

## FINAL REPORT



# SCOTT AIR FORCE BASE COMMUNITY IMPACT STUDY (FY2010)





# SCOTT AIR FORCE BASE COMMUNITY IMPACT STUDY FY2010

**Prepared For:**  
Leadership Council Southwestern Illinois  
Regional Business Council  
Civic Progress

**Prepared By:**  
Woolpert, Inc.,  
with assistance from Southwestern Illinois  
Resource Conservation & Development

**Date:**  
November 1, 2011





# TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>Section 1: Introduction</b> .....	<b>1</b>
<b>Section 2: Methodology</b> .....	<b>5</b>
2-A: Study Background .....	5
2-B: Study Methodology .....	7
<b>Section 3: Personnel Impacts (#)</b> .....	<b>9</b>
3-A: Military Personnel & Dependents .....	9
3-B: Civilian Personnel & Dependents .....	13
3-C: Military Retirees & Dependents .....	17
3-D: Total Personnel, Retirees & Dependents .....	21
<b>Section 4: Expenditures Impacts (\$)</b> .....	<b>25</b>
4-A: Construction, Services, and Procurement of Material, Equipment & Supplies .....	25
4-B: Education Impact Aid .....	29
4-C: Contract Quarters, Meals & Incidentals .....	33
4-D: Basic Allowance for Housing (BAH) .....	37
4-E: Total Expenditures .....	41
4-F: Impact on Housing Market .....	45
<b>Section 5: Payroll Impacts (\$)</b> .....	<b>49</b>
5-A: Military Personnel Payroll .....	49
5-B: Civilian Personnel Payroll .....	53
5-C: Military Retiree Payroll .....	57
5-D: Total Payroll .....	61

Section 6: Direct & Indirect Output, Earnings, and Employment .....	65
6-A: Direct & Indirect Output .....	65
6-B: Direct & Indirect Earnings .....	69
6-C: Direct & Indirect Employment .....	73
6-D: Indirect Dependents .....	77
 Section 7: Conclusion .....	 79
 Appendix 1: Scott AFB Community Impact Tables .....	 81
 Appendix 2: Multipliers for Proportional Extrapolation.....	 85
 Appendix 3: References .....	 87

## SECTION 1: INTRODUCTION

In the decade since the Leadership Council Southwestern Illinois' *FY2000 Scott Air Force Base Community Impact Study* was released, our nation's military has undergone considerable changes, including deployments to fight wars on two fronts (Iraq and Afghanistan), organizing for a Global War on Terrorism (GWOT), the 2005 Base Realignment and Closure (BRAC), and re-stationing of troops from European and Far Eastern (Japan, Korea) bases to bases here in the United States.

The impact on Scott Air Force Base has been considerable, though less publicized, as well. Since 2000, relocations and funding announcements have added to the base's growing significance in the U.S. military system. The 2005 Base Realignment and Closure Commission demonstrated the Department of Defense's desire to bring new missions to Scott AFB through the consolidation of the U. S. Army's Surface Deployment and Distribution Command at the base. Several other notable changes have occurred at Scott AFB between 2000 and 2010.

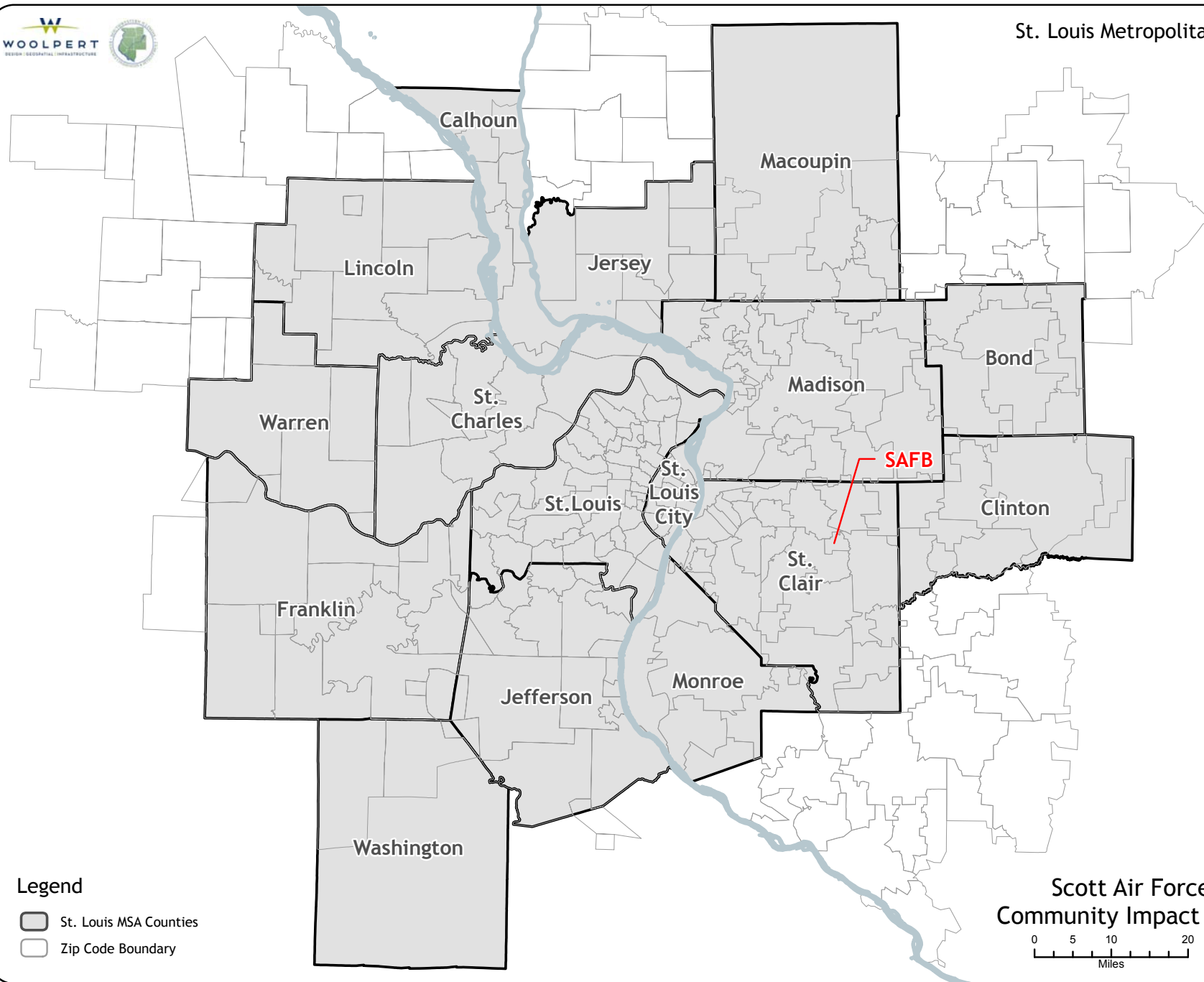
- A new 180,000 square foot, \$96 million addition to U.S. Transportation Command HQ was constructed to house the ***Surface Deployment and Distribution Command*** and to create streamlined operations for its Fused Operations Center, Joint Distribution Process Analysis Center, and Joint Intelligence Operations Center.
- The ***932nd AW (Reserve)***, and the 1,200 men and women who are assigned to the wing, was converted from an aeromedical evacuation flying mission to a very important person/special airlift mission (VIPSAM) and the wing's C-9A aircraft were sent into retirement. The wing gained three C-9C aircraft to support the VIPSAM mission and in 2004, ***\$265 million was secured for three new C-40 aircraft*** and maintenance of the C-9 mission at Scott. In 2009, ***\$88 million was allocated for an additional C-40*** for the wing, beginning the process of replacing the C-9 aircraft which left the Air Force Reserve inventory in September 2011.

- A new 52,000 square foot, \$14 million *932d Operations Group and Combined Command Post Facility* was completed to accommodate the new mission, staffing, and storage requirements supporting the mission.
- Additional completed projects at Scott AFB included a \$12 million *Security Forces Operations Complex*, an \$18 million new 120-person *Dormitory* (Shiloh Hall), and a \$7 million new *Child Development Center*.
- Future project priorities at Scott AFB include a new *Base Fitness Center* (\$14 million), a new *USTRANSCOM Mission Planning Center* (\$76 million), and a new *Defense Information Systems Agency (DISA)-CONUS Facility* (\$83 million).

Today, Scott AFB occupies approximately 3,000 acres, employs more than 13,000 military and civilian workers, supports an annual payroll of nearly \$1.3 billion, and procures an additional \$200 million annually for goods and services. Since Sept. 11, 2001, Scott's aeromedical evacuation system alone has moved more than 80,000 patients, including 14,000 battle-injured soldiers. In FY10, USTRANSCOM coordinated from Scott AFB the airlift of more than 2 million passengers and nearly 1 million tons of cargo; aurally refueled 13,500 aircraft; and sealifted 25 million tons of cargo.

As the host unit at Scott AFB, the 375th Air Mobility Wing now supports four major headquarters and a numbered Air Force with worldwide responsibilities: United States Transportation Command (USTRANSCOM), Headquarters Air Mobility Command (AMC), Military Surface Deployment and Distribution Command (SDDC), Headquarters 18<sup>th</sup> Air Force, and the Air Force Global Logistics Support Center (AFMC). In addition, Scott is home to the 932nd Airlift Wing of the Air Force Reserve Command and the 126th Air Refueling Wing of the Illinois National Guard.

Scott AFB is located in the St. Louis, MO-IL Metropolitan Statistical Area (MSA) comprised of the Illinois counties of St. Clair, Madison, Clinton, Bond, Macoupin, Jersey, and Calhoun; and the Missouri counties of St. Louis, St. Charles, Lincoln, Warren, Franklin, Washington, Jefferson, and the City of St. Louis.



### Legend

- St. Louis MSA Counties
- Zip Code Boundary

Scott Air Force Base  
Community Impact Study  
FY10

0 5 10 20  
Miles



## SECTION 2: METHODOLOGY

### A. STUDY BACKGROUND

The basis for this community impact study was the **375th AMW FY2010 Stakeholder's Report**. Following the close of FY2010 on September 30, 2010, the 375th Air Mobility Wing prepared the Stakeholder's Report to quantify the economic impact of Scott AFB on the St. Louis, MO-IL Metropolitan Statistical Area, or MSA. The impact was calculated using a Secretary of the Air Force program that was developed within the parameters of the Office of the Secretary of Defense's (OSD) Economic Impact Analysis (EIA) model. Indirect job impacts were calculated using Bureau of Labor Statistics (BLS) multipliers for the MSA.

The Office of the Secretary of Defense originally developed the Economic Impact Analysis model to compute the economic impact of Air Force installations for 1995 BRAC decisions. The model:

- Provides decision-makers with a “reasonable, fair, and consistent tool” to compare the potential economic impacts of alternative BRAC recommendations.
- Is applicable to Active Duty, AF Reserve, and ANG installations.
- Calculates the number of indirect jobs and payroll created.
- Uses average annual salary data published by the Bureau of Labor Statistics, U.S. Dept. of Labor for metropolitan areas.

The Secretary of the Air Force model was developed using the OSD EIA model with the following assumptions:

- The Total Annual Economic Impact of a base on its local area is computed by summing annual base payroll, annual base expenditures, and the estimated annual dollar value of indirect jobs created.
- Annualized base payroll data and expenditure data for construction, services, and procurement of materials, equipment, and supplies are direct inputs to the EIA model from base sources.
- The number of indirect jobs created is the mathematical product of the number of base jobs and DoD/BLS Indirect Job Multipliers for the economic area (MSA).
- The estimated annual dollar value of jobs created is the mathematical product of the number of indirect jobs created and the average annual pay in the economic area as published by the Bureau of Labor Statistics.

The results of this methodology yielded a Total Annual Economic Impact for Scott AFB of nearly **\$2.3 billion** on the St. Louis region.



## SECTION 2: METHODOLOGY

### B. STUDY METHODOLOGY

The following impact study was modeled after a similar report prepared precisely ten years ago using FY2000 data for Scott AFB. First, personnel and economic impact data were obtained from the 375th AMW, USTRANSCOM, AMC, SDDC, DISA/DITCO, AFNIC (Air Force Network Integration Center), 126th ARW, and 932nd AW. The data included the geographic distribution of Military Personnel, Appropriated Fund (APF) and Non-Appropriated Fund (NAF) Civilian Personnel, and Contracts Awarded by zip code.

These totals were then compared to data found in the Stakeholder's Report. Since the data received from the base generally was not a full count of the totals provided in the Stakeholder's Report, proportional extrapolation was used to "predict" how the missing information was geographically distributed. It was assumed the missing data would be distributed proportionally to the received data. Appendix 2 of this report contains a brief description of the methodology used to generate the data within each section.

The procedure used to develop the FY2010 results varied from the FY2000 study in one significant way. In FY2000, the St. Clair County Economic Multiplier of 2.39 was used to calculate indirect impacts of Scott AFB on the region. This multiplier was developed by the Federal Reserve Bank and the University of Illinois using the Illinois Regional Econometric Input-Output Model (ILREIM). In FY2010, a more widely accepted model for estimating the economic impacts of public- and private-sector projects and programs, such as military base closings, on affected regions was used—the Bureau of Economic Analysis' (BEA) Regional Input-Output Modeling System (or RIMS II).

Using RIMS II for impact analysis has several advantages. RIMS II multipliers can be estimated for any region composed of one or more counties and for any of the more than 500 industries or groups of industries in the national I-O table. The cost of estimating regional multipliers is relatively low because of the accessibility of the main data sources for RIMS II. And, according to empirical tests, the estimates based on RIMS II are similar in magnitude to the estimates based on relatively expensive surveys. The multipliers from the model can be used to estimate the total impact of the project or program on regional output, earnings, and employment (from *Regional Multipliers, A User handbook for RIMS II*).

For this analysis of the impact of Scott AFB on the St. Louis, MO-IL MSA, three RIMS II Multipliers were used. The first multiplier, to calculate the impact of Scott AFB's Annual Expenditures on the region, was 2.2045 (the Final Demand/Output Multiplier representing the total dollar change in output that occurs for all industries in the region for each dollar of output by the selected industry—in this case Scott AFB).

The second multiplier, to calculate the impact of Scott AFB's Annual Payroll on the region, was 1.8550 (the Direct Effect/Earnings Multiplier representing the total dollar change in earnings of households employed by all industries for each dollar of earnings paid to households employed by the selected industry—Scott AFB).

And the third multiplier, to calculate the impact of Scott AFB's Employment on the St. Louis region, was 1.8148 (representing the total change in number of jobs in all industries for each job at Scott AFB).

We hope that this report sheds renewed light on the value of Scott AFB to the St. Louis metropolitan area and is cause for celebration. The continuing growth and evolution of Scott AFB is equally vital to the success of the U. S. military and the St. Louis bi-state region.

## SECTION 3: PERSONNEL IMPACTS (#)

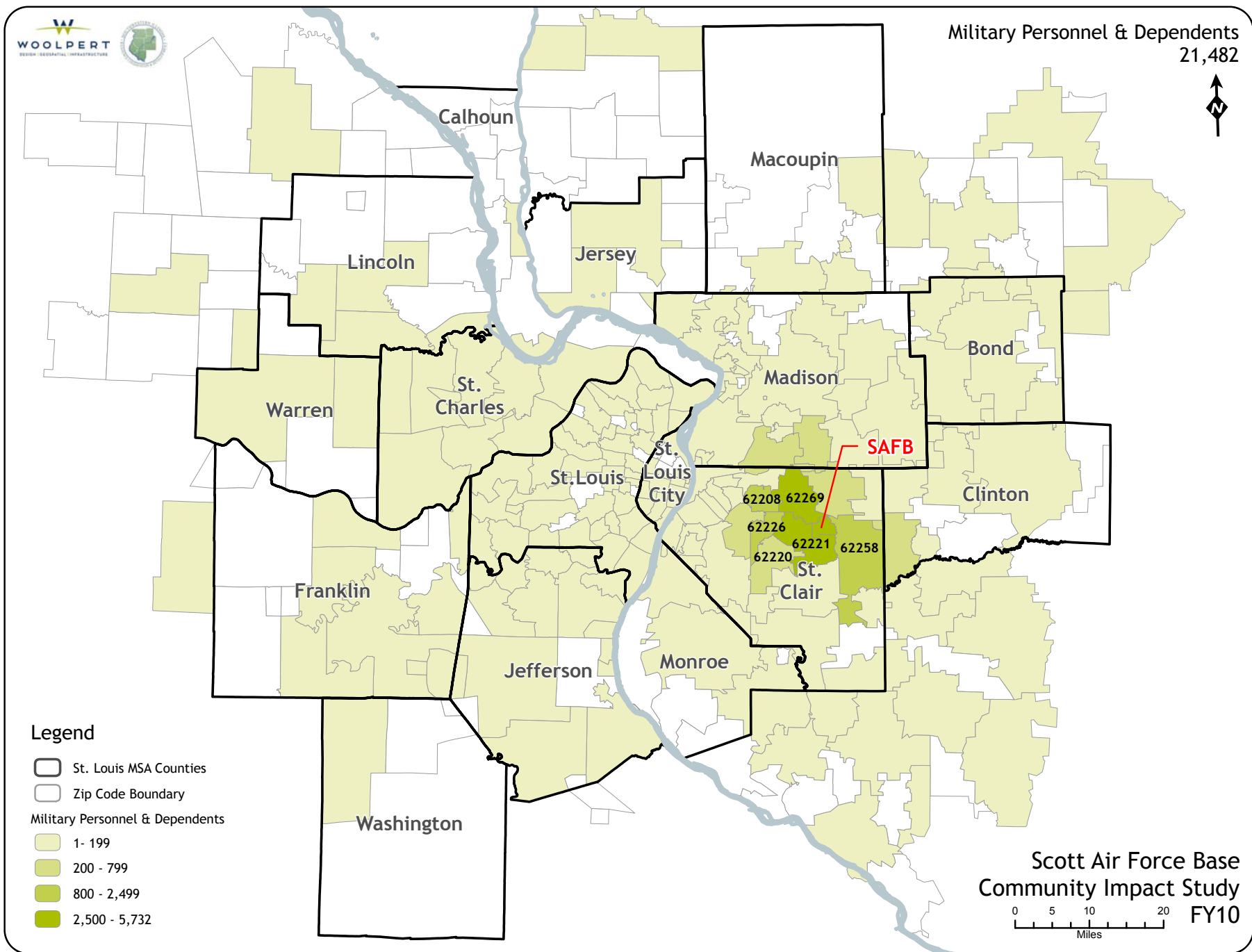
### A. MILITARY PERSONNEL & DEPENDENTS

Military personnel included in this study were the Active Duty Military assigned to Scott Air Force Base, members of the 932nd Airlift Wing (Reserve), and members of the 126th Air Refueling Wing (Illinois Air National Guard). According to the FY2010 Stakeholder's Report, there were 5,533 Active Duty Military, 1,515 Reservists, and 869 National Guardsmen, for a total DoD Appropriated Fund (APF) Military component of **7,917 Military Personnel**.

Military dependents are the family members of APF Military Personnel at Scott AFB including Active Duty Military, 932nd AW (Reserve), and 126th ARW (Illinois Air National Guard) members. According to the FY2010 Stakeholder's Report, the number of Active Duty Military Family Members was 9,870 dependents. From a medical benefits enrollment report of Guard and Reserve sponsors and family members in the greater Scott AFB area, a multiplier of 1.55 Family Members for each Guard (126th ARW) or Reserve (932nd AW) sponsor was determined for Scott AFB. This resulted in an estimate of 3,695 Guard and Reserve dependents; and a total of **13,565 Military Dependents** associated with Scott AFB.

The location of residence of the APF Military Personnel was provided by Scott AFB. The location of residence of the APF Military Dependents was distributed based on the location of the Military Sponsors and both were mapped by zip code.







## SECTION 3: PERSONNEL IMPACTS (#)

### B. CIVILIAN PERSONNEL & DEPENDENTS

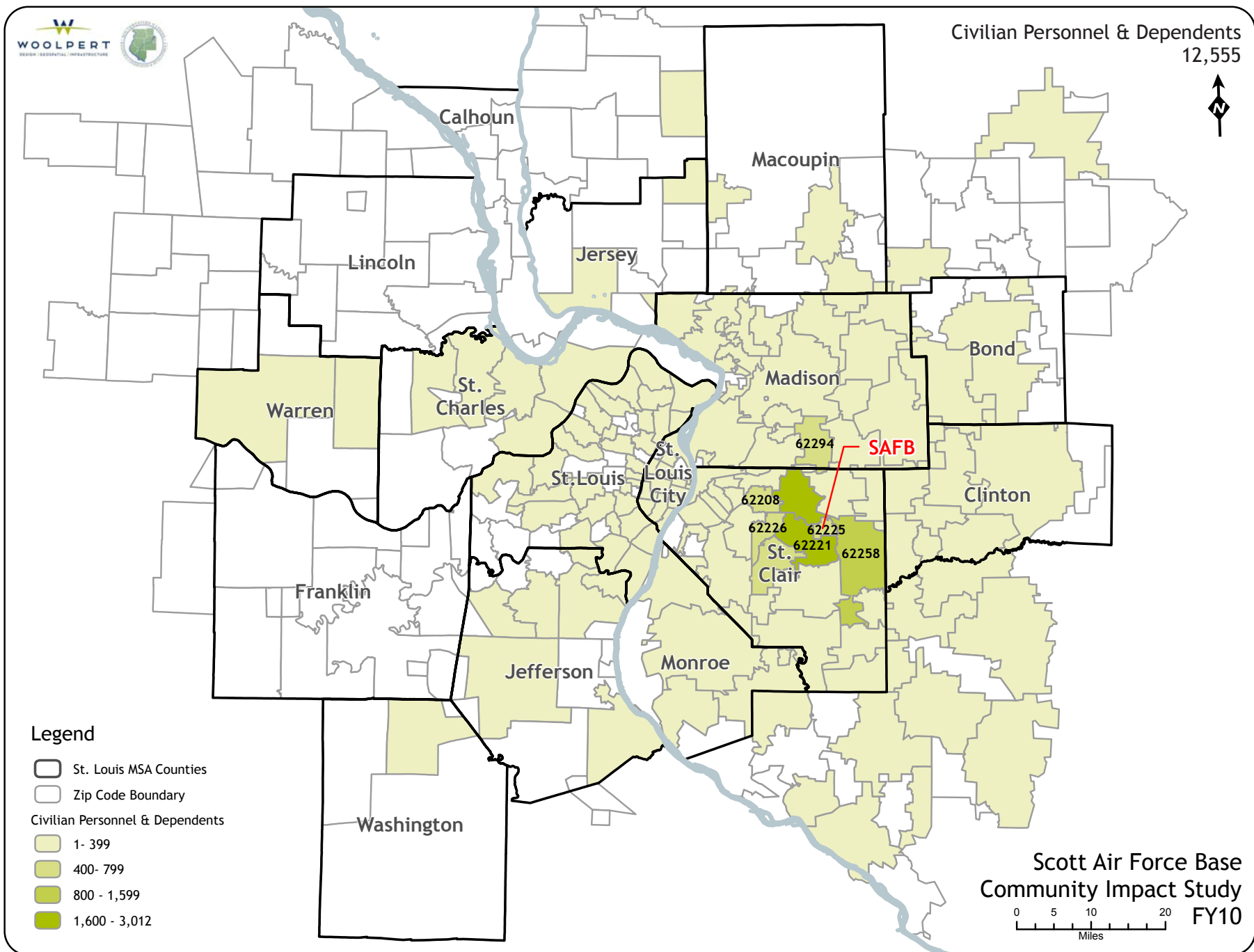
Like many of today's military installations, Scott AFB has a large civilian component augmenting the military personnel on a day-to-day basis. Civilian personnel include DoD Appropriated Fund (APF) Civilians and Non-Appropriated Fund (NAF) personnel. APF Civilians include General Schedule (GS) civil service employees and Federal Wage Board hourly labor workers. NAF Civilians are primarily contract and private business employees (such as Base Exchange, Commissary, and bank/credit union employees) working on Scott AFB. According to the FY10 Stakeholder's Report, there were 4,280 Appropriated Fund (APF) Civilians and 823 Non-Appropriated Fund (NAF) Civilians, a total of **5,103 Civilian Personnel** at Scott.

Civilian Dependents are the family members of Civilian Personnel at Scott AFB. Using the results of the 2010 U. S. Census, the average household size in the St. Louis metropolitan area (MO-IL MSA) was determined to be 2.46; or a multiplier of 1.46 family members for each civilian employee at Scott AFB. This resulted in a projection of **7,452 Civilian Dependents**.

The location of residence of the APF and NAF Civilian Personnel was provided by Scott AFB. The location of residence of the Civilian Dependents was distributed based on the location of the APF and NAF Civilian Sponsors and both were mapped by zip code.









## SECTION 3: PERSONNEL IMPACTS (#)

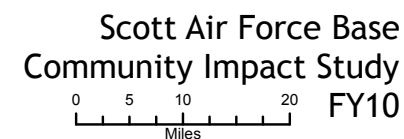
### C. MILITARY RETIREES & DEPENDENTS

Military personnel draw a pension and continue to receive medical/pharmacy and tax free shopping benefits upon qualifying for retirement. As such, they tend to cluster around military installations which provide these benefits. Military Retirees dependent on Scott AFB for continuing benefits have a significant impact on the local economy. The Scott AFB local economic area was defined in the FY2010 Stakeholder's Report as the 620, 622, 630, 631, and 633 three-digit zip codes. Within these zip codes, **18,314 Military Retirees** were reported.

Retiree Dependents are the family members of Military Retirees in the Scott AFB local economic area. From a medical benefits enrollment report of Retiree sponsors and family members in the greater Scott AFB area, a multiplier of 1.16 family members for each Retiree sponsor was determined for Scott AFB. This provided an estimate of **21,245 Military Retiree Dependents**.

The location of residence of the Military Retirees was provided in the FY2010 DoD Office of the Actuary's Statistical Report on the Military Retirement System. The location of residence of the Military Retiree's Dependents was distributed based on the location of the Military Retiree Sponsors and both were mapped by zip code.







## SECTION 3: PERSONNEL IMPACTS (#)

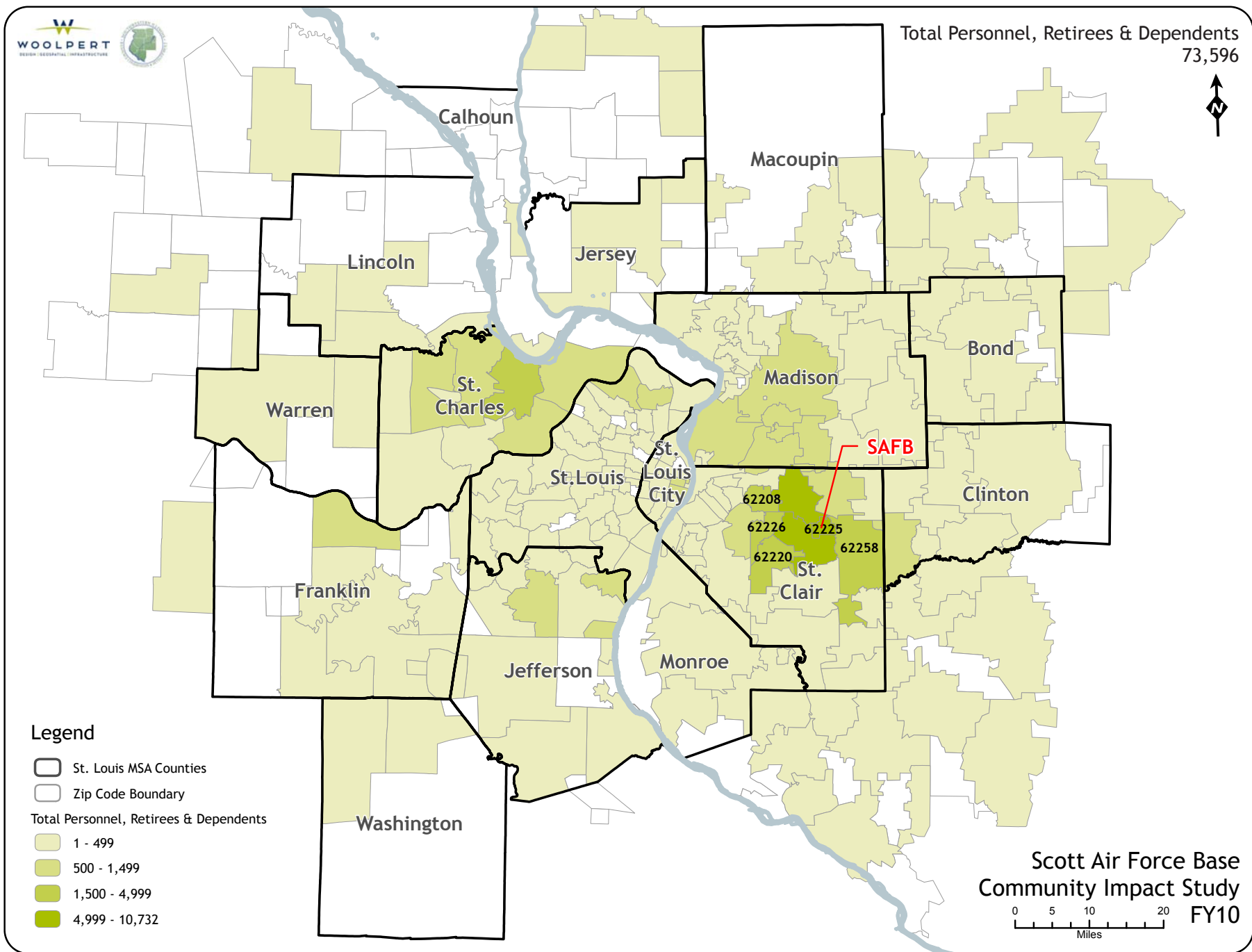
### D. TOTAL PERSONNEL, RETIREES & DEPENDENTS

The final calculation for the number of people directly associated with Scott AFB was the determination of the total of all military, civilian, retiree, and dependent personnel. From the previous analyses, it was determined that Scott AFB is responsible for 7,917 Military Personnel, 13,565 Military Dependents, 5,103 Civilian Personnel, 7,452 Civilian Dependents, 18,314 Military Retirees, and 21,245 Military Retiree Dependents—a **total of 73,596 personnel**.

The location of all Scott AFB Military and Civilian Personnel, Retirees, and Dependents was mapped by zip code.









## SECTION 4: EXPENDITURES IMPACTS (\$)

### A. CONSTRUCTION, SERVICES, AND PROCUREMENT OF MATERIAL, EQUIPMENT & SUPPLIES

Scott Air Force Base operates under an annual budget for expenditures related to construction, services and the procurement of material, equipment and supplies. This budget varies from year-to-year based on Federal and Command appropriations, particularly in the area of construction spending. Large construction projects can also be spread over more than one fiscal year.

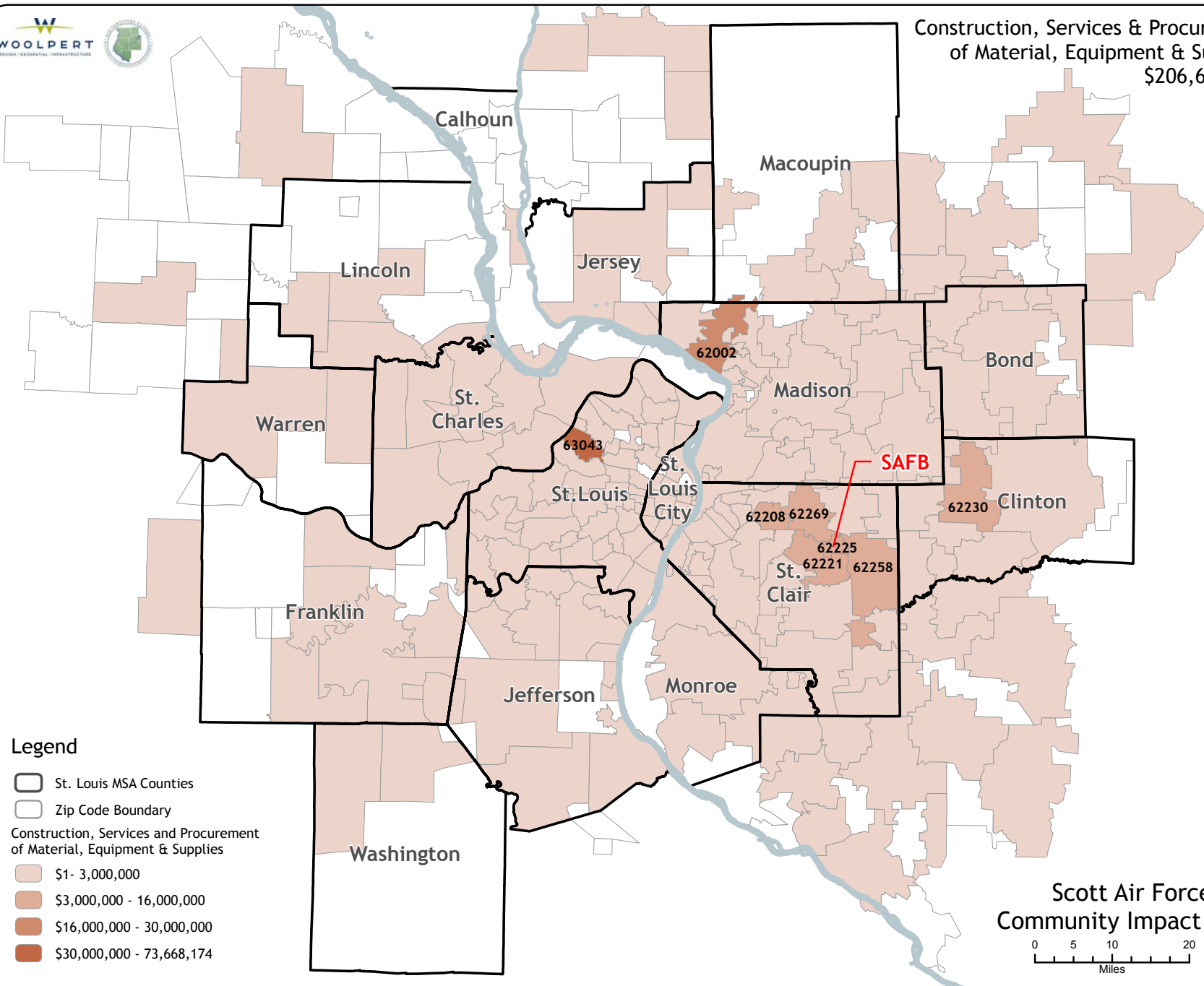
The FY2010 Stakeholder's Report for Scott AFB provided the Actual Annual Expenditures for FY10 of \$206,685,985, excluding Education Impact Aid, TDY, and BAH expenditures discussed in the following sections. As noted in the report, these expenditures included only contracts in the local economic area (the St. Louis, MO-IL MSA) and contracts requiring the use of locally supplied goods and services.

Construction contracts fell under such spending categories as the Military Construction Program (\$17.5 million), Non-Appropriated Funds (\$867,000), Military Family Housing (no expenditures in FY10), Operations & Maintenance (\$19.7 million), and other miscellaneous funds (\$2.6 million). Services contracts covered contracts with private vendors for specific products and services (\$85 million) such as IT services or office supplies, and other purchases throughout the local economic area (\$30 million) mainly through the Government Purchase Credit Card system.







Material, equipment and supply procurement expenditures included local purchases reported by the Base Exchange (AAFES) (\$2.1 million), Commissary (DeCA) (\$900,000), the government cost of health care services (TRICARE) (\$46 million), and other miscellaneous procurements (\$1.0 million).

The location of companies receiving contract awards, the type of goods or services provided, and the dollar amount of the awards were provided by Scott AFB and mapped by zip code. In cases where expenditure information was incomplete or not available, the dollar amounts were distributed proportionally to the other expenditures in the local market or proportionally by place of residence in the case of health care.

Construction, Services & Procurement  
 of Material, Equipment & Supplies  
 \$206,685,985



### Legend

-  St. Louis MSA Counties
-  Zip Code Boundary
- Construction, Services and Procurement of Material, Equipment & Supplies
-  \$1- 3,000,000
-  \$3,000,000 - 16,000,000
-  \$16,000,000 - 30,000,000
-  \$30,000,000 - 73,668,174

Scott Air Force Base  
 Community Impact Study  
 FY10

0 5 10 20  
 Miles



## SECTION 4: EXPENDITURES IMPACTS (\$)

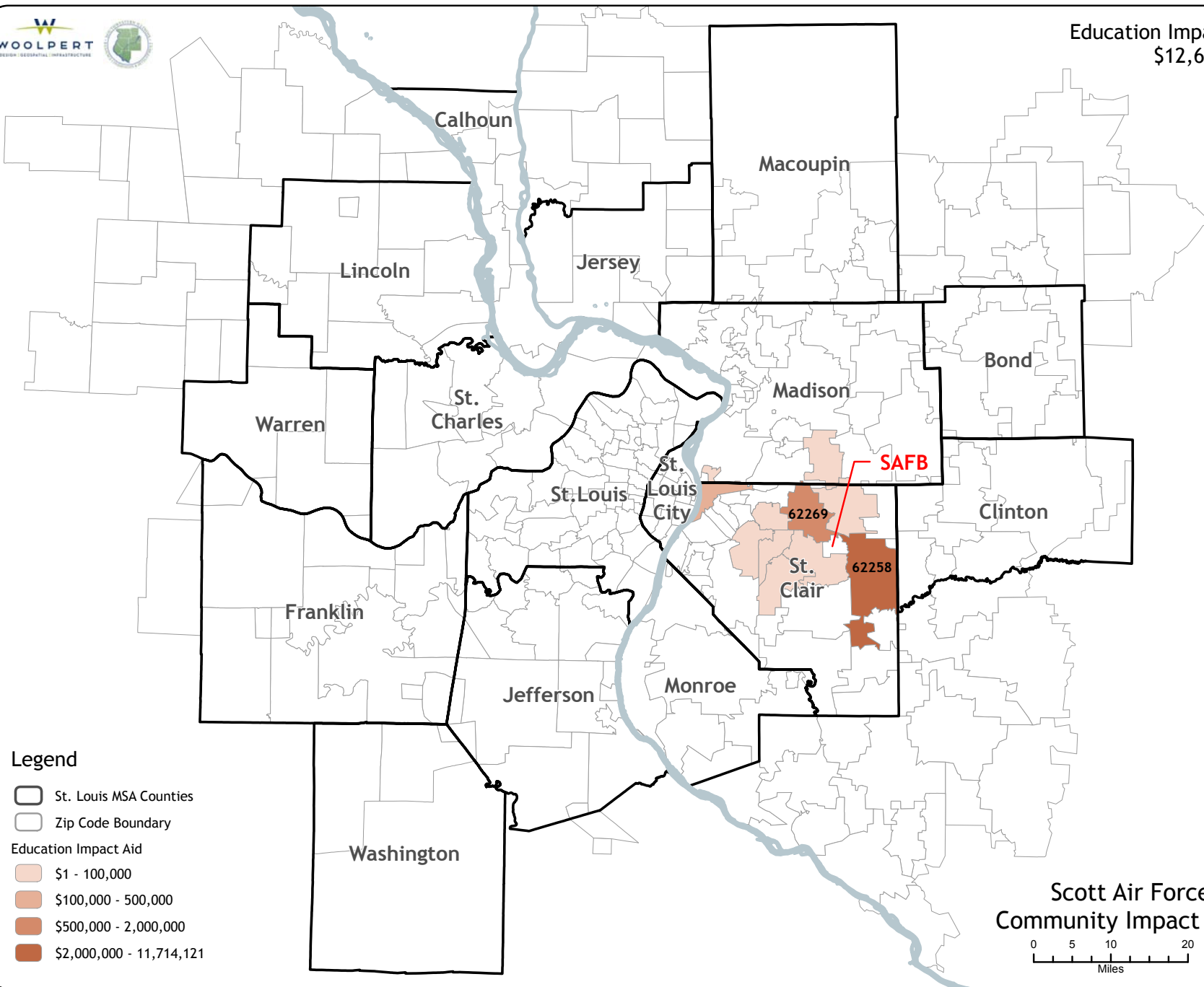
### B. EDUCATION IMPACT AID

The Department of Education (DOE) Federal Impact Aid Program (Title VII-Section 8003) provides assistance to schools for educating the children of active duty military personnel. The minimum eligibility for a school district to receive impact aid is 3% of total enrollment. The program provided nearly \$1.2 billion in FY10 to more than 1,300 school districts across the U.S.



In the Scott AFB local economic area, 14 districts were eligible for impact aid in FY10 totaling \$12,686,601. The location of Education Impact Aid was mapped by school district zip code.











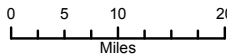
### Legend

-  St. Louis MSA Counties
-  Zip Code Boundary

### Education Impact Aid

-  \$1 - 100,000
-  \$100,000 - 500,000
-  \$500,000 - 2,000,000
-  \$2,000,000 - 11,714,121

Scott Air Force Base  
Community Impact Study  
FY10





## SECTION 4: EXPENDITURES IMPACTS (\$)

### C. CONTRACT QUARTERS, MEALS & INCIDENTALS (TEMPORARY DUTY, OR TDY)

Military and civilian out-of-town government travelers receive a daily payment (per diem) for lodging, meals and incidentals for personal expenditures related to a temporary duty assignment (Temporary Duty, or TDY). In the case of Scott AFB, the per diem amount in 2010 was \$166.

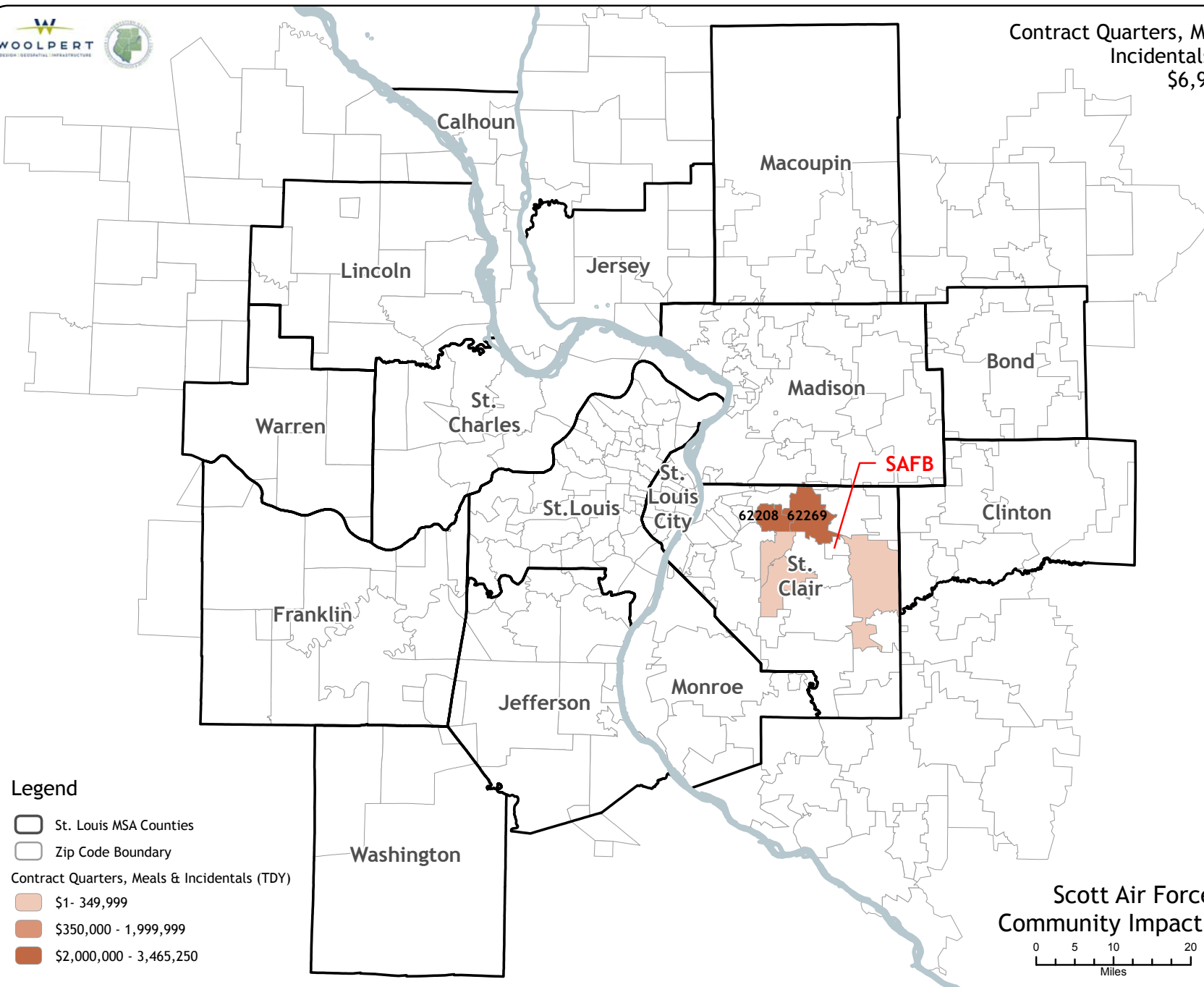
Contracts with off-base hotels for lodging accommodations totaled \$3,950,800 in FY10, or 23,800 room-nights in the local hotel market. In addition to these contracts, when overnight accommodations are not available on-base, eligible personnel are given a Letter of Non-Availability and per diem to seek lodging off-base. In FY10, this totaled \$2,979,700, accounting for an additional 17,950 room-nights in the local community. Scott AFB's total impact on hotels and restaurants in the area was \$6,930,500 for **41,750 room-nights**; an average of about 160 rooms each weeknight of the year.

The Contract Quarters (TDY) expenditures of **\$6,930,500** were proportionally distributed in the local economic area based on the number of "military referral" hotels within 10 miles of SAFB. There were 22 such hotels located in the following zip codes and representing the corresponding percent of local market share: 62269 (50%), 62208 (35%), 62258 (5%), 62220 (5%), 62226 (5%).






The location of TDY Expenditures was mapped by community zip code.



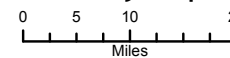
Contract Quarters, Meals & Incidentals (TDY)  
\$6,930,500



### Legend

-  St. Louis MSA Counties
-  Zip Code Boundary
- Contract Quarters, Meals & Incidentals (TDY)
-  \$1- 349,999
-  \$350,000 - 1,999,999
-  \$2,000,000 - 3,465,250

Scott Air Force Base  
 Community Impact Study  
 FY10





## SECTION 4: EXPENDITURES IMPACTS (\$)

### D. BASIC ALLOWANCE FOR HOUSING (BAH)

Basic Allowance for Housing (BAH) is the amount of monthly supplemental income that military households receive to pay for off-base housing. According to the military website on BAH, "BAH is based on geographic duty location, pay grade, and dependency status (with dependents or without dependents). The intent of BAH is to provide uniformed service members accurate and equitable housing compensation based on housing costs in local civilian housing markets, and is payable when government quarters are not provided." BAH applies only to Active Duty Military personnel.

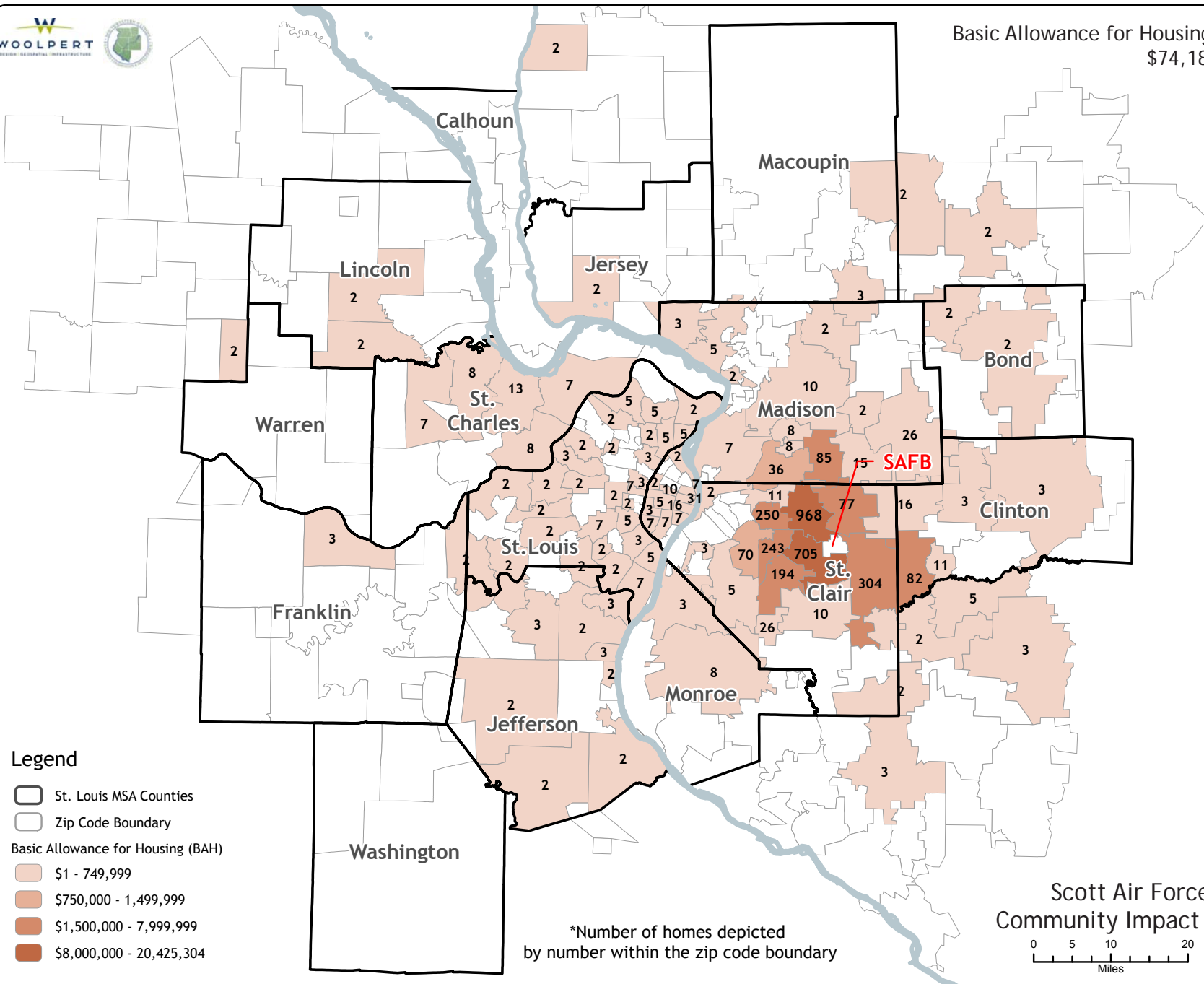
In areas with large numbers of military personnel, the BAH can have a significant impact on the local housing market. In the Scott AFB local economic area, the combined BAH of active duty military was estimated by first determining the approximate ratio of off-base military personnel by pay grade and by dependency status to determine an overall average BAH, then multiplying the average BAH by the number of active duty military personnel living off-base. For Scott AFB, the average annual BAH was determined to be \$17,736 (about \$1,500 per month) for FY10. With 4,183 off-base Active Duty Military personnel according to the FY2010 Stakeholder's Report, the total BAH expenditure was \$74,189,688.

The number of housing units and dollar amount of BAH was mapped by zip code.











Basic Allowance for Housing (BAH)  
 \$74,189,688  
 4,183

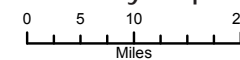


### Legend

-  St. Louis MSA Counties
-  Zip Code Boundary
- Basic Allowance for Housing (BAH)
-  \$1 - 749,999
-  \$750,000 - 1,499,999
-  \$1,500,000 - 7,999,999
-  \$8,000,000 - 20,425,304

\*Number of homes depicted  
 by number within the zip code boundary

Scott Air Force Base  
 Community Impact Study  
 FY10





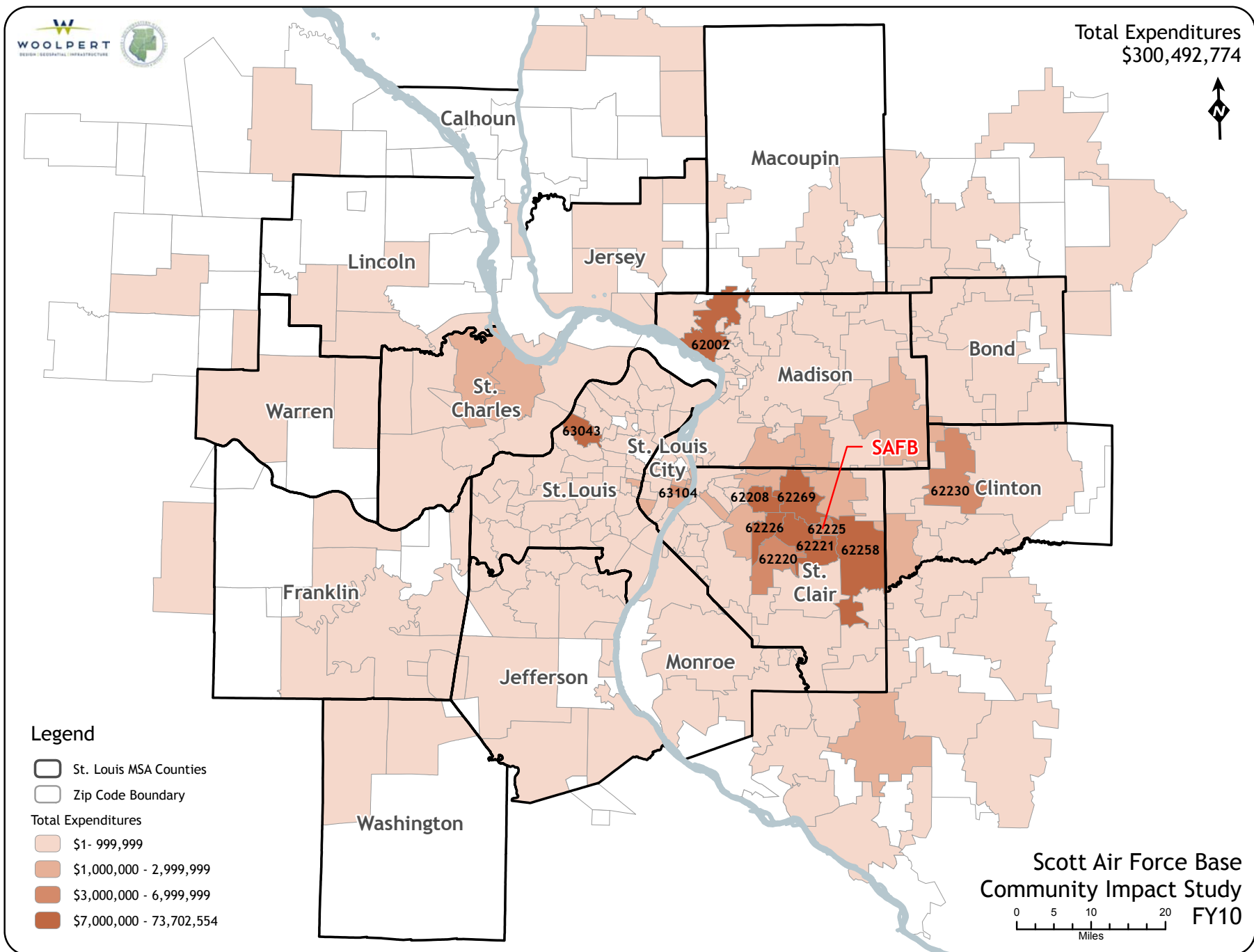
## SECTION 4: EXPENDITURES IMPACTS (\$)

### E. TOTAL EXPENDITURES

Total Expenditures by Scott AFB were the sum of Construction, Services and Procurement Contracts (\$206,685,985), Education Impact Aid (\$12,686,601), Contract Quarters/TDY (\$6,930,500), and Basic Allowance for Housing/BAH (\$74,189,688)—a total of \$300,492,774.

The location of Total Expenditures by Scott AFB was mapped by zip code.







## SECTION 4: EXPENDITURES IMPACTS (\$)

### F. IMPACT ON HOUSING MARKET

In this section the impact of Scott AFB on the housing market was calculated in terms of annual housing dollars and number of potentially-impacted housing units. This is not in addition to the Total Direct Expenditures since housing expenditures were already counted in the Basic Allowance for Housing (BAH) and Payroll figures. But the impact of Scott AFB on the housing market is a very significant and real economic impact on the region.

In addition to the \$74 million in BAH provided to Active Duty Military, the approximate amount of money off-base Civilians, Guardsmen, Reservists, and Retirees at Scott AFB spend on housing was determined by calculating 20% of their annual military payroll. Based on the Active Duty Military BAH expenditure from above, and 20% of the FY10 payrolls provided in the Stakeholder's Report for APF and NAF Civilians (\$386,529,324), off-base Air National Guardsmen (\$18,718,119), off-base Reservists (\$32,945,310), and Retirees (\$449,964,180), the estimated annual housing impact was \$74,189,688 from BAH plus \$177,631,387 as a percent of payroll—an annual total impact of **\$251,821,074**; approximately \$192 million in Illinois and \$60 million in Missouri.

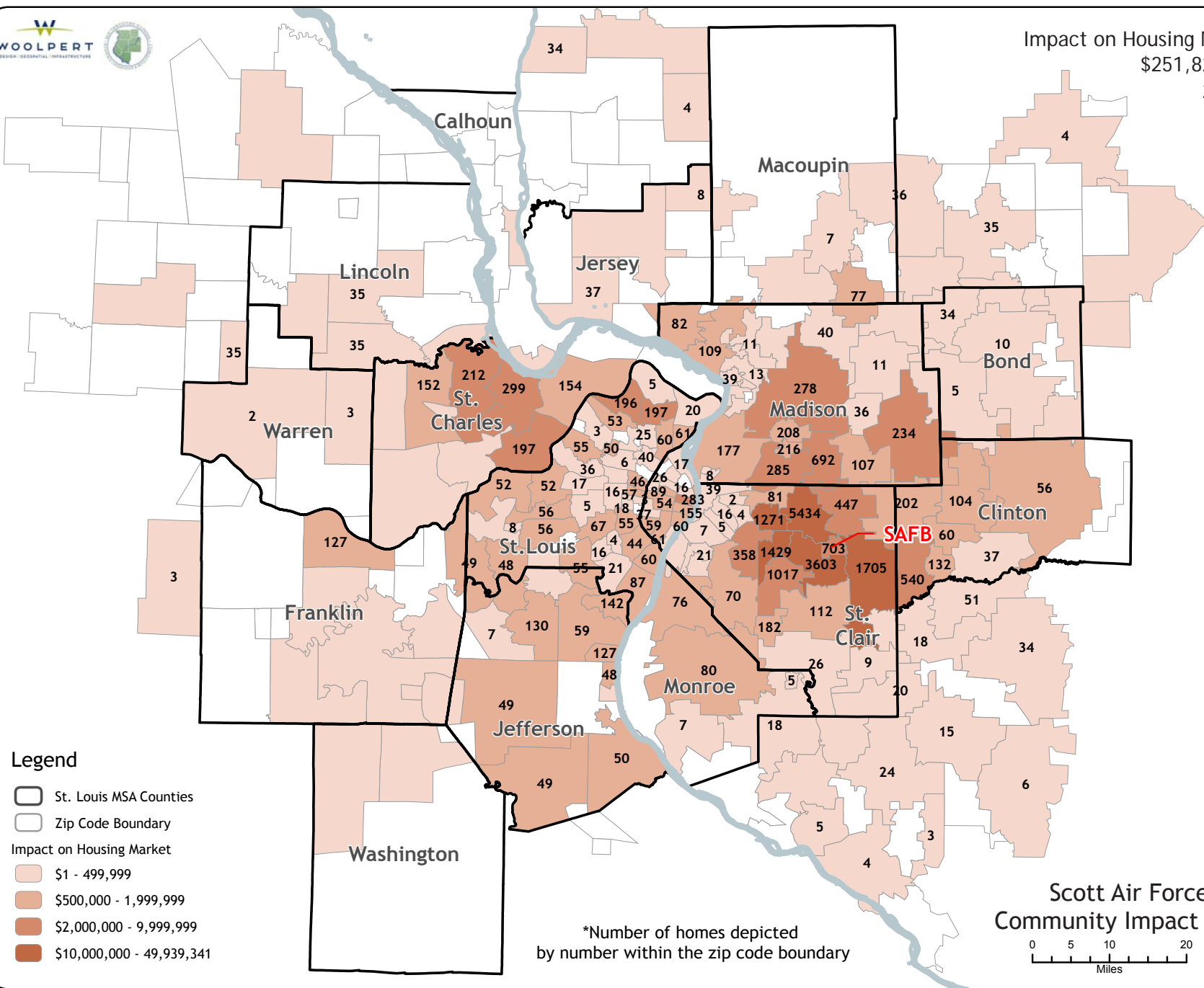
Using the average value of owner-occupied housing units in each county within the St. Louis, MO-IL metropolitan area, the resulting Illinois weighted-average housing value was calculated to be \$117,500 and the Missouri weighted-average housing value was calculated to be \$158,000. With the help of a Mortgage Calculator and basic rate and term assumptions, the average annual housing cost for the Illinois portion of the metropolitan area was determined to be \$9,200 and the average annual housing cost for the Missouri portion was determined to be \$12,350.

By dividing the annual housing dollars generated from Scott AFB by the annual housing cost, the number of potentially-impacted housing units could be estimated for each state. In this analysis, Scott AFB is estimated to have a direct impact on 25,733 housing units in the St. Louis area; 20,896 in Illinois and 4,836 in Missouri. In Illinois, this represents nearly 10% of the owner-occupied housing market.

The number of housing units and dollar amount of annual economic impact on housing was mapped by zip code.



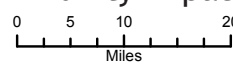
Impact on Housing Market  
\$251,821,074  
25,733



- Legend**
- St. Louis MSA Counties
  - Zip Code Boundary
  - Impact on Housing Market**
  - \$1 - 499,999
  - \$500,000 - 1,999,999
  - \$2,000,000 - 9,999,999
  - \$10,000,000 - 49,939,341

\*Number of homes depicted  
by number within the zip code boundary

Scott Air Force Base  
Community Impact Study  
FY10





## SECTION 5: PAYROLL IMPACTS (\$)

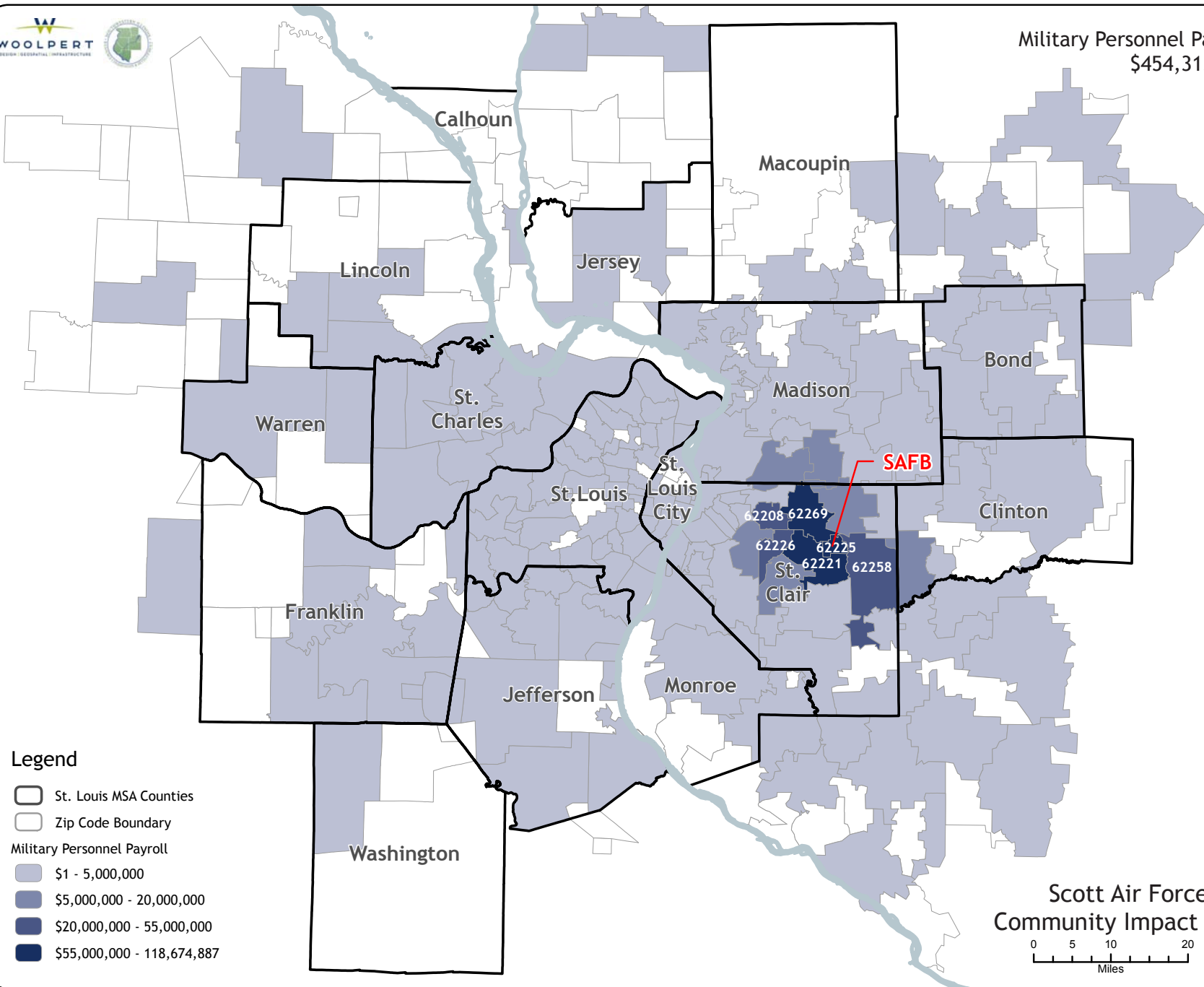
### A. MILITARY PERSONNEL PAYROLL

As discussed earlier, Scott AFB military personnel include the Active Duty Military, members of the 932nd Airlift Wing (Reserve), and members of the 126th Air Refueling Wing (Illinois Air National Guard). According to the FY2010 Stakeholder's Report, the annual payroll for the 5,533 Active Duty Military was \$402,399,879; for the 1,515 Reservists, FY10 payroll was \$33,129,920; and for the 869 National Guardsmen, payroll totaled \$18,786,000. This provided a total Scott AFB FY10 Military Personnel Payroll of \$454,315,799.

The distribution of Military Personnel Payroll provided by Scott AFB was mapped by zip code.



Military Personnel Payroll  
\$454,315,799



### Legend

St. Louis MSA Counties

Zip Code Boundary

Military Personnel Payroll

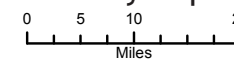
\$1 - 5,000,000

\$5,000,000 - 20,000,000

\$20,000,000 - 55,000,000

\$55,000,000 - 118,674,887

Scott Air Force Base  
Community Impact Study  
FY10





## SECTION 5: PAYROLL IMPACTS (\$)

### B. CIVILIAN PERSONNEL PAYROLL

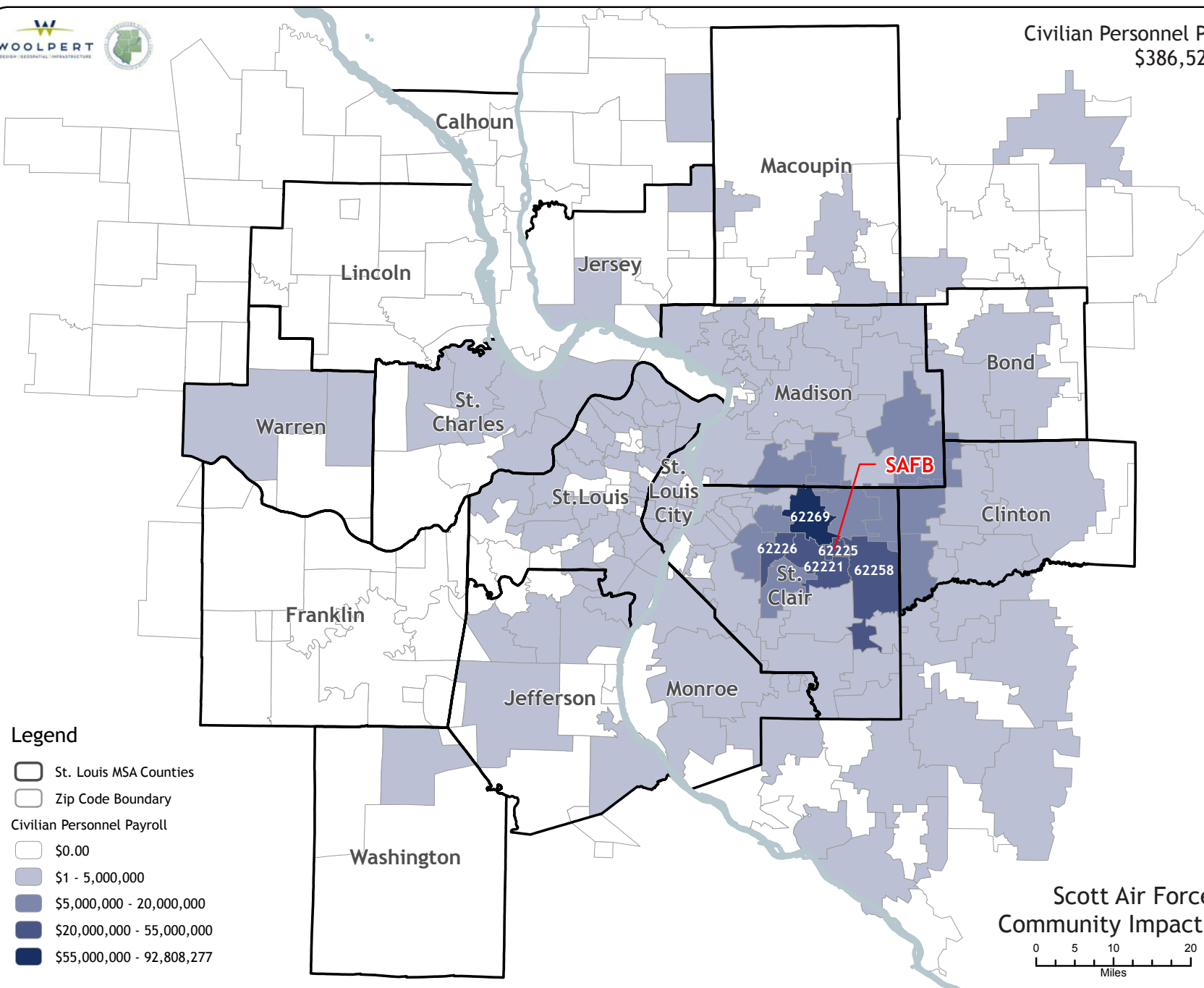
Civilian personnel augment the active duty military personnel at Scott AFB at a ratio of almost 1:1. This includes both DoD Appropriated Fund (APF) Civilians and Non-Appropriated Fund (NAF) personnel, such as contract and private business employees at the base. According to the FY2010 Stakeholder's Report, there were 4,280 Appropriated Fund (APF) Civilians and 823 Non-Appropriated Fund (NAF) Contract Civilians and Private Business Personnel for a total of 5,103 Civilian Personnel at Scott.

According to the Stakeholder's Report, the annual payroll for the 5,103 Civilian Personnel was the sum of \$375,232,924 for APF Civilians and \$11,296,400 for NAF Civilians; a total Scott AFB FY10 Civilian Personnel Payroll of \$386,529,324.








The distribution of Civilian Personnel Payroll provided by Scott AFB was mapped by zip code.







### Legend

-  St. Louis MSA Counties
-  Zip Code Boundary
- Civilian Personnel Payroll
  -  \$0.00
  -  \$1 - 5,000,000
  -  \$5,000,000 - 20,000,000
  -  \$20,000,000 - 55,000,000
  -  \$55,000,000 - 92,808,277

Scott Air Force Base  
Community Impact Study  
FY10





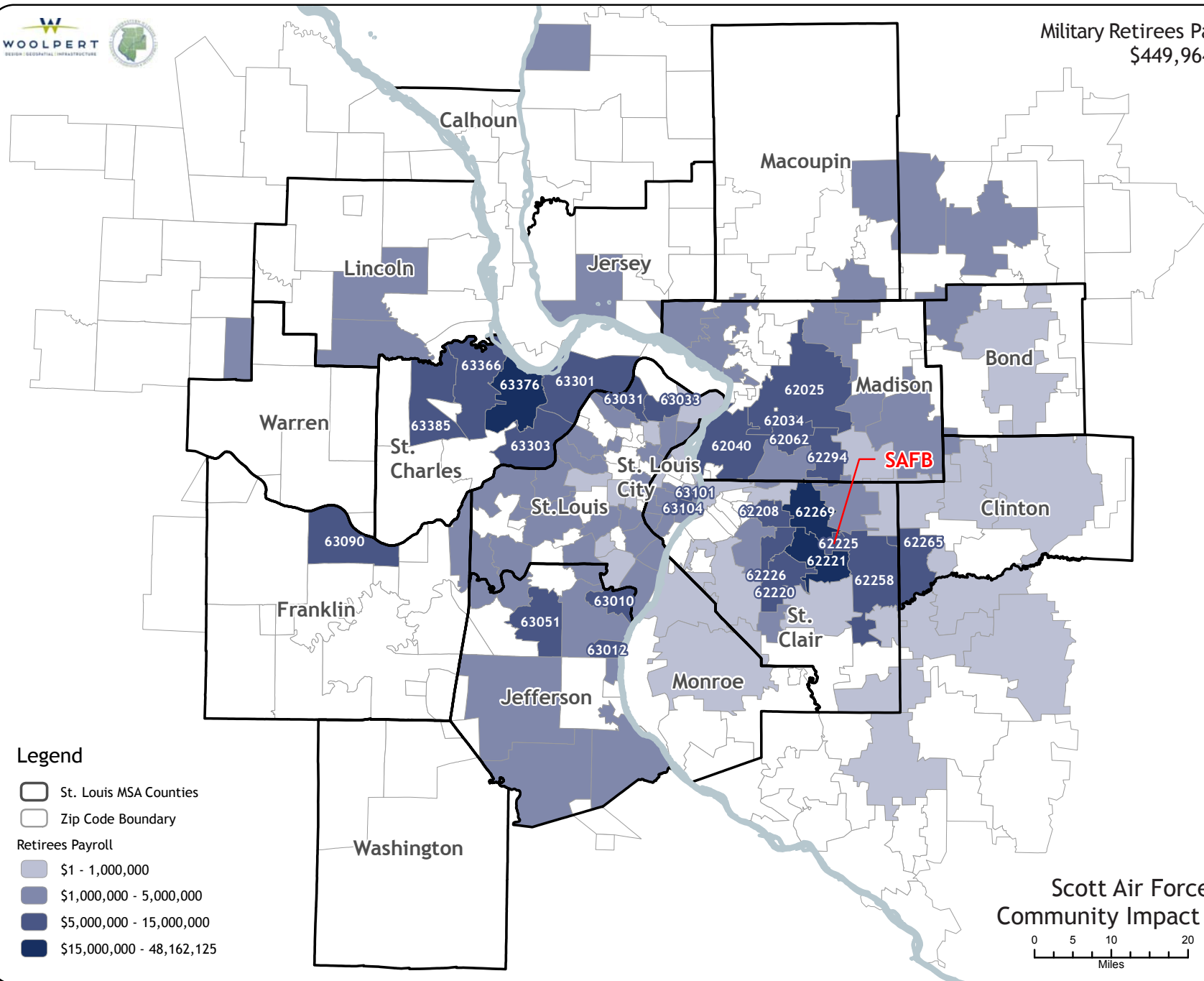
## SECTION 5: PAYROLL IMPACTS (\$)

### C. MILITARY RETIREE PAYROLL

Military Retiree Payroll (i.e., pension benefits) for the 18,314 Military Retirees within the Scott AFB local economic area totaled **\$449,964,180** in FY10.

The distribution of Retiree Payroll provided by Scott AFB was mapped by zip code.







## SECTION 5: PAYROLL IMPACTS (\$)

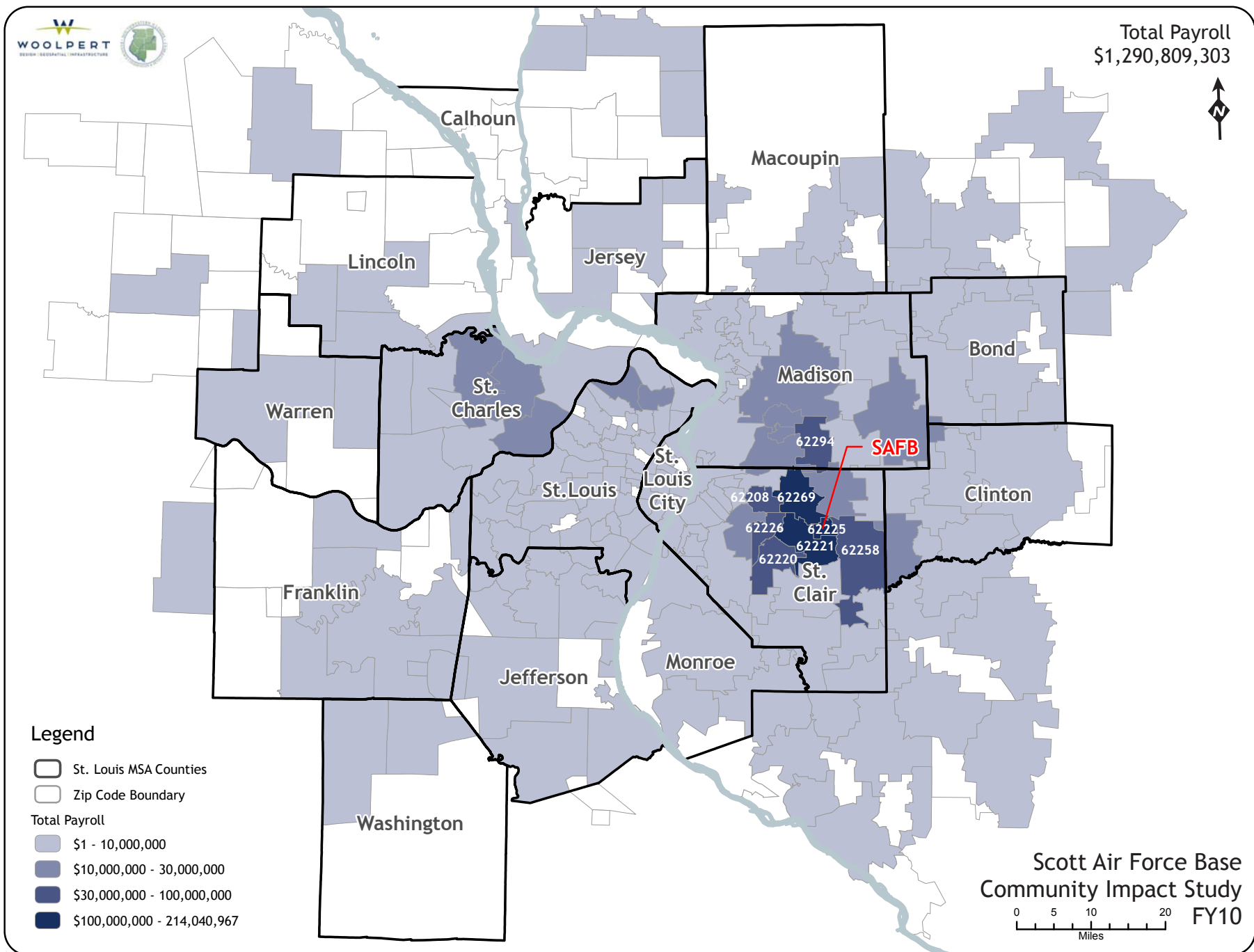
### D. TOTAL PAYROLL

The total payroll at Scott AFB is the annual dollar value to the local economic area for all jobs provided at the base, plus military retirees who are dependent on the base for goods and services. Total Payroll in FY10 was **\$1,290,809,303**.

The distribution of Total Payroll associated with Scott AFB was mapped by zip code.









## SECTION 6: DIRECT & INDIRECT OUTPUT, EARNINGS & EMPLOYMENT

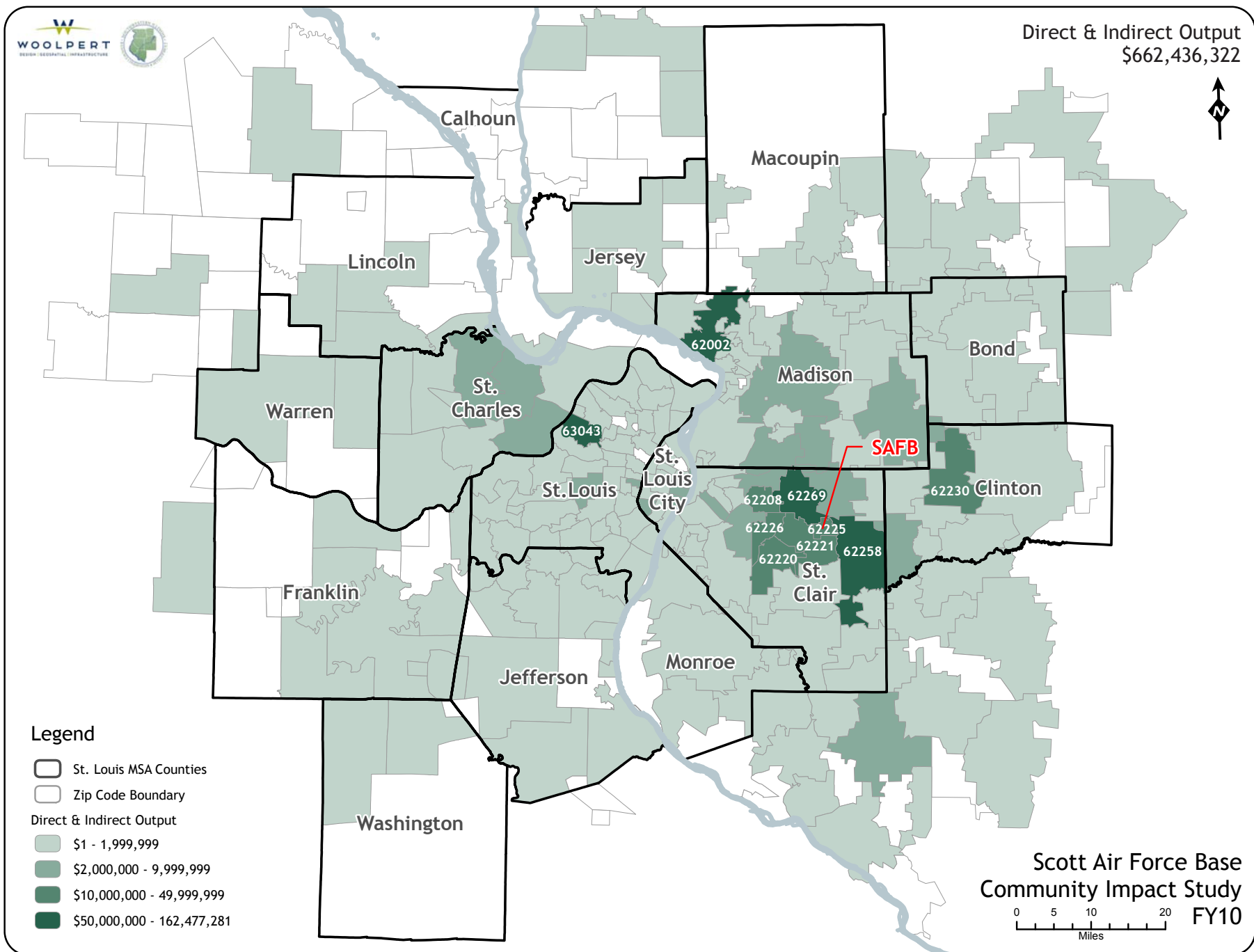
### A. DIRECT & INDIRECT OUTPUT (IN DOLLARS OF BUSINESS PRODUCTION/SALES)

As was discussed in the Methodology, this analysis of the impact of Scott AFB on the St. Louis, MO-IL MSA used the Bureau of Economic Analysis' (BEA) Regional Input-Output Modeling System (or RIMS II). The RIMS II multiplier used to calculate the impact of Scott AFB's Annual Expenditures on the region, was 2.2045. This is defined as the Final Demand/Output Multiplier representing the total dollar change in output that occurs for all industries in the region for each dollar of output by a member of the Other Services/Government Enterprises industry—in this case, Scott AFB.

By applying the 2.2045 multiplier to the **\$300,492,774 in Direct Expenditures** by Scott AFB, or Output delivered to Final Demand in the St. Louis, MO-IL MSA, it was calculated that the *indirect* impact of Scott AFB's expenditures across all industries was **\$361,943,548**; and the total *direct and indirect* impact, including Scott AFB, was **\$662,436,322**.

The distribution of the direct and indirect economic impact of Scott AFB's Expenditures on industries across the region was mapped by zip code.







## SECTION 6: DIRECT & INDIRECT OUTPUT, EARNINGS & EMPLOYMENT

### B. DIRECT & INDIRECT EARNINGS (IN DOLLARS OF HOUSEHOLD INCOME)

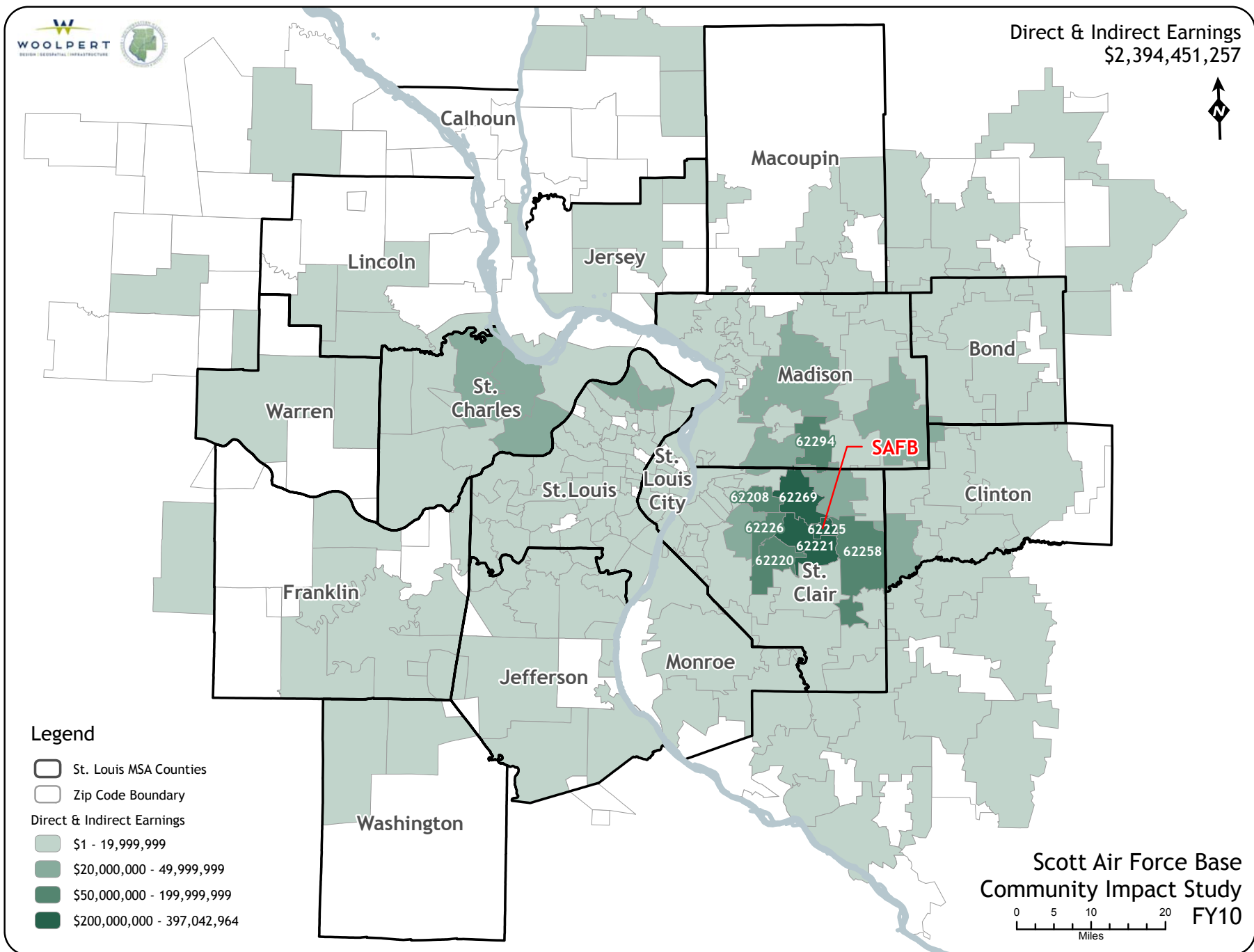
To calculate the impact of Scott AFB's Annual Payroll, or Earnings, on the region, the Bureau of Economic Analysis' RIMS II multiplier of 1.8550 was used. This multiplier is the Direct Effect/Earnings Multiplier representing the total dollar change in earnings of households employed by all industries for each dollar of earnings paid to households employed by the selected industry—Scott AFB.

By applying the 1.8550 multiplier to the \$1,290,809,303 in Direct Payroll at Scott AFB, or earnings paid by Scott AFB directly to households in the St. Louis, MO-IL MSA, it was calculated that the *indirect* impact of Scott AFB's payroll across all industries was \$1,103,641,954; and the total *direct and indirect* impact, including Scott AFB, was \$2,394,451,257.

The distribution of the direct and indirect economic impact of Scott AFB's Payroll on industries across the region was mapped by zip code.









## SECTION 6: DIRECT & INDIRECT OUTPUT, EARNINGS & EMPLOYMENT

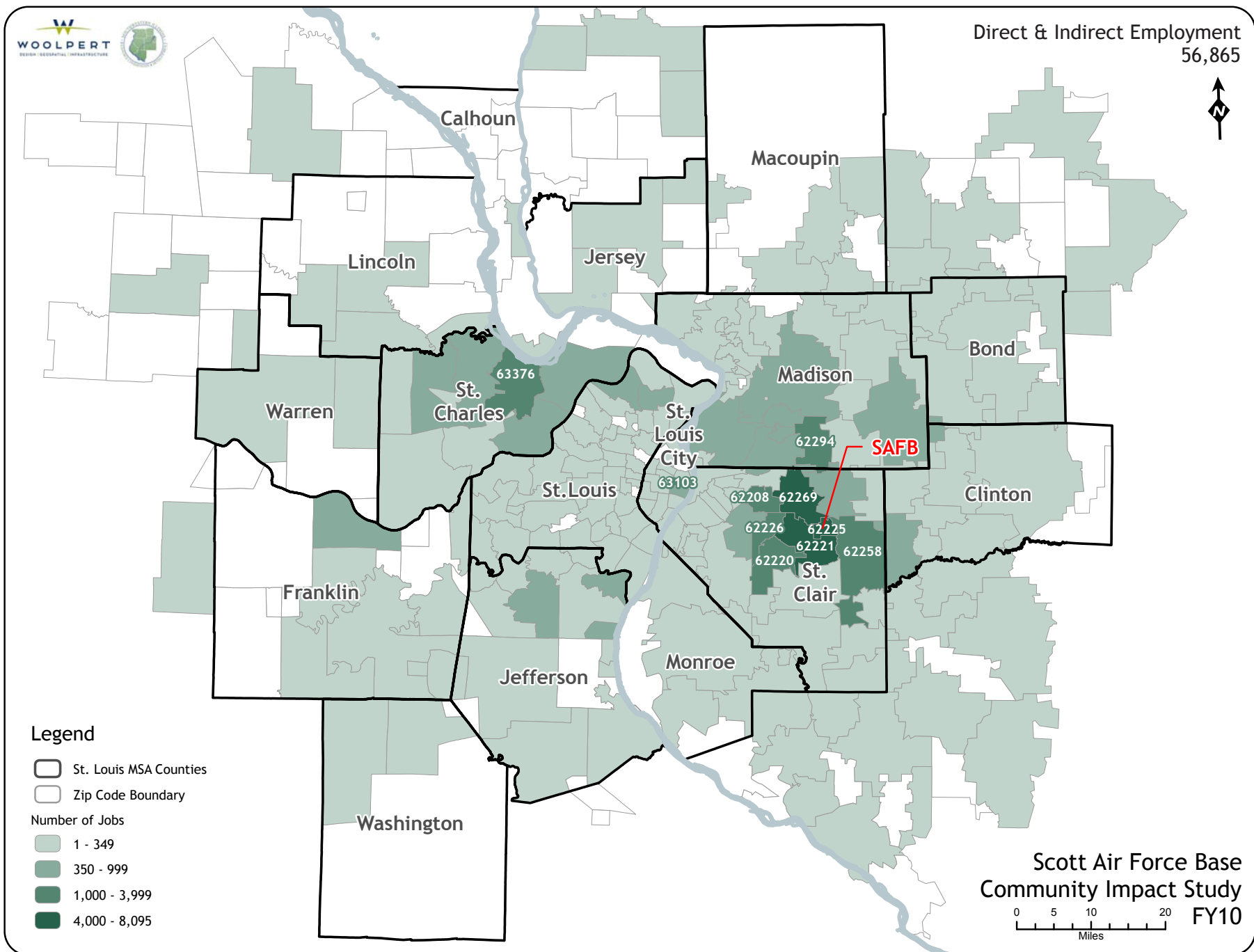
### C. DIRECT & INDIRECT EMPLOYMENT (IN NUMBER OF JOBS)

The third and final calculation of the indirect impact of Scott AFB was on Employment in the St. Louis region. In this case, the RIMS II multiplier used was **1.8148**, representing the total change in number of jobs in all industries for each job at Scott AFB. Military, Civilian, and Retiree Personnel at Scott AFB were included in the calculation, representing 31,334 employees/retirees with an average annual pay/benefit of \$41,225 per person (about equal to the BLS' local average annual pay of \$42,900).

By applying the 1.8148 multiplier to the **13,020 Employees** and **18,314 Retirees** at Scott AFB, it was calculated that the *indirect* impact of Scott AFB's employment and retiree benefits across all industries in the region was **25,531 jobs**; and the total *direct and indirect* impact, including Scott AFB employees and retirees, was **56,865 jobs**.

The distribution of the direct and indirect jobs impact of Scott AFB's Jobs and Retirees on industries across the region was mapped by zip code.







## SECTION 6: DIRECT & INDIRECT OUTPUT, EARNINGS & EMPLOYMENT

### D. INDIRECT DEPENDENTS

Though statistically further removed from the impact of Scott AFB than the previous categories, an estimation of the number of dependents of indirect employees was included to complete the analysis. As discussed earlier, the 2010 U. S. Census determined the average household size in the St. Louis metropolitan area (MO-IL MSA) to be 2.46; or a multiplier of **1.46** dependents for each primary wage earner. Assuming the **25,531 indirect jobs** created due to the presence of Scott AFB are held by the primary wage earner (at an average annual salary of \$41,225), then the maximum potential *indirect* economic impact on the region's population was an additional **37,275 family members**.





## SECTION 7: CONCLUSION

### TOTAL DIRECT & INDIRECT JOBS AND ECONOMIC IMPACTS OF SCOTT AFB

#### TOTAL COMMUNITY IMPACTS

• Direct Expenditures (Output):	\$300,492,774
• Indirect Expenditures:	<u>\$361,943,548</u>
• TOTAL EXPENDITURES:	\$662,436,322
• Direct Payroll (Earnings)*:	\$1,290,809,303
• Indirect Payroll:	<u>\$1,103,641,954</u>
• TOTAL PAYROLL:	\$2,394,451,257
• Direct Personnel (Employment)*:	31,334
• Indirect Personnel (Employment):	<u>25,531</u>
• <b>SUBTOTAL EMPLOYMENT:</b>	<b>56,865</b>
• Direct Personnel (Dependents):	42,259
• Indirect Personnel (Dependents):	<u>37,275</u>
• <b>SUBTOTAL DEPENDENTS:</b>	<b>79,534</b>
• TOTAL PERSONNEL:	136,399

\* Including 18,314 Military Retirees.



## APPENDIX 1

### SCOTT AFB COMMUNITY IMPACT TABLES

Note: Due to rounding, some figures listed below may not exactly equal the figures provided in Sections 3 through 7 of this report.

#### TOTAL IMPACTS:

Total Personnel (Military, Retirees, Dependents)	73,595
Total Expenditures	\$300,492,775
Total Housing Impact (\$)	\$251,821,072
Total Housing Impact (#)	25,734
Total Payroll	\$1,290,809,286
Direct & Indirect Output	\$662,436,322
Direct & Indirect Earnings	\$2,394,451,226
Direct & Indirect Employment	56,858

## ILLINOIS STATE IMPACTS:

Total Personnel (Military, Retirees, Dependents)	49,800
Total Expenditures	\$190,293,469
Total Housing Impact (\$)	\$192,067,603
Total Housing Impact (#)	20,897
Total Payroll	\$983,917,183
Direct & Indirect Output	\$419,501,953
Direct & Indirect Earnings	\$1,825,166,375
Direct & Indirect Employment	37,274

## MISSOURI STATE IMPACTS:

Total Personnel (Military, Retirees, Dependents)	23,796
Total Expenditures	\$110,199,306
Total Housing Impact (\$)	\$59,753,469
Total Housing Impact (#)	4,836
Total Payroll	\$306,892,103
Direct & Indirect Output	\$242,934,369
Direct & Indirect Earnings	\$569,284,851
Direct & Indirect Employment	19,584

## ILLINOIS COUNTY IMPACTS:

Bond	State	3D TOTAL PERSONNEL	4E TOTAL EXPENDITURES	4F TOTAL HOUSING IMPACT (\$)	4F TOTAL HOUSING IMPACT (#)	5D TOTAL PAYROLL	6A TOTAL D+I OUTPUT (EXPENDITURES)	6B TOTAL D+I EARNINGS (PAYROLL)	6C TOTAL D+I EMPLOYMENT (JOBS)
Bond	IL	171	\$196,645	\$460,024	50	\$2,510,596	\$433,504	\$4,657,156	138
Calhoun	IL	10	\$8,158	\$17,314	2	\$230,325	\$17,984	\$427,253	7
Clinton	IL	2,187	\$9,752,262	\$10,414,863	1,133	\$50,521,272	\$21,498,861	\$93,716,959	1,637
Fayette	IL	3	\$2,447	\$4,308	0	\$57,581	\$5,395	\$106,813	2
Greene	IL	136	\$133,216	\$352,539	38	\$1,741,995	\$293,674	\$3,231,401	113
Jersey	IL	156	\$165,536	\$424,528	46	\$2,281,420	\$364,923	\$4,232,034	129
Macoupin	IL	296	\$304,559	\$789,091	86	\$4,096,265	\$671,400	\$7,598,572	243
Madison	IL	6,956	\$36,331,033	\$23,472,028	2,554	\$121,571,672	\$80,091,762	\$225,515,451	5,459
Monroe	IL	362	\$500,272	\$1,548,485	168	\$8,677,706	\$1,102,849	\$16,097,144	269
Montgomery	IL	288	\$282,810	\$700,583	76	\$3,749,533	\$623,455	\$6,955,383	236
Perry	IL	11	\$8,311	\$54,888	6	\$346,110	\$18,322	\$642,034	9
Randolph	IL	172	\$2,408,700	\$665,321	72	\$4,340,963	\$5,309,979	\$8,052,487	125
St. Clair	IL	38,849	\$139,847,502	\$152,221,039	16,562	\$778,960,031	\$308,293,818	\$1,444,970,858	28,757
Washington	IL	201	\$352,019	\$942,591	103	\$4,831,714	\$776,026	\$8,962,830	151
Total	IL	49,800	\$190,293,469	\$192,067,603	20,897	\$983,917,183	\$419,501,953	\$1,825,166,375	37,274

## MISSOURI COUNTY IMPACTS:

County	State	3D TOTAL PERSONNEL	4E TOTAL EXPENDITURES	4F TOTAL HOUSING IMPACT (\$)	4F TOTAL HOUSING IMPACT (#)	5D TOTAL PAYROLL	6A TOTAL D+I OUTPUT (EXPENDITURES)	6B TOTAL D+I EARNINGS (PAYROLL)	6C TOTAL D+I EMPLOYMENT (JOBS)
Franklin	MO	959	\$1,041,458	\$2,236,173	181	\$11,704,748	\$2,295,894	\$21,712,307	800
Gasconade	MO	23	\$18,763	\$39,143	3	\$518,231	\$41,363	\$961,318	16
Jefferson	MO	3,473	\$2,965,259	\$8,210,287	665	\$42,940,455	\$6,536,913	\$79,654,545	2,869
Lincoln	MO	373	\$347,391	\$893,266	72	\$4,496,188	\$765,823	\$8,340,429	312
Montgomery	MO	186	\$173,695	\$446,633	36	\$2,248,094	\$382,911	\$4,170,214	156
Pike	MO	4	\$3,263	\$8,698	1	\$115,162	\$7,194	\$213,626	4
St. Charles	MO	5,225	\$5,028,030	\$12,546,226	1,015	\$64,243,509	\$11,084,292	\$119,171,710	4,330
St. Francois	MO	-	\$0	\$0	-	\$0	\$0	\$0	-
St. Louis	MO	7,992	\$86,454,451	\$20,711,737	1,676	\$108,075,658	\$190,588,837	\$200,480,345	6,551
St. Louis City	MO	5,531	\$14,147,169	\$14,580,447	1,180	\$71,858,460	\$31,187,434	\$133,297,443	4,524
Warren	MO	26	\$18,385	\$65,463	5	\$614,615	\$40,529	\$1,140,110	18
Washington	MO	3	\$1,442	\$15,397	1	\$76,983	\$3,180	\$142,803	2
Total	MO	23,796	\$110,199,306	\$59,753,469	4,836	\$306,892,103	\$242,934,369	\$569,284,851	19,584



## APPENDIX 2

### MULTIPLIERS FOR PROPORTIONAL EXTRAPOLATION

- Section 3A: Military Personnel & Dependents
  - Active Duty: x 1.63
  - 932<sup>nd</sup> AW: x 1.5
  - 126<sup>th</sup> ARW: x 1.33
  - Active Duty Dependents: x 1.78 distributed same as Active Duty
  - 932<sup>nd</sup> AW Dependents: x 1.55 distributed same as 932<sup>nd</sup> AW
  - 126<sup>th</sup> ARW Dependents: x 1.55 distributed same as 126<sup>th</sup> ARW
- Section 3B: Civilian Personnel & Dependents
  - APF: x 1.33
  - NAF: x 1.9
  - Civilian Dependents: x 1.46 distributed same as APF & NAF
- Section 3C: Military Retirees & Dependents
  - Retirees: x 1.9
  - Retirees Dependents: x 1.16 distributed same as Retirees
- Section 4A: Construction, Services, and Procurement of Material, Equipment & Supplies
  - 375<sup>th</sup> AMW, 126<sup>th</sup> ARW, AMC, SDDC, DISA/DITCO, AFNIC: No multiplier
  - DeCA: No multiplier; distributed x .047699 of Section 4A above
  - AAFES: No multiplier; distributed x .1132869 of Section 4A above
  - TRICARE: No multiplier; distributed x \$721.16 of Section 3D distribution



- Section 4B: Education Impact Aid
  - FY2010 Payment 105% LOT: No multiplier; distributed by school district zip code
  - Disability Payment: No multiplier; distributed by school district zip code
- Section 4C: Contract Quarters, Meals & Incidentals
  - No multiplier, distributed by zip code of “military referral hotels” within 10 miles of Scott AFB (22)
- Section 4D: Basic Allowance for Housing
  - Off-Base Active Duty: Eliminated the 62225 zip code from Active Duty data distribution and distributed remaining x 1.189
- Section 4F: Impact on Housing Market
  - Off-Base Active Duty: No multiplier; distributed same as Off-Base Active Duty (Section 4D)
  - Reservists, Guardsmen, Civilians, Retirees: No multiplier; distributed x .20 of Payroll (Section 5)
- Section 5A: Military Personnel Payroll
  - # of Military Personnel: x \$57,581.21
- Section 5B: Civilian Personnel Payroll
  - # of Civilian Personnel: x \$76,982.53
- Section 5C: Retiree Payroll
  - # of Retirees: x \$23,854.32



## APPENDIX 3

### REFERENCES

- Bureau of Economic Analysis (BEA) Regional Input-Output Modeling System (RIMS II) Multipliers (2008/2008) Table 2.5 Total Multipliers for Output, Earnings, Employment, and Value Added by Industry Aggregation, St. Louis, MO-IL Metropolitan Statistical Area (Type II—Closed model including regional household spending).
- Baxter, Brent R., CIV, DISA PLD, Brent.Baxter@disa.mil
- Bien, Jolynn, USTRANSCOM, Jolynn.Bien@ustranscom.mil
- Brooks, Gerry, CIV, DISA GC, gerry.brooks@disa.mil
- Cyr, Brandon, Capt., USAF, ANG 906 ARS/126 ARW/CCE, brandon.cyr@ang.af.mil
- Doil, Cynthia G., GS-12, USAF, AMC 375 FSS/FSFR, School Liaison Officer, cynthia.doil@us.af.mil, 618.256.9595
- Greenwald, Bruce D., GS-12, USAF, AMC 375 CPTS/FMA, DAF, Chief, Financial Management and Accounting, bruce.greenwald@us.af.mil, 618.256.7879
- Hentges, Cheryl L., GS-11, USAF, AMC 932 AW/CCE, cheryl.hentges@us.af.mil, 618.229.7000
- Howsare, Jennifer, Maj., USAF, ANG 126 ARW/PA, Administrative and Public Affairs Officer, jennifer.howsare@ang.af.mil, 618.222.5761

- Melesky, Joann W., CIV, DISA GC, joann.melesky@disa.mil
- Pekala, Amy M., Maj. USAF, AMC 932 FSS/DPM, amy.pekala.1@us.af.mil
- Shull Robert W., Maj., USAF, AMC 932 AW STAFF/CCE, robert.shull.1@us.af.mil
- Silva, Natividad, CIV, DISA GC, natividad.silva@disa.mil
- Spargur, Christine K., GS-09, USAF, AMC 375 AMW/PA, christine.spargur@us.af.mil, 618.256.4241
- Watkins, Tracy R., Lt. Col., USAF, AMC 375 CPTS/CC, tracy.watkins@us.af.mil



