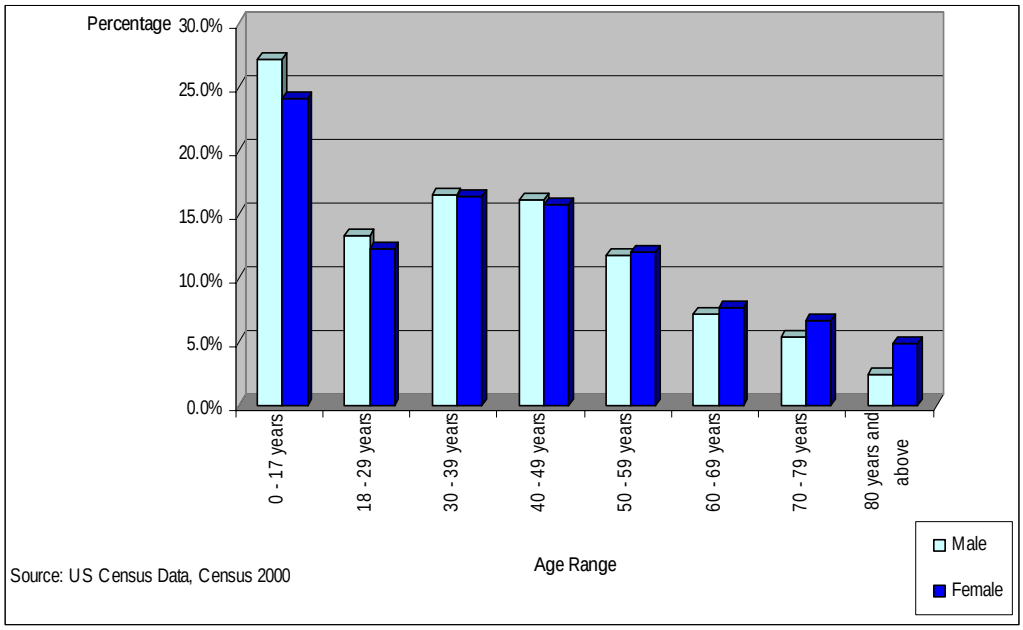
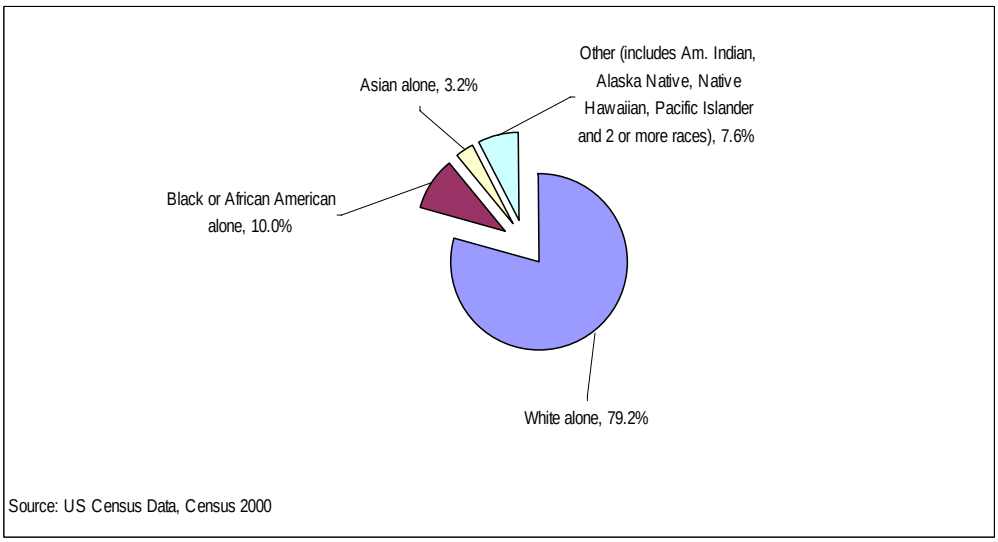
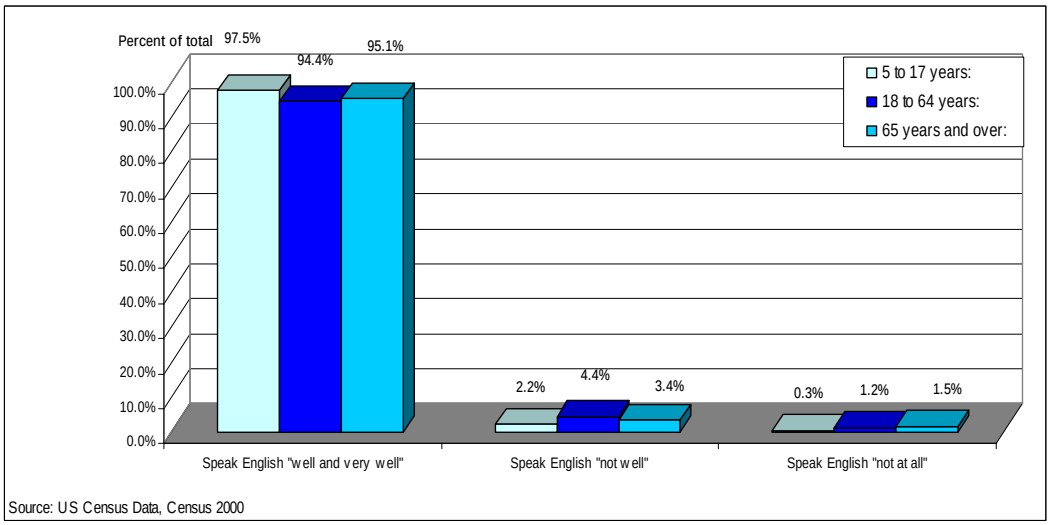



*Figure 12-3. Bridgeport, CT: Population by Race, 2000*




It is evident from the data specified in Figure 12-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. About 5.6 percent of the population in the 18 – 64 years age bracket does not speak English well and approximately 5 percent of the population 65 years and over cannot speak English at all.

*Figure 12-4. Bridgeport, CT: Ability to Speak English by Age Group, 2000*

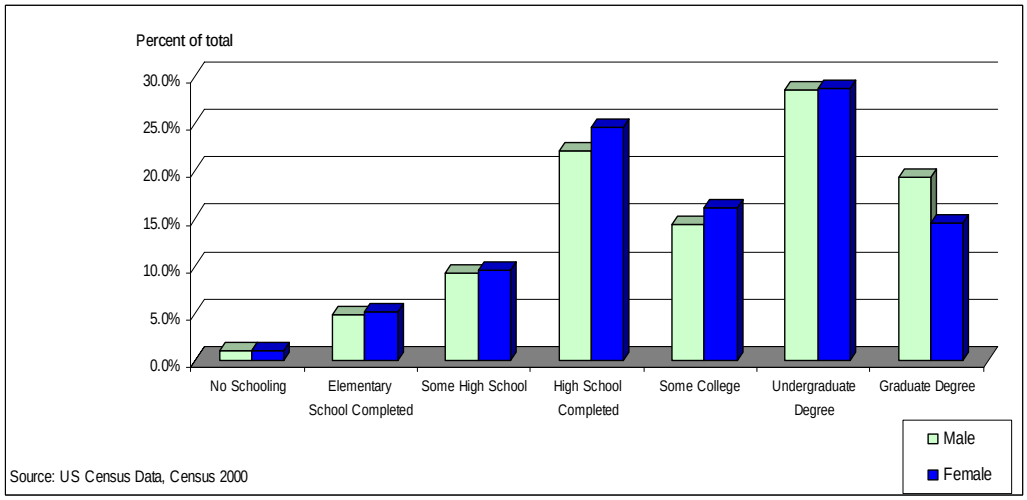



## EDUCATION

Nearly 30 percent of males and females, ages 25 or over in Fairfield County, have obtained an undergraduate degree. About 20 percent of males and 25 percent of females have finished high school. Approximately 18 percent of females and 14 percent of males have obtained graduate degrees (Figure 12-5).

There are several universities in Fairfield County; among them: University of Bridgeport, Butler Business School, Fairfield University, Sacred Heart University, Saint Vincent's College and Western Connecticut State University.[2]

*Figure 12-5. Bridgeport, CT: Educational Attainment of Population by Sex Ages 25 and Over, 2000*




[2] Bridgeport Community Profile: http://www.epodunk.com/

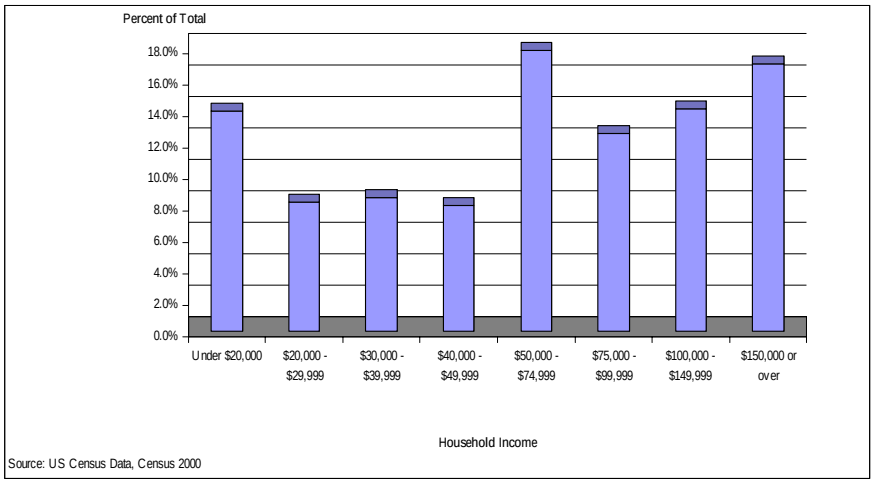
# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 12-6, about 18 percent of the households in this area in 1999 had incomes in the $50,000 – $74,999 income bracket and 17 percent of households had incomes of $150,000 or over. Around 14 percent of households had incomes under $20,000.

Household median income in the county in 1999 was $65,249 and per capita income in the same year was $38,350. The percentage of people under the poverty line in the region was 6.9 in the year 2000. Average household size in 2000 was 2.67.[3]

***Figure 12-6. Bridgeport, CT: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in the region ages 16 or over, nearly 30 percent of females are employed in the educational, health and social services industry, and almost 20 percent are employed in 'other' industries, including the arts, recreation, entertainment, food services, public administration and information. About 18 percent of males are employed in 'other' industries and nearly 15 percent are employed in the wholesale and retail trade industry. Less than 0.2 percent of the population is employed in forestry, agriculture, mining, fishing or hunting industries (Figure 12-7).

An estimated 4.8 percent of males and 4.7 percent of females were unemployed in the region in the year 2000.[4]

According to the 2000 US Census, an estimated 0.1 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 12.3 percent of males and 5.7 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.2 percent of male's occupations and 0.03 percent of female's occupations.

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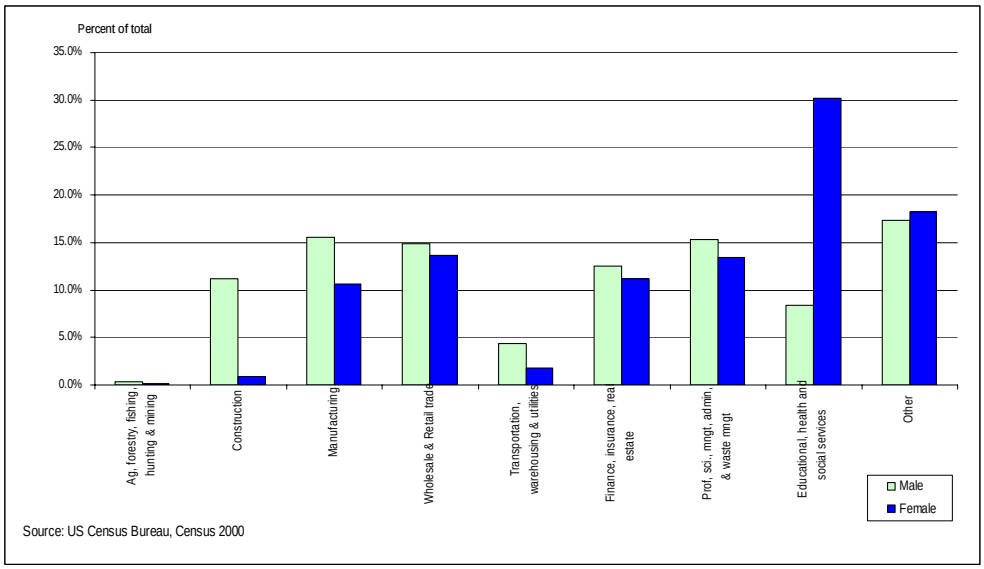
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 12-7. Bridgeport, CT: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The port of Bridgeport is located in Bridgeport Harbor, 1/4 of a mile South of I-95 at Exit 29. The port serves vessels, barge, and trucks. It has 2 Berths @ 33 draft MLW and over 40 pieces of Electric Forklift equipment for handling cargo in refrigerated warehouses/ships. The port has 20 additional pieces of forklift equipment for up to 20 ton capacity. There are approximately 20 acres outside for storage/staging area; 130,000 square feet dry storage space inside; 85,000 square feet of refrigerated warehouse space with temperature capability to 32° F and there is bonded storage available (certified by USDA for Cold Treatment). Bananas, Plantains, Apples, Pears, Citrus, Melons, Forest Products, Miscellaneous General Cargo, Cars/Trucks and Containers are the type of cargo handled. [5]

The Bridgeport Port Authority was created in 1993. The city of Bridgeport transferred ownership of the Water Street Dock and the transfer triggered Connecticut state law forming a Port Authority. The purpose of the transfer was to reconstruct the Water Street Dock and build a ferry terminal on the site. The primary tenant in the port is Bridgeport-Port Jefferson Steamboat Company ("Ferry Co."). It is a year round passenger and vehicular service provided between Bridgeport and the Village of Port Jefferson, Long Island, NY. The train and bus terminals are located within minutes from Bridgeport Harbor (by foot). Bridgeport Harbor is located within 60 miles of New York, and 150 miles of Boston.

[5] Connecticut Department of Transportation website: http://www.ct.gov/dot/cwp/view.asp ?a=1380&Q=259718&dotPNavCtr=|40046|#40047

Bridgeport-Port Jefferson Steamboat Company has been providing ferry services from Bridgeport Harbor to Long Island since 1883.

The Ferry Terminal cost a total of $4.2 million. For the Water Street Dock; the initial repairs and reconfiguration in 2000 – 2001 was $2,092 million. A new access road for boarding vehicles was completed in 1997 – 1998 at cost of 1.535 million. A total of $7,827,000 has been invested in the Water Street Dock facility to date, with additional $6.45 million planned.

Overall crossing traffic has increased 51 percent from 1997 to 2004; passenger only traffic increased 48.36 percent (passengers in 2004 exceeded 900,000); and all vehicle traffic increased 56.43 percent (passenger vehicle traffic in 2004 exceeded 450,000 vehicles). Truck traffic in 2004 exceeded 10,000 (truck traffic increased 19 percent from 2003; since 1997 truck traffic increased over 179 percent).

Ferry services like the Bridgeport-Port Jefferson Ferry provide a local transportation alternative. Passengers typically include business commuters, travelers and those who simply want to enjoy a relaxing ride on the water. Highest passenger only traffic remains from May through September. The typical summer traveler goes to Bridgeport for a ballgame, concert and restaurants and to Port Jefferson for boutique shops and restaurants. In 2004, the ridership was 1.39 million passengers and vehicles. In 1999 a new investment of $14 million was made; for the addition of a vessel; this increased the total fleet number to 3 vessels providing daily route service. In 2003; an aging vessel was replaced (about $15 million); yet 14-16 round trips are made daily (6am-9pm), offering year-round service.

Bridgeport Harbor is underutilized but is growing. Channel depth is 15 feet. New business for the harbor includes Derecktor Shipyards, construction of new vessels, repair and services of all types of vessels. Shipyards include 600 metric ton travel lift. The future for Bridgeport Harbor will include barge feeder service and will operate between Bridgeport and the ports of New York and New Jersey. There is an RFP process underway. There is also a proposal for a High Speed Ferry Service that is planned to operate between Bridgeport, Stamford and New York. [6]

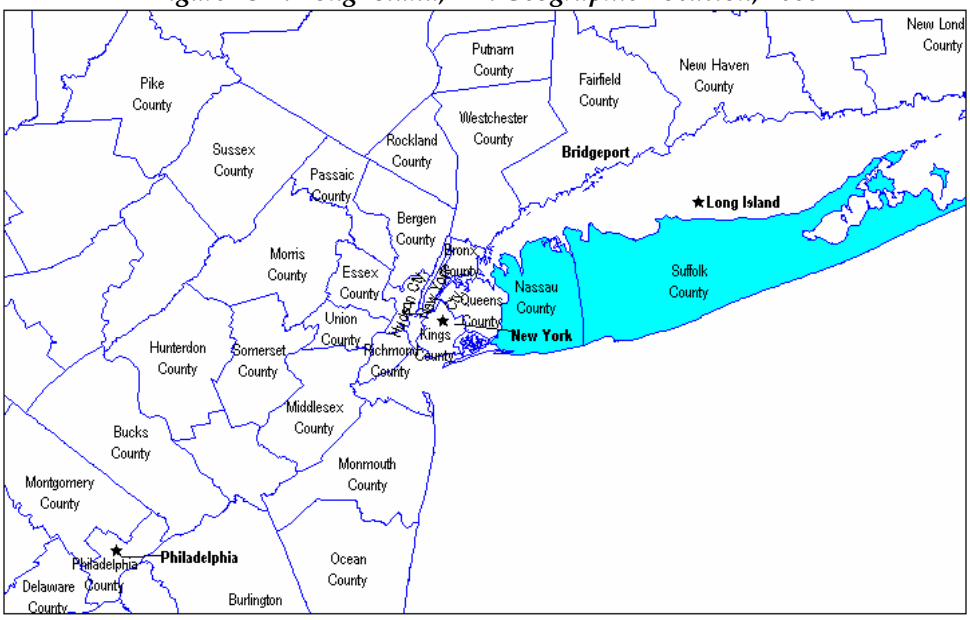
[6] Presentation made by Bridgeport Port Authority Executive Director, Joseph A. Riccio Jr. on February 16, 2005. From American Association of Port Authorities Cruise Workshops: "Niche Markets". URL: http://www.aapa-ports.org/programs/seminar_presentations/05_Cruise/Riccio_Joe.pdf

# 13. Long Island, NY

## Location and Background Information

The Port of Long Island is part of the Nassau-Suffolk, NY Metropolitan Division (comprised by Nassau and Suffolk Counties). This Metropolitan Division is part of the New York - Northern New Jersey - Long Island, New York- New Jersey - Pennsylvania Metropolitan Statistical Area (MSA).

*Figure 13-1. Long Island, NY: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of Nassau and Suffolk counties in 2000 was 2,753,913 according to the 2000 US Census. Of this total, 1,337,327 or 48.6 percent were males and 1,416,586 or 51.4 percent were females. The median age for the region in the same year was 37.5 years; 36.3 for males and 38.8 for females. It is evident by Figure 13-2 that 30 percent of the population is located in the 30–39 and 40–49 years age brackets (15 percent approximately in each age group).

As portrayed by Figure 13-3, 82 percent of the population in these counties is white, 8.4 percent is Black or African American. 'Others' constitute 6.1 percent of the total population (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) and the Asian population represents roughly 3.5 percent of the total. Moreover in terms of ethnic makeup, 10.3 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 13-2. Long Island, NY: Structure of the Population by Age Group, 2000*

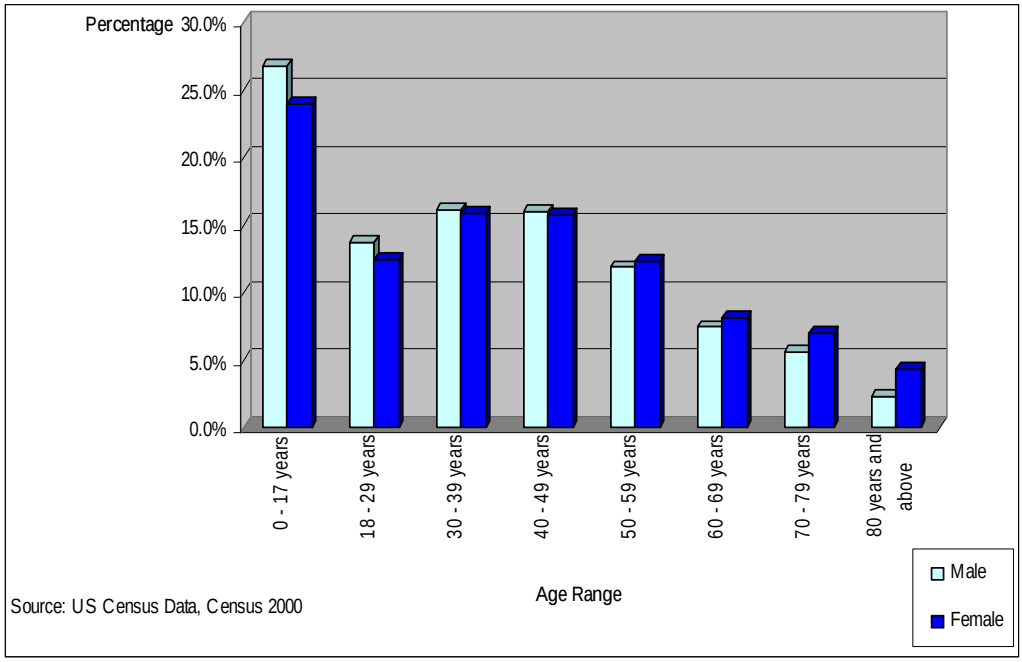
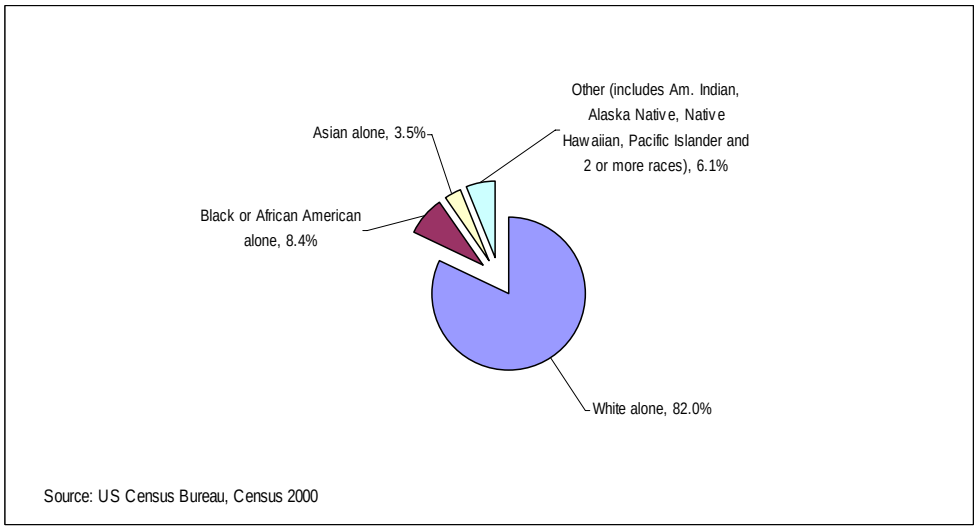
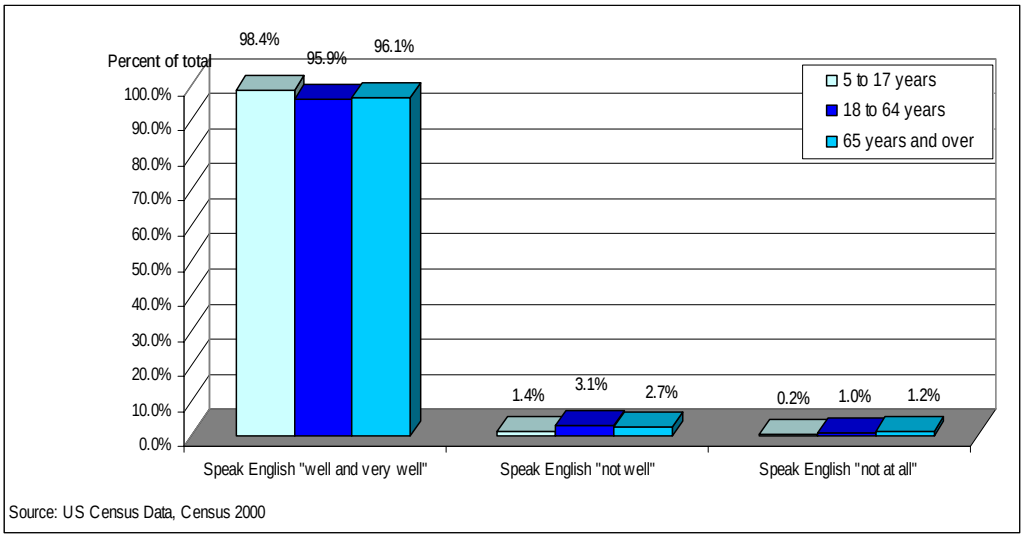



*Figure 13-3. Long Island, NY: Population by Race, 2000*




It is evident from the data specified in Figure 13-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. About 5.8 percent of the population aged 18 and over does not speak English well and about 2 percent of this population does not speak English at all.

*Figure 13-4. Long Island, NY: Ability to Speak English by Age Group, 2000*

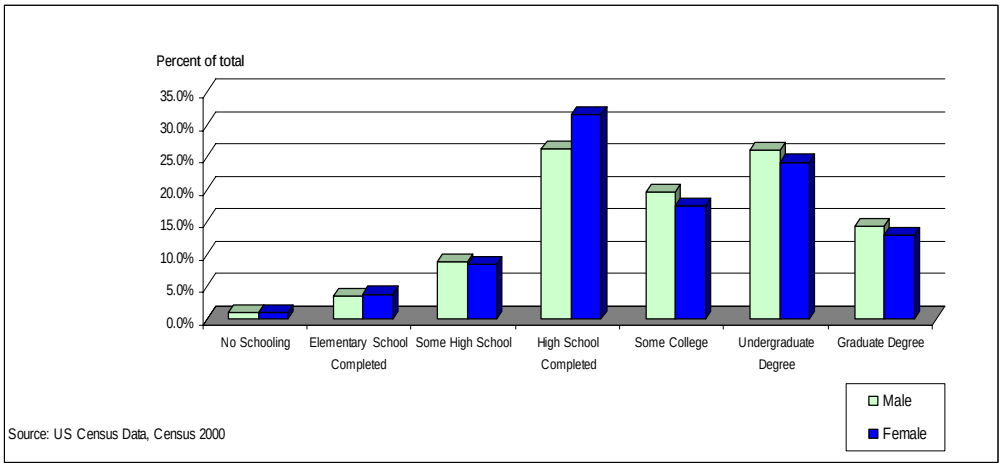



## EDUCATION

As shown in Figure 13-5, of the population in Nassau and Suffolk counties, ages 25 and over, about 25 percent of males and 30 percent of females have completed high school and around 25 percent of males and 23 percent of females have obtained an undergraduate degree. Nearly 15 percent of males and females have obtained graduate degrees.

Some of the colleges around the area are: Adelphi University, Molloy College, Nassau Community College, New York College of Health Professions, New York Institute of Technology - New York, United States Merchant Marine Academy, Dowling College, Long Island University and SUNY Stony Brook. [2]

***Figure 13-5. Long Island, NY: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[2] Nassau and Suffolk Counties community profiles: http://www.epodunk.com/

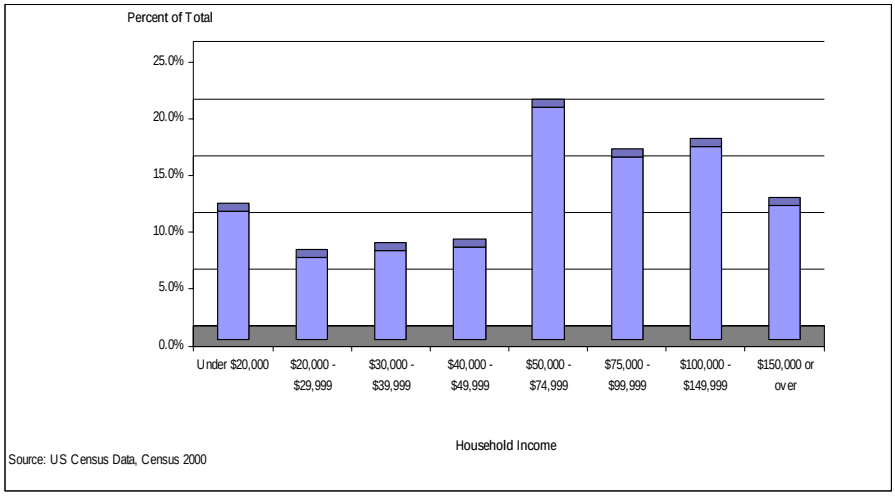
# Socio-Economic Characteristics

## INCOME

About 20 percent of households in this Metropolitan Division had incomes between $50,000 and $74,000 in 1999. About 17 percent of households had incomes between $75,000 and $99,999 and over 17 percent had incomes between $100,000 and $149,999. More than 10 percent of households in this area had incomes of $150,000 or above (Figure 13-6).

Household median income in Long Island in 1999 was $68,579.14 and per capita income for the same year was $29,278.16. The percentage of people under the poverty line in the region was 5.6 in the year 2000. The average household size in 2000 was 2.95.[3]

***Figure 13-6. Long Island, NY: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in Long Island, 16 years or over, more than 35 percent of females are employed in the educational, health and social services industry, and about 17 percent are employed in 'other' industries, such as the arts, recreation, entertainment, food services, public administration and information. Over 20 percent of males are employed in 'other' industries and over 15 percent are employed in the wholesale and retail trade industry (Figure 13-7).

An estimated 3.7 percent of males and 3.9 percent of females were unemployed in this Metropolitan Division in 2000.[4]

According to the 2000 US Census, an estimated 0.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 13.3 percent of males and 4.7 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.1 percent of female's occupations.

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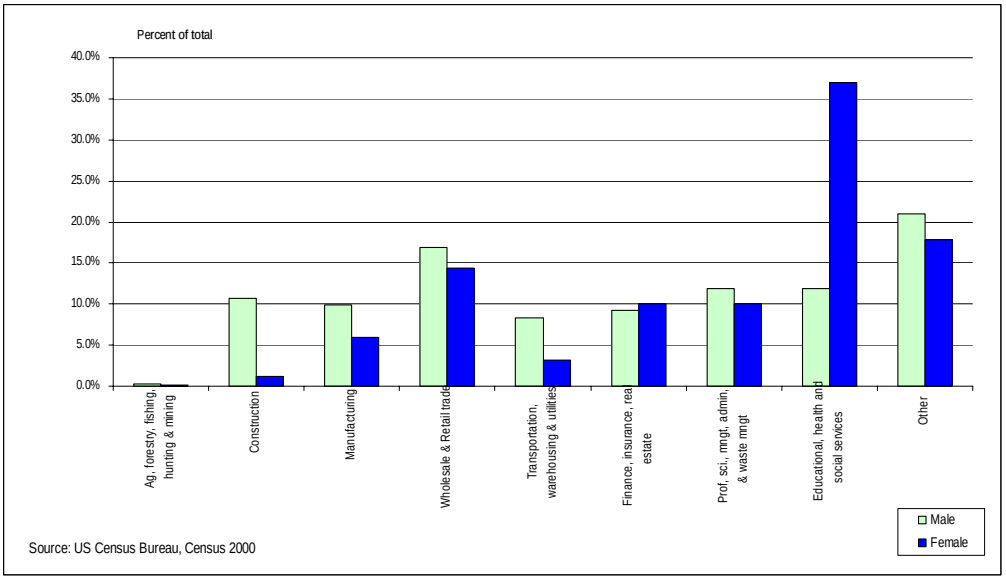
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 13-7. Long Island, NY: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*



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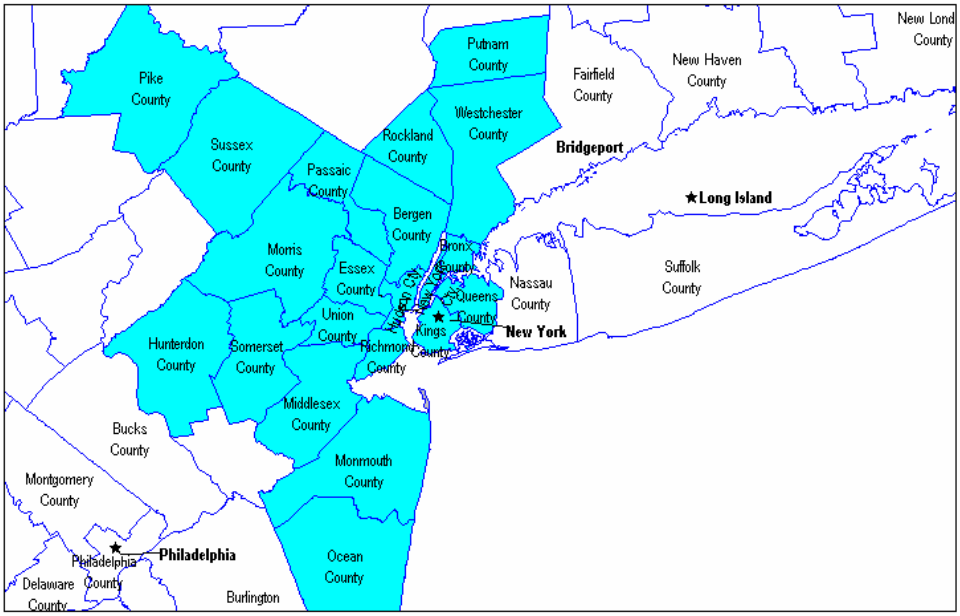
# 14. Ports of New York – New Jersey

## Location and Background Information

The Ports of New York and New Jersey are located within the New York – Northern New Jersey – Long Island, NY-NJ-PA Metropolitan Statistical Area (MSA).

*Figure 14-1. New York-New Jersey: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The combined total population for this MSA in 2000 was 15,569,089, according to the 2000 US Census. Of this total, 7,453,615 or 47.9 percent are males and 8,115,474 or 52.1 percent are females. The median age for the region in the year 2000 was 35.5 years; 34 for males and 36.8 for females. As is evident through Figure 14-2, about 15 percent of the population is between 18 – 29 years and around 15 percent of the population is between the ages of 30 and 39. Less than 5 percent of the population is 80 or above.

The majority of the population is white in the region (58 percent), followed by the Black or African American population, which represents 19.7 percent of the total population. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent around 14.2 percent of the population. The Asian population represents only 8.1 percent of the total population (Figure 14-3). Moreover, in terms of ethnic makeup, 21.1 percent of the total population is considered to be of Hispanic or Latino origin. [1]

[1] US Census Data, Census 2000.

*Figure 14-2. New York-New Jersey: Structure of the Population by Age Group, 2000*

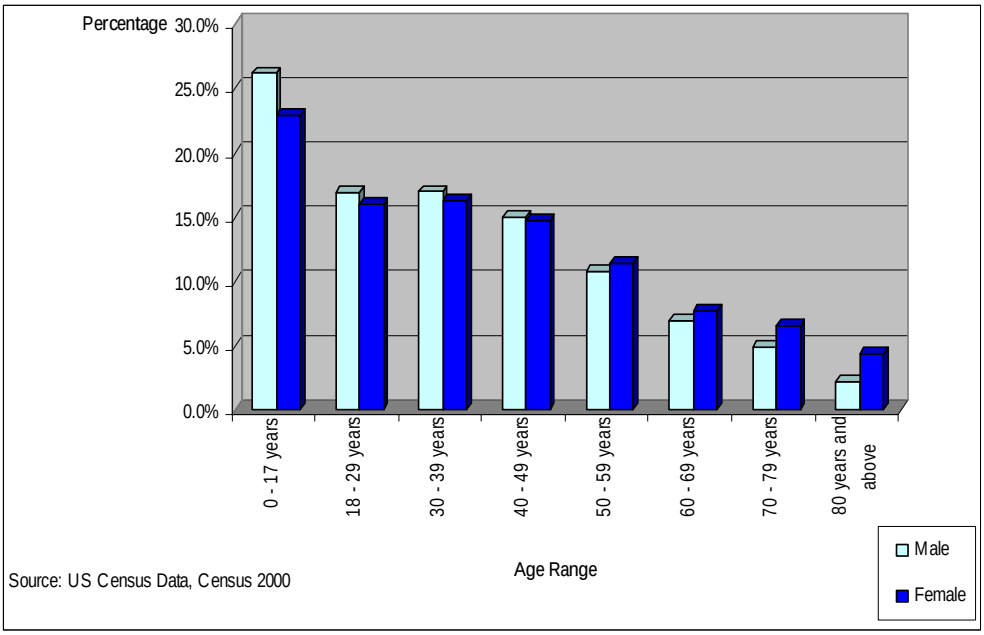
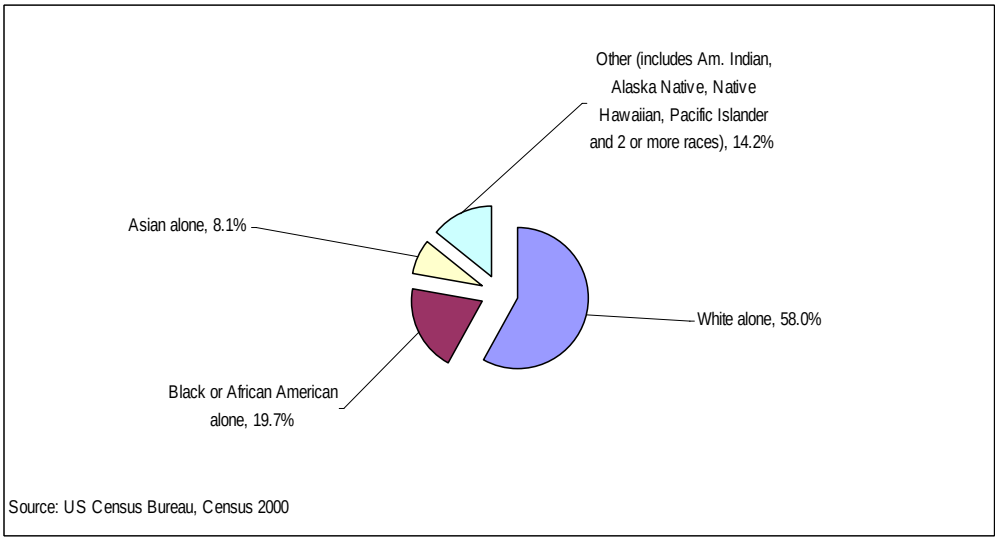
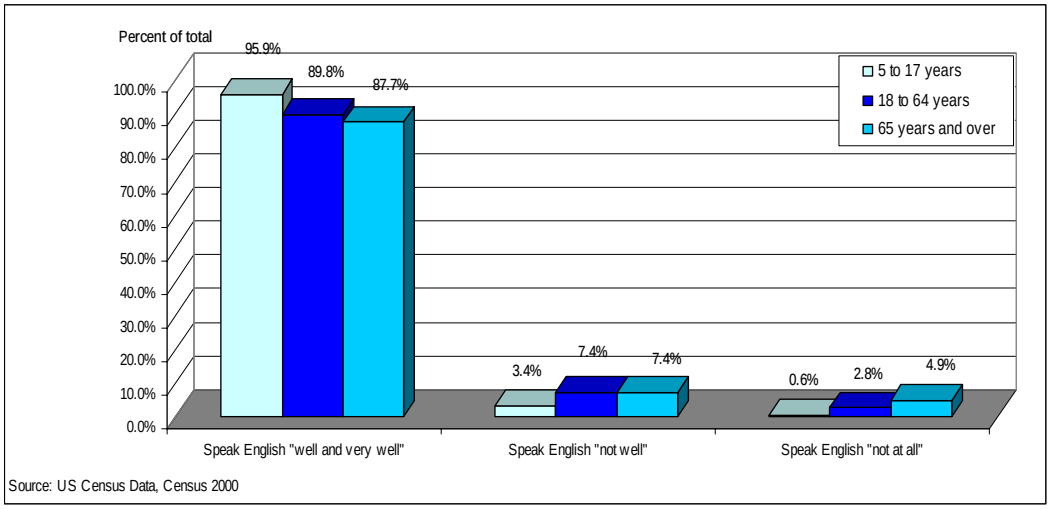



*Figure 14-3. New York - New Jersey: Population by Race, 2000*



It is evident from the data specified in Figure 14-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'. It is important to note that almost 10 percent of the population in the 18 – 64 years age bracket and 12.3 percent of the population that is 65 years and over do not speak English, or don't speak it well.

***Figure 14-4. New York-New Jersey: Ability to Speak English by Age Group, 2000***

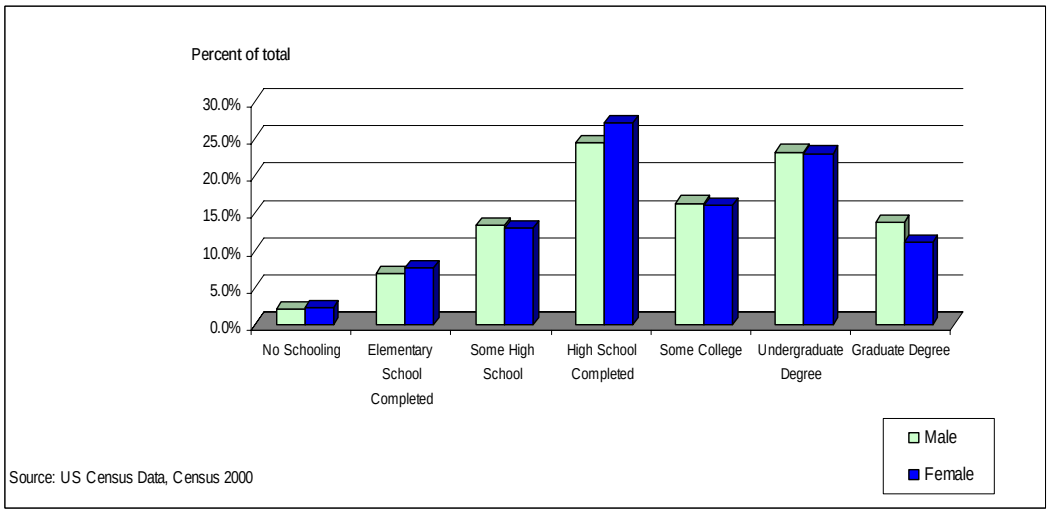



## EDUCATION

Of the population in this region, ages 25 and over, about 25 percent of males and females have completed high school, and over 20 percent have obtained an undergraduate degree. About 15 percent of the population has finished only some college. Over 10 percent of the population has obtained a graduate degree (Figure 14-5).

Just New York County has 38 four-year colleges; among them New York University, CUNY, Fashion Institute of Technology, Julliard, Barnard College and Columbia University.

***Figure 14-5. New York-New Jersey: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



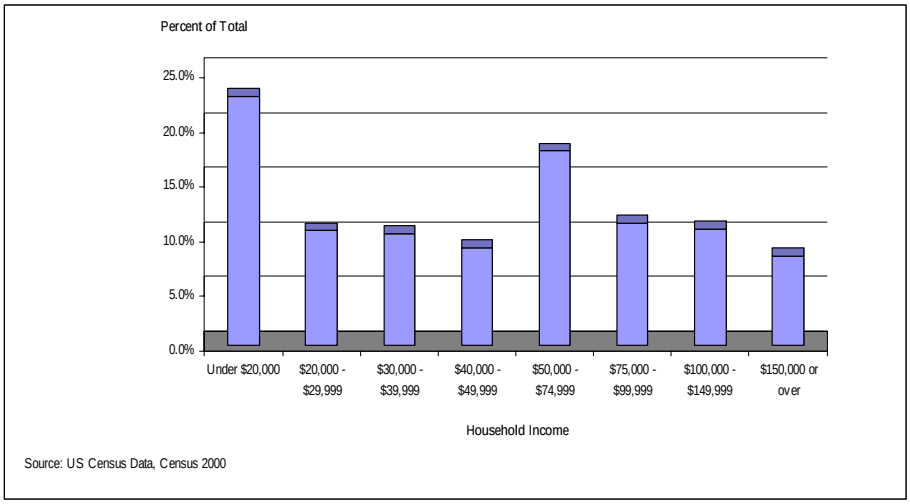
# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 14-6, about 23 percent of the households in this area in 1999 had incomes of under $20,000. About 17 percent of households' incomes fell in the $50,000 - $74,999 income bracket and almost 10 percent of households in the region had incomes of $150,000 or over.

Household median income in this MSA in 1999 was $48,417.19 and per capita income in the same year was $25,693.16. The percentage of people under the poverty line in the region was 15.1 in the year 2000. Average household size in 2000 was 2.67.[2]

***Figure 14-6. New York-New Jersey: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in the region, ages 16 or over, nearly 35 percent of females were employed in the educational, health and social services industry, and about 20 percent were employed in 'other' industries, including the arts, recreation, entertainment, food services, public administration and information. Over 20 percent of males were employed in 'other' industries and 15 percent were employed in the wholesale and retail trade industry (Figure 14-7).

An estimated 7.1 percent of males 7.8 percent of females were unemployed in the region in the year 2000.[3]

According to the 2000 US Census, an estimated 0.1 percent of males and 0.04 percent of females are employed in farming, fishing and forestry occupations. About 15.4 percent of males and 6.0 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.1 percent of female's occupations. Less than 0.2 percent of the population is employed in agriculture, forestry, fishing, farming or mining industries.

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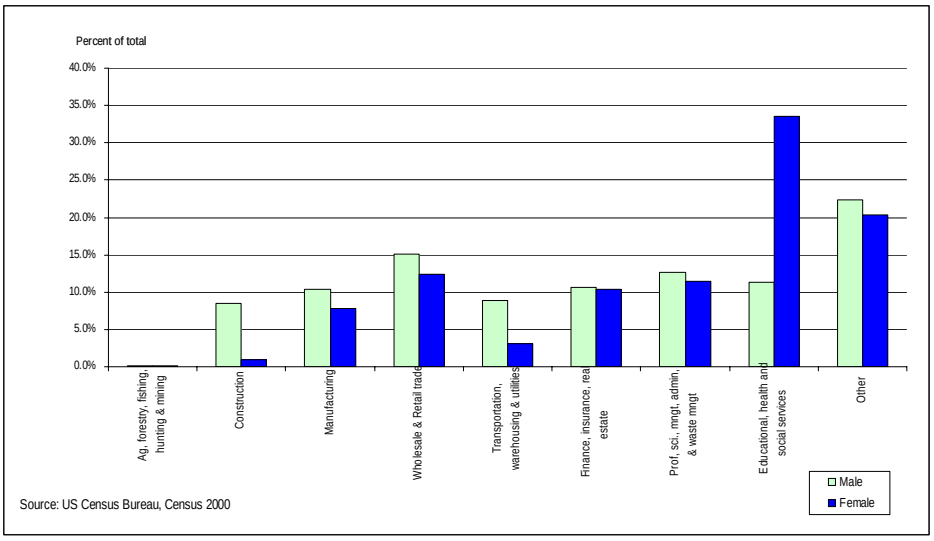
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 14-7. New York-New Jersey: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Port of New York and New Jersey is the gateway to the most concentrated and affluent consumer market in the world. Each year, more than 25 million tons of oceanborne general cargo moves through the port, including 4.5 million TEUs (twenty-foot equivalent units) of containerized cargo. The Port Newark/Elizabeth-Port Authority Marine Terminal complex (NJ), the PA Auto Marine Terminal (NJ), Brooklyn Piers and Red Hook Container Terminal (NY) and Howland Hook Marine Terminal (NY) handle most of the cargo and these facilities are managed by the Port Authority of New York and New Jersey. In addition, there are private operators such as Global Marine Terminal and a number of marine terminals operated by private bulk cargo operators. The Passenger Ship Terminal known as New York Cruise Terminal for passenger ship service is operated by P&O Ports North America for the City of New York.

**Port Newark/ Elizabeth**

Port Newark and the Elizabeth-Port Authority Marine Terminal operate as one fully integrated marine terminal, forming the largest and most comprehensive collection of maritime cargo handling facilities on the East Coast of North America. The entire complex is part of Foreign-Trade Zone No. 49, operated by the Port Authority of New York and New Jersey.

**Auto Marine Terminal**

The Port Authority's Auto Marine Terminal covers 130 acres along the Jersey City/Bayonne waterfront on the Port Jersey and Greenville peninsulas in New Jersey. It is dedicated exclusively to the movement of vehicle imports and exports. The terminal includes two ship berths totaling 1,800 linear feet open vehicle storage areas, offices and processing buildings for the facility two tenants,

BMW of America's Port Jersey Vehicle Preparation Center, and Northeast Auto Marine Terminal (NEAT). CSX and Norfolk Southern offer direct service to the facility through its adjacent automobile rail terminal. It is also included in Foreign-Trade Zone No. 49, which is operated by the Port Authority.

**PA Auto Marine Terminal:**
The PA terminal area covers 130 acres/53 hectares and includes two ship berths; totaling 1,800 feet or 549 meters. The berth space is intermodal, with 32 feet or 10 meters MLW depth at dock.

**Brooklyn Piers**
The Brooklyn Piers are leased for stevedoring and warehousing primarily breakbulk cargo. Right now, the Port Authority and the New York City Economic Development Corporation are reviewing parts of the property in order to make recommendations for future use. The entrance gates for the piers are at the foot of Atlantic Avenue. The primary cargo types in the piers are bulk and neo-bulk. The terminal area covers 40 acres or 16.2 hectares and the length of the ship berth is 5,000 feet or 1,524 meters; the depth at dock in Piers 6-8 are 32-34 feet MLW (9-10 meters MLW) and in pier 12 is 30-40 feet MLW(9-12 meters MLW).

**Red Hook Container Terminal**
Red Hook Container Terminal features some of the port's most up-to-date facilities for containerized and non-containerized cargoes. With natural 40-foot depths, Red Hook ideally accommodates fully loaded ships with deep drafts. And, on-dock fumigation facilities make Red Hook the natural entry port for specialized commodities such as coffee and cocoa from Central and South America. Red Hook Terminal is operated by American Stevedoring Inc. The entrance gates to the terminal are at the foot of Hamilton Avenue and the primary types of cargo are containers/ Ro-ro and breakbulk. The terminal area covers 80 acres or 32 hectares. The length of ship berth is 2,080 feet or 634 meters for containers and 3,410 feet or 1039meters for breakbulk. The depth at dock is 42 feet MLW or 12.8 meters MLW. Stuffing and stripping facilities in the terminal are 345,000 square feet and there is a near-dock connection with NY Cross Harbor Railroad and a cross Harbor Container Barge to/from Port Newark. The terminal has 72 reefer plug slots for maintenance and repair and has equipment such as toploaders-45-tons, 3 forklifts-26-ton, 22 Paper clamps-54", and 30 Yard Hustlers-100-ton.

**Howland Hook Marine Terminal**
Howland Hook Marine Terminal is a key terminal as well as a growing container facility in the Port of New York and New Jersey. Strategically located in the northwest corner of the Borough of Staten Island in New York City, the terminal was developed by the City of New York. Its entrance gate is on North Washington Avenue and Western Avenue. It was leased by the Port Authority of New York and New Jersey in 1985. In 2001, The Port Authority purchased an additional 124 acres, a former Proctor & Gamble property known as Port Ivory for future development.

New York Container Terminal Inc. operates a container terminal on the original 187-acre site. The Port Authority is constructing a 39-acre intermodal rail terminal on a section of the Port Ivory tract, and is currently leasing some of the Port Ivory property for warehousing and distribution uses. The primary cargo types handled in the terminal are containers, general cargo and breakbulk. The length of ship berth is 3,000 feet or 914 meters and the depth at dock is 42 feet MLW or 12.8 meters for 2,300 feet of berth and 37 feet or 10.7 meters for 700 feet of berth. The container cranes are 412,000 square feet and include deep-freeze, refrigeration and have undergone U.S. Customs inspection. The terminal has 47 acres of open container storage and one 64,000 -square foot temperature-controlled storage building.

**Global Marine Terminal**
The only privately owned and operated container terminal at the Port of New York and New Jersey, the Global Marine Terminal spans 100 acres that includes 1,800 feet of berth space with six container cranes, including four Post-Panamax cranes. Global Marine Terminal is located in Jersey City, NJ,

adjacent to the Port Authority's Auto Marine Terminal and its entrance gate is on Port Jersey Boulevard.

The primary cargo types handled in the terminal are containers-ro-ro and heavy lift. The depth at dock is 40 feet MLW. The terminal has 10 rubber-tired gantry cranes (RTGs equipped with GPS), 8 toploaders-30 ton, 4 sideloadres-8 ton, 52 yard tractors and 24 forklifts-30 ton, 26-ton and 15-ton. The terminal is intermodal, due to its proximity to North Jersey rail yards.

**New York Cruise Terminal**

The New York City Passenger Ship Terminal, owned by the City of New York and operated by P&O Ports North America, provides five 1,000-foot-long berths suitable for servicing the world's largest cruise vessels at a convenient location on the Hudson River only a few blocks west of Times Square in the heart of Manhattan. The terminal occupies the West Side of 12th Avenue between 46th and 54th streets. P&O Ports North America customers include Carnival, Celebrity, Costa, Crystal Cruises, Cunard, Holland America, Norwegian, P&O Cruises, Princess, Radisson Seven Seas, Royal Caribbean, Seabourn and Silversea. The terminal is also home to an array of trade shows and special events managed by P&O Ports North America.

**Other Terminals**

In addition to terminals owned and operated by the Port Authority of New York and New Jersey, the Port of New York and New Jersey depends on the stewardship of private operators to help manage the port terminal network. Private operators such as Global Marine Terminal, the City of New York's South Brooklyn Terminal, and a number of marine terminals operated by private oil companies along the southern New Jersey coastline, handle loads such as imported liquid bulk crude oil. The NYC Passenger Ship Terminal is operated by P&O Ports North America for the City of New York. Private operators like Global Marine Terminal help augment the facilities developed and managed by the Port Authority.

**Port and Waterways Development**

To meet the demands of growing industry, a $1 billion investment is already underway to reconfigure existing terminals, deepen the harbor's channels and berths, and improve inland access by rail and barge — all to create the most efficient and cost-effective port possible. The improved port will feature new high-capacity, environmentally friendly cranes that can load and unload containers more quickly, and an improved transportation infrastructure that will alleviate traffic and port congestion. At the same time, deepened channels and berths will allow for the more cost-efficient and environmentally friendly transport of cargo.

**Dredging**

Right now, the largest dredging fleet since World War II is at work in the New York/New Jersey Harbor. The Port Authority of New York and New Jersey, working together with the US Army Corps of Engineers, the States of New York and New Jersey, and the City of New York, has developed the dredging initiative as a long-term solution to address the navigational needs of the new deep-draft containerships. At the same time, this initiative is stimulating economic growth and investment in maritime uses throughout the port region. By consolidating resources, the deepening project will be completed with less environmental impact, and businesses will benefit from 45 to 50-foot channels in the more nearer future.[4]

[4] New York and New Jersey Port Authority webpage: http://www.panynj.gov/

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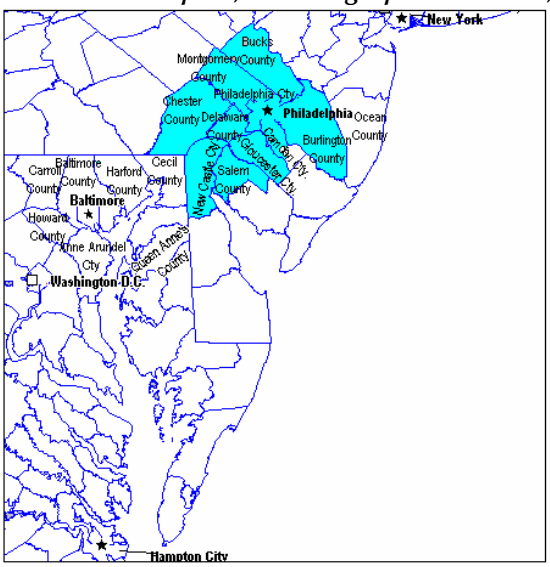
# 15. Philadelphia, PA

## Location and Background Information

The Port of Philadelphia is located in Delaware Bay and is part of the Philadelphia-Camden-Wilmington, Pennsylvania- New Jersey- Delaware- Maryland Metropolitan Statistical Area (MSA). For more than 300 years Philadelphia has been an important port city and a major center for international commerce. Only a few short years after William Penn's vessel "The Welcome" landed on the shores of the Delaware River, heralding the establishment of Penn's "City of Neighborhoods", Philadelphia became the New World's leading center for trade and commerce, a title it held for more than a hundred years. Even today, with major port complexes serving major metropolitan centers throughout the country, Philadelphia and its international seaport maintain a preeminent position in several areas of trade, such as the importing of perishable cargoes from South America and high-quality paper products from Scandinavia.[1]

*Figure 15-1. Philadelphia, PA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

Total population of this MSA in 2000 was 5,687,147 according to the 2000 US Census. Of this total, 2,731,176 or 48 percent were males and 2,955,971 or 52 percent were females. The median age in the region in 2000 was 36.2 years; 34.8 for males and 37.5 for females. As shown in Figure 15-2, about 45 percent of the population is evenly distributed among the 18 – 29, 30 – 39 and 40 – 49 age brackets (around 15 percent per category).

The majority of the population in the region is white (72.6 percent), followed by the Black or African American population, which represents 19.7 percent of the total population. 'Others' (include

[1] Philadelphia Regional Port Authority: http://www.philaport.com/history.htm

American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) constitute 4.5 percent of the population. The Asian population represents only 3.3 percent of the total population (Figure 15-3). Moreover, in terms of ethnic makeup, 5.0 percent of the total population is considered to be of Hispanic or Latino origin.[2]

***Figure 15-2. Philadelphia, PA: Structure of the Population by Age Group, 2000***

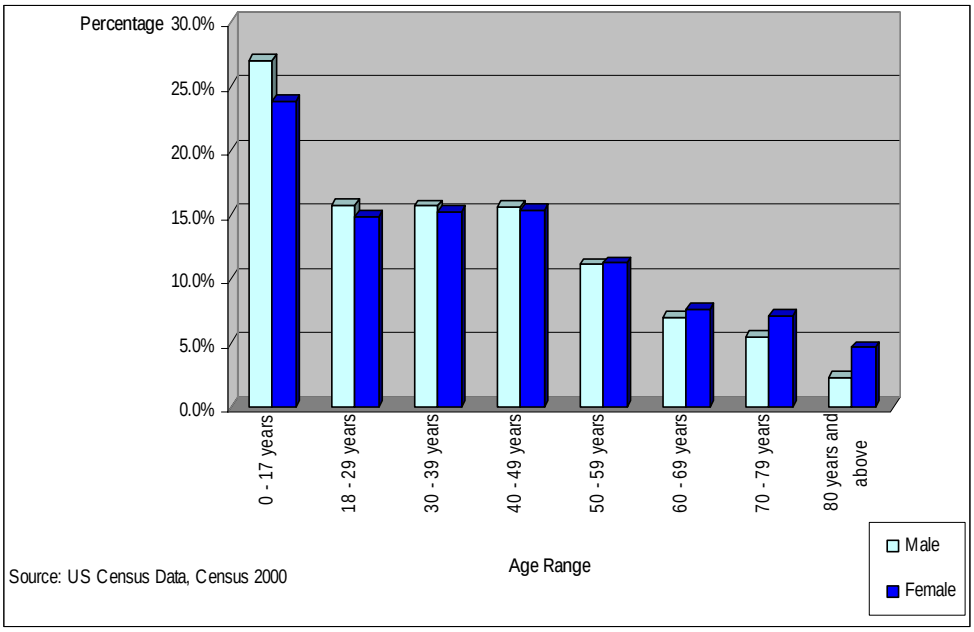
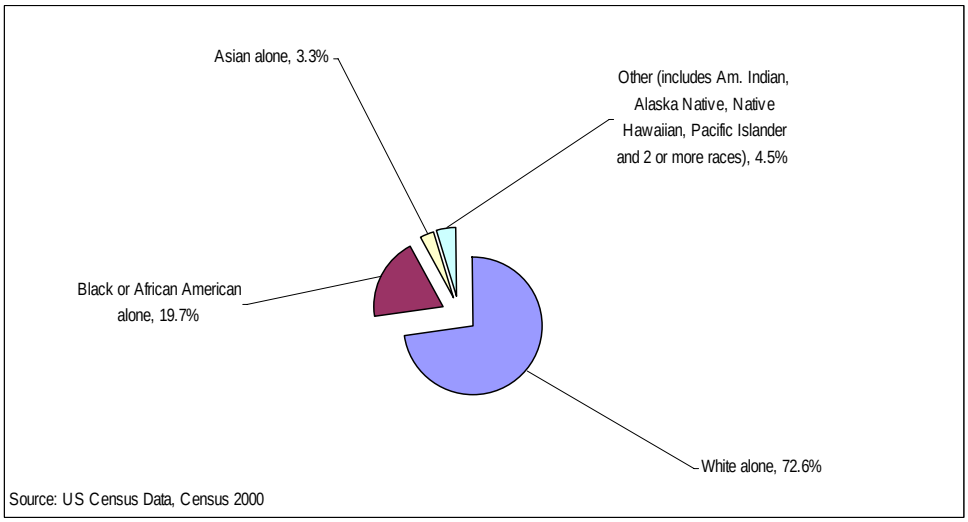


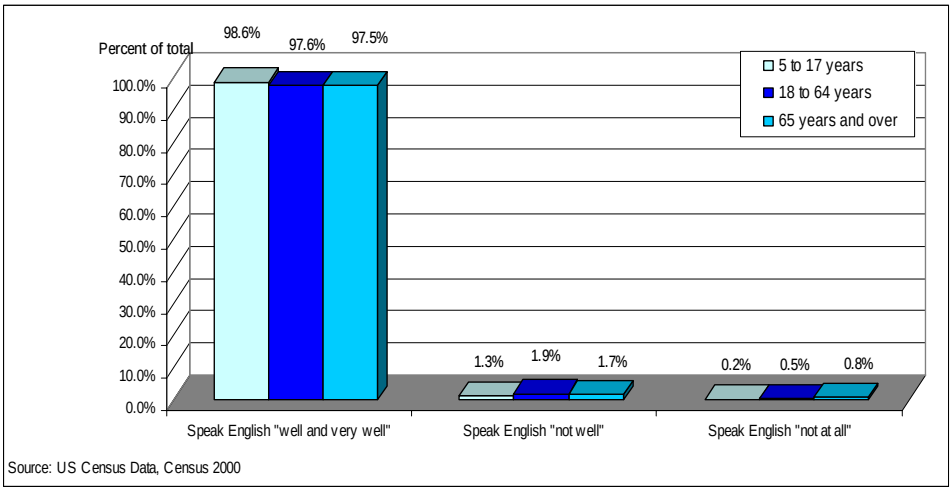

***Figure 15-3. Philadelphia, PA: Population by Race, 2000***




[2] Source: US Census Data, Census 2000.

It is evident from the data specified in Figure 15-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 15-4. Philadelphia, PA: Ability to Speak English by Age Group, 2000***

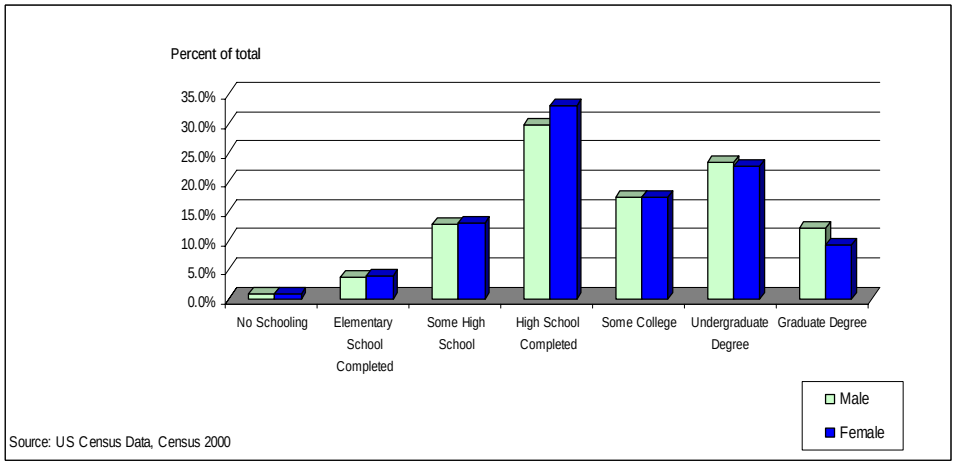



## EDUCATION

As shown in Figure 15-5, of the population ages 25 or over, about 30 percent of males and females have completed high school and around 20 percent have obtained an undergraduate degree. Only 10 percent of males and around 8 percent of females have obtained graduate degrees.

There are several colleges and universities in this MSA, the following are some of these institutions: University of Pennsylvania, Temple University, Philadelphia University, Bryn Mawr College, Manor College, Penn State, Swarthmore College and Villanova University.

***Figure 15-5. Philadelphia, PA: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



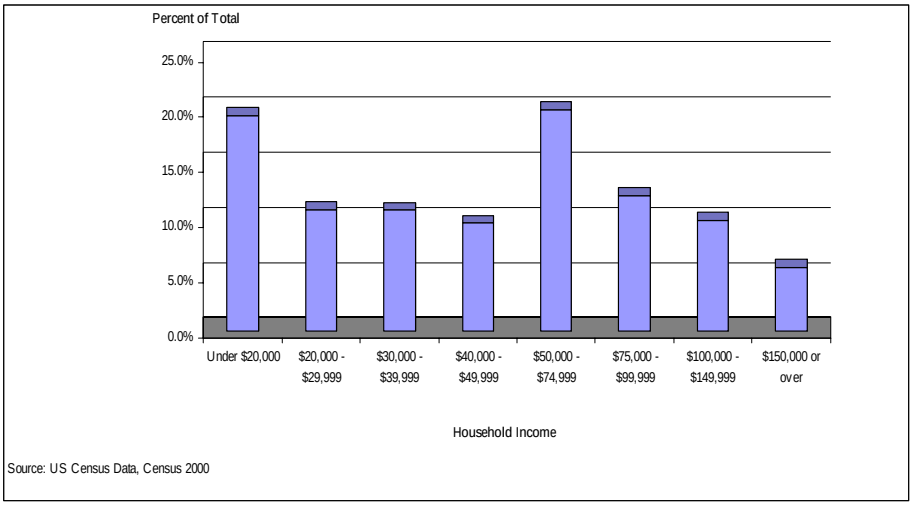
# Socio-Economic Characteristics

## INCOME

Nearly 20 percent of households in the area in 1999 had incomes between $50,000 and $74,999 and about 20 percent had incomes under $20,000. Almost 10 percent of households in the area had incomes of $150,000 or over (Figure 15-6).

Household median income in 1999 in the MSA was $49,076.83 and per capita income was $23,971.86. The percentage of people under the poverty line in the region was 10.8 in the year 2000. The average household size in 2000 was 2.59.[3]

***Figure 15-6. Philadelphia, PA: Distribution of Households by Household Income, 1999***




## EMPLOYMENT

Of the employed civilian population in the region, ages 16 or over, nearly 35 percent of females are employed in the educational, health and social services industry and nearly 20 percent are employed in other industries. These industries include the arts, entertainment, recreation, food services, public administration and information. Nearly 20 percent of males are employed in 'other' industries, about 15 percent are employed in the manufacturing industry and around 17 percent are employed in the wholesale and retail trade industries (Figure 15-7).

An estimated 6.1 percent of males and 6 percent of females were unemployed in the region in the year 2000.[4]

According to the 2000 US Census, an estimated 0.3 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 17.0 percent of males and 5.5 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.049 percent of female's occupations.

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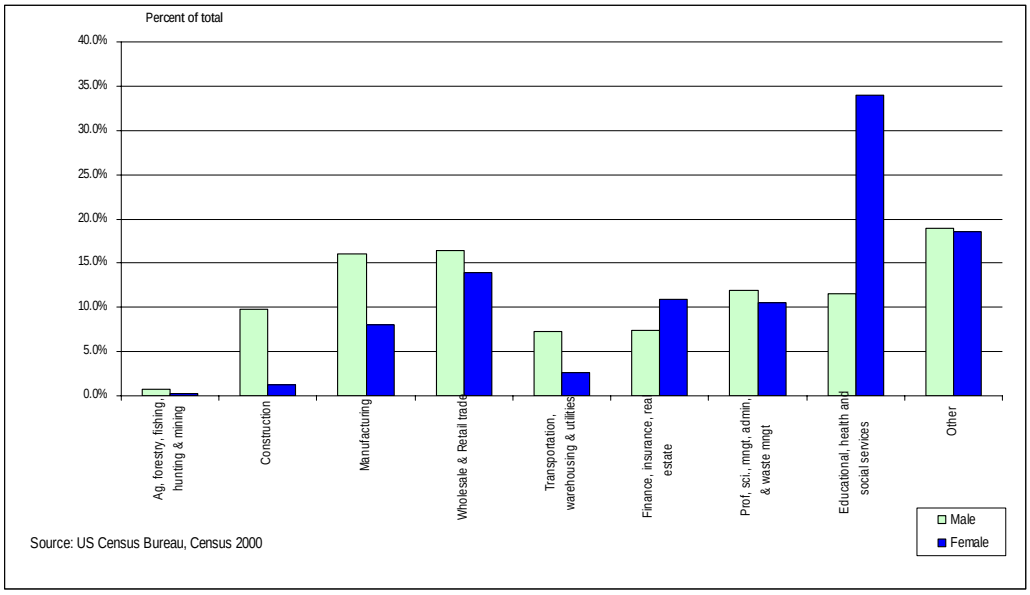
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 15-7. Philadelphia, PA: Employed Civilian population by Sex and Industry 16 years and over, 2000*




## MARITIME INFORMATION

For most of its early history, the Port of Philadelphia thrived and expanded without major guidance from a central governing authority or organization. Rather, disparate private concerns built and maintained piers and waterfront warehouses, moving a wide variety of imported and exported goods through those facilities. It was during these initial years that all manner of breakbulk cargoes moved over the city's docks, establishing early on Philadelphia's reputation for the fast, expert handling of any cargo imaginable. Ultimately, city government took a more active hand in the organization of the city's waterfront, and municipally-owned piers and warehouses sprang up amidst the privately-owned facilities.

For most of the early years of the 20th century, the Philadelphia waterfront was overseen and managed by the Department of Wharves, Docks, and Ferries, a division of the City of Philadelphia's Department of Commerce. The Department of Wharves, Docks, and Ferries oversaw the construction and maintenance of municipally-owned piers and port facilities, and had some regulatory power for the overall Philadelphia waterfront.

In 1965, the non-profit, quasi-public Philadelphia Port Corporation was established. The corporation had the power to issue municipal bonds to raise funds for port improvements. Revenue to pay the bonds' debt service was realized primarily through leasing the agency's port facilities to private operating companies. These private companies operated their respective port facilities on a day-to-day basis, with marketing assistance from the Philadelphia Port Corporation. Major port improvements were made in the 1960s and 70s under the auspices of the Philadelphia Port Corporation. These included the construction of the 106-acre Packer Avenue Marine Terminal (still the Port of Philadelphia's largest facility) and the Tioga Marine Terminal in the 1970s.

Like many ports throughout the United States (and especially competing ports along the East Coast) the capital-intensive requirements to maintain and improve the Port of Philadelphia eventually outgrew the funding capabilities of the City of Philadelphia and its port agency. The Commonwealth of Pennsylvania recognized the vital importance of its seaport asset and it agreed to assist in the maintenance, expansion, and promotion of its international seaport in Philadelphia. The first step was the creation of the Philadelphia Regional Port Authority (PRPA), an independent state agency, in 1990. It immediately replaced the Philadelphia Port Corporation.

Along with creating PRPA, the state purchased all publicly-owned port facilities from the City of Philadelphia, charging PRPA with the mission of managing and maintaining them. A major state capital budget was also established, which allowed PRPA to make an initial round of needed capital improvements during the early 1990s, such as the addition of on-dock warehouse space at Tioga Marine Terminal and new warehouse space and refrigeration at Pier 82.

Since its inception more than ten years ago, PRPA has overseen other major improvements to the Port, as well as aggressively assisting its terminal operators in marketing the Port around the world. PRPA also works with other port agencies and port-related concerns along the Delaware River on issues of mutual concern, such as maintaining sufficient channel depth and monitoring regulatory issues.

PRPA and its 11-member Board of regional business leaders have recently overseen a variety of notable developments at the Port of Philadelphia. In October of 2002, PRPA was named the nation's 14th Strategic Military Port by the U.S. Defense Department, making it one of only 14 U.S. ports permitted to handle our nation's military cargoes destined for different points around the globe. Shortly after that, in January 2003, PRPA was selected as a homeport for two U.S. Navy Large, Medium Speed Roll On/Roll Off (LMSR) ships. These Naval supply vessels, docked at PRPA's Tioga Marine Terminal, are often utilized to deliver the military cargoes now handled by PRPA as a result of its Strategic Military Port designation.

On the commercial front, 2002 and 2003 also saw the advent of dramatic new cargo services at the Port. With the establishment of P&O Nedlloyd's "Around the World" service at the Packer Avenue Marine Terminal, PRPA now offers regular service to North Europe and Mediterranean ports for the first time in more than a decade, as well as significantly enhanced service with longtime trading partners Australia and New Zealand. With new carrier Bertling Line now calling the Tioga Marine Terminal, that facility's already excellent South American services have been enhanced by regular calls by this major carrier of finished wood cargoes and other breakbulk products.

With many challenges on the horizon, 2004 and beyond will be a challenging time for the Philadelphia Regional Port Authority. A current major initiative is to finally bring the Delaware River Channeling Deepening Project to fruition, so our main artery of commerce can finally be deepened from 40 to 45 feet. PRPA's Southport Development Project, which aims to be the first major expansion of the Port of Philadelphia in more than a generation, is also a priority. And, of course, there are the usual ongoing concerns of securing new customers and keeping PRPA's facilities efficient and modern. The Philadelphia Regional Port Authority (PRPA) is the grantee of Free Trade Zone number 35 which covers Southeastern Pennsylvania

**FACILITIES:**

**Packer Avenue Marine Terminal**

Located in South Philadelphia, Pennsylvania; this terminal handles containers, steel, meat, fruit, heavy lift/project. The terminal area is 106 acres and has 6 berths with a length of 3,800 linear ft.; 1 RO/RO, 40 foot depth; dry, heated and reefer warehouses; container cranes, heavy lift cranes, rail services. The terminal has 4 storage warehouses: 1 dry/heated - 100,000 sq. ft., 1 dry - 90,000 sq. ft., 1 dry - 100,000 sq. ft. and 1 refrigerated - 2,200,000 cu. ft.

**Pier 96 & Pier 98 Annex**
The piers are located in South Philadelphia and have a combined area of 56 acres. Pier 96 has an area of 9.7 acres and Pier 98 Annex has an area of 45.2 acres. It has 2 berths with a length of 1,320 linear ft. (402.3 m.) each and 32 foot depth. The piers specialize in cargo such as automobiles, project, trucks and heavy equipment. The piers have two sheds: an auto-washing shed - 15,000 sq. ft. and a service building - 80,000 sq. ft. The accessory shop accommodates 125 vehicles and the auto-washing system handles 125 vehicles per hour (a computer tracking system follows the entire process). They are also designated as a Foreign-Trade Zone.

**Pier 82**
The pier is a fruit-handling facility and it is located in South Philadelphia; handles fruits and vegetables, other breakbulk, project. It has an area of 18.4 acres, and has 2 berths of 1,139 linear ft. and 855 linear ft. and that are 32 foot in depth. The pier has 1 warehouse that is heated/chilled and has an area of 130,000 sq. ft. with a humidification system. The pier has 12 loading docks (6 canopied), 24 reefers and loading platforms for 17 trucks.

**Pier 84**
The pier is located in South Philadelphia and handles cocoa beans and cocoa products. It has an area of 23 acres and has 1 berth of 855 linear ft. in length and 32 feet in depth. The pier has two storage warehouses for dry & heated storage: a dry storage facility that is 500,000 sq. ft. and a dry storage facility that is 40,000 sq. ft. It also has canopied loading platforms for over 40 trucks. Value added services offered at the pier include de-bagging, super sacking, weighing and testing.

**Piers 78 & 80**
Located in South Philadelphia, these piers are a forest products distribution center. They handle newsprint, coated paper, wood pulp, lumber and other forest products. The terminal area is 39.8 acres and has 6 berths. Pier 78 has 2: 1 that is 900 linear ft., the other is 854 linear ft. Pier 80 has 4 berths, 2 berths with RO/RO ramps; one that is 994 linear ft. in length, and another one that is 1,144 linear ft. in length. All berths are 35 ft in depth. The piers have direct to storage/truck/rail and RO/RO capabilities. It has over 100 customized lift trucks with advanced pressure-controlled paper handling capabilities; 5 fifth wheels; 40 tractors; 35 flatbeds and 30 vans. It has 40 truck bays and accommodations for 50 rail cars. The piers are a designated Foreign-Trade Zone.

**Piers 38 & 40**
The piers are part of the Forest Products Distribution Center and are located in Philadelphia's central waterfront district. They handle newsprint, coated, wood pulp and other forest products. The terminal has an area of 12 acres and has 3 berths that are 550 linear ft, 551 linear ft. and 620 linear ft in length and are 35 foot deep. The terminal has 2 dry warehouses, each 180,000 sq. ft. The terminal also has 16 truck bays and accommodations for 10 rail cars. It has 25 forklifts equipped with paper roll and/or pulp clamps; 30 tractors; 35 flatbeds and 20 vans.

**Tioga Marine Terminal**
The terminal is located in Northeast Philadelphia and handles containers, refrigerated fresh fruit, paper, plywood, cocoa beans, autos, palletized, project, breakbulk, steel and automobiles. The terminal has an area of 96.5 acres and has 6 berths that are 3,822 linear ft in length and 36 feet deep and 1 RO/RO. The terminal has 4 sheds: 1 compartmented 300,000 sq. ft. warehouse: 150,000 sq. ft. refrigerated, 150,000 sq. ft. heated; 1 cold storage - 90,000 sq. ft. with racked storage for 6,000 pallets; 1 heated storage - 97,500 sq. ft. and 1 dry - 40,000 sq. ft. The terminal has 180 reefer outlets, and 2 kocks container gantry cranes: each 45 short tons (40.9 metric tons); with hydraulic and mechanical mobile cranes available container cranes. It also has canopied loading platforms for 100 trucks and 8 T.I.R. lanes for truck gates; 3 with scales. The terminal has fumigation capabilities for 800,000 fruit boxes a day; trailer offices for customers and 2,000 ft. of rail siding for intermodal COFC transfer.[5]

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[5] Philadelphia Regional Port Authority: http://www.philaport.com/history.htm

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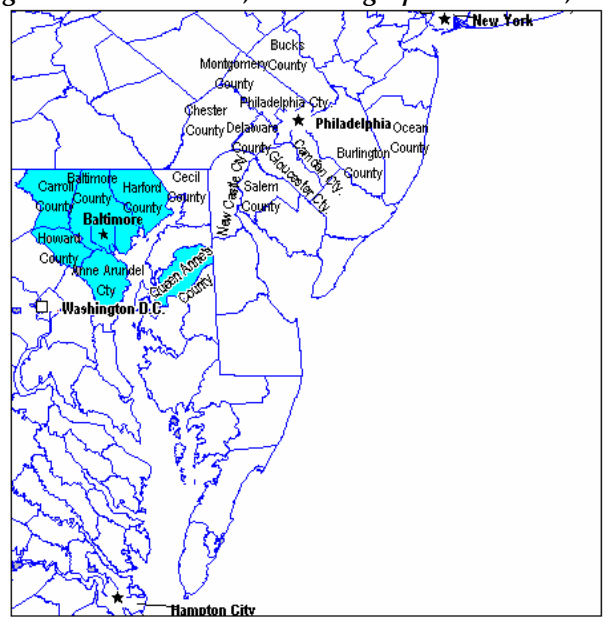
# 16. Baltimore, MD

## Location and Background Information

The Port of Baltimore is located in the Baltimore-Towson, Maryland Metropolitan Statistical Area (MSA). Strategically located in the Mid-Atlantic region of the U.S. east coast, Baltimore sits in the center of the enormous Washington/Baltimore Common Market. This inland location makes it the closest Atlantic port to major Midwestern population and manufacturing centers and a day's reach to 1/3 of U.S. households. The port provides immediate access to the 6.8 million people in the Washington/Baltimore region, the nation's fourth-largest and one of the wealthiest consumer markets in the U.S. [1]

*Figure 16-1. Baltimore, MD: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the Baltimore-Towson, MD Metropolitan Statistical area is 2,552,994 according to the 2000 US Census. Of the total population, 1,228,231 or 48.1 percent are males and 1,324,763 or 51.9 percent are females. The median age for the population is 36.3 years; 35.1 for males and 37.4 for females. The majority of the population is located between the 30 – 39 and 40 – 43 age range brackets; this in the case of males and females (Figure 16 -2).

The majority of the population in this area is white (67.4 percent), followed by the Black or African American population, which represents 27.2 percent of the total population. The Asian population represents 2.7 percent of the total population, and 'others' (which include American Indians, Alaska

[1] Source: Maryland Department of Transportation. URL: http://www.mdot.state.md.us

natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) constitute 2.7 percent of the population as well (Figure 16-3). In terms of ethnic makeup, only 2.0 percent of the population of this MSA is of Hispanic or Latino origin.[2]

*Figure 16-2. Baltimore, MD: Structure of the Population by Age Group, 2000*

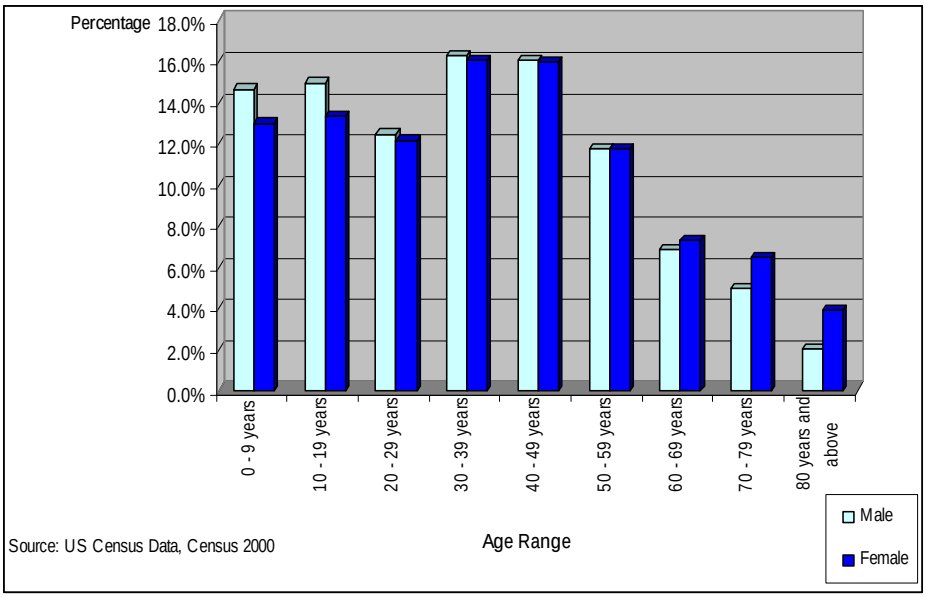
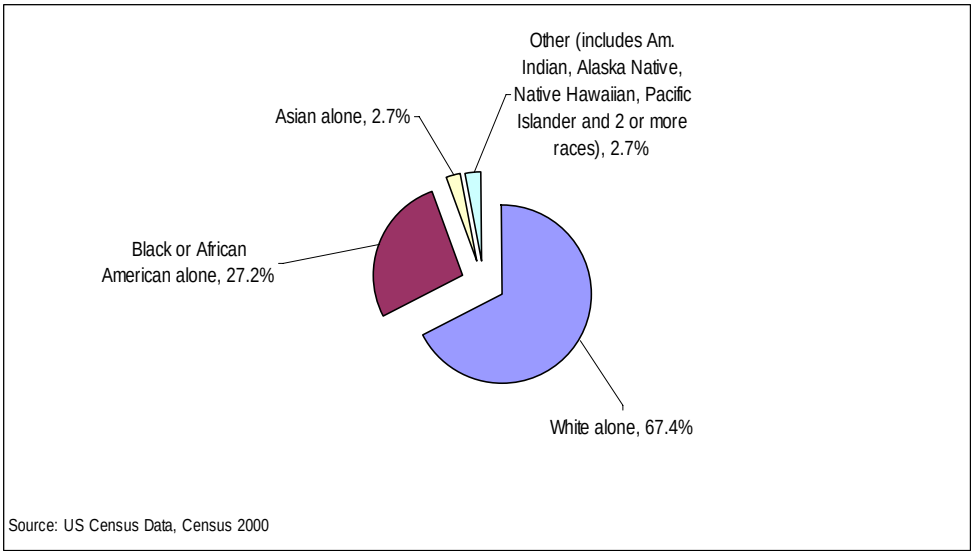


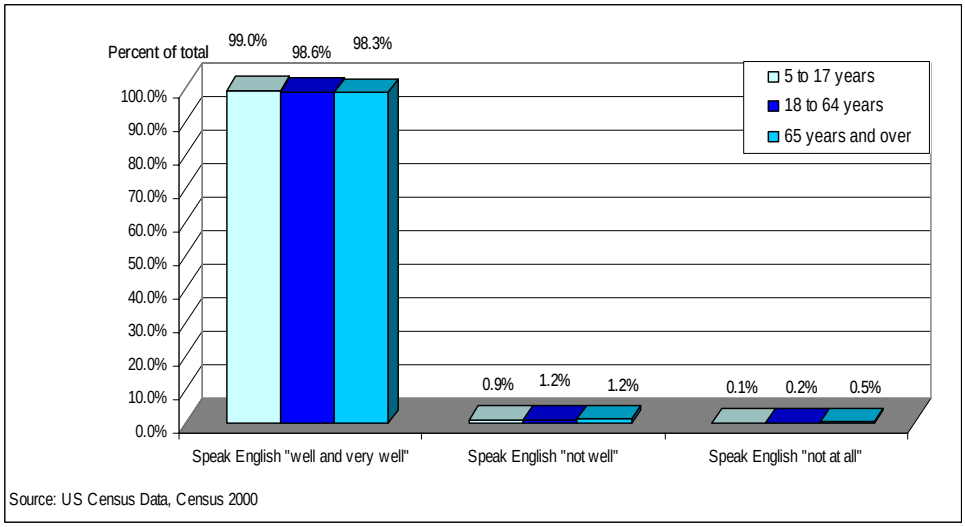

*Figure 16-3. Baltimore, MD: Population by Race, 2000*




[2] Source: US Census Data, US Census 2000

It is evident from the data specified in Figure 16-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 16-4. Baltimore, MD: Ability to Speak English by Age Group, 2000***

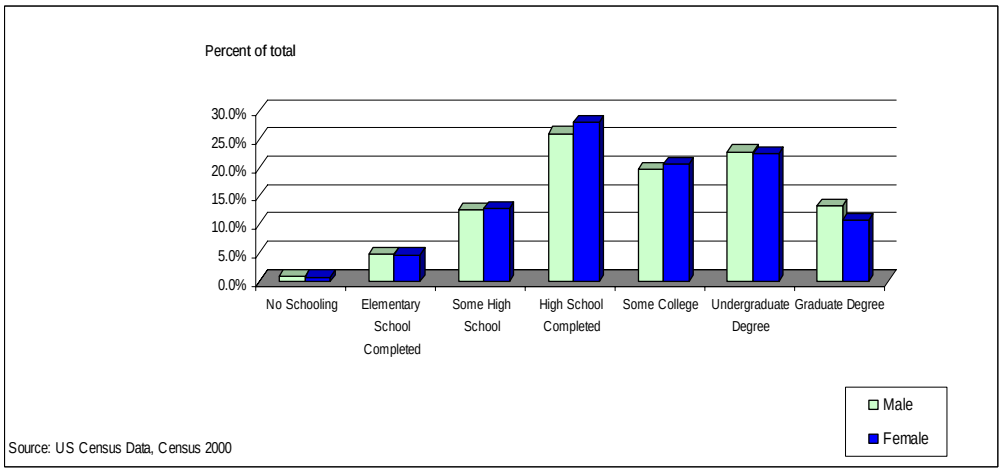



## EDUCATION

Of the population in the region, ages 25 and over, about 25 - 27 percent of the population has completed high school and a high percentage has also either completed some college or obtained an undergraduate degree. Approximately 10 – 15 percent of the population has obtained a graduate degree; males more so than females, but only by a small percentage (Figure 16-5).

Maryland has 24 four-year colleges and universities, 4 two-year colleges and 120 private career schools approved by the Maryland Higher Education Commission.[3] About half of the four-year colleges are located within the Baltimore-Towson, MD MSA. One of the best known universities in the area is Johns Hopkins University, especially known for its excellent medical school.

***Figure 16-5. Baltimore, MD: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[3] Source: Maryland State Archives. URL: http://www.mdarchives.state.md.us

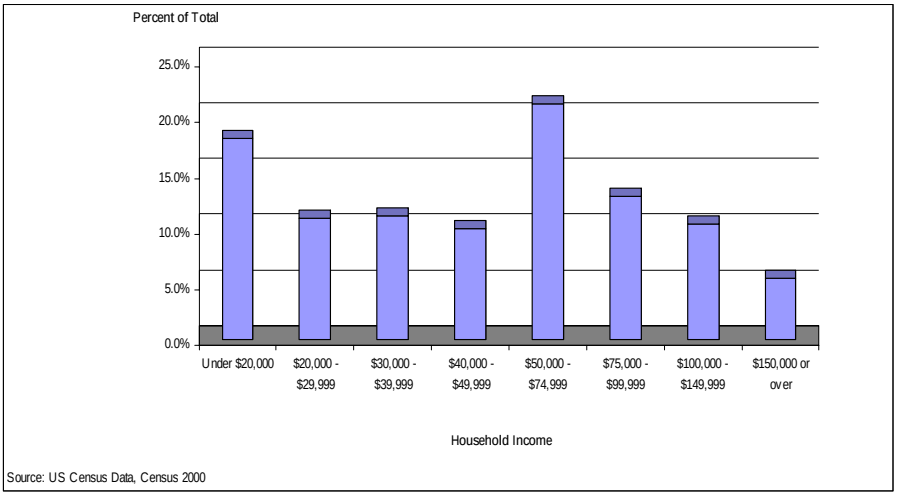
# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 16-5, about 22 percent of the households in this area in 1999 had incomes between $50,000 and $74,999. Nearly 20 percent of households had incomes under $20,000. Less than 7 percent of households in the region had incomes of $150,000 or over (Figure 16-6).

Household median income in Baltimore, MD in 1999 was $50,572.21 and per capita income in the same year was $24,398.48. The region is considered to be among the country's wealthiest. Maryland has the second highest household income in the nation.[4] The percentage of people under the poverty line in the region was 9.8 in the year 2000. Average household size in 2000 was 2.6.[5]

***Figure 16-6. Baltimore, MD: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in the Baltimore-Towson, MD MSA, ages 16 or over, nearly 35 percent of females were employed in the educational, health and social services industry and almost 25 percent were employed in 'other' industries, including the arts, recreation, entertainment, food services, public administration and information. Nearly 25 percent of males are employed in 'other' industries and 15 percent are employed in the wholesale and retail trade industry (Figure 16-7).

An estimated 4.8 percent of males and 5.1 percent of females were unemployed in the region in 2000.[6]

According to the 2000 US Census, an estimated 0.2 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 15.6 percent of males and 4.5 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.1 percent of female's occupations.

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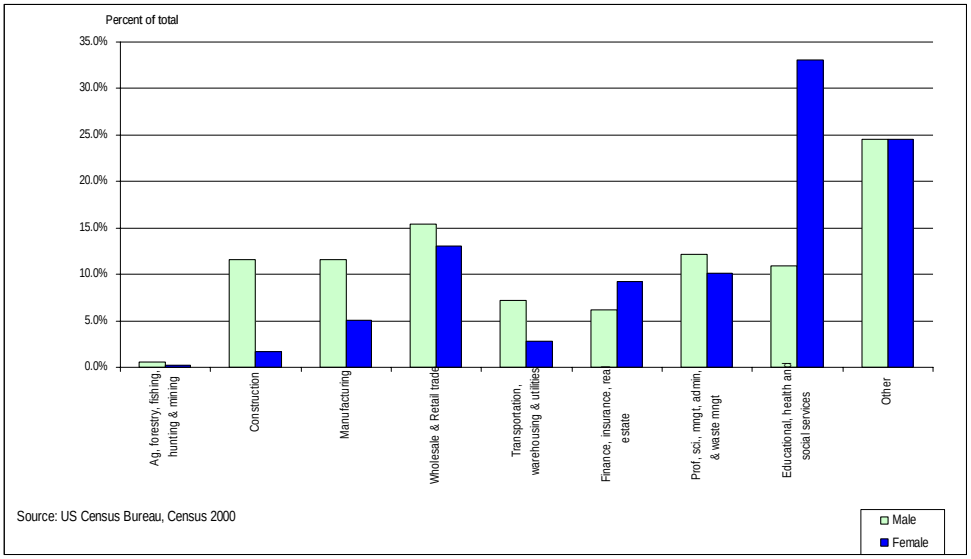
[4] Source: Maryland Department of Transportation. URL: http://www.mdot.state.md.us

[5] Source: US Census Data, Census 2000

[6] US Census Data, Census 2000

*Figure 16-7. Baltimore, MD: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Port of Baltimore is regarded as one of America's top container terminals, providing technological advances that have transformed port operations from clipboard to keyboard. The port boasts computerized gate complexes, hand held computers and scanners and the use of Electronic Data Interchange (EDI)- all which greatly increase the port's efficiency and cost-effectiveness.

The Port of Baltimore is a significant economic engine for the entire region, generating $1.5 billion in revenue annually and employing 16,100 Marylanders in direct jobs, and another 17,600 in Induced and Indirect jobs. Port-related jobs are diverse and include everything from truck drivers, longshoremen, tugboat operators, and rail yard workers, to employees of the Maryland Port Administration (MPA). The MPA is charged with stimulating the flow of waterborne cargo through the entire port community, maintaining the terminals, and marketing the Port of Baltimore worldwide.

Other governmental agencies, such as U.S. Customs and the Army Corps of Engineers, along with the private sector with its variety of businesses, play a vital role in making the Port of Baltimore successful. From freight forwarders to bay pilots to warehouse operators- all contribute to making the Port of Baltimore efficient, cost effective and easy to use.

The port of Baltimore has six public terminals and seven private terminals. The public terminals are the following:

**Seagirt Marine Terminal**
The Seagirt Marine Terminal stands as a working monument to the Port of Baltimore's innovative and progressive spirit. Opened in 1990, Seagirt features the latest in cargo-handling equipment and systems. The design behind this high-tech facility system stems from one simple principle: keep the cargo moving. The computerized gate complex serves as the nerve center for the 275-acre container terminal. Seagirt's automated system consolidates the steps necessary to generate the Trailer

Interchange Report (TIR). When trucks enter Seagirt, an electronic sign-bridge over 13 of the 14 inbound lanes directs the drivers to the appropriate lane, where a remote intercom system allows them to quickly exchange information with clerks in the gate house.

Seagirt's hours and 14 portals make ingress for trucks quick and easy. The newly-enhanced NAVIS system allows truckers, forwarders, and brokers to access the exact status of their container and will even send an email notifying them when it is ready for pick-up. The Seagirt computer system's electronic data interface capabilities automatically receive and send information to the terminal's steamship line customers. With just a few keystrokes, the carriers receive instantaneous information on the cargo and equipment, helping them generate timely reports that can boost their efficiency.

The $220-million terminal's seven 20-story high-speed computerized cranes dominate the port's skyline. In the hands of the port's skilled International Longshoremen's Association (ILA) operators, these 100-foot gauge, post- Panamax cranes are among the most productive in the industry, averaging 33 to 35 containers an hour.

Three of the cranes feature the latest dual-hoist systems, which lift two containers simultaneously to expedite the loading and discharge of the vessel. Capable of handling 150,000 containers a year, Seagirt's practical yard layout places the storage area directly behind the berths, further increasing the productivity of the vessel loading and discharge operations.

Further enhancing Seagirt's efficiency is the adjacent Intermodal Container Transfer Facility, which brings the railhead to within 1,000 feet of the bulkhead and makes the Seagirt complex the port's intermodal hub. The port's progressive labor-management approach complements Seagirt's advanced equipment, technology and systems to further its reputation as one of the nation's most productive terminals.

**Dundalk Marine Terminal**

With 13 berths, 9 container and two gantry cranes and direct rail access, the 570-acre terminal remains the Port of Baltimore's largest and most versatile general cargo facility. Dundalk handles cargo equipment such as containers, automobiles, farm, construction, wood pulp, steel, breakbulk, project cargo and other Roll On/Roll Off (RO/RO) equipment.

APM Terminals, Inc. operates a private terminal within Dundalk, further enhancing the port's efficiency. Opened in 1993, this private terminal features many of the same automated efficiencies first introduced to the port in 1990 at the Seagirt Marine Terminal, which is generally regarded as the finest container terminal in the country. Maryland International Terminals (M.I.T.) also operates a private container terminal within Dundalk.

Approximately 135 acres, these “terminals within a terminal” (APM and MIT) includes computerized gate complexes that consolidate and improve the Trailer Interchange Report (TIR) process. Using remote intercom systems, truck drivers can communicate directly with clerks in the gatehouse, who instantaneously type the necessary information into a computer. The enhanced NAVIS system also enables truckers, forwarders, and brokers to access the status of specific containers, for up-to-the-minute information.

Over the past several years, Baltimore ranked as one of the nation's top three automobile handling ports. Several auto processors maintain operations at Dundalk, which offers 152.2 acres of storage. Dundalk's direct rail access also allows unit trains to routinely deliver dozens of units of farm and/or construction equipment to the terminal at once. Combined with rail access provided by Norfolk Southern and CSXT, Dundalk's size makes it ideal for handling large breakbulk and project cargo. The terminal's expansive covered storage space can easily house weather-sensitive cargoes such as high-quality steel coils, raw rubber, and wood pulp, one of the fastest-growing cargoes at the port.

The Port of Baltimore recently invested $21 million on crane upgrades at Dundalk. A container crane with a top capacity of 40 containers per hour. Improvements to the speed and capacity of existing cranes. Outreach was increased to 126 feet, so the outermost container row on a Panamax ship can now be reached at full trolley speed. A new heavy lift crane. The truck-mounted Manitowoc M-250T boasts a maximum capacity of 300 long tons, and its mobility makes it available at any of the Port of Baltimore's terminals on an as-needed basis.

**N. Locust Point**

Over the past century, North Locust Point has adapted and changed to meet the varied needs of the port. It has welcomed immigrants, served as a cargo pier for the Baltimore & Ohio Railroad, and handled many different types of breakbulk and liquid and drybulk cargoes. Today, the 90-acre terminal has been redeveloped to enhance the port's forest products capabilities. The addition of a 45 long ton (45.7 M.T.) container crane, coupled with on-dock rail access, allows for the smooth loading and discharge of steel directly between vessel and rail car. The addition of the container crane boosts the efficiency of the terminal's container operations, while two 75-ton (68 M.T.) gantry cranes provide the heavy-lift capability needed for large breakbulk and project shipments.

North Locust Point provides water access for one of the port's grain elevators, and is home to several latex importers. The terminal has ample storage capacity. With 19 acres (7.9 ha) of outside space and two sheds with a combined 365,206 square feet (33,275 square meters), North Locust Point can easily accommodate the storage of steel, breakbulk and project cargoes. While North Locust Point has changed many times in its proud history, one constant remains: its ability to meet the varied needs of the port's customers.

**S. Locust Point**

While all of the port's general cargo terminals enjoy excellent highway access, South Locust Point has Interstate 95 -- the "Main Street" of the East Coast -- literally running past its front door. From South Locust Point, trucks can travel almost anywhere in the country without hitting a single traffic signal. The Maryland Port Administration (MPA) opened South Locust Point in 1979 to meet the growing needs of the port's customers. South Locust Point can handle any type of general cargo.

The MPA completed a major expansion of South Locust Point in 1988, doubling the size of the terminal to almost 80 acres and creating four general cargo berths. The multi-million-dollar project increased the terminal's productivity and efficiency by developing another container berth and adding a third container crane. South Locust Point features three 40-long ton (40.6 M.T.) container cranes, as well as a 100-short ton (90.7 M.T.) revolving gantry crane for handling heavy breakbulk and project cargoes. The facility's size and versatility make it ideally suited to handle the needs of medium-sized steamship lines, multi-purpose vessels and any cargo that needs to hit the road in a hurry.

**Fairfield Auto Terminals**

Together with automobiles and light trucks, tractors, agricultural vehicles, trucks, wheeled cranes, and the like make Baltimore the number one port in the United States for handling "Ro/Ro." The "Fairfield" area of the port includes four specialized terminals for handling and processing autos, light trucks and similar ro-ro cargo.

Currently, an MPA facility exists, 44.1 acres in size with 50,000 square ft. of modern building space, for processing autos and light trucks. Typically, this includes accessorizing, minor repair operations and final dealership preparation. The terminal is adjacent to a public berth, also owned by MPA. A vessel discharging new vehicles can berth within a few hundred feet of the facility. A second facility, owned by MPA and leased to ATC Logistics of Maryland, is Masonville Marine Terminal. This state-of-the-art facility consists of nearly 50 acres, with a 94,000 sq. ft. building, also designed for processing automobiles. Access is a mere half mile from the vessel. Plans are underway to add an additional berth to the site.

Amports owns and operates two other terminals in this area. These are the Atlantic Terminal, 55 acres with its own pier facility, and Chesapeake Terminal, 70 acres with an additional 26 planned for development. The Port's famous QCHAT Program, Quality Cargo Handling Action Team, is based at the Atlantic facility.

**Intermodal Container Transfer Facility**
The Port of Baltimore's Intermodal Container Transfer Facility (ICTF) moves cargo between bulkhead and railhead in record time. Adjacent to Baltimore's modern Seagirt Marine Terminal, the 70-acre ICTF allows cargo to catch a train to almost anywhere. CSX Intermodal (CSXI) operates the port's on-dock railyard, which has steadily increased its volume since opening in 1988. Baltimore's ICTF has quickly emerged as an integral link in CSXI's impressive nationwide intermodal system.

With six trains daily, CSXI offers direct service to the Southeast and Midwest, and connections to the rest of the continental United States and Canada. CSXI also operates a service between the ICTF to Montreal and Toronto. The Seagirt ICTF offers double-stack capability, as well as providing shippers and steamship lines with reverse landbridge opportunities to the rest of the country.

The dedicated truck entrance of the automated pre-check system speeds the pick-up and delivery process for cargo. The facility features a separate gate for domestic shipments. The Seagirt ICTF uses the latest in intermodal equipment and a skilled labor force to keep the ICTF running efficiently. Two transtainers -- rubber-tired gantry cranes which straddle the rail tracks -- facilitate the rapid loading and discharge of two trains simultaneously. Toploaders are used to mount and dismount containers to and from chassis.

With its location adjacent to the Seagirt Marine Terminal, cargo flows effortlessly between the two facilities, while the intra-terminal Colgate Creek Bridge connects the Seagirt, the port's largest general cargo facility. In 1992, the International Longshoremen's Association, whose members supply the facility's labor force, and the Steamship Trade Association of Baltimore agreed to an unprecedented five-year agreement contract that adds a third shift, allowing the ICTF to operate 24 hours a day, seven days a week.

**Private Terminals:**
The Rukert Marine Terminal specializes in metals, ores, fertilizers, alloys; the Sparrows Point Terminal is a bulk and breakbulk loading & unloading facility; the Baltimore Metal & Commodities Terminal specializes in metals, soft commodities & project cargo; Highland Marine Terminal; the CNX Marine Terminals, Inc. specialize in bulk, breakbulk, project and general cargo, stevedoring and lay berthing; the Terminal Corporation has more than a century of experience handling unitized, break bulk and project cargoes and the Westway Terminal Company, Inc. specializes in the handling of agricultural products, molasses products, and chemicals.

The City of Baltimore Foreign-Trade Zone (FTZ) number 74 was established in 1982. Since its establishment, the growth of the FTZ in Baltimore has caused both expansion and modification due to a number of requests and in response to the tremendous benefits to certain industries. This growth, in turn, has created job, additional cargo tonnage for the port and increased the tax base of the community. Zone space was originally 60,000 sq. ft. in 1982 and presently contains over 1,400 acres at 11 sites in the city of Baltimore. As documented in the 2000 Annual Report, the General Purpose Zone and Sub-Zone of FTZ #74 provided over 970 jobs and served 92 users during fiscal year 2000; handling 37 different commodities from 45 countries of origin with a value in excess of $15 million. [7]

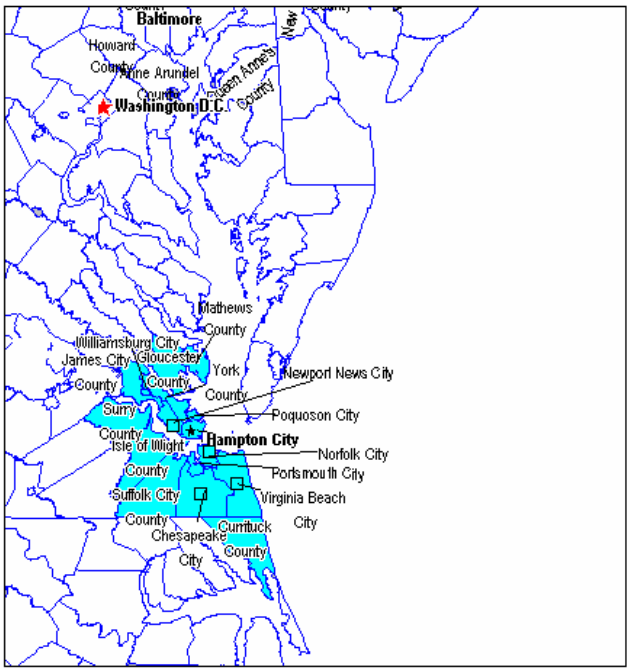
[7] Source: Maryland Department of Transportation website: http://www.marylandports.com/

# 17. Hampton Roads, VA

## Location and Background Information

The Port of Hampton Roads is located in the Virginia Beach-Norfolk-Newport News, Virginia- North Carolina Metropolitan Statistical Area (MSA).

*Figure 17-1. Hampton Roads, VA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of this MSA in the year 2000 was 1,576,370, according to the 2000 US Census. Of this total, 776,342 or 49.2 percent were males and 800,028 or 50.8 percent were females. The median age for the population in the same year was 33.5 years; 32.1 for males and 35 for females. As shown in Figure 17-2, almost 20 percent of males and over 15 percent of females are between the ages of 18 and 29. Around 15 percent of males and females are between the ages of 30 and 39.

About 62.4 percent of the population in the region is white, 30.9 percent is Black or African American, 4.0 percent are considered 'others' (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), and 2.7 of the population is Asian (Figure 17- 3). In terms of ethnic makeup, 3.1 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 17- 2. Hampton Roads, VA: Structure of the Population by Age Group, 2000*

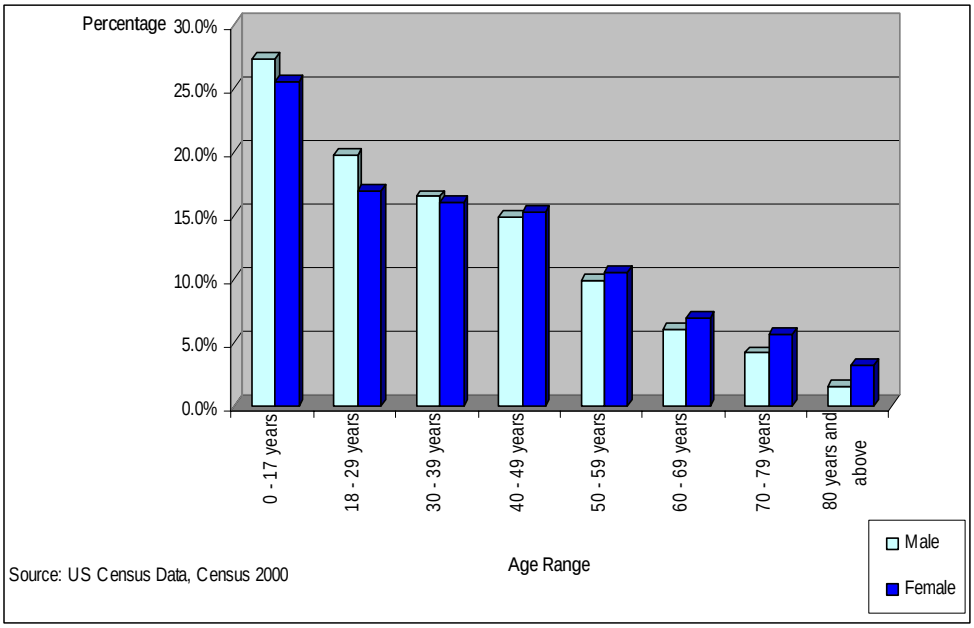
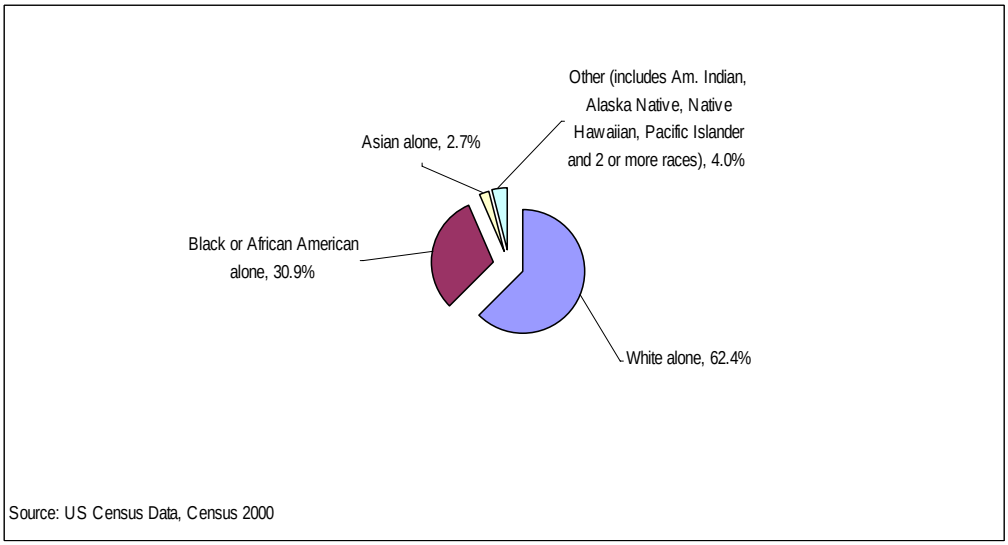
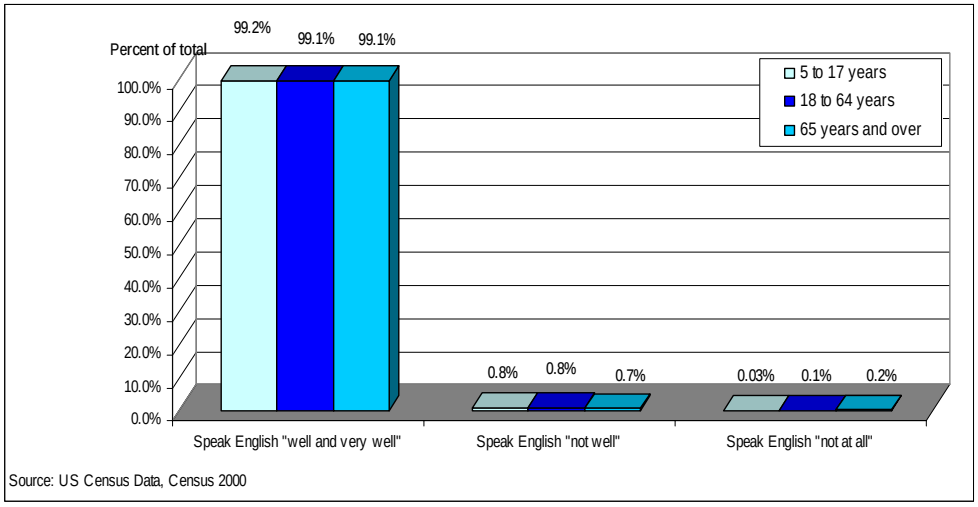



*Figure 17- 3. Hampton Roads, VA: Population by Race, 2000*



It is evident from the data specified in Figure 17- 4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 17- 4. Hampton Roads, VA: Ability to Speak English by Age Group, 2000***

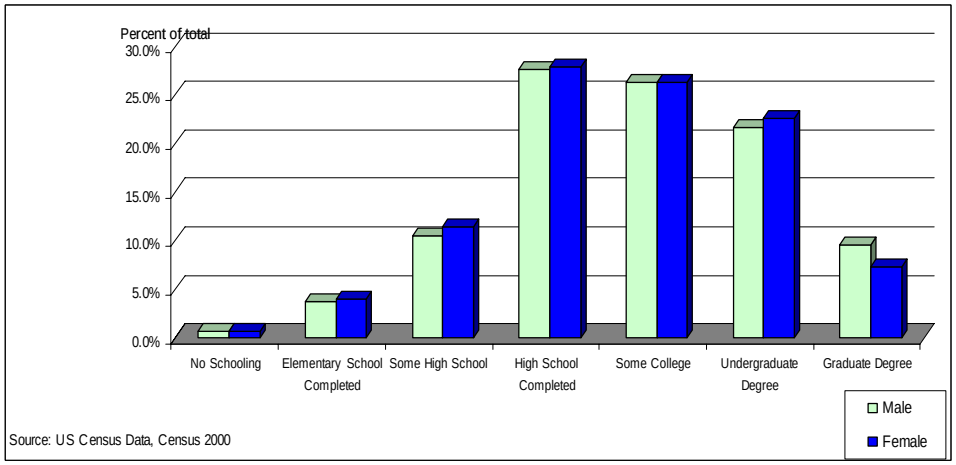



## EDUCATION

Of the population in the region, ages 25 and over, over 25 percent of males and females have completed high school, and about 25 percent have completed some college. Around 20 percent of males and females have obtained an undergraduate degree. Less than 10 percent of the population has obtained a graduate degree (Figure 17-5).

Some of the colleges and universities around the area are: Atlantic University, College of William and Mary, Eastern Virginia Medical School, Hampton University, Johnson & Wales University, Norfolk State University, Regent University and Virginia Wesleyan College. There are four military bases in the area: Fort Monroe, Fort Eustis, Langley AFB, Naval Station Norfolk. [2]

***Figure 17- 5. Hampton Roads, VA: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[2] Hampton Roads, VA Community Profile: http://www.epodunk.com

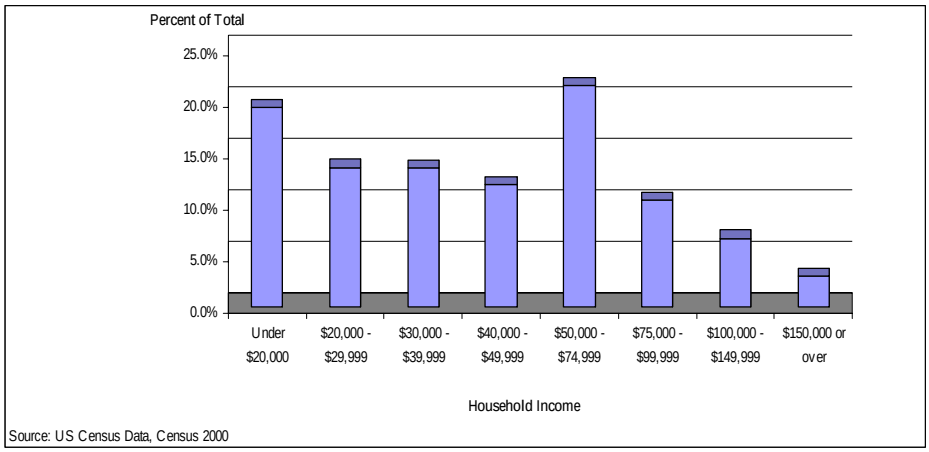
# Socio-Economic Characteristics

## INCOME

As portrayed in Figure 17-6, about 23 percent of the households' incomes in this area in 1999 fell in the $50,000 - $74,999 income bracket. Around 20 percent of households had incomes of under $20,000. Less than 5 percent of households in the region had incomes of $150,000 or over.

Household median income in Hampton Roads in 1999 was $43,085.86 and per capita income in the same year was $20,312.54. The percentage of people under the poverty line in the region was 10.6 in the year 2000. Average household size in 2000 was 2.61.[3]

***Figure 17- 6. Hampton Roads, VA: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population in the region, ages 16 or over, over 35 percent of females are employed in the educational, health and social services industry, and nearly 20 percent are employed in 'other' industries, including the arts, recreation, entertainment, food services, public administration and information. Twenty-five percent of males are employed in 'other' industries, 15 percent are employed in the manufacturing industry and 15 percent are employed in the wholesale and retail trade industry (Figure 17-7).

An estimated 4.4 percent of males and 5.8 percent of females were unemployed in the region in 2000.[4]

According to the 2000 US Census, an estimated 0.4 percent of males and 0.2 percent of females are employed in farming, fishing and forestry occupations. About 17.5 percent of males and 6.4 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.9 percent of male's occupations and 0.1 percent of female's occupations.

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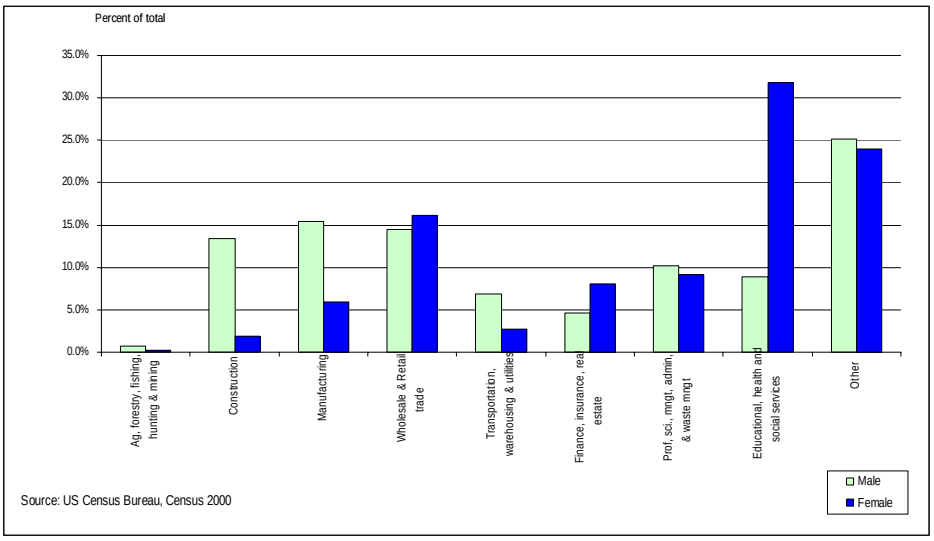
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 17-7. Hampton Roads, VA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Virginia Port Authority is an agency of the Commonwealth of Virginia, reporting to the Secretary of Transportation. It is the state's leading agency for international transportation and maritime commerce, charged with operating and marketing the marine terminal facilities through which the shipping trade takes place. The agency owns four general cargo terminals: Norfolk International Terminals, Portsmouth Marine Terminal, Newport News Marine Terminal, and the Virginia Inland Port in Front Royal; which are operated by its affiliate, Virginia International Terminals, Inc.

Hampton Roads is served by the Port and its three Marine Terminals located in Norfolk, Newport News and Portsmouth. More than 95 percent of the world's shipping lines call on the Port of Hampton Roads, linking Virginia to more than 250 ports in over 100 world-wide locations. It is the second busiest general cargo port on the East Coast, handling over 39 million tons of cargo annually 50 feet of deep ice-free harbor. The Port purchased 8 of the world's largest and fastest cranes, each capable of moving up to 40 fifty-ton containers per hour. During the past 12 years, general cargo handled by the port increased by more than 30 percent, and it is forecasted to further increase 300 percent by 2010.[5]

Virginia's strategic mid-Atlantic location and unparalleled transportation infrastructure offer steamship lines and shippers unbeatable access to two-thirds of the U.S. population with more than 75 international shipping lines and one of the most frequent direct sailing schedules of any port. Virginia has the best natural deepwater harbor on the U.S. East Coast. Fifty-foot-deep, unobstructed channels provide easy access and maneuvering room for the largest of today's container ships. Virginia ports are located just 18 miles from the open sea on a year-round, ice-free harbor and have long maintained a reputation for efficient and uncongested intermodal service. As the largest intermodal facility on the U.S. East Coast, Virginia offers six direct-service trains to 28 major cities each day. More than 50

[5] http://www.hreda.com/research/Port032005.pdf

motor-carrier companies offer full freight-handling and load-consolidation services. A modern network of interstate and local highways permits fast, direct inland motor-freight transportation to any point in the United States.

The Port of Virginia has been a boon to Virginia and the world for nearly four centuries. From the early founding as "America's First Port" at Jamestown in 1607 through the era of the great clipper ships to the present day sophistication of computerized intermodal technology, Virginia has been at the forefront of every major change in the shipping industry.

In addition to the advantages offered by easy access to the open sea, the Port of Virginia is served by one of the nation's more efficient inland transportation networks. Cargo is transported with speed and efficiency by 30 miles of on-dock rail. Over 130 trucking companies and two of the nation's largest railroads, CSX and Norfolk Southern, enable the Port of Virginia to serve two-thirds of the U.S. population within 24 hours.

The Port of Virginia consistently ranks as one of the leading ports in the United States in terms of total foreign waterborne commerce. In terms of general cargo (containerized and break bulk cargo), our port is the second largest port on the U.S. East Coast, just behind New York/New Jersey. Between 1982 and 2001, general cargo tonnage at Virginia's state-owned ports increased from 2.5 million tons in 1982 to 11.5 million tons in 2001, an unmatched growth record among U.S. ports. In terms of total cargo (which includes container, break bulk and bulk cargo), the Port handled over 37 million short tons.

Many factors have contributed to the Port's phenomenal growth, but none is as important as unification of the ports in the Hampton Roads harbor. In 1981, the Virginia General Assembly passed landmark legislation designed to unify the ports under a single agency, the Virginia Port Authority, with a new single operating company, Virginia International Terminals, Inc. In the years preceding unification, ports in the Hampton Roads harbor were privately operated by competing companies, which caused sporadic, sustained growth and splintered marketing efforts. Unification has made the Port of Virginia the fastest growing port complex in the United States.[6]

**Newport News Marine Terminal**

Newport News Marine Terminal (NNMT) has gained a reputation as the premier steel and project cargo handling port on the U.S. East Coast. NNMT boasts various heavy-lift crane capabilities, warehouse space, and container cranes. And NNMT now offers the advantages of a fully dedicated, on-terminal paper distribution facility, the Lydall Paper Distribution Center. The facility is operated by Lydall Distribution Services, Inc., a company with an outstanding reputation for its expertise in understanding the special nature and requirements of paper cargoes. The 100,000 square foot distribution warehouse will offer the transportation advantages of The Port of Virginia's on-dock rail and its competitive transportation infrastructure.

The terminal has an area of 140.64 acres with direct rail access and has on-pier trackage for direct cargo loading on and off ships to and from rail. The main Channel Depth is 45 feet. Pier B on the North side is 990 feet long and includes 170-foot mooring dolphins/catwalk. The south side is 620 feet long and 550 feet wide. It has three berths handling RO/RO cargo and breakbulk cargo and 34-foot aprons. The water depth on the north side is 32 feet; on the south side is 32 feet and offshore is 33 feet. The pier deck elevation (MLW) is 15.0 feet. Pier C on the North side is 935 feet long and 540 feet wide with 184-foot aprons for handling breakbulk cargo, serviced by two PACECO cranes; the water depth is 40 feet. The south side is 935 feet long, 540 feet wide, with 184-foot aprons for handling RO/RO and container cargo, serviced by one PACECO portainer crane and one CMI crane capable of a 182-LT heavy lift. The water depth is 36 feet and the pier deck elevation (MLW) is 14.5 feet. The terminal has covered Pier Storage: Pier B with 270,000 square feet and Pier C with 124,000 square feet; it has256,000 square feet for dry storage. Its container storage has stacked capacity for 790 containers (two high) and

[6] Hampton Roads Maritime Association webpage: http://www.portofhamptonroads.com

chassis capacity for 1,210 containers. The terminal has 43 acres for open yard storage. The terminal's roadway access is via Interstates 64 and 664 and U.S. Route 17; rail service provided by CSX

**Norfolk International Terminals**
Norfolk International Terminals (NIT) is the largest terminal. NIT is home to the world's largest container cranes. These Suez-class container cranes, each measuring 219 feet are the largest in the world. They can work ships with containers stacked 22 across, moving as many as forty 50-ton containers in an hour. Recently completed, NIT North has effectively doubled the cargo handling capacity of the terminal.

**Portsmouth Marine Terminal**
Portsmouth Marine Terminal (PMT) is the second largest terminal with respect to containership berth space. Among PMT's many cranes is the fourth Kone supercrane with lift capacity of 40 LT. PMT's versatility makes it excellent for handling containers, RO/RO and breakbulk cargo. Features of this terminal include refrigerator hook-ups, specialized warehouse space, fumigation facilities and straddle-carrier container stacking.

**Virginia Inland Port**
Operated as an intermodal container transfer facility, the Virginia Inland Port (VIP) provides an interface between truck and rail for the transport of ocean-going containers to and from The Port of Virginia. Containers are transported by truck to the VIP for immediate loading upon a rail car or for short-term storage prior to loading. Containers arriving from Hampton Roads terminals are unloaded from the train and dispatched by truck to inland destinations. Land is available to steamship lines for container storage and ancillary service companies.

The Port of Virginia is Foreign Trade Zone number 20. [7]

[7] Virginia Port Authority webpage: http://www.vaports.com

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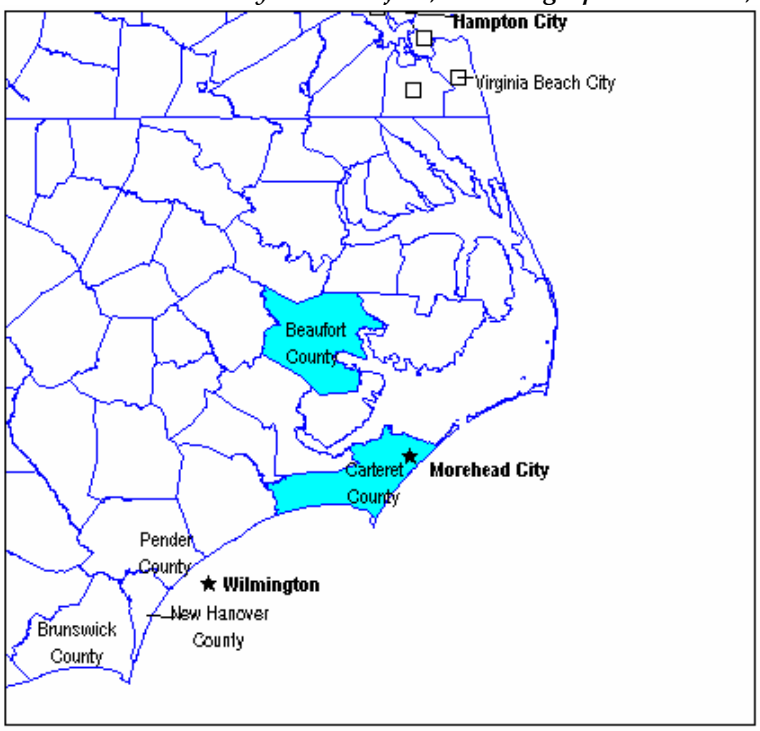
# 18. Morehead City and Beaufort, NC

## Location and Background Information

The Port of Morehead City and Beaufort, is part of the Morehead City, North Carolina and the Washington, North Carolina Micropolitan Statistical Areas.

*Figure 18-1. Morehead City and Beaufort, NC: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of both Micropolitan Statistical Areas combined is of 104,341, according to the 2000 US Census. Of this total 50, 595 or 48.5 percent are males and 53,746 or 51.5 percent are females. The median age for the region is 41.4 years; 39.9 for males and 42.7 for females. A little over 15 percent of the population falls within the 40-49 years age bracket, and about 14 percent falls within the 50 – 59 age bracket (Figure 18-2).

As portrayed by Figure 18-3, the majority of the population in the region is white (80.7 percent), followed by the Black or African American population (16.7 percent). 'Others' (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 2.3 percent of the population. The Asian population represents only 0.4 percent of the total population. Moreover, in terms of ethnic makeup, 2.1 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data: Census 2000.

*Figure 18-2. Morehead City and Beaufort, NC: Population by Race, 2000*

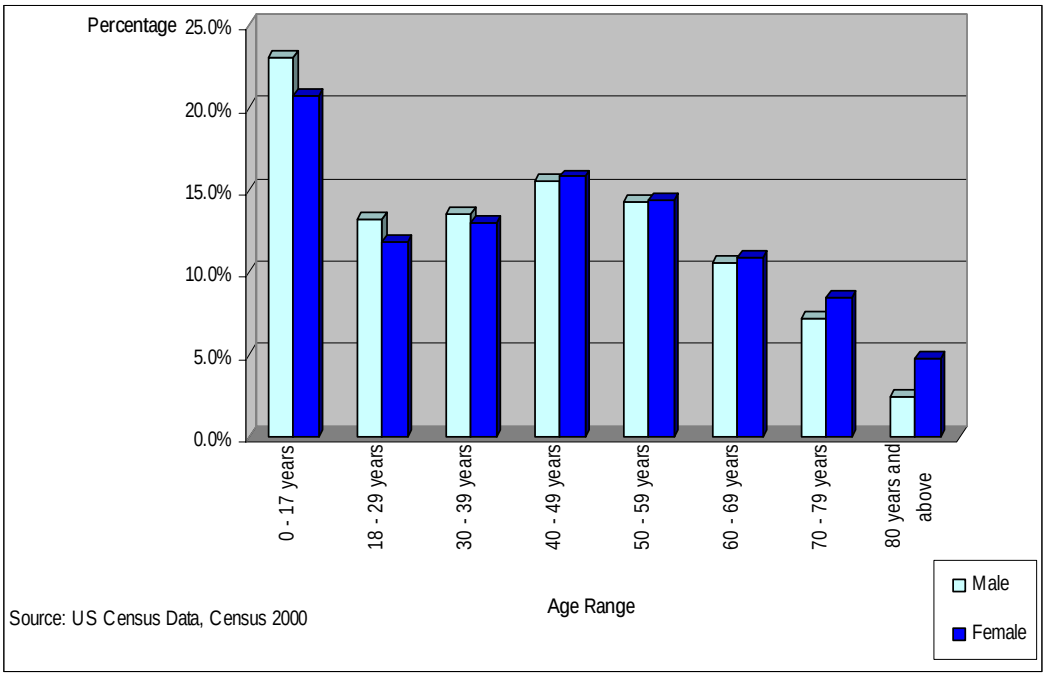
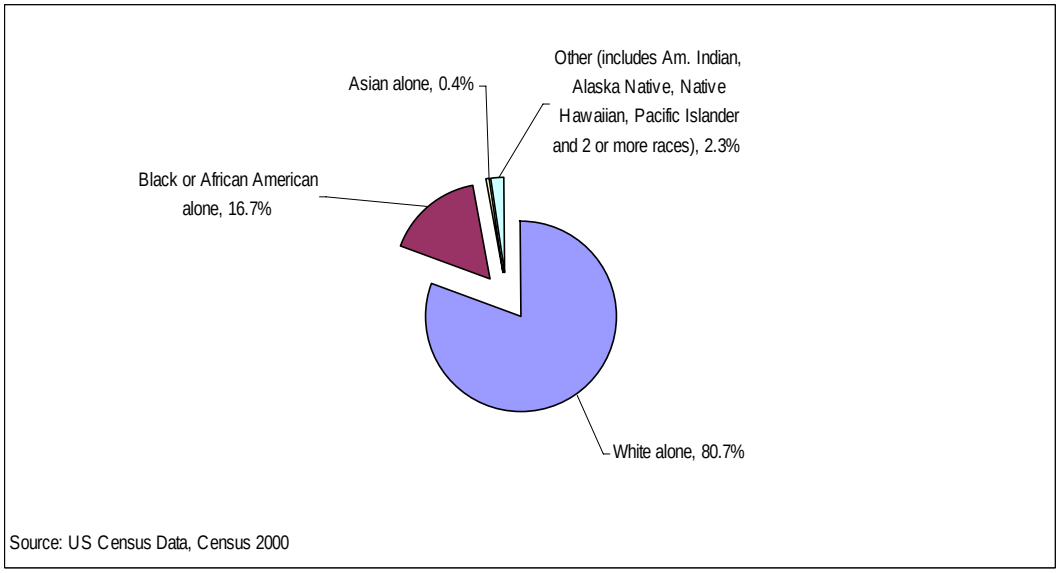
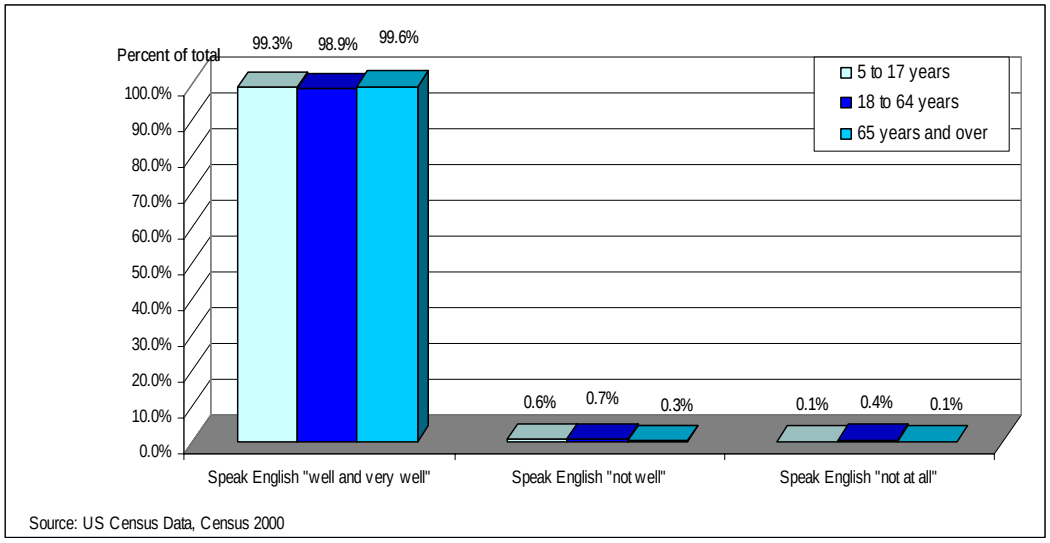



*Figure 18-3. Morehead City and Beaufort, NC: Population by Race, 2000*



It is evident from the data specified in Figure 18-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

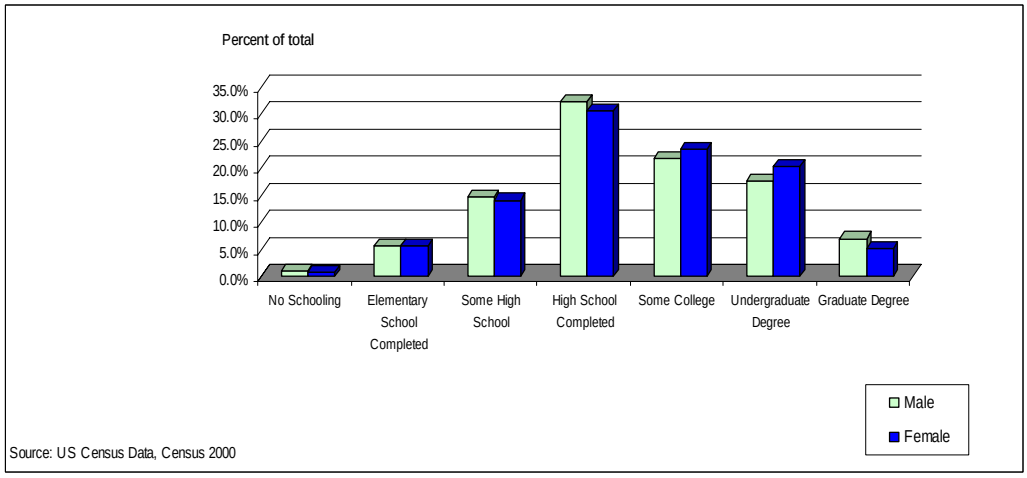
***Figure 18-4. Morehead City and Beaufort, NC: Ability to Speak English by Age Group, 2000***




## EDUCATION

It is evident by Figure 18-5, that of the population ages 25 and over, 35 percent of males and nearly the same percentage of females have completed high school. Around 25 percent of males and a bit over that percentage of females have finished some college and approximately 21 percent of males and 24 percent of females have obtained an undergraduate degree in the region. The only college in the area is Carteret Community College.

***Figure 18-5. Morehead City and Beaufort, NC: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



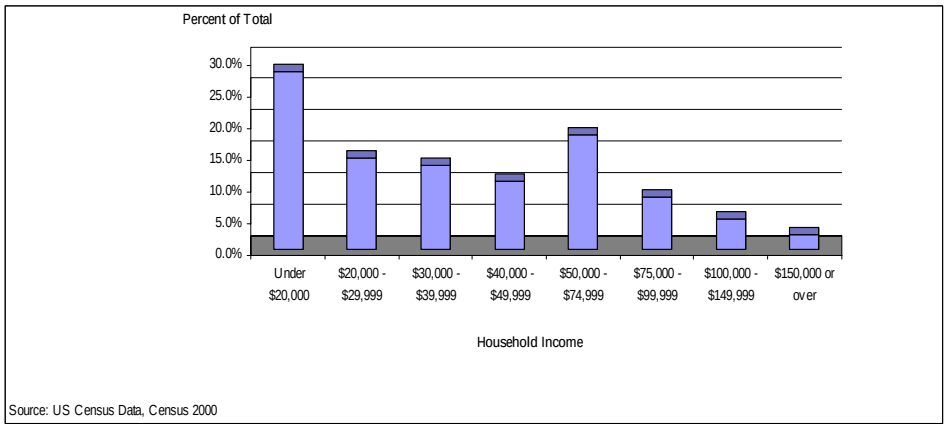
# Socio-Economic Characteristics

## INCOME

As revealed by Figure 18-6, 30 percent of households in these Micropolitan statistical areas have incomes of under $20, 000 and nearly 20 percent of households have incomes in the $50,000 - $74,999 income bracket. Less than 5 percent of households had incomes of $150,000 or over.

Household median income in the region in 1999 was $35,284.46 and per capita income for the same year was $19,304.69. The percentage of people under the poverty line in the region was 14.5 in the year 2000. The average household size in 2000 was 2.36.[2]

***Figure 18-6. Morehead City and Beaufort, NC: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

Of the employed civilian population aged 16 years or over in the region, 35 percent of working females are employed in the educational, health and social services industry. Nearly 24 percent of females are employed in other industries; these include the arts, entertainment, recreation, food services, public administration and information. The same percentage of males are employed in other industries as well. About 17 percent of males are employed in the construction industry, followed by males' participation in the manufacturing and wholesale and retail trade industries, which represent 15 percent each (Figure 18-7).

An estimated 4.9 percent of males and 6.1 percent of females were unemployed in the region in the year 2000.[3]

According to the 2000 US Census, an estimated 4.3 percent of males and 0.3 percent of females are employed in farming, fishing and forestry occupations. About 19.6 percent of males and 9.1 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 1.8 percent of male's occupations and 0.1 percent of female's occupations.

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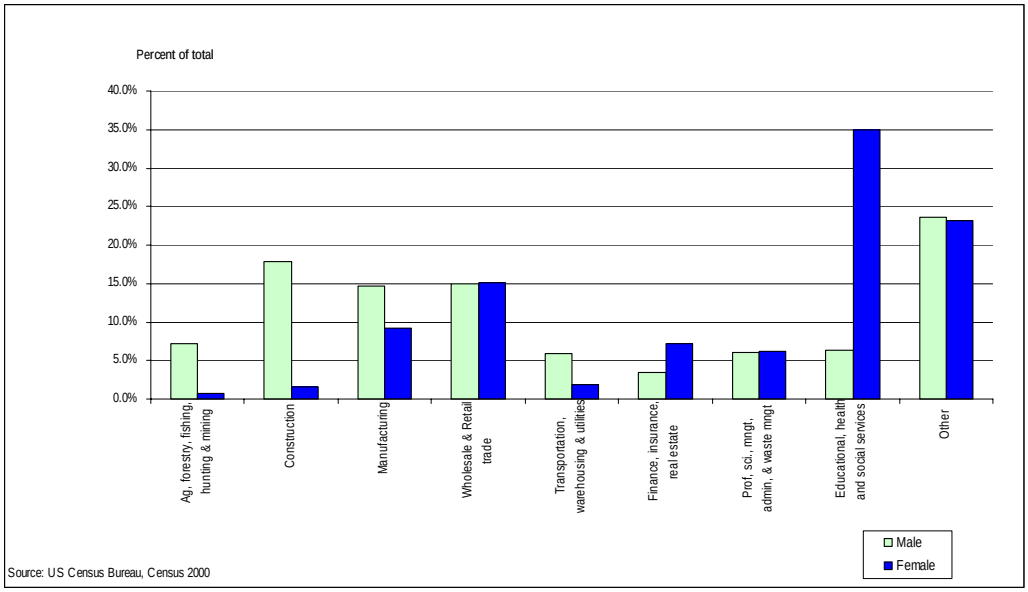
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 18-7.Morehead City and Beaufort, NC: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The 45-foot channel at the Port of Morehead City makes it one of the deepest ports on the U.S. East Coast. Only 4 miles from the ocean, the port handles breakbulk and bulk cargo with access to Interstates 95 and 40 via U.S. Highways 70 and 17 and daily train service from Norfolk Southern. Across the Newport River from the port is Radio Island, a prime site for development. The Ports Authority is offering approximately 150 acres - suitable for port industrial development, complete with municipal water and sewer and an NC-approved Environmental Impact Statement for marine terminal development.

With the volume of international trade expected to double by 2020, forward-looking businesses and industries can get ahead of the curve by taking advantage of the services offered by the North Carolina State Ports Authority. North Carolina's Ports of Wilmington and Morehead City, plus inland terminals in Charlotte and in the Piedmont Triad at Greensboro, are "ready, willing and able" to serve as competitive alternatives to ports in neighboring states for competitive access to the global markets. Owned and operated by the Ports Authority, North Carolina's port system combines modern facilities and abundant capacity with the commitment to excel in service to customers.

The Ports' central Eastern seaboard location is closest to the center of the southeast US market -- the fastest growing region in the country. The Ports Authority, along with the North Carolina Department of Commerce, is actively recruiting retail distribution centers to the state. Excellent sites are available for distribution center placement, as well as a labor pool well suited to fill materials handling positions. The North Carolina community college system has developed a course of study specifically

for retail distribution center training. Current and planned improvements in the regional transportation network provide a new platform for distribution when combined with upgraded capabilities at the Port of Wilmington to handle large quantities of imported goods. A unique NC Ports tax credit is also available to port users.

The seaport town of Morehead City is located on Bogue Sound on the coast of North Carolina and has become a popular fishing resort as well as the state's only deepwater port north of Wilmington. Across the Atlantic Intracoastal Waterway is the colonial fishing town of Beaufort and Atlantic Beach, Fort Macon, and Theodore Roosevelt Natural Area State parks are on Bogue Banks offshore. Inland you can explore the Croatan National Forest.

Morehead City was founded in 1853 by John Morehead, governor of North Carolina to be the projected terminus of the Atlantic and North Carolina Railroad, which duly arrived in 1858. It was captured by Union troops in 1862. The colonial seaport town of Beaufort, the third-oldest town in North Carolina, lies on Port Royal Island in the Barrier Islands on North Carolina's Outer Banks, just west of Cape Hatteras National Seashore. This picturesque seaside city, founded in 1715 on the site of an Indian village, was named after the 2nd Duke of Beaufort. Apart from its beautiful gardens, sights of interest include more than 100 colonial houses in the 21 block historic district, the town's Old Burying Ground and the Mariner's Museum which emphasizes the natural history of this coastal region. Spanish explorers first noted the harbour in 1520. In 1562, Jean Ribaut and his band of French Huguenots settled here and established the first Protestant colony in America. Like other settlements along the southeast coast, Beaufort was laid claim to by the Spanish, English, Scots, and Native Americans at one time or another. Beaufort Harbor was also the base of the pirate Edward Teach (Blackbeard) and his ship Queen Anne's Revenge.[4]

**Facilities**

The port is four miles from the open sea and is situated along the Newport River and Bogue Sound. It has 5,500 feet of continuous wharf and has two berths served by modern ship-loader and maximum loadout rate of 3,000 tons per hour of bulk cargo. It has a dry-bulk facility (used mainly for phosphate) with 225,000-ton capacity warehouse, conveyor system and shiploader and an open storage dry-bulk facility which can outload 1,000 tons per hour with a 2 million-ton annual capacity. The terminal has a concrete capped sheet pile bulkhead, solid fill with 1,000 psf concrete deck with rubber and/or timber fender system. The deck height averages 10 ft. above mean low water and apron widths from unrestricted to 45 ft. opposite transit sheds. It has Roll-on/Roll-off ramp and a well-lit terminal and 24-hour security provided by North Carolina State Certified Port Police, as well as a Barge Fleeting Area and 150 acres available for port industrial development on Radio Island.

There are two sites in the port approved as Foreign Trade Zone 67. Site One is 190,374 square feet of warehouse space within main terminal and Site Two is a 40-acre tract of undeveloped land, four miles west of the port. It [provides for storage, manipulation, exhibition and limited manufacturing operations and can lower, defer or avoid import duties; and can accommodate special purpose subzones.

The port has 457,564 sq.ft. of covered, sprinklered warehouse storage and 353,765 sq.ft. of transit shed storage; as well as rail access to warehouses and transit sheds and 14 acres of paved, open storage. There is a switching railroad operated by Carolina Rail Services and Norfolk Southern access. The berths are served by two surface tracks, two platform level tracks, and two depressed tracks at the rear of the transit sheds and covered railcar loading. There is additional railhead and railcar storage on Radio Island and west of Morehead City

Morehead City's first major port development came during the 1850's with a pier, warehouse and rail facility known as Pier No.1. Following the North Carolina tradition, it handled mostly naval stores and

[4] URL: htp://www.choosingcruising.co.uk/cruiseweb/Cruises_Calling.asp?nCall=Morehead+City&nCat=P)

salt. Takeover by Federal troops during the Civil War and a damaging storm in 1876 further hampered the development of the Morehead City port for many years.

The argument for state-owned ports began in the 1920's, when North Carolina's economic development was handicapped because of higher freight rates than those charged by Virginia competitors - a situation partly due to the state's notable lack of adequate ports and water transportation. A referendum on spending $8.5 million to improve the situation was defeated in 1924, with most of the Piedmont counties voting against it.

The value of deepwater ports was recognized by the state legislature in 1945 with the creation of the NC State Ports Authority. Its job: to create two competitive ports through the sale of revenue bonds. Its ultimate mission: to create a better atmosphere for the development of North Carolina industry.

The General Assembly in 1949 approved the issue of $7.5 million in bonds for construction and improvement of seaports to promote trade throughout the state. Terminals equipped to handle oceangoing vessels were completed at Wilmington and Morehead City in 1952.

Their positions nearly midway between major competing ports in Virginia and South Carolina have made them more accessible to North Carolina traders. In fact, it was the Wilmington harbor's location near some of the state's earliest businesses - pine tar, rice and tobacco - that helped make the city the largest in the state until the early 1900's.

With ships came rail, and up until the 1960's, Wilmington was the headquarters of the Atlantic Coast Line Railroad - now part of CSX. During World War II, Wilmington was the site of major shipbuilding efforts - including an operation that built vessels out of concrete.

Now, times have changed, and so have the methods of shipping. And that has meant some major changes to keep the ports competitive. In the mid 1970's the Ports Authority bought two container cranes, eventually locating both at Wilmington. This multi-million dollar purchase of cranes the size of skyscrapers was deemed necessary because more and more cargo was being shipped in "boxes" - containers the size and shape of small mobile homes.

Morehead City has become a major port for phosphate products. And it can handle containers using its larger cranes in tandem. Wilmington, meanwhile, has acquired a total of five container cranes even as it ships wood products and other bulk and breakbulk commodities. To facilitate the growth in container traffic, two inland terminals were opened in the mid 1980's in Greensboro and Charlotte. The Ports Authority continues to remain competitive, with major projects planned at both facilities. At Morehead City, planning continues for expansion onto Ports Authority property on Radio Island. The Wilmington Harbor Deepening Project brought 42-foot deep water the entire length of the Cape Fear River navigational channel, from the ocean near Southport to the Port - readying the port for the larger ships of the future.[5]

[5] North Carolina Ports website: http://www.ncports.com

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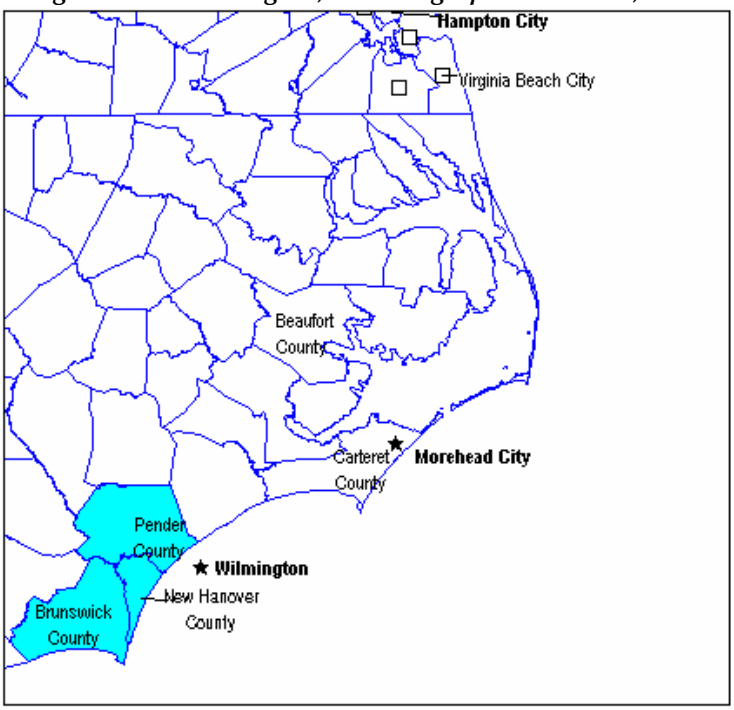
# 19. Wilmington, NC

## Location and Background Information

The Port of Wilmington is part of the Wilmington, North Carolina Metropolitan Statistical Area (MSA).

*Figure 19-1. Wilmington, NC: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of this MSA is 274,532, according to the 2000 US Census. Of this total, 133,999 or 48.8 percent are males and 140,533 or 51.2 percent are females. The median age in the region is 38.2 years; 37.0 for males and 39.5 for females. As portrayed in Figure 19-2, over 15 percent of males and females are between 18 to 29 years old and nearly 15 percent fall in the 40 – 49 years age range.

The majority of the population is white (79.5 percent); followed by the Black or African American population, which represents 17 percent of the total population. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 2.8 percent of the total population. The Asian population represents only 0.6 percent of the total population (Figure 19-3). Moreover, in terms of ethnic makeup, 2.5 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 19-2. Wilmington, NC: Structure of the Population by Age, 2000*

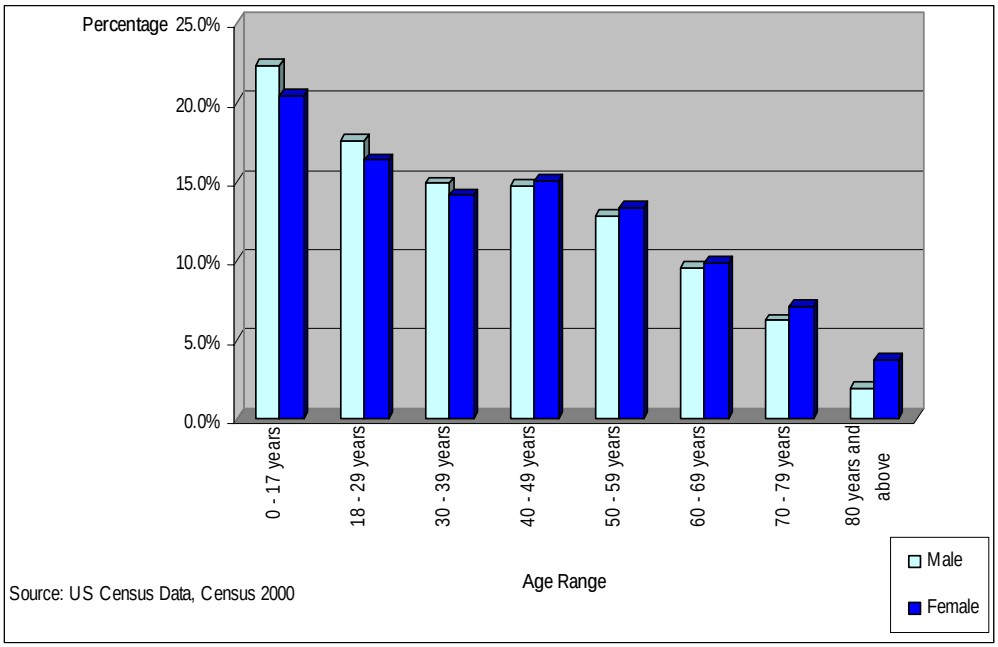
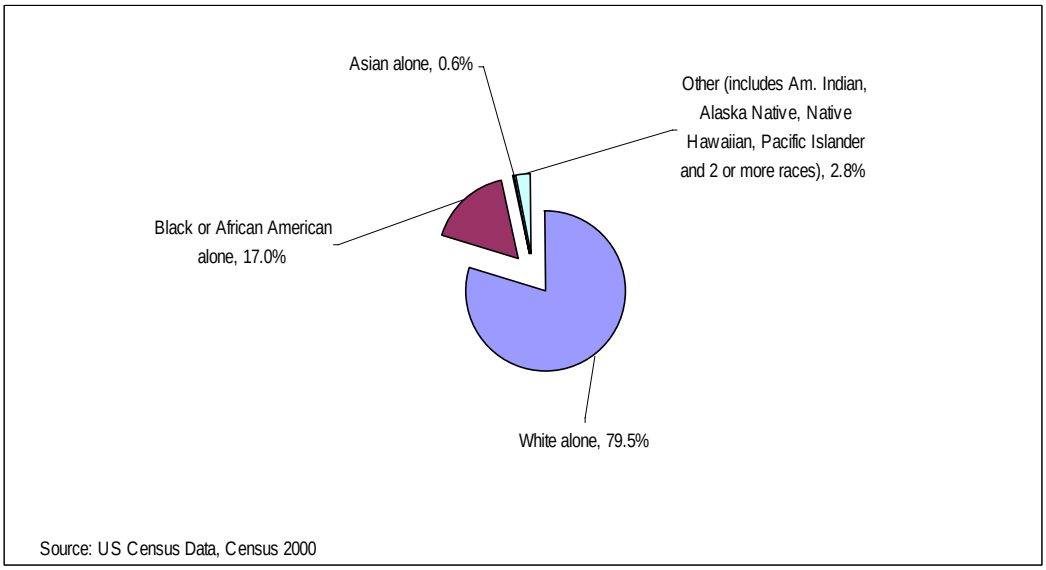
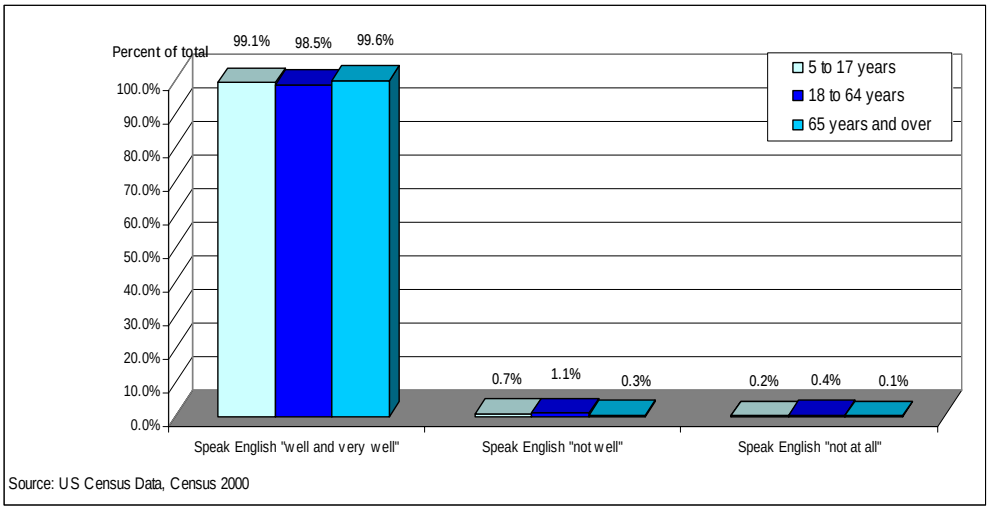



*Figure 19-3. Wilmington, NC: Population by Race, 2000*



It is evident from the data specified in Figure 19-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 19-4. Wilmington, NC: Ability to Speak English by Age Group, 2000***

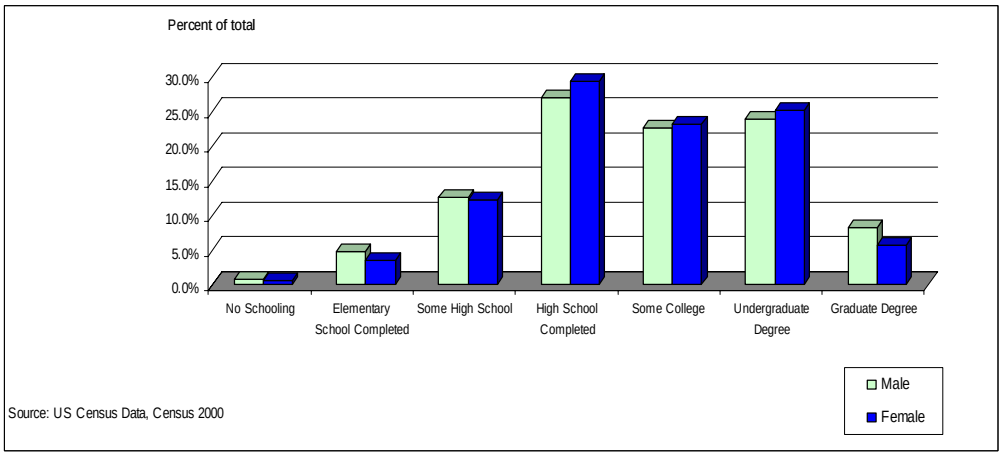



## EDUCATION

It is evident from Figure 19-5, that 25 percent of males and around 28 percent of females, ages 25 or over, have completed high school. About 22 percent of males and 24 percent of females have obtained an undergraduate degree, and about 21 – 22 percent of males and females have at least completed some college.

Some of the colleges and universities around the area are: University of North Carolina, Cape Fear Community College, Miller-Motte Business College and Mount Olive College-Wilmington.

***Figure 19-5. Wilmington, NC: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



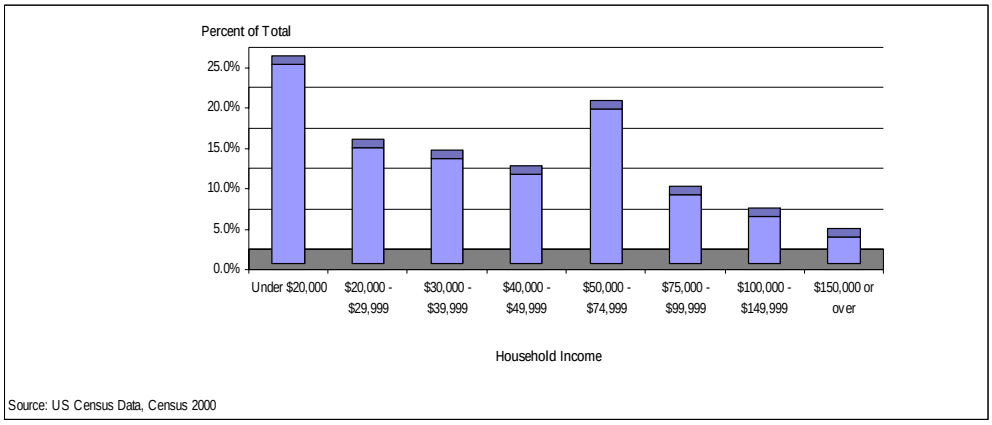
# Socio-Economic Characteristics

## INCOME

Around 25 percent of households in the Wilmington, NC MSA had incomes of $20,000 or under in 1999. About 20 percent of households in the region had incomes between $50,000 and $74,999. Less than 5 percent of households had incomes of $150,000 or over (Figure 19-6).

Household median income in the region in 1999 was $38,437.56 and per capita income for the same year was $21,468.56. The percentage of people under the poverty line in the region was 13 in the year 2000. The average household size in 2000 was 2.34.[2]

***Figure 19-6. Wilmington, NC: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As shown in Figure 19-7, of the employed civilian population aged 16 years or over, nearly 31 percent of females are employed in the educational, health and social services industry. About 23 percent of females are employed in 'other industries', which include the arts, entertainment, recreation, food services, public administration and information. Over 20 percent of males are employed in 'other' industries, followed by the construction (nearly 20 percent) and wholesale and retail trade (about 16 percent).

An estimated 5.2 percent of males and 5.7 percent of females were unemployed in the region in the year 2000.[3]

According to the 2000 US Census, an estimated 1.0 percent of males and 0.2 percent of females are employed in farming, fishing and forestry occupations. About 17.7 percent of males and 6.9 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.2 percent of female's occupations.

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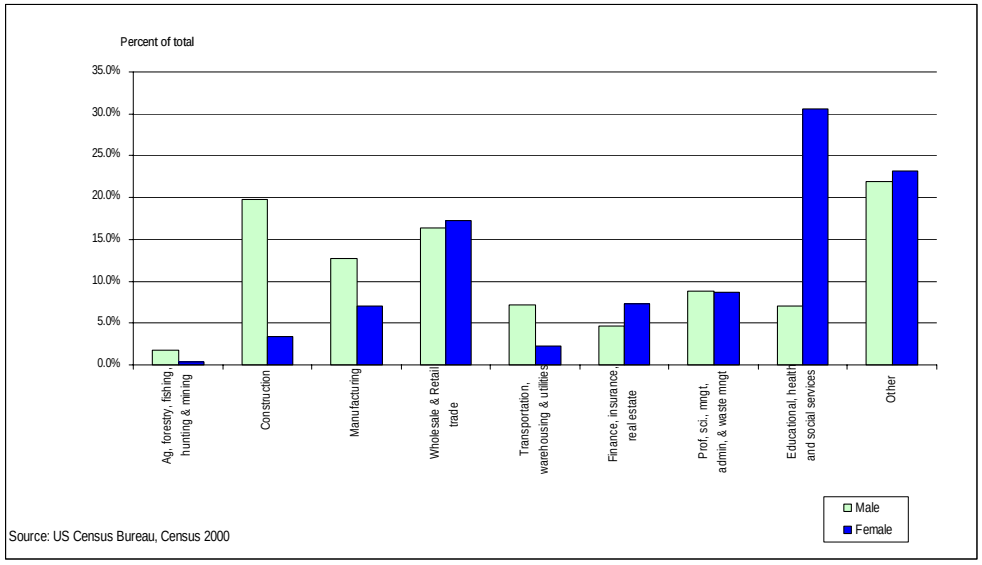
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 19-7. Wilmington, NC: Employed Civilian population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

Located on the east bank of the Cape Fear River, the Port of Wilmington offers facilities to handle containerized, bulk and breakbulk cargoes. The Port's new 42-foot channel allows current container vessel customers an additional 15% vessel capacity. The port has direct interstate access to Interstates 95 and 40 and daily train service from CSX Railways. Wilmington is one of the few South Atlantic ports with readily available berths and container storage areas and equipment.

With the volume of international trade expected to double by 2020, forward-looking businesses and industries can get ahead of the curve by taking advantage of the services offered by the North Carolina State Ports Authority. North Carolina's Ports of Wilmington and Morehead City, plus inland terminals in Charlotte and in the Piedmont Triad at Greensboro, are "ready, willing and able" to serve as competitive alternatives to ports in neighboring states for competitive access to the global markets. Owned and operated by the Ports Authority, North Carolina's port system combines modern facilities and abundant capacity with the commitment to excel in service to our customers.

The Ports' central Eastern seaboard location is closest to the center of the southeast US market -- the fastest growing region in the country. The Ports Authority, along with the N.C. Department of Commerce, is actively recruiting retail distribution centers to the state. Excellent sites are available for distribution center placement, as well as a labor pool well suited to fill materials handling positions. The North Carolina community college system has developed a course of study specifically for retail distribution center training. Current and planned improvements in the regional transportation network provide a new platform for distribution when combined with upgraded capabilities at the Port of Wilmington to handle large quantities of imported goods. A unique NC Ports tax credit is also available to port users.

The Port of Wilmington is located on the east bank of Cape Fear River and it is 26 miles from open sea. Its channel is 42 ft., mean low water and its wharf frontage is 6,768 ft. long, divided between container and general cargo operations. It has a concrete pile wharf construction with solid or concrete deck fronted with rubber fender system and a deck height that averages 12 ft. above mean low water. The Port has an open storage dry bulk facility which can outload over 800 tons per hour with a 70,000 ton storage capacity and a covered dry bulk facility with 2.5-million-cubic-foot storage capacity and import conveyor system for grain and fertilizers which can handle 1,000 tons per hour. The facility has nearly 100 acres available for development north of the present terminal, other berths with contiguous open apron areas of up to 300 ft. wide and a well-lit terminal and 24-hour security provided by North Carolina State Certified Port Police officers.

The entire Wilmington Terminal was designated Foreign Trade Zone 66 and it provides for storage, manipulation, exhibition and limited manufacturing operations. It can lower, defer or avoid import duties and can accommodate special purpose subzones.

Wilmington Port has over 1 million square feet of covered, sprinklered storage and has both road and rail access to all storage buildings. The terminal has about 100 acres of paved, open area and nearly 25 acres semi-improved open storage area. Furthermore, it has 31,200 square feet dedicated steel coils warehouse with a 30-ton remote control bridge crane and nearly one-half million square feet warehouse space dedicated to forest products, including a new 108,000 square feet forest products center. The terminal has two chambers providing vacuum methyl bromide and detia and a special covered, in-container fumigation area.

The terminal has CSX rail service twice daily and easy vehicular access with US Highways 17, 74, 76 and 421 and Interstates 95 and 40; inland service by CSX Intermodal and Norfolk Southern and connecting rail line, owned and operated by Wilmington Terminal Railroad, with interchanging cars between port and CSX system. It furthermore has equipment for handling all rail traffic, including double-stack trains, has roll-on/roll-off capacity at ramps and has transit sheds and warehouses with depressed tracks.

**North Carolina Ports History**

Since Europeans first viewed the area, the river known ominously as the Cape Fear has been vital to the fortunes of both buccaneers and businessmen. History shows it was the pirate Stede Bonnet - by most accounts a poor sailor who already had been convicted as a pirate and pardoned - who may have realized the river's name. After returning to piracy, he tried to escape capture in the early 1700's by hiding up the Cape Fear. But he forgot the first rule of pirates - always have more than one escape route. Bonnet was caught as soon as the British reached the mouth of the river.

Union vessels didn't have as much luck with the blockade runners of the Confederacy, who continued to escape capture and bring needed supplies back to the port at Wilmington during the Civil War. In fact, Wilmington was the last port open to blockade runners. When it finally fell in early 1865, it signaled the end of Confederate hopes. Since then, though, most seagoing traffic hasn't needed an escape route - merely a North Carolina berth. That meant the Cape Fear River and Wilmington, and the deepwater harbor at Morehead City.

Morehead City's first major port development came during the 1850's with a pier, warehouse and rail facility known as Pier No.1. Following the North Carolina tradition, it handled mostly naval stores and salt. Takeover by Federal troops during the Civil War and a damaging storm in 1876 further hampered the development of the Morehead City port for many years.

The argument for state-owned ports began in the 1920's, when North Carolina's economic development was handicapped because of higher freight rates than those charged by Virginia competitors - a situation partly due to the state's notable lack of adequate ports and water

transportation. A referendum on spending $8.5 million to improve the situation was defeated in 1924, with most of the Piedmont counties voting against it.

The value of deepwater ports was recognized by the state legislature in 1945 with the creation of the NC State Ports Authority. Its job: to create two competitive ports through the sale of revenue bonds. Its ultimate mission: to create a better atmosphere for the development of North Carolina industry.

The General Assembly in 1949 approved the issue of $7.5 million in bonds for construction and improvement of seaports to promote trade throughout the state. Terminals equipped to handle oceangoing vessels were completed at Wilmington and Morehead City in 1952.

Their positions nearly midway between major competing ports in Virginia and South Carolina have made them more accessible to North Carolina traders. In fact, it was the Wilmington harbor's location near some of the state's earliest businesses - pine tar, rice and tobacco - that helped make the city the largest in the state until the early 1900's.

With ships came rail, and up until the 1960's, Wilmington was the headquarters of the Atlantic Coast Line Railroad - now part of CSX. During World War II, Wilmington was the site of major shipbuilding efforts - including an operation that built vessels out of concrete.

Now, times have changed, and so have the methods of shipping. And that has meant some major changes to keep the ports competitive. In the mid 1970's the Ports Authority bought two container cranes, eventually locating both at Wilmington. This multi-million dollar purchase of cranes the size of skyscrapers was deemed necessary because more and more cargo was being shipped in "boxes" - containers the size and shape of small mobile homes.

Morehead City has become a major port for phosphate products. And it can handle containers using its larger cranes in tandem. Wilmington, meanwhile, has acquired a total of five container cranes even as it ships wood products and other bulk and breakbulk commodities. To facilitate the growth in container traffic, two inland terminals were opened in the mid 1980's in Greensboro and Charlotte. The Ports Authority continues to remain competitive, with major projects planned at both facilities. At Morehead City, planning continues for expansion onto Ports Authority property on Radio Island. The Wilmington Harbor Deepening Project brought 42-foot deep water the entire length of the Cape Fear River navigational channel, from the ocean near Southport to the Port - readying the port for the larger ships of the future.[4]

[4] North Carolina Ports website: http://www.ncports.com

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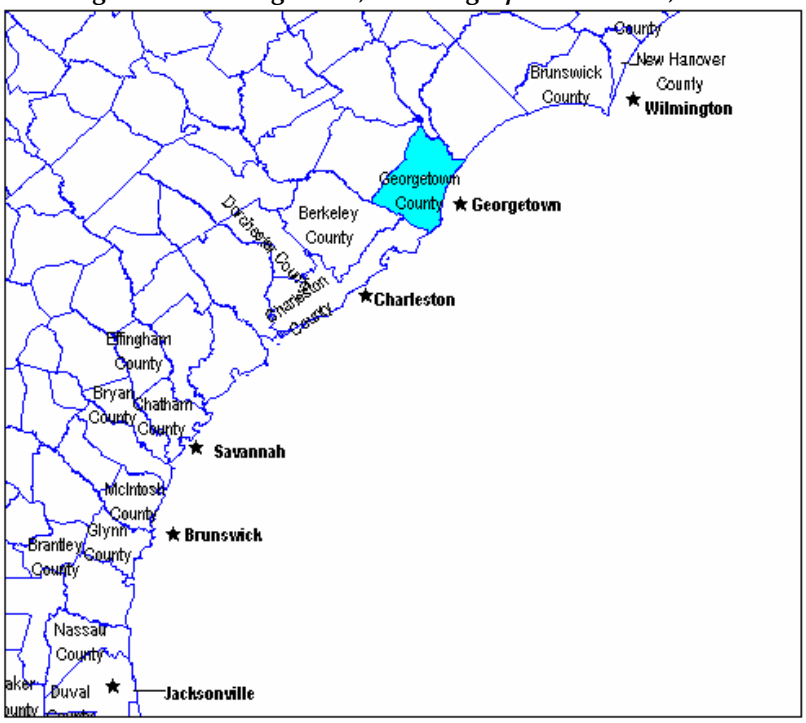
# 20. Georgetown, SC

## Location and Background Information

The Port of Georgetown is located within the Georgetown, South Carolina Micropolitan Statistical Area.

*Figure 20-1. Georgetown, SC: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of this Micropolitan Area is 55,797, according to the 2000 US Census. Of this total, 26,700 or 47.9 percent are males and 29,097 or 52.1 percent are females. The median age for the region in 2000 was 39.1 years; 37.8 for males and 40.3 for females. Nearly 15 percent of the population falls in the 40 – 49 years age range. Nearly 14 percent of females and about 14 percent of males fall within the 50 – 59 years age range (Figure 20-2).

As portrayed by Figure 20-3, 59.6 percent of the population in the region is white, followed by the Black or African American population, which represents 38.7 percent of the total population. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 1.4 percent of the population. The Asian population represents roughly 0.3 percent of the total population. Only 1.5 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] US Census Data, Census 2000.

*Figure 20-2. Georgetown, SC: Structure of the Population by Age, 2000*

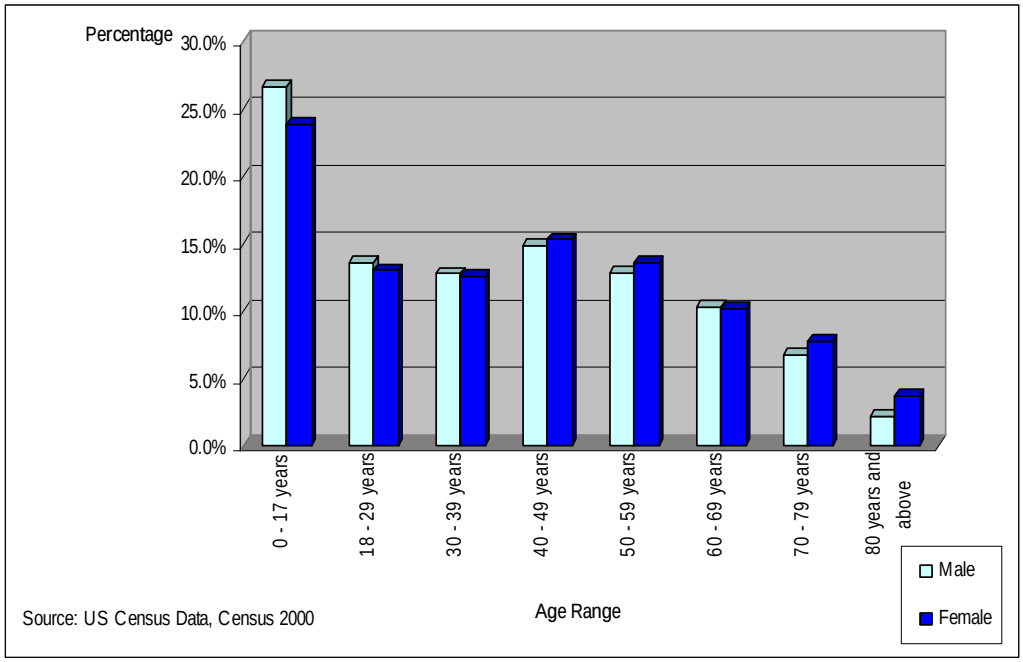
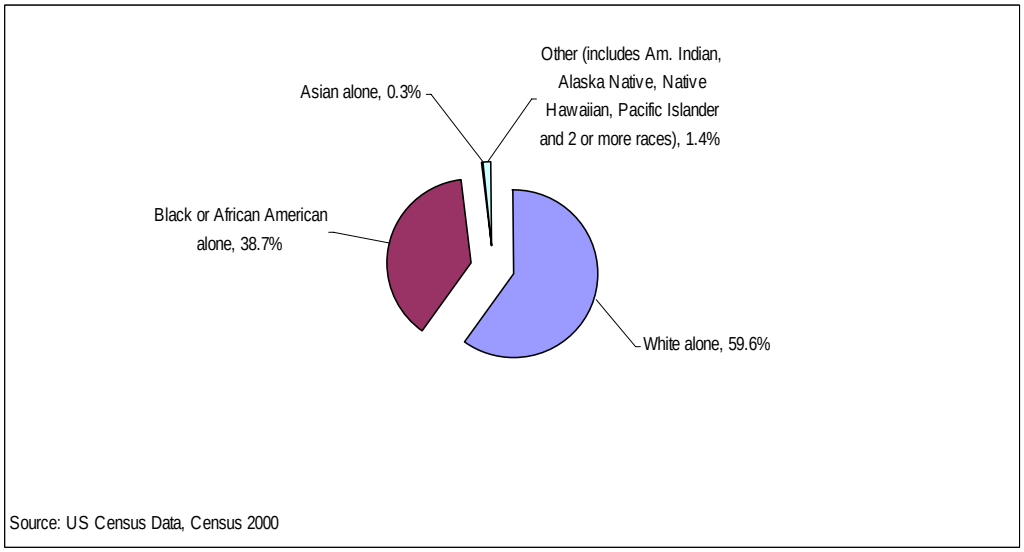
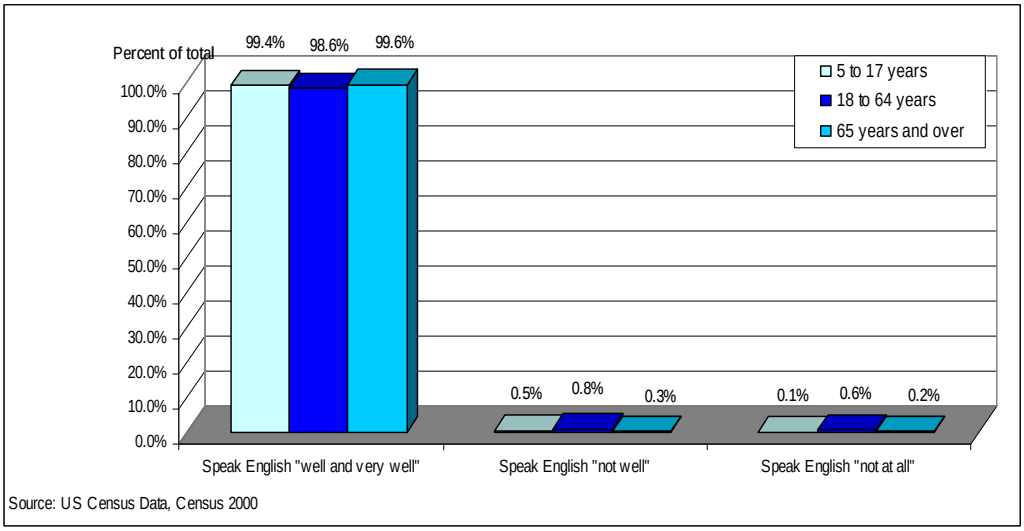



*Figure 20-3. Georgetown, SC: Population by Race, 2000*



It is evident from the data specified in Figure 20-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

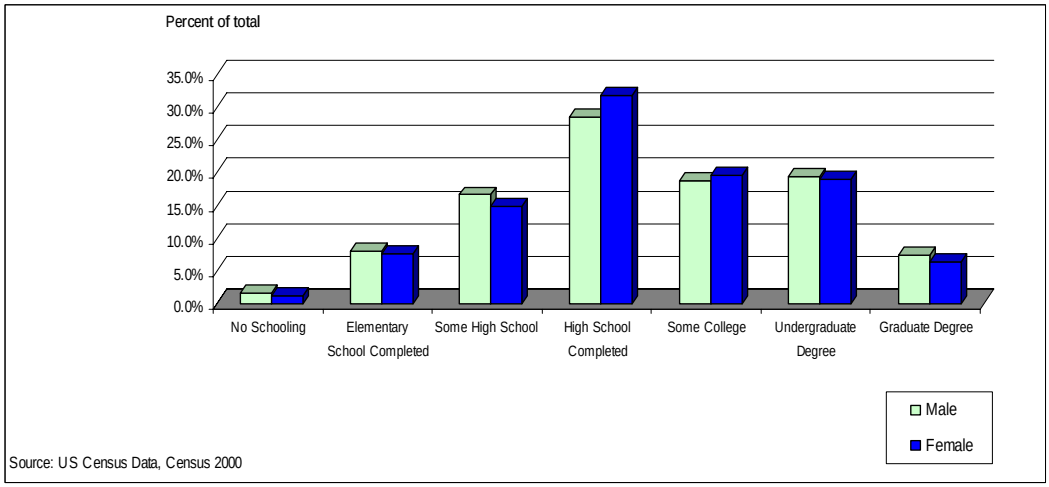
***Figure 20-4. Georgetown, SC: Ability to Speak English by Age Groups, 2000***




## EDUCATION

As portrayed by Figure 20-5, over 30 percent of females and 25 percent of males, ages 25 or over, have completed high school. More than 17 percent of males and females have completed some college and nearly 20 percent of males and females have obtained an undergraduate degree in the region.

***Figure 20-5. Georgetown, SC: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



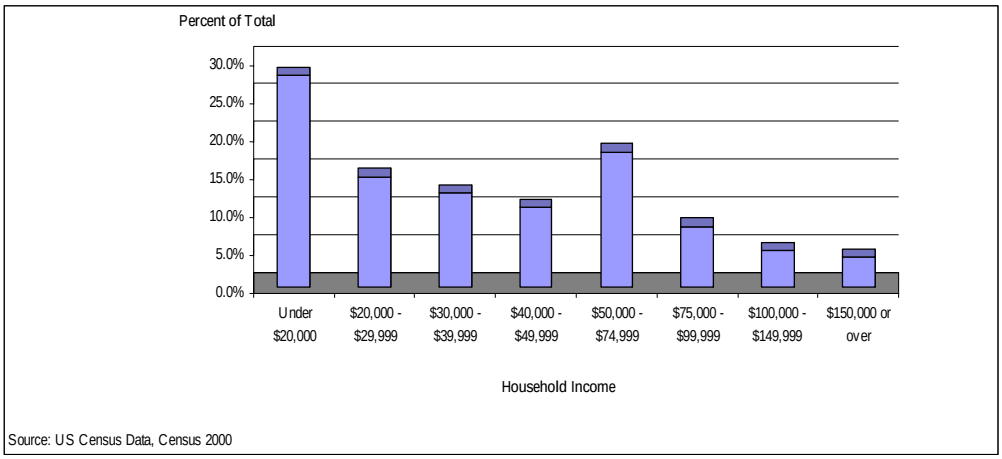
# Socio-Economic Characteristics

## INCOME

According to the 2000 US Census, nearly 30 percent of households in the region in 1999 had incomes of under $20,000. About 19 percent of households in the same period had incomes that feel within the $50,000 - $74,999 income bracket. Around 5 percent of households in the region had incomes of $150,000 or over (Figure 20-6).

Household median income in 1999 in the region was $35,312 and per capita income for the same year was $19,805. The percentage of people under the poverty line in the region was 17.1 in the year 2000. The average household size in 2000 was 2.55.[2]

***Figure 20-6. Georgetown, SC: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As shown on Figure 20-7, of the employed civilian population ages 16 years and over, almost 30 percent of females are employed the educational, health and social services industry and 25 percent of females are employed in 'other' industries; which include the arts, entertainment, recreation, food services, public administration and information. About 23 percent of males are employed in the manufacturing industry and almost 20 percent of them are employed in 'other' industries.

An estimated 6.2 percent of males and females were unemployed in 2000 in the region.[3]

According to the 2000 US Census, an estimated 3.0 percent of males and 0.5 percent of females are employed in farming, fishing and forestry occupations. About 22.7 percent of males and 13.1 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.5 percent of male's occupations and 0.1 percent of female's occupations.

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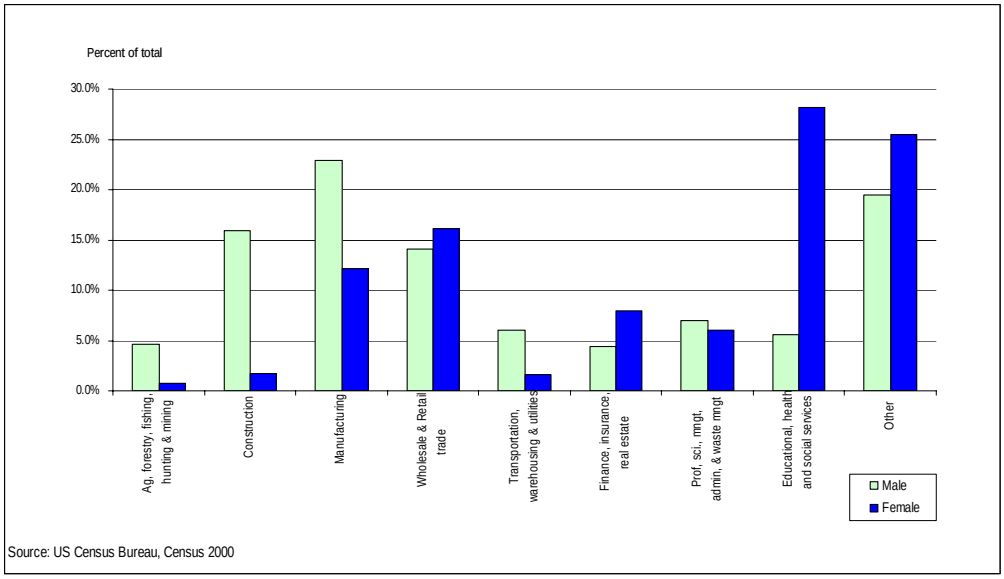
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 20-7. Georgetown, SC: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Port of Georgetown is the South Carolina State Ports Authority's dedicated breakbulk and bulk cargo facility. With an expanded berth, ample open and covered storage, specialty cargo handling facilities, and a team of workers experienced in the field, Georgetown can handle cargo efficiently and safely. Top commodities for the Port of Georgetown are steel, salt, cement, aggregates, and forest products.

Breakbulk cargo handling including Georgetown's own Intermodal Breakbulk Service (IBS) is one of the port's key services. The port's innovative IBS lets shippers and consignees combine a multitude of transportation costs and functions -- stevedoring, storage, port handling, truck and/or rail, etc. -- as a single operation under one invoice. This ability saves time, money, and administrative hassles.

Georgetown was built for breakbulk cargo. It has 3 berths totaling 1,700 ft.; 139,800 square-feet of covered storage; 2 transit warehouses totaling 103,000 square-feet; 3 enclosed sheds totaling 36,800 square-feet and 27.9 acres of open storage (covered and open storage rail access provided). It has a 100-ton mobile crane available and its specialty is in handling facilities on terminal for metals, cement, salt, and forest products and has a fleet of cargo handling equipment.[4]

[4] South Carolina State Port Authority: http://www.port-of-charleston.com/term_and_infra/ georgetown/ PortGeorgetown.asp

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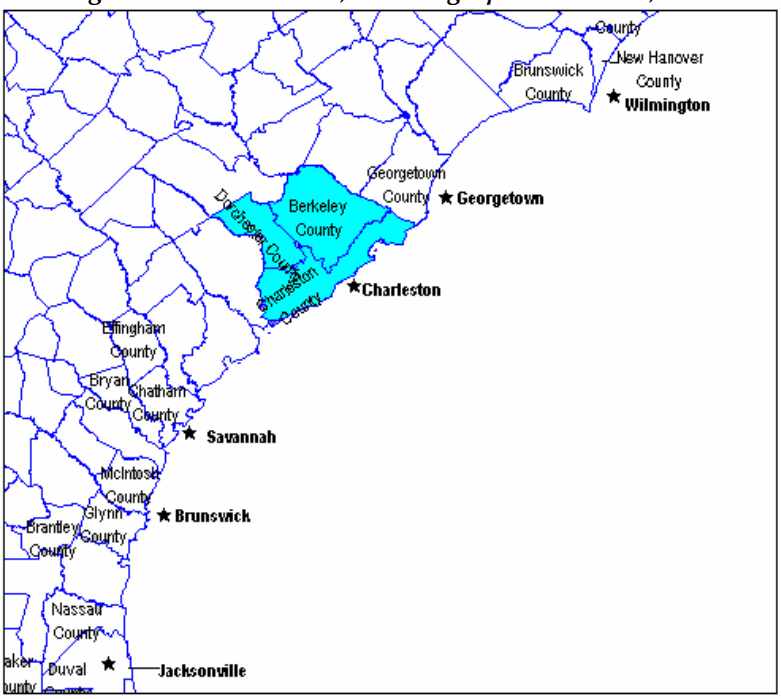
# 21. Charleston, SC

## Location and Background Information

The Port of Charleston is part of the Charleston-North Charleston, SC Metropolitan Statistical Area (MSA).

*Figure 21-1. Charleston, SC: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the Charleston-North Charleston, SC MSA is 549,033, according to the 2000 US Census. Of this total 269,433 or 49.1 percent are males and 279,600 or 50.9 percent are females. The median age for the region for the year 2000 was 33.9 years; 32.3 for males and 35.4 for females. Nearly 20 percent of males and about 17 percent of females in the region fall within the 18 – 29 years age bracket and about 15 percent of males and females fall within the 30 – 39 age range (Figure 21-2).

The majority of the population in the region is white (65.2 percent). The Black or African American population represents 30.5 percent of the total population. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 2.9 percent of the total population of this area, followed by the Asian population, which only represents 1.4 percent of the total population (Figure 21-3). Only 2.4 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] Source: US Census Data, Census 2000.

*Figure 21-2. Charleston, SC: Structure of the Population by Age, 2000*

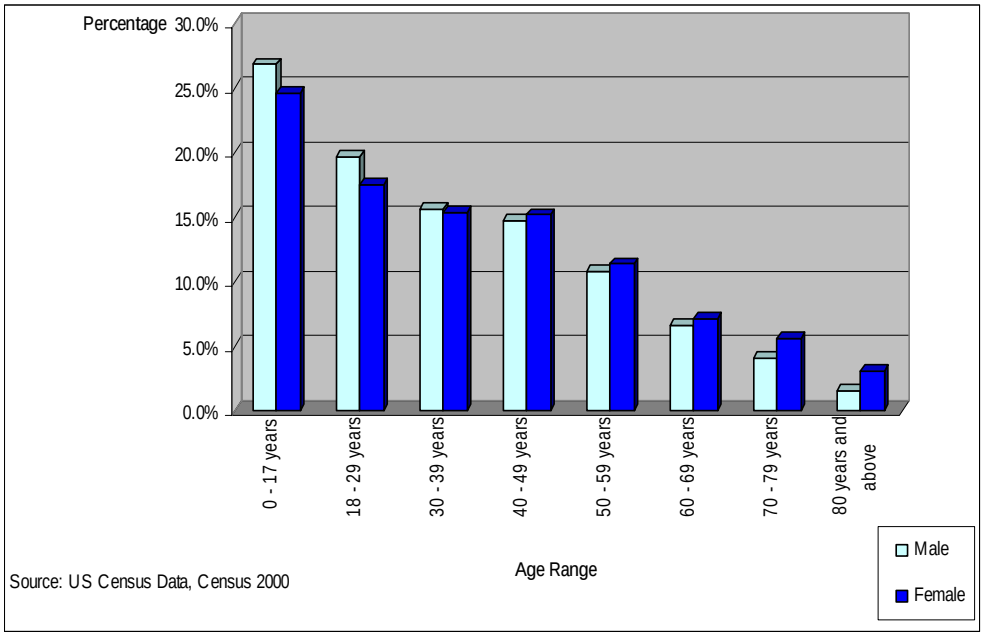
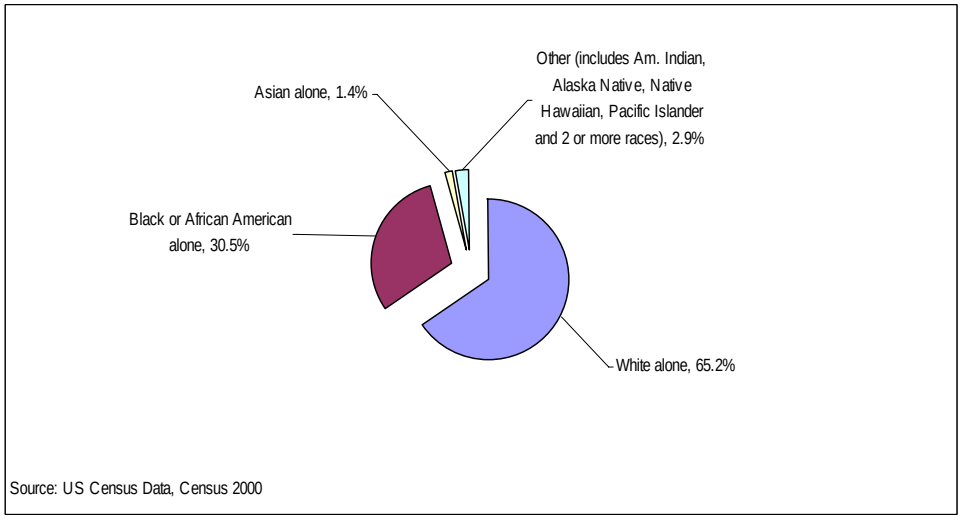
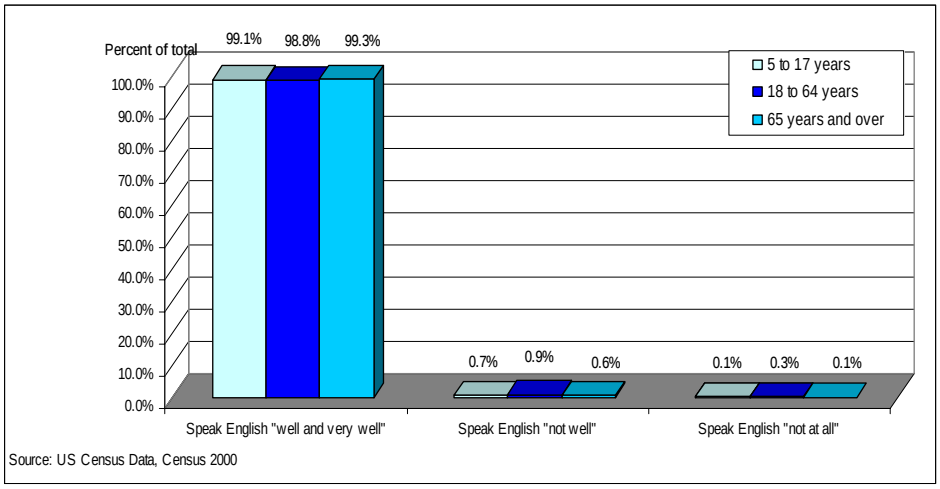



*Figure 21-3. Charleston, SC: Population by Race, 2000*



It is evident from the data specified in Figure 21-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 21-4. Charleston, SC: Ability to Speak English by Age Group, 2000***

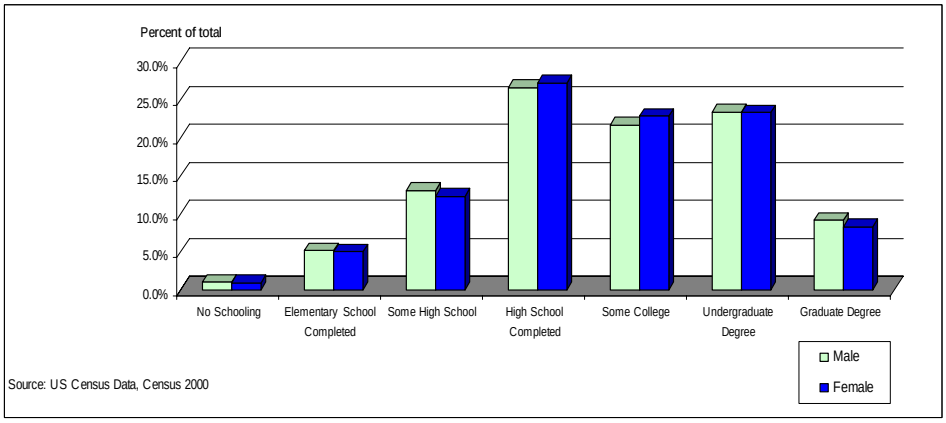



## EDUCATION

As shown on Figure 21-5, of the population ages 25 and over in the region, over 25 percent of males and females have completed high school. Around 22 percent of males and females have obtained an undergraduate degree and over 20 percent of males and females have completed some college. Nearly 10 percent of the population has obtained a graduate degree.

Some of the colleges and universities around the area are: Charleston Southern University, College of Charleston, The Citadel, Johnson & Wales University-Charleston, and Medical University of South Carolina.

***Figure 21-5. Charleston, SC: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



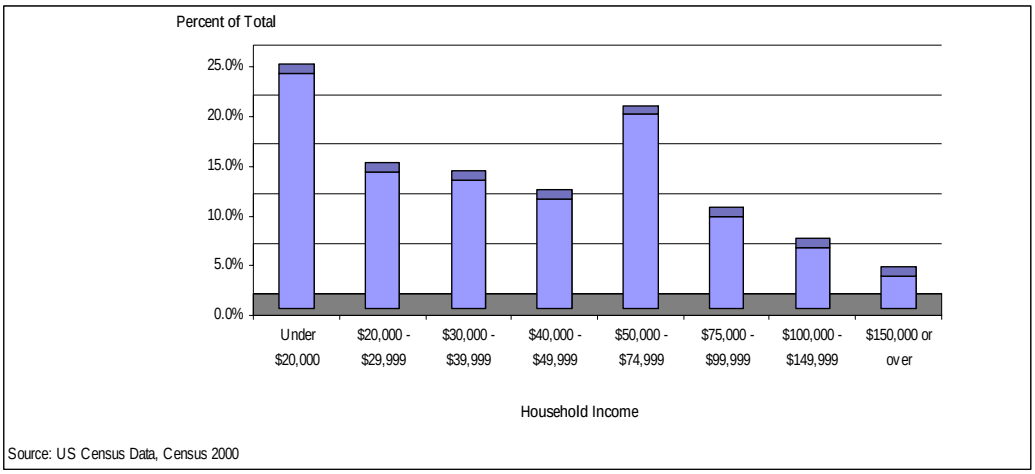
# Socio-Economic Characteristics

## INCOME

In 1999, nearly a quarter of households in the Charleston – North Charleston, NC MSA had an income of under $20,000. Over 20 percent of households had incomes between $50,000 and $74,999. About 5 percent of households had incomes of $150,000 or over (Figure 21-6).

Household median income in 1999 in the region was $39,232.49 and per capita income for the same year was $19,771.84. The percentage of people under the poverty line in the region was 14 in the year 2000. The average household size in 2000 was 2.56.[2]

***Figure 21-6. Charleston, SC: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

From the employed civilian population ages 16 or over in the region, nearly 35 percent of females are employed in the educational, health and social services industry and almost 25 percent of females are employed in 'other' industries, which include the arts, entertainment, recreation, food services, public administration and information. Nearly 25 percent of males are employed in 'other' industries, about 15 percent are employed in the construction industry, and the same percentage of males are also employed in the wholesale and retail trade industry (Figure 21-7).

An estimated 4.9 percent of males and 5.8 percent of females were unemployed in the region in the year 2000.[3]

According to the 2000 US Census, an estimated 0.7 percent of males and 0.3 percent of females are employed in farming, fishing and forestry occupations. About 18.8 percent of males and 7.0 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.2 percent of female's occupations.

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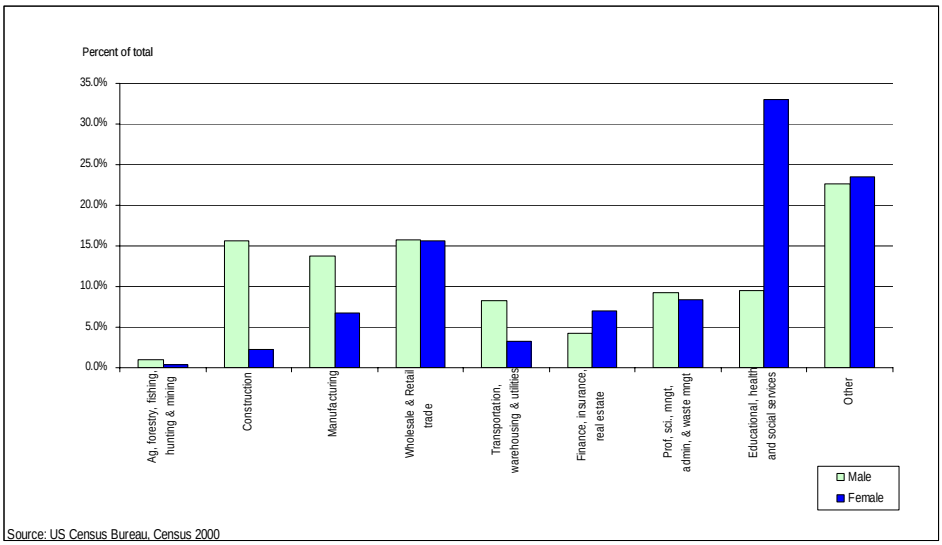
[2] Source: US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 21-7. Charleston, SC: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Port of Charleston has 6 main terminals: The PortCharleston Terminals, the Columbus Street Terminal, the North Charleston Terminal, the Wando Welch Terminal, the Union Pier Terminal and the Veterans Terminal.

**Colombus Street Terminal**

The Columbus Street Terminal (CST) is Charleston's premier combination breakbulk and container terminal. With dockside warehouses, dockside rail access, dockside breakbulk gantry cranes, dedicated container berths and post-Panamax container cranes, Columbus Street is a multi-purpose facility. The terminal is well-suited to container, common breakbulk, bulk, rolling stock, heavy-lift, and project cargo. The terminal has 6 berths: 2 for containers and 4 for breakbulk. It has 3,875 continuous feet of berth space, 4 container cranes (2 post-Panamax), 78 acres of open storage for containers and other cargo, EDI compatible container gates, on-terminal roadability facility and a large on-dock staging apron.

CST also has 457,500 square-feet of sprinkler-protected warehouses with covered rail access, ship side rail service, an on-terminal rail yard, 24-hour security with manned guard gate and chain-link and barbed-wire fencing, easy access to I-26 and one hour to open ocean.

**North Charleston Terminal**

The North Charleston Terminal (NCT) is a modern container handling facility with complete with post-Panamax container cranes, an on-terminal container freight station, an on-terminal rail yard, and direct easy access to I-26 and I-526. The terminal has 3 container berths totaling 2,500 feet of berth space and one dedicated grain elevator berth, 6 container cranes (3 post-Panamax), 123 Acres of open storage, on-terminal intermodal rail access and dockside rail service.

NCT has a 118,500 square-foot container freight station, 91,000 square-feet of leased warehouse space just outside terminal gates, breakbulk and RO-RO capability and a 1.5 million bushel export grain elevator. It also counts with chain-link and barbed-wire fencing with 24-hour manned security gates, easy interstate highway access and 2 hours to open ocean.

**Wando Welch Terminal**

Wando Welch Terminal (WWT) has received worldwide recognition for its innovative design and overall terminal productivity. Opened in 1982, the final stage of terminal construction was recently completed in the form of a 4th container berth, 3 new post-Panamax container cranes, and nearly 90 acres of additional container storage space. At present, it is the port's largest terminal in terms of volume and physical size. The terminal is 16.4 nautical miles from sea buoy, has 3,800 continuous ft. (1,128 m.) of berth space, 10 container cranes (4 are Super post-Panamax, 4 are post-Panamax, and 2 are Panamax), 194 acres of container storage space.

The terminal furthermore counts with an on-terminal 200,000 square foot container freight station, an on-terminal U.S. Customs and U.S. Department of Agriculture inspection facilities, an on-terminal fumigation area, an on-terminal maintenance facility and an on-terminal administration buildings and executive meeting center. It is less than one mile from I-526 interchange and has chain-link and barbed wire boundary fencing, 24-hour security, seven-days-a-week.

**Union Pier Terminal**

Union Pier Terminal (UPT) is one of PortCharleston's dedicated breakbulk and RO-RO cargo terminals. A recent terminal redesign has significantly increased the open storage area and improved traffic flow into and out of the facility. It has 4 berths totaling 2,470 continuous feet of berth space, and 698,049 square feet of sprinkler-protected transit sheds. There are multiple rail lines serving warehouses and dockside open storage areas and covered rail access to all warehouses, as well as asphalt and concrete open storage areas. There are smooth transitions between dockside aprons and ground-level open storage and excellent security with visibility-restricted screening on chain-link and barbed-wire fencing with a manned 24-hour guard gate.

**Veterans Terminal**

Veterans Terminal (VT) is a 110 acre fully secured dedicated bulk, break-bulk, RO-RO, and project cargo facility located on the Cooper River. VT can provide long term outside storage in dedicated yard space or covered sprinkler protected warehouse. Union and Non-Union stevedoring complements our determination to provide the customer with the most modern and flexible port facility in the Southeast. The terminal is 1.5 hours steaming time from the sea buoy and is 1.5 miles from Interstate I-26. There is rail service by both NS & CSX.

PortCharleston is regarded by many in the maritime industry to be among the most productive ports in the world. PortCharleston consistently tops 40 gross moves per hour per crane and has set a new U.S. record of 64.8 moves ph/pc. Charleston has industry-leading crane operators and a unique team of maritime professionals working on the docks. Even though port employees run the dockside cranes and container yard handling equipment, it takes a team effort to consistently deliver high productivity. This can be found on Charleston's waterfront. Ocean carriers, ILA workers, stevedores, agents, and port employees work in concert to keep productivity high.

Additionally, PortCharleston has an advantage in geography. Charleston's terminals are closer to the open sea than any competing port by a significant margin. With deep channels, channels wide enough for ships to easily pass, and such a short distance to travel, Charleston's facilities allow your ships to spend a minimum amount of time in-port.

Being half-way between New York and Miami, Charleston provides easy highway and rail access to the industry-rich Southeast hinterland. This region is growing in population and manufacturing and ocean carriers need top-notch access. Charleston offers that access like no competitor. Also, PortCharleston has been making heavy investments in equipment and processes to lower trucker turn time on the terminals. In the common-user yards and gates, trucker turn time has been cut by more than half in the last year. This makes the yard operation more efficient for the carrier and delivers the customer's cargo faster.[4]

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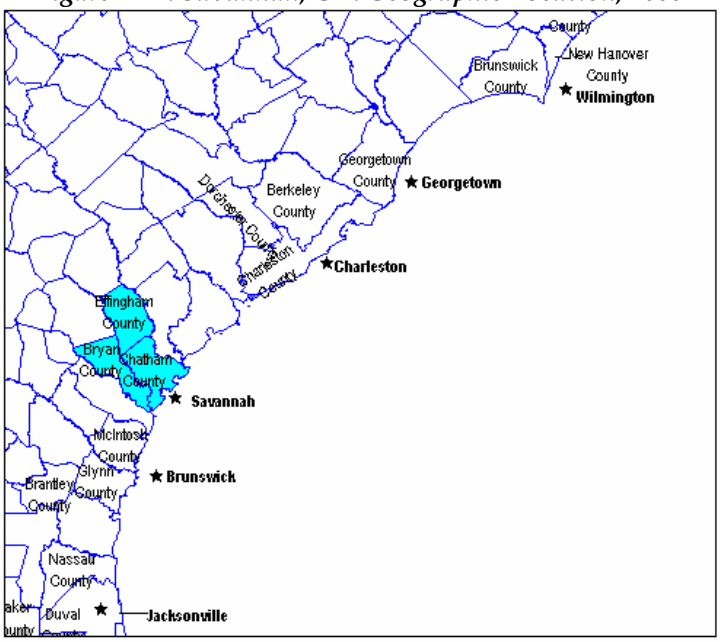
[4] South Carolina State Port Authority website: http://www.port-of-charleston.com/Term_and_Infra/Charleston/whycharleston.asp

# 22. Savannah, GA

## Location and Background Information

The Port of Savannah is part of the Savannah, Georgia Metropolitan Statistical Area (MSA).

*Figure 22-1. Savannah, GA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the Savannah, GA MSA is 293,000, according to the 2000 US Census. Of this total, 142,039 or 48.5 percent are males and 150,961 or 51.5 percent are females. The median age for the population in the region is 34.2 years; 32.6 for males and 35.7 for females. Over 25 percent of males and females in the region fall within the 18 – 29 years age bracket and about 30 percent of males and females (about 15 percent per age bracket) fall within the 30-39 and 40-49 years age range (Figure 22-2).

The majority of the population in the region is white (61.1 percent), followed by the Black or African American population, which represents 34.9 percent of the total population. 'Others' (include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) represent 2.4 percent of the population. The Asian population represents only 1.6 percent of the total population (Figure 22-3). Moreover, in terms of ethnic makeup, only 2.0 percent of the total population is considered to be of Hispanic or Latino origin[1].

[1] US Census Data, Census 2000.

*Figure 22-2. Savannah, GA: Structure of the Population by Age Group, 2000*

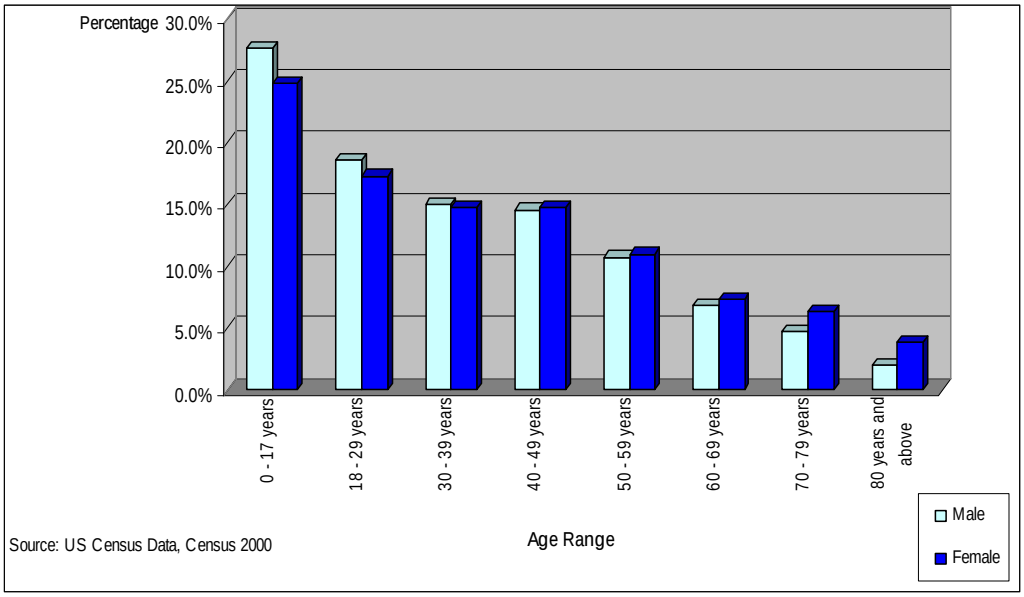
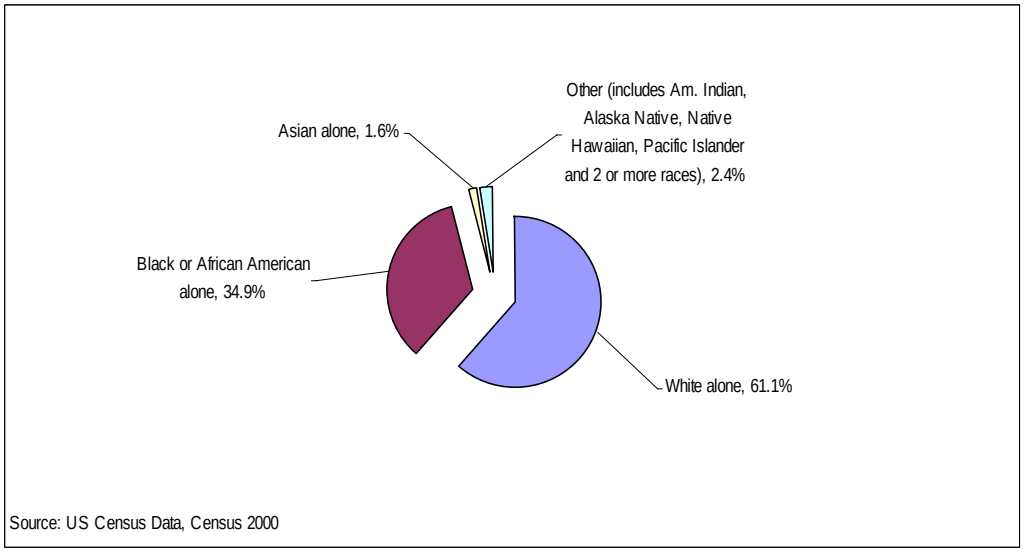
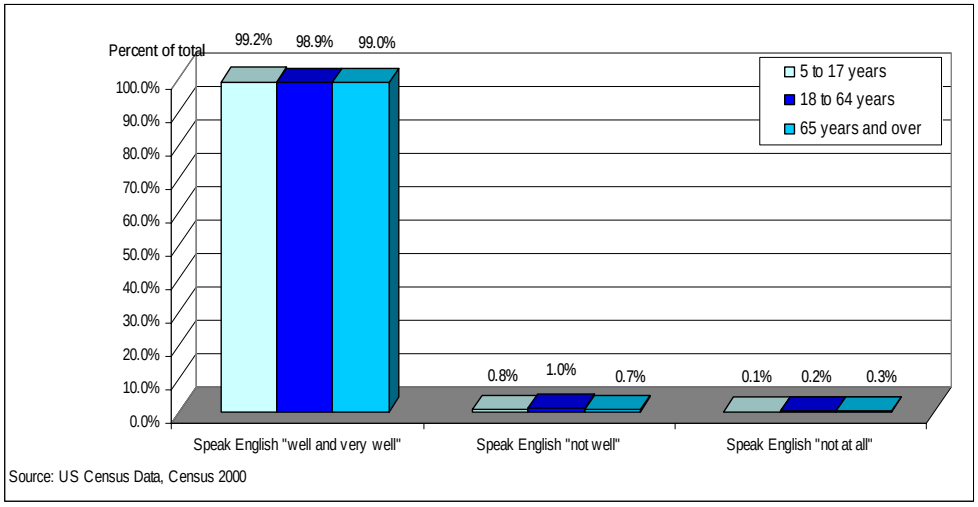



*Figure 22-3. Savannah, GA: Population by Race, 2000*



It is evident from the data specified in Figure 22-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 22-4.Savannah, GA: Ability to Speak English by Age Group, 2000***

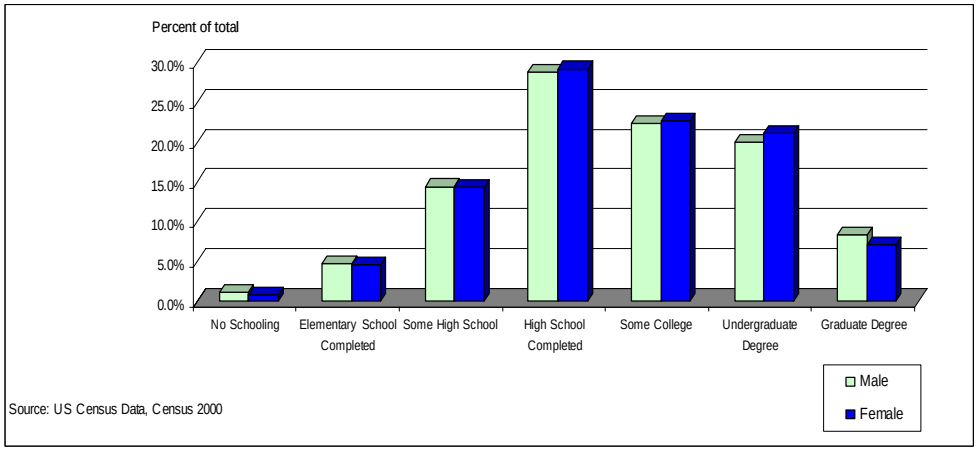



## EDUCATION

Of the population in the region that is 25 years old or over, about 27 percent of males and 28 percent of females have completed high school. Over 20 percent of males and females have completed some college and around 20 percent of males and females have obtained an undergraduate degree. About 6 percent of the population has obtained a graduate degree (Figure 22-5).

Some of the colleges and universities in the area are: Savannah State University, Armstrong Atlantic State University, Savannah College of Art And Design, and Savannah Technical College.

***Figure 22-5. Savannah, GA: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



# Socio-Economic Characteristics

## INCOME

In 1999, about a quarter of the households in the Metropolitan Division of Savannah, GA had incomes of under $20,000. Nearly 20 percent of households had incomes that fell within the $50,000 - $74,999 income bracket. About 5 percent of households had incomes of $150,000 or over (Figure 22-6).

Household median income in the region in 1999 was $39,557.87 and per capita income in the same year was $20,751.51. The percentage of people under the poverty line in the region was 14.5 in the year 2000. The average household size in 2000 was 2.57.[2]

***Figure 22-6. Savannah, GA: Distribution of Households by Household Income Level, 1999***

## EMPLOYMENT

As portrayed by Figure 22-7, of the employed civilian population ages 16 years or over, nearly 35 percent of females are employed in the educational, health and social services industry and 25 percent of them are employed in 'other' industries, which include the arts, entertainment, recreation, food services, public administration and information. Over twenty percent of males are employed in 'other industries, 17 percent are employed in the manufacturing industry and 15 percent are employed in wholesale and retail trade industries.

An estimated 4.9 percent of males and 5.9 percent of females were unemployed in the year 2000.[3]

According to the 2000 US Census, an estimated 0.5 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 21.5 percent of males and 5.9 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 1.0 percent of male's occupations and 0.2 percent of female's occupations.

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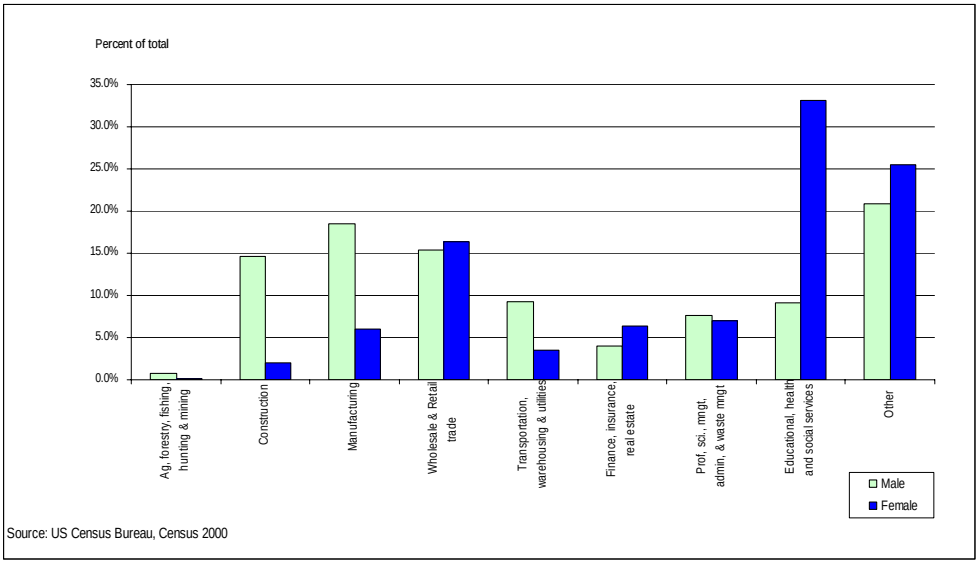
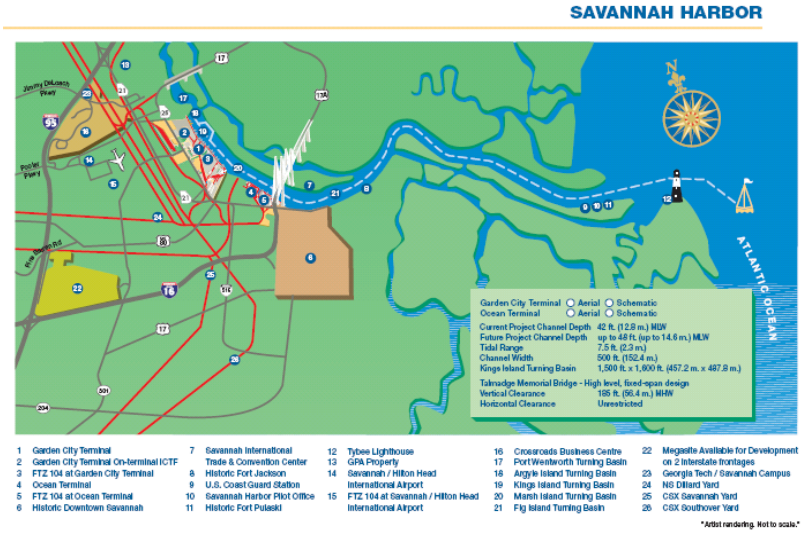
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 22-7. Savannah, GA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION




**Garden City Terminal**

Owned and operated by the Georgia Ports Authority, Garden City Terminal is a secured, dedicated container facility, the largest of its kind on the U.S. East and Gulf coasts. The 1,200-acre single-terminal facility features 7,726 linear feet of continuous berthing and more than 1.3 million square feet of covered storage. The terminal is equipped with thirteen high-speed container cranes (2 super post-panamax & 11 post-panamax), as well as an extensive inventory of yard handling equipment.

Garden City Terminal is within 6.3 miles of Interstate 16 (East / West) and 5.6 miles of Interstate 95 (North / South) with access to more than 100 trucking companies. CSX Transportation and Norfolk Southern Railroad provide Class I rail service. As a key intermodal advantage, the "James D. Mason" on-terminal intermodal container transfer facility, or "Mason" ICTF, provides overnight rail service to

Atlanta. Two to four day delivery via the ICTF is also available to inland destinations such as Charlotte, Chicago, Dallas and Memphis.

With the continuing diversification of Savannah's ocean carrier portfolio, more and more retailers are making Savannah the port of choice for their import distribution centers. Together, Savannah area distribution centers cover more than 9 million square feet of warehousing and annually generate more than 300,000 TEU's. Sailings as fast as 22 days from Asian-based ports and 9 days from Europe mean your shore-to-door transits define the term expedited.

Savannah boasts all the additional ingredients for the ideal retail distribution center equation: numerous, affordable construction-ready sites; two major interstates in close proximity to the Garden City Terminal; local and state government with a keen interest in development and job creation; a workforce versed in critical logistics skills; two Class I railroads providing convenient connections to key consumer concentrations nationwide.

**Ocean Terminal**

Owned and operated by the Georgia Ports Authority, Ocean Terminal is a secured, dedicated breakbulk facility specializing in the rapid and efficient handling of a vast array of forest and solid wood products, steel, RoRo (Roll-on / Roll-off), project shipments and heavy-lift cargoes.

The 208-acre facility features 6,688 linear feet of deepwater berthing, approximately 1.5 million square feet of covered storage and 96 acres of open, versatile storage. Served by over 100 trucking companies, Ocean Terminal is ideally situated within 1.2 miles of Interstate 16 (East / West) and 10 miles of Interstate 95 (North / South). Norfolk Southern Railroad provides switching services on-terminal. Line-haul services are provided by two Class I rail providers, CSX Transportation and Norfolk Southern Railroad.[4]

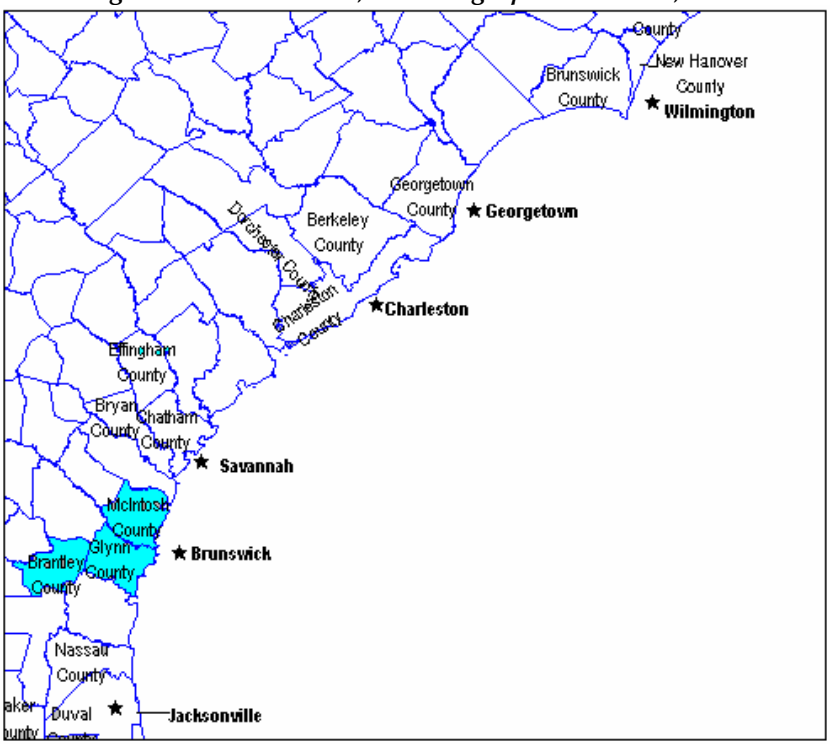
[4] Georgia Ports Authority website: http://www.gaports.com

# 23. Brunswick, GA

## Location and Background Information

The Port of Brunswick is located in the Brunswick, GA Metropolitan Statistical Area (MSA).

*Figure 23-1. Brunswick, GA: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the MSA in the year of 2000 was 93,044, according to the 2000 US Census. Of this total, 15,034 or 48.4 percent were males and 48,010 or 51.6 percent were females. The median age for the region in 2000 was 37.3 years, 35.8 for males and 38.5 for females. Nearly 30 percent of males and nearly 25 percent of females are between the ages of 0 and 17 years. About 15 percent of males and females fall within the 40-49 years age range (Figure 23-2).

The majority of the population in the region is white (73.4 percent), followed by the Black or African American population, which represents 23.7 percent of the total population. 'Others' (which includes American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) constitute 2.2 percent of the population; and the Asian population represents only 0.7 percent of the total population (Figure 23-3). Moreover, in terms of ethnic makeup, only 2.4 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] Source: US Census Data, Census 2000.

*Figure 23-2. Brunswick, GA: Structure of the Population by Age Group, 2000*

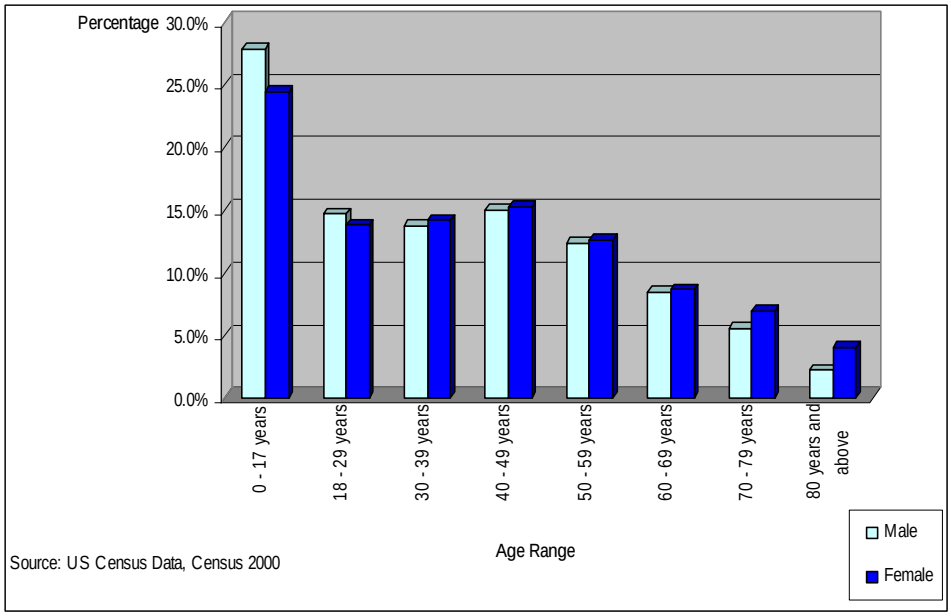
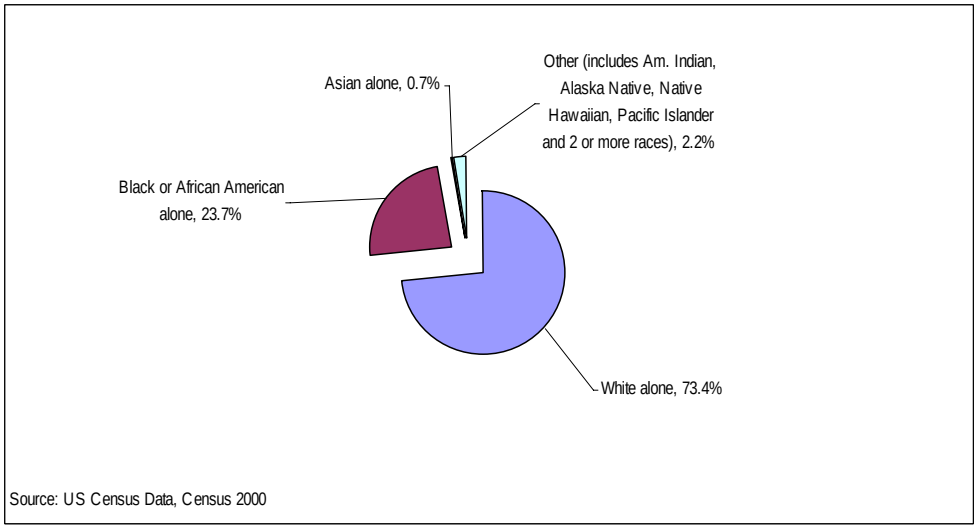
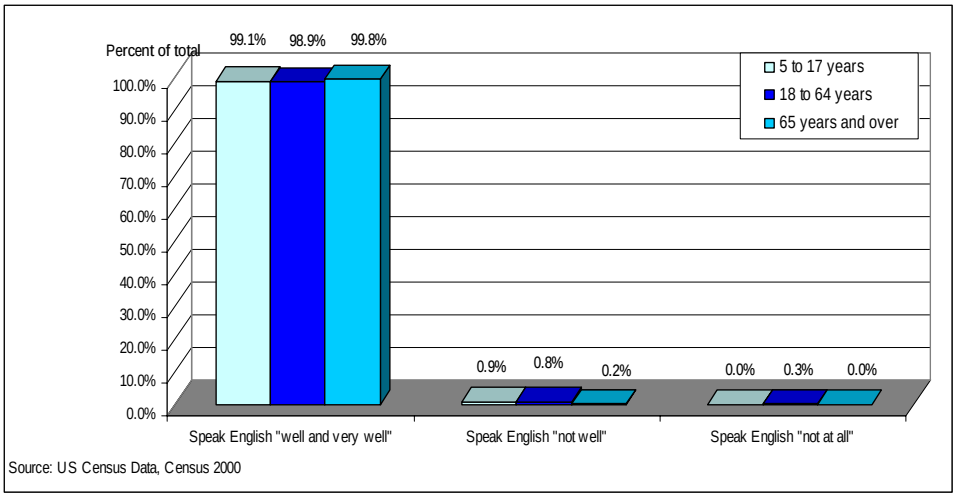



*Figure 23-3. Brunswick, GA: Population by Race, 2000*



It is evident from the data specified in Figure 23-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 23-4. Brunswick, GA: Ability to Speak English by Age Group, 2000***

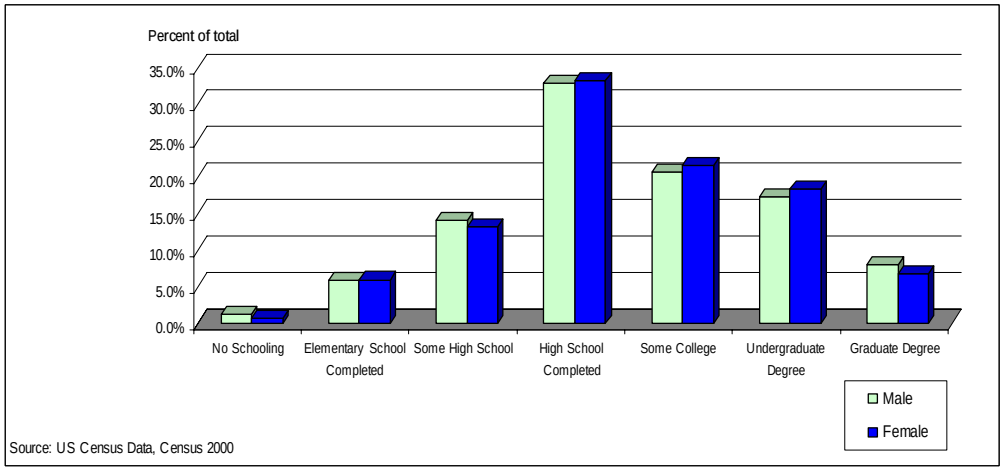



## EDUCATION

As portrayed by Figure 23-5, of the population that is 25 years old or over, about 30 percent of males and females have completed high school. About 20 percent of males and females have completed some college and 15 percent of males and females have obtained an undergraduate degree.

Coastal Georgia Community College is the only college in the area.[2]

***Figure 23-5. Brunswick, GA: Educational Attainment of Population by Sex Ages 25 and Over, 2000***




[2] Brunswick, GA Community Profile: http://www.epodunk.com

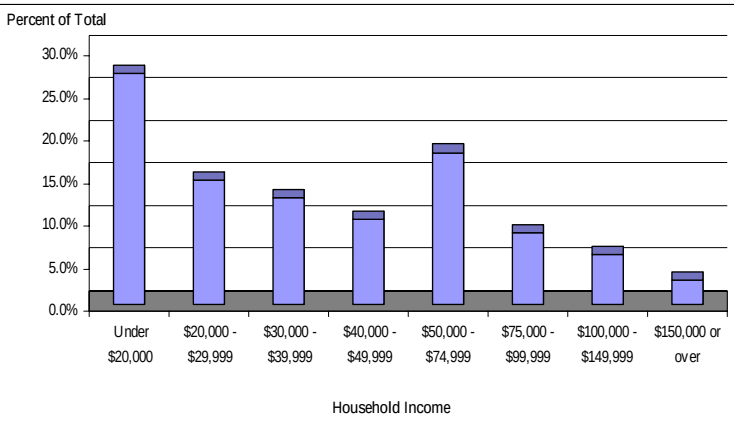
# Socio-Economic Characteristics

## INCOME

About 28 percent of households in this region in 1999 had an income under $20,000. Nearly 20 percent of households had incomes that fell within the $50,000 – $74,999 income bracket (Figure 23-6).

Household median income in the Brunswick GA MSA in 1999 was $36,539.46 and per capita income for the same year was $19,581.15. The percentage of people under the poverty line in the region was 15.6 in the year 2000. The average household size in 2000 was 2.48.[3]

***Figure 23-6. Brunswick, GA: Distribution of Households by Household Income Level, 1999***




Source: US Census Data, Census 2000

## EMPLOYMENT

As shown on Figure 23-7, of the employed civilian population ages 16 or over, 30 percent of females are employed in the educational, health and social services industry, and about 28 percent are employed in 'other' industries, which include the arts, entertainment, recreation, food services, public administration and information. Over 25 percent of males are employed in 'other' industries, and 45 percent of males (distributed fairly evenly among each industry- around 15 percent each) are employed in the construction, wholesale and retail trade and manufacturing industries.

An estimated 4.1 percent of males are unemployed; whereas 6.9 percent of females are unemployed in the region.[4]

According to the 2000 US Census, an estimated 1.8 percent of males and 0.3 percent of females are employed in farming, fishing and forestry occupations. About 21.0 percent of males and 6.9 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.04 percent of female's occupations.

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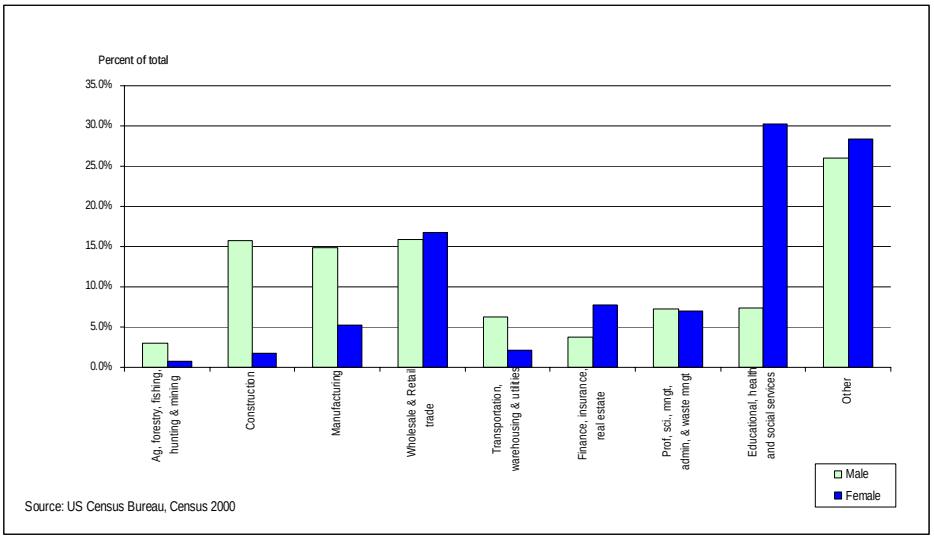
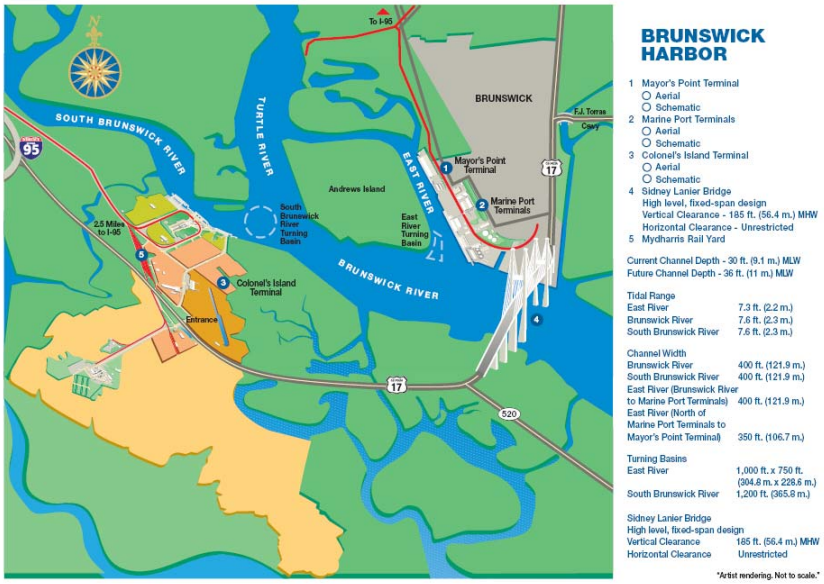
[3] US Census Data, Census 2000.

[4] Source: US Census Data, Census 2000.

*Figure 23-7. Brunswick, GA: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION




**Marine Port Terminals**

Owned by the Georgia Ports Authority and leased to Logistec U.S.A., Marine Port Terminals is a secured, deepwater facility specializing in the productive handling of a diverse mix of breakbulk and bulk commodities. The 145-acre (58.7-ha) facility features 2,415 linear feet (736 linear meters) of berthing and 491,000 square feet (45,617 square meters) of covered storage. Marine Port Terminals is ideally situated within 7 miles (11.3 km) of Interstate 95 (North / South). On-terminal interchange and line-haul services are provided by two Class I rail providers, CSX Transportation and Norfolk Southern Railroad.

**Mayor's Point Terminal**

Owned and operated by the Georgia Ports Authority, Mayor's Point Terminal is a secured, dedicated breakbulk facility specializing in the rapid and efficient handling of a vast array of forest products and solid wood products. The 22-acre (8.9-ha) facility features 1,750 linear feet (533 linear meters) of berthing, 355,000 square feet (32,980 square meters) of intransit space, 2,000 feet (610 m) of covered rail siding and 7.9 acres (3.21 ha) of open, versatile storage. As a key U.S. South Atlantic gateway, the Port of Brunswick provides a competitive portfolio of ocean carrier services, as well as excellent interstate and rail connections to all major Southeast, Midwest and Gulf Coast commerce centers. Mayor's Point Terminal is ideally situated within six miles (9.7 km) of Interstate 95 (North / South). Two Class I rail providers, CSX Transportation and Norfolk Southern Railroad, offer exceptional service.[5]

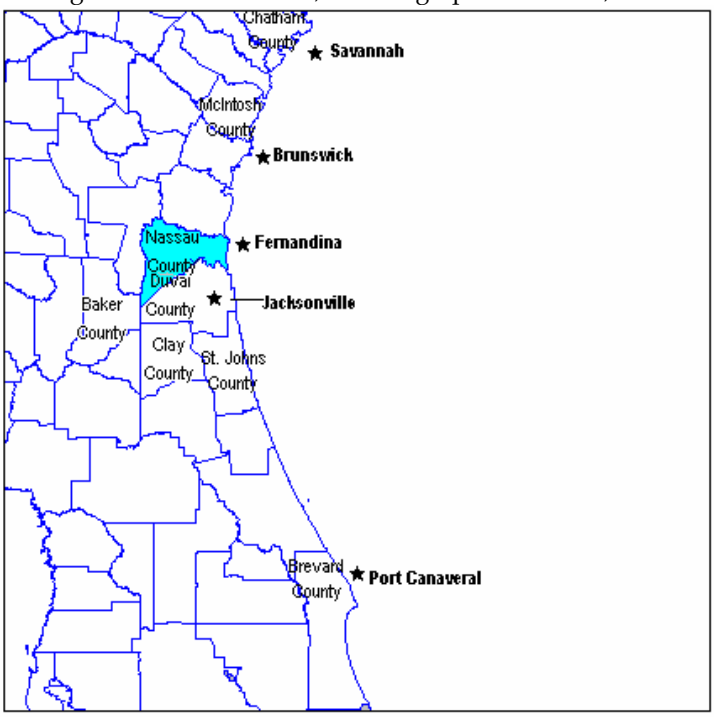
[5] Georgia Ports Authority website: http://www.gaports.com

# 24. Fernandina, FL

## Location and Background Information

The Port of Fernandina is located in Nassau County, FL.

Figure 24-1. Fernandina, FL: Geographic Location, 2000




*Source: Table 3-1*

## Demographics

### POPULATION

The total population in this county for the year 2000 was 57,663, according to the 2000 US Census. Of this total, 28,443 or 49.3 percent were males and 29,220 or 50.7 percent were females. The median age for the population for the same year was 38.3 years; 37.6 for males and 38.9 for females. About 25 percent of males and nearly 25 percent of females are between the ages of 0 and 17 years. About 15 percent of males and females fall within the 40-49 years age range (Figure 24-2).

As shown on Figure 24-3, 90.1 percent of the total population is white, 7.4 percent is Black or African American, 1.8 percent are part of the 'other' category (American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) and 0.7 percent of the population is Asian. Only 1.8 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] Source: US Census Data, Census 2000.

*Figure 24-2. Fernandina, FL: Structure of the Population by Age Group, 2000*

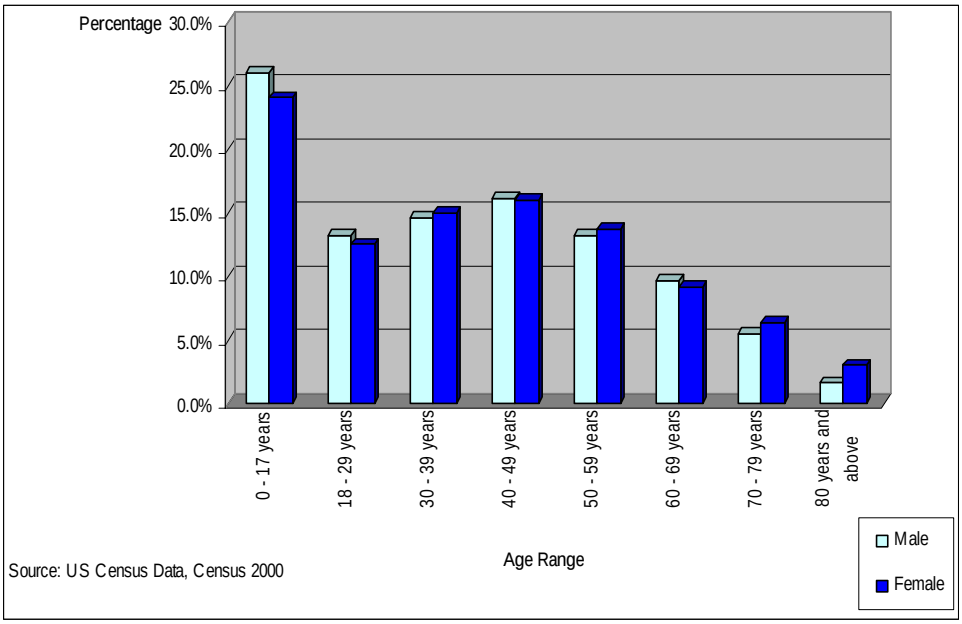
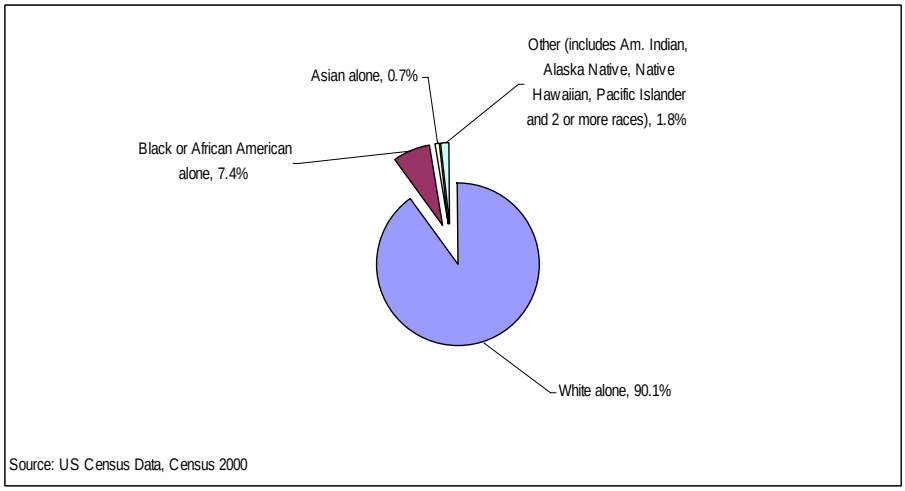
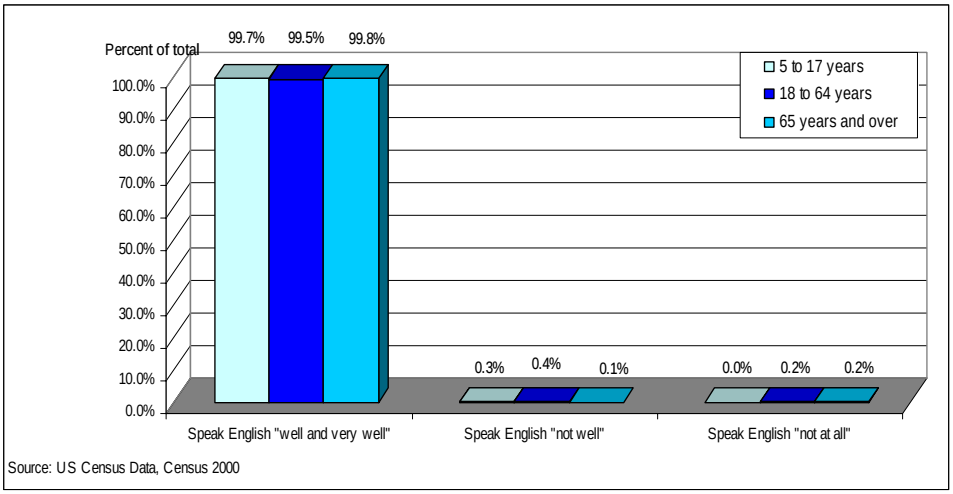



*Figure 24-3. Fernandina, FL: Population by Race, 2000*



It is evident from the data specified in Figure 24-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

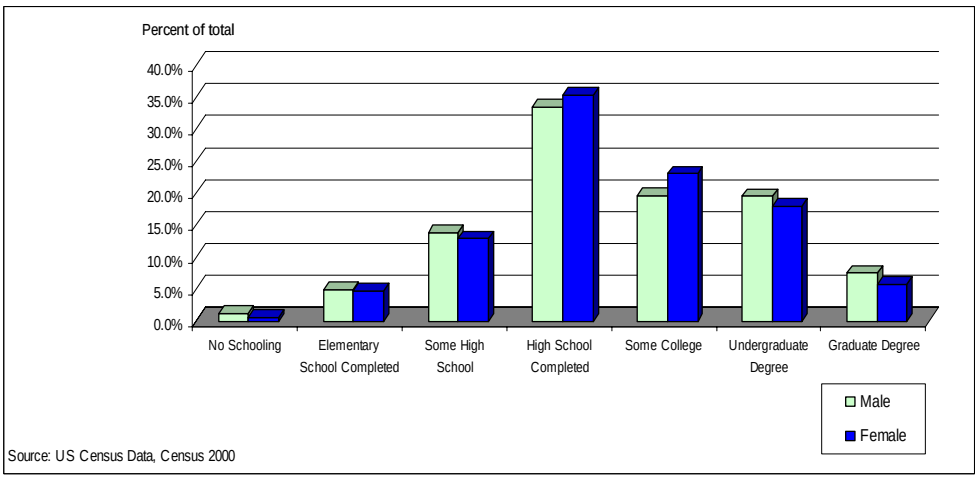
***Figure 24-4. Fernandina, FL: Ability to Speak English by Age Group, 2000***




## EDUCATION

As portrayed by Figure 24-5, of the population of Nassau County, FL, ages 25 and over, over 35 percent of males and females (nearly 40 percent of females) have completed high school. Over 18 percent of males and females have completed some college and between 15 – 20 percent of males and females have obtained an undergraduate degree.

***Figure 24-5. Fernandina, FL: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



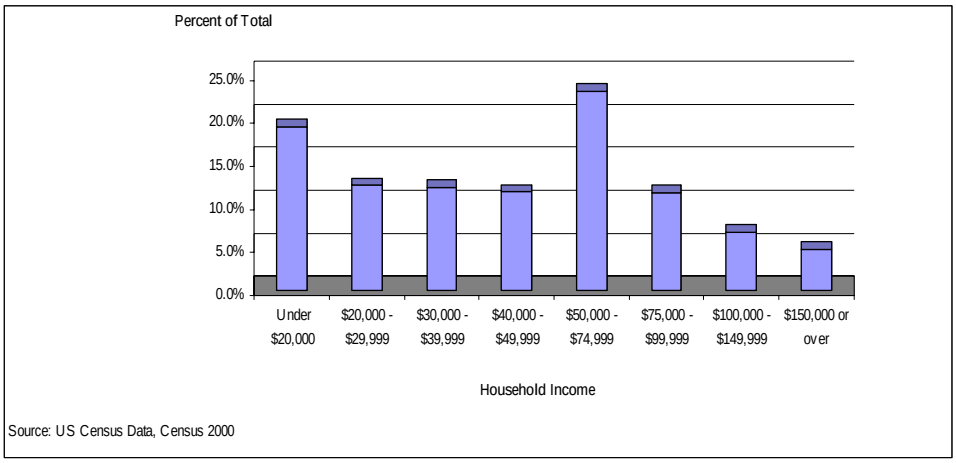
# Socio-Economic Characteristics

## INCOME

Nearly a quarter of all households in Nassau County, FL in 1999 had an income that fell in the $50,000 - $74,999 income bracket. About 20 percent of households in the county had an income under $20,000 (Figure 24-6).

Household median income in the county in 1999 was $46,022 and per capita income for the same year was $22,836. The percentage of people under the poverty line in the region was 9.1 in the year 2000. The average household size in 2000 was 2.59.[2]

***Figure 24-6. Fernandina, FL: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As portrayed in Figure 24-7, of the employed civilian population, ages 16 or over, over 50 percent of females were employed in the educational, health and social services industries, and other industries (25 percent per industry). The 'other' category includes industries such as the arts, recreation, entertainment, food services and information. About 22 percent of males are employed in 'other' industries; around 16 percent of them are employed in the construction industry and 18 percent in the manufacturing industry.

An estimated 4.4 percent of males and 5.2 percent of females are unemployed in the county.[3]

According to the 2000 US Census, an estimated 1.0 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 24.1 percent of males and 7.0 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.4 percent of male's occupations and 0.1 percent of female's occupations.

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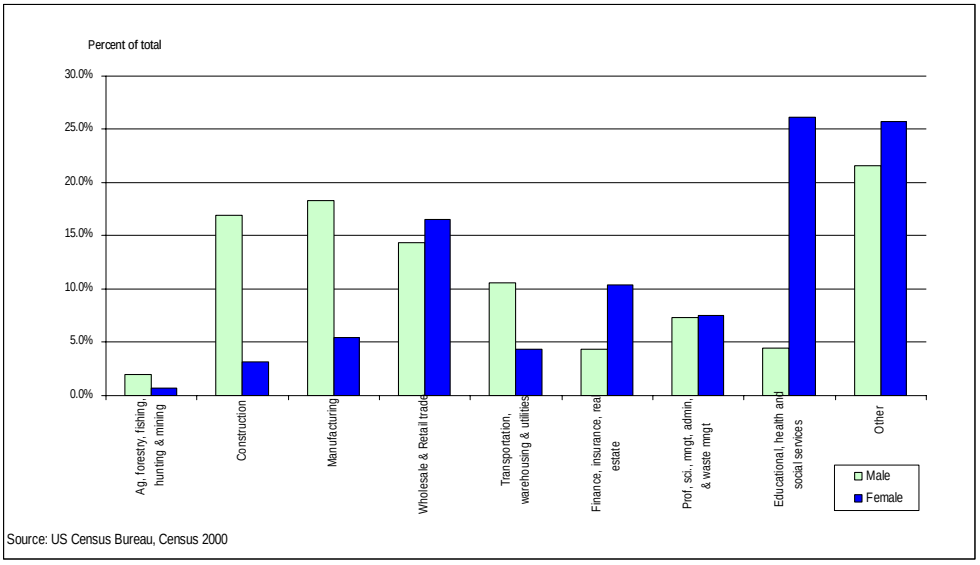
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 24-7. Fernandina, FL: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

Fernandina Beach in the Center of Activity and the "Crown Jewel" of Amelia Island. The town of Fernandina by the early 1800's had become a thriving seaport town. Both the "locals," as residents call themselves, and visitors to the Island appreciate the area's rich and colorful history. Fernandina Beach is the only city in the United States to have served under eight (8) flags.

The Port of Fernandina was the heart of the development of the city from its earliest days, but that changed dramatically in 1862, when Confederate forces were forced to abandon the Island. With the advancement of Federal troops, Fernandina's economy was wrecked. Its port, shops, warehouses were destroyed and the railroad, heavily damaged. By 1870, Fernandina had begun rebuilding the port and the town and once again became a bustling and thriving seaport town, relying primarily on the shipping industry, shrimping, and the tourist trade. The town was then rocked by another disaster, a devastating fire which burned and destroyed the original wooden structures from the docks to 3rd Street. This required another extensive rebuilding process.

Major William B. C. Duryee, who had served with the Occupational Forces of the Union Army, returned to Fernandina, purchased property at the west end of what is now Centre Street, and built a two-story masonry structure, unique for its time, due to its being built on pilings sunk into the earth for support. The building was completed in the mid 1880's. The first occupant was Major Duryee's business, which dealt in hay, grain, and oats. Also occupying the building was the First Customs House in the United States. Major Duryee also served as Collector of Customs. The lease was made by the U.S Treasury for $180.00 per annum. The Customs House occupied this space until the early 1900's. The Duryee Building, home now to the Marina Restaurant, was also the home of the oldest newspaper in the State of Florida. A very colorful and flamboyant Major George Fairbanks, who was the Editor, recorded Fernandina's life and history during that period of time. The 'Florida Mirror' later became the Fernandina Beach News-Leader, which continues in operation today. The First Bank of Fernandina was also located in the Duryee Building. This Bank was later sold and became the First National Bank of Florida.[4]

[4] URL: http://www.ameliaisland.com/fbhist.htm

**Nassau Terminals - Port of Fernandina (AAPA Member)**
Nassau Terminals provides terminal and stevedoring services as the operator of the Port of Fernandina under contract with the local port authority. The Port specializes in breakbulk forest products and container liner services to the Caribbean and South America.[5]

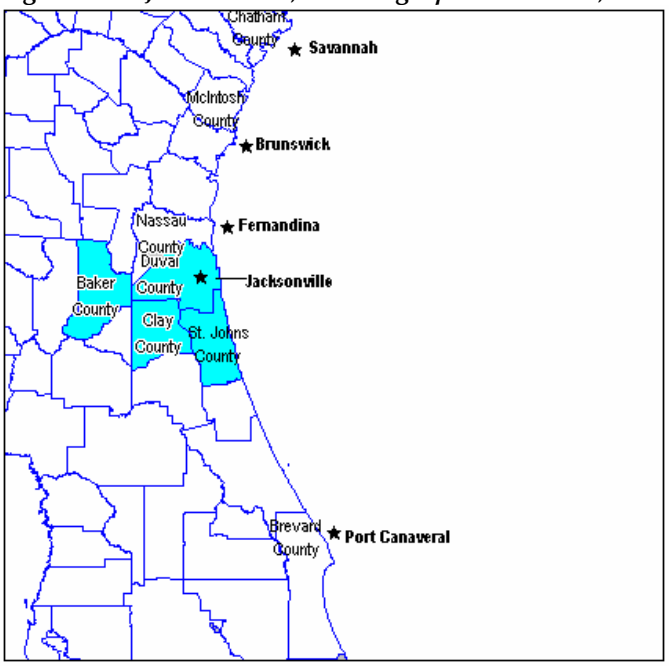
[5] American Association of Port Authorities website: http://www.aapadirectory.com/cgi-bin/showpage.cgi?id=3914

# 25. Jacksonville, FL

## Location and Background Information

The Port of Jacksonville, Florida is part of the Jacksonville, FL Metropolitan Statistical Area (MSA).

*Figure 25-1. Jacksonville, FL: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

The total population of the Jacksonville, FL MSA in 2000 was 1,065,087, according to the 2000 US Census. Of the total, 518,618 or 48.7 percent were males and 546,469 or 51.3 percent were females. The median age for the MSA in the same year was 35.1 years; 33.9 for males and 36.1 for females. About 27 percent of males and nearly 25 percent of females are between the ages of 0 and 17 years. About 45 percent of males and females (15 percent per age group approximately) are between the ages of 18 and 49 years (Figure 25-2).

As shown in Figure 25-3, 71.9 percent of the total population is white, 22.2 percent is Black or African American, 3.6 percent is categorized as 'others' (includes American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone) and 2.3 percent is Asian. Furthermore, in terms of ethnic makeup, around 3.9 percent of the total population is considered to be of Hispanic or Latino origin.[1]

[1] Source: US Census Data, Census 2000.

*Figure 25-2. Jacksonville, FL: Structure of the Population by Age Group, 2000*

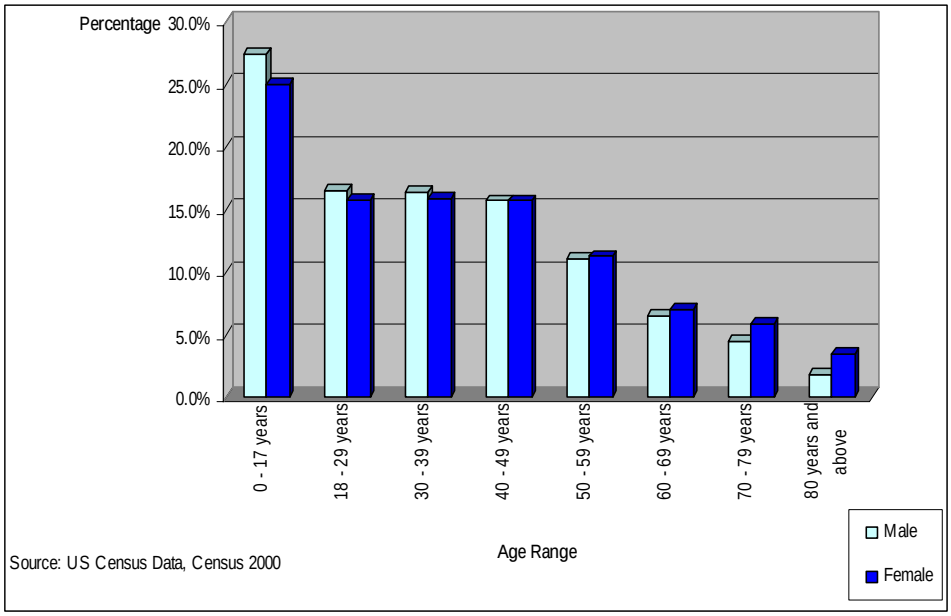
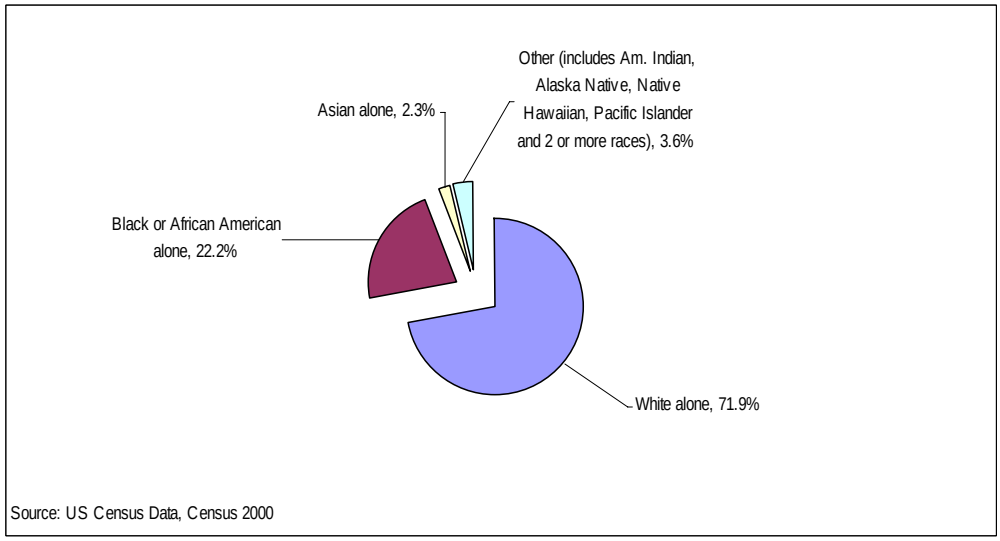
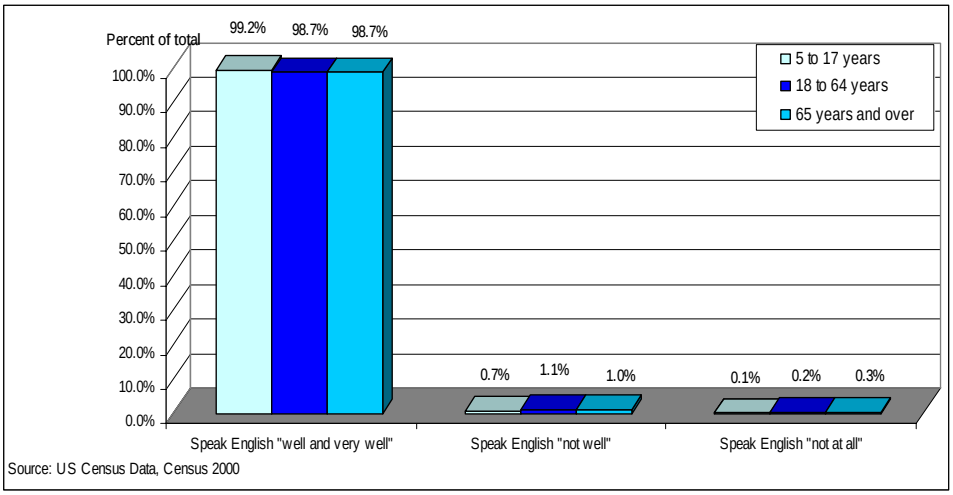



*Figure 25-3. Jacksonville, FL: Population by Race, 2000*



It is evident from the data specified in Figure 25-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 25-4. Jacksonville, FL: Ability to Speak English by Age Group, 2000***

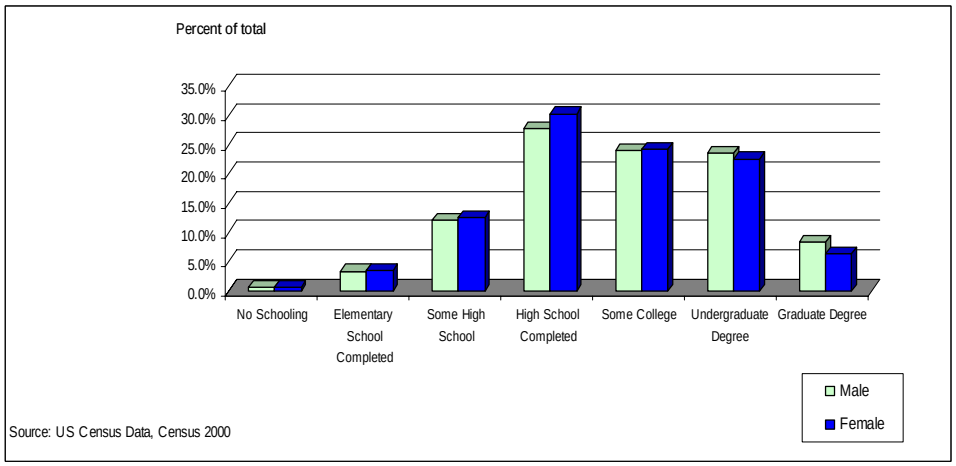



## EDUCATION

As portrayed in Figure 25-5, of the population in the Jacksonville, FL MSA aged 25 or over, nearly 30 percent of females and 25 percent of males have completed high school. About 23 percent of males and females have completed some college and over 20 percent of males and females have obtained an undergraduate degree.

Some of the colleges and universities in the area are: Edward Waters College, Florida Community College at Jacksonville, Jacksonville University, Jones College - Jacksonville, Trinity Baptist College and the University of North Florida.

***Figure 25-5. Jacksonville, FL: Educational Attainment of Population by Sex Ages 25 and Over, 2000***



# Socio-Economic Characteristics

## INCOME

About 22 percent of households in the Jacksonville, FL MSA in 1999 had an income that fell within the $50,000 - $74,999 income bracket and around 20 percent of households had incomes below $20,000. Only 5 percent of households had incomes of $150,000 or over (Figure 25-6).

Household median income in 1999 in the region according to the 2000 US Census was $42,825.10 and per capita income was $21,567.15. The percentage of people under the poverty line in the region was 10.8 in the year 2000. The average household size for 2000 was 2.54.[2]

***Figure 25-6. Jacksonville, FL: Distribution of Households by Household Income Level, 1999***

## EMPLOYMENT

Of the employed civilian population, aged 16 or over, in the Jacksonville, FL MSA in 2000, over 25 percent of females were employed in the educational, health and social services industries and over 20 percent were employed in 'other' industries. 'Other' industries include the arts, recreation, entertainment, food services and information. About 20 percent of males were employed in 'other' industries and around 17% were employed in the wholesale and retail trade industries. Less than 1 percent of males and females were involved in agriculture, mining, fishing, farming or forestry industries (Figure 25-7).

An estimated 4.2 percent of males and 4.9 percent of females were unemployed in the MSA in the year 2000.[3]

According to the 2000 US Census, an estimated 0.5 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 17.4 percent of males and 5.2 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.7 percent of male's occupations and 0.1 percent of female's occupations.

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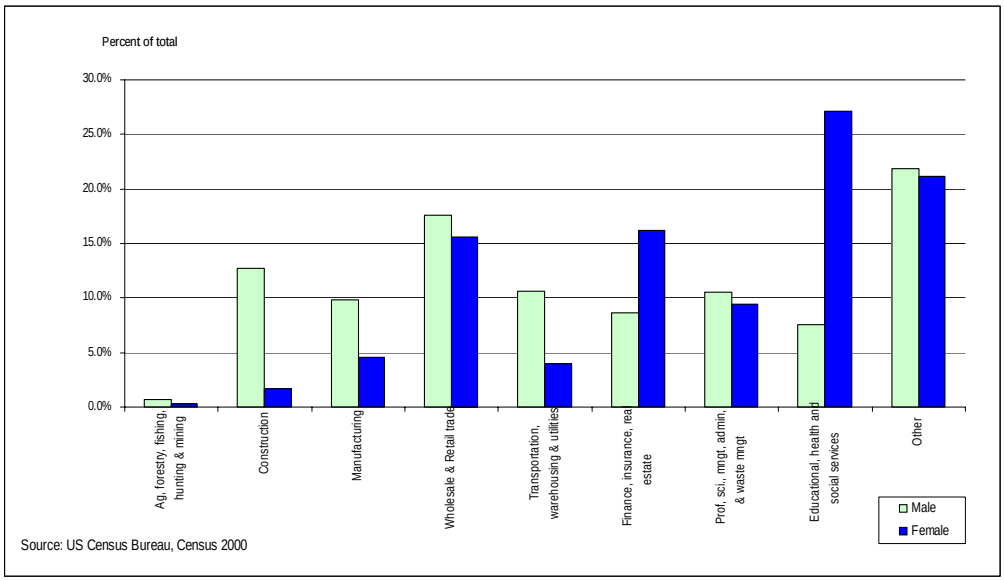
[2] US Census Data, Census 2000.

[3] US Census Data, Census 2000.

*Figure 25-7. Jacksonville, FL: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Jacksonville Port Authority (JAXPORT) is a full-service international trade seaport in Northeast Florida. JAXPORT offers multiple cargo terminals and unmatched opportunities for intermodal transportation of container, automobile, bulk, breakbulk and refrigerated cargoes, as well as cruise passenger service.

JAXPORT owns and operates three public marine terminals and one passenger cruise terminal in Jacksonville Florida: the Blount Island Marine Terminal, the Talleyrand Marine Terminal, the Dames Point Marine Terminal, and the temporary JAXPORT Cruise Terminal. JAXPORT develops, manages and markets those publicly-owned facilities to promote the growth of maritime and related industries in Jacksonville Florida and beyond. JAXPORT also offers year-round cruise ship service aboard Carnival Cruise Lines' ship Celebration. The Celebration sails from the JAXPORT Cruise Terminal.

The port of Jacksonville, Florida, has a rich maritime history. Travel back to 1562 and you would see Jean Ribault and his French Huguenots crossing a shallow sand bar into what is now called the St. Johns River. In 1565, English traders sailed into the mouth of the St. Johns and traded guns and ammunition for food and a vessel with the French Huguenots who had settled at Fort Caroline. This transaction was the first recorded act of international waterborne commerce in the New World; hence Jacksonville is known as America's First Port.

In 1963, Florida Legislature created the Jacksonville Port Authority. The City transferred to the JPA the Talleyrand Municipal Docks near downtown and a tract of land known as Goat Island, later renamed Blount Island. The original Charter granted the Port Authority 1.5 mils of ad valorem taxing authority. The Florida State Legislature amended JPA's Charter, repealing the port's 1.5 mils of ad valorem

authority and capping the annual City's allocation to the port at its present millage value, $800,000. To this day, JAXPORT has no taxing authority.
In 1964, voters approved port improvements and the issuance of a $25 million General Obligation Bond for port improvements. In 1968, as part of the consolidation of the City of Jacksonville and Duval County, the City transferred ownership and management of its airports to the JPA. In addition to its maritime responsibilities, the Port Authority managed operations at Jacksonville International Airport, Craig Airport and Herlong Airport until October 1, 2001, when a separate Jacksonville Airport Authority was created to manage those facilities.

In 1972 JPA sold the eastern half of Blount Island to Offshore Power Systems, Inc. when this company announced plans to build floating nuclear power stations. For a variety of economic reasons, the project never moved forward and the property was sold to Gate Maritime, Inc. In 1978 the U.S. Army Corps of Engineers deepened the St. Johns River from 34 to 38 feet, a depth maintained for more than 20 years. In 1992 JPA facilities handled 5,001,074 tons in fiscal year 1992, the first time the port reached the five million ton mark. In 1998 JPA acquired the final property for its third marine terminal: Dames Point. While JPA owns nearly 600 acres at the site in Northeast Jacksonville, plans call for potentially leaving more than one third of the property in its natural state to protect environmentally sensitive wetlands. In 1999 JPA facilities set a port record by moving 7,524,271 tons of cargo in fiscal year 1999. This marked the ninth consecutive year of tonnage growth at the port. In 2001 Port security becomes paramount, and in the same year, the Florida Legislature repealed the JPA's existing charter and abolished the JPA by enacting Chapter 2001-319, Laws of Florida. Two new authorities were created: the Jacksonville Airport Authority took over control and operations of all aviation facilities formerly controlled by the JPA, and the Jacksonville Seaport Authority (doing business as the Jacksonville Port Authority, or JAXPORT) was created to handle all matters related to the marine operations and facilities formerly controlled by the JPA. The seaport continued to call itself the "Jacksonville Port Authority" or "JAXPORT."

In 2002 JAXPORT completed the first strategic business plan for the new JAXPORT, placing an emphasis on growing the port's business and economic impact for the community. In 2003 U.S. the U.S. Army Corps of Engineers deepened the St. Johns River from 38 to 41 feet. In 2003 Celebrity Cruises and Carnival Cruise Lines both announced plans to begin regular service from Jacksonville - the city's first regular cruise service. JAXPORT built a temporary cruise terminal in only six months. Celebrity kicked off their Jacksonville service with an 11-night cruise to the Caribbean on October 27, 2003 aboard the 1,375-passenger Zenith.

JAXPORT's three marine terminals handled a record-setting 7.6 million tons of cargo in Fiscal Year 2004, including more than 530,000 vehicles - making JAXPORT one of the largest vehicle handling ports in the country.

**Blount Island Marine Terminal**
Located just nine nautical miles from the Atlantic Ocean, the Blount Island Marine Terminal has 5,280 feet of berthing space on 41 feet of deepwater. Blount Island has an additional 1,350 feet of berthing space on 38 feet of water. This 754-acre terminal is JAXPORT's largest container facility - handling 80 percent of the nearly 700,000 TEUs moved annually through JAXPORT facilities. The terminal dedicates more than 150 acres to container storage, and 240,000 square feet of dockside transit shed to house commodities such as stainless steel, liner board, wood pulp and other cargoes in need of warehousing.

Blount Island also is one of the largest vehicle import-export centers on the East Coast, and the terminal handles recreational boats, tractors, paper, wood pulp, forest products and a variety of general cargoes. The entire terminal is covered under JAXPORT's Foreign Trade Zone No. 64 license and can be activated for qualified users.

To help speed both ships and cargo on their way, JAXPORT deploys nine cranes on the island, including eight container cranes. The efficient movement of cargo is facilitated by the terminal's on-dock rail served directly by CSX Corporation.

**Talleyrand Marine Terminal**

The Talleyrand Marine Terminal is located 21 miles from the Atlantic Ocean on the St. Johns River. This 173-acre terminal has 38 feet of water along its docks. Talleyrand handles South American and Caribbean containerized cargoes, breakbulk commodities such as steel and paper, imported automobiles, frozen and chilled goods and liquid bulk commodities.

Ocean carriers calling the Talleyrand Marine Terminal offer direct access to world trade lanes for all U.S. bound or originated containerized cargo through Freeport, Bahamas. This efficient transportation link bridges Freeport and major U.S. markets through Jacksonville.

The terminal also offers on-Dock warehousing; JAXPORT Refrigerated Services, an ICS Logistics Company, offers 160,000-square feet of warehouse space which can handle cargo in ambient, cooler or freezer conditions. This facility is located within 75 feet of Talleyrand's vessel berthing area. It offers on-Dock Rail Facilities; it provides direct switching for Norfolk Southern, CSX and Florida East Coast Railroad. Furthermore, the entire terminal is within FTZ #64.

The Talleyrand terminal is serviced by three Class 1 railroads, and is easily reached by I-95 and I-10 leading to U.S. 1 and Jacksonville's 20th Street Expressway. Currently, long-time JAXPORT tenant ICS Logistics is constructing a 553,000-square foot warehouse at the Talleyrand Marine Terminal to store an assortment of cargoes. ICS projects warehouse operations to create 45-60 new full and part-time jobs in Jacksonville, with the potential to create as many as 500 direct and indirect jobs over the course of 30 years. Construction is expected to be complete by the close of 2005. Once built, the new warehouse will give ICS more than 700,000-square feet of warehouse space at Talleyrand.

**Dames Point Marine Terminal**

The Dames Point Marine Terminal is JAXPORT's newest marine facility. The terminal fronts on the harbor's 41-foot deep channel. Located on more than 585 acres of land owned by JAXPORT, this terminal is only 12 miles from the open sea. Dames Point is one of the few major greenfield sites on the U.S. East coast available for port development.

JAXPORT is currently expanding Dames Point's bulk terminal to 22 acres, and plans call for adding facilities to support new breakbulk cargoes and potentially new container or Ro/Ro operations. JAXPORT is now soliciting new business partnerships with investor/operators for further development of this site.

The JAXPORT Cruise Terminal, located one mile northwest of the Dames Point Marine Terminal, offers service to cruise ships calling Jacksonville. JAXPORT has committed more than $200 million in capital projects over the past decade to improve its three marine terminals and Jacksonville's harbor.

At the Dames Point Marine Terminal, JAXPORT has recently expanded its bulk terminal to 22 acres, and plans call for adding facilities to support new breakbulk cargoes and potentially new container or Ro/Ro operations.[4]

[4] Jacksonville Port Authority website: http://www.jaxport.com/

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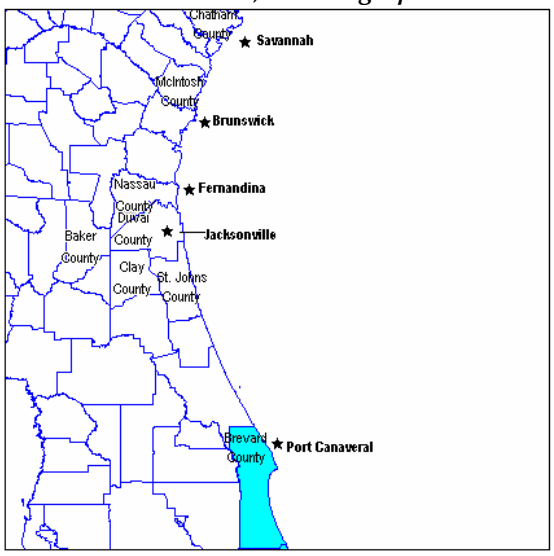
# 26. Port Canaveral, FL

## Location and Background Information

Port Canaveral is located in the Palm Bay-Melbourne-Titusville, Florida Metropolitan Statistical Area (MSA). This MSA is comprised of Brevard County, FL. The port is strategically located on Florida's Central Atlantic Coast and has the necessary intermodal connections to reach all of Florida and the Southeast U.S. In addition, it is an ideal hub between the Southeast U.S., the Caribbean and Central America.

In operation for more than half a century, Port Canaveral has built its reputation as a business-friendly port and a reliable facilitator of breakbulk cargo, with an excellent background in: fresh produce, frozen food, single-strength juice and juice concentrate, milled lumber, bagged cement, steel and newsprint. Efficient handling systems carry cargo from vessels to warehouses. More than three million tons of bulk cargo moves through Port Canaveral per year. The port has cement, petroleum and aggregate facilities, as well as conveyors and hoppers for efficient loading of products directly into trucks. [1]

*Figure 26-1. Port Canaveral, FL: Geographic Location, 2000*




*Source: Table 3-1*

## Demographics

### POPULATION

Brevard County had a total population of 476,230 in the year 2000, according to the 2000 US Census. Of this total, 233, 186 or 49 percent were males and 243,044 or 51 percent were females. The median age in the county in 2000 was 41.4 years, 40.3 for males and 42.6 for females. Over 20 percent of males and females are between the ages of 0 and 17 years. About 15 percent of males and females fall within the 40-49 years age range (Figure 26-2).

[1] Port Canaveral website: http://www.portcanaveral.org

As shown in Figure 26-3, 86.7 percent of the population in Brevard County, FL is white, 8.1 percent of the population is Black or African American. 'Others' (which include American Indians, Alaska natives, Hawaiian natives, Pacific Islanders, and 2 or more races alone), represent 3.7 percent of the population and the Asian population represents only 1.5 percent of the total population. About 4.6 percent of the total population is considered to be of Hispanic or Latino origin.[2]

***Figure 26-2. Port Canaveral, FL: Structure of the Population by Age Group, 2000***

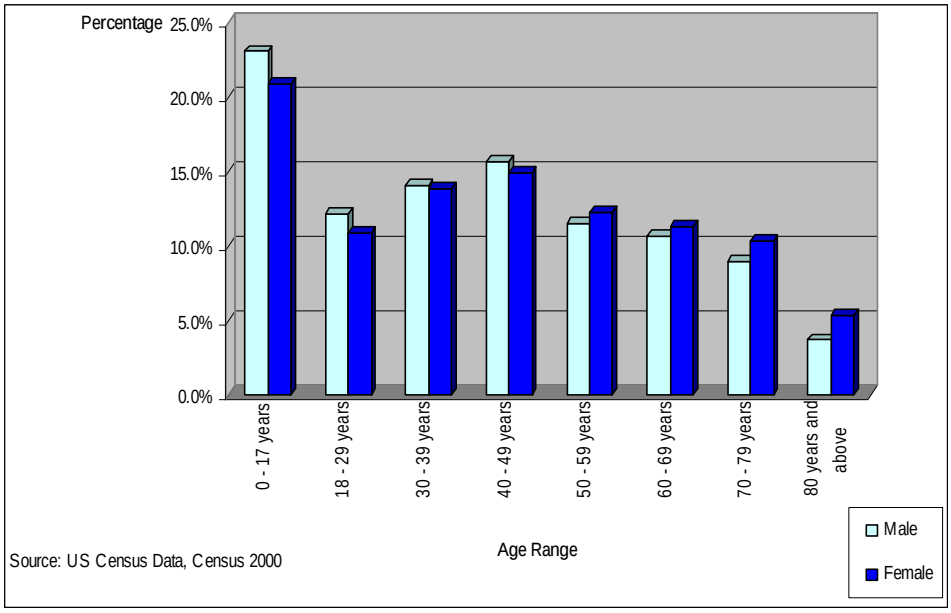
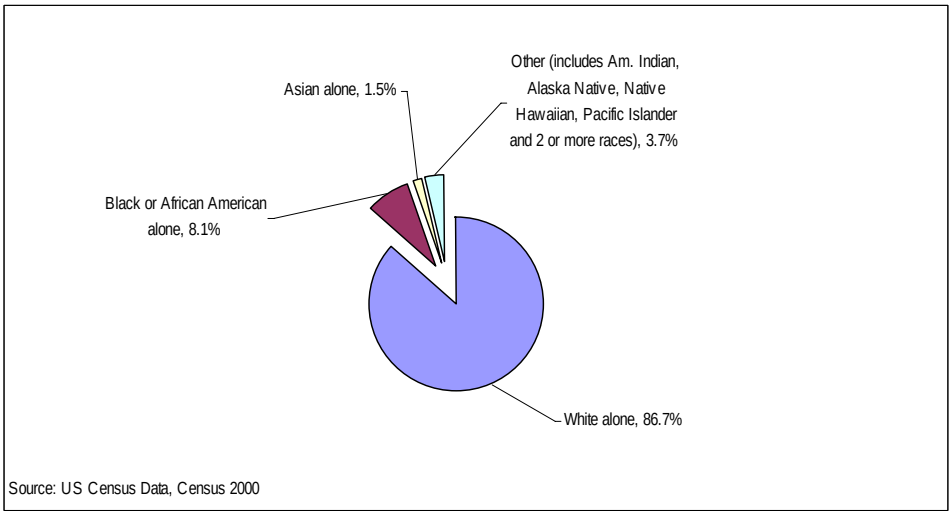


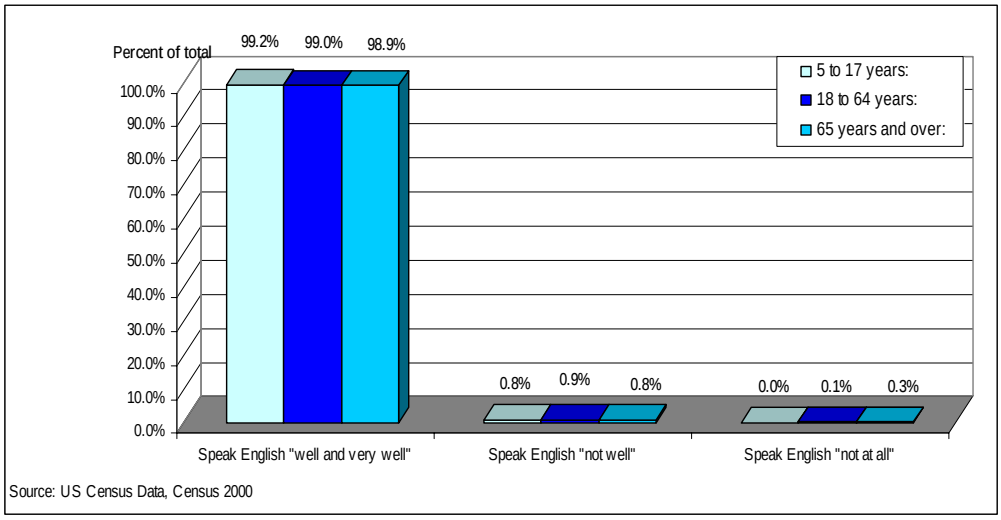

***Figure 26-3. Port Canaveral, FL: Population by Race, 2000***




[2] US Census Data, Census 2000.

It is evident from the data specified in Figure 26-4 that most of the population in all age ranges in the area dominates the English language 'well' and 'very well'.

***Figure 26-4. Port Canaveral, FL: Ability to Speak English by Age Group, 2000***

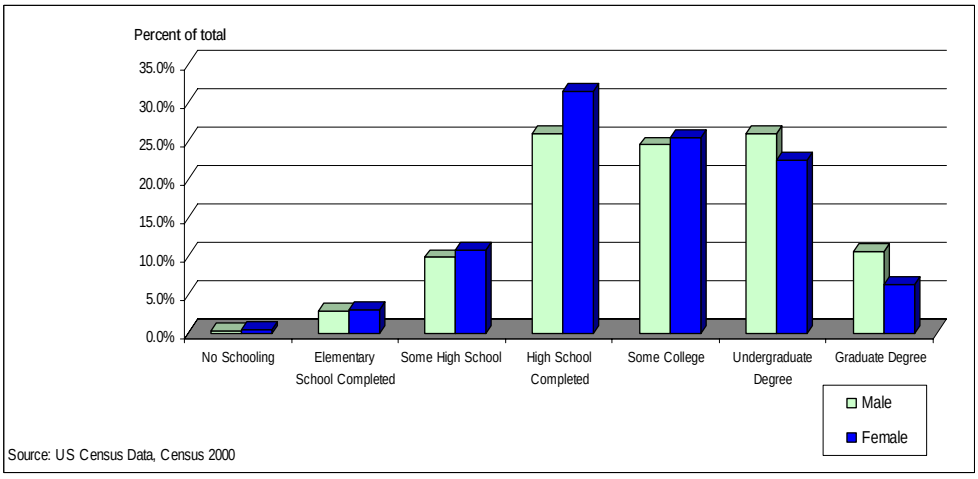



## EDUCATION

Of the population in Brevard County, FL, ages 25 or over, 30 percent of females and 25 percent of males have completed high school. About 25 percent of the population has finished some college, and about 21 percent of females and 25 percent of males have obtained an undergraduate degree (Figure 26-5).

There are only two higher education institutions in the area: Brevard Community College and the Florida Institute of Technology.

***Figure 26-5. Port Canaveral, FL Educational Attainment of Population by Sex Ages 25 and Over, 2000***



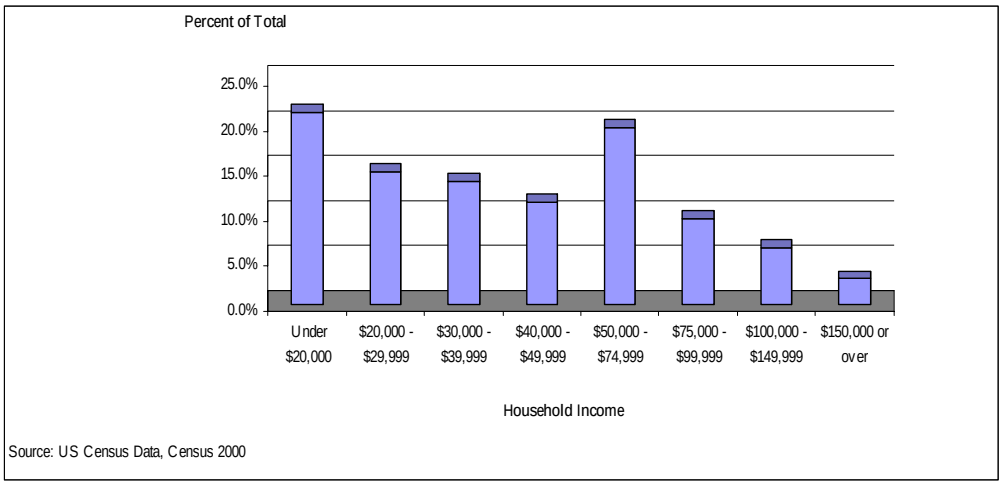
# Socio-Economic Characteristics

## INCOME

About 23 percent of all households in the county had an income of under $20,000 in 1999, and over 20 percent of households fell within the $50,000 - $74,999 income bracket. Less than 3 percent of households had incomes of $150,000 or above (Figure 26-6).

Household median income in the region in 1999 was $40,099 and per capita income for the same year was $21,484. The percentage of people under the poverty line in the region was 9.5 in the year 2000. The average household size in 2000 was 2.35.[3]

***Figure 26-6. Port Canaveral, FL: Distribution of Households by Household Income Level, 1999***




## EMPLOYMENT

As shown in Figure 26-7, of the employed civilian population in Brevard County, FL, ages 16 or over, around 29 percent of females are employed in the educational, health and social services industry. This percentage is closely followed by females employed in 'other' industries (25 percent), which include the arts, recreation, entertainment, food services and information. About 25 percent of males are employed in 'other' industries, 17 percent of them are employed in the manufacturing industry and 15 percent are employed in the wholesale and retail trade industry.

An estimated 4.8 percent of males and 5.0 percent of females were unemployed in the region in the year 2000.[4]

According to the 2000 US Census, an estimated 0.5 percent of males and 0.1 percent of females are employed in farming, fishing and forestry occupations. About 14.8 percent of males and 6.2 percent of females are employed in production, transportation and material moving occupations. The aforementioned occupations include rail, water and other transportation occupations. Rail, water and other transportation occupations represent only 0.6 percent of male's occupations and 0.1 percent of female's occupations.

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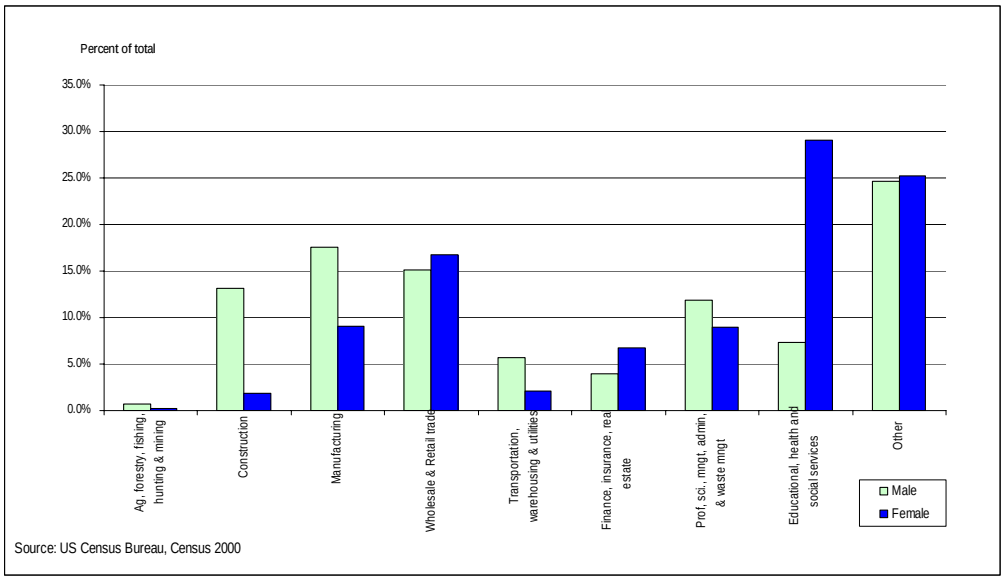
[3] US Census Data, Census 2000.

[4] US Census Data, Census 2000.

*Figure 26-7. Port Canaveral: Employed Civilian Population by Sex and Industry 16 Years and Over, 2000*




## MARITIME INFORMATION

The Canaveral Port Authority is an independent governmental agency created by the Florida Legislature. The Canaveral Harbor Port District was created by House Bill 1136, Chapter 28922, from the Laws of Florida Special Acts of 1953. It established a port district in the central and north areas of Brevard County, Florida, and designated the area as the Canaveral Port District. As an independent governing body, the Canaveral Port Authority can levy ad valorem taxes, incur indebtedness through the sale of bonds, establish Federal Maritime Commission -regulated tariff rates and negotiate for government grants. Five elected commissioners representing the five port regions are the governing body of Port Canaveral and have jurisdiction over all fiscal and regulatory policies and operations of the Port.

For the past 50 years, Port Canaveral has been offering cargo services in Florida. It handles a variety of cargoes on an ongoing basis: cement, petroleum, aggregate, fresh produce and other perishables, frozen food, single-strength juice and juice concentrate, milled lumber, steel, newsprint, and special project cargo. In addition, the port has the facilities for handling containerized cargoes. The port has 24-hour cargo terminals, a south Intermodal Gate to provide faster truck throughput at the south cargo piers, with a fiber optic weighing and tracking system for breakbulk cargo.

Each cargo berth pier is 400 feet with a 50-foot apron. The **North Cargo Piers 1 and 2 (continuous)** have 1,260 feet of docking space extending north/south with–38′9″ MLW draft, with a 66-foot apron. Vessel length is unlimited. North Cargo Pier 3 has 800 feet of docking space extending east/west with–32′ MLW draft. Vessel length is unlimited. North Cargo Pier 4 has 800 feet of docking space extending east/west withÐ36′ MLW draft. The pier is equipped with a cement unloader and with pipes for self unloading of cement ships. Vessel length is unlimited but not to extend more than 140 feet to west of pier face.

South Cargo Piers 1, 2 and 3 (continuous) have 1,616 feet of docking space with Ð34′ 10″ MLW draft. South Cargo Pier 3 is equipped with petroleum manifolds for five products. Vessel length is unlimited. Tanker Berth 1 has 900 feet of docking space with Ð39′ 6″ MLW draft. It is equipped for five

petroleum products and bulk cement self unloaders. Vessel length is unlimited but not to extend more than 140 feet to west of pier face. South Cargo Pier 4 has 800 feet of docking space with Ð39′ 6″ MLW draft with a 50-foot apron. It is equipped with four load arms for loading and discharging number 6 oil to and from shore-side facilities. South Cargo Pier 5 has 800 feet of docking space with Ð39′ 6″ MLW draft, it also has 400 feet of pier space with a 50-foot apron.

The port features nearly 14 acres of covered warehouse storage facilities, as well as dry warehouse and temperature/humidity-controlled areas. It also provides special storage facilities for: cement and petroleum; and 120,000 square feet of general purpose foreign trade zone warehousing.

Private terminal and warehouse operators at the port include:

**Mid-Florida Freezer Warehouses, Ltd:** boasts the largest, privately held, vessel-side freezer/chill facility in the South, with 8.6 million cubic feet. Mid Florida Freezer also operates more than 400,000 square feet of dry vessel-side cargo warehouses.

**Ambassador Services, Inc:** offers ship agency, cruise ship stevedoring, logistics, equipment fabrication, rail terminal operations, receiving and processing building products for distribution and warehouse operations, are but a sampling of their many areas of expertise.

**The Foreign Trade Zone Group, Inc:** operating an expanding FTZ climate-controlled warehouse, The Foreign Trade Zone Group offers computerized inventory systems management services, record storage and value added distribution services. CBP house broker and freight forwarders are available on site.

**Integrated Distributions Services, Inc**: climate-controlled FTZ warehouse. Offers general warehousing and record storage with computerized inventory systems management and pick up and delivery services. IDS opened the first Container Freight Station in the port in 1999.

**Cruise Terminals:**

**North Side Terminals**
Terminal No. 5 has a 2,000 x 1,200' turning area Cruise, 970 feet of docking space, 565 feet of pier space, 40 feet wide with -35 MLW draft, 63,000 square feet embarkation/baggage handling facility and 1,536 paved parking spaces. Cruise Terminal No. 8 has 1,000 feet of docking space, 50-foot wide -35 feet MLW draft, 70,000 square feet embarkation/baggage handling facility and 1,100 parking spaces. Cruise Terminal No. 9/10 has 1,100 feet of docking space, 700 feet of pier space, 50 feet wide with -35 MLW draft, 80,000 square foot embarkation/baggage handling facility and 2,150 paved parking spaces, including 1,200-vehicle parking garage.

**South Side Terminals**
These terminals have 2,153 feet of continuous dock with -28 feet MLW draft. Cruise Terminal No. 2 has 8,500 square feet of embarkation space and 17,000 square feet of baggage handling area and 246 paved parking spaces. Cruise Terminal No. 3 has 8,500 square feet of embarkation space and 16,000 square feet of baggage handling area and 662 paved parking spaces. Cruise Terminal No. 4 has 9,200 square feet of embarkation area and 20,000 square feet of baggage handling area and 699 paved parking spaces. Two large- or three medium-length cruise ships can be accommodated at Cruise Terminals 2, 3 and 4 to a total of 2,153 feet.

Port Canaveral is Foreign Trade Zone number 136.[5]

[5] Port Canaveral website: http://www.portcanaveral.org

*Appendix E*

# RESTRICTED PERIOD U.S. AND FOREIGN FLAG VESSEL ARRIVALS BY PORT AREA,VESSEL TYPE VESSEL SIZE AND ALTERNATIVE

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Table E-1. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Total East Coast

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 8 | 3 | - | - | - | 1 | - | 20 | - | 3 | - | 1 | - | - | - | - | - | - | 36 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 9 | - | - | 27 | 27 | 29 | 75 | 28 | 84 | 37 | 96 | 51 | - | - | - | - | - | - | 463 |
| Freight Barge | 16 | 10 | 30 | 26 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 82 |
| General Dry Cargo Ship | 2 | 1 | 2 | - | 2 | 7 | 2 | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Passenger Ship | 53 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 53 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 2 | 2 | 2 | 75 | 28 | 11 | - | - | - | - | - | - | - | - | - | - | - | - | 120 |
| Tank Barge | 195 | 298 | 87 | 98 | 50 | 1 | 4 | - | - | - | - | - | - | - | - | - | - | - | 733 |
| Tanker | 207 | - | - | 25 | - | - | 49 | 95 | 43 | 50 | - | - | - | - | - | - | - | - | 469 |
| Towing Vessel | 171 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 171 |
| Other a/ | 18 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 |
| Total | 681 | 316 | 121 | 251 | 107 | 49 | 130 | 143 | 127 | 90 | 96 | 52 | - | - | - | - | - | - | 2,163 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 7 | - | - | - | 1 | 3 | 38 | - | 6 | 1 | 1 | - | - | - | - | - | - | 64 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 8 | - | - | 22 | 38 | 20 | 93 | 33 | 88 | 33 | 89 | 51 | - | - | - | - | - | - | 475 |
| Freight Barge | 22 | 13 | 37 | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 101 |
| General Dry Cargo Ship | 6 | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Passenger Ship | 134 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 134 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 2 | 4 | 94 | 26 | 17 | - | - | - | - | - | - | - | - | - | - | - | - | 143 |
| Tank Barge | 243 | 353 | 142 | 135 | 66 | - | 3 | 1 | - | 2 | - | - | - | - | - | - | - | - | 945 |
| Tanker | 209 | - | - | 21 | - | - | 56 | 94 | 30 | 50 | 5 | - | - | - | - | - | 1 | - | 466 |
| Towing Vessel | 296 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 296 |
| Other a/ | 23 | 6 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 30 |
| Total | 948 | 381 | 183 | 301 | 130 | 43 | 156 | 166 | 118 | 91 | 95 | 52 | - | - | - | - | 1 | - | 2,665 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 2 | - | - | - | - | 1 | 15 | - | 3 | - | 1 | - | - | - | - | - | - | 29 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 8 | - | - | 27 | 34 | 25 | 63 | 22 | 73 | 30 | 85 | 43 | - | - | - | - | - | - | 410 |
| Freight Barge | 5 | 9 | 41 | 33 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 88 |
| General Dry Cargo Ship | - | - | 2 | - | 2 | 8 | 2 | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | 44 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 44 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | 2 | - | 83 | 28 | 12 | - | - | - | - | - | - | - | - | - | - | - | - | 126 |
| Tank Barge | 174 | 253 | 70 | 89 | 40 | 1 | 3 | - | - | - | - | - | - | - | - | - | - | - | 630 |
| Tanker | 174 | - | - | 23 | - | - | 37 | 83 | 36 | 38 | - | - | - | - | - | - | - | - | 391 |
| Towing Vessel | 174 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 174 |
| Other a/ | 11 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Total | 598 | 267 | 113 | 255 | 104 | 46 | 106 | 120 | 109 | 71 | 85 | 44 | - | - | - | - | - | - | 1,918 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 6 | - | - | - | 1 | 3 | 28 | - | 5 | - | - | - | - | - | - | - | - | 50 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 6 | - | - | 22 | 46 | 19 | 76 | 27 | 75 | 28 | 80 | 45 | - | - | - | - | - | - | 424 |
| Freight Barge | 12 | 14 | 40 | 30 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 96 |
| General Dry Cargo Ship | 4 | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Passenger Ship | 97 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 97 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 2 | 2 | 95 | 26 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | 141 |
| Tank Barge | 220 | 315 | 118 | 123 | 59 | - | 2 | 1 | - | 1 | - | - | - | - | - | - | - | - | 839 |
| Tanker | 173 | - | - | 16 | - | - | 43 | 75 | 28 | 47 | 3 | - | - | - | - | - | - | - | 385 |
| Towing Vessel | 254 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 254 |
| Other a/ | 15 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21 |
| Total | 788 | 343 | 160 | 286 | 131 | 41 | 124 | 131 | 103 | 81 | 83 | 45 | - | - | - | - | - | - | 2,316 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-2. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Total East Coast

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 27 | 109 | 104 | 152 | 68 | 176 | 121 | 192 | 210 | 148 | 72 | 77 | 126 | 10 | - | 2 | 4 | 2 | 1,600 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 8 | - | 10 | 3 | - | 21 | 8 | 13 | 15 | - | - | 78 |
| Container Ship | 78 | 202 | 186 | 192 | 197 | 108 | 535 | 345 | 569 | 417 | 988 | 612 | - | 8 | - | - | - | - | 4,437 |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 116 | 194 | 153 | 94 | 73 | 43 | 37 | 62 | 71 | 53 | - | - | - | - | - | - | - | - | 896 |
| Passenger Ship | 185 | 293 | 31 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 509 |
| Refrigerated Cargo Ship | 4 | 120 | 185 | 26 | 2 | 4 | 27 | - | - | - | 12 | - | - | - | - | - | - | - | 380 |
| Ro-Ro Cargo Ship | 121 | 31 | 445 | 425 | 142 | 94 | 18 | 32 | 93 | 3 | 108 | - | - | - | - | - | - | - | 1,512 |
| Tank Barge | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tanker | 63 | 56 | 188 | 85 | 63 | 125 | 142 | 367 | 335 | 436 | 66 | 260 | 83 | 30 | 251 | 202 | 132 | 105 | 2,989 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | 9 | 11 | 1 | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | 25 |
| Total | 612 | 1,016 | 1,298 | 974 | 545 | 550 | 884 | 1,006 | 1,278 | 1,067 | 1,249 | 949 | 230 | 56 | 264 | 219 | 136 | 107 | 12,440 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 22 | 121 | 121 | 142 | 85 | 185 | 117 | 196 | 172 | 132 | 90 | 98 | 164 | 4 | - | - | 1 | 4 | 1,654 |
| Combination Carrier (e.g. OBO) | 1 | 2 | - | - | - | - | 3 | 16 | - | 10 | 1 | 2 | 9 | 8 | 1 | 7 | - | - | 60 |
| Container Ship | 63 | 163 | 188 | 117 | 218 | 161 | 578 | 493 | 535 | 429 | 889 | 666 | 1 | - | - | - | - | - | 4,501 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 99 | 203 | 176 | 83 | 75 | 77 | 30 | 70 | 90 | 105 | - | - | - | - | - | - | - | - | 1,008 |
| Passenger Ship | 222 | 372 | 35 | 13 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 642 |
| Refrigerated Cargo Ship | - | 113 | 119 | 29 | 1 | 22 | 29 | - | 2 | - | 12 | - | - | - | - | - | - | - | 327 |
| Ro-Ro Cargo Ship | 101 | 44 | 424 | 398 | 104 | 115 | 36 | 32 | 95 | 12 | 123 | - | - | - | - | - | - | - | 1,484 |
| Tank Barge | - | - | 14 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Tanker | 59 | 52 | 126 | 73 | 57 | 99 | 167 | 381 | 273 | 521 | 82 | 242 | 111 | 22 | 230 | 254 | 123 | 145 | 3,017 |
| Towing Vessel | 41 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 41 |
| Other a/ | 14 | 13 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 31 |
| Total | 622 | 1,083 | 1,205 | 857 | 540 | 659 | 960 | 1,188 | 1,167 | 1,209 | 1,197 | 1,008 | 285 | 34 | 231 | 261 | 124 | 149 | 12,779 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 21 | 73 | 71 | 115 | 56 | 136 | 90 | 133 | 164 | 115 | 60 | 65 | 97 | 10 | - | 2 | 4 | 2 | 1,214 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 5 | - | 11 | 1 | - | 18 | 6 | 11 | 2 | - | - | 54 |
| Container Ship | 77 | 184 | 162 | 162 | 162 | 88 | 442 | 288 | 463 | 347 | 847 | 525 | - | 8 | - | - | - | - | 3,755 |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 114 | 168 | 115 | 75 | 65 | 37 | 31 | 43 | 57 | 44 | - | - | - | - | - | - | - | - | 749 |
| Passenger Ship | 17 | 37 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| Refrigerated Cargo Ship | 4 | 88 | 171 | 21 | 2 | 3 | 24 | - | - | - | 12 | - | - | - | - | - | - | - | 325 |
| Ro-Ro Cargo Ship | 52 | 27 | 413 | 399 | 129 | 83 | 16 | 29 | 79 | 2 | 89 | - | - | - | - | - | - | - | 1,318 |
| Tank Barge | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | 12 | 42 | 100 | 74 | 45 | 94 | 78 | 241 | 242 | 332 | 49 | 223 | 72 | 30 | 180 | 87 | 103 | 78 | 2,082 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 7 | 8 | 1 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 18 |
| Total | 308 | 627 | 1,040 | 846 | 459 | 441 | 683 | 739 | 1,005 | 851 | 1,058 | 813 | 187 | 54 | 191 | 91 | 107 | 80 | 9,580 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 21 | 85 | 101 | 92 | 64 | 139 | 85 | 129 | 124 | 106 | 76 | 68 | 143 | 4 | - | - | 1 | 3 | 1,241 |
| Combination Carrier (e.g. OBO) | 1 | 2 | - | - | - | - | 3 | 11 | - | 10 | 1 | 1 | 9 | 8 | 1 | 3 | - | - | 50 |
| Container Ship | 68 | 145 | 167 | 101 | 175 | 141 | 492 | 413 | 443 | 370 | 755 | 559 | - | - | - | - | - | - | 3,829 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 93 | 168 | 133 | 72 | 68 | 55 | 25 | 60 | 86 | 73 | - | - | - | - | - | - | - | - | 833 |
| Passenger Ship | 62 | 94 | 3 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 165 |
| Refrigerated Cargo Ship | - | 90 | 113 | 23 | 1 | 22 | 25 | - | 2 | - | 12 | - | - | - | - | - | - | - | 288 |
| Ro-Ro Cargo Ship | 52 | 34 | 390 | 361 | 104 | 95 | 32 | 27 | 82 | 10 | 103 | - | - | - | - | - | - | - | 1,290 |
| Tank Barge | - | - | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Tanker | 13 | 41 | 96 | 66 | 51 | 77 | 100 | 247 | 177 | 382 | 67 | 204 | 88 | 18 | 167 | 124 | 97 | 109 | 2,124 |
| Towing Vessel | 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 18 |
| Other a/ | 15 | 9 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 28 |
| Total | 343 | 668 | 1,012 | 723 | 463 | 529 | 762 | 887 | 914 | 951 | 1,014 | 832 | 240 | 30 | 168 | 127 | 98 | 112 | 9,873 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-3. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Eastport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-4. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Eastport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 6 | 3 | - | - | 2 | - | 3 | 1 | - | - | - | - | - | - | - | - | 16 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | - | - | - | - | 1 | 2 | 1 | - | - | - | - | - | - | - | - | 5 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 4 | 5 | 3 | - | - | - | 1 | 3 | 3 | - | - | - | - | - | - | - | - | 19 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 6 | 11 | 6 | - | - | 2 | 2 | 8 | 5 | - | - | - | - | - | - | - | - | 40 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 9 | 8 | - | - | - | - | - | 2 | 3 | - | - | - | - | - | - | - | 22 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 2 | 2 | - | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | 17 | - | - | - | - | - | - | - | - | 17 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 9 | 8 | - | - | - | - | 2 | 21 | 3 | - | - | - | - | - | - | - | 43 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 1 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 3 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 2 | 2 | 1 | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | 7 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 2 | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | 5 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 1 | 2 | - | - | - | - | 1 | 3 | 1 | - | - | - | - | - | - | - | 8 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-5. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Searsport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 1 | 10 | 9 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 |
| Tanker | - | - | - | - | - | - | - | 2 | - | 4 | - | - | - | - | - | - | - | - | 6 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | 10 | 9 | 1 | 1 | - | - | 2 | - | 4 | - | - | - | - | - | - | - | - | 29 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | 2 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Tanker | 3 | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 25 | 2 | 6 | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 35 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 2 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-6. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Searsport, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | - | - | 1 | 5 | - | 1 | - | - | 1 | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 18 | 44 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 65 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 2 | 33 | - | - | 4 | 18 | 11 | 7 | 2 | 3 | 2 | - | - | - | 1 | - | - | 83 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 21 | 52 | 37 | - | 1 | 9 | 18 | 12 | 7 | 2 | 5 | 2 | - | - | - | 1 | - | - | 167 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | - | - | 1 | - | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | 10 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | 19 | 46 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 66 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | - | - | 2 | - | - | 3 | 14 | 26 | 4 | 20 | 4 | 1 | - | - | - | - | - | - | 74 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 21 | 55 | 6 | 1 | 1 | 3 | 15 | 27 | 5 | 21 | 4 | 1 | 1 | - | - | - | - | - | 161 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 4 | - | - | 2 | 5 | 2 | 1 | - | 1 | - | - | - | - | 1 | - | - | 16 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 4 | - | 1 | 3 | 5 | 2 | 1 | - | 1 | - | - | - | - | 1 | - | - | 18 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | - | - | - | 4 | 6 | - | 4 | - | - | - | - | - | - | - | - | 14 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 1 | - | - | - | 4 | 6 | - | 5 | - | - | - | - | - | - | - | - | 16 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-7. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Portland, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 1 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tanker | 16 | - | - | - | - | - | 1 | 8 | 1 | 3 | - | - | - | - | - | - | - | - | 29 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 26 | 4 | 1 | 1 | - | 1 | 1 | 8 | 1 | 3 | - | - | - | - | - | - | - | - | 46 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 1 | 10 | 7 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Tanker | 19 | - | - | - | - | - | 1 | 4 | - | - | 1 | - | - | - | - | - | 1 | - | 26 |
| Towing Vessel | 37 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 64 | 10 | 7 | 1 | 5 | - | 1 | 4 | - | - | 2 | 1 | - | - | - | - | 1 | - | 96 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 6 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 9 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 6 | 1 | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 10 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 1 | 5 | 2 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 9 | 5 | 2 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-8. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Portland, ME

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 6 | 10 | 2 | 4 | 14 | 8 | 5 | 9 | 3 | 1 | - | - | - | - | - | - | 65 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 13 | - | - | 14 |
| Container Ship | - | 1 | - | - | 1 | 2 | 3 | 1 | 1 | - | - | - | - | - | - | - | - | - | 9 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | 10 | 17 | 3 | - | - | - | 3 | 2 | 2 | - | - | - | - | - | - | - | - | 38 |
| Passenger Ship | 4 | 12 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 50 | - | 4 | 3 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 2 | 4 | 39 | 1 | 1 | 8 | 34 | 19 | 30 | 23 | 4 | 1 | 1 | - | 57 | 112 | 16 | 15 | 367 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 60 | 30 | 70 | 17 | 4 | 15 | 51 | 31 | 38 | 34 | 7 | 2 | 1 | - | 58 | 125 | 16 | 15 | 574 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 6 | 6 | 11 | 4 | 4 | 18 | 3 | 5 | 4 | 5 | 2 | 1 | - | - | - | - | - | 69 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 | - | - | 4 |
| Container Ship | - | 2 | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 3 | 14 | 1 | - | 2 | 1 | 1 | 1 | 5 | - | - | - | - | - | - | - | - | 28 |
| Passenger Ship | 3 | 13 | 4 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 29 | 2 | 1 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Tank Barge | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tanker | - | - | 5 | - | 1 | 5 | 25 | 30 | 35 | 44 | - | 4 | 2 | 1 | 51 | 123 | 14 | 29 | 369 |
| Towing Vessel | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 42 | 26 | 33 | 18 | 5 | 11 | 44 | 34 | 41 | 53 | 7 | 6 | 3 | 1 | 51 | 127 | 14 | 29 | 545 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | 2 | 1 | 1 | 3 | 2 | - | 1 | 3 | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | 1 |
| Container Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 8 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 4 | - | - | 1 | 5 | 2 | 11 | 5 | - | - | 1 | - | 16 | 17 | 4 | 3 | 69 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 8 | 3 | 6 | 2 | 1 | 2 | 8 | 5 | 11 | 6 | 3 | - | 1 | - | 16 | 18 | 4 | 3 | 97 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | 1 | 4 | - | - | 3 | - | 1 | - | 2 | - | - | - | - | - | - | - | 13 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 9 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | 1 | - | - | - | 4 | 5 | 9 | 11 | - | - | - | - | 12 | 17 | - | 6 | 65 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 11 | 2 | 5 | 6 | - | - | 7 | 5 | 10 | 11 | 2 | - | - | - | 12 | 17 | - | 6 | 94 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-9. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Portsmouth, NH

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | 2 | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 3 | - | 1 | 2 | 1 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | 9 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 2 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | - | - | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 4 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-10. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Portsmouth, NH

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | - | 1 | 8 | 2 | 26 | 16 | 5 | 2 | 1 | - | - | - | - | - | - | 63 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | 3 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | 1 | - | 1 | - | 3 | - | 2 | 1 | - | - | - | - | - | - | - | - | - | 9 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 3 | 9 | 5 | 2 | 3 | 8 | 2 | 32 | 20 | 19 | 9 | 1 | - | - | - | - | - | - | 113 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 4 | 11 | 8 | 3 | 4 | 19 | 4 | 62 | 37 | 24 | 12 | 2 | - | - | - | - | - | - | 190 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 1 | 3 | 4 | 1 | 26 | 9 | 5 | 2 | - | - | - | - | - | - | - | 51 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 3 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | - | - | - | 3 | 4 | 2 | 3 | 1 | - | - | - | - | - | - | - | - | - | 16 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 7 | 4 | 2 | 3 | 1 | 14 | 23 | 13 | 13 | 4 | 1 | - | - | - | - | - | - | 85 |
| Towing Vessel | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Other a/ | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 12 | 11 | 5 | 3 | 9 | 9 | 17 | 55 | 23 | 18 | 6 | 1 | - | - | - | - | - | - | 169 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | 2 | - | 2 | 3 | 1 | - | 1 | - | - | - | - | - | - | 9 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 3 | 1 | - | - | 4 | - | 4 | 5 | 5 | 2 | - | - | - | - | - | - | - | 24 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 3 | 2 | - | - | 7 | - | 6 | 8 | 6 | 2 | 1 | - | - | - | - | - | - | 35 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | 1 | - | 3 | 1 | 2 | 1 | - | - | - | - | - | - | - | 8 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 2 | - | - | 1 | - | 2 | 3 | 3 | - | - | - | - | - | - | - | - | - | 11 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 2 | 4 | - | - | 1 | 2 | 2 | 8 | 4 | 2 | 1 | - | - | - | - | - | - | - | 26 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-11. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Salem, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | - | - | - | 6 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | - | - | - | 7 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-12. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Salem, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | 3 | 2 | - | - | 1 | - | - | - | - | - | 6 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | - | - | - | - | - | 3 | 2 | - | 1 | 1 | - | - | - | - | - | 8 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | 2 | 1 | - | - | - | - | - | 3 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | 3 | - | - | - | - | - | - | - | - | - | 2 | 1 | - | - | - | - | - | 8 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | 1 | 1 | - | - | 1 | - | - | - | - | - | 3 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | 1 | 1 | - | - | 1 | - | - | - | - | - | 3 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-13. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Boston, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | - | - | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | 5 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 5 | 1 | 1 | - | - | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | 11 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | - | - | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | 5 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 5 | 1 | 1 | - | - | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | 11 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-14. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Boston, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | 11 | 2 | 5 | 1 | 2 | 5 | 2 | - | 2 | 2 | - | - | - | - | - | 34 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | 15 | - | 1 | 3 | 2 | 1 | 2 | 23 | 9 | 21 | - | - | - | - | - | - | - | 77 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 2 | 1 | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 8 |
| Passenger Ship | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 94 |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | 27 | - | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 54 | - | 8 | 1 | 1 | 9 | 10 | 64 | 47 | 19 | 1 | 4 | 2 | - | - | - | - | - | 220 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 180 | 21 | 13 | 16 | 6 | 17 | 12 | 70 | 75 | 30 | 22 | 6 | 4 | - | - | - | - | - | 472 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 2 | 11 | 2 | 5 | 1 | 2 | 5 | 2 | - | 2 | 2 | - | - | - | - | - | 34 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | 15 | - | 1 | 3 | 2 | 1 | 2 | 23 | 9 | 21 | - | - | - | - | - | - | - | 77 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 2 | 1 | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 8 |
| Passenger Ship | 94 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 94 |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | 27 | - | 2 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 54 | - | 8 | 1 | 1 | 9 | 10 | 64 | 47 | 19 | 1 | 4 | 2 | - | - | - | - | - | 220 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 180 | 21 | 13 | 16 | 6 | 17 | 12 | 70 | 75 | 30 | 22 | 6 | 4 | - | - | - | - | - | 472 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 3 | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | 7 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 4 | - | - | - | - | - | 1 | 7 | 3 | 5 | - | - | - | - | - | - | - | 20 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 9 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 8 | - | 4 | 1 | - | 4 | - | 25 | 18 | 9 | - | 2 | - | - | - | - | - | - | 71 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 18 | 4 | 7 | 4 | - | 4 | - | 27 | 26 | 13 | 5 | 2 | - | - | - | - | - | - | 110 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 3 | - | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | 7 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 4 | - | - | - | - | - | 1 | 7 | 3 | 5 | - | - | - | - | - | - | - | 20 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 9 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 8 | - | 4 | 1 | - | 4 | - | 25 | 18 | 9 | - | 2 | - | - | - | - | - | - | 71 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 18 | 4 | 7 | 4 | - | 4 | - | 27 | 26 | 13 | 5 | 2 | - | - | - | - | - | - | 110 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-15. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Cape Cod, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-16. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Cape Cod, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 7 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 2 | 1 | 7 | 3 | - | - | - | - | - | 13 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 7 | 2 | - | - | - | - | - | - | - | 2 | 1 | 7 | 3 | - | - | - | - | - | 22 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | - | - | - | 1 | - | 1 | 7 | - | 7 | 5 | - | - | - | - | - | 21 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | 10 | 1 | - | - | - | 1 | - | 1 | 7 | - | 7 | 5 | - | - | - | - | - | 34 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | 1 | 4 | 1 | - | - | - | - | - | 6 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | - | - | - | - | - | - | - | - | - | 1 | 4 | 1 | - | - | - | - | - | 9 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | 4 | - | 2 | 3 | - | - | - | - | - | 10 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 1 | - | - | - | - | 1 | - | - | 4 | - | 2 | 3 | - | - | - | - | - | 11 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-17. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New Bedford, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 11 | - | - | - | - | - | - | - | - | - | - | 11 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 1 | - | 2 | - | - | - | 11 | - | - | - | - | - | - | - | - | - | - | 17 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 8 | - | - | - | - | - | - | - | - | - | - | 8 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 8 | - | - | - | - | - | - | - | - | - | - | 8 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 9 | - | - | - | - | - | - | - | - | - | - | 9 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 1 | - | 2 | - | - | - | 9 | - | - | - | - | - | - | - | - | - | - | 15 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 7 | - | - | - | - | - | - | - | - | - | - | 7 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 7 | - | - | - | - | - | - | - | - | - | - | 7 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-18. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New Bedford, MA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 5 | - | 2 | 2 | 1 | 3 | 2 | 5 | 5 | - | - | - | - | - | 25 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 5 | 4 | - | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 2 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | 11 | 6 | - | 10 | 1 | 2 | 2 | 1 | 3 | 2 | 5 | 5 | - | - | - | - | - | 52 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 2 | 3 | 1 | 1 | 5 | - | - | 7 | 4 | - | - | - | - | - | 23 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 7 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 4 | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 6 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 12 | 8 | - | 3 | 3 | 1 | 2 | 5 | - | - | 7 | 4 | - | - | - | - | - | 48 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 3 | - | 2 | 1 | 1 | 2 | 2 | 5 | 4 | - | - | - | - | - | 20 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 4 | 4 | - | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 1 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 8 | 5 | - | 8 | 1 | 2 | 1 | 1 | 2 | 2 | 5 | 4 | - | - | - | - | - | 42 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | 2 | 3 | 1 | 1 | 4 | - | - | 5 | 3 | - | - | - | - | - | 19 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 6 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 3 | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 5 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 2 | 11 | 6 | - | 3 | 3 | 1 | 2 | 4 | - | - | 5 | 3 | - | - | - | - | - | 40 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-19. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Providence, RI

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 5 | - | - | - | - | - | 1 | 1 | - | 3 | - | - | - | - | - | - | - | - | 10 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 8 | - | - | 1 | - | - | 1 | 1 | - | 3 | - | - | - | - | - | - | - | - | 14 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 2 | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | 6 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 7 | - | 1 | 3 | - | - | - | 2 | - | 4 | - | - | - | - | - | - | - | - | 17 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 5 | - | - | - | - | - | - | 1 | - | 3 | - | - | - | - | - | - | - | - | 9 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 7 | - | - | 1 | - | - | - | 1 | - | 3 | - | - | - | - | - | - | - | - | 12 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | 5 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | - | 1 | 2 | - | - | - | 1 | - | 4 | - | - | - | - | - | - | - | - | 11 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-20. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Providence, RI

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | 6 | 1 | 3 | 10 | 8 | 11 | 5 | 1 | 2 | 1 | - | - | - | - | - | 49 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | 8 | 1 | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | 13 |
| Passenger Ship | 3 | 10 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Refrigerated Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | - | - | 27 | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 44 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 3 | 2 | 1 | 1 | 1 | 1 | 13 | 25 | 11 | - | 3 | 2 | - | 1 | - | - | - | 64 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 3 | 18 | 39 | 25 | 2 | 5 | 11 | 22 | 36 | 16 | 1 | 5 | 4 | - | 1 | - | - | - | 188 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 9 | 4 | 9 | 8 | 3 | 4 | 3 | 2 | 1 | - | - | - | - | - | - | 43 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | 4 | 1 | 5 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | 9 | 12 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 25 | 11 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 38 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 3 | - | - | - | 5 | 5 | 14 | 13 | 18 | 3 | - | - | 1 | - | - | - | - | 62 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 11 | 16 | 32 | 23 | 10 | 17 | 14 | 17 | 17 | 21 | 5 | 1 | - | 2 | - | - | - | - | 186 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 4 | 1 | 3 | 8 | 8 | 10 | 3 | 1 | 2 | 1 | - | - | - | - | - | 41 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | 8 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | - | - | 21 | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 3 | 2 | 1 | 1 | 1 | 1 | 8 | 22 | 8 | - | 3 | 2 | - | 1 | - | - | - | 53 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 6 | 32 | 22 | 2 | 5 | 9 | 16 | 32 | 11 | 1 | 5 | 4 | - | 1 | - | - | - | 146 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 7 | 3 | 7 | 6 | 3 | 3 | 1 | 2 | - | - | - | - | - | - | - | 32 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | 2 | 1 | 5 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Passenger Ship | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 21 | 8 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 31 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 3 | - | - | - | 4 | 5 | 13 | 10 | 15 | 2 | - | - | - | - | - | - | - | 52 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 4 | 7 | 24 | 18 | 9 | 14 | 12 | 16 | 13 | 16 | 4 | - | - | 1 | - | - | - | - | 138 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-21. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: New London, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 16 | 19 | 6 | - | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 47 |
| Tanker | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 37 | 19 | 6 | 1 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 69 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 7 | 13 | 16 | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 39 |
| Tanker | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 25 | 13 | 16 | 5 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 61 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 15 | 15 | 6 | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 41 |
| Tanker | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 33 | 15 | 6 | 1 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 60 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 7 | 11 | 15 | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 36 |
| Tanker | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 19 | 11 | 15 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 51 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-22. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New London, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 3 | - | - | - | 2 | 4 | 3 | - | - | - | - | - | - | - | - | 12 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 1 | - | - | - | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 1 | 1 | 3 | - | - | 1 | 4 | 4 | 8 | - | - | - | - | - | - | - | - | 22 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | - | - | 1 | - | - | - | 3 | - | 2 | - | - | - | - | - | - | - | 8 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 1 | 3 | 1 | - | - | - | - | - | - | - | - | 5 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 4 | - | - | 3 | 1 | 5 | - | - | - | - | - | - | - | - | 13 |
| Passenger Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | 3 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 3 | - | - | 5 | - | - | 4 | 7 | 9 | 2 | - | - | - | - | - | - | - | 30 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 2 | - | - | - | 2 | 4 | 1 | - | - | - | - | - | - | - | - | 9 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 1 | - | - | - | 1 | 1 | - | 1 | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 3 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 1 | 1 | 2 | - | - | 1 | 4 | 4 | 5 | - | - | - | - | - | - | - | - | 18 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | - | - | 1 | - | - | - | 3 | - | 2 | - | - | - | - | - | - | - | 8 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 3 | 1 | - | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 3 | - | - | 3 | 1 | 5 | - | - | - | - | - | - | - | - | 12 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | 3 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 2 | - | - | 4 | - | - | 3 | 7 | 9 | 2 | - | - | - | - | - | - | - | 27 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-23. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New Haven, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 20 | 72 | 22 | 34 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | 152 |
| Tanker | 23 | - | - | - | - | - | 3 | 2 | - | 3 | - | - | - | - | - | - | - | - | 31 |
| Towing Vessel | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 56 | 72 | 22 | 34 | 4 | - | 3 | 2 | - | 3 | - | - | - | - | - | - | - | - | 196 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 37 | 131 | 31 | 79 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 285 |
| Tanker | 19 | - | - | - | - | - | - | 3 | 1 | 1 | 1 | - | - | - | - | - | - | - | 25 |
| Towing Vessel | 16 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 72 | 131 | 31 | 79 | 7 | - | - | 3 | 1 | 1 | 1 | - | - | - | - | - | - | - | 326 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 16 | 67 | 21 | 30 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 136 |
| Tanker | 19 | - | - | - | - | - | 3 | 2 | - | 3 | - | - | - | - | - | - | - | - | 27 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 45 | 67 | 21 | 30 | 2 | - | 3 | 2 | - | 3 | - | - | - | - | - | - | - | - | 173 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 32 | 116 | 27 | 74 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | 256 |
| Tanker | 18 | - | - | - | - | - | - | 2 | 1 | 1 | 1 | - | - | - | - | - | - | - | 23 |
| Towing Vessel | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 62 | 116 | 27 | 74 | 7 | - | - | 2 | 1 | 1 | 1 | - | - | - | - | - | - | - | 291 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-24. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New Haven, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | 1 | 4 | 10 | 6 | 3 | 5 | 4 | 2 | 2 | - | - | - | - | - | - | 38 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 7 | 1 | 4 | - | 1 | - | - | 4 | - | - | - | - | - | - | - | - | 17 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 1 | - | - | 4 | 1 | 28 | 32 | 12 | - | - | - | - | 1 | - | - | - | 79 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 9 | 2 | 8 | 14 | 8 | 31 | 37 | 21 | 2 | 2 | - | - | 1 | - | - | - | 135 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | 1 | 4 | 3 | 4 | 1 | 4 | 3 | - | - | - | - | - | - | - | 21 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | - | - | 3 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 5 | 5 | 2 | 1 | 3 | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | 19 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 1 | 2 | - | - | - | 5 | 14 | 24 | 18 | 1 | 2 | 2 | - | - | - | - | - | 69 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | 7 | 8 | 2 | 2 | 9 | 8 | 19 | 27 | 23 | 4 | 2 | 2 | - | - | - | - | - | 114 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | 1 | 4 | 7 | 5 | 3 | 5 | 3 | 1 | 2 | - | - | - | - | - | - | 31 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 5 | 1 | 3 | - | 1 | - | - | 4 | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 1 | - | - | 3 | 1 | 24 | 29 | 10 | - | - | - | - | 1 | - | - | - | 69 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 6 | 2 | 7 | 10 | 7 | 27 | 34 | 18 | 1 | 2 | - | - | 1 | - | - | - | 115 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | 3 | 3 | 1 | 1 | 4 | 2 | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | - | - | 3 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 5 | 5 | 2 | 1 | 1 | - | 1 | 1 | 1 | - | - | - | - | - | - | - | - | 17 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 1 | 2 | - | - | - | 4 | 12 | 21 | 15 | 1 | 2 | 2 | - | - | - | - | - | 60 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | 6 | 8 | 2 | 1 | 6 | 7 | 14 | 24 | 20 | 3 | 2 | 2 | - | - | - | - | - | 96 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-25. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Bridgeport, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 45 | 27 | 14 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 108 |
| Tanker | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 70 | 27 | 14 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 133 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 97 | 27 | 28 | 26 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 178 |
| Tanker | 26 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 27 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 125 | 27 | 28 | 26 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 207 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 42 | 22 | 10 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 94 |
| Tanker | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 62 | 22 | 10 | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 114 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 92 | 23 | 26 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 163 |
| Tanker | 19 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 20 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 113 | 23 | 26 | 22 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 185 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-26. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Bridgeport, CT

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | - | - | - | - | - | - | 7 | - | 2 | 7 | - | - | - | - | - | 17 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 5 | 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 2 | 1 | 1 | 1 | 2 | - | - | - | - | 1 | - | 8 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 7 | 28 | - | - | - | - | 2 | 1 | 8 | 1 | 4 | 7 | - | - | - | 1 | - | 59 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 15 | - | - | - | - | - | - | 5 | - | 2 | 13 | - | - | - | - | - | 35 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 3 | 14 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 3 | 31 | - | - | - | - | - | - | 6 | - | 2 | 13 | - | - | - | - | - | 55 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 1 | - | - | - | - | - | - | 5 | - | 2 | 5 | - | - | - | - | - | 13 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 5 | 24 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 1 | 1 | - | 1 | 2 | - | - | - | - | 1 | - | 6 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 6 | 25 | - | - | - | - | 1 | 1 | 5 | 1 | 4 | 5 | - | - | - | 1 | - | 49 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 15 | - | - | - | - | - | - | 5 | - | 1 | 13 | - | - | - | - | - | 34 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 3 | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 3 | 27 | - | - | - | - | - | - | 6 | - | 1 | 13 | - | - | - | - | - | 50 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-27. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Long Island, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 98 | 141 | 30 | 20 | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | 318 |
| Tanker | 62 | - | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 74 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 183 | 141 | 30 | 32 | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | 415 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 23 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 97 | 161 | 54 | 26 | 41 | - | - | - | - | - | - | - | - | - | - | - | - | - | 379 |
| Tanker | 91 | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | 95 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 217 | 161 | 54 | 26 | 41 | - | - | 4 | - | - | - | - | - | - | - | - | - | - | 503 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 87 | 123 | 29 | 20 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | 281 |
| Tanker | 52 | - | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 64 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 156 | 123 | 29 | 32 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | 362 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 20 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 20 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 84 | 150 | 45 | 24 | 36 | - | - | - | - | - | - | - | - | - | - | - | - | - | 339 |
| Tanker | 85 | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 88 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 194 | 150 | 45 | 24 | 36 | - | - | 3 | - | - | - | - | - | - | - | - | - | - | 452 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-28. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Long Island, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 2 | - | - | - | - | - | - | 3 | 2 | 19 | 4 | 1 | 15 | 8 | 11 | 5 | 70 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | - | 1 | 2 | - | - | - | - | - | - | 3 | 2 | 19 | 5 | 1 | 15 | 8 | 11 | 5 | 72 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 2 | - | 5 | 3 | 22 | 4 | - | 10 | 1 | 6 | 9 | 62 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 2 | - | 5 | 3 | 22 | 4 | - | 10 | 1 | 6 | 9 | 62 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | 1 |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 2 | - | - | - | - | - | - | 3 | 2 | 16 | 4 | 1 | 13 | 6 | 7 | 4 | 58 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | - | 1 | 2 | - | - | - | - | - | - | 3 | 2 | 16 | 5 | 1 | 13 | 6 | 7 | 4 | 60 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | 1 | - | 3 | 2 | 20 | 3 | - | 10 | 1 | 6 | 9 | 55 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | 1 | - | 3 | 2 | 20 | 3 | - | 10 | 1 | 6 | 9 | 55 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-29. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: New York City, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 13 | - | 16 | 19 | 9 | - | 3 | 26 | 16 | - | - | - | - | - | - | 102 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 6 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Tank Barge | 8 | 14 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 25 |
| Tanker | 59 | - | - | 6 | - | - | 15 | 22 | 18 | 8 | - | - | - | - | - | - | - | - | 128 |
| Towing Vessel | 10 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 80 | 15 | 1 | 26 | 3 | 16 | 34 | 31 | 18 | 11 | 26 | 16 | - | - | - | - | - | - | 277 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 13 | 4 | 13 | 27 | 11 | - | - | 18 | 17 | - | - | - | - | - | - | 103 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 6 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Tank Barge | 4 | 3 | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 9 |
| Tanker | 22 | - | - | 1 | - | - | 27 | 22 | 10 | 12 | - | - | - | - | - | - | - | - | 94 |
| Towing Vessel | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 55 | 4 | 2 | 20 | 10 | 14 | 54 | 33 | 10 | 13 | 18 | 17 | - | - | - | - | - | - | 250 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 11 | - | 13 | 16 | 7 | - | 2 | 21 | 14 | - | - | - | - | - | - | 84 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Tank Barge | 8 | 14 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 25 |
| Tanker | 55 | - | - | 5 | - | - | 10 | 20 | 16 | 7 | - | - | - | - | - | - | - | - | 113 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 73 | 15 | 1 | 22 | 2 | 13 | 26 | 27 | 16 | 9 | 21 | 14 | - | - | - | - | - | - | 239 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 11 | 4 | 10 | 21 | 9 | - | - | 18 | 15 | - | - | - | - | - | - | 88 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 |
| Tank Barge | 4 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Tanker | 20 | - | - | - | - | - | 22 | 17 | 9 | 10 | - | - | - | - | - | - | - | - | 78 |
| Towing Vessel | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 43 | 4 | 1 | 16 | 9 | 11 | 43 | 26 | 9 | 10 | 18 | 15 | - | - | - | - | - | - | 205 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-30. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: New York City, NY

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 3 | 10 | 25 | 2 | 19 | 14 | 31 | 45 | 31 | 15 | 6 | 5 | 2 | - | - | - | - | 209 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | 2 | 1 | - | 7 | 4 | 4 | - | - | - | 19 |
| Container Ship | 1 | 12 | 109 | 50 | 42 | 29 | 158 | 101 | 146 | 125 | 280 | 226 | - | - | - | - | - | - | 1,279 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 5 | 15 | 2 | 1 | 1 | 2 | 2 | 2 | - | 1 | - | - | - | - | - | - | - | - | 31 |
| Passenger Ship | 13 | 28 | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 53 |
| Refrigerated Cargo Ship | - | - | 8 | - | - | 4 | - | - | - | - | 2 | - | - | - | - | - | - | - | 14 |
| Ro-Ro Cargo Ship | 14 | 24 | 107 | 111 | 30 | 29 | 3 | 6 | 26 | - | 47 | - | - | - | - | - | - | - | 397 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 2 | 14 | 26 | 21 | 21 | 35 | 33 | 100 | 95 | 160 | 28 | 106 | 41 | 11 | 82 | 27 | 14 | 6 | 822 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 38 | 96 | 274 | 208 | 96 | 118 | 210 | 241 | 312 | 319 | 373 | 338 | 53 | 17 | 86 | 27 | 14 | 6 | 2,826 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 9 | 11 | 27 | 6 | 21 | 14 | 31 | 23 | 37 | 11 | 2 | 4 | - | - | - | - | - | 197 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | 2 | 1 | - | 5 | 2 | 1 | - | - | - | 14 |
| Container Ship | 1 | 9 | 103 | 34 | 47 | 46 | 178 | 148 | 146 | 122 | 256 | 243 | - | - | - | - | - | - | 1,333 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 8 | 4 | 4 | - | - | - | - | - | - | - | - | 49 |
| Passenger Ship | 17 | 50 | 8 | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 86 |
| Refrigerated Cargo Ship | - | - | 7 | - | - | 9 | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Ro-Ro Cargo Ship | 11 | 28 | 95 | 101 | 28 | 33 | 5 | 6 | 27 | 1 | 56 | - | - | - | - | - | - | - | 391 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 11 | 30 | 17 | 16 | 16 | 31 | 111 | 79 | 171 | 28 | 75 | 41 | 14 | 77 | 36 | 8 | 12 | 774 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 40 | 112 | 259 | 195 | 101 | 129 | 233 | 307 | 279 | 337 | 352 | 320 | 50 | 16 | 78 | 36 | 8 | 12 | 2,864 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 8 | 22 | 2 | 17 | 11 | 24 | 38 | 26 | 10 | 5 | 4 | 2 | - | - | - | - | 172 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | 2 | 1 | - | 6 | 3 | 4 | - | - | - | 17 |
| Container Ship | 1 | 11 | 94 | 42 | 35 | 24 | 130 | 87 | 122 | 107 | 244 | 191 | - | - | - | - | - | - | 1,088 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 5 | 12 | 2 | 1 | 1 | 2 | 2 | 2 | - | 1 | - | - | - | - | - | - | - | - | 28 |
| Passenger Ship | 1 | 10 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Refrigerated Cargo Ship | - | - | 5 | - | - | 3 | - | - | - | - | 2 | - | - | - | - | - | - | - | 10 |
| Ro-Ro Cargo Ship | 12 | 21 | 96 | 96 | 25 | 23 | 3 | 5 | 22 | - | 38 | - | - | - | - | - | - | - | 341 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 2 | 14 | 20 | 18 | 16 | 30 | 29 | 89 | 85 | 135 | 25 | 91 | 38 | 11 | 68 | 19 | 11 | 6 | 707 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 23 | 71 | 228 | 179 | 79 | 99 | 175 | 208 | 267 | 271 | 320 | 287 | 48 | 16 | 72 | 19 | 11 | 6 | 2,379 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 7 | 10 | 19 | 6 | 19 | 12 | 22 | 19 | 30 | 10 | 2 | 4 | - | - | - | - | - | 161 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | 2 | 1 | - | 5 | 2 | 1 | - | - | - | 14 |
| Container Ship | 1 | 9 | 91 | 32 | 37 | 38 | 151 | 125 | 123 | 106 | 219 | 206 | - | - | - | - | - | - | 1,138 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 5 | 4 | 5 | 4 | 4 | 2 | 5 | 7 | 4 | 3 | - | - | - | - | - | - | - | - | 43 |
| Passenger Ship | 5 | 26 | 3 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40 |
| Refrigerated Cargo Ship | - | - | 5 | - | - | 9 | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Ro-Ro Cargo Ship | 9 | 24 | 84 | 85 | 26 | 25 | 5 | 5 | 23 | 1 | 48 | - | - | - | - | - | - | - | 335 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 8 | 27 | 16 | 16 | 14 | 27 | 99 | 64 | 134 | 27 | 65 | 34 | 12 | 66 | 30 | 8 | 12 | 660 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 26 | 78 | 225 | 162 | 89 | 107 | 200 | 261 | 233 | 276 | 305 | 273 | 43 | 14 | 67 | 30 | 8 | 12 | 2,409 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-31. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Philadelphia, PA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 2 | 2 | 2 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tanker | 4 | - | - | 2 | - | - | 5 | 10 | 3 | 5 | - | - | - | - | - | - | - | - | 29 |
| Towing Vessel | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 18 | 4 | 2 | 11 | - | - | 5 | 10 | 3 | 5 | - | 1 | - | - | - | - | - | - | 59 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 1 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| General Dry Cargo Ship | 1 | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | 5 | - | - | 7 | - | - | 8 | 25 | 1 | 4 | - | - | - | - | - | - | - | - | 50 |
| Towing Vessel | 35 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 41 | 2 | 4 | 16 | - | 2 | 8 | 26 | 1 | 4 | - | - | - | - | - | - | - | - | 104 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 2 | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | 2 | 2 | 2 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tanker | 4 | - | - | 2 | - | - | 3 | 9 | 2 | 4 | - | - | - | - | - | - | - | - | 24 |
| Towing Vessel | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 18 | 4 | 2 | 10 | - | - | 3 | 9 | 2 | 4 | - | 1 | - | - | - | - | - | - | 53 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 1 | 4 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | 4 | - | - | 6 | - | - | 5 | 22 | 1 | 3 | - | - | - | - | - | - | - | - | 41 |
| Towing Vessel | 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 27 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 31 | 1 | 4 | 15 | - | - | 5 | 23 | 1 | 3 | - | - | - | - | - | - | - | - | 83 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-32. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Philadelphia, PA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 20 | 14 | 18 | 9 | 36 | 13 | 32 | 24 | 25 | 8 | 2 | 4 | - | - | - | - | - | 205 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 | - | - | - | 7 |
| Container Ship | 28 | 64 | 12 | 45 | 44 | 3 | 19 | 6 | 10 | 12 | 44 | - | - | - | - | - | - | - | 287 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 41 | 34 | 27 | 5 | 5 | 7 | 3 | 1 | 2 | - | - | - | - | - | - | - | - | 131 |
| Passenger Ship | 8 | 6 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Refrigerated Cargo Ship | 3 | 76 | 127 | 26 | 2 | - | 27 | - | - | - | 5 | - | - | - | - | - | - | - | 266 |
| Ro-Ro Cargo Ship | 7 | 1 | 27 | 42 | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | 85 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 3 | 10 | 15 | 13 | 9 | 16 | 27 | 13 | 24 | 4 | 27 | 2 | 13 | 87 | 50 | 85 | 66 | 464 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 53 | 211 | 226 | 173 | 81 | 53 | 82 | 68 | 48 | 63 | 61 | 29 | 6 | 13 | 94 | 50 | 85 | 66 | 1,462 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 19 | 11 | 15 | 16 | 26 | 11 | 31 | 25 | 19 | 12 | 10 | 2 | - | - | - | - | - | 199 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 | - | - | 2 |
| Container Ship | 30 | 51 | 8 | 38 | 43 | 9 | 19 | 4 | 5 | 10 | 44 | - | - | - | - | - | - | - | 261 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 56 | 50 | 21 | 4 | 16 | 5 | 4 | 6 | 4 | - | - | - | - | - | - | - | - | 169 |
| Passenger Ship | 9 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Refrigerated Cargo Ship | - | 86 | 89 | 28 | 1 | 1 | 29 | - | 2 | - | 6 | - | - | - | - | - | - | - | 242 |
| Ro-Ro Cargo Ship | 6 | 7 | 31 | 34 | 5 | 1 | - | - | - | - | 1 | - | - | - | - | - | - | - | 85 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 6 | 14 | 21 | 14 | 9 | 14 | 22 | 11 | 32 | 6 | 24 | 4 | 2 | 87 | 82 | 83 | 65 | 497 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 52 | 229 | 204 | 157 | 83 | 62 | 78 | 62 | 49 | 65 | 69 | 34 | 6 | 2 | 87 | 83 | 83 | 65 | 1,470 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 17 | 11 | 15 | 8 | 30 | 12 | 28 | 23 | 22 | 8 | 1 | 3 | - | - | - | - | - | 178 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 | - | - | - | 7 |
| Container Ship | 25 | 55 | 12 | 38 | 37 | 3 | 16 | 5 | 9 | 10 | 36 | - | - | - | - | - | - | - | 246 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 35 | 31 | 23 | 5 | 5 | 7 | 2 | - | 2 | - | - | - | - | - | - | - | - | 116 |
| Passenger Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | 3 | 72 | 119 | 21 | 2 | - | 24 | - | - | - | 5 | - | - | - | - | - | - | - | 246 |
| Ro-Ro Cargo Ship | 5 | 1 | 23 | 37 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | 72 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 2 | 10 | 15 | 8 | 7 | 13 | 22 | 9 | 22 | 4 | 25 | 2 | 13 | 73 | 40 | 77 | 54 | 396 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 39 | 183 | 206 | 149 | 66 | 45 | 72 | 57 | 41 | 56 | 53 | 26 | 5 | 13 | 80 | 40 | 77 | 54 | 1,262 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 18 | 11 | 14 | 12 | 19 | 10 | 23 | 15 | 17 | 11 | 9 | 2 | - | - | - | - | - | 163 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 | - | - | 2 |
| Container Ship | 25 | 45 | 7 | 31 | 38 | 9 | 16 | 3 | 5 | 9 | 37 | - | - | - | - | - | - | - | 225 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 46 | 44 | 19 | 3 | 12 | 4 | 4 | 5 | 3 | - | - | - | - | - | - | - | - | 142 |
| Passenger Ship | 3 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | 79 | 87 | 22 | 1 | 1 | 25 | - | 2 | - | 6 | - | - | - | - | - | - | - | 223 |
| Ro-Ro Cargo Ship | 5 | 5 | 27 | 27 | 5 | 1 | - | - | - | - | 1 | - | - | - | - | - | - | - | 71 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 6 | 11 | 20 | 14 | 8 | 14 | 17 | 9 | 27 | 6 | 21 | 2 | 2 | 74 | 67 | 72 | 58 | 429 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 39 | 203 | 188 | 133 | 73 | 50 | 69 | 48 | 36 | 56 | 61 | 30 | 4 | 2 | 74 | 68 | 72 | 58 | 1,264 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-33. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Baltimore, MD

| | DWT (000s) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 20 | 9 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| Tank Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | - | - | - | 1 | - | - | 5 | - | - | - | - | - | - | - | - | 6 |
| Towing Vessel | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 5 | 4 | 2 | 20 | 9 | 6 | 1 | - | - | 5 | - | - | - | - | - | - | - | - | 52 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | 1 | 10 | - | - | - | - | - | - | - | - | - | - | 12 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 18 | 5 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | 30 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 5 | - | - | 3 | - | - | 3 | - | - | 4 | - | - | - | - | - | - | - | - | 15 |
| Towing Vessel | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 11 | 1 | - | 21 | 5 | 7 | 8 | 10 | - | 4 | - | - | - | - | - | - | - | - | 67 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 17 | 8 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 29 |
| Tank Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | - | - | - | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | 4 |
| Towing Vessel | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | 2 | 2 | 17 | 8 | 5 | - | - | - | 4 | - | - | - | - | - | - | - | - | 42 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | 1 | 8 | - | - | - | - | - | - | - | - | - | - | 10 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 14 | 4 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | 24 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 5 | - | - | 3 | - | - | 3 | - | - | 4 | - | - | - | - | - | - | - | - | 15 |
| Towing Vessel | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 9 | 1 | - | 17 | 4 | 6 | 7 | 8 | - | 4 | - | - | - | - | - | - | - | - | 56 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-34. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Baltimore, MD

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 13 | 13 | 11 | 8 | 14 | 7 | 19 | 9 | 13 | 11 | 23 | 41 | 3 | - | - | - | 1 | 186 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | - | - | 3 | 1 | - | - | - | - | 6 |
| Container Ship | 4 | 8 | - | 6 | 6 | 11 | 56 | 16 | 46 | 19 | 43 | - | - | - | - | - | - | - | 215 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 4 | 17 | 12 | 16 | 35 | 2 | 1 | 4 | 5 | 8 | - | - | - | - | - | - | - | - | 104 |
| Passenger Ship | 3 | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 22 |
| Refrigerated Cargo Ship | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | 6 | - | 133 | 102 | 37 | 26 | 5 | 9 | 21 | 2 | 27 | - | - | - | - | - | - | - | 368 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 7 | 10 | 10 | 3 | 3 | 4 | 2 | 6 | 32 | 2 | 12 | 13 | - | 3 | 1 | - | 7 | 116 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 9 | 1 | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Total | 18 | 74 | 172 | 145 | 89 | 56 | 75 | 52 | 87 | 74 | 83 | 35 | 57 | 4 | 3 | 1 | - | 8 | 1,033 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 10 | 18 | 11 | 5 | 15 | 6 | 24 | 21 | 13 | 13 | 27 | 45 | 2 | - | - | - | 1 | 211 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | 1 | 2 | 1 | - | - | - | - | 5 |
| Container Ship | - | 2 | 1 | 2 | 9 | 16 | 63 | 30 | 43 | 18 | 41 | - | - | - | - | - | - | - | 225 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 19 | 16 | 22 | 28 | 5 | 3 | 7 | 6 | 13 | - | - | - | - | - | - | - | - | 121 |
| Passenger Ship | 10 | 27 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 37 |
| Refrigerated Cargo Ship | - | 1 | 1 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | 8 | 1 | 117 | 97 | 25 | 34 | 11 | 11 | 20 | 5 | 27 | - | - | - | - | - | - | - | 356 |
| Tank Barge | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | - | 9 | 9 | 7 | 5 | 3 | 7 | 6 | 3 | 29 | 8 | 13 | 19 | 1 | 1 | - | 1 | 24 | 145 |
| Towing Vessel | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Other a/ | - | 5 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Total | 25 | 74 | 166 | 139 | 72 | 75 | 90 | 79 | 93 | 78 | 89 | 41 | 66 | 4 | 1 | - | 1 | 25 | 1,118 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 10 | 10 | 9 | 6 | 11 | 6 | 17 | 7 | 11 | 8 | 20 | 33 | 3 | - | - | - | 1 | 152 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | - | - | - | 2 | - | - | - | - | - | 4 |
| Container Ship | 4 | 6 | - | 4 | 3 | 9 | 49 | 12 | 40 | 17 | 38 | - | - | - | - | - | - | - | 182 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 4 | 16 | 11 | 15 | 30 | 2 | 1 | 3 | 3 | 8 | - | - | - | - | - | - | - | - | 93 |
| Passenger Ship | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Refrigerated Cargo Ship | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | 5 | - | 116 | 91 | 31 | 21 | 4 | 8 | 18 | 1 | 23 | - | - | - | - | - | - | - | 318 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 6 | 9 | 8 | 3 | 3 | 4 | 2 | 5 | 24 | 2 | 11 | 10 | - | 3 | 1 | - | 5 | 97 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 7 | 1 | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Total | 14 | 58 | 150 | 127 | 73 | 46 | 65 | 44 | 73 | 61 | 71 | 31 | 45 | 3 | 3 | 1 | - | 6 | 871 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 8 | 14 | 10 | 5 | 13 | 5 | 21 | 19 | 12 | 11 | 19 | 41 | 2 | - | - | - | - | 180 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 1 | - | - | - | - | 2 | 1 | - | - | - | - | 4 |
| Container Ship | - | - | 1 | 2 | 7 | 15 | 52 | 24 | 38 | 18 | 34 | - | - | - | - | - | - | - | 191 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | 15 | 12 | 19 | 24 | 5 | 3 | 7 | 5 | 13 | - | - | - | - | - | - | - | - | 104 |
| Passenger Ship | 3 | 13 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | 6 | - | 100 | 82 | 24 | 25 | 9 | 9 | 18 | 4 | 22 | - | - | - | - | - | - | - | 299 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 9 | 6 | 6 | 5 | 3 | 6 | 4 | 2 | 23 | 7 | 12 | 18 | 1 | 1 | - | 1 | 21 | 125 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | - | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Total | 13 | 49 | 137 | 119 | 65 | 63 | 75 | 66 | 82 | 70 | 74 | 31 | 61 | 4 | 1 | - | 1 | 21 | 932 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-35. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Hampton Roads, VA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 8 | 1 | - | - | - | - | - | 8 | - | - | - | - | - | - | - | - | - | - | 17 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 9 | - | - | 1 | - | 2 | 25 | 10 | 27 | 11 | 12 | 18 | - | - | - | - | - | - | 115 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | 4 | 1 | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | - | - | - | 7 | - | - | 3 | - | - | - | - | - | - | - | - | 11 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Total | 25 | 2 | - | 3 | 2 | 7 | 33 | 18 | 27 | 14 | 12 | 18 | - | - | - | - | - | - | 161 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 2 | - | - | - | - | - | 12 | - | - | - | - | - | - | - | - | - | - | 21 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 7 | - | - | 1 | - | - | 27 | 9 | 29 | 11 | 15 | 16 | - | - | - | - | - | - | 115 |
| Freight Barge | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| General Dry Cargo Ship | 2 | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 2 | - | - | 3 | - | - | 2 | 1 | 1 | - | 1 | - | - | - | - | - | - | - | 10 |
| Towing Vessel | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Other a/ | 6 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Total | 38 | 7 | 2 | 6 | 2 | 2 | 29 | 22 | 30 | 11 | 16 | 16 | - | - | - | - | - | - | 181 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 1 | - | - | - | - | - | 6 | - | - | - | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 8 | - | - | 1 | - | 1 | 22 | 8 | 24 | 9 | 11 | 15 | - | - | - | - | - | - | 99 |
| Freight Barge | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | - | - | - | 7 | - | - | 1 | - | - | - | - | - | - | - | - | 9 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 20 | 2 | - | 3 | 2 | 5 | 30 | 14 | 24 | 10 | 11 | 15 | - | - | - | - | - | - | 136 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 2 | - | - | - | - | - | 12 | - | - | - | - | - | - | - | - | - | - | 21 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 6 | - | - | 1 | - | - | 24 | 8 | 26 | 10 | 12 | 14 | - | - | - | - | - | - | 101 |
| Freight Barge | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | 2 | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 2 | - | - | 2 | - | - | 2 | - | 1 | - | 1 | - | - | - | - | - | - | - | 8 |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | 5 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Total | 33 | 7 | 1 | 4 | 2 | 2 | 26 | 20 | 27 | 10 | 13 | 14 | - | - | - | - | - | - | 159 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-36. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004

Port Area: Hampton Roads, VA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 11 | 8 | 9 | 9 | 7 | 11 | 14 | 16 | 7 | 3 | 22 | 46 | 5 | - | 2 | 4 | 1 | 176 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 8 | 3 | 1 | 2 | - | - | 14 |
| Container Ship | 1 | 19 | 26 | 35 | 58 | 21 | 110 | 65 | 119 | 74 | 212 | 151 | - | - | - | - | - | - | 891 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 7 | 14 | 15 | 7 | 6 | 8 | 8 | 3 | 3 | - | - | - | - | - | - | - | - | - | 71 |
| Passenger Ship | 3 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | 2 | 1 | 6 | 12 | 15 | 3 | 3 | 4 | 12 | - | 29 | - | - | - | - | - | - | - | 87 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 7 | 8 | 5 | 4 | 7 | 4 | 3 | 5 | 16 | - | 18 | 13 | 3 | 5 | 2 | 5 | 6 | 111 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 15 | 57 | 70 | 68 | 92 | 46 | 138 | 89 | 155 | 97 | 244 | 191 | 67 | 11 | 6 | 6 | 9 | 7 | 1,368 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 18 | 12 | 11 | 12 | 22 | 8 | 12 | 15 | 4 | 7 | 32 | 73 | 2 | - | - | 1 | 3 | 233 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 2 | 2 | - | - | - | 1 | 2 | 4 | - | 2 | - | - | 13 |
| Container Ship | - | 14 | 27 | 11 | 62 | 33 | 124 | 101 | 113 | 66 | 156 | 164 | - | - | - | - | - | - | 871 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 27 | 20 | - | 7 | 9 | 4 | 7 | 5 | 7 | - | - | - | - | - | - | - | - | 89 |
| Passenger Ship | 5 | 25 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 |
| Refrigerated Cargo Ship | - | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | 7 | - | 3 | 15 | 5 | 2 | 2 | 5 | 15 | 1 | 30 | - | - | - | - | - | - | - | 85 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 6 | 7 | 3 | 5 | 5 | 8 | 4 | 2 | 16 | 7 | 11 | 17 | 3 | 4 | 11 | 10 | 3 | 123 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 21 | 91 | 72 | 40 | 91 | 76 | 148 | 131 | 150 | 94 | 200 | 208 | 92 | 9 | 4 | 13 | 11 | 6 | 1,457 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 9 | 7 | 7 | 8 | 7 | 10 | 11 | 13 | 6 | 3 | 18 | 35 | 5 | - | 2 | 4 | 1 | 147 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | 7 | 3 | - | 1 | - | - | 11 |
| Container Ship | 1 | 17 | 22 | 32 | 49 | 16 | 89 | 55 | 97 | 63 | 190 | 127 | - | - | - | - | - | - | 758 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 13 | 13 | 5 | 4 | 8 | 7 | 3 | 3 | - | - | - | - | - | - | - | - | - | 62 |
| Passenger Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | 1 | 1 | 6 | 12 | 11 | 2 | 3 | 4 | 10 | - | 24 | - | - | - | - | - | - | - | 74 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | - | 7 | 7 | 5 | 4 | 7 | 3 | 3 | 4 | 15 | - | 17 | 12 | 3 | 5 | 2 | 3 | 6 | 103 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 10 | 49 | 58 | 61 | 76 | 40 | 113 | 76 | 127 | 84 | 217 | 162 | 54 | 11 | 5 | 5 | 7 | 7 | 1,162 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 14 | 11 | 10 | 11 | 18 | 7 | 9 | 13 | 4 | 6 | 24 | 64 | 2 | - | - | 1 | 3 | 198 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 2 | 2 | - | - | - | 1 | 2 | 4 | - | 2 | - | - | 13 |
| Container Ship | - | 12 | 22 | 9 | 49 | 29 | 104 | 86 | 96 | 56 | 137 | 139 | - | - | - | - | - | - | 739 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 22 | 18 | - | 7 | 8 | 4 | 5 | 5 | 5 | - | - | - | - | - | - | - | - | 77 |
| Passenger Ship | 2 | 19 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 21 |
| Refrigerated Cargo Ship | - | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | 5 | - | 2 | 13 | 5 | 2 | 2 | 4 | 13 | 1 | 25 | - | - | - | - | - | - | - | 72 |
| Tank Barge | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tanker | 1 | 6 | 6 | 3 | 5 | 5 | 6 | 3 | 1 | 16 | 6 | 10 | 13 | 3 | 4 | 9 | 9 | 2 | 108 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 16 | 73 | 60 | 35 | 77 | 67 | 125 | 109 | 128 | 82 | 174 | 174 | 79 | 9 | 4 | 11 | 10 | 5 | 1,238 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-37. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Morehead City, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 1 | - | 1 | 1 | - | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 5 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | 1 | - | - | 5 | - | - | - | - | - | - | - | - | 6 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 5 | - | - | - | - | - | 2 | - | - | 5 | - | - | - | - | - | - | - | - | 12 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 1 | - | - | 1 | - | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 4 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | 1 | - | - | 4 | - | - | - | - | - | - | - | - | 5 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | - | - | - | - | - | 2 | - | - | 4 | - | - | - | - | - | - | - | - | 10 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-38. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Morehead City, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | 1 | - | 3 | 4 | 2 | - | - | - | 2 | - | - | - | - | - | - | - | 14 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | 1 | - | - | 1 | 1 | - | - | 5 | - | - | - | - | - | - | - | - | - | 9 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 7 | 2 | - | 2 | 1 | 7 | - | 1 | - | - | - | - | - | - | - | - | - | - | 20 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | 2 | - | 12 | 2 | 2 | - | 2 | - | 1 | - | - | - | - | - | - | 21 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 10 | 5 | 1 | 4 | 5 | 24 | 4 | 3 | 5 | 2 | 2 | 1 | - | - | - | - | - | - | 66 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | 1 | 1 | 4 | 2 | 1 | 3 | - | 1 | 2 | 1 | - | - | - | - | - | 17 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 1 | - | - | - | - | 3 | - | - | 5 | - | - | - | - | - | - | - | - | - | 9 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 2 | - | 1 | - | 5 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | 13 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 4 | 1 | 1 | 16 | 1 | 3 | - | 5 | - | - | - | - | - | - | - | - | 31 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | 3 | 4 | 3 | 2 | 28 | 5 | 4 | 9 | 5 | 1 | 2 | 1 | - | - | - | - | - | 71 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | - | - | 3 | 3 | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 10 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | 1 | - | - | 1 | 1 | - | - | 3 | - | - | - | - | - | - | - | - | - | 7 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 2 | - | 2 | 1 | 5 | - | 1 | - | - | - | - | - | - | - | - | - | - | 17 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | 2 | - | 11 | 2 | 2 | - | - | - | 1 | - | - | - | - | - | - | 18 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 9 | 5 | - | 4 | 5 | 20 | 3 | 3 | 3 | - | 1 | 1 | - | - | - | - | - | - | 54 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | 1 | 2 | 2 | 1 | 2 | - | 1 | 2 | 1 | - | - | - | - | - | 13 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 1 | - | - | - | - | 3 | - | - | 4 | - | - | - | - | - | - | - | - | - | 8 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 2 | - | 1 | - | 5 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | 13 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 4 | 1 | 1 | 13 | 1 | 3 | - | 4 | - | - | - | - | - | - | - | - | 27 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 4 | 3 | 4 | 2 | 2 | 23 | 5 | 4 | 7 | 4 | 1 | 2 | 1 | - | - | - | - | - | 62 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-39. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Wilmington, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | 5 | - | 7 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Tanker | 11 | - | - | - | - | - | 1 | - | 12 | 1 | - | - | - | - | - | - | - | - | 25 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 12 | 6 | - | 9 | 3 | - | 3 | - | 12 | 3 | - | - | - | - | - | - | - | - | 48 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 1 | - | - | 1 | - | - | - | 1 | - | - | - | - | - | - | - | 3 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | 6 | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 9 | - | - | - | - | - | 2 | 2 | 10 | 6 | - | - | - | - | - | - | - | - | 29 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 16 | 7 | - | 2 | 4 | - | 4 | 2 | 10 | 7 | 1 | - | - | - | - | - | - | - | 53 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | 4 | - | 6 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tanker | 9 | - | - | - | - | - | 1 | - | 10 | - | - | - | - | - | - | - | - | - | 20 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 10 | 5 | - | 8 | 3 | - | 2 | - | 10 | 2 | - | - | - | - | - | - | - | - | 40 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 1 | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tank Barge | - | 6 | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 9 | - | - | - | - | - | 2 | 1 | 9 | 5 | - | - | - | - | - | - | - | - | 26 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 14 | 7 | - | 2 | 4 | - | 2 | 1 | 9 | 6 | 1 | - | - | - | - | - | - | - | 46 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-40. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Wilmington, NC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 7 | 6 | 4 | 7 | - | 10 | 4 | 7 | 10 | 3 | 5 | - | 1 | - | - | - | - | - | 64 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 3 | - | - | 1 | - | - | - | - | - | 4 |
| Container Ship | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 3 | 13 | 13 | 9 | 3 | - | - | - | - | - | - | 51 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 11 | 9 | 5 | 10 | 4 | 3 | 3 | 10 | 14 | 5 | - | - | - | - | - | - | - | - | 74 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | - | - | - | 2 | - | - | - | - | 7 | - | 1 | - | - | - | - | - | - | - | 10 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 24 | 6 | 5 | 10 | 9 | 14 | 7 | 28 | 3 | 11 | - | - | - | - | - | - | 117 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 20 | 17 | 35 | 26 | 10 | 25 | 17 | 34 | 51 | 52 | 18 | 14 | 2 | - | - | - | - | - | 321 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 3 | 4 | 9 | 7 | 2 | 15 | 8 | 6 | 5 | 1 | 3 | 1 | 1 | - | - | - | - | - | 65 |
| Combination Carrier (e.g. OBO) | 1 | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 3 |
| Container Ship | 2 | - | 3 | - | - | - | - | 5 | 7 | 26 | 1 | 1 | - | - | - | - | - | - | 45 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 13 | 5 | 9 | 4 | 2 | 3 | 1 | 9 | 17 | 9 | - | - | - | - | - | - | - | - | 72 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | 3 | - | - | - | - | 11 | - | - | - | - | - | - | - | - | - | 15 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 3 | 20 | 9 | - | 3 | 21 | 13 | 5 | 31 | 3 | 14 | - | - | - | - | - | - | 123 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 21 | 13 | 41 | 23 | 4 | 21 | 30 | 33 | 45 | 69 | 7 | 16 | 1 | - | - | - | - | - | 324 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 5 | 5 | 3 | 7 | - | 9 | 4 | 7 | 9 | 3 | 4 | - | 1 | - | - | - | - | - | 57 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 3 | - | - | 1 | - | - | - | - | - | 4 |
| Container Ship | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 10 | 11 | 7 | 3 | - | - | - | - | - | - | 42 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 10 | 8 | 4 | 8 | 4 | 3 | 2 | 6 | 12 | 4 | - | - | - | - | - | - | - | - | 61 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Ro-Ro Cargo Ship | - | - | - | 2 | - | - | - | - | 6 | - | 1 | - | - | - | - | - | - | - | 9 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | 20 | 6 | 4 | 8 | 8 | 12 | 7 | 24 | 3 | 8 | - | - | - | - | - | - | 100 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 17 | 15 | 28 | 24 | 9 | 22 | 15 | 27 | 44 | 45 | 15 | 11 | 2 | - | - | - | - | - | 274 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 4 | 7 | 5 | 1 | 14 | 7 | 5 | 3 | - | 3 | - | - | - | - | - | - | - | 51 |
| Combination Carrier (e.g. OBO) | 1 | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 3 |
| Container Ship | 2 | - | 3 | - | - | - | - | 3 | 7 | 23 | 1 | 1 | - | - | - | - | - | - | 40 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 11 | 5 | 7 | 4 | 2 | 2 | 1 | 9 | 15 | 9 | - | - | - | - | - | - | - | - | 65 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 1 | - | 2 | - | - | - | - | 9 | - | - | - | - | - | - | - | - | - | 12 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 2 | 17 | 9 | - | 3 | 17 | 12 | 3 | 25 | 3 | 11 | - | - | - | - | - | - | 103 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 17 | 12 | 34 | 20 | 3 | 19 | 25 | 29 | 37 | 59 | 7 | 12 | - | - | - | - | - | - | 274 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-41. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Georgetown, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-42. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Georgetown, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 7 | 3 | 1 | 4 | 1 | - | 2 | 4 | 4 | - | - | - | - | - | - | - | 26 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | 2 | 4 | - | - | - | - | - | - | - | - | - | 6 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 7 | 3 | 1 | 5 | 1 | 2 | 6 | 4 | 4 | - | - | - | - | - | - | - | 33 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 1 | 6 | 2 | 2 | 4 | 4 | 2 | - | 2 | - | - | - | - | - | - | - | 26 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | 2 |
| Container Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | - | 1 | 1 | 2 | 1 | - | 6 | - | - | - | - | - | - | - | - | - | 12 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 7 | 1 | 7 | 3 | 4 | 5 | 5 | 8 | - | 2 | - | - | - | - | - | - | - | 42 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 7 | 2 | - | 3 | 1 | - | 2 | 4 | 4 | - | - | - | - | - | - | - | 23 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | 1 | 4 | - | - | - | - | - | - | - | - | - | 5 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | 7 | 2 | - | 4 | 1 | 1 | 6 | 4 | 4 | - | - | - | - | - | - | - | 29 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 1 | 4 | 2 | 2 | 3 | 3 | 2 | - | 2 | - | - | - | - | - | - | - | 22 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 1 | - | 1 | 1 | 2 | 1 | - | 5 | - | - | - | - | - | - | - | - | - | 11 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | 7 | 1 | 5 | 3 | 4 | 4 | 3 | 7 | - | 2 | - | - | - | - | - | - | - | 36 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-43. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Charleston, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 2 | 27 | 9 | 57 | 17 | 52 | 17 | - | - | - | - | - | - | 181 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | 1 | - | 12 | 7 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 25 |
| Tank Barge | - | - | 1 | 3 | 8 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Tanker | 1 | - | - | - | - | - | 5 | 13 | 6 | 1 | - | - | - | - | - | - | - | - | 26 |
| Towing Vessel | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 18 | 1 | 1 | 15 | 15 | 7 | 33 | 22 | 63 | 18 | 52 | 17 | - | - | - | - | - | - | 262 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | 3 | - | 34 | 13 | 59 | 22 | 55 | 18 | - | - | - | - | - | - | 204 |
| Freight Barge | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 2 | - | 20 | 5 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | 33 |
| Tank Barge | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | 2 | - | - | 3 | - | - | 3 | 6 | 4 | 4 | - | - | - | - | - | - | - | - | 22 |
| Towing Vessel | 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 18 |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 30 | 3 | - | 25 | 12 | 6 | 37 | 19 | 63 | 26 | 55 | 18 | - | - | - | - | - | - | 294 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | 1 | 22 | 7 | 49 | 13 | 47 | 14 | - | - | - | - | - | - | 153 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | 1 | - | 11 | 6 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 23 |
| Tank Barge | - | - | 1 | 3 | 8 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Tanker | 1 | - | - | - | - | - | 4 | 13 | 5 | - | - | - | - | - | - | - | - | - | 23 |
| Towing Vessel | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 18 | 1 | 1 | 14 | 14 | 6 | 27 | 20 | 54 | 13 | 47 | 14 | - | - | - | - | - | - | 229 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | 2 | - | 28 | 10 | 49 | 18 | 49 | 16 | - | - | - | - | - | - | 172 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | 2 | - | 15 | 5 | 5 | - | - | - | - | - | - | - | - | - | - | - | - | 27 |
| Tank Barge | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | 2 | - | - | 2 | - | - | 3 | 6 | 4 | 3 | - | - | - | - | - | - | - | - | 20 |
| Towing Vessel | 15 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 26 | 3 | - | 17 | 11 | 5 | 31 | 16 | 53 | 21 | 49 | 16 | - | - | - | - | - | - | 248 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-44. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Charleston, SC

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 1 | 5 | 2 | 20 | 4 | 7 | 9 | 16 | 18 | 4 | 2 | 4 | 8 | - | - | - | - | - | 100 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 2 | 4 | 25 | 11 | 13 | 15 | 110 | 95 | 86 | 50 | 190 | 87 | - | 4 | - | - | - | - | 692 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 7 | 2 | 4 | 3 | 6 | 5 | 11 | 9 | 7 | - | - | - | - | - | - | - | - | 57 |
| Passenger Ship | 12 | 12 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Refrigerated Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | - | 2 | 28 | 42 | 9 | 16 | 1 | 3 | 6 | - | 4 | - | - | - | - | - | - | - | 111 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 6 | - | - | 5 | 1 | 5 | 13 | 41 | 3 | 16 | - | 1 | - | - | - | - | 92 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 18 | 33 | 66 | 77 | 29 | 49 | 126 | 130 | 132 | 102 | 199 | 107 | 8 | 5 | - | - | - | - | 1,081 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 2 | 3 | 5 | 3 | 8 | 20 | 13 | 6 | 8 | 2 | 12 | - | - | - | - | - | 83 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 2 | 5 | 25 | 3 | 18 | 25 | 117 | 119 | 123 | 53 | 178 | 77 | - | - | - | - | - | - | 745 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 9 | 2 | 6 | 3 | 2 | 3 | 13 | 13 | 9 | - | - | - | - | - | - | - | - | 66 |
| Passenger Ship | 35 | 7 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 44 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | 1 | - | 33 | 29 | 8 | 13 | 4 | - | 1 | - | 6 | - | - | - | - | - | - | - | 95 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 4 | - | 2 | 2 | 3 | 7 | 7 | 45 | 6 | 17 | 1 | - | - | - | - | - | 95 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 46 | 26 | 69 | 41 | 36 | 47 | 135 | 159 | 157 | 113 | 198 | 96 | 13 | - | - | - | - | - | 1,136 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 4 | 2 | 18 | 3 | 6 | 7 | 15 | 16 | 4 | 2 | 3 | 5 | - | - | - | - | - | 85 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 2 | 3 | 21 | 10 | 12 | 11 | 89 | 76 | 71 | 42 | 162 | 79 | - | 4 | - | - | - | - | 582 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 7 | 2 | 4 | 3 | 6 | 3 | 9 | 7 | 5 | - | - | - | - | - | - | - | - | 48 |
| Passenger Ship | 10 | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Refrigerated Cargo Ship | - | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | - | 2 | 23 | 35 | 8 | 14 | 1 | 3 | 5 | - | 3 | - | - | - | - | - | - | - | 94 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 5 | - | - | 3 | - | 5 | 13 | 35 | 3 | 14 | - | 1 | - | - | - | - | 80 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 14 | 28 | 54 | 67 | 26 | 40 | 100 | 108 | 112 | 86 | 170 | 96 | 5 | 5 | - | - | - | - | 911 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 2 | 1 | 4 | 3 | 7 | 16 | 11 | 5 | 5 | 1 | 10 | - | - | - | - | - | 66 |
| Combination Carrier (e.g. OBO) | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 2 | 3 | 22 | 1 | 14 | 21 | 98 | 100 | 103 | 43 | 154 | 65 | - | - | - | - | - | - | 626 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 6 | 7 | 2 | 5 | 2 | 1 | 2 | 11 | 13 | 7 | - | - | - | - | - | - | - | - | 56 |
| Passenger Ship | 29 | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35 |
| Refrigerated Cargo Ship | - | - | 1 | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Ro-Ro Cargo Ship | 1 | - | 29 | 25 | 7 | 10 | 3 | - | 1 | - | 5 | - | - | - | - | - | - | - | 81 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | 3 | - | 1 | 2 | 2 | 5 | 6 | 40 | 6 | 14 | 1 | - | - | - | - | - | 81 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 40 | 21 | 59 | 32 | 28 | 39 | 112 | 132 | 134 | 95 | 170 | 80 | 11 | - | - | - | - | - | 953 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-45. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Savannah, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | 3 | - | - | 6 | 6 | - | - | - | - | - | - | - | 15 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | 3 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | - | - | - | - | - | 5 | 22 | 2 | 1 | - | - | - | - | - | - | - | - | 30 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 6 | 3 | - | 1 | 1 | - | 8 | 22 | 2 | 7 | 6 | - | - | - | - | - | - | - | 56 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Tanker | 3 | - | - | - | - | - | 1 | 17 | 3 | 3 | - | - | - | - | - | - | - | - | 27 |
| Towing Vessel | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 37 | - | - | - | - | - | 1 | 17 | 3 | 4 | - | - | - | - | - | - | - | - | 62 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | 3 | - | - | 6 | 6 | - | - | - | - | - | - | - | 15 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | 3 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Tanker | - | - | - | - | - | - | 4 | 19 | 2 | 1 | - | - | - | - | - | - | - | - | 26 |
| Towing Vessel | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Other a/ | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Total | 5 | 3 | - | 1 | 1 | - | 7 | 19 | 2 | 7 | 6 | - | - | - | - | - | - | - | 51 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 29 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 29 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Tanker | 3 | - | - | - | - | - | 1 | 15 | 3 | 2 | - | - | - | - | - | - | - | - | 24 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 36 | - | - | - | - | - | 1 | 15 | 3 | 3 | - | - | - | - | - | - | - | - | 58 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-46. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Savannah, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 4 | 22 | 21 | 13 | 14 | 27 | 21 | 11 | 18 | 8 | 7 | - | - | - | - | - | - | - | 166 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | 5 | - | - | - | - | - | - | - | - | 7 |
| Container Ship | 18 | 9 | 8 | 36 | 27 | 18 | 59 | 51 | 95 | 106 | 178 | 145 | - | 4 | - | - | - | - | 754 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 20 | 32 | 20 | 14 | 6 | 4 | 6 | 6 | 17 | 12 | - | - | - | - | - | - | - | - | 137 |
| Passenger Ship | 2 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | 5 | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | 9 | 2 | 11 | 14 | 19 | 3 | 6 | 10 | 18 | 1 | - | - | - | - | - | - | - | - | 93 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 4 | 12 | 19 | 8 | 8 | 7 | 31 | 15 | 15 | 3 | 23 | 2 | - | - | - | - | - | 147 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 53 | 70 | 72 | 96 | 74 | 60 | 99 | 111 | 163 | 147 | 193 | 168 | 2 | 4 | - | - | - | - | 1,312 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 5 | 27 | 15 | 11 | 16 | 31 | 16 | 16 | 15 | 13 | 6 | 2 | 1 | - | - | - | - | - | 174 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 4 | - | 4 | - | - | - | - | - | - | - | - | 8 |
| Container Ship | - | 12 | 13 | 26 | 32 | 15 | 63 | 77 | 47 | 117 | 177 | 181 | - | - | - | - | - | - | 760 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 13 | 17 | 19 | 11 | 7 | 14 | 2 | 5 | 14 | 22 | - | - | - | - | - | - | - | - | 124 |
| Passenger Ship | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | 1 | - | - | - | 3 | - | - | - | - | 6 | - | - | - | - | - | - | - | 10 |
| Ro-Ro Cargo Ship | 6 | 2 | 28 | 11 | 7 | 6 | 13 | 10 | 20 | 3 | 1 | - | - | - | - | - | - | - | 107 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 4 | 13 | 11 | 7 | 16 | 8 | 33 | 15 | 12 | 4 | 37 | 14 | - | - | - | 1 | 3 | 179 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 31 | 64 | 88 | 70 | 69 | 85 | 102 | 145 | 111 | 171 | 194 | 220 | 15 | - | - | - | 1 | 3 | 1,369 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 3 | 19 | 16 | 12 | 14 | 24 | 18 | 8 | 13 | 7 | 6 | - | - | - | - | - | - | - | 140 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 2 | - | 5 | - | - | - | - | - | - | - | - | 7 |
| Container Ship | 18 | 8 | 7 | 28 | 23 | 17 | 50 | 45 | 78 | 86 | 151 | 125 | - | 4 | - | - | - | - | 640 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 16 | 29 | 17 | 12 | 5 | 2 | 5 | 3 | 14 | 10 | - | - | - | - | - | - | - | - | 113 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | 5 | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | 7 | 2 | 10 | 12 | 14 | 3 | 5 | 9 | 15 | - | - | - | - | - | - | - | - | - | 77 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 4 | 10 | 16 | 6 | 7 | 5 | 24 | 13 | 11 | 3 | 21 | 2 | - | - | - | - | - | 122 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 46 | 62 | 60 | 80 | 62 | 53 | 83 | 91 | 133 | 119 | 165 | 146 | 2 | 4 | - | - | - | - | 1,106 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 4 | 19 | 14 | 9 | 14 | 23 | 14 | 13 | 12 | 9 | 4 | 1 | - | - | - | - | - | - | 136 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | 3 | - | 4 | - | - | - | - | - | - | - | - | 7 |
| Container Ship | - | 10 | 12 | 24 | 26 | 14 | 53 | 65 | 41 | 102 | 153 | 148 | - | - | - | - | - | - | 648 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 10 | 14 | 14 | 9 | 6 | 10 | 2 | 4 | 12 | 18 | - | - | - | - | - | - | - | - | 99 |
| Passenger Ship | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | 1 | - | - | - | 3 | - | - | - | - | 6 | - | - | - | - | - | - | - | 10 |
| Ro-Ro Cargo Ship | 5 | 2 | 24 | 10 | 6 | 5 | 12 | 9 | 17 | 2 | 1 | - | - | - | - | - | - | - | 93 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | 2 | 12 | 9 | 6 | 15 | 7 | 28 | 14 | 8 | 4 | 32 | 12 | - | - | - | 1 | 1 | 152 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 23 | 49 | 76 | 61 | 58 | 70 | 88 | 122 | 96 | 143 | 168 | 181 | 12 | - | - | - | 1 | 1 | 1,149 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-47. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Brunswick, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 6 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | 6 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 9 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 14 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 1 | 3 | - | 9 | 3 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 18 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 9 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 15 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 1 | - | - | 9 | 4 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 16 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 11 | 4 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 19 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 4 | 3 | - | 11 | 4 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 26 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-48. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Brunswick, GA

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 11 | 2 | - | 3 | - | 3 | - | 1 | 5 | 2 | - | 1 | - | - | - | - | - | - | 28 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | 1 | 1 | - | 3 | 4 | - | - | - | - | - | - | - | - | - | 9 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | - | 3 | 1 | 1 | - | - | 5 | - | - | - | - | - | - | - | - | - | - | 11 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | - | - | 30 | 23 | 7 | 10 | - | - | 2 | - | - | - | - | - | - | - | - | - | 72 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 12 | 3 | 36 | 27 | 9 | 14 | - | 9 | 11 | 2 | - | 1 | - | - | - | - | - | - | 124 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 10 | 2 | - | 3 | 1 | 2 | - | 2 | 3 | 1 | 1 | 1 | - | - | - | - | - | - | 26 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | 1 | 1 | - | - | 2 | 2 | - | - | - | - | - | - | - | - | - | 7 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | 2 | 2 | 2 | - | - | - | 4 | 4 | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | - | - | 23 | 26 | 13 | 15 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | 79 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 10 | 6 | 28 | 33 | 15 | 17 | - | 8 | 10 | 2 | 1 | 1 | - | - | - | - | - | - | 131 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 12 | 2 | - | 3 | 1 | 4 | - | 1 | 6 | 3 | - | 1 | - | - | - | - | - | - | 33 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | 1 | 1 | - | 3 | 6 | - | - | - | - | - | - | - | - | - | 11 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | - | 3 | 1 | 1 | - | - | 7 | - | - | - | - | - | - | - | - | - | - | 14 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | - | - | 42 | 31 | 8 | 14 | - | - | 2 | - | - | - | - | - | - | - | - | - | 97 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 14 | 3 | 49 | 35 | 11 | 19 | 2 | 11 | 14 | 3 | - | 1 | - | - | - | - | - | - | 162 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 11 | 3 | 1 | 3 | 1 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | - | - | - | - | - | - | 33 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | 1 | - | 1 | 1 | - | - | 2 | 2 | - | - | - | - | - | - | - | - | - | 7 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 1 | 5 | 2 | 3 | 1 | - | - | 5 | 6 | - | - | - | - | - | - | - | - | - | 23 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 1 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Ro-Ro Cargo Ship | - | - | 31 | 31 | 15 | 15 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | 94 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 12 | 10 | 37 | 39 | 18 | 18 | 1 | 10 | 12 | 3 | 1 | 1 | - | - | - | - | - | - | 162 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-49. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Fernandina, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 10 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 9 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 9 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 17 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 19 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-50. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Fernandina, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 1 | - | - | 2 | - | - | - | - | - | - | - | 3 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 3 | 30 | 3 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 37 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 13 | 4 | 5 | 2 | - | - | - | 1 | 3 | 3 | - | - | - | - | - | - | - | - | 31 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | 12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 16 | 34 | 20 | 2 | - | - | - | 2 | 4 | 3 | 2 | - | - | - | - | - | - | - | 83 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 8 | - | - | - | 1 | - | 2 | - | - | - | - | - | - | - | - | - | 11 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | 20 | 4 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 26 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 12 | 13 | 9 | - | - | - | - | 1 | 1 | 4 | - | - | - | - | - | - | - | - | 40 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 2 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 13 | 35 | 23 | - | - | - | 1 | 1 | 4 | 4 | 1 | - | - | - | - | - | - | - | 82 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | 1 | - | - | 3 | - | - | - | - | - | - | - | 4 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 3 | 35 | 4 | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | 43 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 16 | 6 | 8 | 2 | - | - | - | 1 | 6 | 3 | - | - | - | - | - | - | - | - | 42 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | 13 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 13 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 19 | 41 | 25 | 2 | - | - | - | 2 | 7 | 3 | 3 | - | - | - | - | - | - | - | 102 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | 9 | - | - | - | 1 | - | 2 | - | - | - | - | - | - | - | - | - | 12 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 1 | 23 | 4 | - | - | - | - | - | 1 | 1 | - | - | - | - | - | - | - | - | 30 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 16 | 15 | 11 | - | - | - | - | 1 | 2 | 5 | - | - | - | - | - | - | - | - | 50 |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | 2 | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 17 | 40 | 28 | - | - | - | 1 | 1 | 5 | 6 | 1 | - | - | - | - | - | - | - | 99 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-51. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Jacksonville, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 11 | 27 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | 45 |
| Freight Barge | 2 | 5 | 30 | 21 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| General Dry Cargo Ship | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 27 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | 29 |
| Tank Barge | - | - | - | 3 | - | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Tanker | 2 | - | - | - | - | - | 2 | 11 | - | 12 | - | - | - | - | - | - | - | - | 27 |
| Towing Vessel | 91 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 91 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 97 | 5 | 30 | 62 | 29 | 10 | 4 | 11 | - | 12 | - | - | - | - | - | - | - | - | 260 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 7 | 31 | 7 | - | - | - | - | - | - | - | - | - | - | - | - | 45 |
| Freight Barge | 6 | 7 | 31 | 18 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 62 |
| General Dry Cargo Ship | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 36 | 3 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 40 |
| Tank Barge | - | - | - | - | 5 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Tanker | - | - | - | - | - | - | 3 | 6 | - | 11 | 1 | - | - | - | - | - | - | - | 21 |
| Towing Vessel | 117 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 117 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 128 | 7 | 31 | 61 | 39 | 10 | 5 | 6 | - | 11 | 1 | - | - | - | - | - | - | - | 299 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 13 | 34 | 9 | - | - | - | - | - | - | - | - | - | - | - | - | 56 |
| Freight Barge | 3 | 5 | 41 | 30 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 79 |
| General Dry Cargo Ship | - | - | - | - | - | 4 | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Passenger Ship | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 37 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 43 |
| Tank Barge | - | - | - | 3 | 1 | 1 | 2 | - | - | - | - | - | - | - | - | - | - | - | 7 |
| Tanker | 3 | - | - | - | - | - | 4 | 14 | 1 | 14 | - | - | - | - | - | - | - | - | 36 |
| Towing Vessel | 116 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 116 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 126 | 5 | 41 | 83 | 40 | 15 | 7 | 14 | 1 | 14 | - | - | - | - | - | - | - | - | 346 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | 9 | 40 | 9 | - | - | - | - | - | - | - | - | - | - | - | - | 58 |
| Freight Barge | 7 | 9 | 36 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 74 |
| General Dry Cargo Ship | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Passenger Ship | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | 47 | 4 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 52 |
| Tank Barge | - | - | - | - | 7 | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 9 |
| Tanker | 1 | - | - | - | - | - | 4 | 7 | - | 15 | 1 | - | - | - | - | - | - | - | 28 |
| Towing Vessel | 150 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 150 |
| Other a/ | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Total | 169 | 9 | 36 | 78 | 51 | 13 | 7 | 7 | - | 15 | 1 | - | - | - | - | - | - | - | 386 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-52. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Jacksonville, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 4 | 6 | 1 | 6 | 2 | 2 | 9 | 9 | 2 | 4 | 5 | - | - | - | - | - | 51 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | 17 | 37 | 1 | 7 | - | 2 | 16 | - | 14 | 6 | 11 | - | - | - | - | - | - | - | 111 |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 28 | 24 | 2 | - | 4 | - | 2 | 2 | 7 | 4 | - | - | - | - | - | - | - | - | 73 |
| Passenger Ship | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Refrigerated Cargo Ship | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Ro-Ro Cargo Ship | 5 | - | 62 | 53 | 17 | 5 | - | - | 1 | - | - | - | - | - | - | - | - | - | 143 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | 2 | 1 | 2 | - | 14 | 19 | 19 | 1 | 6 | - | - | - | 1 | - | - | 66 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Total | 57 | 65 | 70 | 68 | 23 | 15 | 20 | 18 | 50 | 38 | 14 | 10 | 5 | - | - | 1 | - | - | 454 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 2 | 2 | 1 | 1 | 8 | 2 | 4 | 9 | 9 | 8 | 3 | 4 | - | - | - | - | - | 53 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 2 |
| Container Ship | 26 | 30 | 4 | 1 | 3 | 10 | 13 | 4 | 7 | 5 | 13 | - | - | - | - | - | - | - | 116 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 28 | 18 | 3 | 4 | 5 | 3 | 1 | 2 | 7 | 3 | - | - | - | - | - | - | - | - | 74 |
| Passenger Ship | 9 | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 26 |
| Refrigerated Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Ro-Ro Cargo Ship | 3 | 1 | 54 | 63 | 12 | 8 | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 143 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | - | 1 | 1 | 4 | - | 7 | 14 | 30 | 3 | 8 | - | - | - | - | - | - | 69 |
| Towing Vessel | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Other a/ | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| Total | 77 | 69 | 65 | 70 | 22 | 33 | 17 | 17 | 37 | 50 | 24 | 11 | 4 | - | - | - | - | - | 496 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 1 | 4 | 7 | 1 | 8 | 2 | 2 | 11 | 11 | 4 | 5 | 5 | - | - | - | - | - | 61 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 1 | - | - | - | - | - | - | - | - | 1 |
| Container Ship | 19 | 42 | 1 | 7 | - | 3 | 18 | 1 | 18 | 6 | 14 | - | - | - | - | - | - | - | 129 |
| Freight Barge | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| General Dry Cargo Ship | 38 | 31 | 4 | - | 5 | 1 | 2 | 3 | 8 | 6 | - | - | - | - | - | - | - | - | 98 |
| Passenger Ship | 1 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Refrigerated Cargo Ship | - | 1 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Ro-Ro Cargo Ship | 5 | - | 73 | 67 | 26 | 6 | - | - | 1 | 1 | - | - | - | - | - | - | - | - | 179 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | 1 | - | - | 2 | 1 | 3 | - | 16 | 19 | 24 | 2 | 8 | - | 1 | - | 1 | - | - | 78 |
| Towing Vessel | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Other a/ | 5 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 |
| Total | 71 | 78 | 83 | 83 | 33 | 21 | 22 | 22 | 57 | 49 | 20 | 13 | 5 | 1 | - | 1 | - | - | 559 |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 3 | 3 | 1 | 1 | 9 | 3 | 4 | 9 | 12 | 12 | 3 | 5 | - | - | - | - | - | 65 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | 2 |
| Container Ship | 36 | 36 | 5 | 1 | 3 | 10 | 18 | 4 | 11 | 7 | 15 | - | - | - | - | - | - | - | 146 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 31 | 20 | 3 | 4 | 9 | 4 | 1 | 2 | 11 | 3 | - | - | - | - | - | - | - | - | 88 |
| Passenger Ship | 13 | 22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 35 |
| Refrigerated Cargo Ship | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Ro-Ro Cargo Ship | 3 | 1 | 71 | 76 | 15 | 11 | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 179 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | 1 | - | 1 | 1 | 6 | - | 10 | 17 | 40 | 3 | 13 | - | - | - | - | - | - | 92 |
| Towing Vessel | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 |
| Other a/ | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Total | 98 | 83 | 84 | 83 | 29 | 40 | 23 | 20 | 48 | 65 | 30 | 16 | 5 | - | - | - | - | - | 624 |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-53. Restricted Period Arrivals of U.S. Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Port Canaveral, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 7 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 7 |
| General Dry Cargo Ship | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Passenger Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Tank Barge | - | - | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | - | - | - | - | - | - | 1 | - | - | 1 | - | - | - | - | - | - | - | - | 2 |
| Towing Vessel | 6 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 17 | - | - | 1 | - | - | 2 | - | - | 1 | - | - | - | - | - | - | - | - | 21 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | 8 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 |
| General Dry Cargo Ship | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Passenger Ship | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | 2 | - | - | - | - | - | - | - | - | - | - | - | 2 |
| Tanker | - | - | - | - | - | - | 3 | - | - | - | - | - | - | - | - | - | - | - | 3 |
| Towing Vessel | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 |
| Other a/ | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 |
| Total | 30 | - | - | - | - | - | 5 | - | - | - | - | - | - | - | - | - | - | - | 35 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

Table E-54. Restricted Period Arrivals of Foreign Flag Vessels 150 GRT and Above by Alternative, Port Area, and Vessel DWT, 2003 and 2004
Port Area: Port Canaveral, FL

| | DWT (000s) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year and period | 0-5 | 5-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-45 | 45-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | 100-120 | 120-150 | 150+ | Total |
| 2003 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | 2 | 13 | 2 | 3 | 1 | 4 | - | 6 | 1 | 1 | - | - | - | - | - | - | - | - | 33 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | 2 | - | 4 | - | - | - | - | - | - | - | - | - | 6 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 3 | 3 | 10 | 1 | - | - | 1 | 3 | 2 | 1 | - | - | - | - | - | - | - | - | 24 |
| Passenger Ship | 17 | 152 | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 172 |
| Refrigerated Cargo Ship | - | 22 | 2 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 24 |
| Ro-Ro Cargo Ship | - | 1 | 8 | 1 | - | 1 | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | 4 | 1 | - | - | 1 | - | - | - | - | 6 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 22 | 191 | 25 | 5 | 1 | 5 | 3 | 9 | 7 | 6 | 1 | - | - | 1 | - | - | - | - | 276 |
| 2004 Alternative 3 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | 10 | - | 6 | - | 7 | 4 | 5 | 4 | 3 | 1 | - | - | - | - | - | - | - | 40 |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | 6 | - | - | - | - | - | - | - | - | - | 6 |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | 2 | 9 | 10 | 2 | 1 | 2 | - | 1 | 2 | 2 | - | - | - | - | - | - | - | - | 31 |
| Passenger Ship | 3 | 157 | 17 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 177 |
| Refrigerated Cargo Ship | - | 11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 |
| Ro-Ro Cargo Ship | 3 | - | 12 | - | - | 2 | - | - | - | - | 1 | - | - | - | - | - | - | - | 18 |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | 2 | - | 1 | - | 2 | 1 | 2 | - | - | - | 1 | - | - | 9 |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 8 | 187 | 39 | 8 | 1 | 13 | 4 | 7 | 12 | 7 | 3 | 2 | - | - | - | 1 | - | - | 292 |
| 2003 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2004 Alternative 6 Restricted period arrivals | | | | | | | | | | | | | | | | | | | |
| Bulk Carrier | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Combination Carrier (e.g. OBO) | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Container Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Freight Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| General Dry Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Passenger Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Refrigerated Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Ro-Ro Cargo Ship | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tank Barge | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Tanker | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Towing Vessel | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other a/ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

a/ Other includes fishing vessels, industrial vessels, research vessels, school ships.

Source: Prepared by Nathan Associates based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports, 2003-2004.

*Appendix F*

# ESTIMATED DIRECT ECONOMIC IMPACT ON SHIPPING INDUSTRY OF ALTERNATIVE 6 WITH SPEED RESTRICTIONS AT 10 KNOTS

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The proposed rule includes the operational provisions of Alternative 6- NOAA Ship Strike Strategy but with speed restrictions at 10 knots. For this reason, a presentation of the estimated direct economic impact on the shipping industry of Alternative 6 with speed restrictions at 10 knots is presented in this Appendix. The analysis parallel that shown in the main text with speed restrictions at 12 knots.

Table F-1 presents the average minutes of delay for speed restrictions of 10 knots per vessel arrival for each affected port area and vessel type in 2003.[1] The overall average delay for all vessels in 2003 is 73 minutes per arrival.

The longest average delay is experienced at the port areas of Fernandina (103 minutes) and Jacksonville (96 minutes) and Brunswick (86 minutes) due to the combination of speed restrictions and the delays caused by the PARS designated routings. The port area of Hampton Roads has an average delay of 87 minutes per arrival. This is due to the predominance of large and fast containerships at the port area coupled with the relatively few arrivals of smaller and slower vessel types. Other port areas with more than 80 minutes of delays include Providence (93 minutes), Boston (82 minutes), New Bedford (81 minutes) and Cape Cod Bay (80 minutes) .

Freight barges incur the longest average delay with an average of 93 minutes per vessel arrival (Figure F-1). This is due the specialized higher-speed freight barge service from Jacksonville to Puerto Rico. Other vessel types with above average delays are containerships (89 minutes), ro-ro cargo ships (87 minutes), passenger vessels (76 minutes) and refrigerated cargo vessels (75 minutes).

[1] The average delay is based on the total minutes of delays for speed restrictions, extra PARS distance and slowdown/speedup time divided by the number of vessel arrivals by type of vessel for each port area during proposed seasonal speed restriction periods. It does not include delays for DMAs as those delays would need to be divided by vessels affected by DMAs.

*Table F-1. Alternative 6: Average Minutes of Delay for Speed Restriction of 10 Knots per Vessel Arrival by Port Area and Type of Vessel, 2003*

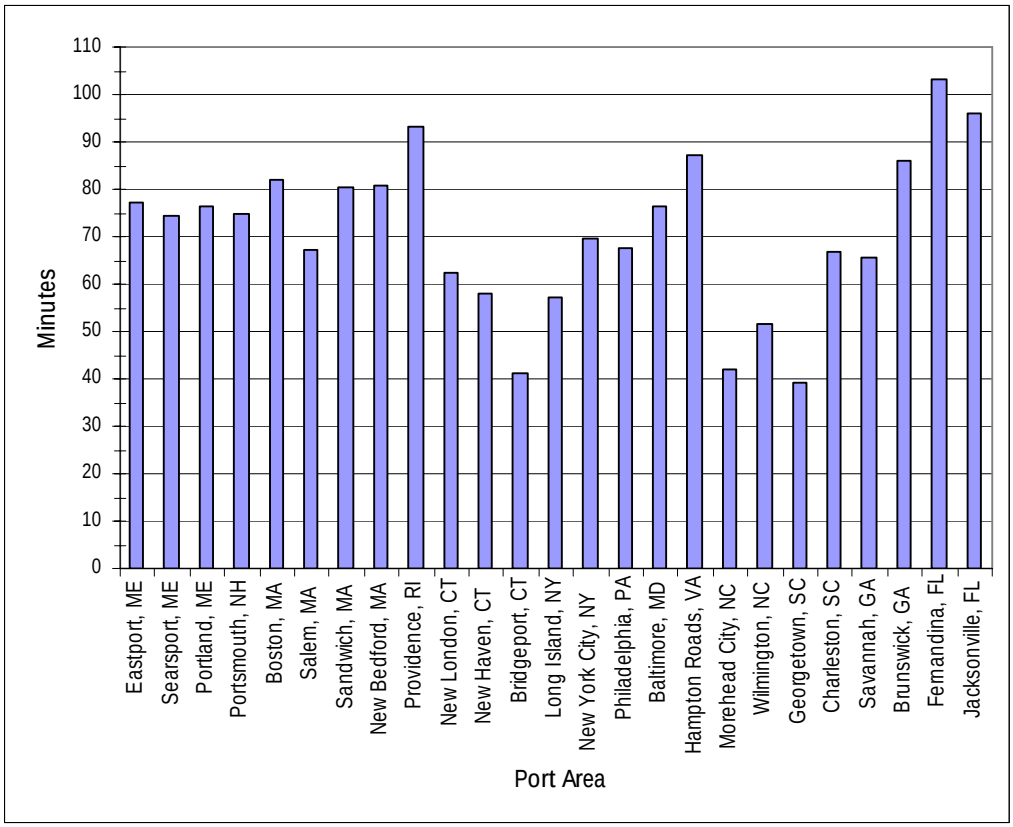
| Port Area | Bulk Carriers | Combination Carriers | Containerships | Freight Barges | General Cargo Vessels | Passenger Vessels a/ | Refrigerated Cargo Vessels | Ro-Ro Cargo Ship | Tank Barges | Tankers | Towing Vessels | Other b/ | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northeastern US - Gulf of Maine | | | | | | | | | | | | | |
| Eastport, ME | 52.7 | - | 138.7 | - | 80.7 | - | - | - | - | - | - | - | 77.0 |
| Searsport, ME | 51.5 | - | - | - | - | - | - | - | - | 77.1 | - | - | 74.5 |
| Portland, ME | 58.2 | 74.8 | 94.7 | - | 95.7 | - | - | 68.8 | 69.4 | 79.8 | - | - | 76.3 |
| Portsmouth, NH | 61.8 | - | - | - | 106.1 | - | - | - | 72.3 | 77.1 | - | - | 74.8 |
| Northeastern US - Off Race Point | | | | | | | | | | | | | |
| Boston, MA | 52.8 | - | 129.4 | - | 65.6 | - | - | 62.7 | - | 75.3 | - | 42.2 | 81.9 |
| Salem, MA | 67.4 | - | - | - | - | - | - | - | - | - | - | - | 67.4 |
| Northeastern US - Cape Cod Bay | - | - | - | - | - | 89.8 | - | - | - | 75.5 | - | - | 80.3 |
| Mid-Atlantic Block Island Sound | | | | | | | | | | | | | |
| New Bedford, MA | 73.0 | - | 66.1 | - | 94.3 | - | 106.8 | - | 72.9 | 82.8 | - | - | 80.9 |
| Providence, RI | 68.4 | 84.4 | - | - | 102.5 | - | 112.2 | 127.5 | 71.1 | 86.9 | 48.4 | - | 93.1 |
| New London, CT | 48.2 | - | 111.6 | - | 88.0 | 77.8 | - | - | 55.0 | 61.0 | 34.6 | - | 62.4 |
| New Haven, CT | 47.6 | - | 113.7 | 35.3 | 83.5 | 77.8 | - | - | 56.6 | 60.9 | 34.6 | - | 57.9 |
| Bridgeport, CT | 55.4 | - | - | - | - | 71.8 | - | - | 49.9 | 49.5 | - | - | 41.2 |
| Long Island, NY | - | 60.3 | - | - | - | 77.8 | - | - | 55.2 | 59.1 | 34.6 | 34.6 | 57.0 |
| Mid-Atlantic Ports of New York/New Jersey | 38.5 | 46.8 | 87.7 | 49.1 | 53.0 | 74.8 | 78.6 | 75.8 | 43.7 | 50.3 | 27.6 | 27.6 | 69.7 |
| Mid-Atlantic Delaware Bay | 41.7 | 55.7 | 85.0 | 66.4 | 65.9 | 85.1 | 80.5 | 82.7 | 52.7 | 60.8 | 31.9 | - | 67.7 |
| Mid-Atlantic Chesapeake Bay | | | | | | | | | | | | | |
| Baltimore, MD | 45.8 | 49.4 | 98.5 | - | 70.7 | 84.1 | 76.7 | 87.6 | 52.1 | 57.6 | 31.6 | 31.6 | 76.6 |
| Hampton Roads, VA | 45.5 | 55.0 | 100.3 | 56.1 | 68.1 | 83.5 | 80.3 | 95.4 | 53.1 | 58.0 | 31.6 | 31.6 | 87.2 |
| Mid-Atlantic Morehead City and Beaufort, NC | 28.5 | - | 63.8 | - | 43.8 | - | 31.9 | 64.1 | - | 41.8 | - | 23.3 | 42.1 |
| Mid-Atlantic Wilmington, NC | 32.9 | 40.9 | 80.3 | - | 57.1 | - | 57.2 | 78.6 | 43.8 | 46.0 | 25.9 | - | 51.6 |
| Mid-Atlantic Georgetown, SC | 32.6 | - | 73.3 | - | 66.7 | - | - | - | - | - | - | 24.4 | 39.4 |
| Mid-Atlantic Charleston, SC | 31.8 | - | 76.7 | - | 57.2 | 57.7 | 55.1 | 66.3 | 41.6 | 43.6 | 23.8 | 23.8 | 67.0 |
| Mid-Atlantic Savannah, GA | 30.7 | 37.3 | 80.2 | - | 52.4 | 56.6 | 84.5 | 70.1 | 41.4 | 45.5 | 25.2 | 25.2 | 65.7 |
| Southeastern US | | | | | | | | | | | | | |
| Brunswick, GA | 58.0 | - | 102.5 | - | 82.9 | 82.4 | 87.4 | 93.0 | - | 72.7 | - | - | 85.9 |
| Fernandina, FL | 95.4 | - | 108.3 | 81.7 | 99.3 | 109.3 | 115.9 | - | - | - | 81.3 | - | 103.4 |
| Jacksonville, FL | 83.0 | 85.0 | 107.6 | 96.1 | 89.6 | 102.4 | 101.8 | 107.8 | 89.8 | 91.0 | 74.8 | 74.8 | 96.2 |
| Port Canaveral, FL | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | 44.8 | 50.3 | 88.7 | 92.6 | 69.4 | 76.2 | 75.0 | 86.5 | 54.2 | 57.8 | 61.6 | 37.1 | 72.7 |

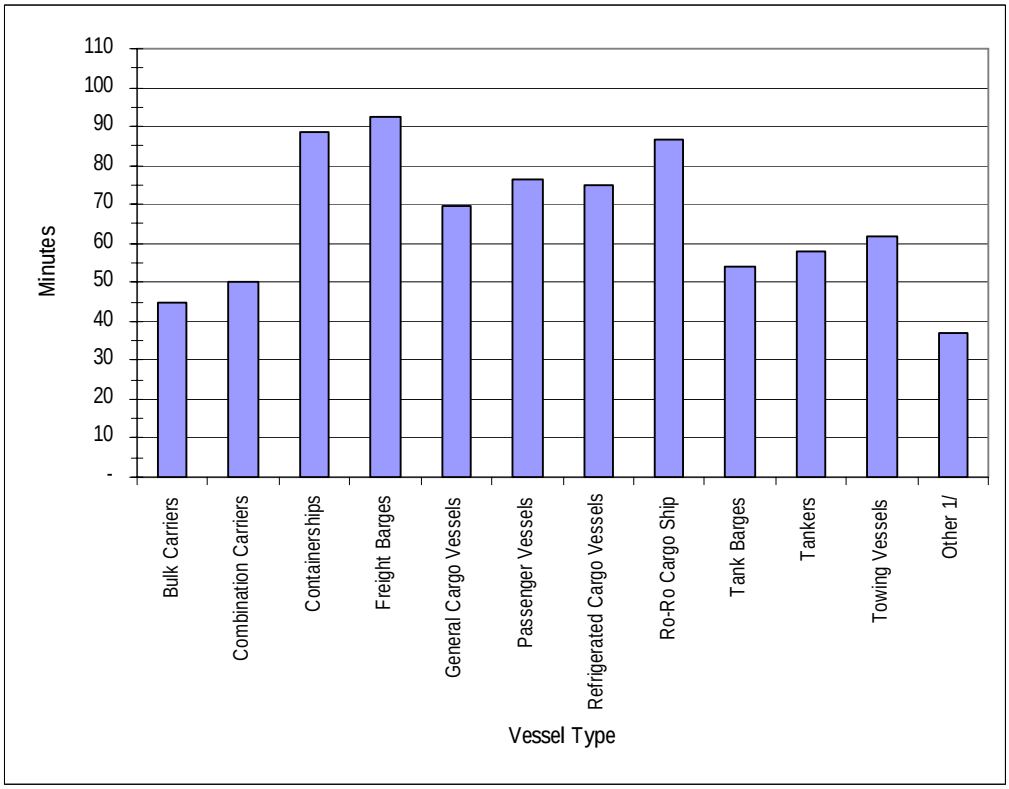
a/ Includes recreational vessels

b/ Includes fishing vessels, industrial vessels, research vessels, and school ships.

Source: Prepared by Nathan Associates Inc. based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports as described in text.

*Figure F-1. Alternative 6: Average Minutes of Delay for Speed Restriction of 10 Knots per Vessel Arrival by Port Area and Type of Vessel, 2003*



### *Estimated Direct Economic Impact*

Table F-2 presents the direct economic impact of combination of speed restrictions and DMAs under Alternative 6 NOAA Ship Strike Strategy on the shipping industry in 2003. The total direct economic impact is estimated at $45.8 million with the port area of New York/New Jersey having the largest impact of $10.5 million. The port area of Hampton Roads is second at $7.2 million, followed by the port areas of Charleston at $4.9 million Savannah at $4.9 million, Philadelphia at $4.3 million, Jacksonville at $3.6 million and Baltimore at $3.4 million. The direct economic impact for these seven port areas totals $38.8 million or 84.8 percent of the total for this alternative. No other port area had a direct economic impact over $0.9 million.

Containerships account for 54.5 percent of the total direct economic impact of Alternative 6 with an estimate of $24.9 million. The vessel type with the next largest economic impact is ro-ro cargo ships at $5.7 million followed by tankers at $5.7 million, general cargo vessels at $2.1 million, refrigerated cargo vessels at $2.0 million and passenger vessels at $.1.8 million.

Table F-3 presents the direct economic impact of Alternative 6 in 2004. The total direct economic impact is $49.4 million in 2004, roughly 8.0 percent higher than 2003 which reflects the overall increase in U.S. East Coast vessel arrivals. The rankings for the major vessel types are similar to 2003 with passenger vessels moving ahead of general cargo ships and refrigerated cargo vessels due to the stronger growth in passenger vessel arrivals.

Figure F-2 presents graphically the direct economic impact by port area for 2003 and 2004. The rankings for the leading port areas are the same as described for 2003 above with the exception of the port area of Savannah moving ahead of the port area of Charleston and the port area of Jacksonville moving ahead of the port area of Baltimore.

*Table F-2. Alternative 6: Direct Economic Impact on Shipping Industry with Speed Restriction of 10 Knots by Port Area and Type of Vessel, 2003 ($000s)*

| Port Area | Bulk Carriers | Combination Carriers | Container ships | Freight Barges | General Cargo Vessels | Passenger Vessels a/ | Refrigerated Cargo Vessels | Ro-Ro Cargo Ship | Tank Barges | Tankers | Towing Vessels | Other b/ | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northeastern US - Gulf of Maine | | | | | | | | | | | | | |
| Eastport, ME | 7.6 | - | 14.0 | - | 18.0 | - | - | - | - | - | - | - | 39.6 |
| Searsport, ME | 5.3 | 0.3 | - | - | - | 153.7 | - | 0.2 | 7.3 | 80.1 | 0.4 | - | 247.4 |
| Portland, ME | 38.6 | 9.6 | 10.4 | 0.4 | 25.7 | 49.0 | - | 36.5 | 4.0 | 429.8 | 2.0 | 0.2 | 606.3 |
| Portsmouth, NH | 32.3 | 0.9 | - | - | 14.6 | 1.5 | - | - | 2.9 | 110.2 | 0.2 | 0.2 | 162.8 |
| Northeastern US - Off Race Point | | | | | | | | | | | | | |
| Boston, MA | 18.1 | 0.3 | 255.7 | 0.3 | 5.3 | 143.2 | 3.4 | 27.4 | - | 266.6 | 0.2 | 1.0 | 721.4 |
| Salem, MA | 8.4 | - | - | - | - | 1.5 | - | - | - | 0.4 | - | - | 10.4 |
| Northeastern US - Cape Cod Bay | - | - | - | - | - | 33.0 | - | - | - | 18.4 | - | - | 51.5 |
| Mid-Atlantic Block Island Sound | | | | | | | | | | | | | |
| New Bedford, MA | 65.0 | - | 1.6 | - | 34.2 | - | 19.9 | - | 8.9 | 15.9 | - | - | 145.5 |
| Providence, RI | 81.9 | 3.1 | - | - | 28.2 | - | 21.9 | 175.2 | 2.2 | 187.7 | 1.5 | - | 501.6 |
| New London, CT | 12.6 | - | 14.1 | - | 21.2 | 146.4 | - | - | 69.9 | 8.2 | 1.0 | - | 273.4 |
| New Haven, CT | 42.7 | - | 8.0 | 0.5 | 60.0 | 8.6 | - | - | 240.1 | 199.7 | 8.4 | - | 568.0 |
| Bridgeport, CT | 23.2 | - | - | - | - | 7.9 | - | - | 145.4 | 40.6 | - | - | 217.1 |
| Long Island, NY | - | 2.2 | - | - | - | 129.2 | - | - | 481.4 | 265.9 | 2.1 | 0.6 | 881.4 |
| Mid-Atlantic Ports of New York/New Jersey | 193.9 | 29.0 | 7,154.6 | 0.9 | 49.5 | 177.5 | 84.0 | 1,257.1 | 33.7 | 1,505.2 | 7.5 | 1.3 | 10,494.3 |
| Mid-Atlantic Delaware Bay | 213.8 | 15.5 | 987.0 | 8.2 | 221.1 | 13.3 | 1,524.0 | 220.4 | 18.2 | 1,094.7 | 11.6 | - | 4,327.9 |
| Mid-Atlantic Chesapeake Bay | | | | | | | | | | | | | |
| Baltimore, MD | 217.2 | 6.6 | 1,098.2 | - | 259.7 | 158.4 | 15.6 | 1,380.6 | 3.2 | 212.7 | 3.8 | 6.4 | 3,362.5 |
| Hampton Roads, VA | 231.6 | 22.6 | 6,022.8 | 1.0 | 162.8 | 55.3 | 5.6 | 475.3 | 1.7 | 243.8 | 1.0 | 3.1 | 7,226.5 |
| Mid-Atlantic Morehead City and Beaufort, NC | 8.8 | - | 22.0 | - | 24.8 | - | 1.8 | 2.5 | - | 26.7 | - | 0.7 | 87.3 |
| Mid-Atlantic Wilmington, NC | 55.3 | 5.4 | 232.6 | - | 177.1 | - | 3.6 | 52.9 | 15.3 | 188.5 | 0.8 | - | 731.4 |
| Mid-Atlantic Georgetown, SC | 21.5 | - | 3.2 | - | 24.7 | - | - | - | - | - | - | 0.5 | 49.8 |
| Mid-Atlantic Charleston, SC | 78.5 | - | 4,012.5 | - | 149.7 | 160.4 | 10.8 | 338.5 | 17.6 | 159.0 | 8.6 | 0.7 | 4,936.3 |
| Mid-Atlantic Savannah, GA | 119.3 | 8.2 | 3,868.3 | - | 255.4 | 18.8 | 79.3 | 270.5 | 5.2 | 233.2 | 1.5 | 0.8 | 4,860.4 |
| Southeastern US | | | | | | | | | | | | | |
| Brunswick, GA | 57.4 | - | 73.9 | - | 65.9 | 9.6 | 34.6 | 472.7 | - | 5.4 | - | - | 719.6 |
| Fernandina, FL | 12.6 | - | 144.8 | 1.3 | 168.6 | 13.1 | 118.7 | 0.7 | - | 0.2 | 17.9 | - | 477.8 |
| Jacksonville, FL | 166.6 | 3.1 | 992.3 | 207.2 | 332.6 | 113.4 | 17.4 | 1,028.0 | 21.7 | 405.4 | 282.2 | 6.0 | 3,575.7 |
| Port Canaveral, FL | 7.2 | 0.2 | 4.7 | 0.4 | 11.7 | 440.3 | 12.1 | 6.6 | 0.4 | 3.7 | 0.9 | 0.1 | 488.1 |
| Total | 1,719.2 | 106.9 | 24,920.7 | 220.3 | 2,110.7 | 1,834.3 | 1,952.6 | 5,745.0 | 1,078.9 | 5,702.0 | 351.6 | 21.5 | 45,764.0 |

a/ Includes recreational vessels.

b/ Includes fishing vessels, industrial vessels, research vessels, and school ships.

Source: Prepared by Nathan Associates Inc. based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports as described in text.

*Table F-3. Alternative 6: Direct Economic Impact on Shipping Industry with Speed Restriction of 10 Knots by Port Area and Type of Vessel, 2004 ($000s)*

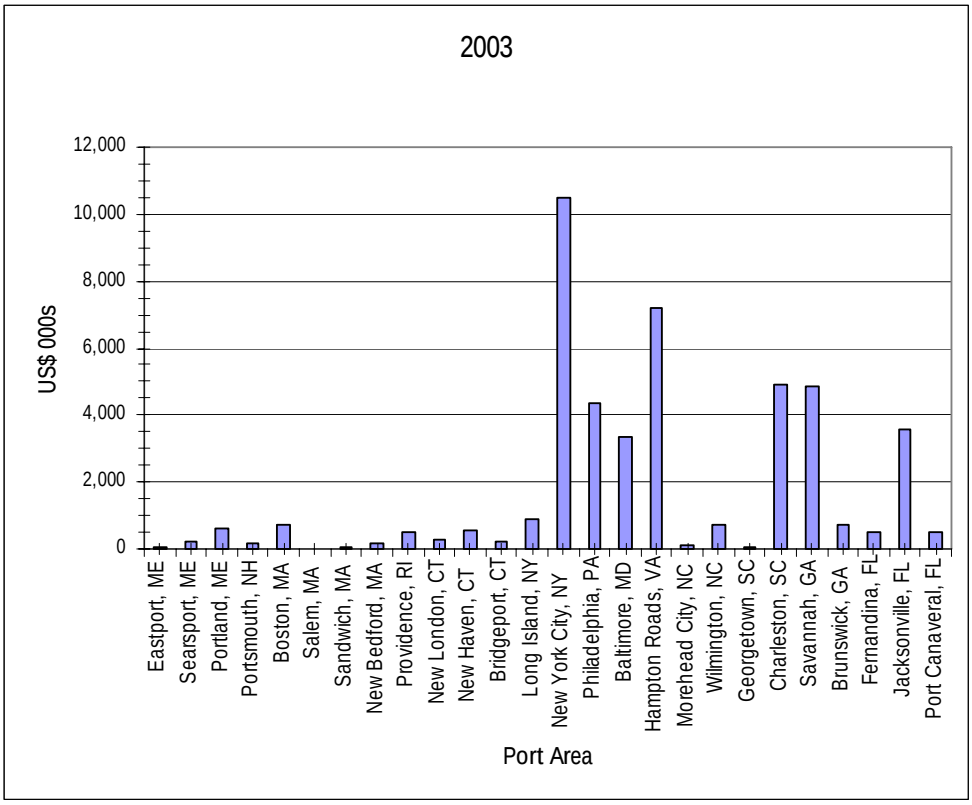
| Port Area | Bulk Carriers | Combination Carriers | Container ships | Freight Barges | General Cargo Vessels | Passenger Vessels a/ | Refrigerated Cargo Vessels | Ro-Ro Cargo Ship | Tank Barges | Tankers | Towing Vessels | Other b/ | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Northeastern US - Gulf of Maine | | | | | | | | | | | | | |
| Eastport, ME | 12.4 | - | 23.8 | - | 38.6 | - | - | - | - | - | - | - | 74.8 |
| Searsport, ME | 3.7 | - | 4.1 | 0.4 | 0.7 | 176.1 | - | 0.4 | 12.5 | 68.1 | 1.5 | - | 267.5 |
| Portland, ME | 35.6 | 1.8 | 4.2 | 0.4 | 21.6 | 79.1 | - | 34.5 | 30.2 | 413.2 | 15.2 | 0.2 | 636.1 |
| Portsmouth, NH | 27.5 | 2.6 | 0.2 | - | 22.8 | 1.5 | - | - | 0.3 | 61.4 | 3.0 | 2.1 | 121.3 |
| Northeastern US - Off Race Point | | | | | | | | | | | | | |
| Boston, MA | 18.1 | 0.3 | 255.7 | 0.3 | 5.3 | 143.2 | 3.4 | 27.4 | - | 266.6 | 0.2 | 1.0 | 721.4 |
| Salem, MA | 2.5 | - | - | - | - | 12.2 | - | - | - | - | - | - | 14.8 |
| Northeastern US - Cape Cod Bay | - | - | - | - | - | 22.8 | - | - | 0.1 | 29.7 | 0.0 | - | 52.5 |
| Mid-Atlantic Block Island Sound | | | | | | | | | | | | | |
| New Bedford, MA | 56.4 | - | - | - | 18.0 | - | 26.6 | 3.3 | - | 13.5 | - | - | 117.8 |
| Providence, RI | 58.6 | 3.2 | - | - | 46.0 | 108.9 | - | 156.7 | 2.6 | 174.1 | 2.9 | 2.7 | 555.7 |
| New London, CT | 10.9 | - | 28.9 | - | 79.3 | 86.1 | - | - | 63.1 | 12.6 | 1.0 | - | 282.0 |
| New Haven, CT | 20.5 | - | 16.1 | - | 47.0 | - | - | - | 456.3 | 172.8 | 13.6 | - | 726.5 |
| Bridgeport, CT | 51.4 | - | - | 0.4 | - | - | - | - | 247.5 | 30.8 | - | 0.4 | 330.5 |
| Long Island, NY | - | - | - | 2.1 | - | 172.2 | - | - | 588.1 | 295.4 | - | 0.5 | 1,058.4 |
| Mid-Atlantic Ports of New York/New Jersey | 175.0 | 22.0 | 7,411.2 | - | 130.3 | 577.5 | 98.6 | 1,331.5 | 10.5 | 1,386.9 | 16.7 | 0.8 | 11,161.0 |
| Mid-Atlantic Delaware Bay | 195.4 | 3.7 | 927.0 | 23.4 | 300.6 | 63.9 | 1,434.1 | 216.9 | 5.5 | 1,205.7 | 26.1 | 1.1 | 4,403.4 |
| Mid-Atlantic Chesapeake Bay | | | | | | | | | | | | | |
| Baltimore, MD | 268.7 | 7.4 | 1,168.9 | - | 342.5 | 195.2 | 24.4 | 1,329.0 | 1.7 | 314.5 | 6.7 | 3.8 | 3,662.7 |
| Hampton Roads, VA | 313.4 | 24.2 | 5,873.3 | 2.1 | 222.1 | 290.1 | 47.0 | 474.8 | 1.7 | 256.5 | 10.5 | 4.6 | 7,520.4 |
| Mid-Atlantic Morehead City and Beaufort, NC | 18.1 | 1.0 | 28.8 | - | 24.4 | 23.2 | - | - | - | 39.0 | - | - | 134.6 |
| Mid-Atlantic Wilmington, NC | 46.4 | 3.1 | 221.8 | - | 219.9 | 19.4 | - | 65.4 | 12.2 | 203.8 | 0.8 | - | 792.7 |
| Mid-Atlantic Georgetown, SC | 18.8 | 0.5 | 3.0 | - | 38.5 | 6.1 | - | - | - | - | - | - | 66.9 |
| Mid-Atlantic Charleston, SC | 69.4 | 0.5 | 4,186.9 | - | 183.0 | 272.6 | 18.4 | 305.7 | 5.5 | 156.3 | 11.5 | 2.0 | 5,211.7 |
| Mid-Atlantic Savannah, GA | 116.4 | 8.0 | 3,934.9 | - | 292.0 | 211.0 | 121.1 | 334.4 | 1.7 | 284.3 | 2.3 | 0.4 | 5,306.5 |
| Southeastern US | | | | | | | | | | | | | |
| Brunswick, GA | 57.6 | - | 37.2 | - | 107.0 | 40.6 | 35.3 | 490.4 | - | 0.1 | - | 3.2 | 771.5 |
| Fernandina, FL | 29.1 | - | 114.4 | 3.8 | 173.9 | 82.3 | 51.8 | 12.9 | - | - | 28.6 | - | 496.9 |
| Jacksonville, FL | 181.6 | 6.1 | 1,049.9 | 181.7 | 323.3 | 664.9 | 19.1 | 1,070.8 | 28.6 | 429.1 | 372.0 | 17.1 | 4,344.2 |
| Port Canaveral, FL | 9.7 | - | 5.2 | 1.0 | 16.0 | 511.7 | 10.2 | 9.0 | 1.8 | 6.3 | 4.1 | 0.1 | 575.1 |
| Total | 1,797.3 | 84.4 | 25,295.6 | 215.7 | 2,653.0 | 3,760.6 | 1,889.8 | 5,863.2 | 1,469.7 | 5,820.8 | 516.8 | 39.9 | 49,406.8 |

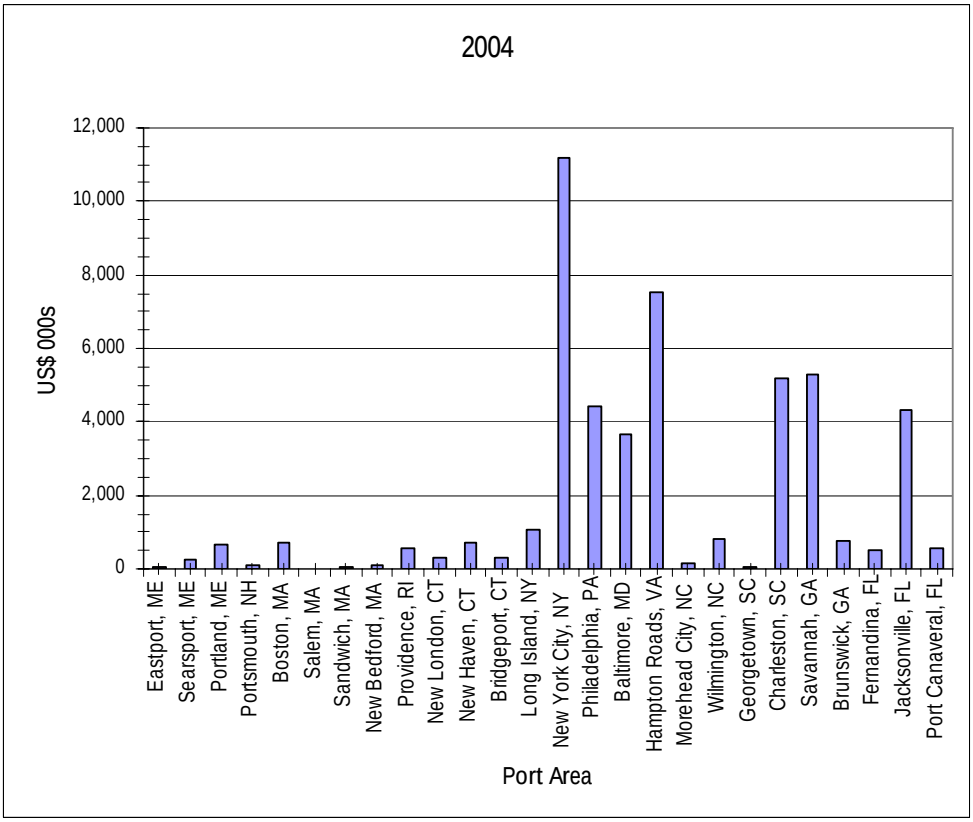
a/ Includes recreational vessels

b/ Includes fishing vessels, industrial vessels, research vessels, and school ships.

Source: Prepared by Nathan Associates Inc. based on analysis of U.S. Coast Guard data on vessel calls at U.S. ports as described in text.

*Figure F-2. Alternative 6: Direct Economic Impact on Shipping Industry of Speed Restriction of 10 Knots by Port Area, 2003 and 2004 ($000s)*



## DIRECT ECONOMIC IMPACT ON SHIPPING INDUSTRY RELATIVE TO VALUE OF U.S. EAST COAST TRADE AND OCEAN FREIGHT COSTS

In Chapter 2, we presented data collected by the U.S. Census Bureau on volume and value of goods carried by vessels calling at U.S. East Coast ports. We also presented information on vessel import charges that represent the aggregate cost of all freight, insurance and other charges (excluding U.S. import duties) incurred in bringing the merchandise from alongside the carrier at the port of exportation and placing it alongside the carrier at the first port of entry. In this section we will compare the estimates of the direct economic impact on the shipping industry to these indicators of the economic significance of U.S. East Coast maritime activity.

Table F-4 presents for each port area, the significance of the estimated economic impact of the operational measures relative to the value of U.S. East Coast trade in 2003 and 2004. The direct economic impact on the shipping industry is based on the base case analyses presented in this chapter including a speed restriction of 10 knots. The value of trade merchandise is the same as reported in Chapter 2 for U.S. East Coast imports and exports by Customs District and Port. In 2003, the total annual direct economic impact on the shipping industry is of Alternative 6 is $53.6 million while the value of U.S. East Coast trade is $298.7 billion. Thus the direct economic impact represents less than 2 hundredths of one percent of the value of traded merchandise in 2003. These results indicate that implementation of the proposed operational measures will not have any measurable impact on the volume of merchandise traded through U.S. East Coast ports. Accordingly, the proposed operational measures will not significantly affect the demand for ocean transport services provided by the shipping industry.

To measure the significance of the operational measures on the shipping industry financial performance, it is interesting to compare the estimated direct economic impact with ocean freight costs associated with U.S. East Coast trade. Ocean freight costs are considered as a conservative proxy for shipping industry revenues as revenues should exceed costs in most years. Chapter 2 we determined that ocean freight charges averaged 5.3 percent of the value of imports. Given the composition of our trade, it is reasonable to assume that ocean freight charges would represent no less than the same percentage of the value of our exports. Based on these factors, we estimate that the direct economic impact on the shipping industry for Alternative 6 represents less than 4 tenths of one percent of the ocean freight costs for U.S. East Coast trade. These results indicate that the implementation of the proposed operational measures would have an insignificant impact on operating costs and revenues for vessel operators calling at U.S. East Coast ports.

***Table F-4 Economic Impact of Speed Restriction of 10 Knots as a Percent of Value of U.S. East Coast Maritime Trade and Ocean Freight Costs, 2003 and 2004 ($ millions unless otherwise specified)***

| Item | Alternative 6 |
|---|---|
| 2003 | |
| Direct economic impact | 45.8 |
| Additonal direct economic impact due to cumulative effect of mulit-port strings | 5.3 |
| Direct economic impact of re-routing of southbound coastwise shipping | 2.5 |
| Total direct economic impact on shipping industry | 53.6 |
| | |
| Trade Merchandise Value | 298,741 |
| Total direct economic impact as a percent of trade value (%) | 0.018% |
| | |
| Ocean Freight Costs | 15,833 |
| Total direct economic impact as a percent of ocean freight cost (%) | 0.339% |
| | |
| 2004 | |
| Direct economic impact | 49.4 |
| Additonal direct economic impact due to cumulative effect of mulit-port strings | 5.8 |
| Direct economic impact of re-routing of southbound coastwise shipping | 2.5 |
| Total direct economic impact on shipping industry | 57.7 |
| | |
| Trade Merchandise Value | 325,051 |
| Total direct economic impact as a percent of trade value (%) | 0.018% |
| | |
| Ocean Freight Costs | 17,228 |
| Total direct economic impact as a percent of ocean freight cost (%) | 0.335% |

Source: Prepared by Nathan Associates from U.S Census Bureau Foreign Trade Statistics for 2003 and 2004 and analysis of U.S. Coast Guard data on vessel calls at U.S. ports as described in text. Guard data on vessel calls at U.S. ports as described in text.