

**APPENDIX F**

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**Economic Data**

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## **APPENDIX F SOCIOECONOMICS**

The following provides a brief summary of the data sources, assumptions, and methodology used in calculating the socioeconomic variables for the baseline and end state conditions for the alternatives evaluated in the Environmental Impact Statement (EIS) for Homeporting of Additional Surface Ships at Naval Station (NAVSTA) Mayport.

### **F.1 Personnel Loading and Net Daily Population**

The baseline 2006 personnel loading was based on data provided by NAVSTA Mayport from the “Command Brief, Finest Service to the Finest Fleet,” 2006, with adjustments for ships personnel for the baseline ships homeporting and data on ships maintenance personnel provided by the Southeast Regional Maintenance Center . The net daily population was calculated by applying deployment factors for the ships personnel and air squadrons at NAVSTA Mayport. A 0.73 deployment factor was used for ships personnel and a 0.67 deployment factor was used for the air squadrons. The nondeployed population was calculated based on the total population minus the ships personnel and air squadron personnel.

The changes in personnel loading from baseline to 2009 and between 2009 and 2014 considered three major factors. First, it considered changes to ships personnel that would occur due to the decommissioning of the USS John F. Kennedy, which was decommissioned in March 2007 and 10 of the Frigates currently homeported at NAVSTA Mayport and scheduled for decommissioning between 2009 and 2014. Second, it considered the changes to ships maintenance personnel that would occur due to the downsizing of military personnel at the Southeast Regional Maintenance Center (an action being taken by the Navy independent of the Environmental Impact Statement) and under the 13 alternatives evaluated in the EIS. Third, it considered the changes to ships personnel associated with the various mixes of homeported ships under the 13 alternatives evaluated in the EIS.

### **F.2 Dependents**

The dependents were calculated based on Unified Facilities Criteria (UFC) 2-000-05N (Revised P-80). Breakdowns of military officer and enlisted personnel was obtained from the 2006 NAVSTA Mayport Comprehensive Traffic Engineering Study. Breakdowns of the number of military families and bachelors was obtained from the 2006 NAVSTA Mayport Military Housing Requirements Analysis. The ratios for military personnel were applied to civilian and contractor personnel.

### **F.3 School Age Children**

School-aged children of military personnel were calculated based on the statistics provided in UFC 2-000-05N (Revised P-80). The existing proportion of total military

dependents to school-aged military dependents was applied to the total dependents calculated for civilian/contractor dependents. This proportion became a component of the total population change and was used to assess impacts to schools.

#### **F.4 Housing**

Housing requirements were calculated based on the 2006 NAVSTA Mayport Military Housing Requirements Analysis for families. The bachelor housing requirements were based on the R-19 report for Bachelor Housing for NAVSTA Mayport and calculated as total E1-E3s, plus 5 percent for resident advisors.

#### **F.5 Economic Impact Modeling**

To quantify the total impacts (i.e., direct, indirect, and induced) for each alternative on the regional economy, the Navy used the IMPLAN model, a regional economic modeling program. The IMPLAN model is based on regional information derived from databases of federal agencies, such as the U.S. Bureau of Economic Analysis. IMPLAN uses these data on industrial spending and trading patterns to estimate the indirect and induced impacts to the local and state economy from a change in the Navy's direct expenditure of dollars. The IMPLAN model also estimates the potential number of jobs that would be created as a result of the change in spending.

Direct economic impacts are effects which are caused by the action and occur in the same time and same place, indirect economic impacts are changes in purchases made between industries as they respond to the new demands of the directly affected industry. Induced economic impacts typically reflects changes in spending from households as income increases or decreases due to the changes in the directly affected industry.

Construction costs are evaluated as one-time expenditures. The Navy developed estimated construction costs (in FY 2004 dollars) for all construction-related activity necessary at NAVSTA Mayport for each alternative. These estimated construction costs were allocated to industrial sectors for input into the IMPLAN model. The local study area for each alternative was Duval County, Florida. The detailed construction costs were input into the IMPLAN model to obtain the local and state impacts with respect to expenditures (in 2004 dollars) and employment.

The Duval County, Florida IMPLAN database used in this analysis estimated the average earnings (including compensation) for Federal Military personnel to be \$94,000. These earnings were applied to the change in net daily population for each alternative. To accurately capture the impacts of a large change in military payroll to the regional economy, a change in employee compensation under the "Federal Government – Military" sector within IMPLAN was used. The average employee compensation calculated by the Navy was substituted into the IMPLAN study area. Since this analysis only captured the impacts related to changes in payroll, by definition, only induced impacts resulted.