

**The Economic Impacts of the Military in  
Beaufort County, South Carolina**

**May 2010**

**Prepared by  
Dr. Donald L. Schunk**

## **The Economic Impacts of the Military in Beaufort County, South Carolina**

The U.S. Federal Government operates three major military installations in Beaufort County, South Carolina. These are the: Marine Corps Air Station Beaufort (MCAS), Marine Corps Recruit Depot Parris Island (MCRD), and Naval Hospital Beaufort (NH). These installations have a long history in the Lowcountry, and indeed have played an important role in the overall growth and development of the area.

In addition to this historical relationship, these three installations also exert a strong influence on the economy of Beaufort County. The installations are home to many jobs, both military and civilian, they provide these workers with income that is then spent in the local economy, and the installations purchase goods and services directly from other area businesses. Through these many relationships, the military's presence plays a substantial role in the broader local economy with an economic impact that reaches far beyond the individual military base borders.

The purpose of this report is to quantify the economic impact of the three military installations on the Beaufort County economy. Following a brief overview and description of the economic impact methodology used in this study, the report will provide the economic impacts of the military in total and by individual installation.

### ***Economic Impact Methodology***

Activity at the three military installations – MCAS, MCRD, and NH -- generates substantial economic benefits for the local economy. The operations of the installations involve the production of military services, the purchase of inputs from other local businesses, and the hiring of workers, both military and civilian. All of these activities taking place directly at the military bases work to boost the local economy.

However, in addition to this activity directly at the military sites, additional economic benefits will ripple throughout the regional economy due to economic linkages and multiplier effects. In this case, the military installations purchase goods and services as inputs from other local businesses. Additionally, workers at the military sites spend a portion of their incomes at area businesses, setting off additional ripple effects.

In standard economic impact analyses, three types of economic impacts can be identified: *direct*, *indirect* and *induced* effects. The direct effect of an activity represents the initial change in economic activity. Consider an example of increased activity at one of the military installations. In this case, the direct effects are the initial changes in the final demand for the output of the military base.

The indirect effects refer to all of the additional economic impacts that arise from inter-industry linkages between local firms. For example, as the military base purchases inputs from other local businesses – and these suppliers in turn purchase inputs from additional businesses – the input-output relationships between different firms and industries generates indirect effects on businesses in virtually every sector of the local economy.

The induced effects represent all of the additional economic benefits that are driven by the local spending of household income. The increased activity in the military sector will boost incomes for workers in that sector. Some of this income will be spent locally on, for example, retail trade, health care, entertainment, housing, and so on. As firms in these industries see a boost to their sales, the employees of these firms will also see additional income that can be spent locally.

The successive rounds of indirect and induced impacts do not go on forever. For example, a portion of an increase in household income will be saved, used to pay taxes, or spent outside the local economy. Money that leaks out of the local area in this way cannot be used to support additional local activity. Therefore, the indirect and induced impacts become smaller and smaller over time until eventually the additional activity in each round goes to zero. Because of these leakages, it is useful to consider the notion of an economic multiplier.

An economic multiplier can be used to determine what the total impact (direct plus indirect plus induced) will be given a certain value for the direct impact. For example, if \$100 of direct spending within a particular sector ultimately results in a total spending impact of \$150, it can be said that the output multiplier is 1.5 – the \$100 in direct spending times the multiplier of 1.5 equals \$150 in total spending or total output. The value of this multiplier varies from sector to sector, and is determined largely by the size of the local supplier network.

The above discussion implies that economic impact analysis essentially involves: 1) determining the appropriate levels of direct business activity, and 2) determining and applying the correct values for economic multipliers to estimate the total impact on output, employment, and labor income.

The purpose of this report is to estimate the economic impacts of the military presence in Beaufort County. The direct effects of this military presence include the workers at the military bases, the total income of those workers, and the overall expenditures (payroll plus other expenses) of the military installations.

To estimate the indirect and induced effects of the direct military activities, a detailed structural model of the local economy was utilized. This model is known as an input-output model. An input-output model contains specific information on economic linkages between different industries. Therefore, the input-output model for Beaufort County is equipped to quantify, for example, the pattern of local input purchases by the military. This model can be used to estimate the full range of indirect and induced impacts described previously. This report utilizes the input-output modeling software *IMPLAN*.

This model can be used in conjunction with the estimates of the direct effects to estimate the economic impacts in terms of three distinct measures: economic output, employment and labor income. Economic output can be thought of as an aggregate measure of total spending resulting from the initial direct expenditure. It includes all spending by consumers and businesses on both goods and services. It is therefore a broad, all-inclusive measure of the impact on total economic activity. Employment measures the impact on jobs in terms of the total number of positions. Labor income represents total employee compensation, including wages, salaries and benefits.

### ***Summary of the Estimated Economic Impacts of the Military in Beaufort County***

The estimated economic impacts presented here are all driven by direct data provided by each of the three military installations themselves. The direct data included, for each installation: total employment, total payroll, and total non-payroll expenditures. Using those items as direct inputs, Table 1 provides a summary of the total economic impacts of each installation on the Beaufort County economy. Each of the impacts provided in this table include the direct effects as well as the indirect and induced effects, and all dollar amounts are in millions.

Overall, the military's presence supports a total of just over \$1.2 billion annually in local economic activity. The breakdown of this total in terms of direct effects and multiplier (indirect plus induced) effects will be given for each installation in the next section. Of this \$1.2 billion annual impact, about \$615.2 million can be attributed to MCAS, \$537.6 million is due to MCRD, while the Naval Hospital accounts for another \$81.4 million annually.

Meanwhile, the military's presence supports a total of \$686.1 million annually in labor income. This total represents income flowing to those directly employed by the military as well as to employees of businesses throughout the local economy. Of the total, MCAS directly and indirectly accounts for \$332.3 million in labor income annually. Another \$318.5 million can be traced to MCRD, while the Naval Hospital supports an additional \$35.3 million in annual household income.

**TABLE 1. SUMMARY OF TOTAL IMPACTS:  
REGULAR OPERATIONS ONLY**

	<b>Economic Output</b>	<b>Labor Income</b>	<b>Employment</b>
MCAS	\$615.2	\$332.3	8,666
MCRD	\$537.6	\$318.5	6,169
NH	\$81.4	\$35.3	769
<b>TOTAL</b>	<b>\$1,234.2</b>	<b>\$686.1</b>	<b>15,604</b>

Note: All figures represent total impacts, including direct and multiplier effects. Economic Output and Labor Income are given in \$ Millions. MCRD employment figures do not include 19,112 recruits. These impacts do not include the additional effects of visitors and military retirees.

Turning to the employment impacts, a total of 15,604 in the local economy can be traced directly or indirectly to the presence of the military. This number does not include 19,112 recruits at MCRD. Again, it is important to recognize that these jobs are not only at the military bases themselves, but they are spread throughout the local economy. The military supports employment in every sector of the local economy. Of the total job impact, about 8,666 jobs can be attributed to MCAS. A total of 6,169 (excluding recruits) can be traced to MCRD, while the Naval Hospital is responsible for supporting another 769 jobs in the local economy.

At the heart of economic impact analysis is the recognition that local economic sectors are inexorably linked to each other. Activity within any one sector will in fact spread to every sector of the economy via economic ripple effects. The presence of the military in the Beaufort area works to support economic activity in every sector of the local economy. One way to examine this is to consider the sector-level distribution of economic impacts.

Table 2 provides a breakdown of the total economic output impact (over \$1.2 billion annually) by sector. According to this table, even though all of the direct effects are centered in the Government sector, the industry grouping that is most affected by the military's presence is actually the area's Service sector. The Service sector includes businesses operating in health care, leisure and

hospitality, business support services, repair services, and more. Other industries heavily affected include the local construction and retail and wholesale trade sectors.

Because this table provides economic output estimates, the figures in the table can be interpreted as the level of annual revenues flowing to businesses in each of these sectors that would not exist if not for the presence of the military in Beaufort County.

**TABLE 2. TOTAL OUTPUT IMPACTS BY SECTOR**

<b>Sector</b>	<b>Impact</b>
<b>Total</b>	<b>\$1,234.2</b>
Agriculture	\$1.2
Mining	\$0.8
Construction	\$155.3
Manufacturing	\$14.9
Transportation, Information, Utilities	\$13.1
Retail and Wholesale Trade	\$97.9
Services	\$508.1
Government	\$442.9

Note: Total Economic Output figures are given in \$ Millions, and include all direct and multiplier effects.

***Economic Impacts of Military Retirees and Visitors***

In addition to the ongoing operations of the military installations themselves, the Beaufort area economy also benefits due to the presence of military retirees as well as visitors to the area, specifically visitors to MCRD graduations.

In addition to all of the economic impacts given previously, it is estimated that visitors to the area's military bases generate another \$11 million annually in total local economic activity, supporting 200 jobs and over \$4 million in annual labor income.

Military retirees living in the Beaufort area are estimated to generate an additional \$75 million in economic activity for the area. This activity helps support 900 jobs and nearly \$25 million in labor income.

Table 3 provides a summary of total economic impacts including the effects of these military visitors and retirees.

<b>TABLE 3. SUMMARY OF TOTAL IMPACTS: OPERATIONS AND VISITORS/RETIREES</b>			
	<b>Economic Output</b>	<b>Labor Income</b>	<b>Employment</b>
MCAS	\$615.2	\$332.3	8,666
MCRD	\$537.6	\$318.5	6,169
NH	\$81.4	\$35.3	769
VISITORS & RETIREES	\$86.0	\$29.0	1,100
<b>TOTAL</b>	<b>\$1,320.2</b>	<b>\$715.1</b>	<b>16,704</b>

Note: All figures represent total impacts, including direct and multiplier effects. Economic Output and Labor Income are given in \$ Millions. MCRD employment figures *do not* include 19,112 recruits.

**Detailed Economic Impacts by Military Installation:  
Marine Corps Air Station**

The MCAS economic impacts are given in Table 4. The direct effects reflect information provided by MCAS, while the multiplier effects refer to the sum of the indirect and induced effects. The MCAS has a direct impact on the local economy of \$348.0 million annually. This direct impact includes \$186.2 million in payroll expenditures that support 4,714 military and civilian jobs. Specifically, the direct impact includes data provided by MCAS for Fiscal Year 2009 indicating total payroll of \$186.2 million for active military and civilian jobs, as well as another \$33.9 million in construction and \$119.5 million in other spending. These 2009 figures are then inflated to correspond to 2010 dollars.

The direct effects then result in additional multiplier effects of \$267.2 million annually in total economic activity, \$146.1 million annually specifically in labor income, and an additional 3,952 jobs spread throughout the Beaufort economy.

In total, MCAS has an annual economic impact on the Beaufort economy of \$615.2 million. The presence of MCAS supports a total of \$332.2 million in annual household income, and supports a total of 8,666 jobs in the region.

---

**TABLE 4. MCAS IMPACT SUMMARY**

---

	<b>Direct Impact</b>	<b>Multiplier Impact</b>	<b>Total Impact</b>
Total Economic Output	\$348.0	\$267.2	<b>\$615.2</b>
Labor Income	\$186.2	\$146.1	<b>\$332.3</b>
Employment	4,714	3,952	<b>8,666</b>

---

Note: Output and Income are in \$ Millions.

**Detailed Economic Impacts by Military Installation:  
Marine Corps Recruit Depot**

The MCRD economic impacts are given in Table 5. The MCRD has a direct impact on the local economy of \$280.6 million annually, including \$216.7 million in payroll, and a direct impact on employment of 3,281, plus an additional 19,112 recruits.

These direct effects lead to additional multiplier effects that include another \$257.0 million in economic output annually, an additional \$101.8 million in annual labor income, and another 2,888 jobs.

In total, the MCRD supports a total of \$537.6 million in economic activity annually for the Beaufort County economy. It also supports a total of \$318.5 million in annual labor income, and a total of 6,169 jobs for the local economy.

---

**TABLE 5. MCRD IMPACT SUMMARY**

---

	<b>Direct Impact</b>	<b>Multiplier Impact</b>	<b>Total Impact</b>
Total Economic Output	\$280.6	\$257.0	<b>\$537.6</b>
Labor Income	\$216.7	\$101.8	<b>\$318.5</b>
Employment	3,281	2,888	<b>6,169</b>

---

Note: Output and Income are in \$ Millions. Employment figures do not include an additional 19,112 recruits.

**Detailed Economic Impacts by Military Installation:  
Naval Hospital**

The Naval Hospital economic impacts are given in Table 6. The direct impact on economic output for the Naval Hospital is \$50.8 million annually. Direct payroll expenses are \$14.9 million with a direct employment level of 225 jobs.

These direct effects result in additional multiplier effects that include an additional \$30.6 million annually in economic output, \$20.4 million annually in labor income, and an additional 544 jobs for the local economy.

Taking the direct and multiplier effects together, the Naval Hospital has an estimated total economic impact of \$81.4 million annually on the Beaufort economy. The hospital supports a total of \$35.3 million in annual labor income, and is responsible for generating a total of 769 jobs spread throughout Beaufort County's economy.

---

**TABLE 6. NAVAL HOSPITAL IMPACT SUMMARY**

---

	<b>Direct Impact</b>	<b>Multiplier Impact</b>	<b>Total Impact</b>
Total Economic Output	\$50.8	\$30.6	<b>\$81.4</b>
Labor Income	\$14.9	\$20.4	<b>\$35.3</b>
Employment	225	544	<b>769</b>

---

Note: Output and Income are in \$ Millions.