Economic Impact Analysis of Atterbury-Muscatatuck

V600 Capstone Report

Indiana University
School of Public and Environmental Affairs

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Executive Summary

Atterbury-Muscatatuck serves a fundamental purpose in the State of Indiana. Established in 1942 in parts of Bartholomew, Brown, and Johnson counties, Camp Atterbury has proven itself as one of the premier military training and mobilization sites in the nation. The Muscatatuck Urban Training Center in Jennings County supplements an advanced operating environment with unique military facilities and infrastructure. Together, Atterbury-Muscatatuck has a vision to provide to the nation the most realistic, fiscally responsible, contemporary operating environment possible in which to mobilize and train the whole of government team to accomplish missions directed towards protecting the homeland and winning the peace; and support the developmental testing and evaluation of technologies that support those missions.

Anecdotal evidence suggested that the presence of Atterbury-Muscatatuck in the local area provides many high quality jobs and supports many local businesses with substantial spending related to post operations. This study has confirmed and quantified the direct impact of these operations, and for the first time, provides an understanding of how spending at Atterbury-Muscatatuck ripples through the economy. These ripple effects, explained in more detail below, create wealth and jobs in the region and State.

We found that the post is directly responsible for 2,902 jobs in the region. The post is indirectly, through relationships with suppliers and supporting industries, responsible for 143 additional jobs throughout the remainder of the State. Lastly, through induced effects, or spending of households from direct employment, the post supports an additional 1,131 jobs in the State of Indiana, for a total employment impact of 4,176 jobs.

In terms of output, the post contributes nearly $400 million to the regional and state economy. This output includes monetary and non-monetary benefits received by post personnel, all facility spending of the post, and the downstream effects of this spending. Most of this impact is related to direct employment and spending ($254.0 million), but use of economic impact modeling software indicates that an additional $145.0 million in output is attributed to dollars spent by the post flowing through the regional economy and State. This so-called multiplier effect is of critical importance to jobs and households throughout Indiana.

Table I. Overall Direct, Indirect, and Induced Impacts of Atterbury-Muscatatuck, in the State of Indiana, Federal Fiscal Year 2012

Impact Type	Direct	Indirect	Induced	Total Impact
Employment	2,902	143	1,131	4,176
Output	$254,310,000	$18,101,000	$126,539,000	$398,950,000

In sum, the total economic impact of Atterbury-Muscatatuck in fiscal year 2012 was 4,716 jobs and $399.0 million. This amount represents a major contribution to the State of Indiana and its regional economies, and is $75.2 million more than the total economic impact of the 2012 Super Bowl XLVI in Indianapolis. Moreover, Atterbury-Muscatatuck's economic impact is supplemented with significant environmental initiatives and over 50,000 hours of volunteer time by staff in communities across the State. It is apparent from our analysis that Atterbury-Muscatatuck is a major economic driver within Central and Southern Indiana, and should be considered as such in any strategic economic planning for the State or region. In fact, we recommend to the State's administration, legislature, congressional delegation, and citizens that expansion of Atterbury-Muscatatuck's activities will greatly strengthen the economic well-being of Indiana and its residents.

1. Rockport Analytics, "The Economic Impact of Super Bowl XLVI," 2012, 5 http://www.indystar.com/assets/pdf/BG192278719.PDF The gross direct, indirect, and induced economic impact of Super Bowl XLVI was $323.8 million for the Indianapolis metropolitan statistical area.

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Introduction

In this report, a team of Master's students in a V600 Capstone course in the School of Public and Environmental Affairs at Indiana University seeks to comprehensively measure the impact of Atterbury-Muscatatuck on the local, regional, and State economies. The team quantifies the total direct, indirect, and induced economic impacts of employment and facility spending; addresses the indirect and induced impacts, or secondary effects, on businesses and local governments; and examines the impacts of volunteer and community service and of sustainable practices and environmental stewardship. The research focuses on a four-county primary impact region of Bartholomew, Brown, Jennings, and Johnson counties; a thirteen-county secondary impact region consisting of the primary impact region and Decatur, Jackson, Jefferson, Marion, Monroe, Morgan, Ripley, Scott, and Shelby counties; and the entire State of Indiana.

This analysis is divided among five topics:

- Employment Impact
- Facility Spending Impact
- Impact of Indirect Exports on Local Governments and Businesses
- Volunteer and Community Service Impact
- Sustainable Practices and Environmental Stewardship

With respect to *employment impact*, we find that in federal fiscal year 2012, Atterbury-Muscatatuck employed 1,585 federal employees, 194 State employees, and 562 contractors, for a total employment of 2,341 employees and a total payroll of $178.0 million. However, these figures do not account for the indirect and induced effects of employment. The regional input-output multiplier models RIMS II and IMPLAN were utilized to estimate the full impact of this direct employment on the local economy, which occurs as a result of the employees' compensation circulated throughout the economy to support additional spending and employment. According to these estimates, Atterbury-Muscatatuck's total economic impact of employment on the State of Indiana is approximately $306.0 million, with 3,314 total jobs generated (including the 2,341 direct jobs).

With respect to *facility spending*, we find that Atterbury-Muscatatuck directly spent over $76.0 million on non-employment expenditures during fiscal year 2012; $56.0 million of this amount was spent directly in Indiana. A significant majority of facility spending is located within the secondary impact region, particularly because this region includes Marion County and the City of Indianapolis. Approximately 11.6 percent of total FY 2012 spending is accounted for in the primary impact region surrounding the post. IMPLAN, an economic impact analysis tool, shows that the combined multiplicative effect of the post's spending was $92.8 million, which is a 65 percent increase over the post's direct spending in Indiana. Additionally, IMPLAN results show this large contribution to the economy supported approximately 862 jobs in the State of Indiana just to service the facility spending of Atterbury-Muscatatuck.

Together, Atterbury-Muscatatuck *employment and facility spending* represents a major contribution to the State of Indiana and its regional economies. In sum, the total economic impact of Atterbury-Muscatatuck was 4,716 jobs and $399.0 million in federal fiscal year 2012.

Indirect exports on local governments and businesses comprise a third major category of economic impact, on which Atterbury-Muscatatuck has a significant impact. Our research utilizes over 25 interviews with government officials, business owners, and other individuals in the

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primary impact region who have connections to Atterbury-Muscatatuck. In addition, we used almost 800 completed staff and trainee surveys to analyze personal spending habits and identified the retail industry, the foodservice industry, and the hospitality industry as key economic sectors that are affected by the post's presence. Evidence shows that local governments in the primary impact region experience significant positive benefits through increased development projects, and IMPLAN estimates show that approximately $10.6 million in State and local tax revenues are accounted for in the secondary effects of Atterbury-Muscatatuck's direct employment and facility spending.

In evaluating the contributions institutions or facilities make to local and regional economies, it is important to identify the social impacts on the respective communities. Thus, we also estimated the degree of *volunteer and community service* arising from Atterbury-Muscatatuck. We find that staff contributed 50,100 total religious and secular volunteer hours in the State of Indiana in 2012, which would correspond to a total monetary impact of approximately $0.9 million. Of that total, approximately 51 percent was contributed in the primary impact region. Additionally, Atterbury-Muscatatuck staff contributes substantially to local nonprofit capacity through skills-based volunteerism, such as volunteer firefighting, youth mentoring and tutoring, and fundraising.

Another impact of Atterbury-Muscatatuck that goes beyond that of employment and expenditures involves *sustainable practices and environmental stewardship*. In this regard, we find that Atterbury-Muscatatuck's environmental initiatives and programs are successful and well established. Non-governmental partners and community members alike indicate that the post successfully balances its mission to protect the homeland with its responsibility to protect the natural environment. Our research incorporates the feedback, experiences, and opinions from military personnel both on and off-post, ten non-governmental partners, and 88 community members in the secondary impact region. Findings are largely positive with many stakeholders citing the post's eagerness to participate in a variety of community-based environmental programs and to improve its own on-post initiatives.

The remainder of the report is organized as follows: First, the methodology used for the analysis and data collection methods are presented in the Economic Impact Estimation Methodology and Survey Methodology sections. Results of the economic impact analysis are disaggregated by the five topics in the following order: employment impact, facility spending impact, impact of indirect exports on local governments and businesses, volunteer and community service impact, and impact on sustainable practice and environmental stewardship. Each topic analysis incorporates methodology, analysis, results, and key findings and recommendations. Finally, a summary of study conclusions is offered.

Of Note: Loss of Mobilization/Demobilization Efforts

In March of 2013, during the development of this economic impact study, it was announced that Atterbury-Muscatatuck mobilization/demobilization efforts would be discontinued as part of the drawdown of the wars in Iraq and Afghanistan. With this announcement, we developed an estimate of the impact, explained here, of the federally-sponsored activities at the post. After developing a methodology for our projection, we estimate the loss of the mobilization/demobilization efforts as approximately $130.0-$175.0 million to the State economy, with a total loss of employment in the State ranging from 1,000 to 1,200 jobs (including the multiplier effects).

Given the constraints of the project data, we were only able to estimate the impacts for the two primary spending categories, Employment and Facility Spending. Thus, this estimate does not represent a comprehensive analysis, but still allows for a projection of the magnitude of the impact. We developed a sensitivity analysis based on estimates and expert opinions of individuals involved with the facilities so that we can provide a range of potential impact.

Within employment, the total estimated impact ranged from $120.0-$140.0 million of lost employment income, which corresponds to approximately 450-575 jobs. This loss of operations would not close the post; as a result, there was no impact projected on State employees, who largely support the most basic operations of Atterbury-Muscatatuck. With such a substantial loss of federal employment, the projected impact would echo throughout the State economy. The low projection estimated the impact at $90.0 million, and the high projection used $110.0 million.

For facility spending, there are two essential aspects of total Mobilization and Demobilization (MOB/DEMOB) spending, including Individual Replacement Deployment Operations (IRDO). First, total facility spending on MOB/DEMOB totaled about $28 million within the State of Indiana. The amount of jet fuel related to MOB/DEMOB was incorporated via upper and lower bound estimates (50 percent and 75 percent) of total jet fuel expenditures. Thus, total facility spending attributed to MOB/DEMOB efforts totaled between $35.0-$40.0 million.

Economic Impact Estimation Methodology

The part explores the general methodology of economic impact evaluation and its application for the Economic Impact Analysis of Atterbury-Muscatatuck. Our team tried to make this content clear, succinct, and organized to help readers replicate the analytic results with minimal effort given relevant data and impact evaluation software.

Basics of Economic Impact Evaluation

In this section, we outline the basic definition of economic impact evaluation and clarify terminology used throughout the report.

Economic impact evaluation: When governments or decision-makers want information about the economic benefits of proposed projects or investments, they often employ a quantitative technique called economic impact analysis. This technique measures the causal relationship between the effects of proposed spending on a local or regional economy.[1]

Mechanism: Economic impacts can be measured at various stages of a project. To give an example, if an organization wants to build a new facility, the construction spending will create a stimulus effect in the local or regional economy. When

1. Jonathan Q. Morgan, "Analyzing the Benefits and Costs of Economic Development Projects," *Community and Economic Development Bulletin UNC School of Government*, March 15, 2013, www.sog.unc.edu/pubs/electronicversions/pdfs/cedb7.pdf

this new facility is operational, the organization will make payroll payments, pay vendors who have service contracts, and purchase supplies and equipment. In an economic impact evaluation, researchers identify a region of interest, take into account only the spending within that region for analysis, and omit transactions outside of the region. For the Atterbury-Muscatatuck analysis, we look at three regions: the primary four-county impact region consisting of Bartholomew, Brown, Jennings, and Johnson counties; the secondary thirteen-county region of Bartholomew, Brown, Decatur, Jackson, Jefferson, Jennings, Johnson, Marion, Monroe, Morgan, Ripley, Scott, Shelby; and the State of Indiana. While we quantified spending outside of the State of Indiana, we did not analyze the secondary effects of any out-of-state spending.

Any organization's direct expenditures lead to a series of additional transactions throughout various related industries within the economy. For example, when an organization pays a vendor, that vendor will use its increased revenue to hire workers or purchase supplies. The new workers may use their increased earnings to buy local goods or services. This process then repeats itself further down the supply chain. As a result, the effect of the organization's original direct spending will be multiplied throughout the economy by the subsequent transactions that occur as a result of the original spending.

Types of effects[2]: An economic impact analysis combines the effects of a proposed spending project at various levels. Typically, the economic effects are classified as follows:

> *Direct effects:* The first round of effects. Direct effects include changes in employment, income, or output that result directly from the first round of spending. From the previous example, this effect is the organization's supplies, payroll or vendor spending.

> *Indirect effects:* The second round of effects. Indirect effects take into account changes in employment, income, or production caused by later rounds of spending transactions between subsequent local supplier industries. This type of effect is usually called the inter-industry effect.

> *Induced effects:* The third round of effects. Induced effects occur when workers in affected industries spend more on local goods and services due to increments in payroll. We often regard this as the household discretionary spending effect.

> *Output*: Total economic activity caused by the direct, indirect, and induced effects of spending, or the "ripple effects" in the economy.

Economic multipliers: A multiplier reflects the total change in employment, income, and output across all economic industries for every new job created or for every dollar spent in the first round of direct spending. We can estimate indirect and induced effects by multiplying the direct effects with relevant economic multipliers. An economic multiplier captures the effect that spending in one sector of the economy has on all other sectors.

Multipliers can be calculated at the county level. For every county, each industry sector has a unique multiplier because it depends on that sector's spending and purchasing tendencies for that particular location. Generally, a multiplier will be larger when an industry purchases its inputs locally and sells its products outside of the region.

Economic impact analysis takes into account the varying purchasing and selling patterns for each industry in every county. Input-output (I-O) models are used to achieve reasonably precise estimation of these patterns by assigning unique multipliers for individual industry sectors. Basically, the multipliers are the result of capturing the trading patterns and money-

2. Frances Day, *Principles of Impact Analysis & IMPLAN application* (MIG), 59–61.

flows among the industries of an economy and quantifying the payments between them. Thus, input–output models can analyze the effect of a change in spending in one sector on the subsequent change in spending within other sectors of an economy.[3]

To achieve the goals of estimating economic impact, we followed the procedures as outlined in Appendix i. The information in the Appendix covers the basics of IMPLAN and RIMS II software and discusses the applications for analysis of Atterbury-Muscatatuck employment and facility spending. Due to incomplete data sets, it is worth noting that we deviated from standard procedures to make the analysis feasible. These deviations should cause only minor changes to the acceptable results ranges of our analysis.

3. "An Introduction of I-O table and IMPLAN methodology," University of Wisconsin, February 25, 2013, http://reic.uwcc.wisc.edu/implan/

Survey Methodology

This section briefly addresses the methodology behind the Atterbury-Muscatatuck Staff Survey and Atterbury-Muscatatuck Trainee Survey. These instruments were created to collect supplemental information from individuals associated with Atterbury-Muscatatuck that was not available in any administrative data sets. A detailed account of the survey methodology may be found in Appendix ii.

Sample Design

The target population of the Atterbury-Muscatatuck Staff Survey was all full-time and part-time paid employees working at the post. In total, the target population includes approximately 2,000[1] individuals employed by the U.S. Government, State of Indiana, and contractors. A modified survey, the Atterbury-Muscatatuck Trainee Survey, was created for people who are not Atterbury-Muscatatuck staff but who visit or have visited the facilities to participate in training exercises or events.

4. The target population did not include contractors, members of the First Army, or participants in Atterbury-Muscatatuck training activities. Also excluded from the survey population were inmates at the Edinburgh Correctional Facility located on the grounds of Camp Atterbury.

Questionnaire Development

The Atterbury-Muscatatuck Staff Survey instrument was developed using feedback from a pilot study, expert review process, and pretest conducted by team members and Atterbury-Muscatatuck personnel. The questionnaire is comprised of five question categories:

- Employment questions
- Volunteerism and community service questions
- Local spending habits questions
- Education benefit questions
- Demographic questions

The staff survey was administered using Qualtrics software, a prominent platform for web-based survey research. The Atterbury-Muscatatuck Trainee Survey was administered in paper hard copy and using the Qualtrics platform to reach as many current and prior trainee participants as possible. The trainee survey was adapted from the staff survey and included the section on local spending habits, as well as shortened employment and demographic information sections. The staff questionnaire can be found in Appendix iii, and the trainee questionnaire can be found in Appendix iv.

Data Collection

The staff survey was administered from March 4, 2013 through March 15, 2013. Invitations to take the survey and reminder emails were managed by Atterbury-Muscatatuck. The trainee survey was administered from March 20, 2013 to April 9, 2013. Lieutenant Colonel Michael Grundman and Captain Matthew Limeberry distributed a paper version of the survey to Individual Replacement Deployment Operations (IRDO) trainees as they arrived at Atterbury-Muscatatuck. The trainee survey was also distributed electronically to past training event point-of-contacts found in the

Range Facility Management Support System (RFMSS) database.

Final Dispositions and Response Rates

A total of 549 staff surveys and 247 trainee surveys were completed during the administration periods. The Employment Impact group estimates the number of staff, excluding contractors, to be between 600 and 2,300, indicating a response rate between 25 and 92 percent. According to Atterbury-Muscatatuck staff, there is an average of 500 IRDO trainees on post in any given week. The survey was administered during two separate training sessions, or to approximately roughly 1000 trainees, indicating a response rate of 21 percent for the trainee survey. Further information on survey item response rates may be found in Appendix v.

Limitations

The primary limitation of the Atterbury-Muscatatuck Staff Survey and Atterbury-Muscatatuck Trainee Survey, for the purposes of this study, is that each instrument only provides a snapshot of the impact of volunteerism and community services and indirect spending, respectively. The results of the monetization of volunteerism from the information provided by the staff survey do not represent the potential total impact of Atterbury-Muscatatuck volunteerism, but rather the impact for the survey sample. The project team was unable to extrapolate the results of the staff survey due to the limited availability of population demographic information and lack of exact distribution figures for the survey. Similarly, the trainee survey only provides the economic impact associated IRDO trainees. The poor response rate to the web-based survey, coupled with the non-representative nature of the IRDO sample, do not allow for extrapolation of the results to the entire trainee population. Access to population demographics and an extended study period for the trainee survey would potentially allow for estimation of population economic impacts.

Section 1: Employment Impact

Introduction

Employment at Atterbury-Muscatatuck contributes significantly to the economies of the primary and secondary impact regions. The economic impact of employment at Atterbury-Muscatatuck is generated directly through compensation provided to employees (i.e., salaries and benefits) and indirectly through those employees' household spending in the local economy. Together, this spending contributes to additional rounds of spending throughout the local, regional, and state economies.

Atterbury-Muscatatuck employees fall under three broad and multifaceted categories: Indiana state government, federal government, and contract employment. Data provided by Atterbury-Muscatatuck personnel indicated that the post employed 2,341 employees in federal fiscal year 2012, with a total payroll of $177.8 million. However, this does not demonstrate the full impact of the employment on the local economy, as the compensation received by post personnel flowed through the economy and supported additional employment. These secondary impacts are known as indirect and induced effects. To that end, we sought to define and to evaluate the true impact resulting from Atterbury-Muscatatuck operations during FY 2012. Based on regional input-output multiplier models RIMS II and IMPLAN, employment impacts were estimated for the four individual local counties, the four-county primary region, the thirteen-county secondary region, and the State of Indiana.

Atterbury-Muscatatuck's total economic impact of employment on the State of Indiana during FY 2012 was approximately $306.2 million, and it sustained 3,314 jobs.[1] Table 1A shows the total economic impact disaggregated by direct, indirect, and induced effects. The remainder of this section is dedicated to describing the methodology, data collection, and results of Atterbury-Muscatatuck's impact on employment.

1. IMPLAN

Figure 1A. Atterbury-Muscatatuck Economic Impact by Effect Type, FY 2012

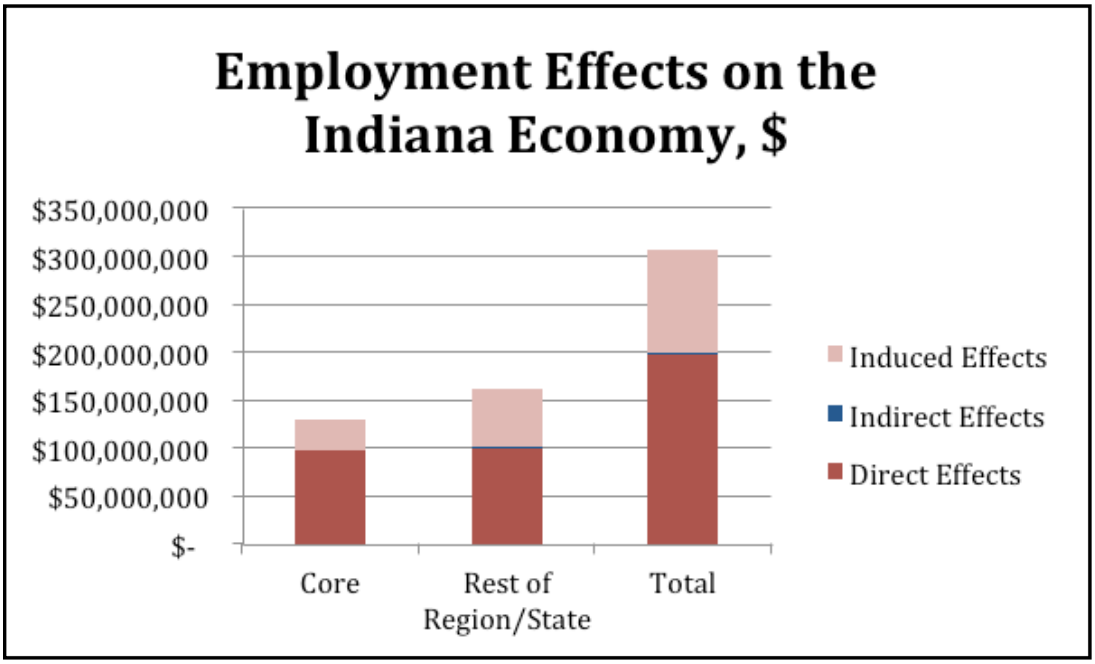


Figure 1B. Impact on the Primary Region, FY 2012

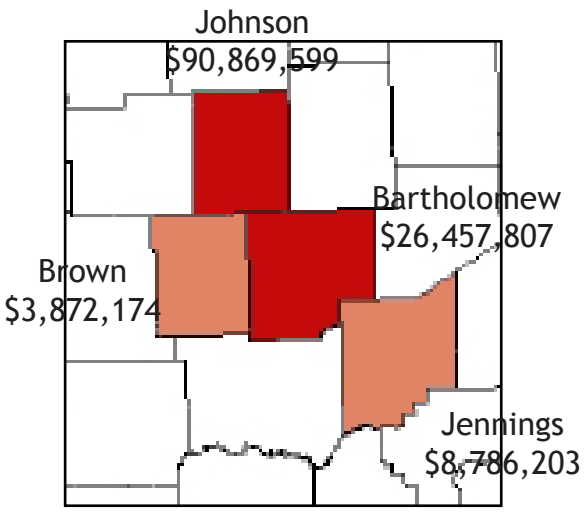


Table 1B shows this same information in a different format. The impacts of employment primarily came from direct effects and induced effects. Of these two types of effects, the induced effect are less salient, but equally important. The impact of this induced effect was $150.0 million in 2012 alone. About 42 percent of the total impacts of employment ($130.0 million) were felt in the thirteen-county "secondary impact region" that surrounds Atterbury-Muscatatuck. The remaining 58 percent ($162.0 million) occurred in the other 79 Indiana counties. This demonstrates that the post is not just a local economic force, but one that influences the entire state economy. Although some employees reside in Kentucky and Ohio, this analysis does not include the impact on the larger multi-state region.

Methodology

To estimate the economic impacts of employment, this study used IMPLAN economic modeling software and the Regional Input-Output Modeling System (RIMS II). Both of these accounting frameworks allowed us to estimate the relationships of purchases between industries within the economy at a given geographic location. For employment impacts, the multipliers are determined by total compensation, which includes spending on salaries, benefits (e.g., health insurance), and deferred benefits (e.g., pensions). Total compensation is a direct expenditure of Atterbury-Muscatatuck, which is captured by direct effects. Induced effects capture household spending by Atterbury-Muscatatuck employees. IMPLAN models also estimate an employment multiplier for how many jobs may result from employment spending.

A limitation of both IMPLAN and RIMS II models is the use of static data for deriving economic multipliers. Thus, they provide a snapshot of the economy at a given point in time. The models do not forecast how the economy might change in relation to industry innovations, for instance. This point is relevant to this study in that Atterbury-Muscatatuck experiences variation of on-post activity on both monthly and yearly basis. Employment included in our analysis for FY 2012 may vary considerably in the future based on changes in national defense priorities, thus impacting the overall economic impact of this National Guard post.

Data Collection

Atterbury-Muscatatuck personnel provided employment and compensation data for federal, state, and contract employees. In most cases, these data included information on function (active duty, civilian, contract, federal, state, etc.), position, rank, and county of residence. However, in cases where we could not readily obtain data on federal personnel and their salaries or benefits, we estimated values relying primarily on previous federal studies pertaining to military compensation. This estimation omitted several benefit categories and represents a conservative approximation of benefit levels. For a complete discussion of these estimation procedures, please consult Appendix 1.

Results

Interpretation

The following analysis examines the local, regional, and statewide impacts of salaries and benefits received by Atterbury-Muscatatuck employees. Table 1B reports employment and payroll information for FY 2012. Due to data restrictions, these data do not include basic

Table 1A. Atterbury-Muscatatuck's Economic Impact on the State of Indiana, FY 2012*

Impact Type	Direct	Indirect	Induced	Total Impact
Employment	2,341	25	948	3,314
Output	$197,538,000	$2,553,000	$106,086,000	$306,177,000

Table 1B. Impact on the Primary Region, FY 2012

Employment Type**	Average Employment	Average Salary	Estimated Total Comp.	FY 2012 Comp.	Total Payroll
Federal	1,585	$65,000	$128,000	$91,900	$145,634,000
State	194	$32,100		$49,100	$9,457,000
Contractor	562	$40,500			$22,748,000
Total	2,341	$57,700			$177,839,000

*Source: IMPLAN.
**A breakdown of employment and compensation by specific employment type can be found in Appendix 1.

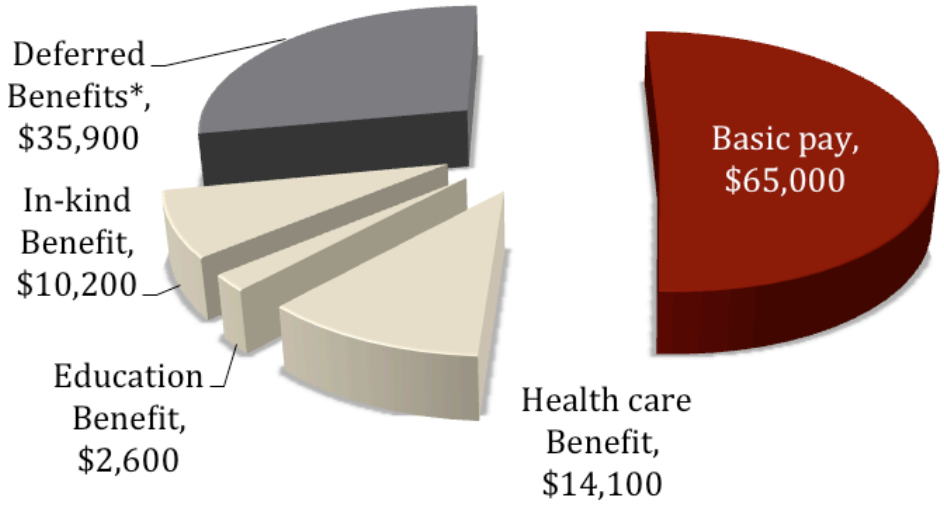
allowances for subsistence (BAS), basic allowance for housing (BAH), or any other allowances. Note that these figures do not include input-output multipliers.

Federal Employees

Federal employees, working in a variety of functions, comprised the majority of Atterbury-Muscatatuck employment. In FY 2012, Atterbury-Muscatatuck staffed 1,585 federal employees. The post groups federal employees into three categories, Tier 1, Tier 2, and Tier 3, so as to support accurate accounting procedures. Our analysis only includes Tier 1 and Tier 2, which are full-time employees working at Atterbury-Muscatatuck. Tier 3 represents individuals that train on a non-recurring basis at the post. The research team acknowledges these individuals represent a significant impact to the community and State, but this impact was excluded because it was difficult to apportion this employment in any reliable way. Section 1 of the appendix includes a more detailed breakdown of employment by staff type. The average salary of federal employees, according to information provided by Atterbury-Muscatatuck, was $65,000. As salary significantly fluctuated based on the classification of the federal employee (e.g., Title 10, Title 32, etc.), the range of salaries in FY 2012 was $54,400 to $78,000.

As benefits to federal employees were paid from a variety of sources external to Atterbury-Muscatatuck, such as the Department of Veterans Affairs and the Defense Finance and Accounting Services (DFAS), Atterbury-Muscatatuck personnel were unable to provide the exact benefits per federal employee. Therefore, benefits for federal employees were estimated using the *Department of Defense 11th Quadrennial Review of Military Compensation* (2012). A detailed description of the research found, estimation techniques, and impacts of the estimate choices used can be found in the Methodology section 1 of the Appendix. Figure 1C displays a pie chart of average federal employee compensation, with the accompanying percent of salary and benefits. It is important to note that basic pay only counts basic pay received by employees, but not BAH, BAS, or any other cash allowances. This makes the estimates of total compensation more conservative. In-kind benefits

Figure 1C. Estimated Federal Employee Average Total Compensation for Atterbury-Muscatatuck



Source: Department of Defense 11th Quadrennial Review of Military Compensation (2012).

represent other non-monetary benefits that may substantially reduce employees' out-of-pocket costs. The deferred benefits category includes benefits that will be realized once retired, including accrued pay, health care, and other benefits. Since these benefits are not realized until the future, they were not included as compensation for the FY 2012 impact of the post. This means there are significant economic impacts that were earned this year, but will not be realized by the State until future years.

Using the estimation technique, the average benefits of federal employees of Atterbury-Muscatatuck received in FY 2012, shown in cream in Figure 1C, were $26,900 and deferred benefits, in gray, were $35,900, for total benefits of $62,800. These estimates were supported by additional reports from the Congressional Budget Office and the Government Accountability Office, as well as estimates provided by staff at Atterbury-Muscatatuck. Moreover, the research team always erred on the side of conservatism whenever there was ambivalence of what compensation figure to choose. In addition to these resources, the IMPLAN software provides a wage-to-compensation ratio based on a common sector classification called the North American Industry Classification System (NAICS). For the NAICS code associated with the military, code 440, IMPLAN estimates that every $1 of gross base salary results in $1.69 of total compensation.[2] This estimation further confirms our estimated total compensation, as our figures show that every $1 in base salary results in $1.55 in total compensation.

State Employees

State employees perform a wide range of jobs at Atterbury-Muscatatuck. In FY 2012, 194 state employees worked at Atterbury-Muscatatuck. The two largest groups of employees were involved in (1) buildings and grounds maintenance and (2) maintaining the facilities' information technology infrastructure. Another important area of employment was the maintenance, operations, and safety of Camp Atterbury's airfield. While many of the activities of the facility were driven by the presence of certain lines of effort on the part of the military, the activities of the majority of state employees existed solely because of the facilities' existence, and remain in operation throughout the annual operations of the facilities. State employees fell into two categories: those paid exclusively by the Indiana state government, and those for whom the state government received federal reimbursement. Of these employees, 64 percent lived in the primary, four-county region (54 in Jennings, 38 in Johnson, 24 in Bartholomew, and 8 in Brown). The average annual salaries and benefits for state employees were $32,100 and

2. MIG. "Convert 440 IMPLAN wage and salary definitions (2)" 2007 to Current IMPLAN Supplemental Files, accessed April 5, 2013, http://implan.com/V4/index.php?option=com_docman&task=cat_view&gid=137&Itemid=60.

$17,000, respectively. Total compensation for state employees in FY 2012 amounted to approximately $9.5 million.

Contractors

Contract employees represent a large and diverse set of employment for Atterbury-Muscatatuck. The post contracts out nearly all non-core functions including security, information technology, architecture and engineering services, childcare, and energy, environment, and safety management.

In FY 2012, Atterbury-Muscatatuck employed an average of 562 contract employees with a total payroll of about $22.7 million. The average salary of contractors was $40,500, but salaries varied substantially across the 30+ contract firms. For the 300 contractors for whom we could obtain residence data, most lived near the post. The top five counties of residence were Johnson (117 employees), Bartholomew (52 employees), Marion (47 employees), Morgan (14 employees), and Jennings (13 employees).

Due to data limitations, we considered data received on contractors as benefit inclusive, or put another way, we did not apportion any additional benefits (health, disability, etc.) to contractors in the way we did to federal employees. We believe this to be the most conservative approach, though it may underestimate the total impact of the post.

Retirees

The four-county region around Atterbury-Muscatatuck is home to a robust veteran population of 21,100 veterans (4 percent of all veterans in the State). These veterans receive retirement benefits, about $3,700 per soldier annually, from the Department of Veterans Affairs. Since these retirement benefits are spent similarly to regular pay, the working group decided it was important to capture this large economic impact on the community.[3]

Table 1C. Economic Impact of Retirees in Bartholomew, Brown, Jennings, and Johnson Counties, FY 2012.

Retirees in primary region	Linked retirees (25 percent)	Total Impact
21,000	5,275	$19.6M

However, a major methodological problem is deciding what portion of this pay to apportion to the post's presence, or in other words, "which retirees to identify as inexorably linked to the military operations being analyzed."[4] Therefore, we consulted prior research and impact studies that found that, if a post closed, 25 percent of veterans in a 50-mile area would leave their communities.[5] In an effort to remain conservative we only included the four-county region in which the post is located. Under these assumptions, we estimate the impact of the post to be $19.6 million in annual veterans' benefits.[6] As prior research was conducted for active duty posts, the possibility remains that our projected retiree impact overestimates the actual impact, but this projection represents our best effort to resolve a difficult methodological issue. We explain this approach more fully in Appendix 1.

Impact of Education Benefits

In analyzing Atterbury-Muscatatuck's total economic impact, this study considers federal employees' use of education benefits. Education benefits contribute to regional and state economies, both as direct spending, on tuition and other educational expenditures, and as a form of human capital investment. Greater education levels are associated with positive impacts on

3. U.S. Department of Veterans Affairs, Summary of Expenditures by State, http://www.va.gov/vetdata/expenditures.asp. Veterans Affairs estimates are from September 2011. We assume the veteran population has not changed significantly since that time.
4. The Maguire Company, Economic Impact of Arizona's Principal Military Operations, 2002, http://www.azdema.gov/MIF%20Website%20Files/pdf/Maguire%20Study%20in%20Full.pdf, p 4-5.
5. Ibid. This 25 percent figure was also cited in other economic impact studies including a 2004 economic impact study by Rutgers University (http://policy.rutgers.edu/cupr/project/economic_impact_of_military_bases_in_nj.pdf).
6. U.S. Department of Veterans Affairs, Summary of Expenditures by State, 2011, http://www.va.gov/vetdata/expenditures.asp.

Table 1D. Total Veterans' Benefits for Bartholomew, Brown, Jennings, and Johnson Counties, FY 2011

County	Veteran Population	Total Expenditure	Compensation & Pension	Education & Vocational Rehabilitation/ Employment	Insurance & Indemnities	Medical Care
Bartholomew	5,718	$18,360,906	$9,475,621	$1,367,667	$235,869	$7,281,749
Brown	1,770	$7,372,877	$3,539,453	$354,125	$122,363	$3,356,936
Jennings	2,285	$10,322,556	$4,834,802	$350,447	$66,299	$5,071,008
Johnson	11,288	$42,476,642	$21,181,854	$3,941,249	$607,555	$16,745,984
Total	21,061	$78,532,981	$39,031,729	$6,013,489	$1,032,086	$32,455,677
Linked 25 percent:	5,265	$19,633,245	$9,757,932	$1,503,372	$258,022	$8,113,919
Final Total	$ 19,633,245					

earnings and productivity that benefit individuals and society at large.[7] A comprehensive impact analysis should consider these benefits.

As part of this study, we surveyed Atterbury-Muscatatuck employees. We include these survey results to supplement our estimates. Although the study methodology includes educational benefits in its federal compensation estimates, this procedure made a number of assumptions about benefits usage (see section 1 of appendix). As reported earlier, our average compensation estimates for FY 2012 assumed an education benefit of $2,561 for federal employees. To the extent that Atterbury-Muscatatuck employees' educational benefits utilization differed from these assumptions, the actual impact may be higher or lower. Moreover, we could not obtain data that indicated where education benefits were used. In assessing Atterbury-Muscatatuck's economic impact on the state economy, only those benefits used in Indiana should be included.

Survey respondents were asked to report use of education benefits. Of 549 respondents, 172, or 31 percent of the total, indicated that at least one member of their household had received education benefits. Of those reporting having received educational benefits, 119, or 22 percent, received benefits while serving at Atterbury-Muscatatuck. The survey allowed respondents to provide an estimate of the amount of educational benefits used. One hundred and thirty four respondents, or 24 percent, supplied estimates. These values ranged from $200 to $80,000 with an average amount of $12,536 and a median of $7,000. Averaging these education benefits across the 304 survey respondents who self-identified as current or previous federal employees results in an average education benefit to date of $5,525.

Atterbury-Muscatatuck Employee Salary Compared to Surrounding Regions

Average salaries of $64,997 for federal employees and $32,712 for state employees highlight the high-caliber jobs and significant impacts resulting from Atterbury-Muscatatuck in the different communities. As the *Department of Defense 11th Quadrennial Review of Military Compensation* (2012) explains, military compensation is competitive and often higher than civilian compensation with comparable levels of education. These competitive salaries result from the military's need to retain the necessary number and quality of the country's military personnel.[8] For example, the report states "officer earnings are about 88 percent higher than

7. Gary Becker, Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education, 3rd Edition (Chicago, IL: University of Chicago Press, 1994), p. 205-214.

8. U.S. Department of Defense, 11th Quadrennial Review of Military Compensation, (Washington, DC: Office for the Undersecretary of Defense for Personnel and Readiness, 2012), p. 15.

Table 1E. Comparison of Average Salaries in Surrounding Counties and State

	Bartholomew County	Brown County	Jennings County	Johnson County	State of Indiana	State Atterbury-Muscatatuck employees*	Federal Atterbury-Muscatatuck employees
Total Compensation	$58,552	$23,712	$32,708	$34,268	$42,744	$32,134	$64,997

County and state information were estimated based on the Bureau of Labor Statistics' average county and state wage information in March 2012. (Source: http://www.bls.gov/ro5/qcewin.htm.) *Average salaries for state and federal employees include a small percentage of seasonal workers.

earnings of civilians with bachelor's degrees, and 47 percent higher than earnings of those with graduate-level degrees."[9] The estimates from the Department of Defense correspond with the higher compensation earned by federally employed Atterbury-Muscatatuck personnel compared to civilian compensation. Table 1E displays a comparison of the average salary and compensation for individuals in the four main counties and the State of Indiana.

Key Findings

This analysis has confirmed that Atterbury-Muscatatuck is not only a local economic power, but a force in the State at large. This impact was not only in quantity of positions, but also in quality, as average compensation for post personnel far exceeded the average state workers compensation. In FY 2012, Atterbury-Muscatatuck employed 1,585 federal employees, 194 state employees, and 562 contractors, for a total of 2,341 direct employees. Based on information provided by Atterbury-Muscatatuck and employing best practices for estimating federal military compensation, FY 2012 average compensation was $91,900 for federal employees and $49,100 for state employees. However, the impact of the post is not limited to this direct employment. Using Input-Output analysis we found that the ripple effect of these salaries paid results in a larger $306.0 million annual impact. The total impact of this spending on the local community supported nearly 1,000 additional jobs in the State, for a total of 3,314.

9. Ibid, p. 28.

Section 2: Facility Spending Impact

Introduction

We collected data from Atterbury-Muscatatuck to determine both the total facility spending from the post locations and the multiplicative effect of such spending. During federal fiscal year 2012 (FY 2012), Atterbury-Muscatatuck spent just over $76.0 million; however, this number does not capture the spending's true impact on the region. The post directly spent just over $56.0 million of this amount in Indiana. In the results section, we will break down total facility spending and its multiplicative effects by location and by industry. We used IMPLAN and RIMS II software to calculate two estimates of the additional output caused by Atterbury-Muscatatuck's facility spending. Altogether, IMPLAN software shows that the total effect of the post's facility spending is $92.8 million, which is a $36.8 million or 65 percent increase over the post's $56.0 million direct spending in Indiana's economy.

Atterbury-Muscatatuck spent over $10.7 million on construction spending during FY 2012. The construction figure includes funds that were expended during FY 2012, and it does not include construction projects that had not incurred any costs during the fiscal year. Of this amount, $7.1 million was expended for three MILCON projects. The first project is the Multi-Purpose Machine Gun Range (MPMG), for which Atterbury-Muscatatuck spent over $4.7 million. Second, the post spent over $1.0 million on the Operations Readiness Training Complex (ORTC) – Phase I. Finally, the post spent over $1.3 million for the ORTC's Phase II. As a result of Atterbury-Muscatatuck's $10.7 million spending on construction during FY 2012, IMPLAN calculates the total output multiplicative effect at $17.8 million, which is an increase of over $7.0 million. To read more about Atterbury-Muscatatuck's construction spending, please refer to Appendix 2.

Atterbury-Muscatatuck spent approximately $7.6 million on training exercises during FY 2012. The Patriot Academy's $3.9 million in spending resulted in a total output of over $6 million and approximately 65 jobs created. WolfOps' $0.5 million in spending created total output of over $0.8 million and approximately 12 additional jobs. The total output from BoldQuest's $0.6 million in spending in FY 2012 was approximately $989.0 thousand. This spending, through direct and indirect effects, created 15 jobs. Finally, Army North's $2.6 million in spending resulted in a total output of $4.4 million, and that spending helped to create approximately 65 jobs. To see more detailed information, please refer to Appendix 2.

Methodology

To best capture Atterbury-Muscatatuck's spending, we developed an approach based on the availability of data, information, and analytic tools. First, we started by collecting and organizing the raw data coming from various departments at Atterbury-Muscatatuck. Second, we classified spending data according to county and industry to get coded data for the final demand change following RIMS II's data input requirements. Third, we applied the economic multipliers of RIMS II on the final demand change in order to obtain the desired economic

Table 2A. Facility Spending by Region

Spending Area	$
Bartholomew	4,369,629.81
Brown	2,296.77
Jennings	848,390.32
Johnson	3,235,918.37
Primary impact region	8,495,161.33
Secondary impact region	55,037,675.90
State	56,772,057.71
Out-of-state	19,325,412.39
Total Facility Spending	76,097,470.10

Table 2B. Top Ten Facility Spending by Industry

RIMS II Code	Industry	$
29	Air transportation	17,600,569.77
7	Construction	16,375,926.20
60	Food services and drinking places	10,683,222.56
48	Professional, scientific, and technical services	7,307,890.36
28	Retail trade	6,786,770.09
6	Utilities*	4,483,365.73
47	Rental and leasing services and lessors of intangible assets	4,218,785.22
59	Accommodation	2,829,173.73
51	Waste management and remediation services	1,670,110.21
33	Transit and ground passenger transportation*	1,533,717.54

impacts on output, earnings, and employment on the local, regional, and state economies. Fourth, we transformed the final demand change data from the RIMS II coding system to the IMPLAN coding system. Once the data were input into the software, IMPLAN generated the economic impacts on output, labor income (earnings), employment, and value added to the economy. Additionally, we compared the economic impact generated from RIMS II and IMPLAN. Finally, we summarized the economic impacts and interpreted the results. Since both of these software systems use input-output models, we expect that the difference of results will be within a small range.

Collecting and processing data was our main challenge. We faced the risk of either missing relevant spending data or double-counting spending data. Either of these would lead to incorrect estimation of the economic impacts. To make the analysis feasible given the data availability, we deviated from standard analysis procedures, resulting in limitations that we discuss in the Limitations section of our report.

Data Collection

The data analyzed were collected directly from Atterbury-Muscatatuck. In particular, the working group had continuing contact and received a wealth of data from Bonnie Silva and the Directorate of Resource Management. The working group also gathered considerable data from Directorate of Public Works staff including Major Johnson, Major John Roark Sr., and Captain Zaborowski. Other Atterbury-Muscatatuck staff assisted in compiling and verifying various data sets.

Results

In the results section, we first summarize Atterbury-Muscatatuck facility spending and then present the total economic impact, which is calculated by IMPLAN and RIMS II.

Atterbury-Muscatatuck spent just over $76.0 million in FY 2012, and spending in Indiana accounts for over $56.0 million of this total. The majority of facility spending was located within the thirteen-county region, due to the impact of spending in Marion County. Approximately 12 percent of total FY 2012 spending was accounted for in the four-county primary impact region surrounding the post. Tables 2A and 2B summarize total facility spending collected by the working group.

As seen in Table 2B, Atterbury-Muscatatuck spent the largest amount in the Air Transportation industry. This amount includes $16.8 million for jet fuel for planes that fly out of Indianapolis. Construction was the second highest industry, mostly a result of two large MILCON projects. It is important to note that these are construction funds that were expended during FY 2012 and omits the amounts that were contracted but not spent.

The proceeding sections and accompanying tables lay out the most important IMPLAN and RIMS II results, beginning with the State of Indiana totals and ending with the out-of-state totals. The remaining IMPLAN and RIMS II results, including county-level results for Bartholomew, Brown, Jennings, and Johnson, are located in Appendix i. Each impact category includes three primary tables: (1) summary of IMPLAN/RIMS II total economic impacts, (2) top ten industries by employment figures, and (3) top ten industries by output. It is important to keep in mind that IMPLAN breaks down total effects into three component parts: direct, indirect, and induced effects.

Our presentation of county, region, state, and out-of-state economic impact will follow the order below:

- Four-County Primary Impact Region
- Thirteen-County Secondary Impact Region
- State of Indiana

Primary Impact Region

Atterbury-Muscatatuck directly spent nearly $8.5 million in the primary four-county region. Table 2I below provides IMPLAN results that detail the impact of this spending. The total economic effect of facility spending is $12.1 million. Additionally, post spending created approximately 129.9 jobs in the four-county region. The RIMS II final demand output shows similar results, where the post's total facility spending effect was $11.4 million.

Table 2C. Total Primary Impact Region Effect

	IMPLAN				RIMS II
Impact Type	Employment	Labor Income ($)	Total Value Added ($)	Output ($)	Output ($)
Direct Effect	95.8	3,306,319.0	5,188,842.3	8,495,161.3	
Indirect Effect	11.6	417,737.2	727,214.7	1,223,980.7	
Induced Effect	22.5	703,042.5	1,413,169.5	2,264,387.1	
Total Effect	129.9	4,427,098.7	8,854,826.2	12,124,664.6	11,440,102.78

Note: Total effect results in Table 2C only account for facility spending total effects.

Table 2D. Primary Impact Region Top Ten Industries by Employment

Sector	Description	Total Employment
329	Retail Stores - General merchandise	47.0
336	Logistics: Transit and ground passenger transportation	21.8
34	Construction of new nonresidential commercial and health care structures	6.6
390	Waste management and remediation services	6.4
31	Utilities: Electric power generation, transmission, and distribution	4.5
319	Wholesale trade businesses	4.4
413	Food services and drinking places	4.2
374	Management, scientific, and technical consulting services	3.9
360	Real estate establishments	2.9
384	Office administrative services	1.9

Table 2E. Primary Impact Region Top Ten Industries by Output

Sector	Description	Total Output ($)
31	Utilities: Electric power generation, transmission, and distribution	2,659,022.2
329	Retail Stores - General merchandise	2,228,092.7
390	Waste management and remediation services	1,369,118.9
34	Construction of new nonresidential commercial and health care structures	858,176.3
319	Wholesale trade businesses	644,922.1
336	Logistics: Transit and ground passenger transportation	481,618.9
361	Imputed rental activity for owner-occupied dwellings	347,715.8
374	Management, scientific, and technical consulting services	337,782.8
360	Real estate establishments	327,239.2
384	Office administrative services	225,765.1

Table 2F. Total Secondary Impact Region Effect

	IMPLAN				RIMS II
Impact Type	Employment	Labor Income ($)	Total Value Added ($)	Output ($)	Output ($)
Direct Effect	450.3	17,113,519	27,055,614	51,734,349	
Indirect Effect	99.7	5,188,495	7,934,068	12,877,367	
Induced Effect	139.8	6,116,560	10,475,603	16,385,675	
Total Effect	689.4	28,418,574	45,465,285	80,997,391	99,665,759.1

Table 2G. Secondary Impact Region Top Ten Industries for Employment

Sector	Description	Total Output ($)
413	Food services and drinking places	232.9
34	Construction of new nonresidential commercial and health care services	68.6
332	Transport by air	65
329	Retail Stores—General merchandise	30.8
411	Hotels and motels, including casino hotels	28.5
363	General and consumer goods rental except video tapes and discs	17.2
336	Transit and ground passenger transportation	15.5
319	Wholesale trade businesses	12.9
360	Real estate establishments	12.8
397	Private hospitals	9.4

Table 2H. Secondary Impact Region Top Ten Industries for Output

Sector	Description	Total Output ($)
332	Transport by air	17,303,874
413	Food services and drinking places	12,236,266
34	Construction of new nonresidential commercial and health care services	10,649,570
31	Electric power generation, transmission, and distribution	3,993,495
411	Hotels and motels, including casino hotels	2,499,994
390	Waste management and remediation services	1,954,276
361	Imputed rental activity for owner-occupied dwellings	1,881,860
319	Wholesale trade businesses	1,857,346
360	Real estate establishments	1,684,123
363	General and consumer goods rental except video tapes and discs	1,597,914

In Table 2D, industries are sorted by employment. Spending on retail stores in the primary region created 47 jobs. The second largest industry was logistics with an emphasis on transit and ground passenger transportation.

In Table 2E, industries are sorted by total output. The top three industries are utilities, retail stores, and waste management/remediation service. These industries alone account for approximately $6.3 million in the primary region's total output.

Secondary Impact Region

In FY 2012, Atterbury-Muscatatuck spent over $51.7 million in the thirteen-county region. The total multiplier effect for this spending from IMPLAN was an output of nearly $81.0 million, an increase of about $30.0 million. For employment, Atterbury-Muscatatuck's spending helped create nearly 690 jobs, with a labor income value of $28.4 million.

Table 2G shows the top ten industries that experienced employment increases stimulated by Atterbury-Muscatatuck spending. As can be seen from the table, the sector that created the most jobs was food services and drinking places, with an increase in employment of nearly 233.

Table 2H shows the industries that were most affected by Atterbury-Muscatatuck's spending in FY 2012, in order of the greatest impact on output. This shows that Atterbury-Muscatatuck's spending on air transport, for example, induced additional output of approximately $17.0 million.

State of Indiana Impact

For FY 2012, Atterbury-Muscatatuck facility spending in Indiana totaled $56.8 million. However, when considering the direct, indirect, and induced effects of facility spending, the total economic impact is valued at $92.8 million. This large contribution to the economy resulted in approximately 862 jobs in the State of Indiana just to service the facility spending of Atterbury-Muscatatuck.

Table 2J details how facility spending impacted employment in FY 2012. The food industry in the State of Indiana experienced the largest economic boost from facility spending, resulting in 246 jobs. Retail stores in Indiana also benefited greatly from the increased traffic and money the post brings to the region.

Table 2I. Total State Impact

IMPLAN				
Impact Type	Employment	Labor Income ($)	Total Value Added ($)	Output ($)
Direct Effect	561	18,446,700	29,873,831	56,771,757
Indirect Effect	118.8	5,214,331	8,585,350	15,547,813
Induced Effect	182.9	6,912,924	12,476,861	20,453,743
Total Effect*	862.8	30,573,954	50,936,042	92,773,313

*Total effect results in Table 2C only account for facility spending total effects.

Table 2J. Total State Top Ten Industries for Employment

Sector	Description	Employment
413	Food services and drinking places	246.4
329	Retail Stores - General merchandise	114.1
34	Construction of new nonresidential commercial and health care structures	73.4
332	Transport by air	67.1
411	Hotels and motels, including casino hotels	29.5
363	General and consumer goods rental except video tapes and discs	26.1
360	Real estate establishments	17.8
336	Transit and ground passenger transportation	17.5
319	Wholesale trade businesses	14.9
397	Private hospitals	11.5

Table 2K. Total State Top Ten Industries for Output

Sector	Description	Total Output ($)
332	Transport by air	17,257,874
413	Food services and drinking places	12,561,267
34	Construction of new nonresidential commercial and health care structures	10,702,003
329	Retail Stores - General merchandise	5,487,381
31	Electric power generation, transmission, and distribution	4,198,767
411	Hotels and motels, including casino hotels	2,503,580
361	Imputed rental activity for owner-occupied dwellings	2,365,216
363	General and consumer goods rental except video tapes and discs	2,364,722
360	Real estate establishments	2,121,742
319	Wholesale trade businesses	$2,089,401

Table 2L. Total State Top Ten Industries for Output

Sector	Description	Total Output ($)
48	Management, scientific, and technical consulting services	6,419,633
7	Construction of new nonresidential commercial and health care structures	5,673,924
47	Equipment Rental (General and consumer goods rental except video tapes and discs)	1,909,603
28	Retail Stores - General merchandise	1,652,448
33	Transit and ground passenger transportation*	979,306
6	Utilities (Electric power generation, transmission, and distribution)	945,746
29	Air transportation	462,279
59	Hotels and motels, including casino hotels	341,481
27	Wholesale trade	293,039
60	Food services and drinking places	148,857
	Total Expenditures	19,325,412

Table 2K lists the top industries for economic output. Facility spending in these industries had the greatest dollar value impact on the Indiana economy in 2012, with air transportation (and fuel), food services, construction, and retail sales contributing the most value to the Indiana economy.

Out-of-state facility spending accounted for more than $19.0 million, or 25 percent of total facility spending. Of that, construction projects ($6.4 million) and management and technical services ($5.7 million) accounted for more than $12.0 million. Equipment rental accounted for nearly $2.0 million in spending, and most of this can be attributed to Atterbury-Muscatatuck training activities. By far, the greatest number of transactions can be attributed to retail purchasing, which accounts for $1.7 million. No other spending eclipses the $1.0 million mark.

As a note, this number is reported along with total spending but total impacts are not measured, meaning multipliers are not applied.

Limitations

There are several limitations to the results. First, the working group only utilized IMPLAN to calculate the multiplicative effect of Atterbury-Muscatatuck facility spending. The RIMS II software available for use by the working group did not allow for calculation of a multiplicative effect for the entire State of Indiana. While this result is not ideal, it is not of serious concern because IMPLAN is a widely accepted analytic tool. Additionally, the total effects found by either analytic tool are not exact; instead, such results are solid estimates based on data provided by Atterbury-Muscatatuck staff.

Second, the working group did not independently verify subcontractor facility spending on major construction projects during FY 2012. Atterbury-Muscatatuck staff did, however, provide contact information for general contractors on these construction projects and comprehensive Independent Government Estimates (IGEs) for potential line-item subcontractor facility spending

categories. Nonetheless, the significant amount of time necessary to independently verify sub-contractor spending would not have been an efficient use of the working group's energy given project time constraints. This limitation is also not a serious concern because both IMPLAN and RIMS II account for the multiplicative effect of sub-contractor facility spending.

Third, although the data available was sufficient in detail for analytic purposes, IMPLAN and RIMS II codes are significantly more detailed in terms of how they classify spending items. Consequently, the working group, at times, had to classify facility spending based on the most reasonable assumptions and information available.

Key Findings

In summary, the working group collected data from Atterbury-Muscatatuck's staff to determine total facility spending at post locations and to calculate the multiplicative effect of such spending. Atterbury-Muscatatuck spent over $76.0 million during FY 2012, of which $56.0 million was spent in Indiana. The thirteen-county secondary impact region, which includes Marion County, represented the majority or $55.0 million of total facility spending. Additionally, $17.6 million was spent on jet fuel alone.

While Atterbury-Muscatatuck directly spent $56.0 million in Indiana, IMPLAN results show a combined total effect of $92.8 million. The multiplicative effect of Atterbury-Muscatatuck spending is approximately $36.8 million, which is an increase of over 65 percent. Additionally, IMPLAN results show that the post's facility spending has a total employment effect of 862.8 Indiana jobs. Again, the working group did not calculate a multiplicative effect for the entire State of Indiana because the software available did not allow for this calculation.

The working group offers a series of recommendations for Atterbury-Muscatatuck to consider if the post wants to continue calculating the multiplicative effect of its spending using IMPLAN and RIMS II. First, the working group recommends that Atterbury-Muscatatuck staff code their facility spending according to IMPLAN or RIMS II codes in addition to federal and state code requirements. RIMS II has an aggregated list of approximately 62 different codes that would seem sufficient for analysis. Second, the working group recommends that Atterbury-Muscatatuck keep track of line-item details for sub-contractor facility spending on major construction projects. Instead of post staff recording this information, Atterbury-Muscatatuck might consider requiring general contractors to keep track of sub-contractor facility spending and also report such information to post staff on a regular basis.

Section 3: Impact of Indirect Exports on Local Governments and Businesses

Introduction

We set out to take a closer look at the indirect and induced economic impacts of Atterbury-Muscatatuck on the primary impact region of Bartholomew, Brown, Jennings, and Johnson counties.

As noted previously, indirect and induced effects include the secondary effects of economic activity as a result of Atterbury-Muscatatuck. In this report, we term these secondary effects as "indirect exports." Indirect exports happen when individuals affiliated with Atterbury-Muscatatuck use their salary incomes for household or discretionary spending and when businesses or local governments use their revenues generated by Atterbury-Muscatatuck for purchasing goods or providing services.

Similarly, military personnel that attend training events at Atterbury-Muscatatuck, contractors that serve the post, and guests that stay in the region all contribute direct and indirect economic effects when they spend money on local goods or services.

Methodology

Our team focused on collecting data and conducting original research within the primary impact region, specifically looking at individuals, businesses, and governments with immediate proximity to Atterbury-Muscatatuck. We took significant steps in our survey research to create representative sample populations of employees and visitors and to identify key economic sectors and local businesses that are affected by Atterbury-Muscatatuck.

In addition to quantitative data, our interview research and anecdotal evidence allow us to get an in-depth look at social impacts, business transactions, government engagements, human behaviors and personal habits. Observing how local businesses, governments, and individuals interact with one another is a crucial component of an impact study that seeks to quantify any measurable results, because every single action and interaction produces an effect, big or small.

Data Collection

In pursuit of our research goals to identify secondary effects and indirect exports, we gathered data from multiple sources. This included conducting research, electronic and paper surveys, in-person and phone interviews, and onsite visits. We took the most feasible approach possible to gather quantitative data on our population of interest and their local discretionary spending habits by issuing a survey to current Atterbury-Muscatatuck employees, trainees and visitors. We also contacted key government stakeholders, examined government-funded projects, and explored tax revenue sources that are affected by Atterbury-Muscatatuck. Our tax revenue data come from the IMPLAN economic impact model.

Surveys

Our team used data from three original surveys distributed to Atterbury-Muscatatuck staff, trainees, and visitors. The first set of survey questions was sent electronically and widely distributed to employees and staff as part of

the project team's comprehensive Atterbury-Muscatatuck survey. The questions on personal spending habits gave us large amounts of data on the average spending, business patronage, post visits, and geographic distribution of participants.

Our second survey was distributed weekly in paper hard-copy to Individual Replacement Deployment Operations (IRDO) trainees at Atterbury-Muscatatuck. We received over 200 paper surveys and input all the answers into an electronic database in order to analyze and interpret the results.

Our final survey was sent electronically to multiple contacts in the Range Facility Management Support System (RFMSS) database provided by Atterbury-Muscatatuck staff in an attempt to reach groups and organizations that held past training events at the post. We faced challenges when contacting these individuals and the survey response rate was lower than anticipated. However, we were still able to examine some data on the spending habits of these trainees and visitors.

Additional survey information can be found in Appendices ii, iii, and iv.

Interviews

We made multiple attempts to contact and talk with a wide range of stakeholders in the primary impact region and at the state level. We contacted businesses and government agencies in the primary impact region due to post proximity, interviewee referral, and our survey results. Some of the businesses and government leaders we also chose to contact were based on recommendations from Atterbury-Muscatatuck staff or those that already had some relationship with the post.

The working group requested interviews from over 100 potential stakeholders via email and telephone. We made initial interview requests via an email detailing our project and intended goals. Standard interview questions were included as an email attachment. Often, we did not receive any response to the initial email, but we anticipated some noncompliance due to the general nature of interview requests and survey research. Due to time constraints, we shifted our focus toward local government officials and individuals with a strong interest in participating. Likewise, we began to strategically target local businesses and directly contact individuals via telephone to administer our interview questions; if we were received positively and obtained consent, we continued the conversation with our questions.

The working group made two official visits to Atterbury-Muscatatuck with the entire project team. In addition, we visited numerous local businesses in North Vernon, Edinburgh, and Franklin, and we toured several communities in the primary impact region to establish a personal sense of place to better discuss our results.

For all interviews, our group took detailed notes and recorded the sessions to ensure accurate responses and information for internal use only. All interview notes and recordings were stored on a secured server and subsequently disposed of in a timely fashion. Additionally, in compliance with Indiana University Internal Review Board guidelines, no personally identifiable information was stored with recordings or notes from the interviews.

Photo: Ashley Ames and Gregory Auclair

The Mayor of North Vernon, Harold Campbell, has had a close relationship with Atterbury-Muscatatuck personnel for many years.

"The impact is large enough to know that what nudged you over the top, [with projects] like the Bypass, was the military… STELLAR was an award from the State of Indiana for 20 million dollars and I competed against other mayors for it. When you look at the original impact and they [State of Indiana] didn't want just something that impacted North Vernon, right here, they wanted something that really reached out. Quality of life… malls, theaters and all that… we just don't have that stuff. For us to be awarded STELLAR, that 20 million dollars, all of this is going to change in the next 18 months. The military again is what helped us get the key component of being regional… a regional effect. I look at who has been here of consequence, and I say general and admirals, the SEALs, the Secretaries, and I look at the regionality factor and this monster grant that the city was awarded by the State of Indiana, and I believe the military was the driver on it… and most recently the Bypass. By itself, the military couldn't have done it, but they put North Vernon over the top."

-Harold "Soup" Campbell, Mayor of North Vernon,
on the indirect impacts of Atterbury-Muscatatuck

Results

The following section elaborates upon the successful and in-depth interviews we conducted with over 25 local government officials, business owners, and other individuals with interest in Atterbury-Muscatatuck. Our survey results can be seen in the Interpretation section below.

In our interviews, we collected broad qualitative data to develop a concise and thorough understanding of the primary impact region surrounding Atterbury-Muscatatuck. This helps us paint a picture of the economic impact of development projects, business-community relations, and quality-of-life issues surrounding the post and the region at large.

Local Government

Local governments address the needs, challenges, and accomplishments within their communities. Many of the local government officials we interviewed spoke highly of Atterbury-Muscatatuck and understood the importance of the post and the positive impact it generates in the primary impact region and the State of Indiana.

Many officials emphasized "exceptional" relationships with the post's command, and some proposed the creation of a formal committee to discuss common concerns and mutual goals so that surrounding communities can appear more attractive to Atterbury-Muscatatuck and better serve its skilled labor force, personnel and visitors. A formal partnership between local leaders and military command members would be mutually beneficial for all parties involved.

Franklin, Indiana's Mayor Joe McGuinness praised Atterbury-Muscatatuck and the significant positive impact the post has on his city. Located just 15 miles north of Atterbury, the City of Franklin and its local businesses benefit greatly from the military presence and undoubtedly receive a lot of revenue from Atterbury-Muscatatuck personnel and visitors. Beyond the tangible, financial gains, McGuinness says that there is a pride element involved with having a post nearby as well: "It's very hard to find anyone that's more skilled, disciplined, and loyal than military [men and women]."

North Vernon, Indiana's Mayor Harold "Soup" Campbell expressed a sentiment similar to that of the city of Franklin. Campbell noted the positive

Photo: Ashley Ames and Gregory Auclair

The North Vernon Mayor's Office is located inside of an old library that was in disrepair before STELLAR funds were used for renovations of the historic building. The Mayor believes that Atterbury-Muscatatuck put North Vernon "over the edge" when competing with other cities for the $20 million STELLAR award.

economic impact of Atterbury-Muscatatuck on local businesses and cited the presence of the Muscatatuck post as an influencing factor in several local infrastructure and development projects. Money spent on these projects not only flows into the local economy, but the projects also serve to bolster the quality of life in surrounding communities for residents and visitors alike.

Specifically, local government officials expressed that Atterbury-Muscatatuck played an important role in bringing the U.S. 50 Bypass construction project to the community, a project that reduces traffic congestion, noise, and pollution in downtown North Vernon and reduces travel time and cost for most area residents and military personnel. Officials in North Vernon and Jennings County also stated that the following projects were attributable in some degree to the presence of Atterbury-Muscatatuck:

Table 3A captures some induced spending in North Vernon that occurs in 2011-2014. It is important to note that state and local planners consider numerous factors before commissioning large-scale development and infrastructure projects, but to quote one local government official, "the presence of the military base put us over the top." While it is not be feasible to gauge the true impact of Atterbury-Muscatatuck on local governments, it is likely that attributable benefits are considerably greater than just those identified above.

Local Small Businesses

Small businesses are the backbone of the American economy; as such, they play a vital role in the economy of the primary impact region. Many of the local businesses we interviewed stated that they frequently serve individuals related to Atterbury-Muscatatuck and could not be happier doing so.

Table 3A. North Vernon Projects, 2011-2014

Project	Amount
US 50 Bypass construction in North Vernon	$18.1M (estimate)
STELLAR Community Project in North Vernon	$18M
North Vernon Municipal Airport upgrades	$2.5M
Muscatatuck One Technology Park in North Vernon	$5M[1]
Total	$43.6M

[1]All Indiana gross business retail taxes and incremental income tax amounts paid by employees of firms within the new tech park will go to the city until the $5 million level is reached.

Local food and service industry establishments in the proximity of Atterbury-Muscatatuck reported that a large number of their customers and visitors are affiliated with the post in one way or another. Numerous businesses identified strong spikes in sales and revenue during Atterbury-Muscatatuck activities and training events. One business owner identified clear increases in catering opportunities due to events at Atterbury-Muscatatuck. Another owner noted that he serves military personnel "on a regular basis" and even knows some of the regulars on a first-name basis. He added that he can "definitely feel" when something bigger is happening at the post because of the increased number of personnel in uniform that frequent his restaurant. We discovered that this restaurant even offers a special and reduced-price menu, with an additional military discount, when large events are happening at the post.

In general, restaurant business owners identified only positive impacts from the presence of Atterbury-Muscatatuck, and we heard many great stories from our interview and survey respondents that only solidify this claim. Most "mom and pop" businesses love the post and the soldiers. This is not to say that all local small businesses depend on Atterbury-Muscatatuck to remain viable. As one local restaurant estimated, only about half of their revenue during "busy times" is attributable to the post. In addition to the presence of Atterbury-Muscatatuck, small businesses also attribute their success to the community at-large and the presence of chain stores and area malls that drive traffic through their doors.

Chain and "Big-Box" Businesses

Chain restaurants and "big-box" stores are often strategically located in towns near highways, malls, and attraction areas; they bring in huge amounts of traffic, attract a large number of consumers, and provide goods and services to a much greater population than an individual local business.

Many of the businesses that we identified in the primary impact region and attempted to contact knew of Atterbury-Muscatatuck, but most that we reached by phone did not feel the post's personnel or visitors contributed to a substantial portion of their revenues. "I don't think so" or "I'm too busy" became phrases all too common during the interview request process. Because large retail establishments, car rental companies, malls, hotels and taxi-cab firms serve both local and transient populations, many of these businesses simply did not wish to speak with us about Atterbury-Muscatatuck or any impact it may have.

Further, some of the businesses that we were able to interview mentioned that they serve individuals affiliated with Atterbury-Muscatatuck, but that these businesses would still be viable without the post nearby. For example, a manager at a supermarket chain said that his store experiences "continuous" business benefits from Atterbury-Muscatatuck personnel and "substantial" spikes in sales and revenue during training activities and events; however, the store does not do anything specific to attract visitors or trainees; does not offer a military discount; and would still be viable and successful in the absence of the post. Another manager at a convenience pharmacy chain said that the store was often frequented by large

numbers of personnel in uniform, but that the number has been declining recently. The manager added that the absence of Atterbury-Muscatatuck would "hurt" business at the store, but the store would still be viable.

Nonetheless, our survey results suggest that Atterbury-Muscatatuck does exert a large and sometimes disproportionate effect on chain businesses in terms of patronage and personal spending. Some of these businesses do recognize the importance of Atterbury-Muscatatuck to their success. For example, one nearby hotel advertises its military discount in the media and rents billboards to welcome military members during summer months, training exercises, and deployment times. We also discovered that the effect of Atterbury-Muscatatuck can be clearly observed, especially during the summer months of July and August, with uniformed personnel visually out on the streets and inside the businesses. One of our interviewees summarized it best:

"The great thing is, when these people are traveling, if they're traveling further away there comes that multiplying factor where not only are they shopping here, but they're sleeping in the hotels here, they're getting gas at the gas stations, they're eating here, and all of that is going back into the tax revenue. Any time you get more people visiting the base, because of our close proximity, it will benefit the whole region, especially the nucleus around Atterbury."

Military Contractors, Vendors, and Providers

Military vendors and military-style equipment supplies in the primary impact region are very happy with the Atterbury-Muscatatuck post; they see the post as a big part of their success and existence.

Many of the military businesses we interviewed experienced substantial growth from their entrepreneurial start-up days in Indiana to now being national contractors and even international market suppliers. One local military business owner cites that "Atterbury is extremely crucial to both of our businesses because they are the people who train soldiers, and we get the feedback on what we should be designing and building, and then they test it."

Photo: Ashley Ames and Gregory Auclair

The White Front Cafe in North Vernon is an example of local business that offers a military discount to attract Atterbury-Muscatatuck staff and trainees.

We interviewed a few military vendors and providers that have done, do, or would like to do more direct business with Atterbury-Muscatatuck, but many cited a very difficult contracting and funding process. Most argued that Atterbury-Muscatatuck is a priceless local asset to have available in the region, but maintain that they face significant barriers-to-entry to

doing business with the post; in fact, often times providers may do less business or charge more for services because of their high administrative costs. Needless to say, our working group certainly would have liked to interview more military vendors and local businesses that deal directly with the post, because that would have allowed us to gather data and examine the most obvious of secondary effects and indirect exports attributable to Atterbury-Muscatatuck.

Interpretation

This section provides the results of the surveys we conducted and interprets the data we collected. The purpose of the surveys was to determine individual spending habits and how Atterbury-Muscatatuck employees, contractors, trainees, and visitors affect the surrounding communities through their personal spending on hotels, restaurants, retail stores, and other businesses. Estimated tax revenue data generated from the IMPLAN model is also provided.

For each of the three surveys, the most frequent businesses were standardized to get accurate counts. Then the amounts of spending per business for the trainee and visitor surveys were averaged. Businesses were assigned to economic sectors, such as hotels and restaurants, when possible. Some responses could not be assigned to specific sectors due to the nature of the response, such as vending machines. Finally, the total number of responses per sector was calculated and recorded.

Local Spending by Atterbury-Muscatatuck Staff

The working group received 549 responses to the Atterbury-Muscatatuck Staff Survey conducted between March 4 and March 15, 2013. The data are presented in Tables 3B-3D.

Table 3B. Staff Spending per Week

Spending Level	Number of Responses
$0 - $99	173 *(33%)*
$100 - $199	128 *(24%)*
$200 - $299	88 *(17%)*
$300 - $499	77 *(15%)*
$500 - $999	44 *(8%)*
$1,000 - $1,499	9 *(2%)*
$1,500 or more	7 *(1%)*

Table 3C. Staff Most Common Sectors

Spending Level	Number of Responses
Retail	839 *(38%)*
Restaurant	574 *(26%)*
Grocery	406 *(19%)*
Gas Station	317 *(14%)*
Other	54 *(2%)*

Table 3D. Staff Most Frequented Businesses

Business	Number of Responses	Business	Number of Responses
Wal-Mart	281	**Sam's Club**	28
Jay C Foods	147	**Shell Gas Station**	27
Kroger	128	**Dollar General**	26
McDonald's Restaurant	85	**Montana Mike's Steakhouse**	23
CVS Pharmacy	78	**Taco Bell**	23
Lowe's Home Improvement	62	**Arby's Restaurant**	21
Speedway Gas Station	55	**Burger King**	21
Target	53	**Kohl's**	21
Subway	45	**Walgreens**	21
Circle K Gas Station	38		

Local Spending by Individual Replacement Deployment Operations (IRDO) Trainees
The working group received 216 responses to the Individual Replacement Deployment Operations (IRDO) Trainees paper survey conducted between March 20 and April 9, 2013. The data are presented in Tables 3E-3G.

Table 3E. Trainee Most Common Sectors

Sector	Number of Responses
Restaurant	163
Retail	115
Other	58
Lodging	39
Services	37
Car Rental	9
Gas Station	7
Grocery	4
Taxi Cab	3

Table 3F. Trainee Spending per Week

Spending Level	Number of Responses
$0 - $50 per week	39 *(18%)*
$51 - $99 per week	25 *(12%)*
$100 - $150 per week	28 *(13%)*
$151 - $199 per week	31 *(14%)*
$200 - $249 per week	20 *(9%)*
$250 - $299 per week	15 *(7%)*
$300 or more per week	58 *(27%)*

Table 3G. Trainee Most Frequented Businesses

Business	Number of Responses	Average Spending
Wal-Mart	67	$85.52
Army and Air Force Exchange Service	58	$90.73
All Ranks Club	44	$79.27
Acute Care Emergency	17	$188.53
Subway	17	$27.33
CCTF	15	$409.29
Hilton Hotel	15	$411.93
Montana Mike's Steakhouse	9	$43.56
Ruby Tuesday	8	$42.25
Blackhawk Store	8	$122.86

Atterbury-Muscatatuck RFMSS-Database Contacts and Past Trainees Survey
The working group received 31 responses to the Atterbury-Muscatatuck RFMSS-Database Contacts and Past Trainees electronic survey conducted between March 20, 2013 and April 9, 2013. The data are presented in Tables 3H-3J.

Table 3I. Past Trainee Most Common Sectors

Sector	Number of Responses
Restaurant	24 *(41%)*
Gas Station	13 *(22%)*
Retail	11 *(19%)*
Grocery	3 *(5%)*
Other	3 *(5%)*
Lodging	2 *(3%)*
Service	2 *(3%)*

Table 3H. Past Trainee Spending per Week

Spending Level	Number of Responses
$0 - $50 per week	9 *(29%)*
$51 - $99 per week	7 *(23%)*
$100 - $150 per week	8 *(26%)*
$151 - $199 per week	2 *(6%)*
$200 - $249 per week	1 *(3%)*
$250 - $299 per week	1 *(3%)*
$300 or more per week	3 *(10%)*

Table 3J. Past Trainee Most Frequented Businesses

Business	Number of Responses	Average Spending
Wal-Mart	7	$85.71
Army and Air Force Exchange Service	3	$56.67
Cracker Barrel Restaurant	2	$57.50
Jay C Foods	2	$17.50
BP Gas Station	1	$5.00
Best Western	1	$50.00
Buffalo Wild Wings Restaurant	1	$50.00
Holiday Inn Express	1	$140.00
McDonald's Restaurant	1	$10.00
Montana Mike's Steakhouse	1	$15.00

Indirect Effects on Tax Revenues

This working group received state and local tax revenue data from the employment and facility spending working groups. State and local tax impacts were estimated with IMPLAN by the two previous working groups and are already accounted for in their economic impact models of the four-county primary impact region. The data are presented in Tables 3K-3L.

Table 3K. Facility Spending - State and Local Tax Impact

Description	Amount
Corporations: Corporate Profits Tax	$166,885
Corporations: Dividends	$3,909
Employee Contribution: Social Insurance Tax	$11,407
Employer Contribution: Social Insurance Tax	$26,430
Indirect Business Tax: Motor Vehicle License	$52,888
Indirect Business Tax: Other Taxes	$158,586
Indirect Business Tax: Property Tax	$2,025,239
Indirect Business Tax: S/L NonTaxes	$233,204
Indirect Business Tax: Sales Tax	$2,406,026
Indirect Business Tax: Severance Tax	$74
Personal Tax (Households): Income Tax	$745,854
Personal Tax (Households): Motor Vehicle License	$40,021
Personal Tax (Households): NonTaxes (Fines- Fees)	$122,418
Personal Tax (Households): Other Tax (Fish/Hunt)	$10,094
Personal Tax (Households): Property Taxes	$16,396
Total State and Local Tax	**$6,019,431**

Table 3L. Employment Spending - State and Local Tax Impact

Description	Amount
Corporations: Corporate Profits Tax	$474,028
Corporations: Dividends	$11,103
Employee Contribution: Social Insurance Tax	$30,747
Employer Contribution: Social Insurance Tax	$71,238
Indirect Business Tax: Motor Vehicle License	$22,622
Indirect Business Tax: Other Taxes	$67,833
Indirect Business Tax: Property Tax	$866,270
Indirect Business Tax: S/L NonTaxes	$99,749
Indirect Business Tax: Sales Tax	$1,029,147
Indirect Business Tax: Severance Tax	$32
Personal Tax (Households): Income Tax	$1,520,640
Personal Tax (Households): Motor Vehicle License	$85,307
Personal Tax (Households): NonTaxes (Fines- Fees)	$260,391
Personal Tax (Households): Other Tax (Fish/Hunt)	$21,602
Personal Tax (Households): Property Taxes	$33,368
Total State and Local Tax	**$4,594,076**

Key Findings

In summary, the indirect exports working group determined that Atterbury-Muscatatuck does have significant secondary effects on the primary impact region. It is important to understand that direct spending has a secondary "multiplier" effect as that money circulates through a local economy. Our results complement the previous two working groups' quantitative data sections and provide qualitative and anecdotal evidence to support the true economic and social impact of Atterbury-Muscatatuck across the primary impact region and the state as a whole.

Generally speaking, local businesses and governments express a positive opinion of the post's presence. Specifically, locally-owned small businesses report a high volume of patrons associated with Atterbury-Muscatatuck, and local government officials in Jennings and Johnson counties describe mutual consensus and cooperation with military personnel toward achieving common goals. Our research shows that an estimated $43.6 million in induced spending projects over 2011-2014 near North Vernon alone can be partially attributed to the presence of Atterbury-Muscatatuck. Further, data show that Atterbury-Muscatatuck employment and facility spending indirectly contributed an estimated $10.6 million in FY 2012 state and local tax revenues. Therefore, the working group recommends a renewed sense of commitment and cooperation with government stakeholders in Jennings and Johnson counties and increased outreach efforts to officials in Brown and Bartholomew counties that do not seem to be aware of the post's secondary project or tax revenue impacts.

Outside the immediate vicinity of Atterbury-Muscatatuck, there was much less awareness of the secondary effects its employees and visitors have on the primary impact region. This lack of awareness may be due to a somewhat diminished, less noticeable, or more difficult impact to attribute to the post. Further, national chains and "big box" stores did not describe significant revenues or increases in sales due to the presence of Atterbury-Muscatatuck. There were some exceptions, of course, but it is possible that larger businesses may be less attuned to the makeup of their customer base. Our survey data indicate that many individuals patronize and spend a substantial amount of money at specific area businesses. However, we cannot determine what effects Atterbury-Muscatatuck has on local businesses without actual revenue data or customer demographics from the transient trainee and visitor populations; as such, our surveyed travel population may account for an incomplete economic impact snapshot and for smaller proportions of personal spending habits and estimated impacts.

Photo: Ashley Ames and Gregory Auclair

The entrance of the White Front Cafe in North Vernon.

Section 4: Volunteer and Community Service Impact

Introduction

The Volunteer and Community Service Impact working group administered the Atterbury-Muscatatuck Staff Survey to collect data on and determine the monetary impact of Atterbury-Muscatatuck staff members' volunteerism and community service contributions in 2012. The survey queried staff members on their volunteer and charitable giving behaviors for both religious and secular organizations. Using the data collected from the staff survey, the working group monetized the hourly volunteer contributions using both the average wage method and opportunity cost method. Finally, to better inform the results of the staff survey and monetization, we also interviewed nonprofit organizations associated with Atterbury-Muscatatuck to develop a more holistic understanding of the true impact of the posts on local nonprofit capacity. Atterbury-Muscatatuck survey respondents reported contributing a total of 50,128 religious and secular volunteer hours in the State of Indiana in 2012, corresponding to a conservative estimated total monetary impact of $918,846.

Methodology

Atterbury-Muscatatuck Staff Survey Development

The Atterbury-Muscatatuck Staff Survey was developed by the project team in collaboration with Atterbury-Muscatatuck personnel and Indiana University faculty to collect data on staff volunteerism, local spending habits, and education benefits. We adapted the survey instrument from a pilot study conducted in Fall 2012 for administration to all Atterbury-Muscatatuck staff. The survey included 45 questions and, on average, took less than ten minutes to complete.

Nonprofit and Community Service Survey Development

The Nonprofit and Community Service survey instrument was developed to complement the results of the Atterbury-Muscatatuck Staff Survey and provide a more holistic understanding of the impact of the posts on the ability of local nonprofit organizations to carry out their missions. The survey consists of a series of open-ended interview questions that collect information on how staff, contractors, and military personnel enhance the organizational capacity of nonprofits in the surrounding communities. The survey instrument was developed through an iterative process which consisted of several drafts and expert reviews by project team members and Indiana University faculty. Supplementary documents soliciting interview participation and interviewer scripts were developed and reviewed in conjunction with the survey instrument.

All documents associated with the Nonprofit and Community Service Survey, including the final survey document, phone and email solicitation letters, and interviewer scripts may be found in Appendix 4.

Data Collection

The Atterbury-Muscatatuck Staff Survey was administered from March 4, 2013 to March 15, 2013. An electronic invitation with a link to the survey was sent to employees on the Atterbury-Muscatatuck "All Users" email list using Atterbury-Muscatatuck dissemination methods. The survey was completed by 549 respondents and included responses on individual volunteerism, community service, and charitable giving. Approximately 40 percent

of respondents indicated they had performed some type of volunteer activity in 2012.

Monetization of Volunteer Hours

To estimate a more accurate measure of the impact of volunteerism, it is necessary to go beyond simply aggregating the total number of hours of service to calculating the impact of such service on the actors involved. There are two approaches: (1) the input approach, which calculates the value of the volunteer's hours of labor; and, (2) the output approach, which calculates the social benefits, the personal benefits to volunteer, etc. that result from the service. For the purposes of this report, we use the input approach to calculate a monetary value of Atterbury-Muscatatuck staff volunteer time supplemented by an output approach to illuminate possible social benefits by interviewing local nonprofit organizations whose capacity may have been expanded by Atterbury-Muscatatuck staff volunteerism.

We utlized the average wage method and the opportunity cost method for monetizing the value of volunteer inputs below.[1]

1. The *opportunity cost method* calculates the volunteer's career salary and multiplies it by hours of service. The justification for this method is that for each hour of volunteer service, an individual is foregoing an hour of wage earnings. Opportunity cost is thus important for professional-based, highly skilled volunteerism, which are defined by the Financial Accounting Standards Board as "services requiring specialized skills are provided by accountants, architects, carpenters, doctors, electricians, lawyers, nurses, plumbers, teachers, and other professionals and craftsmen."[2] This method is less applicable to volunteer activities such as food drives or general labor. Given the disparate activities completed by Atterbury-Muscatatuck staff and the time constraints that limit follow-up interviews on the type of tasks completed, the opportunity cost method runs the risk of seriously overestimating volunteer impact, and is thus not our primary method of monetization.
2. The *average wage method* estimates the value of service by calculating the average wage by state or region and multiplying it by the number of hours a volunteer served. The primary weakness of this method is that it does not differentiate between the types of activities completed or the skill level of volunteers completing the activities. However, given the data limitations in regards to the type of services rendered, the average wage method provides the most reasonable estimation of the value of volunteer inputs and is the primary method used to produce estimates for the study. Opportunity cost calculations are provided for comparison purposes only.

Average Wage Calculation

The average wage used for our calculation is provided by Independent Sector. Independent Sector is a coalition of nonprofits that calculates the value of a volunteer hour using the average wage method for the United States, each state, and major metropolitan areas. Average wage rates indexed for each state are estimated using hourly wage rate data from the Bureau of Labor Statistics of all production and non-supervisory workers on private, non-farm payrolls. Independent Sector then increases this rate by 12 percent to account for fringe benefits associated with volunteerism, such as feelings of satisfaction.[3] The most recent estimate of hourly wage rate is available from the Bureau of Labor Statistics for 2011. Using the above method and this 2011 data, Independent Sector calculated the average wage rate for volunteerism in the State of Indiana as $18.33 an hour.

[1] "Placing a Value on Volunteer Time," *The Investigator,* 2005, 1-4.

[2] Financial Accounting Standards Board, "Statement of Financial Accounting No. 116: Accounting for Contributions Received and Contributions Made," 1993, http://www.fasb.org/pdf/fas116.pdf.

[3] "Value of Volunteer Time," Independent Sector, March 29, 2013, http://www.independentsector.org/volunteer_time.

Opportunity Cost Calculation

Our calculation of the monetary estimate of a volunteer hour using the opportunity cost method rests on a number of key assumptions:

1. Given the likelihood of over-representation of professional Atterbury-Muscatatuck staff members (i.e., those members whose employment status is classified as AGR/tech, Tier 1, or Tier 10) in the survey sample, average yearly income was set at $60,351, generated by averaging the pay across these three employment classifications; and,
2. Per United States Office of Personnel Management's guidelines, the calculation uses a standard eight-hour workday and 260-day work year.[4]

While these are weighty assumptions, the above parameters will provide the closest possible estimate to the true opportunity cost associated with a volunteer hour for the survey sample. Using the above guidelines, we calculated an opportunity cost wage rate for the survey sample of $29.01 per hour.

Results

Atterbury-Muscatatuck Staff Volunteerism

The reported number of total hours volunteered annually by Atterbury-Muscatatuck Staff Survey respondents was 50,960 for an average annual volunteer contribution of 92.8 hours per survey respondent in 2012.[5] Of 549 respondents, 193 staff members answered that they engaged in secular volunteerism for a 37 percent volunteer rate. Of 549 respondents, 115 respondents reported that they engaged in religious-based volunteerism for a 22 percent religious volunteer rate.

[4] "Fact Sheet: Computing Hourly Rates of Pay Using the 2,087-Hour Divisor," United States Office of Personnel Management, April 1, 2013, https://www.opm.gov/policy-data-oversight/pay-leave/pay-administration/fact-sheets/computing-hourly-rates-of-pay-using-the-2087-hour-divisor/

[5] Calculated for all survey respondents following the Corporation for National and Community Service calculation of hours for all resident.

Table 4A. Atterbury-Muscatatuck Staff Survey Respondents' Type of Volunteer Organization, 2012

	Respondents
Secular only	129
Religious only	51
Secular & religious	64
Do not volunteer	305
TOTAL	549

The Corporation for National and Community Service reports that the volunteer rate among Indiana residents in 2011was 27 percent, while the rate of religious volunteerism was 21percent. [6] The average annual hours volunteered per resident was 29.0 hours.

Our results suggest that Atterbury-Muscatatuck Staff Survey respondents have a 10 percent higher rate of volunteerism, a 0.5 percent higher rate of religious volunteerism and exceed the State average for hours volunteered per year by 63.8 hours or 220 percent.

For a detailed disaggregation of Atterbury-Muscatatuck staff volunteerism by location, hours per week, etc., refer to Appendix 4.

Monetary Impact of Atterbury-Muscatatuck Staff Volunteerism

Atterbury-Muscatatuck survey respondents reported contributing a total of 50,128 religious and secular volunteer hours in the State of Indiana in 2012, which, when monetized using the average wage rate method, produces an estimated total monetary impact of $918,846. Atterbury-Muscatatuck staff also contributed an additional 832 volunteer hours, with a monetary value of $15,251, to organizations outside Indiana in 2012. Detailed results of the monetization of volunteer hours for both the average wage method and opportunity cost method may be found in Appendix 4.

[6] "Volunteering and Civic Engagement in Indiana," Corporation of National and Community Service, April 5, 2013, http://www.volunteeringinamerica.gov/IN

Table 4B. Atterbury-Muscatatuck vs. State of Indiana Volunteer Rates

	Indiana, 2011	Atterbury-Muscatatuck, 2012
Secular volunteer rate	27.3%	36.5%
Religious volunteer rate	21.3%	21.7%
Average volunteer hours per annum	29.0 hours	92.8 hours

In the four-county primary impact region, Atterbury-Muscatatuck staff contributed a total of 25,584 hours to religious and secular organizations in 2012, with a total monetary impact of $468,955.

Atterbury-Muscatatuck staff contributed a total of 41,288 volunteer hours to religious and secular organizations in the thirteen-county secondary impact region in 2012. Using the average wage rate calculation, this equates to an estimated monetary impact of $756,809.

Atterbury-Muscatatuck volunteers are engaged in a number of activities, with most volunteers engaged in youth mentoring and tutoring activities for either religious or secular organizations, at 17 percent.

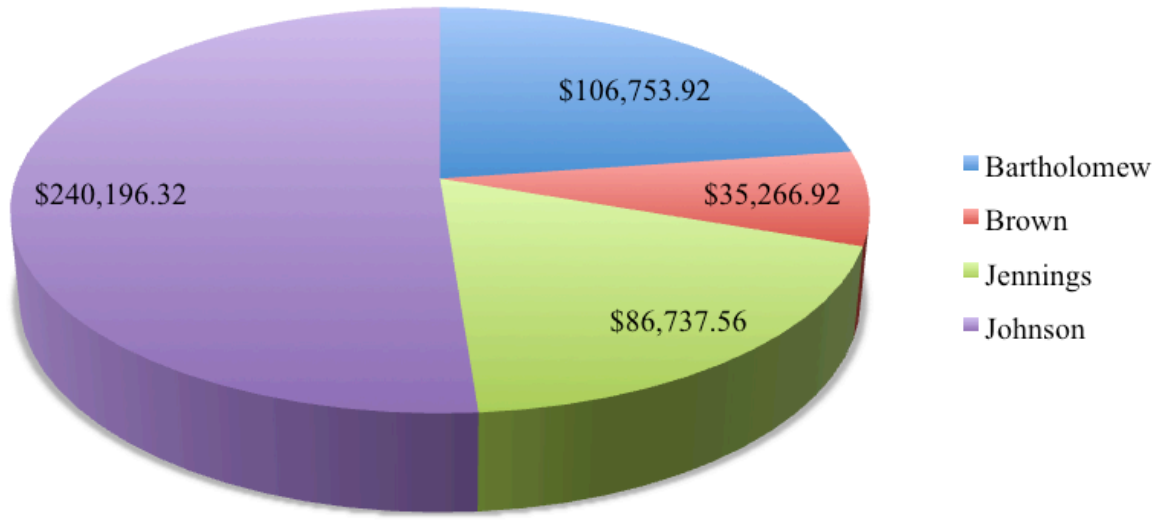
Note on charitable giving: Survey results provide limited evidence of Atterbury-Muscatatuck staff members' charitable giving habits. Only 99 survey respondents answered the survey item associated with charitable giving information. Of these 99 respondents, most reported giving between $0-$49, 27 percent, while the next highest percentage, 20 percent, reported contributions of $1,000 or more. Complete results may be found in Appendix 4.

Interpretation

Results of the Atterbury-Muscatatuck Staff Survey indicate that Atterbury-Muscatatuck service member and civilian respondents boast higher average hours volunteered per year and register a higher rate of volunteerism than the general population of Indiana. These findings support evidence from in the literature that the military actively socializes service members to enhance civic engagement. As a "total institution" the military can both socialize its members to engage civically, while also moderating the impact that socioeconomic status has on willingness and ability to volunteer.[7] Atterbury-Muscatatuck staff may benefit from additional social and financial capital, skills, motivation and opportunities

[7] Nesbitt and Reingold, "Soldiers to Citizens: The Link between Military Service and Volunteering," *Public Administration Review*, January 2011, p. 68.

Figure 4A. Volunteer Monetary Impact on Primary Impact Region, 2012



to volunteer that may not be as accessible in other careers. Respondents' reported experience include a variety of activities, such as volunteer firefighting, the Wounded Warrior Project, and veterans support, that allow for opportunities to engage skills and expertise.

Previous evidence demonstrates increased enrollment among military service members in veterans and other fraternal associations after periods of war. This participation is strongly linked to volunteer participation and indicates that returning soldiers may have a propensity to volunteer via such organizations in their local communities. Our survey findings above and the academic literature each support the notion that military installations, such as Atterbury-Muscatatuck, boast tangibly positive impacts in the social lives of their communities.

Figure 4B. Volunteer Monetary Impact on Secondary Impact Region, 2012

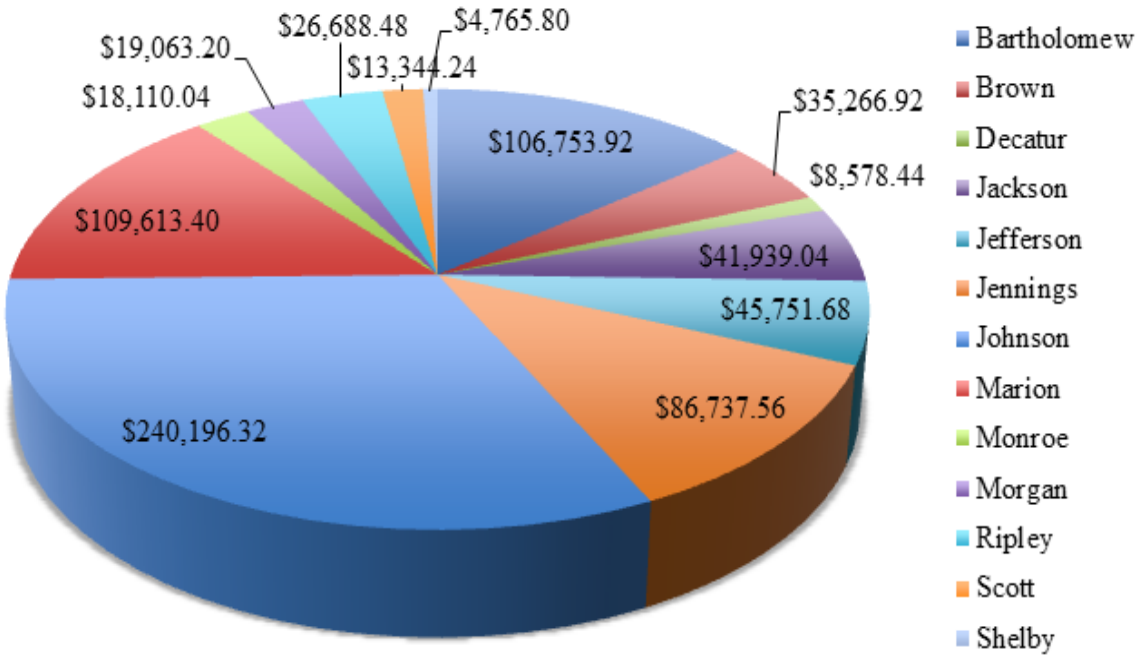


Table 4C. Atterbury-Muscatatuck Volunteerism by Task Type

	Secular	Religious	All Hours
Youth mentoring & tutoring	15.4%	21.9%	17.2%
Administrative (fundraising, etc.)	14.2%	9.4%	12.6%
Military/veterans affairs	17.3%	0.0%	11.8%
Poverty relief	7.5%	20.3%	11.0%
Religious activities	5.5%	20.3%	10.2%
Arts & recreation	11.8%	4.7%	9.7%
Neighborhood cleanup	5.1%	7.8%	7.0%
General office	6.7%	3.1%	5.6%
Emergency services	7.1%	0.0%	4.8%
Adult mentoring & tutoring	4.7%	3.1%	3.8%
Other	0.8%	7.8%	3.2%
Animal care	2.0%	0.0%	1.3%
Professional	1.2%	1.6%	1.1%
Campaign, political	0.8%	0.0%	0.5%

Further Evidence of Impact: Expanding Nonprofit Capacity

Many servicemen and servicewomen are "volunteers twice," meaning they not only serve the nation through their voluntary enlistment in the military, but also enhance the capacity of nonprofits, schools, and local governments where they reside. These contributions have an economic impact, which is not typically identified in traditional economic impact analyses. This section supplements the above monetization of Atterbury-Muscatatuck staff volunteerism by providing supporting evidence of community engagement and nonprofit capacity development.

Nonprofit and Community Service Survey Findings

The working group reached out to local nonprofits identified by Atterbury-Muscatatuck staff as volunteer organizations on the Atterbury-Muscatatuck Staff Survey. Post survey respondents listed more than two hundred organizations, including the Boy Scouts of America, American Legion, 4-H, and Habitat for Humanity. Contact was initiated with many of the organizations and our team was able to successfully conduct 20-30 minute interviews with members of several organizations to determine the extent to which Atterbury-Muscatatuck volunteers enhance their organizations.

Boy Scouts of America

The Hoosier Trails Council of Boy Scouts of America provides leadership opportunities and mentorship to Indiana boys between the ages of six and 18 and girls between the ages of 14 and 18 in eighteen Indiana counties. Although 14 respondents indicated that they volunteer for the council on a weekly basis in the Atterbury-Muscatatuck Staff Survey, Mr. Steenberger estimates the number of weekly post volunteers to be between 20 and 30. Most of these regular volunteers "mak[e] sure that the adventures [campouts, jamborees, service projects, outdoor activities, scout camps, etc.] . . . happen" by providing mentorship to youth. Some of these volunteers also perform administrative functions like calendar development, filing paperwork, tracking advancements, and tracking revenue generation. Mr. Steenberger also indicated that post volunteers diversify the total volunteer base and improve the overall quality of the units they serve. [8]

Kevin Trojan, Senior District Executive for Wapehani District in Boy Scouts of America Hoosier Trails Council, also stated that Atterbury-Muscatatuck staff support the mission of this organization. Mr. Trojan stated that many council leaders contribute between 30 and 40 hours of service during a single weekend campout. A volunteer attending a summer camp could contribute more than 144 hours in a week. He also emphasized the number of hours spent supervising regular troop activities, assisting in Eagle Scout projects, unit meetings, and district trainings.[9] These statements suggest that the Atterbury-Muscatatuck Staff Survey presents a very conservative estimate of the true impact of post volunteerism.

"The Boy Scouts of America have a longstanding history of partnering with the military of the United States. Many of our members pursue careers in the military. It would be detrimental to . . . scouting in the area if we were to lose the resources that are now associated with Atterbury and Muscatatuck."

-Glen Steenberger, Scout Executive/CEO, Hoosiers Council Boy Scouts of America

[8] Glen Steenberger, interview by Clint Cottam, Digital Recording Device, April 11, 2013.

[9] Kevin Trojan, interview by Clint Cottam, Digital Recording Device, April 5, 2013.

Atterbury-Muscatatuck also provides assistance to Boy Scouts of America through material contributions. Staff members help with nature programs, display military equipment for scout events, and host scout units on post. Mr. Steenberger expressed gratitude for the clean and safe facilities that the scouts use at least once every three years for council camporees.[10] Mr. Trojan also cited instances where Atterbury-Muscatatuck staff lent camping equipment and other materials to local units.[11]

Staff members also help provide guidance for Eagle Scout projects.[12] CSM Michael Mullins of the Atterbury-Muscatatuck Department of Family, Morale, Welfare, & Recreation mentioned a specific case in which he mentored an Eagle Scout. CSM Mullins met with the youth and helped him to develop a plan to build a covered storage area and solicit donations including twelve sets of golf clubs to improve the golf range. In return for the service, CSM Mullins also indicated that he would help co-sponsor a joint military-Eagle Scout golf scramble and luncheon.[13]

Photo: Camp Atterbury Website

Cut Scout Pack 358 from Zionsville Touring Camp Atterbury on May 19, 2012

[10] Glen Steenberger, interview by Clint Cottam, Digital Recording Device, April 11, 2013.

[11] Trojan, April 5, 2013.

[12] Steenberger, April 11, 2013.

[13] CSM Michael Mullins, January 23, 2013, E-mail communication.

Edinburgh Correctional Facility

In the 549 survey responses to the Atterbury-Muscatatuck Staff Survey, approximately 115 respondents indicated that they volunteer for faith-based organizations, including 51 respondents who only volunteered for religious organizations in 2012. Although not specifically indicated in the survey, Superintendent Frances Osborn indicated that some of the 26 volunteers from local church groups who serve at the Edinburgh Correctional Facility also have direct ties to Atterbury-Muscatatuck. These volunteers serve as councilors, pastors, administrators, and chaplains.[14]

Formal Volunteer Activities of Atterbury-Muscatatuck

The impact on nonprofit, religious, and community organizations across the State is not limited to volunteerism. Thousands of Indiana residents benefit from Atterbury-Muscatatuck staff acting in their official capacity. Atterbury-Muscatatuck staff provide color guards at community events, host reunions, preserve historical sites, run museums, run annual summer camps, and offer drug addiction rehabilitation training to clinical, nonprofit, and religious organizations. These are just a few of the services offered to the region and the State.[15]

Operation Immersion

Operation Immersion is one example of formal volunteer activities at Atterbury-Muscatatuck. Operation Immersion is a partnership between the Atterbury-Muscatatuck Counter-Drug Department and the Indiana Family and Social Services Administration's Access to Recovery (ATR) program. The program helps a network of providers from clinical, nonprofit, for-profit, and religious organizations serving five target population groups with drug addiction issues understand the culture and needs of their clients.

[14] Frances Osburn, February 15, 2013, Phone communication and Tobias Foster. April 11, 2013, Email communication.

[15] Camp Atterbury Joint Maneuver Training Center (CAJMTC). http://www.campatterbury.in.ng.mil/Home/tabid/298/Default.aspx (accessed March 11, 2013).

Since the military is one of the target groups, Atterbury-Muscatatuck allows providers to better understand the needs of veterans through this unique immersion program.

Five staff members from the Counter-Drug Department at Atterbury-Muscatatuck provide training, activities, and housing to ATR personnel, reducing ATR program costs while providing valuable training materials and perspectives for future trainings across the State.

Veronica Ford, ATR III Project Director, describes her experience.

"While we were there we got to hear presentations on the different types of stresses that military people experience. We had...briefings throughout the day on various topics and various parts of the military process or the things that they do.

[Providers participated in] one particular [simulation] called battle-mind. [It simulates] what happens when [soldiers] go into battle. . . . One day when you're driving along in your car at home in Indiana, and now you're in Iraq and you are walking past ...IED's ... you feel how it affects you.

From our surveys that we conducted afterwards, [providers] indicated that they did understand the culture a lot more." [16]

Annual Food, Toy, and Clothing Drives

Atterbury-Muscatatuck staff members provide annual assistance to the underprivileged in the region through regular food, toy, clothing, and blood drives.[17] During latest series of holiday food drives, late October to mid-December 2012, volunteers delivered six large containers of food and four containers of toys to Edinburgh Food Pantry, Mother's Cupboard, The Lord's Locker in Trafalgar, and Interchurch Food Pantry in Franklin.[18]

Educational Outreach

Atterbury-Muscatatuck also partners with local school corporations to promote important elementary education initiatives. Staff recently supported an initiative to promote the importance of dental hygiene to third, fourth, and fifth grade children from East Side Elementary School. Participating students went on a tour of the camp facilities and viewed a dental office. Nick Philoctete described what his staff wanted to achieve:

"The purpose of this mission here is to teach children how important it is to keep their teeth clean later on in life. As far as a lot of kids go, they eat a lot of sweets and other unhealthy foods and they don't realize the importance of it until much later in life."[19]

Atterbury-Muscatatuck volunteers also participate in an on-going literacy project at East Side Elementary School in Edinburgh. Once a month, volunteers read to children, answer questions about the books, and help children learn new vocabulary. Lt. Col. Johnny Workman began the program at the end of 2012. When Workman proposed the program to the school, school administrators responded enthusiastically. Mrs. Andrea Perry, school principal, stated:

[16] Veronica Ford, interview by Clint Cottam, Digital Recording Device, March 29, 2013.

[17] Michael Mullins, 28 February, 2013, Email communication and, Camp Atterbury Joint Maneuver Training Center (CAJMTC). http://www.campatterbury.in.ng.mil/PublicAffairs/LatestNewsandMultimediaReleases/tabid/781/articleType/ArticleView/articleId/1174/Camp-Atterbury-holiday-food-and-toy-drive-benefits-local-pantries.aspx

[18] Camp Atterbury Joint Maneuver Training Center (CAJMTC). http://www.campatterbury.in.ng.mil/PublicAffairs/LatestNewsandMultimediaReleases/tabid/781/articleType/ArticleView/articleId/1174/Camp-Atterbury-holiday-food-and-toy-drive-benefits-local-pantries.aspx

[19] Nick Philoctete, non-commissioned officer in charge of the dental clinic, Camp Atterbury Joint Maneuver Training Center (CAJMTC). http://www.campatterbury.in.ng.mil/PublicAffairs/LatestNewsandMultimediaReleases/tabid/781/articleType/ArticleView/articleId/1229/Soldiers-Teach-Local-Students-Dental-Hygiene.aspx

"We jumped at the chance to interact with the Soldiers as it is so beneficial for us to have these Soldiers supporting our initiative on reading. . . We've been doing this for three to four months. I send out an email to all our teachers and the sign up goes fast."

Better Opportunities for Single Soldiers (BOSS) Program

The Better Opportunities for Single Soldiers (BOSS) program typifies efforts of military organizations to engage in communities. BOSS emphasizes service as a way of increasing the quality of life for single soldiers.[20] In the Atterbury-Muscatatuck Staff Survey, respondents who indicated their involvement with BOSS volunteered 2.25 hours per week on average. BOSS volunteer activities for 2012 include highway clean-up, Rambo Run, Gleaner's Food Bank, cook-out fundraiser, free Trick-or-Treat event, and Feed'm for Freedom.

[20] "Better Opportunities for Single Soldiers (BOSS)." Camp Atterbury Joint Maneuver Training Center (CA-JMTC). http://www.campatterbury.in.ng.mil/MoraleWelfareRecreation/BetterOpportunitiesforSingleSoldiers-BOSS/tabid/751/Default.aspx (accessed April 10, 2013).

Patriot Academy

Lt. Gen. retired Clyde Vaughn established the Patriot Academy in 2009 to give high school drop-outs with an interest in National Guard service a second chance to receive a high school diploma. The program benefits eligible participants through its strong emphasis on education, civic engagement, and community service.

While the benefits of the program to participants are invaluable, the impacts of the program on local communities surrounding Atterbury-Muscatatuck should also be highlighted. In 2012, participants enhanced the organizational capacity of community partners by contributing a total of 6,114 hours, with an estimated monetary impact of $112,070, using the average wage estimation method.

Table 4D. Patriot Academy Volunteer Activities, 2012

Activity	Volunteer Hours	Monetization
Relay for Life Color Guard	288	$5,279
Parkside School Field Day	112	$2,053
Soapbox Derby	616	$11,291
Civil War - North Vernon	320	$5,866
Seymour Goodwill	480	$8,798
ECO Park	1,136	$20,823
VFW Parade - Seymour	40	$733
Civil War Re-enactment	368	$6,745
Jennings County Historical Society	432	$7,919
5K Race Jennings County	30	$550
Scottish Festival - Bartholomew County	133	$2,438
Paddle for Pink - Northern Kentucky	520	$9,532
Red, White and Blue	792	$14,517
VFW Color Guard	32	$587
Franklin County Middle School	30	$550
Mount West SC	12	$220
Versailes Middle School	123	$2,255
Christmas Blessing	650	$11,915
Total	6,114	$112,070

"People appreciate it so much to see you out there in uniform and to know you're changing someone's life. It hit me as we were driving to our destination point and we could see families with their houses torn apart and people with nowhere to live. That's when it hit me, that's what we do, that's what we're here for… to help."

Over its three-year history, the program brought over 505 participants to the area from all across the country.

Limitations

There were several limitations to the study that may result in inaccurate impact estimates. Some of these limitations, such as inconsistent responses, a wide range of volunteer types, and poor recall of volunteer hours are inherent to a study of this variety. These inconsistencies and errors were addressed by using conservative estimates when calculating the impact of Atterbury-Muscatatuck staff volunteerism. Other limitations, such as limited access to post employee data and contact information, have an unknown impact on the findings.

In addition several limitations also resulted from the type of data collected from the Atterbury-Muscatatuck Staff Survey. First, many respondents provided vague responses that did not clearly identify the organization with which they volunteer, such as the use of acronyms that were not readily identifiable.

Additional time would allow the working group to identify and contact more organizations to illuminate the findings from the Atterbury-Muscatatuck Staff Survey. However, as a supplementary task associated with the monetization of Atterbury-Muscatatuck staff volunteerism, we do no feel that the limited nonprofit organization interviews here represented inhibits the validity of our results.

Key Findings

While the monetary impact of Atterbury-Muscatatuck staff volunteerism is not as significant as the traditional monetary impacts of the posts as measured through employment and facility spending, volunteerism associated with the posts still has a measured impact on the primary, secondary, and state regions. Atterbury-Muscatatuck staff members demonstrate significantly higher rates of volunteerism than the Indiana state average, suggesting that posts have a net positive impact on volunteerism and nonprofit capacity in the region. Additionally, the estimate of the monetary impact of Atterbury-Muscatatuck staff volunteerism in 2012 is a conservative estimate and only captures the volunteer efforts of survey respondents, not the posts as a whole. Given our two calculation methods, the monetary impact could be as low as $936,956 and as high as $1,454,213. However, it is likely the volunteer and community service impact of Atterbury-Muscatatuck staff members is significantly higher than reported here.

The effort of the military to acculturate members to volunteerism and service has a clear positive impact on the communities in which posts are located. Potential areas for further research include a population study to better capture the true social and monetary impact of all Atterbury-Muscatatuck staff volunteerism. An additional area of interest may be comparing volunteerism at Atterbury-Muscatatuck with volunteerism associated with other posts across the nation.

Section 5: Sustainable Practices and Environmental Stewardship

Introduction

Atterbury-Muscatatuck identified environmental stewardship as being a key consideration impacting the execution of post functions. We identified three core aspects of fulfilling this goal: innovative compliance with environmental regulations, fostering of partnerships with non-governmental organizations, and minimizing environmental impacts on citizens who reside adjacent to the post. Our findings indicate that Atterbury-Muscatatuck's treatment of its natural surroundings is exemplary and highly representative of an organization committed to ensuring the long-term environmental sustainability of its mission and facilities.

Methodology

Assessing Atterbury-Muscatatuck's environmental impact is a complex endeavor marked by many possible approaches to completing the tasks listed above. From the outset of this project, our group's mission was to focus primarily on collecting personal accounts of the many ways in which the post ensures that fulfilling its mission does not come with environmental costs. We completed interviews with military and civilian representatives from Atterbury-Muscatatuck as well as representatives from non-governmental organizations working in partnership with the post. These interviews helped us to uncover many of the unique ways in which the post goes above and beyond its legal mandate to protect the environment. Our findings are supported not only by our own primary-source research, but also by the results of our community impact survey.

Regulatory Analysis Methodology

Atterbury-Muscatatuck is committed to developing and supporting a variety of environmental stewardship programs and initiatives on its training grounds. Of the post's many environmental programs, three of the most innovative and notable are the cultural and historical preservation, forest management, and Indiana bat protection programs. These three programs illustrate the post's commitment to and investment in promoting sustainable practices and environmental stewardship. Working closely with post personnel helped to focus our analysis on programs that best demonstrate Atterbury-Muscatatuck's commitment to preserving its lands in accordance with post standards and state and federal law.

Partnership Evaluation Methodology

Our evaluation of Atterbury-Muscatatuck's environmentally focused partnerships began with a short investigation to determine which organizations have significant and active relationships with the post. Conversations with Atterbury-Muscatatuck staff along with our own research informed the selection of 10 organizations drawn from the conservation and advocacy, private, government, and university sectors. We interviewed representatives from the organizations listed below for approximately half an hour to inquire about each partnership's history, promotion of common goals, activities, and outputs. In general, two or more graduate students attended each of these phone interviews. After completing these interviews, we wrote brief

interview summaries that became the basis for our partnership evaluation.

Community Impact Survey Methodology

Assessing Atterbury-Muscatatuck's environmental impact on local communities is an important component of thoroughly demonstrating the post's commitment to environmental protection and sustainability. As a means of evaluating this impact, we created a 15-question survey aimed at gauging local perceptions of and experiences with the post's environmental practices, programs, and effects. Using a previous Atterbury-Muscatatuck survey as a guide, we designed our survey to solicit both quantitative and qualitative responses from residents who live adjacent to the post.

Respondents were divided into three groups based on their proximity to Camp Atterbury or the Muscatatuck Urban Training Complex: respondents who live closer to Camp Atterbury, respondents who live closer to Muscatatuck, and respondents who either do not know which facility they are closer to or who live equidistant from both. Based on the answer to this question, participants were directed to an additional set of questions tailored to their region. Our survey tool was designed to collect resident feedback on specific environmental issues including waste disposal, air quality, noise pollution, water quality, and endangered and invasive species. In addition, we solicited feedback on a number of open-ended, perception-based questions in hopes of collecting candid, anecdotal responses from local residents.

Our group used a multidimensional approach to collecting survey responses that sought to leverage the following channels: traditional media, new media, organizational partnerships, and personal contacts. In partnership with the Indiana University School of Public and Environmental Affairs Office of Marketing and Communications and Atterbury-Muscatatuck Public Affairs Officer Major Lisa M. Kopczynski, we created a joint press release to invite residents to participate in our study.

Results

Regulatory Analysis

A. Indiana Bat Protection Program

The Indiana bat is the only federally listed endangered species known to be located on Camp Atterbury property. In an effort to protect the Indiana bat, Camp Atterbury has developed an innovative approach to adhering to the Endangered Species Act of 1973, Section 7 by partnering with the United States Fish and Wildlife Service-Bloomington Field Office (USFWS-BFO). Under Section 7 of the Endangered Species Act, federally funded programs at the State and local level, such as Camp Atterbury, must go through a consultation process with USFWS if a project is authorized, funded, or carried that may jeopardize the continued existence of a listed species. Under normal circumstances, the federal government conducts a biological assessment of the proposed project. However, an agreement made between Atterbury-Muscatatuck and USFWS-BFO has enabled the post to carry out a number of actions within a pre-approved set of parameters on an annual basis. This saves Atterbury-Muscatatuck from being subject to a 45-day approval period for each project undertaken.

Atterbury-Muscatatuck has set aside nearly 1,000 acres of its training grounds that incorporate closed canopy, open understory, large over story trees, and potential roosting areas as Indiana Bat Management Zones with a goal of creating and maintaining a suitable habitat for the Indiana bat. In addition, the USFWS-BFO developed timber management guidelines to protect Indiana bat habitat that includes the preservation of shagbark and shellbark hickory trees, a known habitat for the species.

The endangered species management program developed by Atterbury-Muscatatuck ensures that the post meets all federal laws and Army regulations while providing an efficient and cost-effective way to protect the species like the Indiana

bat. Innovative environmental management programs, like the one used to protect endangered species on the post's training grounds, not only benefit the local natural environment, but also create a standard for other military installations to follow.

B. Timber Harvesting Program

The timber program is one of the cornerstone initiatives Atterbury-Muscatatuck uses in its pursuit of effective environmental stewardship. It is a key program that not only impacts daily post operations but also is a driving force behind post expansion and construction, as well as community contribution and involvement. The holistic nature of the forestry program makes it an innovative environmental initiative. It does not revolve around only timber production but involves many different environmental initiatives that promote sustainable environmental stewardship. Crucial pieces of the forestry program include prescribed burning, wildfire suppression, endangered species management, erosion control, tree planting, prairie establishment, invasive species monitoring and eradication, firewood sales, forest inventory, trail construction, hunting and trapping opportunities, and agricultural leases.

The forestry program is unique because it generates its own income to sustain all program needs and allow for large investments to be made back into forest management and preservation programs. Sixty percent of the funds generated are issued to local environmental field offices to cover costs, and 40 percent goes to local community governments. Funds that are allocated to local communities are earmarked for various education and road construction projects. The ten-year annual average county entitlement is $27,470. During this ten year time period, revenue has fluctuated between $0 and $58,436 in any given year. Revenues generated are distributed proportionally to the county's that house Atterbury-Muscatatuck training grounds.

In addition to the large-scale timber sale programs, Atterbury-Muscatatuck supports an innovative fuel wood program to sustainably clear downed logs and fallen trees on post lands. This program facilitates heavy community involvement. The general public is invited to purchase firewood collected on post lands, which promotes community relations while providing a small amount of revenue to support program costs. The post also allows military personnel and employees to remove downed logs for firewood from designated areas to create incentives for wood to be used in a sustainable and responsible manner. These fuel woods are only salvaged from maintained training grounds as to follow environmental guidelines and to preserve natural habitats. Downed logs found within forested areas are left to decompose naturally to enhance the habitat and to improve biological diversity.

The forestry initiatives described above are expensive programs, but with a combination of revenue and onsite corrections labor, they are largely self-sustaining and continue to grow. The partnerships Atterbury-Muscatatuck has made through these programs are crucial to the long-term viability of these and other environmentally focused programs the post has developed. The most critical partnership is with the Indiana Department of Corrections. This agreement is unique in that offenders provide a valuable source of labor at a low monetary cost to the State. In turn, Atterbury-Muscatatuck offers opportunities for offenders to learn new skills. Additional partnerships that influence Atterbury-Muscatatuck's forest management include Purdue University, Indiana University, Ball State University, the Indiana Department of Natural Resources, the Nature Conservancy, the United States Geological Survey, and the U.S. Army Corps of Engineers.

Complete forest and timber management plans are outlined in the Atterbury-Muscatatuck Integrated Natural Resources Management Plan (INRMP). This document was used as the basis of our forest management analysis and contains all pertinent information regarding Atterbury-Muscatatuck future planning and projects.

C. Cultural Historical Preservation Program

Internal Army regulations (Army 200-1) command all Army National Guard posts to create and implement a management plan in addition to standard compliance with applicable federal laws. Federal and state laws require the Indiana Army National Guard "to support the military mission and assist individual installations in meeting the legal compliance requirements of federal historic preservation laws and regulations in a manner consistent with the sound principles of cultural resources stewardship."

We interviewed Ms. Heather Childers, the Cultural Resources Manager for the Indiana Army National Guard, whose office is responsible for managing protected properties and ensuring compliance with federal and state preservation laws. Approximately ten-percent of the office's workload is geared toward stewardship and planning. The primary law governing her office is the National Historic Preservation Act of 1966, mandating the preservation of sites with historical or cultural significance. The office has several specialists, including an Atterbury-Muscatatuck archeologist, architectural historian, and several officers charged with managing compliance documents for the state and federal governments.

There are currently 422 recorded archaeological sites on Camp Atterbury property and 55 recorded archeological sites located on the 64 percent of acreage surveyed at the Muscatatuck Urban Training Complex.

The Cultural Resources Manager is responsible for creating a five-year Integrated Cultural Resources Management Plan (ICRMP) for "the identification and protection of cultural resources and compliance actions needed when resources could be affected." The ICRMP is a comprehensive report, documenting not only the current preservation and conservation efforts of the Indiana Army National Guard, but qualifications and regulations necessary to following this mission. There are currently 422 recorded archaeological sites on Camp Atterbury property and 55 recorded archeological sites located on the 64 percent of acreage surveyed at Muscatatuck. Site locations are confidential and only accessible to the Cultural Resources Manager.

While only ten-percent of the Cultural Resources Office's efforts are aimed at stewardship, the post does integrate several unique features. In 2012, it held its first annual Archeology Month, highlighting areas of archeological significance on post. The post's most notable property is the Prisoners of War Chapel (POW Chapel), constructed by former Italian prisoners of war from the Second World War. POWs built the Chapel while housed at Camp Atterbury. The chapel is located outside post gates and is accessible to the public. The post holds an annual cultural celebration every August that includes the hosting of a local Italian association as well as food, games, and speakers. Camp Atterbury highlights the history of the Chapel on its website.

Interpretation

The initiatives undertaken by Atterbury-Muscatatuck are truly unique and illustrate the post's commitment to protecting the environment and promoting sustainable on-post programs. The environmental programs in place at Atterbury-Muscatatuck, while small, are extremely important to the overall mission of the post and play an important role in shaping the future of on-post training. The three initiatives highlighted above are central to the commitments made by Atterbury-Muscatatuck to preserve and improve its on-post lands, but they remain largely unknown to the surrounding community. We recommend that Atterbury-Muscatatuck increase promotion of its environmental protection initiatives to generate awareness and goodwill throughout the local community.

Partnership Evaluation Case Studies

A. The Nature Conservancy

Camp Atterbury's informal partnership with The Nature Conservancy has enabled significant forest conservation and initiated an effort to control non-native invasive species. The Nature Conservancy is a non-profit organization that works to protect the lands and waters on which all life depends, and, to that end, creates conservation plans on a global, national, regional, and local scale. The Camp Atterbury-Nature Conservancy partnership began in 2002, and its informality is typical of partnerships between The Nature Conservancy and other public land managers. While both Camp Atterbury and The Nature Conservancy benefit from the partnership, the partnership itself is still in its infancy as both organizations are still determining which programs and initiatives best advance their respective missions.

The Camp Atterbury-Nature Conservancy partnership benefits the environment and the military simultaneously. It brings the two organizations together to work on two substantive environmental goals: forest conservation and controlling non-native invasive species. Forest conservation creates species migration corridors and requires the setting aside of large contiguous blocks of land that can be free to function as a forest naturally would. The Nature Conservancy, which focuses its regional efforts on the Brown County Hills (BHC) region, sees Camp Atterbury as an anchor in the northeastern portion of the BCH conservation area. Meanwhile, Camp Atterbury benefits enormously from the conservation of land around its property. If that land were to be subdivided and used for residential purposes, Camp Atterbury would encounter more difficulties in training and more complaints about the noise its operations generate.

However, in other areas, The Nature Conservancy's efforts at partnering with the post have been met with less success. The Nature Conservancy has been pursuing strategies that would allow Camp Atterbury to mitigate for environmental damage in Nature Conservancy priority conservation areas. On the whole, the Nature Conservancy gives good marks to Camp Atterbury, both for its work within their partnership and its environmental stewardship and sustainable practices overall.

B. Southern Indiana Cooperative Invasives Management

Founded in 2008, the Southern Indiana Cooperative Invasives Management (SICIM), formerly known as Southern Indiana Cooperative Weed Management Area, is a collection of landowners, private groups, nonprofit organizations, and government agencies committed to protecting, restoring, and enhancing southern Indiana ecosystems through the early identification, prevention, and control of invasive species. Shortly after SICIM was founded, the organization reached out to both Camp Atterbury and Muscatatuck to establish a partnership, but were initially unsuccessful. When asked how Atterbury-Muscatatuck might participate and help the organization achieve its mission, a contact from SICIM mentioned two key points. First, Camp Atterbury is home to a very large population of Japanese Knot Weed, a well known invasive throughout Southern Indiana. Second, SICIM is always in need of volunteers for a variety of species control projects throughout the region and hopes to attract post personnel to participate in these projects.

C. Johnson County Partnership for Water Quality

The Johnson County Partnership for Water Quality (JCPWQ) is an interagency association of cities, towns, and other government agencies whose purpose is to ensure a safe and healthy environment by protecting Johnson County waterways from a variety of pollutants and contaminants introduced through storm water runoff. JCPWQ is a Rule 13 organization established as part of an intergovernmental effort within the State of Indiana to comply with the Federal Clean Water Act. Camp Atterbury is not an official member of JCPWQ, but has attended its monthly meetings over the past seven months. After speaking with a contact from JCPWQ, it is clear that the partnership places a high value

on Camp Atterbury's participation and is pleased with its willingness to attend monthly meetings. There is also a clear understanding and respect for the perceived difficulty in the post's ability to enter into an memorandum of understanding. JCPWQ leadership praised Camp Atterbury for its leadership in responding to local flood emergencies and offer guidance on local water quality preservation initiatives. Furthermore, the partnership perceives Camp Atterbury's management of its own water resources to be exemplary.

D. US Army Corps of Engineers

Camp Atterbury partners with the Army Corps of Engineers Construction Engineering Research Laboratory (CERL) and receives services related to erosion control. Part of CERL's mission is research and development of technologies, which improve the sustainability of military installations. The Camp Atterbury-CERL partnership began in 1998 and has been governed under a memorandum of agreement (MOA) since 2000. Both Camp Atterbury and CERL reap significant benefits from this partnership. Camp Atterbury obtains information about vehicle traffic and soil erosion on camp trails, expert engineering opinions, environmental services, and the opportunity to collaborate in specific areas. CERL, for its part, faces lower research costs because of Camp Atterbury's proximity to a CERL office. Much of CERL's pre-development work, including the development of military vehicle tracking systems, is done at Camp Atterbury. CERL describes Camp Atterbury personnel as being helpful, easy to work with, willing to do the right thing, and knowledgeable. Furthermore, based on the outcomes of CERL's research, Camp Atterbury will indeed implement policy changes.

The benefits of the Camp Atterbury-CERL partnership have a positive effect on surrounding communities and the general public at large. Better knowledge, design, and implementation of technologies lower the cost to taxpayers of meeting relevant military requirements. The scientific community, specifically, benefits from technical reports and journal articles relating to the Camp Atterbury-CERL partnership. Beyond that, Camp Atterbury's performance outside the partnership, in terms of environmental stewardship and sustainable practices, is also commendable. Camp Atterbury adheres to required regulations, is active in local conservation organizations, and is often present at relevant national conferences.

E. Indiana Department of Natural Resources

Since the early 1970s, the Atterbury Fish and Wildlife Area (FWA) has provided hunting, fishing, and shooting opportunities to the public on more than 5,000 acres of land adjacent to Camp Atterbury, with a common boundary of 11.5 miles. The partnership began with a cooperative agreement between both parties where FWA manages hunting opportunities at Camp Atterbury and is responsible for checking hunters in and out. After mobilization/demobilization training began at Camp Atterbury, the post ended this agreement and moved to arrange more limited hunting opportunities. They still cooperate yearly on refuge hunts that help to control the deer population, which they have been doing for more than 40 years. The relationship between IDNR and Camp Atterbury is mutually beneficial—IDNR is able to provide additional public hunting opportunities, and Camp Atterbury can maintain its deer herd. According to IDNR, Camp Atterbury's overall environmental stewardship is well above average.

F. University of Tennessee, Biosystems Engineering and Soil Science

For 15 years, Dr. Paul Ayers has invested and worked on different research projects at Camp Atterbury. Due to a Cooperative Ecosystem Study Unit (CESU) partnership with the Army Corps of Engineers, Dr. Ayers is allowed access to develop new pilot projects and prove new technologies. In the past, he has used GPS to monitor military vehicle movements, and their impact on vegetation and erosion. Understanding these impacts enables Camp Atterbury to create a targeted strategy for road repair in order to minimize erosion and dust. Currently, Dr. Ayers and his team are involved in

innovative riverbed mapping techniques to help assess the habitat of a freshwater mussel species of concern under the Endangered Species Act. The combination of GPS, depth sensors, and under/above water cameras allows the research team to assess critical habitats and identify any activities that could have a potential impact. This project also allows researchers to identify and prioritize areas in need of restoration. Camp Atterbury is easy to work with, and excels at providing initial "front-door" access to the site for this type of research.

G. Southeast Purdue Agricultural Center (SEPAC)

SEPAC is a site consisting of more than 2,400 acres of land used for agricultural research at Purdue University, and adjoins the Muscatatuck Urban Training Complex. The two facilities often work together, but are two separate entities. SEPAC allowed soldiers with agriculture backgrounds on agriculture development teams headed to Afghanistan to train at their facilities. As neighbors, the two facilities have a good working relationship. SEPAC notes that MUTC puts an enormous amount of effort into maintaining environmental quality and complying with environmental regulations. Superior environmental stewardship, coupled with a high-quality working relationship ensures that this partnership will benefit both parties long into the future.

H. Ball State University, Natural Resources and Environmental Management

In 2012, a pilot project began that brought together students and faculty at Ball State University, Camp Atterbury personnel, IDNR, and deer hunters. This project, led by Professor Amy Gregg at Ball State, and 12 of her students, determined the age of each deer shot on one Saturday of the deer rifle hunting season. Service learning projects have demonstrated an ability to help generate excitement and interest from Ball State students who may otherwise be disengaged in the classroom.

Interpretation

Although limited in a couple of respects, our analysis of Atterbury-Muscatatuck's partnerships speaks definitively to the questions of whether these partnerships produce shared benefits, and whether partners view the post's efforts at environmental stewardship positively or negatively. Nearly all of the organizations interviewed for our analysis praised Atterbury-Muscatatuck's environmental performance, either within their respective partnership, in general, or in both. However, approximately half of the organizations we interviewed see room for improvement in their respective partnerships. Our recommendation is for Atterbury-Muscatatuck to evaluate opportunities to strengthen and expand its partnerships individually. The post should consider key variables such as benefits to the installation, social benefits, the limits imposed by military policies and regulations, and the resources it can bring to bear on the partnership.

Community Impact Survey

This section presents an overview of our survey findings. As mentioned previously, survey respondents were divided into three categories based on which facility they reside closest to. We received approximately 79 unique responses from individuals living near Camp Atterbury, four responses from individuals closer to Muscatatuck, and five from individuals who were not sure which facility they live closer to.

In total, we received approximately 88 responses from residents in tne counties across the region. Ninety percent of responses came from one of four counties targeted by our study: Bartholomew (11 percent), Brown (52 percent), Jennings (one percent), and Johnson (26 percent). The vast majority (90 percent) of survey participants live closest to Camp Atterbury, with 49 percent having lived in the area for more than twenty years and 81 percent having lived in the area for more than five years. The length of residence of participants living near Camp Atterbury lends a high degree of credibility to our findings.

Throughout survey administration, we found that many residents had very little first hand knowledge of Camp Atterbury's environmental protection track record nor the post's active environmentally focused partnerships. Of the respondents who have knowledge of these activities, perceptions were largely positive. When asked to rate the job that Camp Atterbury does in managing the natural environment (one being the worst and ten being the best), 75 percent of respondents familiar with the post's activities and efforts rated it at an eight or higher. A mere four percent of respondents familiar with the post's activities rated it below five on this scale.

Very few respondents, three percent, have filed formal environmental complaints or grievances with Camp Atterbury with the most commonly cited complaint being aircraft noise. The post received outstanding marks (with 39 percent of respondents scoring Atterbury-Muscatatuck an eight or higher on a one-to-ten scale with one being the worst and ten being the best) on its protection of endangered species, management of invasive species, waste disposal, and management of water resources.

We suggest Atterbury-Muscatatuck increase its promotion of various environmental partnerships. Seventy-eight percent of residents living near Camp Atterbury were unaware of whether the post has worked with any outside organizations (non-profits, non-governmental organizations, etc.) to help protect the environment. Of the 22 percent of respondents who were aware of these partnerships, very few could provide specifics.

Our survey results are limited in two key respects. First, we would have liked to receive a greater number of responses from each of our four counties of focus. This would have strengthened the comprehensive nature of our findings and created a stronger representative sample of adjacent community impacts. Second, we received a significant number of partially completed responses to our survey. With a larger sample size, we would have been able to compare our findings along a number of key demographics (e.g. county of residence, age, and length residence in area).

Key Findings

The environmental programming that makes up Atterbury-Muscatatuck's sustainable practices and stewardship activities are undeniably a crucial influence on current and future post operations. The initiatives highlighted are special pieces of a larger sustainable system that both drives and limits Atterbury-Muscatatuck but very little is known in local communities about the post's environmental stewardship efforts. Keeping in mind that Atterbury-Muscatatuck has a tremendous presence in local communities, it is surprising that so little is known about the innovative environmental stewardship practices that Atterbury-Muscatatuck undertakes. It is recommended that Atterbury-Muscatatuck increase its focus on publicizing and reaching out to the local communities to educate and inform citizens on its innovative environmental programming. This will not only help the image of the post in the local community, but also create opportunities for community involvement.

Summary of Conclusions

This study analyzed five distinct areas related to Atterbury-Muscatatuck's economic impact on the local, regional, and state economies. The study captures these elements through a mix of quantitative and qualitative findings.

In FY 2012, Atterbury-Muscatatuck employed 1,585 federal employees, 194 state employees, and 562 contractors, for a total of 2,341 employees. Based on information provided by Atterbury-Muscatatuck and supplemented by best practices for estimating federal military compensation, the group estimated average compensation amounts for FY 2012 of $91,900 for federal employees and $49,100 for state employees. From the total compensation of $177.8 million, IMPLAN analysis yielded a combined total impact of $306.2 million. In addition, the multiplier effects associated with Atterbury-Muscatatuck employment, including the 2,341 jobs on post, resulted in supporting 3,314 jobs statewide.

According to facility spending data, Atterbury-Muscatatuck spent over $76.0 million during FY 2012 and approximately $56.0 million of this amount was spent in Indiana. While the post directly spent $56.0 million in Indiana, IMPLAN analysis that included multiplier effects produced a combined total effect of $92.8 million. Additionally, Atterbury-Muscatatuck facility spending stimulated a total of 862 Indiana jobs. The RIMS II software available for use by the project team did not allow for calculation of a multiplicative effect for the entire State of Indiana. While this result is not ideal, it is not of serious concern due to the wide use and acceptance of IMPLAN in economic impact analysis.

Considered together, the employment and facility spending of Atterbury-Muscatatuck generated a total economic impact in fiscal year 2012 of 4,716 jobs and $399.0 million.

Atterbury-Muscatatuck had significant secondary effects on the primary impact region. It is important to understand that direct spending has a multiplier effect as that money circulates through a local economy. Our results demonstrated significant secondary local project and tax revenue impacts. Our data show that Atterbury-Muscatatuck employment and facility spending indirectly contributed an estimated $10.6 million in FY 2012 state and local tax revenues. Outside the immediate vicinity of Atterbury-Muscatatuck, there was much less awareness of the secondary effects its employees and visitors have on the primary impact region. Similarly, we cannot determine what effects Atterbury-Muscatatuck events induce on the local economy without actual survey data, revenue data, and customer demographics from its transient trainee and visitor populations. Observing how local businesses, governments, and individuals interact with one another is a crucial component of an impact study that seeks to quantify any measurable results, because every single action and interaction produces an effect, big or small.

In 2012, Atterbury-Muscatatuck staff members reported contributing a total of 50,128 volunteer hours to religious and secular organizations in the State of Indiana, and an additional 832 volunteer hours outside the State. Fifty-one percent of the Indiana volunteer hours were contributed to organizations in the four-county impact region, while just over 82 percent of volunteer hours were contributed to organizations in the secondary impact region. Atterbury-Muscatatuck staff members demonstrated significantly higher rates of volunteerism than the Indiana state average, suggesting that the posts have a net positive impact on volunteerism and nonprofit capacity in the region. Using the average wage method and the opportunity cost method, the calculated monetary impact of Atterbury-Muscatatuck volunteerism is $0.9 million or $1.5 million,

respectively. However, it is likely the volunteer and community service impact of Atterbury-Muscatatuck staff members is significantly higher than reported here.

Finally, Atterbury-Muscatatuck's treatment of its natural surroundings is exemplary and highly representative of an organization committed to ensuring the long-term environmental sustainability of its mission and facilities. Our research demonstrates a number of ways in which the post goes above and beyond its legal mandates to protect the environment. However, there is room for growth and improvement. The post should increase its promotion of innovative environmental protection initiatives to generate awareness and goodwill throughout the local community. Approximately half of the non-governmental partner organizations we interviewed for our assessment see room for greater post involvement and participation. Finally, while the results of our community impact survey are overwhelmingly positive, they confirm our hypothesis that residents living near Atterbury-Muscatatuck have very little knowledge of its environmental initiatives and programs.

The direct monetary impact of Atterbury-Muscatatuck spending on employment and facilities results in an impact of $142.1 million in the four-county impact region, $242.8 million in the remaining Indiana counties, and $399.0 million in the state overall. Additionally, analysis of staff volunteerism results in an impact of $0.5 million in the four-county impact region, $0.5 million in the remaining Indiana counties, and $0.9 million in the state overall, although these figures are not directly comparable to the employment and facility spending impacts. Finally, it is important to note that these impact figures do not include the less tangible effect of Atterbury-Muscatatuck's environmental stewardship efforts on promoting sustainability and cost savings.

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