HR-3 Human Resources Socioeconomic Effects and Impacts Data

# APPENDIX HR-3 SOCIOECONOMIC EFFECTS AND IMPACTS DATA

Appendix HR-3 contains three sections:

- Table HR-3-1, Socioeconomic Effects and Impacts, is a summary of the potential socioeconomic effects of the proposed project at each of the five bases.
- Socioeconomic Model Parameters and Structure provides additional detail about the socioeconomic effects model and assumptions beyond what is presented in HR-1 for Socioeconomics.
- The Population Allocation Methodology and Results subsections provide a more detailed description of the projected population in-migration at the community level for each of the five bases.

| Table HR-3-1. Socioeconomic Effects and Impacts                     |             |           |                                       |                   |             |
|---|-------------|-----------|---------------------------------------|-------------------|-------------|
|   | Langley AFB | Eglin AFB | Elmendorf AFB                         | Mountain Home AFB | Tyndall AFB |
| <u>Effects</u>  |             |           |                                       |                   |             |
| Construction Phase  |             |           |                                       |                   |             |
| Year of Peak Expenditures   | FY 02       | FY 02     | FY 02                                 | FY 02             | FY 02       |
| Direct Project Expenditures in (\$ millions)                        | \$37.470    | \$27.900  | \$149.180                             | \$238.020         | \$171.335   |
| Total Jobs  | 1,025       | 772       | 3,273                                 | 6,821             | 4,737       |
| Construction Jobs   | 572         | 434       | 1,468                                 | 3,941             | 2,664       |
| Secondary Jobs  | 453         |           | · · · · · · · · · · · · · · · · · · · | 2,880             | 2,073       |
| Total Earnings (\$ millions)  | \$30.867    | \$21.879  | \$124.951                             | \$177.828         | \$134.284   |
| Construction Jobs (\$ millions)                                     | \$16.862    | \$12.555  | \$67.131                              | \$107.109         | \$77.101    |
| Secondary Jobs (\$ millions)  | \$14.005    | \$9.324   | \$57.820                              | \$70.718          | \$57.183    |
| Operations Phase  |             |           |                                       |                   |             |
| Year of Peak Effects  | FY 07       | FY 07     | FY 07                                 | FY 07             | FY 07       |
| Change in Total Jobs (Net Jobs)                                     | -358        | 325       | 390                                   | 1,560             | 2,392       |
| Change in Base Personnel (Active Duty and Civilian)                 | -243        | 218       | 286                                   | 1,201             | 1,846       |
| Change in Active Duty Personnel                                     | -297        | 158       | 250                                   | 1,122             | 1,767       |
| Change in Civilian and Contractor Personnel                         | 54          | 60        | 36                                    | 79                | 79          |
| Change in Secondary Jobs  | -115        | 107       | 104                                   | 359               | 546         |
| Change in Total Earnings (\$millions)                               | -\$12.856   | \$10.808  | \$13.089                              | \$57.298          | \$80.850    |
| Total In- or Out-migrating Population                               | -568        | 503       | 658                                   | 2,761             | 4,208       |
| Cumulative New Off-Base Housing Demand                              | -206        | 187       | 240                                   | 278               | 1,363       |
| <u>Impacts</u>  |             |           |                                       |                   |             |
| Construction Phase  |             |           |                                       |                   |             |
| Total Jobs as Percent of Regional Employment                        | 0.21%       | 0.50%     | 1.91%                                 | 3.18%             | 5.46%       |
| Total Earnings as Percent of Regional Earnings                      | 0.22%       | 0.63%     | 2.02%                                 | 2.74%             | 6.10%       |
| Operations Phase  |             |           |                                       |                   |             |
| Percent Change in Base Personnel                                    | -2.27%      | 1.42%     | 3.29%                                 | 24.78%            | 29.62%      |
| Total Net Jobs as Percent of Regional Employment                    | -0.07%      | 0.21%     | 0.23%                                 | 0.73%             | 2.76%       |
| Total Earnings as Percent of Regional Earnings                      | -0.09%      | 0.31%     | 0.21%                                 | 0.88%             | 3.67%       |
| Total In- or Out-Migrants as Percent of Regional Population         | -0.08%      | 0.15%     | 0.26%                                 | 0.86%             | 2.61%       |
| Maximum Annual Housing Demand as Percent of Annual Regional Permits | -3.90%      | 1.54%     | 7.65%                                 | 9.08%             | 41.54%      |

#### Socioeconomic Model Parameters and Structure

Sections below describe the types of data that were utilized as input to the socioeconomic impact model and the resulting types of model output data.

## **Input Data**

Input data is comprised of two types: project data that describes characteristics of the project as contained in the Description of Proposed Action and Alternatives (DOPAA); and data exogenous to the project that describes characteristics of the environment. Exogenous data is derived from Air Force and non-Air Force sources.

# Project Description (DOPAA)

- 1. Number of active duty military personnel associated with implementation of the project. This can be a net addition or reduction of personnel at the installation.
- 2. Number of civilian personnel associated with implementation of project. This can be a net addition or reduction of personnel at the installation.
- 3. The dollar value of expenditures proposed for capital investments in the form of facilities required for implementation of the action. This includes ancillary facilities such as dormitories and military family housing.

# Exogenous Data - Air Force

- 1. Average salary data for active duty military and civilian personnel. This data is acquired from the most current version of the installation Economic Impact Analysis (EIA).
- 2. Employment Multipliers for active duty military and civilian personnel. These values are contained in the EIA for each installation.
- 3. Demographic profile of Air Force active duty personnel is derived from detailed data for MacDill AFB, Florida. This profile is quite representative of other major Air Force installations. The profile shows the following attributes:
  - i. Percent unaccompanied (29 percent).
  - ii. Percent single with dependents, i.e., mostly single parent families (4 percent).
- iii. Percent married (67 percent).
- iv. Of the married households, 57 percent have children, 43 percent are without.
- v. Of the married households with children, the average number of children is 1.94.
- vi. Number of children per married couple (those both with and without children) is 1.11.

- vii. Number of children per single parent is 1.47.
- viii. Percent military-married-to-military is 12.8 percent.
- 4. Base employment (active duty, appropriated fund civilian and non-appropriated fund civilian, and other civilian) derived from the EIA.

## Exogenous Data - Non-Air Force

- 1. Number of workers per household is 1.2 based on United States Census information.
- 2. Average earnings per secondary workers is set to the average for all civilian workers in the ROI. Data source is Bureau of Economic Analysis (BEA), Regional Economic Information System (REIS) (1997).
- 3. Average earnings per construction worker is set to the average for all construction workers in the ROI. Data source is BEA, REIS (1997).
- 4. Percent of total construction expenditures attributed to worker payroll (45 percent). Based on previous RIMS II analyses.
- 5. Number of indirect jobs per \$1 million construction expenditures (exclusive of payroll) is estimated at 22. Based on previous RIMS II analyses.
- 6. Total employment in the ROI. Data source is BEA, REIS (1997).
- 7. Total earnings in ROI. Data source is BEA, REIS (1997).
- 8. Total population in ROI. Data source is United States Census (1999).
- 9. Number of building permits issued annually in ROI. Data source is United States Census (1990-1999).
- 10. Number of school-age children per married active duty is 0.79.
- 11. Number of school-age children per single active duty with children is 1.12.
- 12. National average for school-age children per household in public schools is 0.51. Data source is United States Census.

#### **Assumptions**

- 1. Number of construction workers per household is assumed to be 1.0.
- 2. All active duty personnel and dependents are assumed to in-migrate to the region.
- 3. All project civilian workers and dependents are assumed to in-migrate to the region.
- 4. 10 percent of construction and secondary workers and dependents are assumed to inmigrate to the region.

#### **Output Data**

- 1. Number of construction workers associated with construction expenditures for labor.
- 2. Number of secondary workers associated with construction activity procurements.
- 3. Number of secondary workers associated with active duty personnel payroll expenditures (using employment multiplier).
- 4. Number of secondary workers associated with Air Force civilian personnel payroll expenditures (using employment multiplier).
- 5. Earnings associated with number of persons in employment categories 1 through 4 above plus direct Air Force active duty and civilian personnel.
- 6. In-migrating population associated with employment categories in item 5 above.
- 7. Number of housing units required to accommodate in-migrating workers and their dependents, assuming full utilization of any on-base housing (family and/or unaccompanied) proposed with the project.

# **Community Allocation Methodology**

Estimates of project-related effects are an aggregate measure of effects distributed over a single or multi-county geographical area. However, such effects (especially those associated with population and housing) are likely to be concentrated in communities within the larger geographical area. It is, thus, helpful to disaggregate the effects and allocate them to the communities where they will most likely be manifest.

Population effects associated with active duty personnel and their dependents relocating to the region were distributed according to the empirically derived residential distribution of active duty personnel currently assigned to the base in question. Relocating DoD civilian employees or contract workers and their dependents were allocated to communities in a manner identical to that utilized for active duty personnel. Unless additional government housing (family or unaccompanied) is provided as part of the project, it is assumed that all incoming military personnel and their dependents will reside off-base in surrounding communities. As an intermediary goal, the allocation mechanism accomplishes the task of developing a correspondence between two geographies: (1) Zip Code areas by which current residence patterns are described, and (2) the geographical extent of communities.

For the secondary workers who are expected to relocate to fill some of the job opportunities generated through the multiplier effect, the geographical distribution of their place of residence were assumed to differ from that of the active duty and DoD civilian personnel and their dependents. The jobs created through the multiplier effect were assumed to be distributed throughout the region in a manner reflecting the distribution of total population. Thus, this group of relocating persons were allocated to communities in direct proportion to each community's share of the regional population. Once the persons projected to inmigrate to the region are allocated to communities, other specific effects such as demand for housing and public services can be estimated.

# Langley AFB Population Allocation Methodology and Results

The database provided by Langley AFB contained a total of 8,729 personnel distributed throughout a large geographical area encompassing 106 Zip Code areas. Of this total, 2,277 resided in government quarters (spread through 27 Zip Code areas) with the remaining 6,452 residing in private accommodations. Of the total personnel in the database, 2,175 or 24.9 percent resided on Langley AFB. However, the great majority (83.2 percent) of personnel reside in a small geographical area comprised of 32 Zip Code areas contained in the following communities: Hampton, Newport News, Norfolk, Poquoson, and Portsmouth. The table below indicates the estimated share of active-duty personnel by community.

Active-Duty Personnel Place of Residence by Locality

|                 | <b>Total</b>     | Off-Base         |
|-----------------|------------------|------------------|
| <b>Locality</b> | <b>Personnel</b> | <b>Personnel</b> |
| Hampton         | 80.75            | 73.16            |
| Newport News    | 16.31            | 22.77            |
| Norfolk         | 0.92             | 1.22             |
| Poquoson        | 1.52             | 2.19             |
| Portsmouth      | 0.50             | 0.66             |

Active-duty personnel arriving at Langley AFB as a result of implementation of the proposed action are assumed to make residential choice decisions that mirror the geographical distributions described above. Civilian or contractor personnel entering the region as a result of the project are also assumed to exhibit a similar pattern.

Secondary workers expected to enter the region as a result of the multiplier effect (under both construction and operations phases of the project) are assumed to exhibit a residence pattern based on the current distribution of population among communities within the county. This distribution is as shown in the table immediately below.

# **Proportional Distribution of Secondary Workers by Community**

| <b>Community</b> | Secondary Workers |
|------------------|-------------------|
| Hampton          | 21.29             |
| Newport News     | 27.97             |
| Norfolk          | 34.06             |
| Poquoson         | 1.77              |
| Portsmouth       | 14.91             |

The propensity of active-duty personnel to be over-represented in some communities (relative to the population) and under-represented in others is evident from the proportions displayed in the table immediately below. There is a high propensity for active duty personnel to reside in Hampton and an under-representation in Norfolk, Portsmouth, and Newport News.

#### **Residential Propensity of Active Duty Personnel and Secondary Workers**

|                  | Active   | <i>Secondary</i> |                   |
|------------------|----------|------------------|-------------------|
| <b>Community</b> | Duty (%) | Workers (%)      | <b>Difference</b> |
| Hampton          | 73.16    | 21.29            | +51.87            |
| Newport News     | 22.77    | 27.97            | -5.20             |
| Norfolk          | 1.22     | 34.06            | -32.84            |
| Poquoson         | 2.19     | 1.77             | +0.42             |
| Portsmouth       | 0.66     | 14.91            | -14.25            |

At the peak of construction activity associated with the project (FY02), it is expected that 244 persons (workers and their families) would temporarily relocate to the region. It is estimated that the geographical distribution of these workers and their dependents would be as shown below.

Off-Base In-Migrating Population (FY 2002) by Community

| <b>Community</b> | Number |  |
|------------------|--------|--|
| Hampton          | 52     |  |
| Newport News     | 68     |  |
| Norfolk          | 84     |  |
| Poquoson         | 4      |  |
| Portsmouth       | 36     |  |
| Total            | 244    |  |

When full operational capability is achieved (FY 2007), it is estimated that a net of 568 persons would leave the region over the long term. This total is comprised of the following: departure of 659 active-duty military personnel and dependents; arrival of 116 persons associated with civilian contract workers and their dependents; and departure of 25 persons associated with secondary job-holders. All active-duty personnel and their dependents are assumed to reside off base along with civilian contractor personnel and dependents and secondary workers and their family members. The projected geographical location of these persons is as shown below. The greatest number of residents anticipated to leave would depart from Hampton and Newport News.

Off-Base Out-Migrating Population (FY 2007) by Community

| <b>Community</b> | Active Duty | Civilian | <b>Secondary</b> | <b>TOTAL</b> |
|------------------|-------------|----------|------------------|--------------|
| Hampton          | -375        | +66      | -5               | -314         |
| Newport News     | -117        | +21      | -7               | -103         |
| Norfolk          | -6          | +1       | -9               | -14          |
| Poquoson         | -11         | +2       | 0                | -9           |
| Portsmouth       | -3          | +1       | -4               | -6           |
| Elsewhere        | -147        | +26      | 0                | -121         |
| TOTAL            | -659        | +117     | -25              | -567         |

# Eglin AFB Population Allocation Methodology and Results

Of the total number of personnel (6,114) contained in the database provided by Eglin AFB, 97.8 percent or 5,981 reside on base or within a daily commute distance of the base. The remaining personnel (which number 113 or 2.2 percent of the total) reside mainly outside Okaloosa County in neighboring Santa Rosa County to the west and are not included in this analysis. There were 2,630 personnel (43.0 percent) living on base at Eglin AFB and 21 at Hurlburt Field.

#### **Active-Duty Personnel by County Place of Residence**

| <b>County</b> | Total Personnel | Off-Base Personnel |
|---------------|-----------------|--------------------|
| Okaloosa      | 97.9%           | 96.3%              |
| Santa Rosa    | 2.1%            | 3.7%               |

The majority of potential effects to public services are anticipated in communities and, thus, it is important to identify the communities within which military personnel reside. The large majority of off base active-duty personnel reside in nine communities within Okaloosa County and the unincorporated portions of Okaloosa County. These localities are listed in the table immediately below with their estimated share of off base active-duty personnel.

# **Proportional Distribution of Off-Base Active-Duty Personnel by Community**

| Community                      | Proportion |
|--------------------------------|------------|
| Cinco Bayou                    | 0.27%      |
| Crestview                      | 11.93%     |
| Destin                         | 0.92%      |
| Fort Walton Beach              | 12.06%     |
| Laurel Hill                    | 0.01%      |
| Mary Esther                    | 1.94%      |
| Niceville                      | 9.79%      |
| Shalimar                       | 0.58%      |
| Valparaiso                     | 5.50%      |
| Unincorporated Okaloosa County | 57.01%     |

Active-duty personnel arriving at Eglin AFB as a result of implementation of the alternative are assumed to make residential choice decisions that mirror the geographical distributions described above. Civilian or contractor personnel entering the region as a result of the project are also assumed to exhibit a similar pattern.

Secondary workers expected to enter the region as a result of the multiplier effect (under both construction and operations phases of the project) are assumed to exhibit a residence pattern based on the current distribution of population among communities within the county. This distribution is as shown in the table immediately below.

## **Proportional Distribution of Secondary Workers by Community**

| Community                      | Proportion |  |
|--------------------------------|------------|--|
| Cinco Bayou                    | 0.23%      |  |
| Crestview                      | 7.94%      |  |
| Destin                         | 6.58%      |  |
| Fort Walton Beach              | 12.38%     |  |
| Laurel Hill                    | 0.33%      |  |
| Mary Esther                    | 2.47%      |  |
| Niceville                      | 6.66%      |  |
| Shalimar                       | 0.37%      |  |
| Valparaiso                     | 3.74%      |  |
| Unincorporated Okaloosa County | 59.31%     |  |

The propensity of active-duty personnel to be over-represented in some communities (relative to the population) and under-represented in others is evident from the proportions displayed in the table immediately below. There is a high propensity for active-duty personnel to reside in Crestview and Niceville and an under-representation in Destin.

# **Residential Propensity of Active-Duty Personnel and Secondary Workers**

|                   | Active   | <b>Secondary</b> |                   |
|-------------------|----------|------------------|-------------------|
| Community         | Duty (%) | Workers (%)      | <b>Difference</b> |
| Cinco Bayou       | 0.27     | 0.23             | +0.04             |
| Crestview         | 11.93    | 7.94             | +3.99             |
| Destin            | 0.92     | 6.58             | -5.66             |
| Fort Walton Beach | 12.06    | 12.38            | -0.32             |
| Laurel Hill       | 0.01     | 0.33             | -0.32             |
| Mary Esther       | 1.94     | 2.47             | -0.53             |
| Niceville         | 9.79     | 6.66             | +3.13             |
| Shalimar          | 0.58     | 0.37             | +0.21             |
| Valparaiso        | 5.50     | 3.74             | +1.76             |
| Unincorporated    | 57.01    | 59.31            | -2.30             |
| Okaloosa County   |          |                  |                   |

At the peak of construction activity associated with the project (FY 2002), it is expected that 186 persons (workers and their families) would temporarily relocate to the region. It is estimated that the geographical distribution of these workers and their dependents would be as shown below.

Off-Base In-Migrating Population (FY 2002) by Community

| Community                      | Number |
|--------------------------------|--------|
| Cinco Bayou                    | 0      |
| Crestview                      | 15     |
| Destin                         | 12     |
| Fort Walton Beach              | 23     |
| Laurel Hill                    | 1      |
| Mary Esther                    | 5      |
| Niceville                      | 12     |
| Shalimar                       | 1      |
| Valparaiso                     | 7      |
| Unincorporated Okaloosa County | 110    |
| TOTAL                          | 186    |

When full operational capability is achieved (FY 2007), it is estimated that 503 persons would relocate to the region over the long term. This total is comprised of the following: 350 active-duty military personnel and dependents; 130 persons associated with civilian contract workers and their dependents; and 23 persons associated with secondary jobholders. All active-duty personnel and their dependents are assumed to reside off base along with civilian contractor personnel and dependents and secondary workers and their family members. The projected geographical location of these persons is as shown below. The greatest number of new residents are anticipated to locate in the communities of Fort Walton Beach, Crestview, Niceville, and Valparaiso.

Off-Base In-Migrating Population (FY 2007) by Community

| Community               | Active Duty | Civilian | <b>Secondary</b> | <b>TOTAL</b> |
|-------------------------|-------------|----------|------------------|--------------|
| Cinco Bayou             | 1           | 0        | 0                | 1            |
| Crestview               | 42          | 16       | 2                | 60           |
| Destin                  | 3           | 1        | 2                | 6            |
| Fort Walton Beach       | 42          | 16       | 3                | 61           |
| Laurel Hill             | 0           | 0        | 0                | 0            |
| Mary Esther             | 7           | 3        | 1                | 11           |
| Niceville               | 34          | 13       | 2                | 49           |
| Shalimar                | 2           | 1        | 0                | 3            |
| Valparaiso              | 19          | 7        | 1                | 27           |
| Unincorporated Okaloosa | 200         | 73       | 12               | 285          |
| County                  |             |          |                  |              |
| TOTĂL                   | 350         | 130      | 23               | 503          |

# Elmendorf AFB Population Allocation Methodology and Results

Of the total number of personnel (3,197) contained in the database provided by Elmendorf AFB, all reside either on the installation, at Fort Richardson, or within Anchorage Borough. There were 280 personnel (8.8 percent) living on base at Elmendorf AFB and 97 (3.0 percent) at Fort Richardson.

Potential effects to public services are anticipated in communities and would, thus, occur in Anchorage Borough. Although a part of Anchorage Borough, the community of Chugiak/Eagle River, located north of the installation, has a recognized identity. Of the personnel residing off of either Elmendorf AFB or Fort Richardson, 26.13 percent reside within Chugiak/Eagle River. The table below indicates the estimated share of active-duty personnel by location.

#### **Active-Duty Personnel Place of Residence by Locality**

| <b>Locality</b>     | Total Personnel | Off-Base Personnel |
|---------------------|-----------------|--------------------|
| Anchorage Borough   | 65.15%          | 73.87%             |
| Chugiak/Eagle River | 23.05%          | 26.13%             |
| Elmendorf AFB       | 8.76%           | NA                 |
| Fort Richardson     | 3.03%           | NA                 |

Active-duty personnel arriving at Elmendorf AFB as a result of implementation of the alternative are assumed to make residential choice decisions that mirror the geographical distributions described above. Civilian or contractor personnel entering the region as a result of the project are also assumed to exhibit a similar pattern.

Secondary workers expected to enter the region as a result of the multiplier effect (under both construction and operations phases of the project) are assumed to exhibit a residence pattern based on the current distribution of population among communities within the county. This distribution is as shown in the table immediately below.

#### Proportional Distribution of Secondary Workers by Locality

| Locality            | Secondary Workers |
|---------------------|-------------------|
| Anchorage Borough   | 88.63%            |
| Chugiak/Eagle River | 11.37%            |

The propensity of active-duty personnel to be over-represented in some communities (relative to the population) and under-represented in others is evident from the proportions displayed in the table immediately below. There is a high propensity for active duty personnel to reside in Anchorage Borough.

#### **Residential Propensity of Active-Duty Personnel and Secondary Workers**

|                     | <b>Active</b>   | Secondary   |                   |
|---------------------|-----------------|-------------|-------------------|
| <b>Locality</b>     | <b>Duty (%)</b> | Workers (%) | <b>Difference</b> |
| Anchorage Borough   | 65.15           | 88.63       | -23.48            |
| Chugiak/Eagle River | 23.05           | 11.37       | +11.68            |

At the peak of construction activity associated with the project (FY 2002), it is expected that 796 persons (workers and their families) would temporarily relocate to the region. It is estimated that the geographical distribution of these workers and their dependents would be as shown below.

# Off-Base In-Migrating Population (FY 2002) by Locality

| <b>Locality</b>     | Number |
|---------------------|--------|
| Anchorage Borough   | 705    |
| Chugiak/Eagle River | 91     |
| TOTAL               | 796    |

When full operational capability is achieved (FY 2007), it is estimated that 658 persons would relocate to the region over the long term. This total is comprised of the following: 555 active-duty military personnel and dependents; 80 persons associated with civilian contract workers and their dependents; and 23 persons associated with secondary jobholders. All active-duty personnel and their dependents are assumed to reside off base, along with civilian contractor personnel and dependents and secondary workers and their family members. The projected geographical location of these persons is as shown below. The greatest number of new residents are anticipated to locate in Anchorage Borough.

# Off-Base In-Migrating Population (FY 2007) by Locality

| Locality            | Active Duty | Civilian | <b>Secondary</b> | <b>TOTAL</b> |
|---------------------|-------------|----------|------------------|--------------|
| Anchorage Borough   | 410         | 59       | 20               | 489          |
| Chugiak/Eagle River | 145         | 21       | 3                | 169          |
| TOTAL               | <b>555</b>  | 80       | 23               | <b>658</b>   |

# Mountain Home AFB ZIP Code Data and Analysis

From an economic perspective, the region of influence (ROI) is defined as the three-county area comprised of Ada, Elmore, and Owyhee counties located in southwestern Idaho. Of the total number of persons (3,737) contained in the database provided by the Air Force military personnel office at Mountain Home AFB, all but eight reside within the ROI. The following analysis and interpretation is based on these personnel and their geographical distribution. Of those personnel and their families within the region, 58.7 percent reside on-base, with the remaining 41.3 percent residing in surrounding communities.

Of the active-duty base personnel, the distribution, by place of residence, is as shown below for both the total number of personnel and for those residing off-base in surrounding counties.

#### **Active Duty Personnel by County Place of Residence**

|             | <b>Total</b>     | Off-Base         |
|-------------|------------------|------------------|
| County      | <b>Personnel</b> | <b>Personnel</b> |
| Ada         | 5.0%             | 12.1%            |
| Elmore      | 94.5%            | 86.7%            |
| Owyhee      | 0.3%             | 0.7%             |
| Outside ROI | 0.2%             | 0.5%             |

The majority of potential effects to public services are anticipated in communities and, thus, it is important to identify the communities within which military personnel reside. Off-base active-duty personnel are concentrated in the city of Mountain Home. The distribution of off-base personnel across the communities that collectively accommodate the large majority of the active duty personnel are shown below.

# Proportional Distribution of Off-Base Active-Duty Personnel by Community

| Community             | <b>Proportion</b> |
|-----------------------|-------------------|
| Boise                 | 7.42%             |
| Eagle                 | 0.09%             |
| Garden City           | 0.20%             |
| Glenn's Ferry         | 0.04%             |
| Grand View            | 0.17%             |
| Kuna                  | 0.05%             |
| Meridian              | 0.81%             |
| City of Mountain Home | 56.72%            |
| Rest of ROI           | 34.50%            |

Active-duty personnel arriving at Mountain Home AFB as a result of implementation of the alternative are assumed to make residential choice decisions that mirror the geographical distributions described above. Civilian or contractor personnel entering the region as a result of the project are also assumed to exhibit a similar pattern.

Secondary workers expected to enter the region as a result of the multiplier effect (under both construction and operations phases of the project) are assumed to exhibit a residence pattern based on the current distribution of population among communities within the county. This distribution is as shown in the table immediately below.

# **Proportional Distribution of Secondary Workers by Community**

| <b>Community</b>      | Proportion |
|-----------------------|------------|
| Boise                 | 53.49%     |
| Eagle                 | 3.01%      |
| Garden City           | 3.28%      |
| Glenn's Ferry         | 0.44%      |
| Grand View            | 0.14%      |
| Kuna                  | 1.41%      |
| Meridian              | 8.80%      |
| City of Mountain Home | 3.41%      |
| Rest of ROI           | 25.93%     |

The propensity of active-duty personnel to be over-represented in some communities (relative to the population) and under-represented in others is evident from the proportions displayed in the table immediately below. There is a high propensity for active-duty personnel to reside in the City of Mountain Home and an under-representation in Boise.

# **Residential Propensity of Active-Duty Personnel and Secondary Workers**

|                       | <b>Active</b>   | <i>Secondary</i> | <i>Difference</i> |
|-----------------------|-----------------|------------------|-------------------|
| Community             | <b>Duty (%)</b> | Workers (%)      | (%)               |
| Boise                 | 7.42%           | 53.49%           | -46.07%           |
| Eagle                 | 0.09%           | 3.01%            | -2.92%            |
| Garden City           | 0.20%           | 3.28%            | -3.08%            |
| Glenn's Ferry         | 0.04%           | 0.44%            | -0.40%            |
| Grand View            | 0.17%           | 0.14%            | +0.03%            |
| Kuna                  | 0.05%           | 1.41%            | -1.36%            |
| Meridian              | 0.81%           | 8.80%            | -7.99%            |
| City of Mountain Home | 56.72%          | 3.41%            | +53.31%           |
| Rest of ROI           | 34.50%          | 25.93%           | +8.57%            |

At the peak of construction activity associated with the project (FY 2002), it is expected that 1,781 persons (workers and their families) would temporarily relocate to the region. It is estimated that the geographical distribution of these workers and their dependents would be as shown below.

Off-Base In-Migrating Population (FY 2002) by Community

| Community             | Number |
|-----------------------|--------|
| Boise                 | 953    |
| Eagle                 | 55     |
| Garden City           | 58     |
| Glenn's Ferry         | 8      |
| Grand View            | 2      |
| Kuna                  | 25     |
| Meridian              | 157    |
| City of Mountain Home | 61     |
| Rest of ROI           | 462    |
| TOTAL                 | 1,781  |

When full operational capability is achieved (FY 2007), it is estimated that 2,761 persons would relocate to the region over the long term. This total is comprised of the following: 2,492 active-duty military personnel and dependents; 185 persons associated with civilian contract workers and their dependents; and 84 persons associated with secondary jobholders. Of the active-duty personnel and their dependents, 1,998 (80 percent) are assumed to reside on-base in housing constructed as a part of the alternative. The remaining active-duty personnel and their dependents, along with civilian contractor personnel and dependents and secondary workers and their family members (totaling 763 persons) would reside off base. The projected geographical location of these persons is as shown below. The greatest number of new residents are anticipated to locate in the City of Mountain Home and Boise.

Off-Base In-Migrating Population (FY 2007) by Community

| Community             | Active Duty | Civilian | Secondary | <b>TOTAL</b> |
|-----------------------|-------------|----------|-----------|--------------|
| Boise                 | 37          | 14       | 45        | 96           |
| Eagle                 | 0           | 0        | 3         | 3            |
| Garden City           | 1           | 0        | 3         | 4            |
| Glenn's Ferry         | 0           | 0        | 0         | 0            |
| Grand View            | 1           | 0        | 0         | 0            |
| Kuna                  | 0           | 0        | 1         | 1            |
| Meridian              | 4           | 1        | 7         | 12           |
| City of Mountain Home | 280         | 105      | 3         | 388          |
| Rest of ROI           | 171         | 65       | 22        | 258          |
| TOTAL                 | 494         | 185      | 84        | 763          |

# Tyndall AFB Population Allocation Methodology and Results

Of the total number of personnel (3,381) contained in the database provided by Tyndall AFB, 86.1 percent or 2,911 reside within a daily commute distance of the base. The remaining personnel (which number 470 or 13.9 percent of the total) reside in the vicinity of either Pensacola or Eglin AFB about 80 miles to the west of Tyndall AFB and are not included in this analysis. Of those living within the daily commute area, all but 34 reside within Bay County. Of those residing outside Bay County, 25 live in Port St. Joe, which is located about 25 miles southeast of Tyndall AFB in Gulf County. There were 1,023 personnel (30.3 percent) living on-base.

## **Active-Duty Personnel By County Place of Residence**

| County | Total Personnel | Off-Base Personnel |
|--------|-----------------|--------------------|
| Bay    | 85.4%           | 78.6%              |
| Gulf   | 0.7%            | 1.4%               |
| Other  | 13.9%           | 19.9%              |

The majority of potential effects to public services are anticipated in communities and, thus, it is important to identify the communities within which military personnel reside. The large majority of off-base active duty personnel reside in seven communities within Bay County and the unincorporated portions of Bay County. These localities are listed in the table immediately below with their estimated share of off-base active duty personnel.

## Proportional Distribution of Off-Base Active-Duty Personnel by Community

| Community                 | <b>Proportion</b> |
|---------------------------|-------------------|
| Callaway                  | 29.95%            |
| Cedar Grove               | 1.25%             |
| Lynn Haven                | 6.07%             |
| Panama City               | 14.53%            |
| Panama City Beach         | 0.44%             |
| Parker                    | 6.52%             |
| Springfield               | 9.65%             |
| Unincorporated Bay County | 31.59%            |

Active-duty personnel arriving at Tyndall AFB as a result of implementation of the alternative are assumed to make residential choice decisions that mirror the geographical distributions described above. Civilian or contractor personnel entering the region as a result of the project are also assumed to exhibit a similar pattern.

Secondary workers expected to enter the region as a result of the multiplier effect (under both construction and operations phases of the project) are assumed to exhibit a residence pattern based on the current distribution of population among communities within the county. This distribution is as shown in the table immediately below.

## **Proportional Distribution of Secondary Workers by Community**

| Community                 | <b>Proportion</b> |
|---------------------------|-------------------|
| Callaway                  | 9.60%             |
| Cedar Grove               | 2.17%             |
| Lynn Haven                | 8.52%             |
| Panama City               | 25.16%            |
| Panama City Beach         | 3.45%             |
| Parker                    | 3.39%             |
| Springfield               | 6.23%             |
| Unincorporated Bay County | 41.485            |

The propensity of active-duty personnel to be over-represented in some communities (relative to the population) and under-represented in others is evident from the proportions displayed in the table immediately below. There is a high propensity for active-duty personnel to reside in Callaway, Parker, and Springfield and an under-representation in Lynn Haven, Panama City, and Panama City Beach.

# **Residential Propensity of Active-Duty Personnel and Secondary Workers**

|                           | Active   | <i>Secondary</i> | <i>Difference</i> |
|---------------------------|----------|------------------|-------------------|
| <b>Community</b>          | Duty (%) | Workers (%)      | (%)               |
| Callaway                  | 29.95    | 9.60             | +20.35            |
| Cedar Grove               | 1.25     | 2.17             | -0.92             |
| Lynn Haven                | 6.07     | 8.52             | -2.45             |
| Panama City               | 14.53    | 25.16            | -10.63            |
| Panama City Beach         | 0.44     | 3.45             | -3.01             |
| Parker                    | 6.52     | 3.39             | +3.13             |
| Springfield               | 9.65     | 6.23             | +3.42             |
| Unincorporated Bay County | 31.59    | 41.48            | -9.89             |

At the peak of construction activity associated with the project (FY 2002), it is expected that 1,116 persons (workers and their families) would temporarily relocate to the region. It is estimated that the geographical distribution of these workers and their dependents would be as shown below.

Off-Base In-Migrating Population (FY 2002) by Community

| Community                 | Number |
|---------------------------|--------|
| Callaway                  | 107    |
| Cedar Grove               | 24     |
| Lynn Haven                | 95     |
| Panama City               | 281    |
| Panama City Beach         | 38     |
| Parker                    | 38     |
| Springfield               | 70     |
| Unincorporated Bay County | 455    |
| TOTAL                     | 1,116  |

When full operational capability is achieved (FY 2007), it is estimated that 4,208 persons would relocate to the region over the long term. This total is comprised of the following: 3,925 active-duty military personnel and dependents; 167 persons associated with civilian contract workers and their dependents; and 116 persons associated with secondary jobholders. The project description calls for the on-base construction of 360 dormitory rooms. Their construction would reduce the reliance by military personnel on housing located in surrounding communities. Assuming full occupancy of these newly constructed accommodations, it is estimated that 3,565 active-duty personnel and their dependents would reside off base along with civilian contractor personnel and dependents and secondary workers and their family members for a total population of 3,848. The projected geographical location of these persons is as shown below.

Off-Base In-Migrating Population (FY 2007) by Community

| <b>Community</b>          | Active Duty | Civilian | Secondary | <b>TOTAL</b> |
|---------------------------|-------------|----------|-----------|--------------|
| Callaway                  | 1,068       | 50       | 11        | 1,129        |
| Cedar Grove               | 45          | 2        | 3         | 50           |
| Lynn Haven                | 216         | 10       | 10        | 236          |
| Panama City               | 518         | 24       | 29        | 571          |
| Panama City Beach         | 16          | 1        | 4         | 21           |
| Parker                    | 232         | 11       | 4         | 247          |
| Springfield               | 344         | 16       | 7         | 367          |
| Unincorporated Bay County | 1,126       | 53       | 47        | 1,226        |
| TOTAL                     | 3,565       | 167      | 116       | 3,847        |