

# North Country Business and Resources Gap Analysis



Prepared for:  
Fort Drum Regional Liaison Organization

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**with assistance from  
The Spectrum Group**

February 2007

# **NORTH COUNTRY BUSINESS AND RESOURCES GAP ANALYSIS**

This study was prepared under contract with the Fort Drum Regional Liaison Organization or its assignee, with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the Fort Drum Regional Liaison Organization, or its assignee, and does not necessarily reflect the views of the Office of Economic Adjustment.

# TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	I
<b>1 INTRODUCTION.....</b>	<b>1</b>
1.1 BACKGROUND .....	1
1.2 STUDY APPROACH.....	3
<b>2 MILITARY BUDGET TRENDS AND PROJECTIONS .....</b>	<b>6</b>
2.1 OVERVIEW .....	6
2.2 FORT DRUM AS A PURCHASING AGENT .....	7
2.3 FORT DRUM AS A MAGNET FOR CONTRACTS: THE NATIONAL MILITARY BUDGET .....	8
2.4 FORT DRUM AS A MAGNET FOR CONTRACTS: IDENTIFYING LOCAL TARGETS .....	15
2.5 FORT DRUM AS A SOURCE OF WORKERS .....	23
<b>3 TARGET ANALYSIS.....</b>	<b>33</b>
THE 13 PRIMARY TARGETS: .....	38
3.1 <i>Medical and Dental Services: Experienced Spouses and Available Training</i> .....	38
3.2 <i>Maintenance Construction</i> .....	39
3.3 <i>Electronic Components</i> .....	40
3.4 <i>Insurance Carriers: Back Office, Processing Operations</i> .....	41
3.5 <i>New Construction</i> .....	42
3.6 <i>Office Furniture</i> .....	43
3.7 <i>Games, Toys and Play Vehicles</i> .....	44
3.8 <i>Explosives Manufacturing</i> .....	45
3.9 <i>Fabricated Plate Work</i> .....	46
3.10 <i>Switchgear and Switchboard Apparatus</i> .....	47
3.11 <i>Radio and TV Broadcasting and Communications Equipment</i> .....	48
3.12 <i>Industrial Trucks, Tractors, Trailers, Stackers: Carts, Dollies, Hand Trucks</i> .....	49
3.13 <i>Rubber and Plastic Hose and Belting</i> .....	50
THE 9 SECONDARY TARGETS: .....	51
3.14 <i>Telephone Apparatus Manufacturing</i> .....	51
3.15 <i>Steam, Gas and Hydraulic Turbines</i> .....	52
3.16 <i>Packaging Machinery and General Industrial Machinery</i> .....	53
3.17 <i>Insurance Carriers: All Other</i> .....	54
3.18 <i>Dentists, and Miscellaneous Medical Services: All Other</i> .....	55
3.19 <i>Industrial Trucks and Related Sectors</i> .....	56
3.20 <i>Ammunition Except Small Arms &amp; Small Arms Ammunition; Other Ordnance</i> .....	57
3.21 <i>Pipe, Valves and Pipe Fittings</i> .....	58
3.22 <i>Search and Navigation Equipment</i> .....	59
<b>4 MARKETING PLAN .....</b>	<b>60</b>
4.1 INTRODUCTION.....	60
4.2 CONCEPT OF A DIRECT MARKETING PLAN .....	61
4.3 THE CONTACT PROCESS .....	63
4.4 SPECIFIC TASKS TO INCREASE MARKETING SUCCESS .....	64
<b>5 MARKETING TO OTHER MILITARY INDUSTRY TARGETS.....</b>	<b>72</b>
5.1 LEADING TARGET INDUSTRIES .....	72
5.2 COMPLEMENTARY ECONOMIC DEVELOPMENT EFFORTS.....	75
5.3 LEVERAGING DEVELOPMENTS IN OTTAWA VALLEY .....	77

**APPENDIX A: PROJECTED GROWTH IN DOD SPENDING BY 50 SECTORS, 2005-2011**  
.....80

**APPENDIX B: PROJECTED GROWTH IN DOD SPENDING BY 320 SECTORS, 2005-2011**  
.....84

**APPENDIX C: OTTAWA VALLEY COMPANIES** .....91

**APPENDIX D: LEAP ANALYSIS**.....95

    ABOUT LEAP .....95

    LEAP IN THE NORTH COUNTRY .....97

    GROWTH POTENTIAL, INDUSTRY TRENDS, OPPORTUNITIES AND BARRIERS .....103

**APPENDIX E: STAKEHOLDER INPUT**.....113

**APPENDIX F: THE CONTACT PROCESS** .....116

**APPENDIX G: AN ALTERNATE METHOD FOR DEVELOPING A SPOUSAL PROFILE**  
.....124

# ACKNOWLEDGEMENTS

This report was prepared by staff of Economic Development Research Group (EDRG), Location Advisory Services (LAS) and The Spectrum Group (TSG). Key staff of EDRG were Teresa Lynch (Project Director), Steven Landau, Glen Weisbrod and Brett Piercy. The work of LAS was led by Ronald Ruberg. The work of TSG was led by Lt. Gen Skip Hall (Ret.) and Lt. Gen. Tom Carney (Ret.). Roger Sattler provided additional consulting support.

This project benefited from the oversight of Doug Schelleng of Empire State Development, working on behalf of the Fort Drum Regional Liaison Organization. The authors are also appreciative of information and advice provided by various parties located within the North Country, including Colonel Michael Plummer (Ret.) and Judith L. Gentner, David M. Cutter, and Sharon Jones of Fort Drum.

Local business people who were interviewed include George Anderson (Current Applications), Franklin Cean (Knowlton Specialty Papers), Timothy Galligos (Northland), Tim Geary (Kraft), Larry Kieffer (Fibermark), Beth Mac (Kelly Services) Tim Read (Stream), Frederick Rudmann (Knowlton Specialty Papers), Richard Ryan (Ridgeline Industries) Tina Schneider (Purcell Construction), Lisa Weber (Timeless Frames), John Wicke (Penski Services), Bernie Witek (Media Accessories.com), David Desormeaux (Riverside Ironworks), Mishelle Yaddow (Media Accessories.com Inc.) and representatives of Flatrock Wind Power.

At Clarkson University, William America (CAMP), SV Babu (CAMP), Linda Hastings (Career Center), Roberta Kaskel (Career Center), Edward McNamara (CAMP), Charles Robinson (CAMP), and Gregory Stack (Division of Research) provided insights and information. Staff from the Jefferson-Lewis Board of Cooperative Educational Services, New York State Small Business Development Center, NorthStar, Samaritan Medical Center and the economic development offices of Jefferson, Lewis, and St. Lawrence counties also contributed greatly to our understanding of the North Country.

The project team also benefited from meetings in Washington DC with Jay Bell (Defense Logistics Agency Headquarters), Chandra J. Burnside (National Defense Industrial Association), Victor F. Ciardello (Office of the Secretary of Defense), Anne LeMay (Office of Representative John McHugh), Diana Maykowskyj (Defense Logistics Agency Headquarters), and Sharon Sheehan (Defense Logistics Agency Headquarters).

All errors, omissions, opinions, and recommendations are the responsibility of the project team alone.

# 1

## INTRODUCTION

### 1.1 Background

**Historical Background.** The North Country region has long been defined by the presence of Fort Drum and before that, Camp Drum. The military base, the personnel stationed there, and the many civilians who work at the base are significant contributors to the region's economy. At least as far back as 1986, when the Development Authority of the North Country (DANC) undertook a comprehensive economic evaluation of the region and developed a detailed, long range economic development strategy, parties in the region have worked hard to identify opportunities to grow their economy through better leveraging military spending.

Four years later (in 1990), the Fort Drum Regional Liaison Organization (FDRLO) was formed to fill a range of roles including efforts to promote integration and leveraging of Fort Drum activity with outside community and business development. During the next decade, FDRLO sponsored studies of how Fort Drum can aid the region's economy, ranging from the Fort Drum economic impact update to military housing in the community and even joint use airport options. This study is part of that continuing effort to promote regional economic growth.

**Current Conditions and Opportunities.** Today, a confluence of fundamental changes at both the national and regional levels is providing new conditions that could potentially help to grow the regional economy through enhanced connections to the military.

At the national level, changes in DoD procurement and technology are underway:

- **National DoD Procurement.** In recent years, the Department of Defense (DoD) has shifted to a national policy of greater dispersion in originating suppliers, with increased outsourcing to private sector suppliers of non-core functions. There have been intensifying efforts at the national level to increase purchases from small businesses. Today, the DoD procures over \$200 billion/year of goods and services from the private sector. Of this, "non-warfighting" spending (e.g., business services, information technology, housing, healthcare, property maintenance, utilities, transportation, equipment and food services) has grown over the years to half of all military procurement. DoD's Office of Small and Disadvantaged Business Utilization has increased outreach for small business contractors, and worked together with the Small Business Administration to implement new

procurement and contracting processes. The Defense Logistics Agency has opened DoD Procurement Technical Assistance Centers with locations in central and western NY State (though not yet in the North Country).

- *Military Technology.* Military equipment and systems continue to evolve at a rapid rate as new technologies allow more advanced communications, soldier support systems and weapons development. Changes in the systems themselves and in the methods used to manufacture these systems may offer opportunities for existing firms to expand or new firms to relocate to the North Country from elsewhere in the US or Canada. This opportunity is not restricted to firms that sell products directly to DoD; they can also include firms that produce intermediate parts and materials sold to other firms that produce the final products for DoD. For the North Country, where there are many smaller technology firms, such a strategy may also be particularly relevant. Increasing technology support in the North Country, from the new Open Access fiber optic network to the movement of some fiber optic, communications and advanced technology firms from Ontario, has also bolstered the region's critical concentration of labor skills and corporate technology capabilities.

At the regional level, fundamental changes in base expansion and business attraction are continuing to unfold:

- *Base Expansion.* The recent BRAC decisions to retain the Tenth Mountain Division and then to add a brigade at Fort Drum provide potential opportunities for existing and potential new businesses in the region to expand their sales of products and services. This could include (a) direct sales of suppliers and services to the base, (b) construction activity serving the expanded base as well as housing and supporting retail to serve additional military personnel and civilian workers, and/or (c) sales from local suppliers to OEM producers of military hardware. In each of these cases, local firms could potentially leverage local labor market and demand growth to enhance their competitiveness in going after new DoD sales. However, challenges remain for local businesses. The detailed statistics about Fort Drum procurement that were analyzed in past studies show that there is an increasing flow of dollars to local businesses, but that a substantial portion of the total dollars still "leaks" out of the region. In some cases, this is because local businesses lack capacity or capability to serve all of those needs. There may be remaining opportunities for local business expansion or new business attraction to help close that gap, and that is one of the key issues explored in this report.
- *Business Attraction Potential.* National and international factors have enhanced the attractiveness of the North Country for relocation and expansion of North American firms. Nationally, the closing of military bases around the U.S. has unmoored firms that rely on proximity to bases for their competitive advantage. For these firms, loss of access to military personnel because of base closings could precipitate relocation to a community with an active base. The realignment of base assets nationally and the promise of personnel and purchasing growth at Fort

Drum could provide opportunities to recruit firms that currently have domestic locations near closed or closing bases. At the same time, there has been a continued trend of Canadian technology manufacturing firms opening operations in the North Country, and particularly St. Lawrence County. This phenomenon is not random luck. The Ottawa Valley, a center of information technology and communications firms, is just across the St. Lawrence Seaway and there are positive economic factors encouraging firms from that area to open operations in the North Country. Those factors include opportunities for lower taxes and energy costs, broader distribution to American markets, additional workforce and expanded contracting opportunities (including military and other federal procurements). Expansion of this trend could potentially be an important source of business development and attraction in the North Country, including but not limited to Fort Drum and broader DoD contracting. That again is a topic examined in this report.

## 1.2 Study Approach

**Study Focus.** This report focuses on identifying and exploring ways to improve the quality of jobs in the North County by leveraging opportunities associated with the interaction of national changes in procurement policies and technology with regional changes in base size and business attraction potential. The recent base expansion helped Jefferson, Lawrence, and Lewis counties achieve lower unemployment rates in 2006 than existed three years earlier, but local job quality remains low in terms of wages (below state average) and stability (with a concentration of many construction jobs that offer only seasonal employment).

Base expansion and the related workforce and housing issues are longstanding matters that FDRLO and the three county economic development agencies have long recognized and worked on, with the cooperation with Fort Drum. Yet these issues are not fully separable from recent changes in the national procurement environment. After all, local base spending can introduce local firms to DoD procurement processes and thus position them to better pursue or otherwise benefit from broader national procurement. It is also base expansion (with its military and civilian population expansion) that has helped to grow the regional population and workforce. Today, the NYS Dept. of Labor lists 68 occupations that are in need of more workers in the North Country. However, they are nearly all construction, retail, personal service and clerical occupations. These are the types of jobs needed to serve a growing population (related to Fort Drum expansion), but they are also mostly at the lower end of the pay scale. Thus, they are no substitute for higher paying and higher skilled technology jobs that can come from broader involvement in DoD procurement and attraction of intermediate parts and equipment providers. So while the number of technology companies locating in the North Country is still a small trickle compared to the scale of population and jobs created by military base growth, the growth of business development and attraction efforts can be important in providing more skilled and higher-paying jobs for all residents of the region.

**Study Approach.** The approach used for this study focuses on maximizing value to FDRLO in terms of job and income creation for the region. That was done using a three-pronged approach involving:

- Examination of changes in national procurement and the potential benefits to North Country;
- Identifying the most promising target sectors and firms for expansion in the North Country; and
- Developing an implementation plan that spells out the specific actions that can be taken to increase the probability of success

This approach to economic development strategy reflects two principles. The first principle guiding our approach is a focus on the end result, which is not to be a set of target firms or even the announcement of a business center, but the actual attraction and expansion of business in the North Country. This outcome depends on understanding how to work with the military procurement process as part of a successful economic development strategy.

The second principle regards the salient population and employment base of the North Country. Unlike larger areas, the North Country is a relatively small region that is home to specialized local organizations (such as FDRLO) that focus their efforts on economic and quality-of-life issues in the area. Unlike states, the number of persons in the region who are unemployed is measured in the thousands, not hundreds of thousands as in any medium or large state. Currently, total unemployment in Jefferson, Lewis, and St. Lawrence counties is in the range of five thousand people compared to 439 thousand across New York State. The orders of magnitude difference holds as well for the number of people under-employed, seasonally employed, or caught in low-quality jobs.

These differences have important implications for targeting strategies: in the case of North Country, it is better to avoid scattershot approaches that identify dozens and dozens of potential targeting sectors and to try to focus instead on the handful of sectors most likely to bring success. Unlike state strategy, which must identify thousands of target firms for many, disparate sub-state regions, the North Country economy could be appreciably strengthened by landing a small number of firms committed to expansion in the North Country. Thus, for this project, the *quality* of the targets (in terms of the jobs that would be created and the likelihood of expansion in the North Country) is far more important than the *quantity* of targets. Application of these principles resulted in identification of just 13 target sectors (see Table 3-3). Just as important, these sectors are ranked from “best” to “worst” in terms of targeting potential, which will allow North County officials to focus on the most promising targets first and to focus on just one or two target industries if they choose.

**Gap Analysis.** The central element of the study is a “business and resource gap analysis”. At its core are two parts: (1) analysis of local business sales patterns and trends against some broader comparison--which in this case covers national military procurement patterns to identify potential targets, and (2) screening of local resource strengths and weaknesses that affect capacity of the local area to successfully attract more business expansion and attraction to fill those gaps.

The gap analysis involves a combination of “top down” and “bottom up” processes. The first part of a gap analysis is a “top down” process. It starts at the top with national procurement trends and identifies those sectors likely to grow in the defense department budgets in future years. The second part of the analysis is a complementary “bottom-up” analysis. This approach starts with an examination of current regional business capabilities to provide products and services of relevance for DoD. It then explores local strengths, constraints and the adequacy of support services in making it possible for businesses to participate directly in DoD procurement or to participate indirectly as a supplier to major DoD suppliers.

The process used to identify the final list of target industries can be thought of as a funnel. Starting with the 320 sectors of defense department purchasing, we first identified those that are most promising from the perspectives of growth and absolute size. This resulted in a set of 42 industries. (See Table 2-4.) After removing 15 industries that would not benefit from proximity to a base, 27 potential targets remained. (See Table 2-6.) Four additional sectors with impossibly high barriers to entry were then removed, resulting in 23 potential targets. These potential targets were the object of the analysis presented in Chapter 3, which resulted in identification of 13 strong targets for the North Country.

The remainder of this report is organized as follows:

- Chapter 2 discusses military budget trends and discusses potential ways that the existence of Fort Drum can be used as a magnet for further local and national contracts, as well as a source of additional workers.
- Chapter 3 lays out the rating of industry attraction targets that have growth potential, can potentially build upon existence of Fort Drum and fit in with regional assets (including the region’s labor force, proximity to Canada and other factors).
- Chapter 4 lays out a marketing plan with steps for contacting and working with businesses that may be interested in investing in the region’s growth. This covers expansion of existing regional businesses, foreign businesses considering locating within the region for a US site, and other national industries interested in expanding their operations within the North Country.

## 2

# MILITARY BUDGET TRENDS AND PROJECTIONS

## 2.1 Overview

The central task of the Gap Analysis project is to determine how to leverage the expansion at Fort Drum into growth in the number and quality of jobs in the North Country. As part of this, the project will examine how expansion at Fort Drum can be used to grow existing local businesses, generate new business opportunities for local entrepreneurs, and attract investment from American and Canadian firms that do not currently have a presence in the North Country.

Fort Drum actually plays multiple roles that potentially can be leveraged into economic development opportunities:

- As a ***purchaser*** of local and national goods: Fort Drum generates a procurement stream to satisfy operation and maintenance (O&M) requirements and new construction needs at the base
- As a source of ***consumer spending***: Fort Drum soldiers, staff, and their families spend money in the local economy
- As a ***magnet***: for defense activities that benefit from proximity to a military base
- As a ***source of workers***: Fort Drum spouses and retirees are an important and growing part of the local labor force
- As a ***unique asset***: Fort Drum can provide ideas and even a testing ground for military-related product development and testing

This chapter discusses each of these, but focuses on the role of Fort Drum as a purchaser of local goods, a magnet for national military contracts, and a source of workers.

The sections on Fort Drum purchases and as a source of workers relies on data from Fort Drum, phone and site interviews with persons knowledgeable about the base and its operations, and data on labor force characteristics of spouses gathered from the

Department of Defense (DoD), the Department of Census, the Bureau of Labor Statistics, The Spectrum Group, and published sources.

The sections on Fort Drum as a magnet for national defense contracts include an analysis of expected US military budget trends over the next five to fifteen years. The analysis presented is based on budget forecasts from DoD, analysis from other government sources, expert writings on the military industrial base, and a series of interviews in May, 2006 in Washington DC with representatives from the Office of the Secretary of Defense (Small Business Technology and Industrial Base programs); Defense Logistics Agency (DoD Procurement Technical Assistance Program); the National Defense Industrial Association; and Defense and Foreign Affairs staff from Congressman John McHugh's office. The section provides analysis of expected DoD procurement growth for 50 manufacturing sectors, based on data from Projected Defense Purchases: Detail by Industry and State, 2005 Through 2011, as well as additional analysis on procurement forecasts for a full 320 sectors, including service sectors. (These data were publicly released by the Office of the Secretary of Defense, Program Analysis and Evaluation (OSD-PA&E) in August 2006 in response to an EDR Group request for the data.)

## 2.2 Fort Drum as a Purchasing Agent

To assess the economic development potential of Fort Drum as a *purchaser* of goods requires information on existing spending at the base and expected growth in spending associated with expansion at Fort Drum. EDR Group's preliminary estimate is that of the \$187M in Army contracts that were awarded to Tri-county firms in FY2005, approximately \$95 million were for base operations and maintenance.<sup>1</sup> In addition, Corps of Engineers spending in the Tri-county area was \$38 million, most or all of which was likely for construction activities at the base. Both sets of spending reflect "Fort Drum as purchaser."

A recent analysis of the effects of the changes in Fort Drum force structure (i.e., activations, deactivations, relocation losses, relocation gains) provides a snapshot of the likely size of the effect of expansion on the local economy. According to this analysis, changes in force structure will add almost \$21 million in (direct) business volume in the Tri-county area in 2007 and \$100 million in 2008. That is, by 2008, changes in force structure will add about 12% to the current \$800 million in local spending at the base reported in Fort Drum's last economic impact study.<sup>2</sup>

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<sup>1</sup> This estimate is derived by summing the following categories from the most recent Economic Impact study: Army Community Housing (\$22 million), domestic leases (\$0.5 million), tri-county contracts awarded by DOC (\$42M), and "Contracts Centrally Funded/Awarded by Others," which are "supplies, services, maintenance, and labor to support Installation operations."

<sup>2</sup> There is actually no estimate of total local spending by Fort Drum. As the base's 2005 economic impact study notes, "The total economic impact of a military installation on a geographic area is difficult to calculate." The report estimates that \$821M was spent by the base "on the community." The \$821 million estimate is built up from spending that is usually or always local, such as payrolls, medical, and local contracts awarded by DOC. The

## 2.3 Fort Drum as a Magnet For Contracts: the National Military Budget

Based on analysis of FY2005 Fort Drum data, EDR Group estimates that firms in the tri-county North Country region received \$90 million in Army contracts not directly related to activity at Fort Drum (“Fort Drum as magnet”). To examine the potential role of Fort Drum as a *magnet* for additional non-base related defense activities (i.e., DoD contracting opportunities), it is necessary to examine trends in and projections of US military spending. The level and types of these opportunities in the future will be determined by the national military budget trends discussed in this section.

The US Department of Defense (DoD) budget for fiscal year 2006 (FY2006) is \$420 billion.<sup>3</sup> As shown in Table 2-1, 28% of this is associated with the Department of Army, 28% with Navy, 27% with Air Force, and 16% with department-wide spending. Approximately one-quarter of DoD spending is on military personnel, 38% is on operations and maintenance, 18% on procurement, and 15% on research, development, testing, and evaluation (RDTE). For firms that do not currently supply DoD but would like to in the future, the most important categories might be procurement and RDTE, as operations and maintenance contracts are likely to go to the firms that currently support base operations and firms that developed initial products, systems, and technologies now being maintained. Procurement and RDTE currently account for about one-third of the DoD budget.

For North Country firms interested in supplying DoD, the critical factor is likely to be trends in Department of Army spending. This is because firms in the North Country that supply DoD are overwhelmingly likely to supply the Department of Army, rather than other branches. In 2005, 91% of the \$199M in DoD contracts awarded to Jefferson County firms and 88% of the \$214 million in DoD contracts awarded to North Country firms were Army contracts.<sup>4</sup> Of the DoD contracts awarded to North Country firms that do not appear to directly support Fort Drum (~\$118 million), over 75% of these (~\$92 million) are let by the Department of Army.<sup>5</sup> Thus, it appears to be the case that the presence of Fort Drum provides some sort of comparative advantage for North Country firms in securing Army contracts (“Fort Drum as magnet”). This means, as well, that the potential for securing contracts (national military contracts and/or local contracts) will be strongly influenced by overall levels of Army spending.

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spending figure for the Corps of Engineers, though, appears to refer to all COE spending at the base not just the portion that goes to local firms.

<sup>3</sup> DoD “Greenbook” for FY2006

<sup>4</sup> Defined here as contracts let by Army, Navy, Air Force, Defense Logistics Agency, and “other defense agencies.”

<sup>5</sup> See footnote 2.

**Table 2-1. Department of Defense Budget, FY2006**

	Million Current \$	% of DOD Budget
<u>Service Branch</u>		
Army	132,019	28%
Navy	132,492	28%
Air Force	128,895	27%
DOD Wide	<u>76,837</u>	<u>16%</u>
Total DOD	470,243	100%
<u>By Function</u>		
Military Personnel	113,649	24%
Operations and Maintenance	179,946	38%
Procurement	86,568	18%
RDT&E	71,152	15%
Construction	9,311	2%
Family Housing	4,871	1%
<u>Revolving &amp; Management Funds</u>	<u>4,744</u>	<u>1%</u>
Total DOD	470,241	100%

Source: *National Defense Budget Estimates for FY 2007*; Calculations by EDRG

(Totals did not equal match in original document.)

The dependence of North Country firms on Army versus other service contracts is high relative to economies around other Army bases. As shown in Table 2-2, the home counties for Forts Bragg, Hood, and Stewart receive large amounts of non-Army contracts relative to Fort Drum. In all three cases, at least 17% of total military contracts are from the Air Force, and in the cases of Forts Bragg and Stewart almost 10% of military contracts are from the Defense Logistics Agency (DLA) or other defense agencies (ODA). Only Fort Polk in Louisiana captures as few non-Army contracts as Fort Drum.

However, most of these differences can be traced to the scope of military activities in the local economies and the specific activities at each of the bases. For example, Cumberland County, NC, which is home to Fort Bragg, is also the home county of Pope Air Force Base, which would explain the relatively large amount of Air Force contract spending in the county. Fort Stewart in Georgia is home to the US Army Flight Training Center, which has likely evolved air-related skills in the local economy that can be translated into Air Force contracts. Fort Hood is home to the Army's Aviation Test Directorate, which "maintains a close working relationship with the U.S. Army Aviation Center, evaluators, various combat arms proponents, materiel developers, the technical test community and Battle Labs."<sup>6</sup> In the case of Fort Hood, closer examination shows that virtually all of the \$130 million in Air Force spending in the area around the base can be traced to two \$65 million contracts with L-3 Communications Aerospace and DynCorp International, the latter most likely for

<sup>6</sup> <http://www.defenselink.mil/transformation/articles/2005-01/ta012405b.html>

aviation services for the Fort Hood fleet.<sup>7</sup> Fort Drum, of course, has air activities, as well: it is home to the Air Force's 174<sup>th</sup> Fighter Wing Det 1 (Adirondack Bombing Range) and Det 2 (Forward Deployed Location); and the 20<sup>th</sup> Air Support Operations Squadron. However, the scope of these activities is likely more narrow than air-related activities at Bragg, Hood, and Stewart.

**Table 2-2. Military Contracts Around Army Bases**

Installation	DOD Contracts in Base			% DLA/ ODA	
	County/ies (\$M)	% Army	% Navy		% AF
Fort Drum, NY	\$199	91%	1%	7%	1%
Fort Bragg, NC	\$887	72%	0%	19%	9%
Fort Hood, TX	\$686	80%	0%	19%	1%
Fort Stewart, GA	\$464	74%	0%	17%	9%
Fort Polk, LA	\$353	91%	7%	2%	0%

Source: Calculated by EDR Group from DoD Contract Data

For this analysis, the critical point is that non-Army contracts around other bases can be traced to specific activities at these sites and do not seem to reflect a generic ability of firms near Army bases to attract a wide-range of DoD contracts. Instead, the data suggest that the presence of an Army base will provide a comparative advantage in securing Army and perhaps DLA contracts, but not necessarily contracts from the other service branches.

Mid-range projections show that the DoD budget is expected to decline over the next five years, largely due to a decline in the size of the Army budget. As shown in Table 2-3, the Department of Defense predicts that in real terms (\$2007), its overall budget will decline by over 5%. Of greater importance to the North Country is the prediction that the Department of Army budget will decline by over 17%. However, as shown in the bottom part of Table 2-3, the predicted decline in the Army's budget can be traced to the expected decreases in spending on military personnel and operations and maintenance, both of which are likely to increase at Fort Drum over the next five years, regardless of national trends.<sup>8</sup> The Department of Army procurement budget is expected to increase nationally by over 20% between 2006 and 2011, suggesting that new procurement opportunities might also become available. If so, further expansion into the Army procurement stream could potentially serve as a linchpin for future economic development in the North Country.

It should be noted that estimates of future budgetary outlays can change dramatically from year-to-year. The numbers in Table 2-3 are taken from the National Defense Budgetary Estimates for FY 2007,<sup>9</sup> released by the Office of the Undersecretary of Defense (Comptroller) in March 2006. Budget forecasts from the same publication for FY 2006 projected that the Army's budget would *increase* by 13% between FY 2006

<sup>7</sup> Business Wire, "Veritas Capital to Acquire DynCorp International From Computer Sciences Corporation for \$850 Million"; December 13, 2004

<sup>8</sup> Operations and maintenance budgets are also affected by the average age of existing equipment (Chao, 2006).

<sup>9</sup> This publication is known less formally as "The Green Book."

and FY 2010. The disparity on these projections can be traced to changes in the estimated budget for FY2006 that must have occurred during that fiscal year. Specifically, the Green Book FY06 estimate for FY2006 was \$115 million; the Green Book FY07 estimate of actual FY2006 spending was \$132 million. This difference is the source of the disparity in growth *rates* between the FY06 and FY07 Green Books. The estimates of actual spending for FY2010 were in the range of \$122-\$123 million in both forecasts.

**Table 2-3. Projected Changes in DoD and Army Budgets, 2006-2011  
(\$2007 constant)**

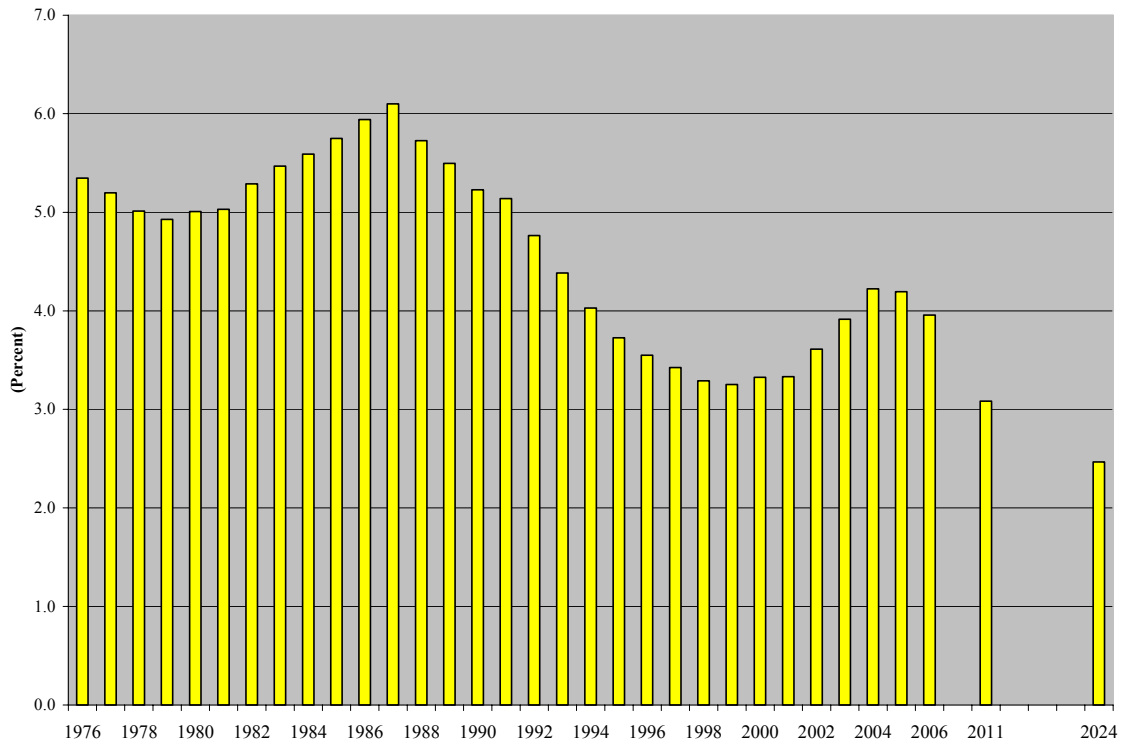
	2006	2011	Delta
<u>Budget by Service Branch</u>			
Army	135,103	111,637	-17.4%
Navy	135,482	138,270	2.1%
Air Force	131,715	134,525	2.1%
<u>DOD Wide</u>	<u>79,309</u>	<u>71,204</u>	<u>-10.2%</u>
Total DOD	481,609	455,636	-5.4%
<u>Total DOD By Function</u>			
Military Personnel	116,691	107,795	-7.6%
O&M	184,427	158,211	-14.2%
Procurement	88,446	108,167	22.3%
RDT&E	72,709	64,886	-10.8%
Construction	9,512	9,774	2.8%
Family Housing	4,976	2,732	-45.1%
<u>Revolving &amp; Management Funds</u>	<u>4,848</u>	<u>4,071</u>	<u>-16.0%</u>
Total DOD	481,609	455,636	-5.4%
<u>Total Army By Function</u>			
Military Personnel	47,219	42,305	-10.4%
O&M	53,762	34,095	-36.6%
Procurement	17,595	21,626	22.9%
RDT&E	11,266	7,449	-33.9%
Construction	3,854	5,076	31.7%
Family Housing	1,297	1,087	-16.2%
<u>Revolving &amp; Management Funds</u>	<u>109</u>	<u>0</u>	<u>-100.0%</u>
Total DOD	135,102	111,638	-17.4%

Source: *National Defense Budget Estimates for FY 2007*; Calculations by EDRG

Shifting budgetary estimates, however, should not detract from the general implication of the estimates presented in Table 2-3: defense budgets are likely to shrink slightly from their current size and Army budgets could shrink significantly. One expert interviewee in Washington supported this by emphasizing that “military budgets are

tight and likely to decline.”<sup>10</sup> Moreover, the decline of economic opportunities in the defense sector relative to other parts of the economy could be even starker over the long-term. As shown in Figure 2-1, defense-related employment is projected to decline from 4% of current US employment to 2.5% of employment by 2024. This projection tracks the long-term movement of the role of defense in the economy since the mid-1970s. As Figure 2-1 shows, defense-related employment increased from 5% to 6% of total employment during the increase in military spending in the Reagan years, then declined starting in the late 1980s as a result of modernization, the fall of communist regimes in Eastern Europe, and the taking of the “peace dividend.” Spending starts to rise again after 2001 with the Global War on Terror (GWOT), but is expected to decline again, in part because of optimism about the use of efficient high-technology systems in the GWOT.<sup>11</sup>

**Figure 2-1. Defense-Related as Percent of Total US Employment, 1976-2024**



What is critical for the Gap Analysis project, however, is the clear downward trend in the role of defense spending in the economy: spending has and will rise in periods of crisis and change but the long-term trend is indisputably towards a smaller role for defense-related activities in the overall national economy. This trend is important when considering the potential of military contracts to serve as a centerpiece of an economic development strategy for the North Country, as it suggests that such a

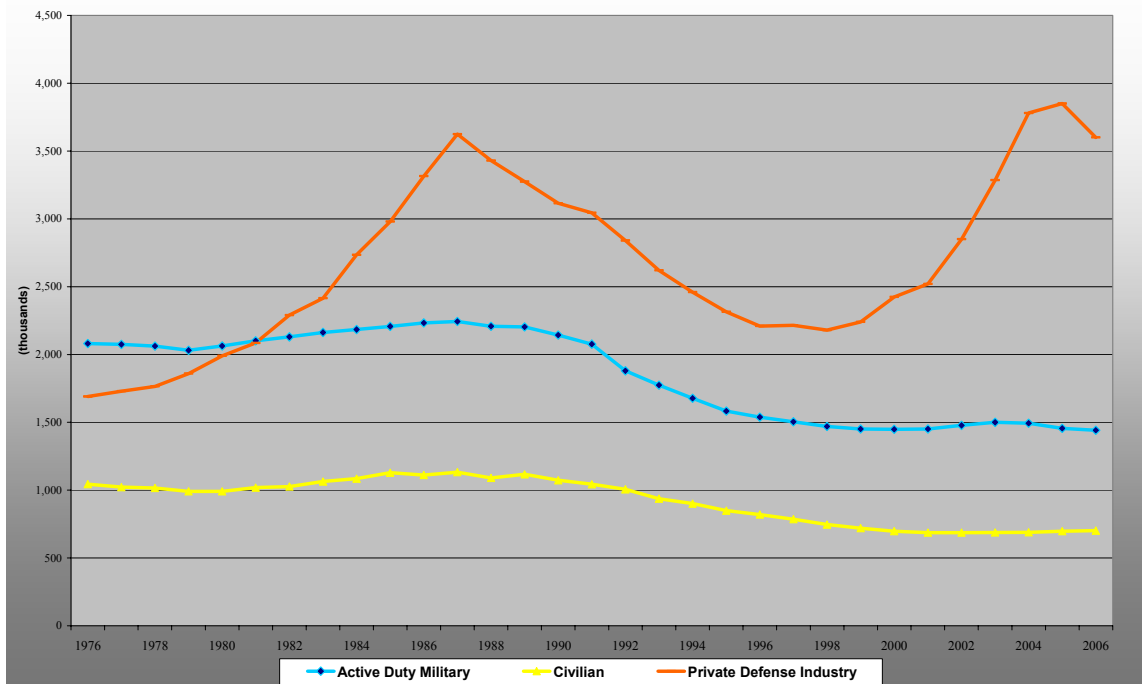
<sup>10</sup> Interview, Washington, DC, May 2006

<sup>11</sup> This summary of trends is based in part on communications with the Spectrum Group, Washington DC. Any errors in interpretation are the responsibility of EDR Group.

strategy will need to be formulated within an overall environment that is contracting rather than expanding. It should be noted, as well, that the projected decline in national defense spending can and likely will coincide with growth in spending by and at Fort Drum.

There are other trends to be cognizant of when fashioning the role of military contracts in economic development in the North Country. First, the private defense industry has started to show signs of contraction. As shown in Figure 2-2, active duty military and civilian employment have been steadily declining since the late 1980s and after years of growth, employment in the private defense sector actually declined between 2005 and 2006, falling from 3.85 to 3.6 million persons. This was likely due to some combination of factors, including a decline in the DoD budget from 2005 to 2006; the continual decline in employment per output that characterizes technological and organizational change and evolution; and the near exhaustion of DoD opportunities to outsource to the private sector, a factor mentioned in interviews in Washington, DC.<sup>12</sup>

**Figure 2-2. Defense-Related Employment, 1976-2006**

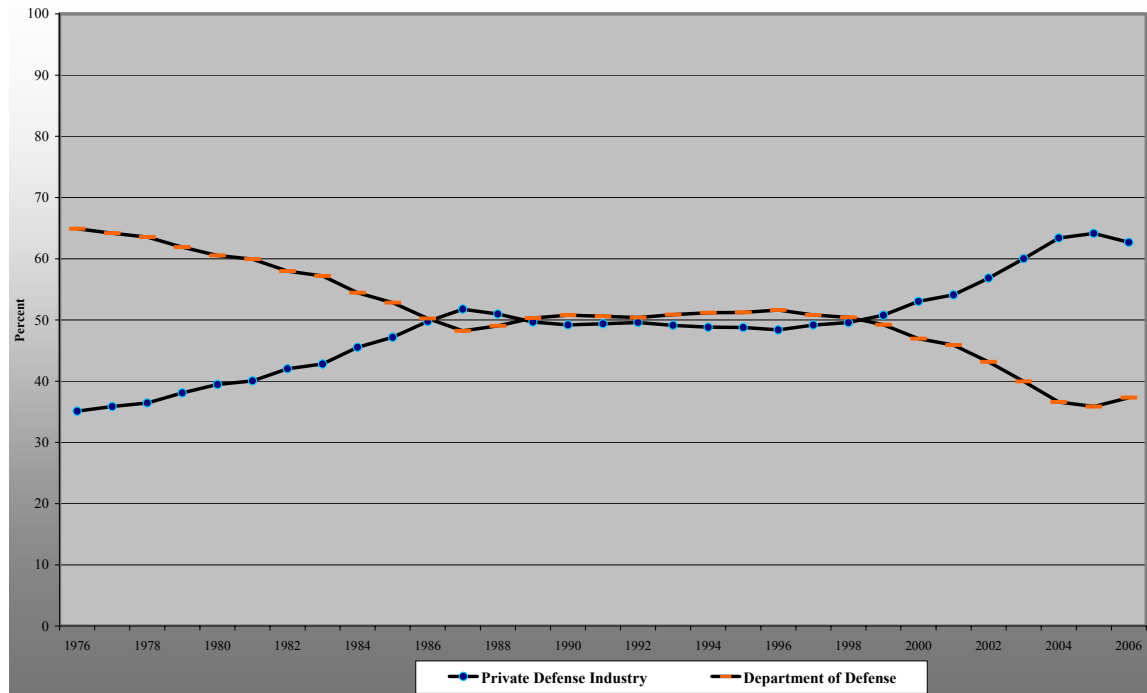


The exhaustion of outsourcing opportunities can be seen graphically in Figure 2-3, which shows trends in private sector versus public sector (DoD) employment during from 1976 to the present. As the figure shows, from the mid-1980s until the late 1990s, defense employment was more or less split between the private and public sectors. Between 1998 and 2005, however, private defense employment grew from 50% to 64% of total defense employment, probably as a result of DoD privatization

<sup>12</sup> Interview, Washington, DC, May 2006

and outsourcing initiatives. The ratio of private to total defense employment has stayed more or less constant since 2003 and some observers believe that further permanent increases in outsourcing are unlikely.<sup>13</sup>

**Figure 2-3. Private and Public Sector Defense-Related Employment, 1976-2006**



The third factor influencing contracting opportunities is the dramatic organizational change in the defense sector over the past decade or so, as merger and acquisition activity has thinned the population of defense contractors and contributed to the rise in vertical integration in the industry. This has resulted in an industry structure that might be difficult for new firms to crack. As Chao (2005) noted:

The result of all this consolidation is a small group of defense and aerospace firms that are separate from the rest of the economy. There are three tiers of defense contractors that get about a three way split of defense contract money. The five top tier companies each have almost a full range of capabilities. There are roughly 300,000 third tier contracting companies, sheltered by Congress and small business set-asides. Some fear losing business if they grow too much. The big five buy up the second tier, meaning it is being squeezed from two directions. The major companies are doing a lot of subcontracting to each other.<sup>14</sup>

<sup>13</sup> *Ibid.*

<sup>14</sup> Pierre A. Chao, "The Structure and Dynamics of the Defense Industry," text of talk given at MIT Security Studies Program Seminar, Cambridge MA; March 2, 2005.

Given, too, that firms with high levels of vertical integration (and in some cases, new or newly redundant capabilities) are probably less likely to subcontract than their smaller predecessors, defense firms in the new environment might be less able to establish new relationships or invest in plants at new sites.

Opportunities are likely still growing in the third tier where, as Chao points out, many of the “8a” firms--those with at least 51% ownership by Black Americans, Hispanic Americans, Indian Tribes, Native Americans, Asian-Pacific Americans, and Subcontinent Asian Americans--women-owned businesses, businesses owned by service-disabled veterans, HUB Zone small businesses, and other small businesses reside.<sup>15</sup> Interviewees in Washington who are familiar with these programs emphasized that DoD and the individual services are under greater pressure to meet their set-aside goals than in the past. One effect of this has been an increase in the size of 8a set-aside contracts, which can make it difficult for other (i.e., non-8a) small firms to compete successfully.<sup>16</sup>

## 2.4 Fort Drum as a Magnet for Contracts: Identifying Local Targets

This section analyzes projected growth rates in military spending by industrial sector and identifies industries that might make good potential targets for North Country expansion. The growth rates used in this section are based on Projected Defense Purchases: Detail by Industry and State, 2005 Through 2011, which presents data on expected DoD procurement growth by industrial sector.

The first analysis we did involved the 50 major manufacturing sectors that sell to DoD. Given the large amount of defense contracting that is in services, this source provides a somewhat limited view of national defense contracting opportunities. At the same time, the focus on manufacturing is not completely misplaced for two reasons. First, it is likely the case that a significant share of DoD spending on service activities is contracted by local bases and installations (and thus mainly provides opportunities for firms surrounding each base/installation). Contracts for manufactured goods, on the other hand, are likely to represent opportunities to sell to national markets. Second, defense purchases are more heavily skewed towards manufactured goods than is the non-defense portion of the economy.

The data in Appendix A suggest that almost all of the growth in military procurement activity in the manufacturing sector will be concentrated in just four of the twenty (two-digit SIC) manufacturing industries: fabricated metal products (SIC 34); the non-computer portion of industrial machinery and equipment (SIC 35); electronic equipment (SIC 36); and transportation equipment (SIC 37). As shown in the table (which presents industries from highest to lowest projected growth), these SICs

<sup>15</sup> Definition taken from <http://www.bnl.gov/ppm/SDB/DefinitionNAICS.asp>

<sup>16</sup> Interviews in Washington DC and North County, May, 2006

account for all of the 14 sectors with the highest projected growth and 18 of the 20 highest-growth sectors. Although portions of SICs 34-37 are represented in the slow- and negative-growth sectors, most of the negative-growth sectors are in things like apparel and textiles (SICs 22 and 23), chemicals (SIC 28), and the computer portion of industrial machinery and equipment (SIC 35).

**Detailed Analysis.** A second analysis was performed on a more detailed and comprehensive set of projections that cover 320 industries across agricultural, manufacturing, service, and other sectors. This analysis was tailored to identify potential military-related target sectors for recruitment to the North Country. The industries chosen as targets meet two criteria: they are expected to experience significant growth in sales to DoD; and a large portion of their sales are *directly* to DoD (usually one of the service branches) rather than to an OEM or supplier in the military value chain. We believe that firms in industries that meet these criteria would benefit most from investments in the North Country, where they could have access to military purchasing personnel and the facilities and soldiers that rely on their products.

To identify the target sectors, the analysis proceeded in three steps. First, expected growth for the 2005-2011 period was calculated for each of the 320 industries. (The data were taken from [Projected Defense Purchases: Detail by Industry and State, 2005 Through 2011](#).) The results are presented in Appendix B. A few things are notable about these data. First, total DOD purchases are projected to decline in a large majority (62%) of sectors. This proportion is even larger when only direct DOD purchases are considered; then, almost 70% of sectors are expected to experience a contraction. Second, as will be discussed later in this chapter, DoD purchasing growth is expected to be concentrated in manufacturing (rather than service or other) sectors.

The second step in identifying potential target industries was to determine which industries are expected to realize significant future growth, here defined as industries that meet one or both of these criteria: 1) has expected absolute growth of at least \$25 million; or 2) has expected growth of at least \$10 million and a percent growth of 20% or more. Industries with this growth profile are expected to be candidates for market entry by new firms or new investments by existing firms and thus would make strong targets for the North Country. The 42 sectors that one or both of the growth criteria are listed in Table 2-4, along with some relevant characteristics about the sector.

After identifying these 42 industries, we then removed four industries with such high barriers to entry that the North Country (and virtually every other area) is unlikely to attract investment: aircraft and missile parts and auxiliary equipment, nec; aircraft and missile engines, propulsion units and parts; guided missiles and space vehicles; and airlines. The remaining 38 industries were then sorted by the expected absolute growth in DOD purchases. The results are presented in Table 2-5, ranked according to the projected percentage increase in growth.

The third step was to identify industries that sell to DoD directly rather than through indirect purchases. Indirect purchases are “purchases of items used to produce goods bought by DOD.” These reflect the “costs of materials, tools, and parts that prime

contractors buy from suppliers in order to perform work for which DoD has contracted.” While the North Country can certainly target firms that provide indirect sales to DOD, we believe these types of firms are less likely to benefit from proximity to a military base. Firms that sell directly to DoD, on the other hand, can benefit from proximity to purchasing personnel, training and operations facilities, and the soldiers themselves.

Below a certain level of direct purchases, proximity to Fort Drum (or any military facility) is probably not an advantage. This is because suppliers working off centralized contracts are not dependent on providing good and services to a single base. Moreover, delivery of goods may be made to an intermediate location before distribution among bases, and the location where services are provided may be at a centralized location.

The North Country’s competitive advantage as the location of Fort Drum is for services and commodities that are directly sold to the army base. Table 2-6 divides the 38 industries into two groups: those for which direct sales comprise at least one-third of total sales to the military and those that do not meet the one-third criterion. The 23 industries (or economic sectors) listed in Table 2-6 that meet or exceed that one-third threshold represent preliminary target industries for this study. These are presented in Table 2-7, along with the salient characteristics of the industry. (Subsequent analysis discussed in Chapter 3 will later divide these 23 industries into 13 primary or preferred targets and 10 other secondary target industries for economic development in the North Country.)

As the data in Table 2-7 show, the military-related target industries identified in the analysis are concentrated in a relatively small number of manufacturing sectors. The table shows that with the exception of two construction sectors (#19 and #22) at the top of the list and two service sectors (#281 and #304) at the bottom of the list, the remaining target industries are in manufacturing. Further analysis shows a high degree of concentration in the 19 manufacturing industries: 13 of the 19 sectors are associated with SICs 33 (“Primary Metal Industries”), 34 (“Fabricated Metal Products”), and 35 (“Industrial Machinery and Equipment”). Similarly, 13 of the 19 are associated with one of three 3-digit NAICS sectors: 332 (“Fabricated Metal Products”), 333 (“Machinery Manufacturing “), and 334 (“Computer and Electronic Product Manufacturing”).

**Table 2-4. All Industries That Meet Initial Target Sector Criteria**

ID	Sector Description	2005-2011	Expected	SICs
		Growth	Growth	
237	Aircraft and missile parts and auxiliary equipment, n.e.c	36%	\$ 5,289	3728 3769
236	Aircraft and missile engines, propulsion units and parts	19%	\$ 2,651	3724 3764
21	Guided missiles and space vehicles	33%	\$ 2,052	3761
222	Semiconductors and related devices	20%	\$ 1,680	3674
22	Ammunition, except small arms	31%	\$ 1,540	3483
304	Dentists, and miscellaneous medical services	9%	\$ 1,479	0740 8020 8041 8043 8048 8070 8080 8090
223	Electronic components, n.e.c.	19%	\$ 1,276	3672 3675 3676 3677 3678 3679
267	Airlines	6%	\$ 1,144	4500
220	Radio and TV broadcasting and communication equipment	13%	\$ 910	3663 3669
20	Maintenance construction	11%	\$ 789	1500
19	New construction	5%	\$ 750	1600
151	Fabricated plate work (boiler shops)	45%	\$ 561	3443
25	Small arms ammunition	86%	\$ 558	3482
246	Search and navigation equipment	8%	\$ 512	3812
192	Mechanical power transmission equipment	53%	\$ 505	3566 3568
238	Shipbuilding and repairing	5%	\$ 431	3731
219	Telephones, switchboards, modems, faxes, etc.	14%	\$ 373	3661
118	Miscellaneous plastic products	6%	\$ 304	3080
281	Insurance carriers	5%	\$ 261	63
291	Equipment rental and leasing services	6%	\$ 213	7350
116	Rubber and plastics hose and belting	22%	\$ 192	3052
100	Explosives	39%	\$ 159	2892
174	Industrial trucks, tractors, trailers and stackers	5%	\$ 155	3537
165	Steam, gas and hydraulic turbines	18%	\$ 153	3511
145	Nonferrous castings and forgings	20%	\$ 152	3363 3364 3369
159	Metal plating, polishing and coating	11%	\$ 144	3471 3479
26	Other ordnance and accessories	10%	\$ 105	3489
163	Pipe, valves and pipe fittings	7%	\$ 103	3491 3492 3494 3498
142	Other nonferrous rolling and drawing, and nonferrous wire	6%	\$ 97	3356 3357
150	Fabricated structural metal products	9%	\$ 56	3441 3442
139	Lead, zinc and other primary nonferrous metals	11%	\$ 55	3339
197	Industrial and commercial machinery, n.e.c.	5%	\$ 54	3599
134	Iron and steel foundries	7%	\$ 46	3320
191	Packaging machinery and general industrial machinery, n.e.c.	14%	\$ 45	3565 3569
209	Switchgear and switchboard apparatus	23%	\$ 43	3613
156	Metal stampings, n.e.c.	6%	\$ 42	3469
136	Miscellaneous primary metal products	8%	\$ 35	3398 3399
132	Nonmetallic mineral products, n.e.c.	5%	\$ 35	3291 3292 3295 3296 3297 3299
73	Office furniture	27%	\$ 33	2521 2522
135	Iron and steel forgings	9%	\$ 32	3462
112	Asphalt paving and coatings	10%	\$ 25	2951 2952
258	Games, toys and play vehicles	32%	\$ 20	3942 3944

**Table 2-5. Initial Target Industries Ranked by Expected Percent Growth**

<b>ID</b>	<b>Sector Description</b>	<b>2005-2011 Growth</b>	<b>Expected Growth</b>	<b>SICs</b>
25	Small arms ammunition	86%	\$ 558	3482
192	Mechanical power transmission equipment	53%	\$ 505	3566 3568
151	Fabricated plate work (boiler shops)	45%	\$ 561	3443
100	Explosives	39%	\$ 159	2892
258	Games, toys and play vehicles	32%	\$ 20	3942 3944
22	Ammunition, except small arms	31%	\$ 1,540	3483
73	Office furniture	27%	\$ 33	2521 2522
209	Switchgear and switchboard apparatus	23%	\$ 43	3613
116	Rubber and plastics hose and belting	22%	\$ 192	3052
222	Semiconductors and related devices	20%	\$ 1,680	3674
145	Nonferrous castings and forgings	20%	\$ 152	3363 3364 3369
				3672 3675 3676 3677
223	Electronic components, n.e.c.	19%	\$ 1,276	3678 3679
165	Steam, gas and hydraulic turbines	18%	\$ 153	3511
191	Packaging machinery and general industrial machinery, n.e.c.	14%	\$ 45	3565 3569
219	Telephones, switchboards, modems, faxes, etc.	14%	\$ 373	3661
220	Radio and TV broadcasting and communication equipment	13%	\$ 910	3663 3669
159	Metal plating, polishing and coating	11%	\$ 144	3471 3479
20	Maintenance construction	11%	\$ 789	1500
139	Lead, zinc and other primary nonferrous metals	11%	\$ 55	3339
112	Asphalt paving and coatings	10%	\$ 25	2951 2952
26	Other ordnance and accessories	10%	\$ 105	3489
				0740 8020 8041 8043
304	Dentists, and miscellaneous medical services	9%	\$ 1,479	8048 8070 8080 8090
150	Fabricated structural metal products	9%	\$ 56	3441 3442
135	Iron and steel forgings	9%	\$ 32	3462
136	Miscellaneous primary metal products	8%	\$ 35	3398 3399
246	Search and navigation equipment	8%	\$ 512	3812
134	Iron and steel foundries	7%	\$ 46	3320
163	Pipe, valves and pipe fittings	7%	\$ 103	3491 3492 3494 3498
118	Miscellaneous plastic products	6%	\$ 304	3080
142	Other nonferrous rolling and drawing, and nonferrous wire	6%	\$ 97	3356 3357
291	Equipment rental and leasing services	6%	\$ 213	7350
156	Metal stampings, n.e.c.	6%	\$ 42	3469
281	Insurance carriers	5%	\$ 261	63
174	Industrial trucks, tractors, trailers and stackers	5%	\$ 155	3537
				3291 3292 3295 3296
132	Nonmetallic mineral products, n.e.c.	5%	\$ 35	3297 3299
238	Shipbuilding and repairing	5%	\$ 431	3731
19	New construction	5%	\$ 750	1600
197	Industrial and commercial machinery, n.e.c.	5%	\$ 54	3599

Table 2-6. Initial Industries Ranked by Percent Direct Purchases

<b>ID</b>	<b>Sector Description</b>	<b>2005-2011 Growth</b>	<b>Expected Growth</b>	<b>% Direct</b>
19	New construction	5%	\$ 750	100%
304	Dentists, and miscellaneous medical services	9%	\$ 1,479	100%
73	Office furniture	27%	\$ 33	100%
25	Small arms ammunition	86%	\$ 558	99%
238	Shipbuilding and repairing	5%	\$ 431	99%
246	Search and navigation equipment	8%	\$ 512	98%
165	Steam, gas and hydraulic turbines	18%	\$ 153	96%
258	Games, toys and play vehicles	32%	\$ 20	96%
26	Other ordnance and accessories	10%	\$ 105	96%
22	Ammunition, except small arms	31%	\$ 1,540	94%
116	Rubber and plastics hose and belting	22%	\$ 192	93%
174	Industrial trucks, tractors, trailers and stackers	5%	\$ 155	93%
219	Telephones, switchboards, modems, faxes, etc.	14%	\$ 373	91%
151	Fabricated plate work (boiler shops)	45%	\$ 561	87%
220	Radio and TV broadcasting and communication equipment	13%	\$ 910	85%
192	Mechanical power transmission equipment	53%	\$ 505	66%
281	Insurance carriers	5%	\$ 261	59%
191	Packaging machinery and general industrial machinery, n.e.c.	14%	\$ 45	58%
209	Switchgear and switchboard apparatus	23%	\$ 43	52%
100	Explosives	39%	\$ 159	44%
223	Electronic components, n.e.c.	19%	\$ 1,276	39%
20	Maintenance construction	11%	\$ 789	39%
163	Pipe, valves and pipe fittings	7%	\$ 103	37%
135	Iron and steel forgings	9%	\$ 32	27%
150	Fabricated structural metal products	9%	\$ 56	13%
132	Nonmetallic mineral products, n.e.c.	5%	\$ 35	11%
197	Industrial and commercial machinery, n.e.c.	5%	\$ 54	11%
222	Semiconductors and related devices	20%	\$ 1,680	3%
118	Miscellaneous plastic products	6%	\$ 304	3%
291	Equipment rental and leasing services	6%	\$ 213	3%
142	Other nonferrous rolling and drawing, and nonferrous wire	6%	\$ 97	3%
136	Miscellaneous primary metal products	8%	\$ 35	2%
159	Metal plating, polishing and coating	11%	\$ 144	1%
134	Iron and steel foundries	7%	\$ 46	1%
145	Nonferrous castings and forgings	20%	\$ 152	1%
156	Metal stampings, n.e.c.	6%	\$ 42	1%
112	Asphalt paving and coatings	10%	\$ 25	1%
139	Lead, zinc and other primary nonferrous metals	11%	\$ 55	0%

Table 2-7a. Initial Military-Related Target Industries and Their Characteristics

ID	Sector Description	2005-2011 Growth Rate	Expected Growth	SICs	6-Digit NAICS	3-Digit NAICS
19	New construction	5%	\$ 750	1600	234120 234910 234920 234930 234990	234
20	Maintenance construction	11%	\$ 789	1500	233210 233220 233310 233320 234110	233 234
22	Ammunition, except small arms	31%	\$ 1,540	3483	332993	332
25	Small arms ammunition	86%	\$ 558	3482	332992	332
26	Other ordnance and accessories	10%	\$ 105	3489	332995	332
73	Office furniture	27%	\$ 33	2521 2522	337211 337214	337
100	Explosives	39%	\$ 159	2892	325920	325
116	Rubber and plastics hose and belting	22%	\$ 192	3052	326220	326
151	Fabricated plate work (boiler shops)	45%	\$ 561	3443	332313 332410 332420 333414	332 333
163	Pipe, valves and pipe fittings	7%	\$ 103	3491 3492	332911 332912 332919 332999 332996	332
165	Steam, gas and hydraulic turbines	18%	\$ 153	3511	333611	333
174	Industrial trucks, tractors, trailers and stackers	5%	\$ 155	3537	332439 332999 333924	332 333
191	Packaging machinery and general industrial machinery, n	14%	\$ 45	3565 3569	314999 333414 333993 333999	314 333
192	Mechanical power transmission equipment	53%	\$ 505	3566 3568	811310	811
209	Switchgear and switchboard apparatus	23%	\$ 43	3613	335313	335
219	Telephones, switchboards, modems, faxes, etc.	14%	\$ 373	3661	334210 334418	334
220	Radio and TV broadcasting and communication equipme	13%	\$ 910	3663 3669	334220 334290	334
				3672 3675		
				3676 3677	334412 334414 334415 334416 334417 334220	
223	Electronic components, n.e.c.	19%	\$ 1,276	3678 3679	334310 334418 334419	334
238	Shipbuilding and repairing	5%	\$ 431	3731	336611 488390	336 488
246	Search and navigation equipment	8%	\$ 512	3812	334511	334
258	Games, toys and play vehicles	32%	\$ 20	3942 3944	336991 339931 339932	336 339
281	Insurance carriers	5%	\$ 261	63	523920 524113 524114 524126 524127 524128	523 524
				0740 8020		
				8041 8043	339116 541430 541922 541940 621210 621310	
				8048 8070	621391 621410 621420 621492 621498 621511	
304	Dentists, and miscellaneous medical services	9%	\$ 1,479	8080 8090	621512 621610 621991 621999	339 541 621

Table 7b. Description of NAICS Codes Associated with Each Initial Target

ID	Detailed Description
19	Highway, Street, Bridge, and Tunnel Construction; Other Heavy Construction
20	Single Family Housing Construction; Multifamily Housing Construction; Manufacturing and Industrial Building Construction; Commercial and Institutional Building Construction; Highway and Street Construction
22	Ammunition (except Small Arms) Manufacturing
25	Small Arms Ammunition Manufacturing
26	Other Ordnance and Accessories Manufacturing
73	Wood Office Furniture Manufacturing; Office Furniture (except Wood) Manufacturing
100	Explosives Manufacturing
116	Rubber and Plastics Hoses and Belting Manufacturing
151	Plate Work Manufacturing; Power Boiler and Heat Exchanger Manufacturing; Metal Tank (Heavy Gauge) Manufacturing; Heating Equipment (except Warm Air Furnaces) Manufacturing
163	Industrial Valve Manufacturing; Fluid Power Valve and Hose Fitting Manufacturing; Other Metal Valve and Pipe Fitting Manufacturing; All Other Miscellaneous Fabricated Metal Product Manufacturing; Fabricated Pipe and Pipe Fitting Manufacturing
165	Turbine and Turbine Generator Set Units Manufacturing
174	Other Metal Container Manufacturing; All Other Miscellaneous Fabricated Metal Product Manufacturing; Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing
191	All Other Miscellaneous Textile Product Mills; Heating Equipment (except Warm Air Furnaces) Manufacturing; Packaging Machinery Manufacturing; All Other Miscellaneous General Purpose Machinery Manufacturing
192	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing; Mechanical Power Transmission Equipment Manufacturing
209	Switchgear and Switchboard Apparatus Manufacturing
219	Telephone Apparatus Manufacturing; Printed Circuit Assembly (Electronic Assembly) Manufacturing
220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; Other Communications Equipment Manufacturing
223	Bare Printed Circuit Board Manufacturing; Electronic Capacitor Manufacturing; Electronic Resistor Manufacturing; Electronic Coil, Transformer, and Other Inductor Manufacturing; Electronic Connector Manufacturing; Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing; Audio and Video Equipment Manufacturing; Printed Circuit Assembly (Electronic Assembly) Manufacturing; Other Electronic Component Manufacturing
238	Turbine and Turbine Generator Set Units Manufacturing; Other Support Activities for Water Transportation
246	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
258	Motorcycle, Bicycle, and Parts Manufacturing; Doll and Stuffed Toy Manufacturing; Game, Toy, and Children's Vehicle Manufacturing
281	Portfolio Management; Direct Life Insurance Carriers; Direct Health and Medical Insurance Carriers; Direct Property and Casualty Insurance Carriers; Direct Title Insurance Carriers; Other Direct Insurance (except Life, Health, and Medical) Carriers
304	Miscellaneous Manufacturing; Professional, Scientific, and Technical Services; Ambulatory Health Care Services

## 2.5 Fort Drum as a Source of Workers

The quality of the region's workforce is and will continue to be a major determinant of the North Country's ability to attract new military-related economic development. In that regard, the number and characteristics of Fort Drum spouses who are in the labor force will have a profound effect on the overall size and quality of the labor force in the North Country. This section discusses likely changes in the spousal labor force that will be seen in the next few years; and estimates the likely increase in the military retiree population.

A number of factors will shape the number of spouses and working spouses associated with Fort Drum in the coming years. The first is the level and timing of deployments, factors that cannot fully be predicted into the future. The second is initiatives to address the housing shortage in the North Country, which are expected to lead to the construction of over 800 homes over the next two years, thus making it possible for more Drum-related families to live in the Tri-county area.<sup>17</sup> (In addition, the Army recently announced plans to build 300 units of on-base housing;<sup>18</sup> and FDRLO and DANC are currently soliciting proposals for additional housing development.) The third is the expansion itself, which is expected to lift the number of soldiers at Fort Drum to 16,647, an increase of 55% from December 2003 levels.<sup>19</sup>

These changes will coincide with a fourth factor: attempts at force stabilization, as outlined in Army Regulation 600-35, which is effective July 14, 2006. According to the regulation,

The goal of the Army Force Stabilization System is to provide increased levels of readiness and combat effectiveness by implementing an array of turbulence-reducing staffing methods. Implementation will reduce moves, increase the period of stabilization for the Soldiers and provide more predictability for Soldiers and families. (ARS 600-35, p.3)

Initial announcements about force stabilization policies suggested that they would increase the average length of stay for initial-term officers and enlisted soldiers from three years to six to seven years.<sup>20</sup> Today, there does not appear to be a consensus on

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<sup>17</sup> Information taken from a handout provided by David Cutter (Plans, Analysis and Integration Office, Fort Drum), which shows projected construction of 408 homes at Crescent Woods development and 419 at Pine Woods between September 2006 and September 2008. These will be built by Fort Drum Mountain Community Homes. (See 2005 economic impact study for Fort Drum)

<sup>18</sup> According to this news release, "Fort Drum's existing inventory was transferred to the RCI partner, Actus Lend Lease, in May 2005, and construction is under way to provide 845 new homes by 2009. Even with the current construction and the addition of these 300 homes, the Army is relying upon the local community to provide the more than 1,700 additional off-post houses and apartment units that are still needed to fully accommodate Fort Drum's military families." "Funding increase slated for Fort Drum, other Army RCI Projects," Army Public Affairs, June 9, 2006.

<sup>19</sup> Information taken from a handout provided by David Cutter (Plans, Analysis and Integration Office, Fort Drum).

<sup>20</sup> "Army changes enlistment lengths to support Stabilization," Sgt. 1st Class Marcia Triggs, Army News Service, Feb. 9, 2004. Note that this part of the stabilization policy is referred to as "home-basing."

what the actual effects will be and some observers have suggested that the effect on average length of stay will be much less than three to four years.<sup>21</sup> Even if this is the case, though, force stabilization initiatives could still have a profound effect on labor force involvement of spouses, who will be able to plan for longer stays and credibly state to employers that they expect to be in the area for seven (rather than two or three) years.<sup>22</sup>

The key questions for the Gap Analysis project concern the change in likely size of the number of spouses seeking employment (i.e., in the labor force). These are two components to this: 1) the change in the number of spouses (which will be influenced by the number of soldiers at the base, the percentage of these who are married, and the percentage who live in the North Country rather than in (for example) their home towns, as is common when the enlisted spouse is deployed); and 2) the percentage of spouses seeking work.

With the exception of deployment activity, which cannot be predicted, the other changes discussed above will lead to an increase in the number of spouses in the labor force: expansion will increase the number of soldiers and therefore, spouses; growth and improvement in housing stocks will allow soldiers with families to reside in the North Country; and longer average stays should profoundly influence labor market activity of spouses. Thus, we can expect that the number of spouses looking for work in the North Country should grow dramatically in the next two years.

Previous studies have looked at trends in and factors shaping employment of military spouses. A RAND study of employment of military spouses reported that:

...two-thirds of those [spouses] interviewed felt that being a military spouse had a negative impact on their work opportunities. The most frequently cited case was *frequent and disruptive moves*. Other causes cited were *service member absence and the related heavy parenting responsibilities* as well as *child care difficulties*. These spouses also cited an *employer bias* against or stigmatization of military spouses, often driven by the employer's concern that the spouse will be forced to leave abruptly. As with frequent moves and service member absence, this perceived cause is uniquely military.<sup>23</sup> (p.2; italics in original)

A related analysis of military spouses<sup>24</sup> reported the differences in labor market activity:

Controlling for other differences (e.g., age, education, number of children, area of residence), we found military wives were less likely than civilian wives to work in a given year (74 percent of military wives versus 82% of civilian

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<sup>21</sup> Interview, North County, 2006.

<sup>22</sup> *Op cit.*

<sup>23</sup> Research brief: "Working Around the Military" (based on *Working Around the Military*, by Margaret C. Harrell, *et al.*); National Defense Research Institute

<sup>24</sup> In this study, only female spouses were studied.

wives); were less likely to work full-time...worked fewer hours...and had lower weekly earnings.<sup>25</sup> (p.1)

Together, these studies identify two pieces of information that are critical to estimating the impacts of force stabilization on spousal labor market activity. First, frequent moves—the very thing stabilization policies are designed to combat—is the primary reason for reduced labor market activity of soldiers’ spouses; and second, if soldiers’ spouses acted like other (here, female) participants in the labor market, their participation rates would increase by about 10% (from 74% to 82%). When the probability of *being employed* is the metric and Army spouses are isolated from other military spouses, the results are even more dramatic: a civilian spouse who had not moved in the past five years was about 50% more likely than an Army spouse to be employed.<sup>26</sup>

When used with data on the expansion and estimates of typical labor market activity of Army spouses, the growth in the number of spouses entering the labor market because of expansion and force stabilization can be estimated. The latest available data on the expansion at Fort Drum show that post-March 2007, there will be 7,258 Fort Drum spouses compared to an EDR Group (rough) estimate of 5,370 in the area today. This is a difference of approximately 1,900 spouses. The current and post-transformation labor force participation rates cannot be known. If we assume that they are 55% and will rise to 80% (a parallel to the findings about employment rates discussed above), then we would expect that the size of the spousal labor force will almost double from 3,000 today to 5,800 in the post-March 2007 period. If we assume that rates are currently 74% and will rise to 82% (from the findings above), then we would expect that the spousal labor pool will increase by half, from just under 4,000 to just under 6,000. Taken together, these suggest that the spousal labor pool in the North Country could increase by 2,000 to 2,800 workers in the next few years.

This is significant for two reasons. First, the impact on the quantity and quality of local labor would be significant. The current Tri-County civilian labor force is about 107,000 persons; the change in spousal labor market activity alone could increase the labor pool by over 2% to almost 3%. The influx of more spouses would also affect the quality of the labor force. Although a complete set of labor market data on current and future spouses is not available, available evidence—discussed in detail below—supports the claim that military spouses tend to be more educated than their civilian peers. In the case of Fort Drum spouses, as Karen Delmonico notes, the available information indicates that compared to the average North Country adult, they are more likely to have a high school education or higher; they provide ethnic diversity in the labor market; and they represent a source of young workers in a labor force that is

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<sup>25</sup> RAND Research Brief, “The Employment and Earnings of Military Wives.”

<sup>26</sup> Margaret C. Herrell, et al., Working Around the Military, p.25. These results for “wives who are high school educated, white, have not moved in the last five years, have no young children, are not enrolled in school, have no experience in the labor market, live in metropolitan areas, have no years of civilian labor market experience, and who husband is also high school educated” (pp. 25-26).

aging.<sup>27</sup> Because they come from all over the United States and in some cases, the world, military spouses also provide geographic diversity and in some cases, foreign language skills, assets that are prized in a more global economy.

Second, the impact of more workers on local spending could also be significant. Each \$10,000 in average annual income received by the (projected 2,000 to 3,000) military spouses entering the labor force would add between \$20 million and \$30 million to local income each year, most of which would likely be spent in the local economy. To give a sense of the significance of this effect, in fiscal year 2005, Fort Drum's Tri-county spending on construction, services, and supplies was approximately \$42 million, while its payroll spending was \$591 million.

The impact on local labor market conditions and consumer spending will depend, of course, on the characteristics of the spouses who come to the North Country and their actual decisions about labor market participation. Although there is not information available on the characteristics of the spouses who will arrive, it is possible to develop a profile from the projected mix of military personnel at Fort Drum and what is known about the typical Army spouse.

Regarding the average wage of military spouses, Borowski and Scroggins (2006) report that in 2001 the pay distribution for Army spouses was as follows: 16% made less than \$2,500; 9.4% made between \$2,500 and \$4,999; 17.3% made \$5,000 to \$9,999; 15.4% made \$10,000 to \$14,999; 12.1% made between \$15,000 and \$19,999; 9.2% made between \$20,000 and \$24,999; and 20.6% made \$25,000 or more.<sup>28</sup> (The pay distribution is shown graphically in Figure 4.) Using the mid-points of the ranges and assuming an average wage of \$35,000 for those that make \$25,000 or more results in an average wage of \$15,173 in \$2001 dollars, which was just more than half of the North Country average wage of \$28,395 in 2001.<sup>29</sup> This is not surprising given that the vast majority of spouses are female (women tend to earn less than men) and many are younger and have children.<sup>30</sup>

If we adjusted this (\$15,173) figure for inflation, the resulting average wage for Army spouses is \$16,372 in \$2005 dollars.<sup>31</sup> Using this figure, the annual pay received by the projected 2,000 to 3,000 military spouses entering the labor force would add between \$33 million and \$50 million to local income each year, almost all of which would likely be spent in the local economy. That is, the spending impact of new entrants to the labor market could be on the order of 80% to 120% of current local

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<sup>27</sup> Karen Delmonico, "Military Spouses Could be the Answer to Our Workforce Shortfalls," News and Views, January 2005.

<sup>28</sup> Borowski, Martha and Stacey Sanger Scroggins, "Empowering the Military Spouse Through the Power of Education," July 18th 2006

<sup>29</sup> These data are from BEA's REIS and refer only to wage and salary employees. The North Country 2001 average wage was significantly less than the US average of \$35,582 for that year. However, average wages in and around military communities tend to be lower than in other areas, so the North Country wage could be representative of Army communities.

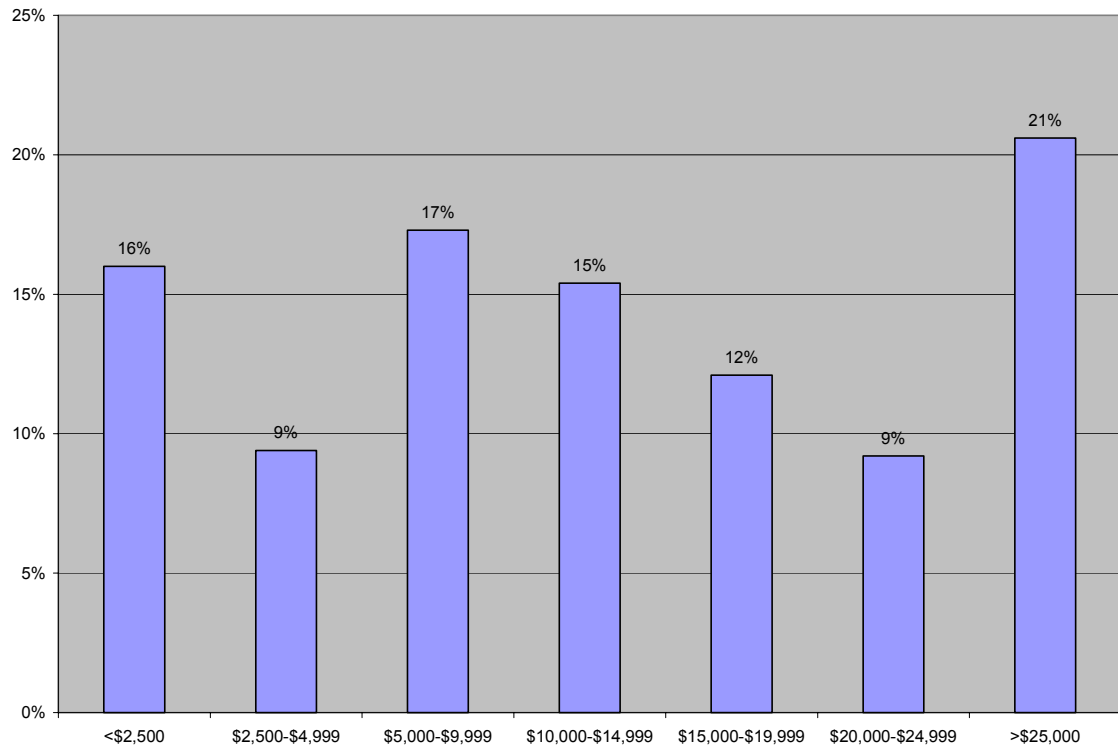
<sup>30</sup> According to the Census, in 2001, female median earnings were 75% of male median earnings.

<http://www.census.gov/hhes/income/histinc/p24.html>

<sup>31</sup> Inflation adjustment based on consumer price index data from Table B-60 of the 2006 Economic Report of the President.

(non-wage and non-Corps of Engineers) purchases by the base and the equivalent of 6% to 8% of current base military and civilian payroll.

**Figure 2-4. Pay Distribution of Army Spouses, According to 2001 Survey**



Source: Borowski and Scroggins, 2006

It is also possible to project other relevant labor market characteristics of the Army spouses who will arrive in the North Country. Two data sources can be used to build a profile of likely characteristics of Fort Drum spouses. The first is the Survey of Army Families IV (SAF IV) conducted in 2001.<sup>32</sup> Because response to the survey was voluntary, the results could reflect “self-selection bias,” in this case the likelihood that survey recipients with more education or better labor market outcomes might be more likely to respond to the survey. The second data source is the Current Population Survey (CPS), a “monthly survey of households conducted by the Bureau of Census for the Bureau of Labor Statistics.” This survey “provides a comprehensive body of data on the labor force, employment, unemployment, and persons not in the labor force.”<sup>33</sup> Because of limited sampling around military bases, the CPS cannot be used

<sup>32</sup> A summary of the survey findings can be found at <http://www.armymwr.com/corporate/operations/planning/surveys.asp>. The survey instrument can be found at <http://www.armymwr.com/corporate/docs/planning/surveyinstrument.doc>.

<sup>33</sup> Unfortunately, the CPS focus is on civilian workers, so by design it under-samples around military communities. Hosek, et al. (2002) report that between 1987 and 1999, the CPS surveyed an average of only 448 military families per year (Chapter 4, p.32). Lim and Golinelli (2006) make the case that understanding the employment conditions of military spouses will require new survey measures: “...traditional and supplementary employment measures

to determine with statistical certainty whether conditions for spouses have *changed* over time, but it does provide a snapshot of characteristics of military spouses that can be compared to a similar sample of non-civilian spouses.

The disadvantage of the CPS data is that they do not identify military spouses by service branch, making it impossible to develop a specific profile for Army spouses. Because Army spouses tied to infantry bases like Drum are thought to be younger and less educated than other military spouses, the risk is that using military-wide averages will overstate education levels of spouses associated with the expansion at Drum.

However, we believe that neither the SAF IV nor the CPS data are likely to overstate the age or education levels of arriving spouses. As shown in Table 2-8, the rank of new personnel to Drum (as proxied by expected arrivals in 2005) is weighted relatively heavily towards officers, who are likely to have older, more educated spouses, and higher-ranking enlisted soldiers, who are also expected to have older spouses. Of the 1,881 soldiers expected to arrive at Fort Drum during 2005, 26% were expected to be officers, compared with just 12% of personnel at Drum at the beginning of 2005 and Army- and military-wide averages of 16%. Thus, even if the population of spouses that arrives in 2006 and after look similar to existing personnel at Drum, the overall (2005-2008) population of new personnel is likely to be accompanied by older, more educated spouses. Consequently, use of military-wide averages for spousal characteristics is likely to provide a valid profile of spouses arriving at Fort Drum.

**Table 2-8. Distribution of Expected Incoming Personnel by Pay Grade**

	Total DoD	Total Army	Drum as of Jan.1 2005	Drum as of Arrivals, 2005	Drum as of Dec. 31 2005
<u>Rank</u>					
E1-E6	74%	73%	80%	61%	78%
E7-E9	10%	10%	7%	13%	8%
Officers	16%	16%	12%	26%	14%

*Source: US Department of Defense and GAR Associates, 2005; calculations by EDRG*

SAF IV findings and CPS data provide similar pictures of the likely education levels of arriving spouses who will join the labor force. As shown in Table 2-9, the SAF IV findings would predict that almost all (96%) are likely to be high school graduates; over two-thirds (69%) will have had additional formal training; and 23% will have bachelor’s degrees. When compared to the average adult who is 25 and older residing in the Tri-county area, spouses are expected to be more likely to have completed high school (96% compared to 81% average across the Tri-County area), to have additional formal training (69% versus 43%), and to have completed college (23% versus

currently used by BLS [US Bureau of Labor Statistics] may not be adequate to represent the impact of military life on military spouses’ employment conditions” (Chapter 4, p.25).

16%).<sup>34</sup> This profile is confirmed by CPS data on military spouses across the US, which shows that (female) spouses in the labor force are more likely than other women in the labor force to have graduated from high school (98% of military spouses versus 90% of civilian women), an associates degree program (14% versus 10%) and a bachelor’s degree program (31% versus 28%). Overall, the data suggest that arriving spouses who join the labor force are likely to be more educated than the average Tri-county worker.

Tables 2-11 and 2-12 provide information on the likely age distribution and work experience of arriving spouses. As shown in Table 2-11, if arriving spouses look like the existing population of Army spouses, over half will be younger than 30 and 11% will be 41 or older.<sup>35</sup> They are also likely to have experience across a range of occupations, including some that are associated with fast-growing and well-paying service sectors. For example, as shown in Table 2-12, 20% of arriving spouses will be likely to have experience in professional, technical, and managerial fields. The expected skill sets of spouses are interesting because they will provide opportunities for expansion and recruitment in service sectors, which could complement recruitment of manufacturing firms that would benefit from proximity to Fort Drum itself.

**Table 2-9. SAF IV Estimates of Educational Attainment of Army Spouses**

	Spouses	All Tri-County
<u>Education Level</u>		
Bachelor's Degree or Higher*	23%	16%
Post-High School Formal Schooling	69%	43%
High School Graduate	96%	81%

*Source: Data from Borowski and Scroggins, 2006 and US Census; calculations by EDRG*

*\* All Army spouses are included but only Tri-County population that is 25 or older*

<sup>34</sup> The data for the Tri-county area are for 2000 in order to compare similar years. Data are taken from American FactFinder.

<sup>35</sup> These projections are based on the age distribution of Army enlisted and officer spouses presented in Livingston, 2003, p.30 and the distribution personnel by pay grade presented in GAR Associates, 2005, p.2, which represents expected personnel expected to be in place at Fort Drum by December 2005. This approach (using overall personnel profile at the base) assumes that the new personnel will reflect a similar officer / enlisted ratio as the totals expected at the end of 2005. The Livingston report is available on-line at [http://www.teamsantarosa.com/Studies/Spouse\\_and\\_Retired\\_Military\\_Technical\\_Skills\\_Inventory.pdf](http://www.teamsantarosa.com/Studies/Spouse_and_Retired_Military_Technical_Skills_Inventory.pdf).

**Table 2-10. CPS Estimates of Educational Attainment of All Military Spouses**

	Military Spouses in Labor Force	All Women in Labor Force
<u>Education Level</u>		
High School Graduate	98%	90%
Associates Degree	14%	10%
Bachelor's Degree or Higher	31%	28%

Source: Data from CPS March Survey, 1999-2006; calculations by EDRG

**Table 2-11. Expected Age Distribution of Fort Drum Spouses**

	Percent
<u>Spouse's Age</u>	
25 and younger	30%
26 to 30	24%
31 to 35	20%
36 to 40	15%
<u>41 and older</u>	<u>11%</u>
Total	100%

Source: Data from Livingston, 2003 and GAR Associates, 2005.

Calculations by EDRG

**Table 2-12. Expected Experience of Fort Drum Spouses**

Type of Employment	% of Spouses
Clerical	31%
Professional/Technical/Managerial	20%
Service	14%
Teachers	13%
Sales	8%
Child Development	9%
Other	5%

Source: Calculated by SPECTRUM Group based on data from the *Military Spouses Career Network Unemployment Compensation Guide 2000*

### Military Retirees

Another source of potential labor force expansion is military retirees from Drum who opt to stay in the North Country. However, the labor market effect of retirees is likely to be much smaller than the effect of spouses. Based on local and national data, we estimate that expansion at the base is likely to result in about 185 new retirees settling in the North Country each year. Although this number is small, if correct it augurs an increase in the retiree population in the North Country of about 925 retirees over five years.

The derivation of the estimate of 185 new retirees per year is shown in Table 2-13. Assuming a post-Fort Drum transformation soldier population of 16,647 and an average Army-wide retirement rate of 3.7 soldiers per 100,<sup>36</sup> expansion at Drum will result in 616 additional retirees each year. Local experts estimate that approximately 30% of these will stay in the area, resulting in an estimated 185 (616 x 30%) new military retirees per year. This represents 65 more retirees after the transformation than based on pre-transformation levels (10,729 in 2003).

**Table 2-13. Expected Increase in Military Retirees in North Country**

Project End-Transformation Population (FY 06)	16,647
Annual Retirement Rate (% of Soldiers)	<u>3.7%</u>
Annual Increase in Number of Drum Retirees	616
Number of Retirees Who Stay in North Country (@ 30%)	<u><u>185</u></u>

*Source: Calculated by authors based on data from US DoD; Fort Drum; and local interviews*

To project what the characteristics of these retirees are likely to be, we looked to information on the population of soldiers at Fort Drum after transformation (these were presented in Table 2-8) and data on the existing profile of Army soldiers. (Data on current retirees’ characteristics will provide a snapshot of previous soldiers and retirees, not current and future retirees.) These were used to estimate the likely profile of retiree education level, which is presented in Table 2-14.

**Table 2-14. Estimate of (Highest) Educational Attainment of Drum Retirees**

GED	6%
High School	65%
Some College/Associates	6%
Bachelors	12%
Masters/PhD	6%
Other/Unknown	4%

*Source: Calculated by authors based on data from US DoD and GAR Associates*

The educational profile of retirees is compared to the average adult who is 25 and older residing in the Tri-county area in Table 2-15. As the data show, a military retiree from Fort Drum is more likely to have graduated from high school than the average

<sup>36</sup> This estimate is derived as follows: in FY2005, the Army had 488,579 active-duty soldiers and 189,005 reserves, of which 24,949 (3.7%) retired at some point during the fiscal year. (Data from Army Profile FY05 and Fiscal Year 2005 DOD Statistical Report on the Military Retirement System.)

Tri-county adult (96-100% versus 81%) and more likely to have a college degree or higher (19% versus 16%) but less likely to have at least some college (26% versus 43%).

**Table 2-15. Estimates of Educational Attainment of Retirees**

	New Retirees	All Tri-County
<u>Education Level</u>		
High School Graduate	96-100%	81%
Post-High School Formal Schooling	26%	43%
Bachelor's Degree or Higher	19%	16%

*Source: Calculations by EDRG*

Two caveats are in order. First, it must be noted that the actual characteristics of military retirees in the North Country will depend on who stays in the area after separation from Drum. That is, if proportionately more enlisted soldiers than officers stay, the profile of local retirees will have fewer college graduates at separation.

A second consideration is that education levels of separations are likely to underestimate the educational profile of the future population of retirees because of the high probability that a military retiree will seek further schooling upon leaving the military. Loughran (2005) reports:

According to self-reports, 52 percent of retirees with a high-school-level education upon separation attended some college in the subsequent years, and 8 percent completed a four-year degree or more. Among those with some college upon separation, 20 percent went on to complete a four-year degree, and among college graduates, 20 percent completed a higher degree. (2005, p.47)

Military retirees are a sought-after group in some labor markets and industries. Although it only possible to get a sketch of retiree skills from available national data, other locales (e.g., Pensacola, Florida) have invested in surveys of local retirees in order to get a full and accurate picture of the labor market characteristics of local military retirees.<sup>37</sup> North Country development agencies might consider a similar investment.

<sup>37</sup> See Retired Military Technical Skills Inventory at <http://www.businesspensacola.com/pdfs/RetiredMilitaryTechnicalSkillsInventory.pdf>

# 3

## TARGET ANALYSIS

### Overview

This chapter presents the results of the industrial targeting and community assessment analyses. The starting point for the analyses was the list of industries identified earlier as good military-related target sectors, based on Department of Defense budget projections and the competitive advantages associated with proximity to a military base. (This list is presented in Table 3-1.) For each industry in the list, three analyses were performed. First, LAS performed assessment of the target industries from the perspective of recruitment requirements for new businesses, i.e., the “fit” between the needs of the business and North Country’s locational assets. These findings were based on profiles of the industries taken from a database that contains characteristics relevant to site location firms; and an assessment of North country assets that derives from information collected from local economic development agencies as well as findings of field work and phone interviews completed in May-September, 2006. This analysis yielded a “FIT” score of 1 to 3, as shown in Table 3-2. For this measure and all others, rankings go from “1” to “3”, where “1” signifies a “high potential” or “good fit” and “3” signifies a “low potential” or “poor fit.”

Second, LAS gave each industry a ranking based on expected growth in the industry, existing industrial capacity, and factors like difficulty in identifying and recruiting individual companies. This ranking also relied on the database on industry characteristics mentioned above. This analysis yielded an “INDUSTRY” score of 1 to 3, as shown in Table 3-2.

Third, EDR Group used the Local Economic Assessment Package (LEAP) to evaluate the initial targets by their competitiveness relative to other relevant areas with military bases. To identify targets, LEAP rates competitive strengths and weaknesses of the North Country study area relative to “competitors” in terms of various costs (e.g., utilities, housing, land, labor, taxes), labor force characteristics, transportation access and quality, and supporting infrastructure, like broadband. For this exercise, the economies around Forts Bragg, Hood, and Stewart were used as “competitors.” LEAP identified workforce availability, labor skill, highway transportation and air transportation as the principal barriers to job growth. The largest opportunities identified by LEAP were in service industries including accommodations, eating and drinking; health care and social services; professional scientific and technical services; and repair, maintenance and personal services. Further details of this analysis process and results are provided in Appendix D. That analysis yielded a series of “TARGET” scores or ratings based on a scale of 1 to 3, as shown in Table 3-2.

Because of high electricity costs, the North Country energy and overall cost ratings were high relative to the competitor areas. Access to transportation, especially average time to a commercial airport, was worse in the North Country than at the other three sites, but the range and depth of airport facilities in Syracuse is much higher than on the other three areas. The other important asset for the North Country is the quality of its broadband (through the efforts of DANC and its Open Access broadband network), which ranks the region higher than the area around Forts Bragg, Hood, and Stewart.

After an initial set of runs, which yielded few targets, a modification was made in terms of energy costs, which were driving overall North Country costs so high that few industries emerged as realistic targets. These modifications were made in recognition of the growth in alternative energy sources in the North Country, as well as the ability and willingness of local economic development agencies to provide more palatable electricity costs for prospective industries.

Table 3-1 presents the target industries identified in Chapter 2. Table 3-2 presents the overall ranking of each sector in Table 3-1. The ranking was determined by adding the “FIT,” “INDUSTRY,” and “TARGET” scores to arrive at an overall score. Because “1” is used to signify “high potential” or “good fit” and “3” to signify a “low potential” or “poor fit,” the best targets are those with the lowest overall score. It should be noted that three sub-sectors are introduced in Table 3-2: “Industrial Trucks, Tractors, Trailers, Stackers: Rest of Sector,” “Insurance Carriers: All Other,” and “Dentists, and Miscellaneous Medical Services: All Other.” The sub-sectors were introduced in order to separate the portion of the three sectors that would make a good fit with North Country assets from the portions that would not.

Table 3-3 ranks the sectors from most to least promising. The *preferred* or primary targets are the first 13 industries listed in Table 3-3. With the exception of “Rubber and Plastics Hose and Belting,” each of these sectors has a composite score of six or less. (“Rubber and Plastics Hose and Belting” has a composite score of seven, but the FIT rating for the sector is high (1.5).) Table 3-3 is the most important piece of the report: it identifies the small set of industries that North Country economic development officials should pursue out of the universe of possible recruitment targets. The identified industries are the culmination of extensive analysis of military trends and budgets and the types of professional judgment used in site selection and economic development strategy and planning. Naturally, these sectors are the focus of the marketing strategy presented in Chapter 4.

Table 3-1. Initial Military-Related Target Industries and Their Characteristics

ID	Sector Description	2005-2011 Growth Rate	Expected Growth	SICs	6-Digit NAICS	3-Digit NAICS
19	New construction	5%	\$ 750	1600	234120 234910 234920 234930 234990	234
20	Maintenance construction	11%	\$ 789	1500	233210 233220 233310 233320 234110	233 234
22	Ammunition, except small arms	31%	\$ 1,540	3483	332993	332
25	Small arms ammunition	86%	\$ 558	3482	332992	332
26	Other ordnance and accessories	10%	\$ 105	3489	332995	332
73	Office furniture	27%	\$ 33	2521 2522	337211 337214	337
100	Explosives	39%	\$ 159	2892	325920	325
116	Rubber and plastics hose and belting	22%	\$ 192	3052	326220	326
151	Fabricated plate work (boiler shops)	45%	\$ 561	3443	332313 332410 332420 333414	332 333
163	Pipe, valves and pipe fittings	7%	\$ 103	3491 3492		
165	Steam, gas and hydraulic turbines	18%	\$ 153	3494 3498	332911 332912 332919 332999 332996	332
174	Industrial trucks, tractors, trailers and stackers	5%	\$ 155	3537	332439 332999 333924	332 333
191	Packaging machinery and general industrial machinery, n	14%	\$ 45	3565 3569	314999 333414 333993 333999	314 333
192	Mechanical power transmission equipment	53%	\$ 505	3566 3568	811310	811
209	Switchgear and switchboard apparatus	23%	\$ 43	3613	335313	335
219	Telephones, switchboards, modems, faxes, etc.	14%	\$ 373	3661	334210 334418	334
220	Radio and TV broadcasting and communication equipme	13%	\$ 910	3663 3669	334220 334290	334
				3672 3675		
223	Electronic components, n.e.c.	19%	\$ 1,276	3676 3677	334412 334414 334415 334416 334417 334220	334
238	Shipbuilding and repairing	5%	\$ 431	3731	334310 334418 334419	336 488
246	Search and navigation equipment	8%	\$ 512	3812	336611 488390	334
258	Games, toys and play vehicles	32%	\$ 20	3942 3944	336991 339931 339932	336 339
281	Insurance carriers	5%	\$ 261	63	523920 524113 524114 524126 524127 524128	523 524
				0740 8020		
				8041 8043	339116 541430 541922 541940 621210 621310	
				8048 8070	621391 621410 621420 621492 621498 621511	
304	Dentists, and miscellaneous medical services	9%	\$ 1,479	8080 8090	621512 621610 621991 621999	339 541 621

Table 3-2. Results of Industrial Targeting and Site Selection Analysis, by Industry Code

ID	Sector Description	Site Selector FIT Rating	Site Selector INDUSTRY Rating	Industrial TARGET Rating	Overall Rating	RANK
19	New construction	1	2.5	1	5	5t
20	Maintenance construction	1	1.5	1	4	2t
22	Ammunition, except small arms	2.5	2.5	3	8	19t
25	Small arms ammunition	2.5	2.5	3	8	19t
26	Other ordnance and accessories	2.5	2.5	3	8	19t
73	Office furniture	1	1	3	5	5t
100	Explosives	1.5	1	3	6	8t
116	Rubber and plastics hose and belting	1.5	2	3	7	13t
151	Fabricated plate work (boiler shops)	1	1.5	3	6	8t
163	Pipe, valves and pipe fittings	2	3	3	8	19t
165	Steam, gas and hydraulic turbines	2.5	2.5	2	7	13t
191	Packaging machinery and general industrial machinery, n.e.c.	2	3	2	7	13t
192	Mechanical power transmission equipment	3	3	2	8	19t
209	Switchgear and switchboard apparatus	1.5	2	2	6	8t
219	Telephones, switchboards, modems, faxes, etc.	2	2.5	2	7	13t
220	Radio and TV broadcasting and communication equipment	2	1.5	2	6	8t
223	Electronic components, n.e.c.	1	1	2	4	2t
238	Shipbuilding and repairing	3	3	3	9	26
246	Search and navigation equipment	3	3	2	8	19t
258	Games, toys and play vehicles	1	2	2	5	5t
174a	Industrial trucks, tractors, trailers, stackers: carts, dollies, hand trucks	1.5	2.5	2	6	8t
174b	Industrial trucks, tractors, trailers, stackers: rest of sector (e.g., trucks)	3	2.5	2	8	19t
281a	Insurance carriers: back office, processing operations	1	1	2	4	2t
281b	Insurance carriers: all other	3	1	3	7	13t
304a	Dentists, misc. medical services: spousal experience, available training	1	1	1	3	1
304b	Dentists, misc. medical services: all other	3	1	3	7	13t

Note: "t" signifies tie, e.g., "2t" means tied for second highest ranking

Table 3-3. Results of Industrial Targeting and Site Selection Analysis, by Ranking

ID	Sector Description	Site Selector FIT Rating	Site Selector INDUSTRY Rating	Industrial TARGET Rating	Overall Rating	RANK
304a	Dentists, misc. medical services: <i>spousal experience, available training</i>	1	1	1	3	1
20	Maintenance construction	1	1.5	1	4	2t
223	Electronic components, n.e.c.	1	1	2	4	2t
281a	Insurance carriers: <i>back office, processing operations</i>	1	1	2	4	2t
19	New construction	1	2.5	1	5	5t
73	Office furniture	1	1	3	5	5t
258	Games, toys and play vehicles	1	2	2	5	5t
100	Explosives	1.5	1	3	6	8t
151	Fabricated plate work (boiler shops)	1	1.5	3	6	8t
209	Switchgear and switchboard apparatus	1.5	2	2	6	8t
220	Radio and TV broadcasting and communication equipment	2	1.5	2	6	8t
174a	Industrial trucks, tractors, trailers, stackers: <i>carts, dollies, hand trucks</i>	1.5	2.5	2	6	8t
116	Rubber and plastics hose and belting	1.5	2	3	7	13t
219	Telephones, switchboards, modems, faxes, etc.	2	2.5	2	7	13t
165	Steam, gas and hydraulic turbines	2.5	2.5	2	7	13t
191	Packaging machinery and general industrial machinery, n.e.c.	2	3	2	7	13t
281b	Insurance carriers: all other	3	1	3	7	13t
304b	Dentists, misc. medical services: all other	3	1	3	7	13t
174b	Industrial trucks, tractors, trailers, stackers: rest of sector (e.g., trucks)	3	2.5	2	8	19t
22	Ammunition, except small arms	2.5	2.5	3	8	19t
25	Small arms ammunition	2.5	2.5	3	8	19t
26	Other ordnance and accessories	2.5	2.5	3	8	19t
163	Pipe, valves and pipe fittings	2	3	3	8	19t
192	Mechanical power transmission equipment	3	3	2	8	19t
246	Search and navigation equipment	3	3	2	8	19t
238	Shipbuilding and repairing	3	3	3	9	26

Note: “t” signifies tie, e.g., “2t” means tied for second highest ranking; preferred targets in *bold italics*

**THE 13 PRIMARY TARGETS:****3.1 Medical and Dental Services:  
Experienced Spouses and Available  
Training**

*Rank 1: (FIT: 1; Industry: 1; Target: 1)*

**Overview**

This category covers a wide range of services, from diagnostic imaging to podiatrists to medical labs. Projected DOD purchasing growth through 2011 is very high: 9% translating into \$1.5 billion in new sales annually. Access to Fort Drum itself could be critical for successful recruiting, as it will allow local economic development agencies and firms themselves to interview base personnel regarding the types of services that will be demanded in the future and expected local shortages.

**Prospects and Strategic Considerations**

This is an extension of the medical services the North Country is currently providing Fort Drum. For many services, North Country economic development officials will have to work closely with existing medical groups to identify prospects. To attract others, you will have to convince local community colleges and BOCES to either start training the needed skill sets or at least have a syllabus prepared and ready to implement for a prospect. For sectors in which there is a shortage of workers (existing and spouses) and no established local training programs, the target rating would be low (“3”). However, for those sectors in which military spouses tend to have experience, the expected influx of Fort Drum spouses can be a cornerstone of a recruiting strategy. Other North Country advantages that should be emphasized during recruitment are the quality of the broadband infrastructure and access to a full-service international airport in Syracuse.

## **3.2 Maintenance Construction**

**Rank 2t: (FIT: 1; Industry: 1.5; Target: 1)**

### **Overview**

There are about 100,000 establishments in the US in single-family housing, multifamily housing, and commercial/institutional buildings construction alone (NAICS codes 236115, 236116 and 236220, respectively). Total construction volume for these codes alone amounts to about \$320 billion annually. New York State is a major player in this industry, accounting for about 4 to 9% of total dollar volume in these six-digit codes. The sector has a high projected growth through 2011 at 11% or about \$790 million for the military alone on a base of \$7 billion. However, this trend greatly understates expected growth at Fort Drum itself, where about \$2 billion in spending is projected over the next few years.

### **Prospects and Strategic Considerations**

The NAICS codes listed for this category all fall under NAICS category 236. The key to this NAICS category is to maintain and grow current local activity. This will require a continued effort to foster the growth of the trades in the North Country with appropriate educational opportunities while simultaneously trying to entice some of the larger regional/national prime contractors to establish local offices. Since many of the contracts in this sector are too large for local building contractors, it is necessary to assist them in qualifying as preferred subcontractors to the primes. Currently there is a shortage of skilled trades people in the North Country for the volume of work available. This might be a good sector in which to recruit military retirees (locally or nationally) to enter training programs and when applicable, register as service-disabled veteran-owned small businesses (SDVOSBs). As in the “New Construction” sector, the new “Centers of Standardization” approach adds emphasis to the need for workforce training and assisting existing companies to qualify as preferred subcontractors. Other North Country advantages that should be emphasized during recruitment are the quality of the broadband infrastructure, which can be critical for materials purchasing and identifying business opportunities (especially government-related ones), and the relatively concentrated nature of the opportunities, many of which will be in and around the base itself.

## 3.3 Electronic Components

**Rank 2t: (FIT: 1; Industry: 1; Target: 2)**

### Overview

There are thousands of electronic components firms in the United States, with an average of 1.1 plants per company. The average company has about 25 production workers and 10 support and management staff. US production workers make an average of \$11-\$13 per hour; support staff and management make an average of \$48,000 - \$53,000 annually depending on the segment of the industry being considered.<sup>38</sup> New York State is a major player in most segments of this industry, ranking from 2<sup>nd</sup> to 17<sup>th</sup>, depending on the six-digit category. This represents 0.5% to 8.0% of national volume. Electric usage is low at around 23,000 to 75,000 kWh per month. Average plant investment is between \$1.1 and \$3 million. Projected growth in DOD purchases through 2011 is very high: 19% or \$1.25 billion in new sales.

### Prospects and Strategic Considerations

The industry is very difficult to target, as the top 20 companies account for only 35-65% of national output in the different sectors of the industry. The category forms a highly complex group of sectors, with many possibilities. Many of the products have good shipping characteristics. Some sectors can utilize some of the skill sets resident in the North Country relating to small motor manufacturing. The sectors employ a broad range of skill levels and can evolve into high-end activities like design and engineering. There are many companies in existence in New York State; some might need a North Country presence for Fort Drum requirements. In some segments, New York State has increased its share of output significantly. NAICS 334416 (Electronic Coil, Transformer, and Other Inductor Manufacturing) and 334419 (Other Electronic Component Manufacturing) are the best targets. Competitive advantages that should be emphasized include quality of broadband infrastructure, proximity for Fort Drum, and proximity to Clarkson University. This sector should also be a focus of recruitment in Ontario Valley, which has a strong electronics sector but might be facing imminent labor shortages. (A list of some Ontario Valley firms engaged in this sector is presented in Appendix C.)

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<sup>38</sup> Throughout this chapter, information on industries (number of establishments, wages, etc.) pertains to 2002.

## **3.4 Insurance Carriers: Back Office, Processing Operations**

**Rank 2t: (FIT: 1; Industry: 1; Target: 2)**

### **Overview**

It is difficult to profile this industry because of the huge number of firms in US, estimated at over 170,000 (NAICS 524). New York State is a major player in this industry, ranking in the top 5 among the states. Projected DOD purchasing growth through 2011 is just 5% but this translates into over \$250 million in new sales annually.

### **Prospects and Strategic Considerations**

It is difficult to target this industry because of the large number of companies involved. New York, New Jersey and Pennsylvania are all major players in these industries. A focused attack on companies with large operations in the northeastern US would be best. Concentrate on back office, processing operations, especially in the medical, property and casualty and warranty areas. The expected influx of better educated, more experienced military spouses can be a selling point in recruiting these types of operations. The North Country offers a good alternative in the tri-state area for small- to medium-sized expansions (50-150 employees). Both Lewis and St. Lawrence (around Potsdam) offer ideal types of labor forces, as do other locations that can access the spousal labor force.

## **3.5 New Construction**

**Rank 5t: (FIT: 1; Industry: 2.5; Target: 1)**

### **Overview**

There are about 42,500 establishments in the United States involved in new construction in the Heavy and Civil Engineering Construction sector. New York State is a major player in this industry and ranks, for example, 3rd in highway/bridge construction. Overall military growth is expected to be low (projected at 5% through 2011) but will be much higher around Fort Drum. Moreover, the modest (5%) projected national growth equates to about \$750 million.

### **Prospects and Strategic Considerations**

The NAICS codes associated with projected military spending listed for this category all come under 237 (Heavy and Civil Engineering Construction. The main sectors under 237 that might have relevance to the North Country are 237110 (Water and Sewer Line Construction) and 237310 (Highway, Street and Bridge Construction). (Construction of buildings (e.g., barracks) is discussed in the next section.) As we understand it, local contractors already participate in constructing Fort Drum's requirements in this area. If the contracts are big, there are no local prime contractors that can handle them. We believe there is little prospect of enticing one of the regional/national prime contract engineering/construction firms to put an operations office in the North Country. However, the advantages associated with the North Country suggest that at least preliminary attempts to recruit should be made.

## **3.6 Office Furniture**

**Rank 5t: (FIT: 1; Industry: 1; Target: 3)**

### **Overview**

There are about 650 wood office furniture manufacturing firms in the United States, with an average of one plant per company. Two-thirds of these plants have fewer than 20 employees. The average company has about 40 production workers and 7 support and management staff. US production workers make an average of \$13.25 per hour; support staff and management make an average of \$45,000 annually. New York State is a major player, ranking 5th of the 50 states behind IN, NC, CA and MI. New York State accounted for 5.6% of total national sales in 2002. Military spending is projected to grow by 27% through 2011 but this translates into only \$33 million in new sales volume.

### **Prospects and Strategic Considerations**

It is difficult to target in this industry as 70% of industry output is spread among the 50 largest firms. Electric usage is low at around 50,000 kWh per month. Average investment in a plant is only about \$1.8 million. There are some small wood office furniture operations in the Tri-county area. The North Country has the resident skill sets required by this industry, especially since a wide range of skills is needed in the industry. The raw materials required for wood furniture are available throughout the North Country region. The target rating is relatively low (“3”) in part because industries that require a wide range of skills often prefer to locate in areas with higher population and population density, to make it easy to find workers. This disadvantage, however, will be partially offset by the entrance of Fort Drum spouses into the labor force. The best target would be to attract a company that is already a subcontractor to a prime that builds new base office buildings. One caveat to this strategy, of course, is that the firm will have to get the Fort Drum procurement to okay local purchase rather than go through the normal military supply chain. Other prospects include unique residential wood furniture items, like Adirondack chairs and picnic tables that might be purchased by AAFES for the large military contingent at Fort Drum. One selling point for military and consumer wood furniture sectors could be proximity to the base itself, which would allow firms to discuss design decisions with the end-users.

## **3.7 Games, Toys and Play Vehicles**

**Rank 5t: (FIT: 1; Industry: 2; Target: 2)**

### **Overview**

The number of firms in this grouping ranges from 130-750, with an average of 1 plant per company. The average company has between 10 and 35 production workers and 5 to 15 support and management staff. US production workers make an average of \$9.40 to \$19.00 per hour; support staff and management make an average of \$50,000 annually. New York State is a major player in the 339931 – Doll and Stuffed Toy Manufacturing sector, ranking 1<sup>st</sup> of 50 states, with 22% of total national volume. Electric usage is low, ranging from 10,000 to 75,000 kWh per month. The average plant investment ranges from \$0.5 to 4.5 million. Projected growth in DOD purchases through 2011 is high at 32% but this translates into only \$20 million in new sales annually.

### **Prospects and Strategic Considerations**

It can be fairly difficult to target this industry as the top 20 companies account for only 70-80% of the industry output. NAICS 339931 fits in well in the North Country because of the many available workers with sewing skills. Other than motorcycle manufacturing, the industry fits well with North Country assets: low electric usage, primarily unskilled manufacturing labor requirements, and a low plant investment level. In addition, the strong engineering skills available at and around Clarkson might be able to provide design and development personnel for firms that locate in North Country. The primary concern for targeting is the low absolute level of growth; the industry may not need any new facilities to meet future demand. A specialty toy manufacturer that can sell to AAFES or a higher-skilled product line for direct defense applications might be the best targets. If recruiting the latter, proximity to Fort Drum and Clarkson should be emphasized.

## **3.8 Explosives Manufacturing**

**Rank 8t: (FIT: 1-2; Industry: 1; Target: 3)**

### **Overview**

There are about 90 explosives manufacturing firms in the United States, with an average of 1.6 plants per company. The average company has about 45 production workers and 20 support and management staff. US production workers make an average of \$18.00 per hour; support staff and management make an average of \$60,000 annually. New York State is a minor player in this industry. It is easy to target this industry as the top 20 companies account for 91% of the industry output. Electric usage is moderate at around 155,000 kWh per month. Average investment in a plant is \$4.6 million. Projected DOD purchasing growth through 2011 is high at 39%, which equates to \$150 million in new purchases.

### **Prospects and Strategic Considerations**

There is one existing company in the North Country. The plants per company ratio is good and growth projections mean new plants may become necessary. It is an environmentally-sensitive industry and community acceptance is poor in most locales in the US. Assuming that North Country communities do not object, they stand a reasonable chance of success at attracting a plant. Any potential plant would be best located in a zone with good electric rate incentives: a major reason the current target ranking is low (“3”) is because of North Country’s high electric rates relative to other communities. Individual sites should be prescreened for access to interstate quality roads without going through town centers. The North Country is also a reasonable location for non-military distribution of this product for construction purposes.

## **3.9 Fabricated Plate Work**

**Rank 8t: (FIT: 1; Industry: 1-2; Target: 3)**

### **Overview**

There are about 1000 fabricated plate work manufacturing firms in the United States, with an average of one plant per company. The average company is small and has about 18 production workers and 7 support and management staff. US production workers make an average of \$15.70 per hour; support staff and management make an average of \$48,000 annually. New York State is a minor player in this industry, ranking 10<sup>th</sup> of the 50 states. It is difficult to target this industry, as the top 20 companies account for only 25% of the industry output. Electric usage is low at around 42,000 kWh per month. Average investment in a plant is \$1.25 million, which is low. Projected DOD purchasing growth is moderate through 2011 at 4.5%, but because of the large existing sales in this sector, this growth will translate into over \$500 million in new sales.

### **Prospects and Strategic Considerations**

The only six-digit NAICS that makes a good target for the North Country is 332313, Plate Work Manufacturing. This sector requires bending, stamping, punching and welding with low tolerances, but does not use the most sophisticated manufacturing: bins, shutters, duct work, trash racks, etc. The sector relies primarily on unskilled labor. Outbound freight can be expensive because of cube/weight ratio. New York State has 29 small firms involved in the sector, so there is a minor record of accomplishment for attraction in state. Within the other three sectors included in this grouping there is limited attractiveness, all three require more sophisticated, higher skilled labor and have larger, heavier finished goods. The low target ranking (“3”) reflects the high electricity usage in most of sector NAICS 332. The ranking would be higher for less electricity-intensive 6-digit sectors (like 332313) or for more energy-intensive 6-digit sectors, if low-cost electricity were made available.

## **3.10 Switchgear and Switchboard Apparatus**

**Rank 8t: (FIT: 1-2; Industry: 2; Target: 2)**

### **Overview**

There are about 446 switch gear and switchboard apparatus manufacturing firms in the United States, with an average of 1.2 plants per company. The average company has about 50 production workers and 20 support and management staff. US production workers make an average of \$16.25 per hour; support staff and management make an average of \$55,000 annually. New York State is not a major player in this industry, ranking 20<sup>th</sup> among states with 1.5 % of total national production. Electric usage is moderate at around 107,000 kWh per month. Average plant investment is \$4.4 million. DOD purchases are expected to increase by 23% through 2011 but this translates into only \$43 million in new purchases per year.

### **Prospects and Strategic Considerations**

This industry is only marginally easy to target as the top 20 companies account for only 75% of the industry output. The civilian portion of this sector is fairly large (\$8 billion), but New York State has little representation and faces stiff competition from IL, TX, PA, KY and OH. The sector requires some skilled workers that are in short supply in the North Country, e.g. machinists and possibly NC machinists. Electric usage is moderate, but would still need incentives to offset costs in the North Country; the target ranking (currently “2”) could be higher if North Country’s electric rates were not so high relative to other communities. One drawback to targeting in this sector is that the fairly large required new investment makes expansion of existing plants more likely than building of new ones. This sector should also be one of the focuses of recruitment in Ontario Valley, which has a strong electronics sector but might be facing imminent labor shortages. (A list of some Ontario Valley firms engaged in this sector is presented in Appendix C.)

## 3.11 Radio and TV Broadcasting and Communications Equipment

*Rank 8t: (FIT: 2; Industry: 1-2; Target: 2)*

### Overview

There are about 929 broadcasting and communications equipment firms in the United States, with an average of 1.1 plants per company. The average company has about 40 production workers and 60 support and management staff. US production workers make an average of \$19.00 per hour; support staff and management make an average of \$65,000 annually. New York State is a big player in this industry, ranking 6th among states with 4.0% of national volume. Electric usage is moderate at around 110,000 kWh per month. Average plant investment is \$9.0 million. Projected growth in DOD purchases through 2011 is very high: 43% or over \$900 million in new sales.

### Prospects and Strategic Considerations

It is fairly difficult to target this industry as the top 20 companies account for 70% of the industry output and there are many firms. This is another extremely large industry sector with annual shipments ranging from \$32-52 billion from 1997-2002, as well as a highly competitive, global industry. The number of US companies dropped by 17% between 1997 and 2002, but there are still over 900 companies remaining in the US. The industry is highly automated, hence the high capital investment. The cellular phone portion of the industry is particularly competitive. The combination of moderate electric usage and low skill requirements for production workers makes this sector a good target for the North Country. It would be best to target a production only facility. New York State has over 50 resident companies, so there is strong precedence for establishing a facility in New York State. Product has a good value to cubic/weight ratio for longer distance shipping. Within this industry, NAICS sector 334290 Other Communications Equipment Manufacturing, has a lower investment level (\$2.5 - 3.0 million), lower average production wages at 15.15 per hour and much lower electric usage (47,000 kWh) with smaller plants (50-75 employees). This sector could make a good target for a mid-sized plant for the North Country. This sector should also be a focus of recruitment in Ontario Valley, which has many firms engaged in printed circuit board manufacturing. (A list of some Ontario Valley firms engaged in this sector is presented in Appendix C.)

## 3.12 Industrial Trucks, Tractors, Trailers, Stackers: Carts, Dollies, Hand Trucks

*Rank 8t: (FIT: 1.5; Industry: 2-3; Target: 3)*

### Overview

There are about 395 industrial trucks, tractors, trailers, stackers manufacturing firms in the United States, with an average of 1.06 plants per company. The average company has about 35 production workers and 18 support and management staff. US production workers make an average of \$16.15 per hour; support staff and management make an average of \$39,000 annually. New York State is a moderate player in this industry, ranking 8<sup>th</sup> among states, with 3.5% of national volume. Electric usage is low at around 66,000 kWh per month. Average plant investment is \$3 million. The industry has low projected DOD purchasing percentage growth through 2011, but this translates into about \$155 million in new purchases by DOD.

### Prospects and Strategic Considerations

It is difficult to target this industry as the top 20 companies account for only 67% of the industry output. The industry can be thought of as having two distinct parts. The first is lower-tech products like grocery carts, dollies, and hand trucks, which do not require skilled workers, have limited electric power requirements and have some existing presence in New York State. This sector would make a good target for North Country. Unfortunately, this part of the sector is expected to grow very slowly in the future, so it is imperative to target those firms that produce products that are purchased by DOD, where absolute growth might be relatively strong.

## **3.13 Rubber and Plastic Hose and Belting**

**Rank 13t: (FIT: 1-2; Industry: 2; Target: 3)**

### **Overview**

There are about 185 Rubber and Plastic Hose and Belting firms in the United States, with an average of 1.4 plants per company. The average company has about 70 production workers and 20 support and management staff. US production workers make an average of \$14.65 per hour. New York State is a minor player in this industry, ranking 13<sup>th</sup> of 50 states. The other top states are CA, OH, NC, FL, and TX. It is moderately easy to target this industry as the top 20 companies account for 80% of industry output. Electric usage is high at around 300,000 kWh per month. The average plant investment is high at \$ 7 to 8 million. Projected DOD purchasing growth is moderate through 2011 at 22%; this translates into \$190 million in new sales to the military alone.

### **Prospects and Strategic Considerations**

This is a good candidate from a labor availability viewpoint because not very skilled workers are required. The industry's heavy electric use could be a problem for the North Country if more competitive rates can't be offered; a major reason the target ranking is low ("3") is because of North Country's high electric rates relative to other communities. Raw materials for plastics are available from Ohio, rubber from relatively nearby ports. The industry has an expected reasonable growth rate and a good plant per company ratio. If a plant were established in the North Country, it would be possible to serve the entire northeast from the North Country area because the products are relatively light. High investment costs can be a detriment, as companies would much rather expand production using existing facilities, if feasible. This is the lowest-rated sector that we are proposing as a target industry but the low target rating could be offset with availability of low-cost electricity. In the absence of this possibility, this sector becomes a much less attractive target.

## ***THE 9 SECONDARY TARGETS:***

### **3.14 Telephone Apparatus Manufacturing**

***Rank 13t: (FIT: 2; Industry: 2-3; Target: 2)***

#### **Overview**

There are about 450 telephone apparatus manufacturing firms in the United States, with an average of 1.2 plants per company. The average US company has about 70 production workers and 100 support and management staff. US production workers make an average of \$20.75 per hour; support staff and management make an average of \$66,000 annually. New York State is a minor player in this industry, ranking 8<sup>th</sup> among states but with only 1.0 % of national production. Electric usage is moderate at around 100,000 kWh per month. Average investment in a plant is \$15 million. Projected DOD purchasing growth through 2011 is 14% or \$373 million.

#### **Prospects and Strategic Considerations**

It is fairly easy to target this industry as the top 20 companies account for 80% of the industry output. This is a very large industry sector with annual shipments ranging from \$27-61 billion (1997-2002). It is a highly competitive, global industry. The number of US companies dropped 17% from 1997-2002. Many of the products are mass produced in big facilities, hence the large capital investment. Much production is going offshore in this industry. Although New York State has about 30 companies, they only account for 1% of the national output. The high cost of new production facilities is a definite barrier to entry. Many production employees do not require a high skill level as production is highly automated, but R & D personnel and engineers, a major need, are in short supply in the North Country.

## **3.15 Steam, Gas and Hydraulic Turbines**

**Rank 13t: (FIT: 3; Industry: 2-3; Target: 2)**

### **Overview**

There are about 93 steam, gas and hydraulic turbine manufacturing firms in the United States, with an average of 1 to 2 plants per company. The average company has about 100 production workers and 75 support and management staff. US production workers make an average of \$24.40 per hour; support staff and management make an average of \$55,000 annually. New York State is a major player in this industry, ranking first among states with 20% of national output. Electric usage is high at around 385,000 kWh per month. The average investment in a plant is very high (\$33.5 million). Projected DOD purchasing growth is 18% for 2005-2011, which translates into an estimated \$153 million in new military purchases.

### **Prospects and Strategic Considerations**

It is easy to target this industry as the top 20 companies account for 97% of the industry output. The manufacturing associated with this sector is very sophisticated and requires large numbers of skilled workers. Finished goods are often oddly shaped, oversized, and heavy, which contributes to high shipping costs, especially from remote areas like the North Country. Plants tend to be relatively large, which would tax the North Country's labor shed. The very high investment serves as barrier to entry. New York State has gained prominence in this industrial sector over the last 10 years. Growth of sector in the civilian arena has been huge: 493% in 5 years.

## **3.16 Packaging Machinery and General Industrial Machinery**

***Rank 13t: (FIT: 2; Industry: 3; Target: 2)***

### **Overview**

There are about 624 packaging machinery and general industrial machinery manufacturing firms in the United States, with an average of 1.06 plants per company. (This profile is for NAICS 333993--Packaging Machinery Manufacturing--which represents a large industrial sector in terms of value of finished goods shipments.) The average company has about 18 production workers and 17 support and management staff. US production workers make an average of \$19.00 per hour; support staff and management make an average of \$56,000 annually. New York State ranks 13th among states, with 2.6% of national production. Electric usage is low at around 37,000 kWh per month. Average investment in a plant is \$1.9 million. DOD purchases are expected to increase by 14% through 2011 but this translates into only \$45 million in new purchases per year.

### **Prospects and Strategic Considerations**

It is hard to target this industry as the top 20 companies account for only 44% of the industry output. The sector requires a labor force with diverse metal working skills and experienced assemblers. Military growth is very small in a large industrial sector that is declining in the US. The sector requires minimal electric power and has a reasonable investment requirement. However, existing firms should be able to handle the projected growth in existing plants.

## **3.17 Insurance Carriers: All Other**

**Rank 13t: (FIT: 3; Industry: 1; Target: 2)**

### **Overview**

It is difficult to profile this industry because of the huge number of firms in US, estimated at over 170,000 (NAICS 524). New York State is a major player in this industry, ranking in the top 5 among the states. Projected DOD purchasing growth through 2011 is just 5% but this translates into over \$250 million in new sales annually.

### **Prospects and Strategic Considerations**

It is difficult to target this industry because of the large number of companies involved. New York, New Jersey and Pennsylvania are all major players in these industries. A focused attack on companies with large operations in the northeastern US would be best. Concentrate on back office, processing operations, especially in the medical, property and casualty and warranty areas. The expected influx of better educated, more experienced military spouses can be a selling point in recruiting these types of operations. The North Country offers a good alternative in the tri-state area for small- to medium-sized expansions (50-150 employees). Both Lewis and St. Lawrence (around Potsdam) offer ideal types of labor forces, as do other locations that can access the spousal labor force.

## **3.18 Dentists, and Miscellaneous Medical Services: All Other**

***Rank 13t: (FIT: 3; Industry: 1; Target: 3)***

### **Overview**

Again, a difficult industry to profile because of the wide area of expertise covered, from diagnostic imaging to podiatrists to medical labs, for example. Projected DOD purchasing growth through 2011 is very high: 9% translating into \$1.5 billion in new sales annually. Access to Fort Drum itself could be critical for successful recruiting, as it will allow local economic development agencies and firms themselves to interview base personnel regarding the types of services that will be demanded in the future and expected local shortages.

### **Prospects and Strategic Considerations**

For sectors in which there is a shortage of workers (existing and spouses) and no established local training programs, the target rating is low (“3”).

## **3.19 Industrial Trucks and Related Sectors**

**Rank 19t: (FIT: 3; Industry: 2-3; Target: 3)**

### **Overview**

There are about 395 industrial trucks, tractors, trailers, stackers manufacturing firms in the United States, with an average of 1.06 plants per company. The average company has about 35 production workers and 18 support and management staff. US production workers make an average of \$16.15 per hour; support staff and management make an average of \$39,000 annually. New York State is a moderate player in this industry, ranking 8<sup>th</sup> among states, with 3.5% of national volume. Electric usage is low at around 66,000 kWh per month. Average plant investment is \$3 million. The industry has low projected DOD purchasing percentage growth through 2011, but this translates into about \$155 million in new purchases by DOD.

### **Prospects and Strategic Considerations**

It is difficult to target this industry as the top 20 companies account for only 67% of the industry output. The industry can be thought of as having two distinct parts. The first is lower-tech products like grocery carts, dollies, and hand trucks, which do not require skilled workers, have limited electric power requirements and have some existing presence in New York State. Unfortunately, this part of the sector is expected to grow very slowly in the future. The second part of this industry requires skilled workers that would be difficult to recruit in the North Country.

## **3.20 Ammunition Except Small Arms & Small Arms Ammunition; Other Ordnance**

*Rank 19t: (FIT: 2.5; Industry: 2.5 Target: 3)*

### **Overview**

There are about 60 ammunition firms in the United States, with an average of 1.1 plants per company. The average plant has about 35 production workers and 50 support and management staff. The average US production worker made \$20.10 per hour. New York State is a minor player in this industry. Although ranking 4<sup>th</sup> among the fifty states, it only accounts for 2.2 % of total sales volume. The industry has low projected growth through 2011: 10% or about \$105 million in new purchases by DOD.

### **Prospects and Strategic Considerations**

It is easy to target this industry as the top 20 companies account for 96% of the industry output. Electric usage of the average plant is moderate, around 200,000 kWh per month. Average investment in a plant is \$5.75 million. The industry has hazardous raw materials and finished product. The industry also requires many specialized skills that are not available in the North Country. Electric costs associated with the industry make it imperative to offer any plant appropriate cost reduction incentives. Finished goods are heavy objects requiring special rigs for shipping. However, one positive factor is that the industry would likely be accepted by communities in the North Country. However, volume requirements probably preclude getting contracts for small, start-up operations. The sector has a low target rating because existing plants should be able to handle expected annual growth: no new plants are anticipated.

## **3.21 Pipe, Valves and Pipe Fittings**

**Rank 19t: (FIT: 2; Industry: 3; Target: 3)**

### **Overview**

There are about 395 pipe, valves and pipe fittings manufacturing firms in the United States, with an average of 1.3 plants per company. The average company has about 60 production workers and 30 support and management staff. The average US production worker makes \$16.60 per hour; support staff and management make an average of \$55,000 annually. New York State is a moderate player in this industry, ranking 8<sup>th</sup> among states with 3.7% of total national production volume. Electric usage is moderate at around 200,000 kWh per month. Average investment in a plant is \$7 million. Projected DOD purchasing growth is 7% for 2005-2011, which translates into an estimated \$103 million in new military purchases.

### **Prospects and Strategic Considerations**

It is difficult to target in this industry as the top 20 companies account for only 43% of the industry output. NAICS 332911 (Industrial valve manufacturing) is a good example of this sector. This sector is not a good candidate since growth is low and existing plants can probably handle expected growth. Any potential plant would likely require special energy incentives: a major reason the target ranking is low (“3”) is because of North Country’s high electric rates relative to other communities. The sector requires skilled employees of a type not currently available in the North Country. Heavy investment in equipment is required, which is another barrier to entry. Finally, transportation costs associated with the sector can be high.

## **3.22 Search and Navigation Equipment**

**Rank 19t: (FIT: 3; Industry: 3; Target: 2)**

### **Overview**

There are about 500 search and navigation equipment manufacturing firms in the United States, with an average of 1.3 plants per company. The average company has about 80 production workers and 160 support and management staff. US production workers make an average of \$26.25 per hour; support staff and management make an average of \$70,000 annually. New York State is a player in this industry, ranking 9<sup>th</sup> among states with 2.4% of total national volume. Electric usage is high at around 430,000 kWh per month. Average plant investment is \$16 million. Projected growth in DOD purchases through 2011 is strong: 8% or over \$500 million in new sales.

### **Prospects and Strategic Considerations**

It is easy to target this industry as the top 20 companies account for 88% of the industry output. Overall, this is a very high-tech industry. Unfortunately, the North Country labor force does not have the required skill sets. Sophisticated production equipment requires high investment level. The industry's high value/weight ratio is good for shipping. The industry is characterized by very large plant sizes with high engineering and R&D components. This is a \$34 billion industry with large companies targeted by many communities; it's very competitive. New York State is a player, but has lost significant ground in the last 5 years. The industry's very high electric usage is a detriment when recruiting. Companies in this sector tend to gravitate towards areas having an existing cluster of companies.

# 4

## MARKETING PLAN

### 4.1 Introduction

#### **Purpose**

Marketing a location is a demanding process with many facets. Basic concepts can be set forth in a report such as this, but the effort needs to go beyond simply following a prescribed set of activities to become a total region-wide attitude. The benefits will be widespread, however, and evidence exists to show that strong marketing programs can produce results in communities that do not have superior geographic positioning. Fortunately, during our fieldwork in the region, it became evident that there is real and significant support for economic development throughout the region by local businesses, economic developers, politicians and the citizens at large.

In general, community and regional marketing programs can have positive effects beyond working with direct prospective investors. Particularly in a state such as New York, with its long tradition of professional economic development, the effectiveness and enthusiasm of a local economic development program can be recognized by potential allies. In some cases, prospects can become evident by means of an informal network, via sources other than the community's own promotional work. The entity that "discovers" the prospect, or is the one initially contacted by the prospect, may be any of numerous allies – the Empire State Development organization, a regional industrial development association, a utility, a railroad, business leaders in the community, local colleges and universities, former military personnel, etc. Such allies may share a strong interest in seeing the prospect locate in the area, but they also are cautious and prudent about managing such prospects. Thus they can be particularly important in bringing prospects to communities that are truly ready, willing, and able to manage new development.

#### **Overview of a Regional Economic Development Program**

Effective economic development marketing programs consist of at least three areas of action, which overlap with each other to some extent and which can be executed more or less concurrently. All three areas are applicable to increasing the North Country's share of military expenditures by attracting new companies as well as increasing existing local industry's share of military contracts.

- A formal methodology for recruiting companies which do not have a local presence and which may be in the process of looking for new sites for their facilities.

- Promotion and encouragement of new economic activities by companies which already have some local presence and which may be able to expand existing facilities, bring in sister companies, convince vendors and contractors to locate new facilities, and otherwise build on existing activities. This is the type of economic development marketing which is likely to generate the largest volume of new jobs and investment, even though the results are typically at a smaller scale and perhaps less headline-grabbing than the announcement of a totally new facility.
- A program to support entrepreneurship and new business start-ups. Entrepreneurship can play an important role in local economic development. In terms of the trends in some facets of military contracting, new start-ups will have a difficult time meeting quantity, quality and bonding requirements. Priority to some military contracts and even exclusivity is given to small businesses, minority businesses and those owned by disabled veterans. To the extent that any individuals with the latter two backgrounds are interested in starting a business in the North Country a concerted effort should be made to identify and support the endeavor, both financially and otherwise.

Section 4.2 below focuses primarily on the first area of action: attracting companies within the military target industries who are located outside the region to build a facility in the North Country.

## **4.2 Concept of a Direct Marketing Plan**

Data presented earlier in this report show that the market for military related investing in the North Country is not infinite. We believe that the best marketing program for the North Country is one based as much as possible upon a customized and personalized campaign of using industry-specific white paper reports and other tailored materials, not a mass-marketing approach. The plan is to orient the City/County/Region's military industry attraction efforts towards a relatively small, carefully targeted audience, each member of which deserves careful, ongoing, regulated attention. As company targets are identified and refined, and development opportunities delineated more clearly, the community/county/region will engage in a progressively more intense effort.

The basic concept is very simple, consisting of the two steps described below.

The first step is to select a reasonable number of specific targets---companies and executives within those companies---that show some promise for locating new facilities in the region. The results of the Target Industry Analysis (see Table 3.3 on page 38) identified thirteen industries that provide the best military related recruiting possibilities for the North Country. EDR/LAS suggests that a designated economic

development entity(ies) takes on the task of sequentially screening these top industries to identify the companies within each industry who have the most likelihood of placing a facility in the North Country. A list of companies in a target industry can be purchased from firms like Dun & Bradstreet, solicited from industry specific or trade organizations or publications listing companies by industry.

The initial list needs to be screened more precisely to determine which companies offer the best opportunity for attraction to the North Country. The first screen, obviously, is to determine if the company is currently supplying the military with product. Again, sequentially, starting with the companies that have the largest contracts with the military (if identified) or the largest companies known to supply the military, conduct a screening on a series of indicators such as: the company's overall business health, the geographic diversity of its current facilities, the existence of one or more facilities in the northeast, current production capacity constraints, etc. This will narrow the number of companies down to "priority companies of interest." These are the companies that will be the primary targets in Step 2 below.

At this juncture, if necessary, a list of up-to-date key executives and contact information for each "company of interest" can be purchased from a firm such as Mercer or Dun & Bradstreet.

A suggested ally in performing the above analysis could be a local professor who has business students who might do this research free for course credit.

Step two is the implementation of a phased program of mailings and telephone and other follow-up, using a marketing document and other communications, which will maintain an ongoing rapport with the targeted firms. A carefully planned, logical series of contacts will reinforce the recipient's knowledge of and interest in the North Country. As the company's interest warrants, the community/county/region will progressively move from mailings, to telephone conversations, to personal visits to the company and/or escorted visits to the North Country by the company's executives.

Also, where the company's facility development plans are less immediate, there is a need for systematically placing them into appropriate categories such as "lukewarm" prospects with possible mid-term interests; and "non-prospects" with no interest or too little interest to warrant more work by the local Economic Development entities.

There were two fundamental objectives driving the military targeting process:

- From an *internal* standpoint, the objective is to focus the North Country's recruitment efforts as efficiently as possible on economic activities that meet certain standards. It merits repeating that this effort is not "mass marketing". Only a small number of companies will show promise of locating a new facility here. Further, the local ED entities and others promoting the North Country do not have the boundless funds required to conduct a marketing

campaign oriented to every possible industry supplying the military. The targeting process assists in the wise and appropriate allocation of scarce resources: manpower, time and money.

- From an *external* standpoint, the objective is to maximize the North Country's marketing impact by showing prospective new companies that the region is unusually attractive to their specific business, and that it has special features that are particularly useful to them. It should cause the site-seeker or investor to feel, "This is *our* business and *our* company that the North Country ED is talking about!" The targeting process makes it possible to improve the quality, focus, and effectiveness of marketing materials and indeed, the whole "case" that the North Country is an exceptionally good fit with the prospects' needs.
- Thus targeting produces a marketing effort that is much more effective and likely to produce results than an uncoordinated "shotgun" approach. At the same time, the North Country should recognize that a given firm's decision is highly dependent upon factors specific to that organization. Establishment of a new facility often serves highly defined (and usually very confidential) internal company objectives, such as penetrating a new geographic market now dominated by a competitor. No outside research effort can foresee a company's full intentions and predict with accuracy what its decision makers will decide to do. One consequence of this fact is that the North Country should periodically re-evaluate its pool of targets, based upon recent experience, perhaps removing or de-emphasizing some categories, and adding others.

### 4.3 The Contact Process

The approach that we recommend for the North Country consists basically of a series of systematic, carefully choreographed personalized contacts with the selected executives.

Numerous studies show that a phased approach of contacts of different types has a far greater likelihood of causing the subject to remember the party making contact. A major truth of economic development marketing is that any firm's decision to develop a new facility is difficult to predict and these decisions can occur irregularly and over very long periods. Thus, it is important for the North Country's ED entities to make an impression that will last until the company is ready to expand.

This part of the strategy focuses on a method generally similar to what would traditionally have been called "direct mail," but which is substantially modified and expanded. This work element should probably form the biggest element of the effort to market the North Country to pre-selected companies within the military industry targets.

#### Planning the Phased Mailing Program

The executive responsible for implementing this element of the marketing plan must fully understand all the effort that it entails. This is a labor-intensive program. Careful, detailed records must be kept of each contact and other action. Further, the regularity and constancy of the effort is the key to success. The program will lose the great majority of its effectiveness if it is not carried through with consistency. Assuring availability of staff time, making reasonable judgments about the amount of time that can be dedicated over many months, and assuring that the effort continues, must all be done before starting.

### **Marketing Materials**

One of the most important arrows in the community's quiver is marketing reports specific to the industry. In selecting the military target industries, we gave strong consideration to the assets available in the North Country that would be enticing to companies within that industry. It is vital to document these in industry specific one-page white papers suitable for use in the direct marketing program. Steps include:

- **First Contact** – an introductory letter from a leader in the North Country business community (jointly with the Fort Drum Post Commander, if possible), delivered by rapid courier service (such as FedEx), with no additional marketing materials.
- **Second Contact** – a follow-up letter from an elected official timed to reinforce the positive image of the North Country generated by the first contact.
- **Third Contact** – a letter from a key economic development staff person to arrive two weeks after the second contact.

Detailed steps concerning the mail/contact campaign and suggested contents of letters is contained in Appendix F at the end of the report.

The next section of this marketing document addresses specific actions the North Country can take to improve its attractiveness to targeted companies supplying the military.

## **4.4 Specific Tasks to Increase Marketing Success**

### **Market Military Spouses and Retirees; Invest in Better Profile**

Chapter 2 provides an overview of the likely size and labor market characteristics of the increased population of military spouses and retirees associated with expansion at Fort Drum. Tight national labor markets, widespread patriotic sentiment, and high employer valuation of the social characteristics of military personnel (e.g., punctuality, leadership qualities) make the increase in military-related workers to the North

Country labor force a marketable asset. The profile provided above should serve as a starting point for recruiting new businesses to the North Country or an additional asset to be used for closing deals with current recruitment leads.

At the same time, a more complete and detailed profile of these new workers should be developed for recruitment of specific industries. To do this, you will need to develop a brief survey to capture all the information about different skills, education and prior experience, skill levels, availability to work and the hours of work that would best suit the new spouses. It must be determined which Army agency would best work with you to capture the necessary information (possibly the Army Community Services Employment Readiness Program staff, the base Human Resources Department, or the Welfare Services Department).

There are a number of ways to collect the data required to properly profile the skills and abilities of military spouses. Probably the most efficient way to accomplish the profiling would be by incorporating a survey mechanism into The Northern Area Health Education Center's (NAHEC) NorthStar Community Career Website in the "select a Recruitment Zone" section. In order to avoid any impression that the information being captured can be associated with the identity of the individual, a log-in should not be required for completing the survey. Similarly, information should not be extrapolated from the standard job application forms on NorthStar in order to avoid any possibility of identity disclosure. Although EDR/LAS is not familiar with the many features of NorthStar's program, the tracking capability on the "Job-Seeker" side for the Recruitment Zones was confirmed by NAHEC. Army cooperation must be obtained so that there is easy access to NorthStar and the survey at the different locations military spouses frequent, especially where they normally would go for assistance in securing a job. If feasible, the Fort should encourage all spouses to fill out the survey. Obviously, since identities are not traded, the spouses should be reminded to fill out this form only once, even though they might utilize NorthStar numerous times for other reasons. Parenthetically, this will assist in the development of NorthStar as a one-stop shop covering the whole spectrum of job opportunities in all industries in the North Country. The Army should be willing to assist in this endeavor because the information gleaned from the survey will be helpful in better meeting the needs of the spousal population.

The same skill set information should be tabulated concerning retirees and exiting troops after their enlistment is up. At a minimum, while maintaining confidentiality, a simple profile could be developed from a listing of the position(s) the individuals held, rank and Military Occupation Code (MOC) prior to leaving the service. MOCs can then be mapped to civilian occupational matches which in turn can be linked to industry.<sup>39</sup> A complete mapping of retiree MOCs, then, will provide a list to the industries that could best utilize the local retiree population.

Two profiles pertaining to these individuals should be generated, one for those remaining in the North Country and a second for those who will be moving elsewhere.

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<sup>39</sup> A Crosswalk that links MOCs with civilian occupations can be found at: <http://online.onetcenter.org/crosswalk>. The US Bureau of Labor Statistics publishes a matrix that links occupations and industry demand.

The best method to accomplish this would be to utilize a NorthStar survey form and have it filled out during normal discharge procedures. With no name required when filling out the on-line form, confidentiality can be assured. Filling out the form would have to be voluntary, but having it available during normal discharge would be convenient and increase the response rate considerably. Again, the Army's cooperation is paramount in this endeavor.

The combined information from spouses and prior military personnel can then be promoted as "the unknown local labor shed, now known" or a more appropriate lead-in on a one-page white paper titled "The North Country Labor Force: New People, New Skills."

If for any reason, NorthStar is unavailable to perform the data gathering effort, see Appendix G at the end of the report for an alternate methodology for collecting the data.

### **Consumer Spending Profile**

Although not within the purview of this report, it was noted that a study tracking the local spending patterns of Fort Drum based consumers is being conducted. This study is being done by The Center for Community Studies at Jefferson Community College for the Small Business Development Center (SBDC). This type of study will also assist in The North Country's recruiting efforts for new business, but mostly oriented towards commercial establishments.

### **Streamline the Permitting Process**

There is a real need to streamline the permitting process in the North Country. During fieldwork, we viewed a number of infrastructure ready sites in each county. However, when asked about permitting, the answers came in terms of "months" rather than "weeks." Many communities across the US can offer fully served sites with 2 to 3 week permitting, so it is a distinct disadvantage to be significantly beyond this time frame. In many locations that have difficult rules and/or laws pertaining to the permitting process, the economic development entities have been able to pre-permit at least some available sites for specific types of projects, for example for light manufacturing in only certain industries or only for a distribution center or call center/shared service office. We believe that each county should have at least two fully served sites that have an established price and are pre-permitted to allow construction to begin within 2-4 weeks. If possible, the sites should also be located in a zone that allows for discounted electric rates and other incentives.

### **Workforce Training**

There is a continuing need for workforce training in the skill sets that the target industries require. This is always a "chicken versus the egg" situation as it pertains to which comes first the training program or the company that needs the individuals trained. Our suggestion would be that after analyzing the military procurement target

industries, you set up a training program for a select few industries that offer the most promise for attracting a plant to the North Country. (We advise a limit of not more than three industries at the outset.) Strong, in-place training programs will provide you with a powerful incentive for attracting companies in those industries. After selecting one, two or three industries, the next steps in this effort are to identify training resources, secure instructors and prepare syllabi. The syllabus for each selected industry is, in essence, a statement to companies in those industries that the North Country is serious about its commitment to high quality training. Materials should clearly indicate that the syllabi will be refined based on training needs of specific companies. Obviously, this process should occur simultaneous with or immediately after identifying the skill sets of the military spouses and ex-military personnel who have remained citizens of the North Country.

In addition to the needs identified above, there is a continuing need to have training programs in all construction trades because of the continuing heavy volume of construction activity related to Fort Drum that will occur over the next five years. Similarly programs in a variety of medical disciplines are essential because of the current shortfall and the need from major troop build up in the near future.

#### **A Procurement Assistance Program**

There is a definite need for a local procurement assistance program to interface with companies in the North Country to help identify opportunities to sell to the military and to assist in understanding the requirements to become qualified to be a prime or sub contractor. The section below discusses specific ways to assist North Country companies in the Construction industry to identify opportunities and successfully compete for military projects. By extension, although using different information sources, this type of assistance is necessary for North Country companies with potential to become a Military supplier in any of the target industries.

#### **Marketing Methodology for Military Industry Targets**

A target industry that has been of immeasurable value to the North Country in the past and is projected to have even a potentially greater impact in the future is the NAICS sector called Maintenance Construction, which primarily encompasses all types of new residential/office building construction and maintenance/remodeling of the same. Traditionally there have been a number of local firms that have been prime contractors on various military contracts within this industry sector. The Army, however, has recently announced a new program directly related to this industry, which will have major impact on the nature of contracting with the Army on facility construction projects, if it is implemented.

In layman's terms, the Army is setting up Centers of Standardization (CoS) in each of eight US Army Corp of Engineers (USACE) district centers throughout the US. Unfortunately, the USACE district center in New York was not selected to be one of these CoS. Each CoS has been assigned responsibility for standardizing the design and construction methodology for a discrete number of typical Army facility requirements

such as rifle ranges, chapels, headquarters, gyms, barracks, command and control facilities, base housing, etc. To date, there are 61 such facility types. The concept is meant to save money and construction time by utilizing economies of scale.

The US has been broken into four regions: NE, SE, NW and SW. The goal is to have a single contractor per facility type for each region. There will also be more standardized Requests for Proposal (RFPs) and more stringent adherence to pre-established quality standards. The contracts let will also be long-term contracts in order to facilitate consistent feedback on beneficial changes in design or construction methodology or materials from the contractor to the CoS. Every three to five years the standard design will be completely reviewed and new technology or construction advances not currently being used will be incorporated in the updated design. This new program has many ramifications that can potentially affect existing architectural, design and construction firms in the North Country:

- For facility types that will require large numbers to be built in the future, such as barracks and base housing, current North Country prime contractors may not be able to win future contracts because of the sheer size of the contract, demonstrated ability to handle contracts of that size or the ability to meet bonding requirements. Assisting companies in the process of becoming preferred sub contractors to the new “primes” must become part of the North Country’s economic development effort.
- The amount of architectural and design work will begin to significantly decrease by 2008, the timeframe in which full implementation of the CoS program’s standard designs is anticipated. For the next few years, however, there is expected to be more design work than normal because of the transformations that have to take place. Parenthetically, the USACE also expects to decrease the number of engineers it employs, currently about 10,000, quite dramatically after the program is fully implemented.

As a result of this new program, there are important economic development initiatives that must be undertaken to both assist local companies currently involved in military construction contracts to remain successfully involved in this work and to try to attract some of the large “prime” contractors to open a local office in the North Country. Some activities that should be undertaken to facilitate an increase in local involvement in military construction projects through attracting new firms to the North Country are as follows:

- Determine which of the 61 military facility design types will make up the majority of construction occurring at Fort Drum over the next five years. Identify which CoS has responsibility for designing those facility types and initiating RFPs.

- Identify which large construction, engineering/design firms or developers may bid for and be successful in being selected as prime contractors by the CoS in each type of facility identified in Step (1). This can be accomplished by asking the relevant CoS, working with the Procurement Technical Assistance Center in Rochester, contacting the local firms that have been involved in military construction in the past and researching past contract awards. Also, determine if any local contractors will be able to continue to bid as prime contractors.
- Research the qualifications required to become a sub contractor to these primes (there may be differences in requirements between primes even within a single category).
- Determine if any prime contractor already has sufficient qualified subcontractors and, if so, what qualifications might make them look at a new additional sub.
- Research the prime contractor candidates to determine:
  - the economic health of the firm (D&B or the equivalent)
  - the number and location(s) or branch offices they have
  - current approved sub contractors
  - whether they might be in an expansion mode
  - if they have geographically dispersed facilities or seem to have a specific regional expansion policy
- Identify local firms that are willing to apply for sub contractor status and for which facility type(s) (this can be done simultaneously with steps 1-4). In 2001, the Center for Community Studies at Jefferson Community College conducted a survey on the subject of which local firms would be willing to work on military/government contracts. The results can be found on page 12 and in Appendix IV of the report dated September, 2001.
- Assist local companies to organize and develop the credentials and presentations required to become a sub contractor
  - Assist them in determining specifically who to contact at the “prime,” if necessary.
- If a meeting is required with the prime contractor, accompany the local firm (if requested by the firm). Such a visit also provides the opportunity to begin a long-term relationship with the prime.
- If the ED Representative attends such a presentation meeting, after ensuring that you will not jeopardize the local firm’s chance of becoming a subcontractor, begin contacting the firm to:
  - Find out who is the decision maker concerning opening new branch office facilities.

- Mail a one page white paper to the decision maker focused on the attributes of the North Country that are advantageous to that particular firm (industry) with a cover letter stressing the exceptional business climate in the North Country and close working relationship between the community, the ED organization and Fort Drum. Make sure you ask for a face-to-face meeting with the decision maker.
  - Send the same letter and white paper to the CEO & CFO, since at some point they will be part of the decision making team.
- If you do not get the chance for a meeting initially, keep in touch with a mailing every other month. Make a call on the odd months to request a meeting.
  - Have a presentation prepared for each military target industry in advance so that you can make minor modifications quickly for a specific company in the industry. From the presentation materials and promotional CDs we received during fieldwork, we believe the North Country is able to develop outstanding presentation material. Make sure you stay current concerning the disposition of any large military contracts that would be of interest to the prospect(s) in each military target industry.
  - Remember that, unfortunately, attracting a company to locate a facility in the North Country can be a lengthy process, many times taking years. Keep in touch with your best prospects and keep them abreast of the many attributes that will assist them in being successful if they decide on locating in your region.
  - Throughout this process, local ED entities should foster a relationship with members of each CoS that has responsibility for facility types of interest to the North Country. In this way you can assist local companies by having more current information on contracts coming up for bid. It would also be advantageous to employ or subcontract someone to be responsible to review the daily listings of military contracts to cull out those that are of potential interest to North Country firms or targeted companies outside the North Country. (We had dinner with a gentleman in Ogdensburg, St. Lawrence County who had knowledge of contract research on the various military systems designed for that purpose such as BIDSearch or the Commerce Business Daily.)
    - As part of your current “internal business development,” which normally entails visits to local firms, you need to confirm the level of interest in participating in military contracts either as a prime or a sub

*The marketing procedures above for the Maintenance Construction Industry are applicable to all the identified military industry targets (with the exception of interfacing with the CoS which applies only to the Construction Industry). As stated above a local procurement assistance program should be an essential part of the North Country's efforts to improve its business participation in military contracts.*

# 5 MARKETING TO OTHER MILITARY INDUSTRY TARGETS

Chapters 1 through 4 focused on how the North Country can leverage the presence of Fort Drum to facilitate regional economic development by: (1) targeting industries forecast to be in demand by the Army and procured locally at the Fort; and/or (2) targeting industries that are particularly suited to skills of military spouses and retirees who stay in the region. In this chapter, we look at programs and strategies that can augment the preceding military industry targets. With respect to military industry targets, Chapter 3 outlined salient marketing ideas, such as:

- Working with existing North Country firms in a given industry to recruit additional firms in that industry
- Establishment of training programs and development of curricula for programs that potential employers may need
- Emphasize competitive advantages such as quality broadband infrastructure, proximity for Fort Drum, proximity to Clarkson University, labor availability, and low-cost electricity
- Focus recruitment geographically, such as electronics firms in the Ontario Valley
- Target back office, processing operations, especially in the medical, property and casualty and warranty areas of insurance that can benefit from the expected influx of well educated, more experienced military spouses
- Target subcontractors to firms already active in the North Country (Office Furniture)
- Seek specialty manufacturers that can sell to AAFES or a higher-skilled product line for direct defense applications (Toys, Games and Play Vehicles)

## 5.1 Leading Target Industries

The industrial analysis presented in Chapter 3 identified 13 primary target industries and nine secondary targets. Below are summaries with additional comments on the top four industries that emerged from this analysis.

### **Miscellaneous Medical Services and Dentists**

The first marketing effort will be an extension of the medical services the North Country is currently providing to Fort Drum personnel. Given the mission of the Fort Drum Regional Health Planning Organization (FDRHPO) it should be the organization to spearhead and coordinate efforts to attract new medical and dental services to the North Country. Other local economic development entities should interface with the FDRHPO so they can organize the best combination of initiatives to support and enhance the existing medical/dental groups supporting the military. Possibilities include assistance in recruiting additional personnel for staff, assistance in financing equipment that will result in attracting new dentists, doctors or technicians to the area and getting contact information on out-of-area dental/medical groups that might consider expanding to the North Country. For the latter, many of the contact procedures described above and in Appendix F are applicable.

A second marketing effort should be toward identifying and marketing to companies that manufacture or supply the dental/medical groups above. Such companies as Henry Schein, Inc. come to mind. A Melville, N.Y. based supplier of dental, medical and veterinary items, Henry Schein has facilities around the country and is in an expansion mode. The research procedures described earlier must be undertaken to identify appropriate companies. A partitioning of tasks between the FDRHPO and other local economic development entities will be most effective for this marketing effort.

A third effort should focus on identifying or grooming local entrepreneurs who might be interested in establishing a medical staffing agency. Such an effort could succeed because North Country has an asset that is in short supply nationally: trained and available healthcare workers in the form of spouses and retirees. The expansion is likely to bring spouses with training and credentials in healthcare; the skills of these spouses can be used to meet local demand as well as fill spots regionally or nationally, depending on their preferences. In addition, some of the military retirees themselves will have experience that can be channeled into meeting local, regional, or national demand for healthcare workers.

### **Electronic Components, n.e.c.**

Significant research must be undertaken in this industry prior to starting a direct marketing campaign. Initially, since there are many NAICS sub sectors within this industry, research will have to identify which sub sectors offer the best opportunities. From a cursory look at the options, NAICS 334416 (Electronic Coil, Transformer and Other Inductor Manufacturing) and 334419 (Other Electronic Component Manufacturing) appear to be good targets. Next, there are thousands of companies in the United States in this industry. Depending on the sub sector, the top 20 companies only account for 35-65% of the national output. There is good news, however, as N.Y. State and N.J. are major players in the industry. Consequently, you can start your marketing campaign by targeting the most likely expansion candidates in these two

states and expand the effort from there. (Massachusetts and Pennsylvania also have significant numbers of companies in the two NAICS codes above.) The typical facility needs profile in this industry fits in well with the North Country's assets and there is no "red flag" liability that would prima facie stop a company in this industry from locating in the North Country.

### **Insurance Carriers**

Since there are an inordinate number of firms in this industry in the United States, we have two suggestions for the initial company prospect search: (a) focus on companies with existing operations in the Northeast (already acclimated to the business environment); (b) concentrate on attracting back office and processing operations, especially in the medical, property and casualty and warranty areas.

As indicated in the previous chapters, the North Country offers many advantages over other northeast location alternatives for small-to-medium sized operations (50-150 employees). A particular selling point would be to those companies that are already or will be servicing the military/spousal population of Fort Drum in these insurance areas. The North Country offers a proximate location for information gathering or conflict resolution as well as opportunities for additional sales. These types of operations frequently rely in part on college and community college part-time (flextime) employees for some of their staffing needs. The North Country offers a number of very good venues for these operations, especially smaller (up to 300 employees) call center operations. The military spousal labor force is particularly enticing to these operations as they are evolving to a greater extent into a more "work in the home" employee base who work on a flextime basis.

### **Office Furniture**

Labor force and infrastructure availability in the North Country seems especially suitable for this industry. In addition, there are some existing, small, wood office furniture operations in the Tri-county area. Given the trend towards larger, longer-term military contracts, a primary prospect in this industry would be a company that is already a prime or subcontractor that needs additional capacity. Raw materials are available locally and in Canada and shipping finished goods to northeast military installations will not be a problem. To the degree that local businesses in this industry are interested in supplying the military, it would be important that they register as a hub zone business. In this way they would be eligible for special set-aside procurement contracts.

A second avenue to explore, capitalizing on the existence of local operations, is to discuss the possibility of supplying the Fort Drum AAFES exchange with unique residential wood furniture items. AAFES purchases do not go through the same contractual process as other procurements. This enterprise could start out small and grow as the supplying company(ies) gain experience and production capacity.

Ultimately supplying the AAFES regionally or nationally could lead to significant contracts. As indicated in the previous chapters, products such as Adirondack chairs and picnic tables might be particularly attractive to the Fort Drum AAFES.

## **5.2 Complementary Economic Development Efforts**

**IMPAC (credit) Cards.** Although not within the scope of this study, it would be advantageous if local economic development entities periodically liaison with the Fort Drum individual(s) responsible for overseeing the IMPAC (credit) cards transactions. An analysis of products purchased by the card users would be good information for local retailers and businesses. Especially important would be to note any new trends in purchasing, so that local businesses are afforded the opportunity to supply the required items before the cardholders purchase the items somewhere outside the North Country.

**Hub Zone, Minority Owned and SDVOSB Businesses.** From the September, 2001 report by the Center for Community Studies at Jefferson Community College and other documents supplied to us, it is apparent that efforts to get the above types of companies involved in the military procurement arena have been made in the past. Because of the military's new procurement goal of generating larger and longer-lasting procurement contracts, it behooves the North Country Economic Development entities to try to:

- Incorporate new businesses in these categories
- Get them appropriately registered i.e. as a hub zone business
- Assist in entrepreneurial startups, with financing and advice, especially in these business categories
- Educate and explain how the military procurement process works and can be of benefit to them
- Assist in identifying military RFPs to which they might be interested in responding to as a prime or a subcontractor
- Direct them to the appropriate individual to submit a response to the RFP.

Under the military procurement system all of these types of businesses qualify for special set-aside procurement or "sole sourcing" contracts. As mentioned in Chapter 3, there are a number of industry/sectors where a service-disabled veteran-owned small business (SDVOSB) would fair very well in the procurement process.

**Canvass the North Country for Contact Assistance.** As you research specific targeted industries and identify the most likely company prospects, make sure you check for North Country assets that might assist in your marketing activities. The

following resource people can be highly effective in contacting companies or learning about procurement opportunities: former or current residents who went to West Point or one of the other military academies and are currently still in the military or retired locally; former military officers who were involved in Supply or Base Command functions or achieved high rank; any legislator in New York State who has military contacts or holds a relevant committee seat; dynamic local businessmen who own or operate businesses in the targeted industries; and professors/administrators who are conducting military-related research or research for a company in a targeted industry.

**Utilize Assets at Clarkson University.** We believe that Clarkson University might be the most significant under-utilized asset in the North Country. The following actions should be part of the marketing strategy:

- **Establish Relationships at CAMP and CREST.** (CAMP) at Clarkson includes working with local firms, technology transfer, and economic development. Moreover, top personnel at the center expressed a strong willingness to work with Fort Drum on the following issues: supplying the base or helping local firms supply the base and providing advanced training for soldiers and spouses. The Center for Rehabilitation Engineering, Science and Technology (CREST), is headed by Charles Robinson, who also serves as a Research Career Scientist with the U.S. Department of Veteran's Affairs.

Senior staff from both centers believe they could benefit from more contact with Fort Drum so they could understand what the base does; what the base needs; and what the soldiers need. (As one of the rehabilitation scientists we spoke to said, "I would love to go to Fort Drum and ask the soldiers, 'What do you want?'" ) This juncture when local economic development groups are looking to leverage base expansion into economic development would provide a perfect opportunity for a series of informal meetings between (first) local and state EDAs and Clarkson personnel; and then the EDAs, Clarkson personnel, and representatives from Fort Drum.

- **Identify Students and Alumni Who Want to Live in the North Country.** Some Clarkson personnel believe that many of their undergraduates would stay in the area if they could find challenging work after graduation.<sup>40</sup> Interviewees noted that many of the undergraduates specifically chose Clarkson because of their love of outdoor sports, something likely to endure beyond the college years. In fact, about two-thirds of Clarkson undergraduates are from New York State and New York State ranks as the top destination for undergraduate employment after graduation. Local economic development agencies need to speak with Clarkson personnel about ways to keep undergraduates in the local area (not just the state) as well as about potential uses Clarkson's alumni job board--which was under development as of May 2006—as a tool for recruiting personnel to the North Country.

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<sup>40</sup> Based on interviews at Clarkson University, May 2006.

The potential availability of the area's undergraduates as a pool of skilled labor could address a major concern voiced by local businesses: difficulties with recruiting and retaining in the 22-35 year old college-educated demographic. Local economic development agencies need to ask themselves if these perceptions are true and if so, 1) how it is possible that this has not yet been addressed; and 2) how they might link Clarkson and other area graduates with potential opportunities in the North Country.

### **5.3 Leveraging Developments in Ottawa Valley**

Ottawa Valley is one of North America's most successful high-tech regions. Moreover, after experiencing a drop in high-tech employment from about 79,000 to less than 65,000 between 2001 and 2004, the area has recorded two straight years of growth in its high-tech sectors. In the first half of 2006 alone, the area gained about 10,000 high-tech employment jobs and by June, employed as many high-tech workers as before the decline in 2001. Moreover, analysts expect the area to continue to grow and for unemployment to decline through 2010,<sup>41</sup> creating concerns that firms in the area could have trouble finding the workers required for growth. As one research organization noted:

...Ottawa's high tech industry are [sic] scrambling to recruit what remains of the dwindling number of highly specialized workers. For employers, the impending situation means businesses have to compete harder to secure the skilled workers they need, and be willing to offer top working conditions – including higher wages - to retain their employees...As SMEs become more dependent on technology, the demand for specialized talent has intensified disproportionately. Compounded with an aging workforce, declining science and technology enrollments, and barriers to workforce integration for immigrants, there is a need for greater government, industry and academia participation to develop strategies to help Ottawa's tech companies compete in the emerging global war for talent.<sup>42</sup>

This confluence of events—a resurgent high tech sector in Ottawa Valley with projected increases in growth over the next few years, and an expected influx of military-related workers and (to a lesser extent) spending in North Country—should be used to try to forge closer ties between the Ottawa Valley and North Country economies.

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<sup>41</sup> See "About Ottawa—People and the Economy—Workforce" [www.ocro.ca](http://www.ocro.ca) website.

<sup>42</sup> "High tech employment in Ottawa just shy of that during the boom: OCRI Survey," OCRI News release; Ottawa, ON, Thursday, June 15, 2006; on-line at [http://www.ocri.ca/email\\_broadcasts/newsreleases/061506news\\_e.html](http://www.ocri.ca/email_broadcasts/newsreleases/061506news_e.html)

There are three (non-exclusive) ways in which the economies can become more integrated to the benefit of the North Country. The first involves providing Ottawa Valley (OV) firms access to skilled labor in the North Country through direct investment. Under this scenario, OV firms could establish branch plants or offices in the North Country and staff them with graduates from the area's colleges and skilled professional and technical workers already in the labor force. Under this strategy, OV firms would make perform similar functions at the two sites but could expand despite a shrinking pool of available labor in Ottawa Valley by utilizing North Country workers. This approach can be termed a "substitution strategy."

The second approach shares all the characteristics of the first approach except for the types of products and services that would be performed in the North Country. Under a "growth strategy," North Country branch plants/offices would focus on the military-related target industries identified in Chapter 3 rather than on the existing or projected product lines of OV companies.

The third approach would be to establish facilities in the North Country that complement skill structures in Ottawa Valley. Under this approach, OV firms would shift some lower-end (but still skill-intensive) functions and production to sites in the North Country, thus allowing their technical workers to take on new tasks and product lines. This approach, which establishes a division of labor between Ottawa Valley and the North Country, would allow OV firms to continue to develop new technical capabilities and advance technologically despite a tight market for technical labor.

It is important to understand the strengths and weaknesses of each strategy; and how each strategy could be operationalized. A benefit of the "substitution" strategy is that it would not require the North Country to identify new product lines or opportunities. A weakness is that the strategy would be more likely to produce jobs in the highest-skilled portion of the North Country labor force and would require that the North Country successfully retain more of the students educated at area colleges. This strategy would be unlikely to absorb as much of the military retiree and spousal labor as would be optimal. One exception is call center activity, which Ottawa Valley deems important enough to have identified as a cluster and to have developed strong training courses at local colleges. Much of Ottawa Valley's activity in this sector is likely to be in higher-end information-intensive activities, so will likely demand more skills and pay better than some other call center activities. A tight labor market would be likely to hit this sector particularly hard, so OV firms might be looking to expand out of Ottawa Valley. The presence of a multi-lingual military spousal population could be very attractive to OV firms. (A list of Ottawa Valley firms engaged in call center activities is provided.)

The growth strategy might create a broader skill range of jobs than the substitution strategy but would require that new product lines—for example, military-related targets—be identified and exploited. A benefit of this strategy is that it would exploit two of the North Country's natural assets: proximity to the base and a growing population of military-related workers. The success of this strategy will depend in part

on the degree of overlap between the target sectors identified in Chapter 3 and the existing capabilities of Ontario Valley firms. Closer examination suggests that the areas of overlap are somewhat limited: OV high-tech firms are concentrated in semiconductors, telecommunications, technology services, microelectronics/wireless, life sciences, photonics, software, e-business, and defense and security. As such, the areas of overlap between OV capabilities and military target sectors are sectors 219 (Telephones, Switchboards, Modems, Faxes, etc.), 220 (Radio and TV Broadcasting and Communication Equipment), and 223 (Electronic Components, nec). Appendix C provides names of Ottawa Valley firms in these sectors, as well as names of firms that operate more broadly in the defense and security sector.<sup>43</sup>

The complementarity strategy would have the benefit of providing jobs for a broad range of skills, including some likely to be possessed by military spouses and retirees as well as recent college graduates. The strategy would also be a first step in positioning North Country sites within the value chains of successful OV high tech firms, thus opening up possibilities for broadening and deepening North Country capabilities in the future. The approach might also be timely, given recent changes in the labor market in Ottawa Valley and the recent history of the development of successful cross-border economic regions within North America (e.g., Detroit-Ontario, San Diego-Juarez, Seattle-Vancouver, etc.). This strategy would not necessarily build on the military-related target sectors identified earlier, but the potential to capture some of these growing military-related sectors might be used as a carrot in persuading OV firms to establish closer economic ties with the North Country.

The most promising approach would involve a combination of the growth strategy, which would exploit base proximity and growth, and the strategy, which would utilize the expected influx of military-related workers.

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<sup>43</sup> A description of Ottawa's "security cluster" and a list of defense-related firms in the area can be accessed at [http://securitycluster.com/media\\_lib/Documents/Defence\\_and\\_Security\\_Online\\_Catalogue\\_Website\\_Version\\_November\\_2006.pdf](http://securitycluster.com/media_lib/Documents/Defence_and_Security_Online_Catalogue_Website_Version_November_2006.pdf).

# **APPENDIX A: PROJECTED GROWTH IN DOD SPENDING BY 50 SECTORS, 2005-2011**

<b>Supplying Industry</b>	<b>Projected Growth</b>	<b>SIC Codes</b>	<b>6-Digit NAICS</b>	<b>3-Digit NAICS</b>
Small Arms Ammunition	86.4%	3482	332992	332
Mechanical Power Transmission Equipment	52.9%	3566 3568	811310	811
Fabricated Plate Work (Boiler Shops)	44.5%	3443	332313	332
Aircraft and Missile Parts and Auxiliary Equipment	35.8%	3728 3769	332912 336411 336413 336419 541710	332 336 541
Guided Missiles and Spaces Vehicles	33.0%	3761	336414 541710	336 541
Ammunition, Except Small Arms	31.4%	3483	332993	332
Semiconductors and Related Devices	20.4%	3674	334413	334
Aircraft and Missile Engines, Propulsion Units and Parts	19.4%	3724 3764	336412 336415 541710	336 541
Electronic Components	18.7%	3672 3675 3676 3677 3678 3679	334412 334414 334415 334416 334417 334220 334310 334418 334419	334
Steam, Gas, and Hydraulic Turbines	18.0%	3511	333611	333
Telephones, Switchboards, Modems, Faxes, Etc.	14.4%	3661	334210 334418	334
Radio and TV Broadcasting and Communication Equipment	12.7%	3663 3669	334220 334290	334
Metal Plating, Polishing, and Coating	11.5%	3471 3479	332813 332812 339911 339912 339914	332 339
Other Ordnance and Accessories	9.9%	3489	332995	332
Search and Navigation equipment	7.6%	3812	334511	334
Pipes, Valves, and Pipe Fittings	6.9%	3491 3492 3494 3498	332911 332912 332919 332999 332996	332
Miscellaneous Plastic Products	6.0%	3080	326113 326121 326130 326122 326160 326140 326150 325991 326191 326121 326122 326199 337215 339113	325 326 337 339
Other Nonferrous Rolling and Drawing Products, and Nonferrous Wire	5.8%	3356 3357	331491 331319 331422 331491 335921 335929	331 335
Industrial Trucks, Tractors, Trailers, and Stackers	5.4%	3537	332439 332999 333924	332 333
Shipbuilding and Repairing	4.8%	3731	336611 488390	336 488

<b>Supplying Industry</b>	<b>Projected Growth</b>	<b>SIC Codes</b>	<b>6-Digit NAICS</b>	<b>3-Digit NAICS</b>
Industrial and Commercial Machinery	4.7%	3599	332710 332813 332999 333319 333999 334519 336399	332 333 336
Measuring Devices and Environmental Controls	4.0%	3822 3823 3824 3829	334513 334514 334514 334518 334519 339112	334 339
Plastics Materials and Resins	2.8%	2821	325211	325
Screw Machine Products, Bolts and Nuts	0.8%	3450	332721 332722	332
Electrical Machinery, Equipment and Supplies	0.3%	3699	333319 333618 333992 335129 335999	333 335
Electron Tubes	0.1%	3671	334411	334
Computer Peripheral Equipment	-0.1%	3572 3575 3577	334112 334113 334119 334418 334613 332117 332439 332510 332919 332999	334
Fabricated Metal Products	-0.8%	3499	336360 337215	332 336 337
Electronic Computers	-0.9%	3571	334111	334
Aluminum Rolling and Drawing Products	-1.4%	3353 3354 3355	331315 331316 331319	331
Periodical Publishing and Printing	-1.9%	2720	511120 516110	511 516
Steel Mills, Blast Furnaces, and Rolling and Finishing Mills	-2.1%	3312 3313 3315 3316 3317	324199 331111 331221 331112 331222 332618 331221 331210	324 331 332
Glass and Glass Products	-2.1%	3210 3229 3230	327211 327212 327215	327
Commercial Printing	-2.2%	2752 2754 2759	323110 323114 323111 323112 323113 323114 323115 323119	323
Drugs	-3.3%	2830	325411 325412 325412 325413 325414	325
Special Dies, Jigs, Molds, and Cutting Tools	-3.7%	3544 3545	333511 333514 332212 333515	332 333
Petroleum Refining, Except Fuel Oil	-4.4%	2911 2917 2992 2999	324110 324191 324199	324
Paper Mills, Including Building Paper	-5.5%	2620	322121 322122	322
Fuel Oil	-7.6%	2915	324110	324
Industrial Organic Chemicals	-7.9%	2865 2869	325110 325132 325192 325110 325120 325188 325192 325193 325199 325998	325

<u>Supplying Industry</u>	<u>Projected Growth</u>	<u>SIC Codes</u>	<u>6-Digit NAICS</u>	<u>3-Digit NAICS</u>
Miscellaneous Fabricated Textile Products	-8.4%	2393 2394 2395 2396 2397 2399 39996	314911 314912 314999 315211 315212 314999 315211 315212 315999 323113 336360 313222 314999 315211 315212 315999 336360	313 314 315 323 336 313 314 315 323 336
Surgical Appliances and Supplies	-8.8%	3842	322291 334510 339113 339999	336
Aircraft	-12.5%	3721	336411 541710	336 541
Newspaper Publishing and Printing	-15.8%	2710	511110 516110	511 516
Apparel	-17.4%	2300-2390	314-315999 313222 323113 336360 339994	313 314 315 323 336 339
Motor Vehicle Parts and Accessories	-21.2%	3714	336211 336312 336322 336330 336340 336350 336399	336
Motor Vehicles and Passenger Car Bodies	-21.7%	3711	336111 336112 336120 336211 336992	336
Industrial Inorganic Chemicals	-27.0%	2812 2813 2816	325181 325120 325131 325182 211112	
Tanks and Tank Components	-32.4%	2819, excl. 28195	325131 325188 325998, excl 3313111	211 325
Distilled and Blended Liquors	-55.8%	3795	336992	336
		2085	312130 312140	312

# **APPENDIX B: PROJECTED GROWTH IN DOD SPENDING BY 320 SECTORS, 2005-2011**

<b>ID</b>	<b>Sector Description</b>	<b>Total Growth</b>	<b>Direct Growth</b>	<b>Indirect Growth</b>
1	Dairy farm products	-10%	--	-10%
2	Poultry and eggs	-6%	10%	-6%
3	Meat animals and other livestock	-24%	-14%	-24%
4	Cotton	-28%	--	-28%
5	Grains	-23%	-8%	-24%
6	Tobacco	33%	100%	0%
7	Fruit,vegetables and other crops	-10%	-43%	-9%
8	Forestry products	-14%	-18%	-13%
9	Fishery products	-5%	-25%	-5%
10	Agriculture,forestry and fishery services	-4%	-5%	-4%
11	Iron ores	-3%	-15%	-2%
12	Copper ore	-6%	--	-6%
13	Other non-ferrous ores	3%	0%	3%
14	Coal mining	-2%	-76%	-2%
15	Natural gas extraction	-6%	--	-6%
16	Crude oil extraction	-9%	-49%	-8%
17	Stone and clay quarrying and mining	-3%	-55%	2%
18	Chemical and fertilizer minerals mining	-50%	10%	-50%
19	New construction	5%	5%	11%
20	Maintenance construction	11%	32%	1%
21	Guided missiles and space vehicles	33%	33%	36%
22	Ammunition, except small arms	31%	31%	31%
23	Tanks and tank components	-32%	-32%	-25%
24	Small arms	-22%	-23%	-3%
25	Small arms ammunition	86%	87%	39%
26	Other ordnance and accessories	10%	10%	15%
27	Meat packing plants, sausage and other prepared meats	-24%	-92%	-11%
28	Poultry slaughtering and processing	-8%	-93%	-7%
29	Dairy products, except fluid milk	-2%	-48%	-1%
30	Fluid milk	-18%	-52%	-6%
31	Fish and seafoods	-5%	-64%	-4%
32	Preserved fruits and vegetables	-20%	-90%	-4%
33	Flour, cereals and other grain mill products	-13%	-90%	-11%
34	Prepared animal feeds	-11%	--	-11%
35	Rice milling	-2%	--	-2%
36	Wet corn milling	-8%	--	-8%
37	Bakery products, including frozen	-15%	-58%	-8%
38	Sugar	-17%	-100%	-13%
39	Confectionery, chocolate products and roasted nuts	-9%	-88%	-6%
40	Beer, malt beverages and malt	0%	--	0%
41	Wines, brandy and brandy spirits	7%	--	7%
42	Distilled and blended liquors	-56%	-57%	-48%
43	Soft drinks and flavorings	-3%	--	-3%
44	Vegetable oil mills	-7%	--	-7%
45	Animal and marine fats and oils	-13%	--	-13%
46	Shortening, table oils and edible fats	-12%	-100%	-11%
47	Roasted coffee	-10%	-100%	-9%
48	Miscellaneous food preparations	-31%	-57%	-4%
49	Cigarettes	8%	8%	--
50	Cigars	--	--	--
51	Chewing and smoking tobacco and snuff	--	--	--
52	Tobacco stemming and redrying	0%	--	0%
53	Broadwoven fabric mills	-15%	-66%	-14%
54	Narrow fabric mills	-7%	-52%	-5%

<b>ID</b>	<b>Sector Description</b>	<b>Total Growth</b>	<b>Direct Growth</b>	<b>Indirect Growth</b>
55	Yarn and thread mills, textile finishers	-15%	-100%	-15%
56	Carpets and rugs	-4%	25%	-9%
57	Miscellaneous textile goods	-13%	-17%	-10%
58	Knitting mills	-19%	-14%	-24%
59	Apparel	-17%	-19%	-12%
60	Household textile products	-6%	-27%	-2%
61	Miscellaneous fabricated textile products	-8%	-8%	-10%
62	Logging camps and contractors	-6%	100%	-6%
63	Sawmills and planing mills	1%	-8%	1%
64	Millwork and wood kitchen cabinets	10%	-11%	10%
65	Veneer and plywood	2%	-73%	3%
66	Structural wood members, n.e.c.	10%	0%	11%
67	Prefabricated wood buildings and components	-24%	-24%	--
68	Wood preserving	4%	-25%	5%
69	Wood pallets and skids	3%	-39%	4%
70	Wood containers	-9%	-3%	-13%
71	Particleboard and wood products, n.e.c.	-1%	-36%	1%
72	Household furniture	-1%	-8%	7%
73	Office furniture	27%	27%	33%
74	Public building and related furniture	-14%	-8%	-14%
75	Partitions and fixtures	8%	5%	11%
76	Furniture and fixtures, n.e.c.	3%	-5%	9%
77	Pulp mills	-16%	--	-16%
78	Paper mills, including building paper	-5%	-23%	-5%
79	Paperboard mills	-2%	-20%	-2%
80	Bags, except textile bags	-11%	-66%	-7%
81	Paperboard containers and boxes	-2%	-30%	-1%
82	Paper coating and glazing, die cut paper	-4%	-26%	-4%
83	Envelopes and stationery	-1%	-22%	-1%
84	Converted paper products, n.e.c.	0%	24%	-2%
85	Sanitary paper products	2%	-40%	2%
86	Newspaper publishing and printing	-16%	1%	-16%
87	Periodical publishing and printing	-2%	-6%	-2%
88	Book publishing and printing	-8%	-1%	-12%
89	Miscellaneous publishing	-2%	0%	-2%
90	Commercial printing	-2%	3%	-3%
91	Greeting card publishing	--	--	--
92	Printing trade services	-3%	10%	-4%
93	Blankbooks and bookbinding	0%	0%	0%
94	Manifold business forms	-7%	1%	-14%
95	Industrial inorganic chemicals	-27%	-32%	-26%
96	Industrial organic chemicals	-8%	-14%	-8%
97	Gum and wood chemicals	-12%	-50%	-11%
98	Agricultural chemicals	-6%	-43%	-5%
99	Adhesives and sealants	2%	-8%	3%
100	Explosives	39%	51%	30%
101	Chemical preparations, n.e.c.	2%	-4%	3%
102	Plastics materials and resins	3%	-22%	3%
103	Synthetic rubber	2%	-34%	6%
104	Cellulosic man-made fibers	-8%	0%	-8%
105	Synthetic organic fibers, except cellulosic	-15%	100%	-15%
106	Drugs	-3%	-47%	9%
107	Soaps and cleaners	-7%	-21%	-7%
108	Perfumes, cosmetics and other toilet preparations	0%	-13%	0%

<u>ID</u>	<u>Sector Description</u>	<u>Total Growth</u>	<u>Direct Growth</u>	<u>Indirect Growth</u>
109	Paints, varnishes and related products	1%	-1%	1%
110	Petroleum refining except fuel oil	-4%	-90%	-1%
111	Fuel oil	-8%	-92%	-6%
112	Asphalt paving and coatings	10%	-25%	10%
113	Tires and inner tubes	0%	12%	-5%
114	Fabricated rubber products, n.e.c.	0%	0%	0%
115	Rubber and plastics footwear	-10%	-10%	0%
116	Rubber and plastics hose and belting	22%	24%	-1%
117	Gaskets, packing, and sealing devices	6%	22%	3%
118	Miscellaneous plastic products	6%	54%	5%
119	Leather tanning and finishing	-14%	-17%	-14%
120	Boot and shoe cut stock and findings	-12%	-9%	-13%
121	Footwear, except rubber	-16%	-16%	-14%
122	Other leather goods	-10%	-17%	-7%
123	Glass and glass products,n.e.c.	-2%	-28%	-2%
124	Glass containers	-43%	-20%	-43%
125	Cement, hydraulic	2%	0%	2%
126	Structural clay products	0%	-7%	0%
127	Pottery and related products	3%	1%	9%
128	Concrete and concrete products	10%	28%	8%
129	Lime	8%	94%	-3%
130	Gypsum products	1%	-33%	4%
131	Cut stone and stone products	-20%	-29%	0%
132	Nonmetallic mineral products, n.e.c.	5%	-15%	8%
133	Steel mills, blast furnaces, and rolling and finishing mills	-2%	-30%	0%
134	Iron and steel foundries	7%	-14%	8%
135	Iron and steel forgings	9%	3%	11%
136	Miscellaneous primary metal products	8%	-21%	9%
137	Primary smelting and refining of copper	0%	-13%	0%
138	Primary smelting and refining of aluminum	-1%	-17%	-1%
139	Lead, zinc and other primary nonferrous metals	11%	32%	11%
140	Copper rolling and drawing	2%	42%	2%
141	Aluminum rolling and drawing	-1%	-19%	-1%
142	Other nonferrous rolling and drawing, and nonferrous wire	6%	5%	6%
143	Aluminum foundries and castings	-5%	-21%	-4%
144	Copper foundries	2%	27%	0%
145	Nonferrous castings and forgings	20%	-8%	20%
146	Metal cans	1%	27%	-5%
147	Metal shipping barrels,drums, kegs and pails	-9%	-4%	-21%
148	Metal sanitary ware and plumbing fixtures	-20%	-61%	6%
149	Heating equipment,except electrical and warm air furnaces	5%	6%	5%
150	Fabricated structural metal products	9%	-12%	12%
151	Fabricated plate work (boiler shops)	45%	49%	20%
152	Sheet metal and other metal work	0%	-20%	5%
153	Screw machine products,bolts and nuts	1%	-36%	4%
154	Automotive stampings	-17%	-25%	-17%
155	Crowns and closures	-41%	--	-41%
156	Metal stampings, n.e.c.	6%	-16%	6%
157	Cutlery and hand tools	0%	-3%	2%
158	Hardware, n.e.c.	-1%	-17%	9%
159	Metal plating, polishing and coating	11%	-15%	12%
160	Metal foil and leaf	4%	100%	4%
161	Miscellaneous fabricated wire products	-1%	-24%	1%
162	Steel springs, except wire	-20%	-37%	-17%

<u>ID</u>	<u>Sector Description</u>	<u>Total Growth</u>	<u>Direct Growth</u>	<u>Indirect Growth</u>
163	Pipe, valves and pipe fittings	7%	14%	3%
164	Fabricated metal products, n.e.c.	-1%	-12%	10%
165	Steam, gas and hydraulic turbines	18%	19%	1%
166	Internal combust engines, n.e.c.	-16%	-21%	-11%
167	Farm machinery and equipment	-3%	-23%	-2%
168	Garden tractors and lawn and garden equipment	-1%	-15%	3%
169	Construction machinery and equipment	-8%	-18%	2%
170	Mining machinery and equipment, except oil and gas machinery	-3%	-5%	-3%
171	Oil and gas field machinery	-4%	0%	-4%
172	Elevators and moving stairways	2%	1%	9%
173	Conveyers, hoists and cranes	-10%	-15%	0%
174	Industrial trucks, tractors, trailers and stackers	5%	5%	4%
175	Machine tools, metal cutting types	4%	-19%	16%
176	Machine tools, metal forming types	-1%	-14%	10%
177	Special dies, jigs, molds and cutting tools	-4%	-12%	-4%
178	Power driven hand tools	-12%	-16%	2%
179	Rolling mill machinery and equipment	-27%	-25%	-33%
180	Metalworking machinery, n.e.c.	8%	-19%	26%
181	Food products machinery	-5%	-26%	2%
182	Textile machinery	-24%	-44%	-19%
183	Woodworking machinery	-17%	-26%	0%
184	Paper industries machinery	-4%	6%	-11%
185	Printing trades machinery and equipment	1%	-10%	1%
186	Special industrial machinery, n.e.c.	-7%	-8%	-4%
187	Pumps and compressors	5%	11%	-1%
188	Ball and roller bearings	1%	16%	-4%
189	Blowers and exhaust and ventilation fans	2%	-15%	4%
190	Industrial patterns	-1%	-22%	0%
191	Packaging machinery and general industrial machinery, n.e.c.	14%	20%	8%
192	Mechanical power transmission equipment	53%	108%	0%
193	Industrial process furnaces and ovens	-17%	-21%	-2%
194	Carburetors, pistons, piston rings and valves	-22%	-3%	-34%
195	Fluid power equipment	4%	-14%	7%
196	Scales and balances	-12%	-38%	-2%
197	Industrial and commercial machinery, n.e.c.	5%	-4%	6%
198	Electronic computers	-1%	-1%	-1%
199	Computer peripheral equipment	0%	3%	-3%
200	Calculators and accounting machinery	-12%	-20%	2%
201	Office machines and typewriters	-6%	-15%	-2%
202	Automatic merchandising equipment	-6%	0%	-13%
203	Commercial laundry, dry cleaning and pressing machines	-12%	-15%	0%
204	Air conditioning, heating and refrigeration equipment	1%	1%	1%
205	Measuring and dispensing pumps	10%	11%	0%
206	Service industry machinery, n.e.c.	5%	6%	4%
207	Instruments to measure electricity	2%	-1%	8%
208	Transformers	8%	12%	4%
209	Switchgear and switchboard apparatus	23%	48%	4%
210	Motors and generators	-5%	-16%	0%
211	Relays and industrial controls	-1%	2%	-1%
212	Welding and soldering equipment	-3%	-8%	1%
213	Electrical industrial apparatus	1%	0%	2%
214	Major household appliances	-14%	-22%	-3%
215	Other household appliances	6%	-27%	11%
216	Electric lamps, light fixtures and wiring	1%	-11%	5%

<u>ID</u>	<u>Sector Description</u>	<u>Total Growth</u>	<u>Direct Growth</u>	<u>Indirect Growth</u>
217	Household audio and video equipment	3%	8%	-1%
218	Prerecorded records and tapes	5%	8%	-1%
219	Telephones, switchboards, modems, faxes, etc.	14%	16%	1%
220	Radio and TV broadcasting and communication equipment	13%	14%	8%
221	Electron tubes	0%	-1%	11%
222	Semiconductors and related devices	20%	13%	21%
223	Electronic components, n.e.c.	19%	34%	11%
224	Storage batteries	1%	-32%	5%
225	Primary batteries, dry and wet	-12%	-25%	-10%
226	X-ray and irradiation apparatus	-21%	-22%	-12%
227	Electromedical and electrotherapeutic apparatus	-11%	-11%	-9%
228	Engine electrical equipment	-5%	0%	-7%
229	Magnetic and optical recording media	-3%	6%	-5%
230	Electrical machinery, equipment and supplies, n.e.c.	0%	0%	6%
231	Truck and bus bodies	-17%	-11%	-20%
232	Truck trailers	-21%	-21%	-20%
233	Motor vehicles and passenger car bodies	-22%	-22%	-19%
234	Motor vehicle parts and accessories	-21%	-33%	-15%
235	Aircraft	-12%	-13%	33%
236	Aircraft and missile engines, propulsion units and parts	19%	20%	17%
237	Aircraft and missile parts and auxiliary equipment, n.e.c.	36%	39%	24%
238	Shipbuilding and repairing	5%	5%	-5%
239	Boat building and repairing	-12%	-12%	-6%
240	Railroad equipment	0%	-47%	6%
241	Motorcycles, bicycles and parts	2%	-5%	4%
242	Travel trailers and campers	132%	131%	140%
243	Mobile homes	-13%	-13%	--
244	Motor homes	19%	19%	--
245	Transportation equipment, n.e.c.	-17%	-18%	-15%
246	Search and navigation equipment	8%	8%	7%
247	Laboratory apparatus and furniture	-8%	-12%	6%
248	Measuring devices and environmental controls	4%	5%	2%
249	Surgical and medical instruments	-7%	-35%	7%
250	Surgical appliances and supplies	-9%	-9%	-6%
251	Dental equipment and supplies	-29%	-44%	-26%
252	Watches, clocks, clockwork operated devices and parts	-5%	9%	-8%
253	Laboratory and optical instruments	2%	-8%	29%
254	Ophthalmic goods	-24%	-33%	2%
255	Photographic equipment and supplies	3%	6%	1%
256	Jewelry, precious metal, silverware and plated wares	-5%	-20%	-4%
257	Musical instruments	2%	2%	3%
258	Games, toys and play vehicles	32%	32%	18%
259	Sport and athletic goods, n.e.c.	-10%	-13%	2%
260	Pens, pencils and other office and artists' materials	2%	-14%	3%
261	Costume jewelry and notions	-25%	-26%	-15%
262	Manufacturing, n.e.c.	-17%	-27%	-7%
263	Railroads	-5%	-4%	-6%
264	Local and suburban passenger transportation	-4%	-1%	-9%
265	Trucking and warehousing	-3%	-5%	0%
266	Water transportation	-9%	-9%	-6%
267	Airlines	6%	8%	2%
268	Pipelines	-1%	-10%	-1%
269	Transportation services	-7%	-43%	5%
270	Telephone and telegraph	1%	0%	2%

<u>ID</u>	<u>Sector Description</u>	<u>Total Growth</u>	<u>Direct Growth</u>	<u>Indirect Growth</u>
271	Radio and TV broadcasting	-8%	5%	-8%
272	Electric utilities	0%	-1%	0%
273	Natural gas	-6%	-8%	-6%
274	Water, sewer, steam and irrigation services	-11%	-16%	-3%
275	Wholesale trade	-1%	-11%	2%
276	Retail trade	-2%	-9%	0%
277	Eating and drinking places	-3%	-1%	-5%
278	Banking	1%	-44%	1%
279	Credit agencies other than banks	3%	-20%	3%
280	Security and commodity brokers, dealers, exchanges and services	2%	-8%	2%
281	Insurance carriers	5%	13%	-4%
282	Insurance agents, brokers and service	3%	0%	3%
283	Owner-occupied dwellings	--	--	--
284	Real estate	-1%	-1%	-1%
285	Royalties	-3%	--	-3%
286	Hotels, rooming houses, camps and other lodging places	1%	3%	-4%
287	Personal and repair services	0%	-11%	4%
288	Personnel supply services	-3%	-31%	-2%
289	Computer and data processing services	-5%	-10%	1%
290	Research laboratories and management consulting	-11%	-13%	-3%
291	Equipment rental and leasing services	6%	-13%	6%
292	Advertising	-5%	-15%	-1%
293	Other business services	0%	-17%	2%
294	Legal services	3%	-5%	3%
295	Engineering and architectural services	-4%	-4%	-3%
296	Other professional services, including accounting	0%	0%	1%
297	Auto rental and leasing	0%	3%	-1%
298	Auto repair and services	-2%	-14%	-2%
299	Motion pictures	-7%	5%	-8%
300	Video tape rental	-32%	-32%	--
301	Amusements and recreation services	-6%	-6%	-6%
302	Private hospitals	-17%	-17%	--
303	Physicians, excluding dentists	-44%	-44%	-33%
304	Dentists, and miscellaneous medical services	9%	9%	-38%
305	Nursing homes	-21%	-21%	--
306	Education and libraries	-8%	-9%	-1%
307	Social services	-24%	-33%	1%
308	Museums, non-profits, research and private education	-6%	-31%	-3%
309	Membership organizations	-4%	-6%	-4%
310	United States Postal Service	-1%	4%	-7%
311	Federal government enterprises	0%	--	0%
312	State and local government enterprises	-7%	4%	-9%
313	Non-competitive imports	-1%	--	-1%
314	Domestic servants	--	--	--
315	Scrap and used goods	-8%	--	-8%
316	Unimportant industry	4%	--	4%
317	Government industry compensation	-3%	-3%	2%
318	Rest of world industry	--	--	--
319	Inventory valuation adjustment	--	--	--
320	By-products	-14%	--	-14%

# APPENDIX C: OTTAWA VALLEY COMPANIES

## **Sector 219. Telephones, Switchboards, Modems, Faxes., etc.**

### Adeptron Technologies Corporation

Providing a broad range of Electronic Manufacturing Services. Strategically located in Ottawa and Toronto, Adeptron efficiently supports Printed Circuit Board Assembly, production box build, custom cable and pressfit backplane assembly

### Ansen Corp.

Offers design, manufacturing and engineering services. Manufactures surface mount and through-hole printed circuit boards, and real-time x-ray systems for BGA/CSP inspection.

### HI-QA Inc.

Company assembles printed circuit boards, mechanical assembly, Surface mount, thru hole, BGA'S, Fast turn prototypes, rework, and production runs.

### Intelligent MEMS Design, Inc.

We offer complete product design solutions with expertise in Micro-Electro-Mechanical System (MEMS) design and Printed Circuit Board design.

### Logas Manufacturing Corporation

Provides sub-contract assembly of printed circuit boards wiring assemblies and chassis. From Eng proto-types and quick turn low to mid volume assemblies to full turnkey solutions. We are fully ROHS compliant with both our surface mount and troughole lines.

### MPC Circuits Inc.

Custom manufacturer of high quality printed circuit boards. Capabilities include from 2-sided up to 20-layer in quick turn-around prototype as well as pre-production and production quantities.

### UPE Canada

Printed circuit board manufacturer, 1 to 24 layers, heavy copper up to 40 oz., prototype and production volumes, ISO 9001:2000 registered company, UL listed.

**Sector 220. Radio and TV Broadcasting and Communication Equipment**

Cain-Sweet, Co.

Manufacturers Representative specializing in RF and Microwave components to support the Wireless Communications and Aerospace Markets.

Luxcom Technologies Inc.

Designs and manufactures fiber optic modems, Ethernet, and wireless modems for industry and governments.

**Sector 223. Electronic Components, nec.**

BCT International Ltd.

Manufactures electronic assemblies, plastics and mechanical components and assists qualified companies in manufacturing their product in Asia.

BreconRidge Manufacturing Solutions

Global provider of a full range of electronics manufacturing services including design, process and test engineering (designing and developing software applications for product testing), manufacturing, systems integration distribution and repair.

DICA Electronics Ltd.

An Electronics Manufacturing Services (EMS) company that provides high-mix, low-to-medium volume assembly services to Ottawa area technology companies.

OCM Manufacturing

Contract electronics manufacturing for small- to mid-size companies with mid-volume products.

STMicroelectronics Inc.

STMicroelectronics Inc. is a semiconductor company which develops and manufactures electronic components for the telecommunications, consumer, computer and industrial market segments. (Note: Company is worldwide but currently no production facilities in the northeastern US.)

**Sector: Call centers and related**

Opinion Search Inc.

Marketing research facility specializing in telecommunications and information technology. With an 100-station telephone call-centre and the country's most advanced focus group network, Opinion Search provides a full range of research services.

R.A. Malatest & Associates Ltd.

Full-service research organization with in-house Computer Assisted Telephone Interview (CATI) systems, focus group facilities, and state-of-the-art data scanning and analysis software.

**Sector: Other/defense/cross-cutting**

BMT Fleet Technology Limited

Engineering and technology company providing custom solutions in applied research, development and engineering for the marine, environment, resource/energy, fabrication and manufacturing sectors, including government and the military.

CAM-TAG Industries Inc.

A "build to print" manufacturer, machine shop and assembly facility. Manufactures high strength structural components, landing gear, helicopter rotor hubs, sub assemblies and assemblies for the aircraft, military and nuclear industry.

Dead Center Precision

Manufactures precision machined components. Specializes in design and production of electronic and scientific instrument packaging.

Design Fabrication

Specializing in the design, fabrication and modification of custom transit containers, cases, related components and field deployment packaging, Design Fabrication serves our military, government, high tech and public sector with local, personal and expert customized service.

DRS Technologies Canada

DRS Technologies Canada is wholly-owned by DRS Technologies Inc., a (US\$) 3 billion defense technology company headquartered in Parsippany, New Jersey and globally employing 10,000 people. The company is a leading supplier of integrated products, services and support to military forces, intelligence agencies and prime contractors worldwide.

**Sector: Other/defense/cross-cutting (continued)**

Globus Precision Inc.

Manufacturer of precision components using customer drawings from ferrous, nonferrous, and plastic materials, CNC Milling and Lathe production, prototypes, subassemblies, small to large productions runs.

HRose Machining Ltd

HRose Machining Ltd is a major supplier of precision machined components to the High Tech, Industrial, Transportation, and Military/Defense markets. We specialize in medium to high volumes of medium to high complexity components.

OTAL Precision Company Limited

Precision machining and engineering services, Manufacturer of high precision mechanical parts and assemblies for various sectors, including the fiber optic industry, high pressure emulsifiers, satellite and space station research, aircraft cockpit instrumentation, defense fire control optical components and calibration equipment.

Performance Technologies

Develops systems, platforms, components and software solutions for the world's evolving communications infrastructure. Complete line of embedded and system-level products enables equipment manufacturers and service providers to offer highly available and fully-managed systems with time-to-market, performance and cost advantages. (Note: already have a plant in Rochester, NY but have many job openings there.)

# APPENDIX D: LEAP ANALYSIS

The central purpose of the North Country Gap Analysis is to identify opportunities to increase jobs and incomes – including the retention and expansion of existing business, as well as the development and attraction of new business. LEAP was used to identify types of business that represent best prospects for local economic growth by assessing current industry performance and the relative competitiveness of local facilities and resources. Results from LEAP were used in combination with the military budget analysis and the recruitment assessment to develop and refine the Target Analysis (Chapter 3). This Appendix describes the LEAP analysis and reports its results, culminating in a list of potential “target” industries (Table D-5).

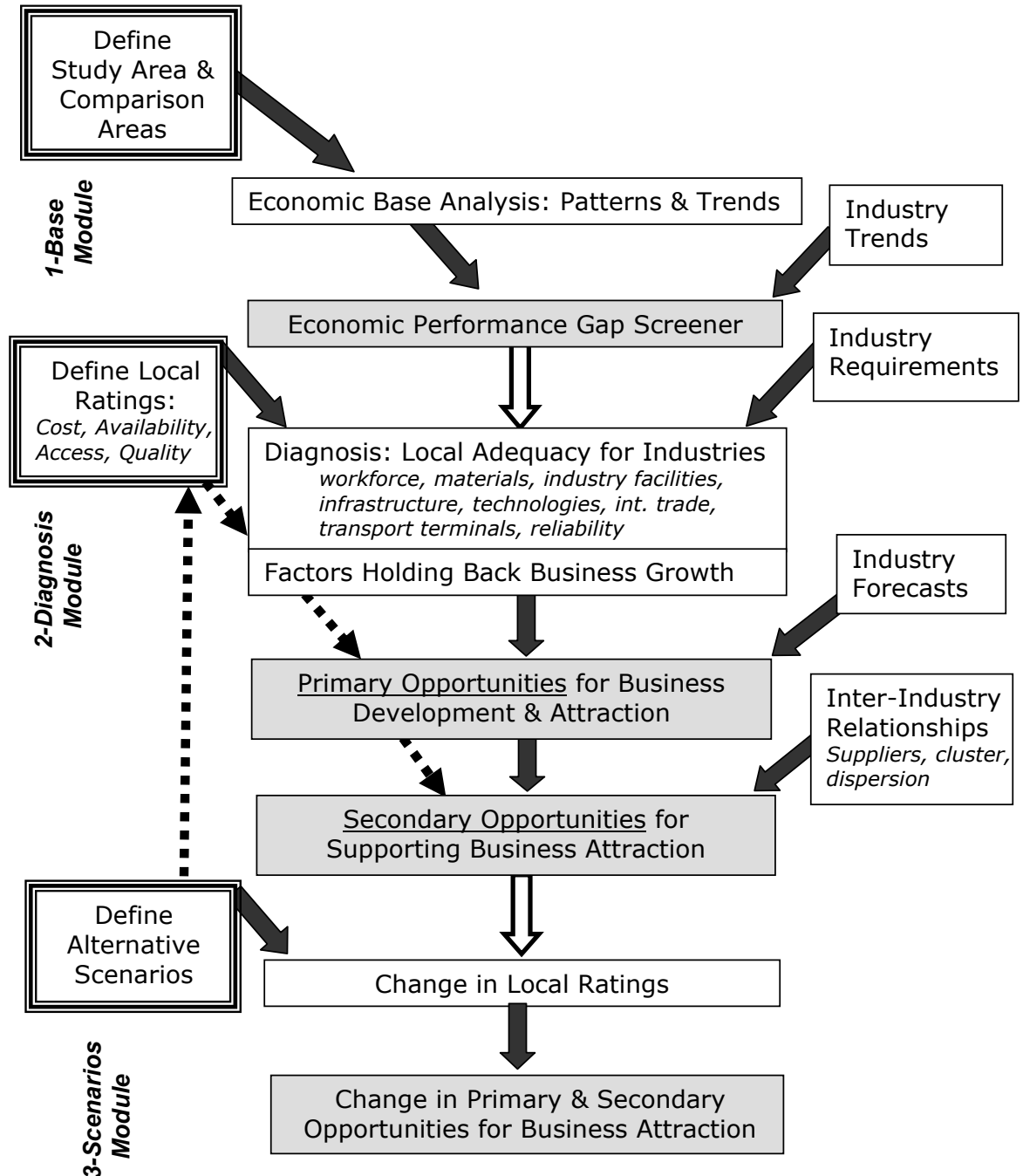
## About LEAP

EDR-LEAP is a web-based system designed to: (a) help economic developers assess area strengths and weaknesses, (b) identify critical factors holding back economic growth, and (c) prioritize targets for economic development.

LEAP consists of:

- **Economic Base Module.** An assessment tool for profiling local economic patterns and performance that provides baseline growth trends and projections for 55 industries.
- **Diagnostic Module.** Identifies targets for economic development based on an assessment of the local area's competitiveness for each industry, relative to a comparison area chosen by the user. Factors considered include total production costs; labor costs; energy costs; tax burdens; availability of labor (i.e., "work base"); availability of skilled workers; water transportation; air transportation; rail transportation; highway transportation; and availability of broadband internet access
- **Scenarios Module.** Assesses the likely business attraction impacts of future policies/programs that change the in availability or quality of key inputs including labor force size and skill levels; broadband access; tax policy; as well as changes in highway conditions and access to airports, water ports and rail facilities.

Figure D-1. Local Economic Assessment Package - LEAP



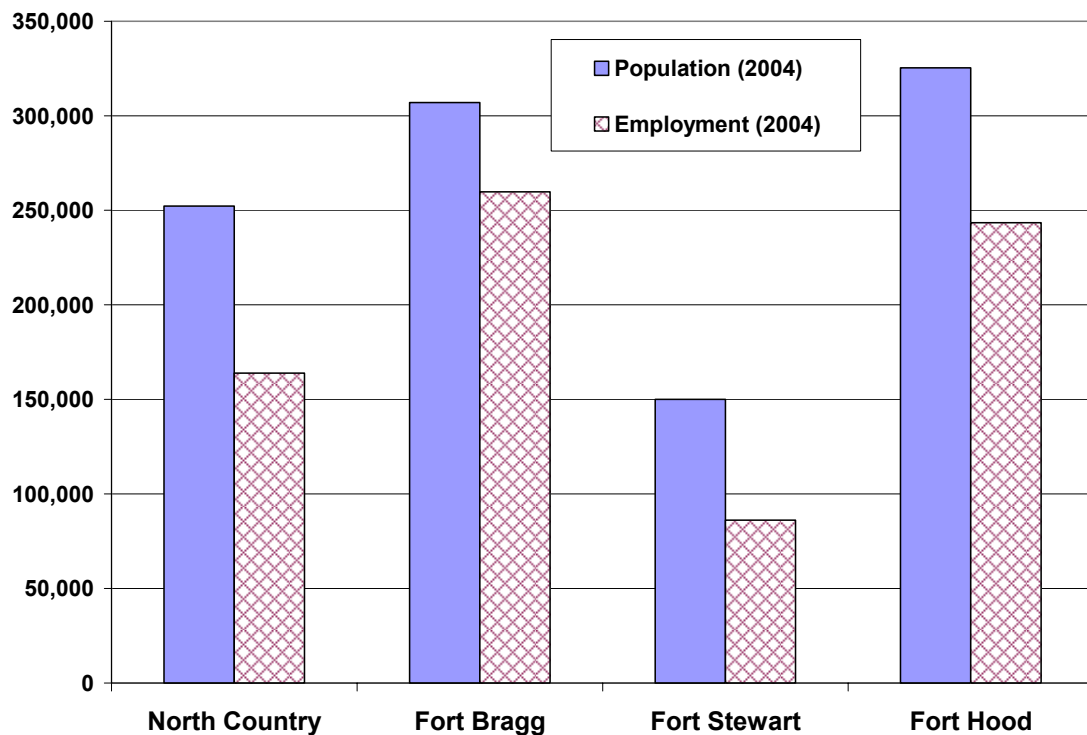
## LEAP in the North Country

As shown above in Figure D-1, LEAP begins with an Economic Base Analysis and comparison of patterns and trends in the North Country with those surrounding the comparison bases (Fort Bragg, Fort Hood and Fort Stewart).

### Population and Labor Market Characteristics

This analysis considered population, workforce, and % of skilled workers as indicators of appropriate labor availability and the ability of businesses to sustain growth. As shown in Figure D-2, the North Country has a smaller population and fewer jobs than the regions surrounding Fort Bragg and Fort Hood, but a larger population and more jobs than Fort Stewart.

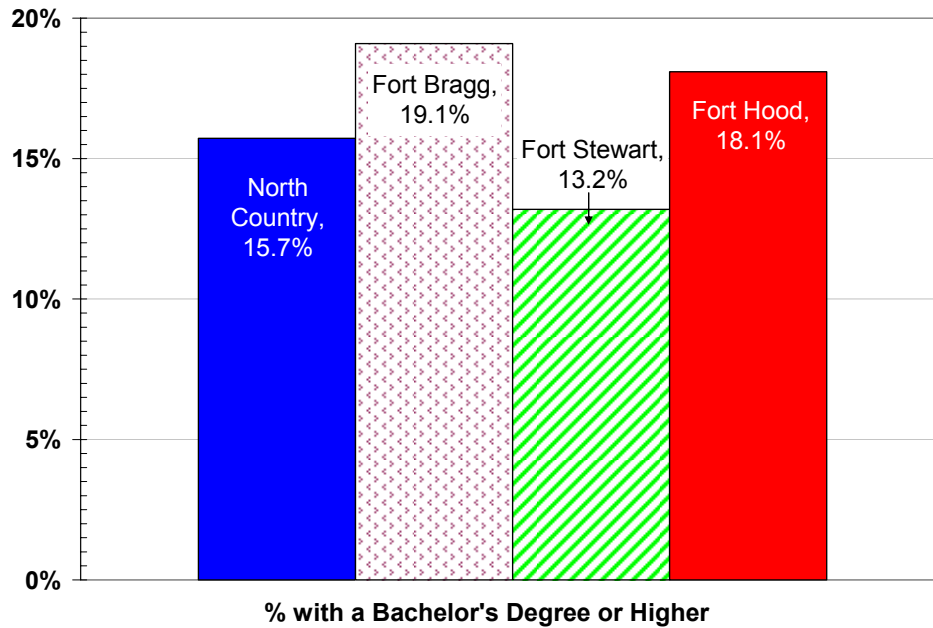
**Figure D-2. Population & Total Employment Comparison**



Source: US Census, IMPLAN and EDR-LEAP

As Figure D-3 shows, North Country has a higher level of workforce skill than the Fort Stewart area, but a lower level than the regions around Fort Hood and Fort Bragg.

**Figure D-3. Workforce Skill Comparison**



Source: US Census and EDR-LEAP

### Industry and Employment

Economic development opportunities and priorities depend on the profile of affected industries, since they each have unique labor, delivery, and intermodal supply requirements. LEAP identifies the North Country's existing industry mix and trends based on the following indicators:

- Industries by relative employment concentration
- Industry growth trends relative to national trends

Employment data are used to represent relative concentration and relative trends because job creation is the principal objective of local economic development policy.

Mix ratio ("location quotient", an indicator of relative industry concentration in local areas) and trend ratio ("shift-share", an indicator of relative industry trends in local areas) techniques contribute to an analysis of the performance of industries in the area. Data on the number of jobs in fifty-five 3-digit NAICS industries are used to measure the mix and trends within local industries in the Study Area.

As Table D-1 shows, in terms of employment concentration, North Country has relatively high concentration in the following industries:

- Animal production (relative to Fort Bragg)
- Computer and electronic products (relative to Fort Bragg and Fort Hood)
- Educational Services (relative to Fort Stewart)
- Electric Equipment, Appliances (relative to Fort Hood and Fort Stewart)
- Food Products (relative to Fort Hood and Fort Stewart), and
- Forestry and logging (relative to Fort Bragg)

The table also shows high proportional growth relative to the nation as a whole in food products, educational services, monetary, financial, & credit activity, transportation, and textile mills, among other sectors.

Table D-1. Employment, Mix and Trends

NAICS	Industry	North Country 2004 Employment	Mix Ratio - North Country Relative to:			North Country Trend Ratio*
			Fort Bragg	Fort Hood	Fort Stewart	
111	Crop Production	722	4.78	0.64	0.31	5.5
112	Animal Production	4,282	10.86	2.41	2.84	3.9
113	Forestry & Logging	267	20.3	0	0.4	1.2
114	Fishing, Hunting & Trapping	14	0	0	0	-2.4
115	Support for Agriculture & Forestry	215	4.53	0	0.15	-2.3
211	Oil & Gas Extraction	0	0	0	0	0
212-213	Mining & Support Activities	350	0	0.85	3.86	-0.6
221	Utilities	543	2.97	3.54	1.18	0.1
230	Construction	4,526	0.82	0.84	0.95	7.6
311	Food Products	1,274	4.49	11.12	33.62	69
312	Beverage & Tobacco Products	12	0	0	0	0
313	Textile Mills	0	0	0	0	11.1
314	Textile Product Mills	22	0	0	0	-0.8
315	Apparel Manufacturing	27	0	0	0	1.7
316	Leather & Allied Products	12	0	0	0	-7.2
321	Wood Products	271	2.02	1.02	1.4	0.4
322	Paper Manufacturing	790	0	2.1	0.36	4.5
323	Printing & Related Support Activities	312	3.62	1.6	5.05	2
324	Petroleum & Coal Products	41	0	0	0	-3.1
325	Chemical Manufacturing	255	0.78	2.6	0.78	-2.5
326	Plastics & Rubber Products	120	0.08	0.09	0	0.3
327	Nonmetallic Mineral Products	585	5.9	4.35	1.3	0.4
331	Primary Metal Manufacturing	1,511	0	4.51	0	1.1
332	Fabricated Metal Products	340	1.9	2.7	0.98	-2.1
333	Machinery Manufacturing	131	0.14	0.36	0.47	2.1
334	Computer & Electronic Products	169	38.05	11.45	0	2.4
335	Electric Equipment, Appliances, etc.	331	0.86	17.96	41.12	1.2
336	Transportation Equipment	214	0.33	2.25	2.91	4.6
337	Furniture & Related Products	27	0	0	0	0.2
339	Miscellaneous Manufacturing	556	7.79	4.45	7.13	1.1
420	Wholesale Trade	1,638	1.05	0.73	1.54	2.4
441-454	Retail Trade	13,480	1.25	1.32	1.5	6.5
481-487	Transportation	3,336	2.4	1.93	2.09	16.8
491-493	Mail, package delivery & warehousing	1,263	0.29	1.15	1.44	1.8
511	Publishing Industries (except Internet)	418	1.46	1.72	3.95	0.7
512	Motion Picture & Sound Recording	105	0	0	0	2.5
513	Broadcasting	608	0.77	1.1	1.66	-188.7
514	Internet & data process svcs	77	0	0	0	-10.1
521-523	Monetary, Financial, & Credit Activity	1,229	1.14	0.64	0.89	21
524	Insurance Carriers & Related Activities	701	0.92	1.34	2.16	8.4
525	Funds, Trusts, & Other Financial Vehicles	4	0	0	0	-5.2
531	Real Estate	741	0.34	0.81	0.87	-0.8
532	Rental & Leasing Services	406	0.96	0.63	0.69	0.8
533	Lessors of Nonfinancial Intangible Assets	2	0	0	0	2.3
541-551	Professional Scientific, Technical, Services	2,814	0.84	0.71	1.04	0.3
561	Administrative & Support Services	1,746	0.35	0.56	0.59	7.5
562	Waste Management & Remediation	146	0.83	1.25	1.45	0
611	Educational Services	2,525	2.95	2.68	11.79	38.9
621-624	Health Care & Social Services	12,611	1.91	1.15	2.82	-0.4
711-713	Amusement & Recreation	766	1.21	1.2	1.91	-24.3
721-722	Accommodations, Eating & Drinking	7,839	1	1.17	1.42	-0.3
811-812	Repair, Maintenance, & Personal Services	3,206	0.66	0.96	0.72	1.3
813	Religious, Civic, Professional, Organizations	5,745	4.22	4.69	1.24	-47.6
814	Private Households	683	0.95	0.58	1.26	0.1
920	Government & non NAICS	36,912	0.75	0.73	0.63	1.8
<b>TOTAL</b>		<b>116,920</b>				

\*Ratio of percent of employment in each sector in the North Country relative to Fort Bragg, Fort Hood and Fort Stewart ("location quotient").

Source: IMPLAN and EDR-LEAP.

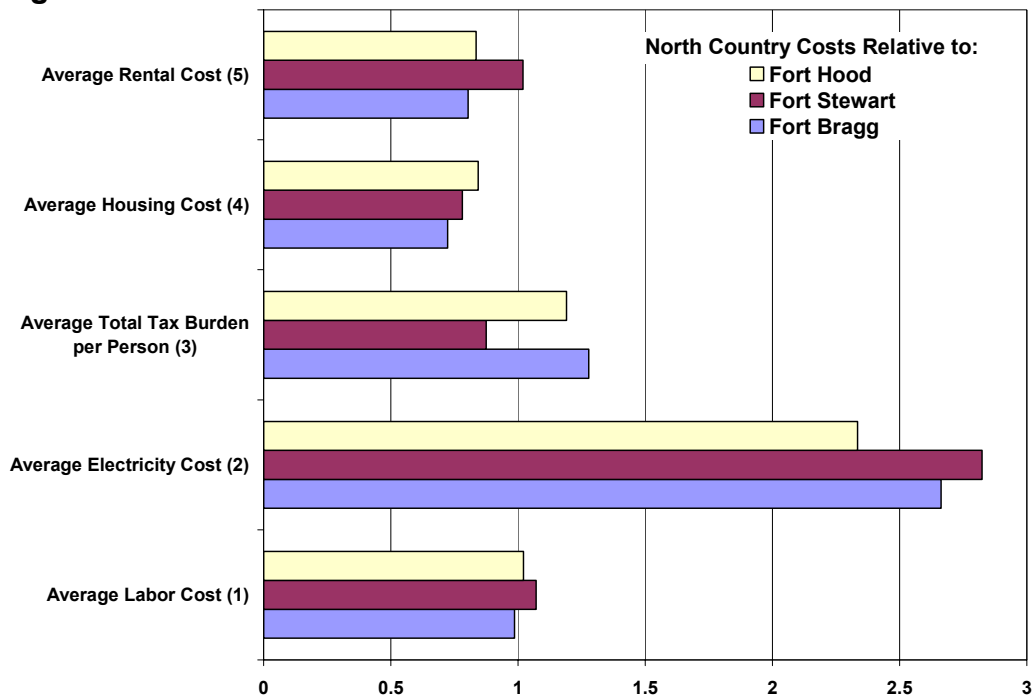
### Cost Factors

When all other factors are equal, businesses tend to locate where they can minimize costs. Key cost factors include labor, housing, electric power and taxes. For this analysis, the following indicators are used to evaluate differences in costs relative to Fort Hood, Fort Bragg and Fort Stewart:

- Average Labor Cost (per year in Retail)<sup>44</sup>
- Average Electricity Cost (\$/kWh)
- Average Total Tax Burden per Person (\$ per year)
- Average Housing Cost (\$ for a single family home)
- Average Rental Cost (\$ per month)

Figure D-4 shows relative costs factors, where values under 1.0 represent a cost advantage for North Country while values over 1.0 represent cost advantages for the comparison area. As the figure shows, North Country has lower costs relative to the other areas, except for electricity. However, the electricity cost estimate is based on Niagara Mohawk standard rates, while actual costs vary dramatically within the region, so the cost disadvantage should be downplayed in this case.

**Figure D-4. Relative Cost Factors**



Notes: (1) Average Labor Cost, \$ per year in retail; (2) Average Electricity Cost, \$/kWh; (3) Average Total Tax Burden per Person, \$ per year; (4) Average Housing Cost, \$ for a single family home; (5) Average Rental Cost, \$ per month (residential). Source: EDR-LEAP.

<sup>44</sup> Retail occupations are comparable across different areas. In contrast, manufacturing occupations vary widely depending on by the mix of manufacturing industries in a given area. The result is that areas that have high shares of employment in manufacturing industries that require highly-specialized workers will reflect a higher overall labor cost than areas with more basic, low-cost manufacturing. Using retail wages avoids this distortion.

**Transportation Access**

Business efficiency, productivity and operation costs are highly dependent on the transportation accessibility of a local area, which includes business access to customer markets, labor, and suppliers. In this analysis, we measure external transportation access in terms of:

- Population within 40 minutes (labor market catchment area)
- Access time to Commercial Airport
- Access time to Freight Marine Port
- Access time to Rail Intermodal Loading

As Table D-2 below shows, the North Country has a smaller population within 40 minutes and more distant access to key transportation modes compared to Fort Bragg, Fort Stewart and Fort Hood.

**Table D-2. Transportation Access Comparison**

	<b>North Country</b>	<b>Fort Bragg</b>	<b>Fort Stewart</b>	<b>Fort Hood</b>
Population Within 40 Minutes	26,543	117,912	44,751	77,557
Access to Commercial Airport*	130	16	56	21
Access to Freight Marine Port *	240	144	52	340
Access to Rail Intermodal Loading*	134	11	57	161

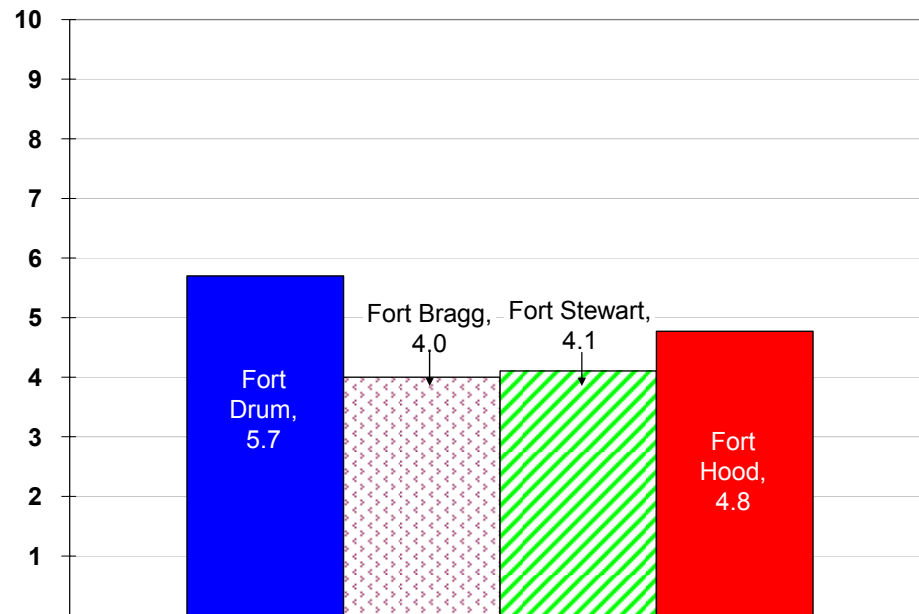
\*Minutes of drive time

Source: ESRI and EDR-LEAP.

**Broadband Access**

The availability of broadband data packet networks and services affects business location decisions for an increasing number of industries. Bandwidth, redundancy, access prices and availability of integrated business data services can all be factors for various industries. For purposes of this analysis, broadband access has been ranked on a scale of 1 to 10, with 10 being the best access. As the figure shows, Fort Drum has notably higher broadband accessibility compared to the other areas shown.

Figure D-5. Broadband Access (Scale of 1-10)



Source: US Census and EDR-LEAP.

## Growth Potential, Industry Trends, Opportunities and Barriers

The LEAP analysis of the North Country’s economic base compared with conditions surrounding Fort Stewart, Fort Bragg and Fort Hood, combined with LEAP’s analysis of industry trends in the North Country relative to those in the nation as a whole, yielded insight into growth potential, opportunities and barriers.

### Growth Potential

To begin, LEAP provided high and low estimates of the next decade’s growth within the North Country, based on local and US growth trends, as well as an. "Average 10-Year Growth Estimate" which is the midpoint of the low and high estimates.

Next, LEAP determined Additional Growth Potential, a simple binary (yes/no) measure that identifies sectors with growth potential. A growth potential is recognized for each industries that is growing nationally, yet is under-represented or under-performing in the Study Area compared to its pattern and trends in the Comparison Area.

LEAP identified the potential for additional growth in the following industries when compared with Fort Stewart, Fort Bragg and Fort Hood:

114	Fishing, Hunting & Trapping
115	Support for Agriculture & Forestry
212-213	Mining & Support Activities
230	Construction
337	Furniture & Related Products
521-523	Monetary, Financial, & Credit Activity
531	Real Estate
541-551	Professional Scientific, Technical, Services
814	Private Households

LEAP identified the potential for additional growth in several more industries when compared to two out of the three bases listed above:

111	Crop Production
113	Forestry & Logging
312	Beverage & Tobacco Products
322	Paper Manufacturing
325	Chemical Manufacturing
332	Fabricated Metal Products
333	Machinery Manufacturing
420	Wholesale Trade
512	Motion Picture & Sound Recording
525	Funds, Trusts, & Other Financial Vehicles
532	Rental & Leasing Services
561	Administrative & Support Services
562	Waste Management & Remediation
621-624	Health Care & Social Services
711-713	Amusement & Recreation
721-722	Accommodations, Eating & Drinking
811-812	Repair, Maintenance, & Personal Services
920	Government & Non-NAICs

LEAP also identified the potential for additional growth in the following industries in comparison to at least one of the three other bases:

112	Animal Production
211	Oil & Gas Extraction
221	Utilities
311	Food Products
313	Textile Mills
315	Apparel Manufacturing
324	Petroleum & Coal Products
326	Plastics & Rubber Products
334	Computer & Electronic Products
336	Transportation Equipment
481-487	Transportation
514	Internet & Data Process Services
533	Franchises
813	Religious, Civic, Professional, Organizations

**Industry Trend Rating**

LEAP assigns a “trend rating” to each industry based on the relative growth rate of the industry in the local area compared to that of the industry nationwide. The following categories are used:

1. Industry growing “faster” locally than nationally\*
2. Industry declining locally while growing nationally
3. Industry growing locally while declining nationally
4. Industry declining locally “slower” than nationally\*
5. Industry growing locally “slower” than nationally \*
6. Industry declining locally “faster” than nationally\*
7. Industry growing or declining locally at a rate “similar” to national trend  
(Or industry not present)

*\* Note: “Faster” denotes local growth or decline trend that is more than 20% greater than the national trend. “Slower” denotes local growth or decline trend that is more than 20% less than the national trend. “Similar rate” denotes trends that are less than 20% different.*

Four North Country industries have a trend rating of “1” (growing faster locally than nationally), which means that they are strong performers:

920	Government & Non-NAICs
481-487	Transportation
491-493	Mail, Package Delivery & Warehousing
811-812	Repair, Maintenance, & Personal Services

Industries rated “2” (growing nationally but declining locally) are often targets for local support. In the North Country, the following industries belong to this category:

114	Fishing, Hunting & Trapping
115	Support for Agriculture & Forestry
531	Real Estate
562	Waste Management & Remediation
212-213	Mining & Support Activities
621-624	Health Care & Social Services
711-713	Amusement & Recreation
721-722	Accommodations, Eating & Drinking

Industries rated “5” (growing more slowly locally than nationally) are also targets for local support. Two North Country industries fall into this category, Private Households and Professional Scientific, Technical, Services.

Finally, ratings 3, 4, and 6 represent industries in decline nationally. In the case of industries rated 6, and to a lesser extent those rated 4 have already begun to decline locally. Those rated 3 can be viewed with cautious optimism as they are defying national trends at least for the time being. However, all three groups of industries are of interest to economic developers because as they decline, their resources (labor, equipment, facilities, training programs, etc) become available for other endeavors. It is up to economic developers to anticipate this availability of resources and determine how such resources might be used to foster economic growth in other sectors. In the North Country, these industries are as follows:

<b><u>Industry growing locally while declining nationally (3)</u></b>	
312	Beverage & Tobacco Products
314	Textile Product Mills
316	Leather & Allied Products
324	Petroleum & Coal Products
325	Chemical Manufacturing
332	Fabricated Metal Products
513	Broadcasting
514	Internet & Data Process Services
813	Religious, Civic, Professional, Organizations

<b><u>Industry declining locally “slower” than nationally (4)</u></b>	
221	Utilities
321	Wood Products
326	Plastics & Rubber Products
327	Nonmetallic Mineral Products
337	Furniture & Related Products
511	Publishing Industries (except Internet)
<b><u>Industry declining locally “faster” than nationally (6)</u></b>	
111	Crop Production
230	Construction
311	Food Products
315	Apparel Manufacturing
322	Paper Manufacturing
323	Printing & Related Support Activities
333	Machinery Manufacturing
334	Computer & Electronic Products
335	Electric Equipment, Appliances, etc.
336	Transportation Equipment
420	Wholesale Trade
512	Motion Picture & Sound Recording
524	Insurance Carriers & Related Activities
561	Administrative & Support Services
611	Educational Services
441-454	Retail Trade
521-523	Monetary, Financial, & Credit Activity

Source: EDR-LEAP.

## **Barriers & Opportunities**

### ***Barriers***

The analysis of barriers is based on the existing industry mix and growth patterns present in the North Country, and the extent to which each industry relies on (1) key cost factors (labor, electricity, rental and ownership housing, and tax burden), (2) transportation access to labor markets, airports, sea ports and rail intermodal loading facilities, and (3) workforce characteristics (workforce skill level, size of labor market).

The patterns described above as they exist in the North Country are compared separately with those in the Fort Stewart region, Fort Bragg region, and Fort Hood region.

LEAP uses these comparisons to establish ratings of the adequacy of local conditions for each industry. The system then determines the extent to which each of the factors

(cost, access, workforce) affects the observed industry mix and trend performance. The result is an identification of the unmet performance gap remaining for each industry in Primary Study Area counties, and an identification of which factors are holding back the area from fully closing that gap.

Factors are determined to be either “important” or “critical” disadvantages currently impeding growth in those economic sectors with employment growth potential. A factor is categorized as causing a “critical” disadvantage holding back business attraction (denoted by “2” in the table) if that factor plays a large role in the competitiveness of a specific industry and the North Country’s disadvantage is large relative to the Comparison Area (Fort Stewart, Fort Hood or Fort Bragg). A factor is categorized as “important” (denoting a “1” in the table) if: 1) that factor is of moderate importance for the competitiveness of a specific industry and 2) the North Country’s disadvantage is significant but not huge relative to the Comparison Area.

The results of this analysis are presented in Table D-3. As the table shows, production cost is the most pervasive barrier. It is a critical barrier for 29 industries and an important barrier for an additional 12. Air transportation is the second most prominent barrier, critical for 10 industries and important for another 14. This reflects the fact that while Watertown itself has relatively proximate access to the commercial airport in Syracuse, areas further north can be 3 hours drive or more from an international airport. Workforce (critical for 6 industries, important for 9) and highway transportation (important for 15 industries) are also key barriers for a few industries.

In contrast, land cost, tax cost, and broadband access are not barriers for any North Country industries with growth potential. Labor cost, energy cost, rail transportation and water transportation are only barriers for a few industries.

**Table D-3. Barriers**

NAICS	Sector	Opportunity Compared to	Potential Attraction	Prod Cost	Labor Cost	Land Cost	Energy Cost	Tax Cost	Work Force	Labor Skill	Hwy Trans	Rail Trans	Air Trans	Water Trans	Broad Band
111	Crop Production	Fort Stewart	25	2	2	-	-	-	1	-	-	-	1	-	-
		Fort Hood	61	-	-	-	-	-	1	-	-	-	-	1	-
113	Forestry & Logging	Fort Stewart	33	2	-	-	-	-	-	-	-	-	-	1	-
115	Support for Agriculture & Forestry	Fort Stewart	16	2	-	-	-	-	-	-	-	-	2	-	-
		Fort Hood	12	-	-	-	-	-	-	-	-	-	-	2	-
		Fort Bragg	22	1	-	-	-	-	-	-	-	-	-	2	-
212-213	Mining & Support Activities	Fort Bragg	50	1	-	-	-	-	-	-	-	-	-	-	-
		Fort Stewart	214	1	-	-	-	-	-	-	-	-	-	-	-
230	Construction	Fort Hood	402	1	-	-	-	-	-	-	-	-	-	-	-
		Fort Bragg	511	1	-	-	-	-	-	-	-	-	-	-	-
		Fort Stewart	25	1	-	-	1	-	-	-	-	1	1	-	-
322	Paper Manufacturing	Fort Bragg	39	1	-	-	1	-	-	1	1	2	-	-	
325	Chemical Manufacturing	Fort Bragg	16	1	-	-	-	-	-	-	1	-	-	-	
326	Plastics & Rubber Products	Fort Bragg	43	1	-	-	-	-	-	2	-	-	1	-	
335	Electric Equipment, Appliances, etc.	Fort Bragg	35	1	-	-	-	-	-	2	-	-	1	-	
336	Transportation Equipment	Fort Bragg	60	2	-	-	-	-	2	-	2	-	2	-	
420	Wholesale Trade	Fort Hood	399	1	-	-	-	-	2	-	2	-	1	-	
491-493	Mail, Package Delivery & Warehousing	Fort Bragg	21	-	-	-	-	-	-	-	-	-	-	-	
		Fort Stewart	26	-	-	-	-	-	-	-	-	-	-	-	
512	Motion Picture & Sound Recording	Fort Bragg	22	1	-	-	-	-	-	2	2	-	-	-	
513	Broadcasting	Fort Bragg	17	1	-	-	-	-	2	-	2	-	1	-	
514	Internet & Data Process Services	Fort Bragg	154	1	-	-	-	-	-	-	2	-	-	-	
521-523	Monetary, Financial, & Credit Activity	Fort Stewart	267	2	-	-	-	-	-	-	2	-	-	-	
		Fort Hood	57	1	-	-	-	-	1	2	-	-	-	-	
524	Insurance Carriers & Related Activities	Fort Bragg	12	1	-	-	-	-	-	-	-	-	-	-	
		Fort Hood	21	1	-	-	-	-	-	-	-	-	-	-	
531	Real Estate	Fort Bragg	162	2	-	-	-	-	-	-	-	-	2	-	
		Fort Stewart	168	2	-	-	-	-	-	-	-	-	2	-	
		Fort Hood	45	1	-	-	-	-	-	-	-	-	2	-	
532	Rental & Leasing Services	Fort Stewart	1,147	1	-	-	-	-	2	-	2	-	2	-	
		Fort Hood	1,147	2	-	-	-	-	2	-	2	-	2	-	
		Fort Bragg	1,147	1	-	-	-	-	2	2	2	-	2	-	
541-551	Professional Scientific, Technical, Services	Fort Stewart	931	1	-	-	-	-	2	-	2	-	1	-	
		Fort Hood	960	2	-	-	-	-	2	-	2	-	1	-	
		Fort Bragg	1,022	1	-	-	-	-	2	-	2	-	1	-	
561	Administrative & Support Services	Fort Bragg	33	1	-	-	-	-	2	-	-	-	2		
562	Waste Management & Remediation	Fort Bragg	1,638	1	2	-	-	-	1	-	2	-	2	-	
		Fort Stewart	1,771	2	-	-	-	-	1	-	2	-	2	-	
		Fort Hood	2,106	1	-	-	-	-	1	-	2	-	2	-	
711-713	Amusement & Recreation	Fort Bragg	161	-	-	-	-	-	-	-	-	-	-	-	
		Fort Stewart	163	-	-	-	-	-	-	-	-	-	-	-	
		Fort Hood	178	-	-	-	-	-	-	-	-	-	-	-	
721-722	Accommodations, Eating & Drinking	Fort Bragg	2,484	1	-	-	-	-	-	-	-	-	-	-	
		Fort Stewart	2,484	2	-	-	-	-	-	-	-	-	-	-	
		Fort Hood	2,484	1	-	-	-	-	-	-	-	-	-	-	
811-812	Repair, Maintenance, & Personal Services	Fort Bragg	1,240	1	-	-	-	-	-	-	-	-	-	-	
		Fort Stewart	128	2	-	-	-	-	-	-	-	-	-	-	
		Fort Hood	1,406	1	-	-	-	-	-	-	-	-	-	-	

Source: EDR-LEAP

### ***Opportunities***

To determine opportunities, the EDR-LEAP model uses two different bases for comparison. It applies business mix (location quotient) analysis to compare study area business mix against a nearby comparison area that has been chosen because of rough similarities in locational and natural resource characteristics. It applies business trend (shift-share) analysis to compares study area business growth for each industry against national average growth in that same industry to identify industries that are outperforming or underperforming against their counterparts elsewhere in the nation. All differences in mix and trend are measured in terms of jobs, because jobs are a constant that is not affected by inflation in the valuation of products over time. In addition, local economic developers tend to be particularly interested in pursuing economic development that leads to further job creation.

The analysis process has four steps:

1. By analyzing differences in business mix and trends against regional patterns and national trends, the EDR-LEAP classifies local business performance in terms of mix and growth trends. For local development personnel who are interested in developing employment growth policies, EDR-LEAP provides an “Industrial Trend Rating” to identify the types of businesses that are particularly thriving or faltering in the local area, compared to performance elsewhere. (this phase of the process was discussed above).
2. The model then identifies industries that appear to be locally under-represented in terms of mix and/or locally under-performing in terms of trend, and identifies them as possible candidates for improvement. (Note: an under-performing industry is one that is growing slower than nationally, declining faster than nationally, or locally declining while growing nationally.) For each, there is a measure of the potential for additional job growth over a ten year period.
3. Among the candidates for improvement, the model isolates the subset that is in industries expected to be growing in the future, and labels them as “strong candidates for future growth” through targeted economic development efforts. These are sectors that meet two criteria: there is positive additional growth potential in the study area and national employment in the sector is expected to grow over the next decade. (The model also identifies industries that appear to be already strong in local concentration and growth, and identifies them as industries that are already performing well without need for further economic development intervention.)
4. Finally, LEAP evaluates local strengths and weaknesses in terms of factors affecting business site location and investment decisions. That information is then used to further hone in on best prospects for economic development, and the types of efforts needed to best pursue them.

Table D-5 presents the results of this analysis: opportunities by industry in terms of jobs that could be gained if barriers were removed. The left-most columns present the industries with opportunities by NAICS and name. The next column indicates the potential to add jobs in the North Country if the “critical” or “important” barrier (as noted in the previous section) is eliminated, while the remaining 7 right-most columns show potential attraction, secondary growth, new opportunities, 10-year baseline growth and total potential for each sector (as defined above under methodology), as defined below:

**Potential Attraction (direct target).** This is an estimate of the magnitude of potential additional economic growth (new business attraction or existing business expansion) that is most likely to be directly attracted to the North Country with appropriate targeted outreach efforts. These values are based on: (a) the size of the local industry mix and trend “gap”<sup>45</sup> (b) the extent to which analysis of local factors still allows the North Country to be competitive as a location for those industries.

**Secondary Growth (supplier target).** This is the magnitude of potential secondary growth or attraction of business activity, essentially the additional economic activity that could follow with success in the direct business attraction identified above (“potential attraction”). This economic growth potential applies to industries that can be suppliers to the directly attracted businesses. These secondary opportunities can be seen as part of a strategy to increase local self-sufficiency by promoting development of local suppliers so that more of the local spending goes to support jobs within the local area. It is important to note that this concept of secondary targeting is based on typical inter-industry supply purchasing patterns of the target industries, and not on current input-output multipliers. In fact, this strategy actually seeks to increase the local multiplier impact of new business attraction.

**New Opportunities (total).** This is the sum of the Potential Attraction (direct target) and Secondary Growth (supplier target).

**10-year Baseline Growth Forecast.** This provides a reference for comparing the potential business attraction opportunity against the total expected growth in that industry that is likely to occur even under current conditions (typically without any targeted business attraction or investment strategies).

**Total Potential Growth, Low Range and High Range.** The total potential growth is the sum of the baseline growth forecast and the additional (direct or secondary) business attraction opportunity. Midpoint, low and high end ranges are all shown. The ranges represent a 90% confidence interval. The width of these ranges varies from industry to industry, depending on the historical volatility of each industry’s growth trends over time.

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<sup>45</sup> The gap is the magnitude of the shortfall in jobs in the given industry compared to what would otherwise be expected if the Study Area County’s percentages for business mix and trends mirrored those in the Comparison Area.

Table D-5. Opportunities

NAICS	Sector	Opportunity Compared to	Potential Attraction	Secondary Growth	New Opps	10-Year Baseline Growth	Total Potential Growth	Low Range	High Range
111	Crop Production	Fort Stewart	25	13	38	0	38	38	38
		Fort Hood	61	32	93	0	93	93	93
113	Forestry & Logging	Fort Stewart	33	8	42	0	42	42	42
115	Support for Agriculture & Forestry	Fort Stewart	16	4	20	25	46	20	71
		Fort Hood	12	3	15	25	40	15	66
212-213	Mining & Support Activities	Fort Bragg	22	5	27	25	53	27	78
		Fort Bragg	50	20	70	110	180	70	290
230	Construction	Fort Stewart	214	0	214	0	214	214	265
		Fort Hood	402	191	593	0	593	593	593
		Fort Bragg	511	243	754	0	754	754	754
322	Paper Manufacturing	Fort Stewart	25	12	36	0	36	36	36
325	Chemical Manufacturing	Fort Bragg	39	14	52	64	116	52	180
326	Plastics & Rubber Products	Fort Bragg	16	9	26	0	26	26	26
335	Electric Equipment, Appliances, etc.	Fort Bragg	43	12	55	0	55	55	59
336	Transportation Equipment	Fort Bragg	35	14	49	0	49	49	49
420	Wholesale Trade	Fort Hood	60	16	76	0	76	76	76
491-493	Mail, package delivery & warehousing	Fort Bragg	399	102	501	1,098	1,600	1,435	1,764
512	Motion Picture & Sound Recording	Fort Hood	21	0	21	0	21	21	23
		Fort Bragg	26	0	26	0	26	26	30
513	Broadcasting	Fort Bragg	22	7	29	88	117	29	205
514	Internet & data process svcs	Fort Bragg	17	8	26	16	42	26	58
521-523	Monetary, Financial, & Credit Activity	Fort Stewart	154	0	154	0	154	154	175
		Fort Hood	267	70	337	0	337	337	337
524	Insurance Carriers & Related Activities	Fort Bragg	57	0	57	0	57	57	71
531	Real Estate	Fort Hood	12	3	15	371	386	15	756
		Fort Bragg	21	5	26	371	397	26	768
532	Rental & Leasing Services	Fort Stewart	162	18	180	267	447	410	508
		Fort Hood	168	71	238	267	506	469	542
		Fort Bragg	45	0	45	267	312	276	358
541-551	Professional Scientific, Technical, Services	Fort Stewart	1,147	0	1,147	1,342	2,489	1,727	3,413
		Fort Hood	1,147	0	1,147	1,342	2,489	1,727	3,413
		Fort Bragg	1,147	0	1,147	1,342	2,489	1,727	3,413
561	Administrative & Support Services	Fort Stewart	931	258	1,189	0	1,189	1,189	1,213
		Fort Hood	960	315	1,275	0	1,275	1,275	1,275
		Fort Bragg	1,022	336	1,357	0	1,357	1,357	1,357
562	Waste Management & Remediation	Fort Bragg	33	13	46	73	119	46	192
621-624	Health Care & Social Services	Fort Stewart	1,638	619	2,257	1,912	4,169	2,257	6,082
		Fort Hood	1,771	669	2,441	1,912	4,353	2,441	6,265
		Fort Bragg	2,106	796	2,902	1,912	4,815	2,902	6,727
711-713	Amusement & Recreation	Fort Stewart	161	53	214	10	224	214	235
		Fort Hood	163	53	216	10	227	216	237
		Fort Bragg	178	58	236	10	247	236	257
721-722	Accommodations, Eating & Drinking	Fort Stewart	2,484	0	2,484	998	3,482	2,484	5,088
		Fort Hood	2,484	0	2,484	998	3,482	2,484	5,088
		Fort Bragg	2,484	0	2,484	998	3,482	2,484	5,088
811-812	Repair, Maintenance, & Personal Services	Fort Stewart	1,240	0	1,240	1,660	2,900	2,663	3,411
		Fort Hood	128	0	128	1,660	1,788	1,551	2,053
		Fort Bragg	1,406	217	1,624	1,660	3,284	3,047	3,723

Source: EDR-LEAP.

# APPENDIX E: STAKEHOLDER INPUT

The strengths and weaknesses analysis using LEAP was supplemented with information gathered during field research and stakeholder interviews, summarized below. Anecdotal material for this summary was gleaned from meetings and interviews with public officials, business leaders and interested individuals held in May 2006 in the North Country.

Though these comments are subjective in nature, they are valuable in conjunction with the analytical strengths and weaknesses assessment done by LEAP. In business attraction perception is often more powerful than fact – particularly when the perception is negative, and negative perceptions can exist even when the “data” shows no weakness or disadvantage.

## **Availability and Quality of Infrastructure**

*Strength: Transport access:* There is the important advantage of the Washington-Ottawa road and rail corridor. However, repeated references were made to the limitation of the two-lane highway on the U.S. side, in comparison with four lanes on the Canadian side. This limitation particularly affects distribution growth potential.

*Neutral: Telecommunications access:* This was a major barrier to business expansion during the 1990s. However in recent years the fiber optic “digital divide” has effectively been neutralized by significant upgrades in the North Country.

*Weakness: Air access:* Limited to daily flights from Watertown to Pittsburgh. Communities in southern portions of the region can utilize the airport in Syracuse, however communities farther north are several hours away from this facility.

*Strength: Water:* Transport is available on the St. Lawrence seaway. However, container ships can only proceed as far as Montreal. Officials from the Ogdensburg Port Authority felt strongly that Fort Drum was underutilizing port facilities.

*Strength: Energy:* There is an existing wind power industry in the area with expansion possibilities currently hampered by power grid capacity limitations and structural disadvantages.

*Weakness: Energy:* There is no competition for electricity supply in the tri-county area. National Grid has a monopoly.

*Weakness: Housing:* There is a widespread shortage of appropriate housing for military personnel, although some large developments are underway.

**Business Support Services**

*Strength:* Jefferson Job Development Corporation and other similar county agencies are set up to assist new and existing businesses.

*Strength:* Accessing capital is perceived to be a major barrier in the North Country. However, the New York Power Authority is partnering with private venture capital firm Golden Technologies Management to offer a \$30 million economic development investment fund for technology start-ups based in St. Lawrence County.

**Education**

*Strength:* A widely perceived strength is the growing interest and capacity of Clarkson University in St. Lawrence County in providing leadership and graduate research talent for economic development. The above-mentioned investment fund was largely facilitated by Clarkson University faculty.

*Weakness:* By contrast, Jefferson County suffers from the lack of a four-year college.

*Strength:* Elementary school system is well respected locally.

**Scale and Skills of the Labor Market - Workforce**

*Strength:* The local culture includes a strong work ethic. “People here understand what hard work is,” explained one stakeholder.

*Strength:* A pool of skilled labor exists (for retraining) among those laid off by manufacturing plants that have relocated to Mexico and other places.

*Weakness:* Unemployment is the lowest in decades. After years of double digit unemployment the rate has hovered around 6-7% in 2005/2006. There are labor shortages in high-skill sectors like information technology and certain construction trades.

*Weakness:* Many foreign graduate and doctoral engineering students cannot be hired because they are not U.S. citizens i.e. for Fort Drum-related work.

*Weakness:* Many spouses of Fort Drum personnel arrive with only a high school diploma. Also, spouses often leave *en masse* during deployments.

*Weakness:* Some employers perceive the workforce as traditional, somewhat resistant to change, union-oriented rather than entrepreneurial.

**Perceptions of Fort Drum**

*Weakness:* A recurring complaint about Fort Drum is that local businesses feel that it is difficult to communicate with management at the base.

*Weakness:* The rapid turnover of senior staff at the base is perceived to be a weakness in terms of building relationships with local business.

*Weakness:* A perception that Fort Drum’s procurement systems are too complicated.

*Weakness:* Fort Drum is not legally required to procure from local firms.

**Cost of Doing Business**

*Weakness: Legal barrier for startups:* In New York State entrepreneurs bear personal legal responsibility for their products, hampering commercialization of new ideas.

**Quality of Life**

*Strength:* Winter sports and summer recreation on the St. Lawrence River are popular.

*Weakness:* Watertown, county seat of Jefferson County, is known as “Snowtown USA” with an average of 101 inches of snow per annum.

*Weakness:* Jefferson, Lewis and St. Lawrence counties are perceived to be isolated and lacking reasons for young people and professionals to stay in the area.

**Access to Markets**

*Strength:* The area is located immediately north and south of Canadian and North American industrial and population centers like Toronto and New York City.

# APPENDIX F: THE CONTACT PROCESS

As referred to in Section 4.3, The Contact Process, in the report, the following procedures are suggested:

## **First Contact with the Prospect**

The initial package sent to the prospect should be lean: the appropriate industry/company specific white paper, a cover letter, and nothing else. All information necessary for a complete initial presentation should be contained in the document itself. There may be an impulse to include other materials about the North Country. The presence of extraneous materials would be wrong for several reasons. The biggest is that it might lessen the likelihood of the recipient looking at anything at all in the package. Most senior corporate executives consider themselves desperately short of time. Materials that require the reader to look at more than one document, or cross-reference from one item to another, have a high potential of not being read by a busy recipient.

## **Presentation**

A concern for any Economic Development entity lately is how to make its first mailing stand out among the dozens of pieces of correspondence that a busy executive receives each day.

We recommend that all correspondence to prospects be sent via Federal Express, Airborne, Express Mail, or another rapid courier service. The least expensive courier package (typically for delivery in the afternoon or second day rather than high-priority next morning delivery) costs on the order of twelve to fourteen dollars per mailing.

The question may be raised whether this is an extravagant use of funds, when first class mail would most likely cost less than a dollar. Given the relatively small pool of military supply related companies that might establish a plant in the North Country, and the high stakes to the community, county, and region, we believe that it would be an appropriate expenditure.

It might appear useful to include a pre-stamped business reply card in which the recipient could make comments or request further information. We recommend against this. For one thing, most corporations are quite secretive about planning new facilities. The location or relocation of a major business facility can cause tremendous disruption within the firm—it might lead to people getting transferred or even laid off. Likewise, outside the company, there are reasons for confidentiality—competitors can obtain useful intelligence, an unscrupulous property owner or real estate agent might raise land prices if they knew that a firm was thinking about buying it. Consequently, most executives would not want a business reply card to be seen either by the

company's own mail clerk or by outside parties. Another reason is that a business reply card would give the recipient the chance to say "no," before the full impact of the region's marketing effort is made.

**Writer**

For the cover letter of the first mailing, it would be most desirable to enlist the services of selected business executives in the North Country along with Fort Drum's Post Commander, if feasible. The first transmittal would be accompanied by a letter (on the volunteer executive's company letterhead) saying, in effect, "our company has found the North Country a good place to do business, and I think this might hold true for your company." A quote from the Fort Commander concerning the support they give to the region's economic development effort should also be included along with a comment about the spousal workforce availability. Both the company executive and, if allowable by army policy, the Post Commander should sign the letter.

An advantage of this is the probability that a business executive will have more credibility to another business executive than will the Economic Developer, who will be perceived as having a vested interest. Having the Post Commander sign the letter shows the close, cooperative nature of the military/civilian activities in the region. It also presents an interesting opportunity in the follow-up stage. More information on this mailing is provided below.

## **Representative Cover Letter**

### **First contact using local company letterhead stationery.**

Mr. John H. Jones  
Vice President for Manufacturing  
Foremost Electronics, Inc.  
1234 First Street  
Akron, Ohio

Dear Mr. Jones:

I would like to call your attention to what may be an unusually attractive opportunity for Foremost Electronics, Inc. If the projected increase in the military spending for your products occurs, it would appear that your firm might need additional manufacturing capacity in the near future.

We at Wilson Widgets have found an excellent location from which to serve our market. The community provides a highly efficient operating environment, is of manageable size and scale, and is positioned to serve one of the most rapidly growing military bases in the United States. At the same time, business costs are moderate and there is good availability of people we need as our employees, especially because of the large number of skilled military spouses and ex-military personnel. Manufacturing activities like your firm fit particularly well in our area of New York State (the "North Country"). As Fort Drum's Commander will attest to, the military certainly actively supports growth in the economy of the North Country.

My business is making widgets, and we have nothing to gain from any action that Foremost Electronics may choose to take. You can tell however, that I am quite enthusiastic about the community (County Name) area, and potential for further growth. Leaders of the local business community have volunteered to support this growth because we believe that the community and county have gone the extra mile to make themselves an especially attractive place to live and do business.

Feel free to call me at (315) 888-8888 if you would like to discuss these opportunities.

Sincerely yours,

WILSON WIDGETS  
Lee Wilson  
President

Commander, Fort Drum  
Lee Grant  
Brigadier General

**Second Contact with the Prospect****Rationale**

The effect of the community's, county's, and region's marketing efforts will be multiplied if the recipients get more than a one-shot transmittal. Studies show that after a year, no more than 5% of prospects will recall anything significant about an unsolicited marketing approach that consisted of a single contact. With two contacts, however, about 35% of recipients remember the name. With more contact, prospect recall goes up still higher.

Given the nature of economic development, this reinforcement is critical. Realistically, most recipients, regardless how carefully chosen, will not have an immediate need for a new site. In the one-to-five-year period, however, it is more likely that the recipient's organization will have requirements for additional capacity. Thus, the marketing program should be intended to make a good impression that will last a long time.

The second letter, carefully timed to arrive while the image is still fresh, reinforces the positive impression initiated by the first transmittal. The community/county should time the second letter to arrive two to three weeks after the first contact.

We suggest a leading paragraph that makes some reference to the previous letter. Be careful, however, not to seem coy or calculating. For example, the recipient probably has not yet actively requested further information, so it would be inappropriate to imply that.

One possibility is: "Following the recent correspondence to you from Ms. Lee Wilson, President of Wilson Widgets here in (community and county name) County, New York. I would like to offer you some additional data." This letter should be pleasant but concise. The prospect must not be made to feel that he or she is about to be burdened with volumes of unsolicited mail.

**Writer**

We recommend that the second contact be a letter from a category of executive that is different from the first.

Since the writer of the first letter was a private sector executive, and the military commander of Fort Drum, it may be appropriate that the second writer be a community or county official. This will show variety and help give the impression that a broad base of people and organizations within (community) and (name) County area is welcoming the recipient.

**Representative Second Letter for/by Public Official**

Mr. John H. Jones  
Vice President for Manufacturing  
Foremost Electronics, Inc.  
1234 First Street  
Akron, Ohio

Dear Mr. Jones:

We here in Community/(county name) County believe that we have a lot to offer firms in advanced technology, and especially those in your business of selling and supporting sophisticated electronic equipment. We are eager to assist companies in need of expanding their business facilities.

If you were interested in developing a new facility, you would be most welcome here. We are pleased with our community's success in attracting the right kind of companies, like Foremost Electronics, Inc.

You recently received some information from Ms. Lee Wilson, President of Wilson Widgets in (community/county name) County. I believe you will find that her interest and enthusiasm about (community)/County as an industrial location is shared by many other local business people.

One opportunity, which may be of particular interest, is the (fill in appropriate park name) Industrial Park, an exciting real estate venture by the City of (Community) and (name) County. I have asked Mr. Jim Smith of the (appropriate economic development entity name) to make himself available to you should you have need for further information.

Thank you for the opportunity to introduce (community), (name) County and our Industrial Park. We truly appreciate your interest and hope that you will consider our community as your firm grows.

Sincerely yours,

Bob Corker  
Mayor  
City of (community)

***Third Contact with the Prospect***

The letter from the elected official provides a logical opportunity for the third contact that the community/county will have with the recipient. That letter stated, "I have asked Mr. Smith of the (appropriate ED name) to make himself available to you should you have need for further information."

Hence the third contact with the targeted executive would take place about two weeks after arrival of the second letter, and will be a telephone call from the appropriate staff representative.

Since the recipient will already have received two mailings from the community/county, he or she will be more inclined to spend a few minutes on the telephone with the caller. In all probability, his or her curiosity will have been aroused. If there is a problem getting past a particularly protective secretary, it is possible for the staff person to say, "Mayor Corker/County Executive Ramsey asked that I call Mr. Jones."

For the telephone call, we recommend the same clear, straightforward tone that should characterize the entire marketing program: "This is Jim Smith of the (name of ED entity). We have done some research on the growing military expenditures for your type of products. We also understand you are an important supplier of these materials to the military. Our research suggests that our community and industrial park offer some attractive assets for corporations like Foremost Electronics. Obviously we don't know what your plans may be, but we want you to know that we would be delighted to assist in any way."

This is probably a good point at which to make some decisions on categorization of the prospect. A firm rejection, any rudeness, or a factual statement that the company is not in an expansion mode may be reason for placing this prospect in a low priority status. Even then, however, there should be some follow-up-- perhaps a polite, simple letter of inquiry in four to six months followed by another phone call two to three weeks later.

**Further Contact**

By the time of the third contact, the community's/county's effort will have shifted from "marketing" to "sales" for all prospects that still remain in the pool of promising candidates. This is a substantially different discipline, details of which are beyond the scope of this project. There is an excellent body of training literature and professional development course provided by the International Economic Development Council and other organizations.

Whatever the level of interest expressed by any prospect, careful records should be kept. Prospects should be categorized into several degrees of promise, based on the contacts made.

Occasionally contacts are made with a firm that is truly ready to make a new real estate investment or build a new facility for its own use. In such a fortunate case, it may be appropriate to call immediately upon executives of the company, assist in arranging a visit by them to the region, or take other immediate action.

### **Trade Shows/Seminars/Industry Association Shows, etc.**

For those prospects that are considered to have moderate or high potential, attending a “show” that the company will be attending is a good idea, if you have sufficient funds to participate.

Try to determine during your initial research or as a result of contact with the prospect if they attend any organization’s shows during the year. If an “in person” contact has not been established, seriously consider attending the “show” to set up a face-to-face meeting. Even if the primary decision maker is not attending (obviously try to determine this in advance), you will be able to initiate a first hand request to visit the company. At a minimum, it provides a reason to send a few more contact letters in the months ahead to keep your community’s name fresh in the prospects mind.

### **Suggestions for Correspondence**

To be effective, all materials sent to prospects must give every impression of being legitimate personal business correspondence. There is a tremendous difference in the reception given a letter of this type as opposed to one showing any sign of being mass-produced or having any furtive intentions. Developing a positive first impression must be a high priority, even though it requires hard work. The following points are obvious but are important enough to be emphasized:

- In all other aspects of contact with each prospect, it is essential to convey the impression that the mailing is individualized correspondence. Type the addressee’s name directly onto the envelope. Never use a label that is not individually typed (i.e., no computer generated, “Cheshire,” or other paste-on labels), never use anything other than the highest quality stationery, and so on.
- The capabilities of computer word processing technology should be used but with careful overview by real people. Spelling and grammar check programs are a useful first step, but often make mistakes. Be alert for such errors as using mail merge to generate a letter to John Jones, Jr. and allowing the program to refer to him as “Mr. Jr.” If you have to, hire a retired schoolteacher to proofread!
- Use high quality letterhead stock. If the community, county, or chamber is sending a letter over the signature of a local business, public executive, or a Fort Drum Officer, it will be appropriate to use the author’s official stationery and reimburse the company or in the case of the military, provide replacement stationery.

- Always address the letter using the contact person's full name and title. Never just "Vice President" or even "C. Jones, Vice President," but "Mr. Cyrus T. Jones, Senior Vice President for Manufacturing."
- Seek opportunities to start the letter with some reference that indicates familiarity with the firm and conditions in their business. This should be easier to do if the type of research recommended below is followed. *The Wall Street Journal* and other business publications can be useful. It will flatter the recipient if the letter starts, "Dear Mr. Jones: The article in the December *Fortune* magazine shows that your firm is alert to opportunities that can come from siting your facilities in the right location..."
- Make certain that all correspondence and other materials have a dignified, businesslike tone. Balance is important. Letters should not be so low-key and indirect that the recipient has trouble understanding why it has been sent to him or her, but they also should not be too strongly promotional. In this instance, a reference to military contracts and the significance of Fort Drum and its spousal labor force is an obvious choice. Letters should be readable, concise and not try to convey every bit of information on the subject. Communication from the local volunteer executives (military or civilian) and officials should clearly appear to be from a person who is not seeking personal gain, but is simply passing on some useful ideas.
- Materials should appeal to the recipient's selfish interests. The point is the North Country has some unique assets that may be especially advantageous to your company," and not "Do us a favor by building something in the North Country."
- Avoid anything that could arouse the wrong sentiment in the recipient. Disguising the mailing's intent by the use of cute, flashy, misleading, or other insincere tactics can spoil the effect. Make everything look like the dignified, businesslike, understated, and clear reports that she or he would expect as an internal report.

# **APPENDIX G: AN ALTERNATE METHOD FOR DEVELOPING A SPOUSAL PROFILE**

If for any reason NorthStar (see Section 4.7 of the report) is not available to collect data on military spouses and those leaving the military, an alternate method is described below:

One of the local economic development related groups will have to bear the cost of developing the survey (perhaps a group such as the Center for Community Studies at Jefferson Community College). In order to maintain strict confidentiality, the prepared surveys, in unaddressed envelopes, should be given to the appropriate Army department for mailing. In order to induce a higher level of returned surveys, a letter explaining the reason for the survey and also indicating that a major prize or three or four top prizes will be given to the individual(s) whose name is randomly drawn from the returned surveys. It would be best if the letter were signed by both the base commander and the head of the Economic Development organization on official stationery. A small preprinted slip of paper with a place to write name, address and telephone number should be included with each survey in order to avoid having the information put on any survey form. When the surveys and prize slips are returned to the Army, the Army staff will separate them and give the unaddressed/unnamed surveys to the ED agency for processing. The Army should be willing to assist in this endeavor because the information gleaned from the survey will be helpful to them in better meeting the needs of the spousal population.

The same skill set information should be tabulated concerning retirees and exiting troops after their enlistment is up. At a minimum, while maintaining confidentiality, a simple profile could be developed from a listing of the position(s) the individuals held, rank and Military Occupation Code (MOC) prior to leaving the service. A better method would be to use a survey form similar to the spousal form and have it filled out at the time of discharge. MOCs can then be mapped to civilian occupational matches which in turn can be linked to industry.<sup>46</sup> A complete mapping of retiree MOCs, then, will provide a list to the industries that could best utilize the local retiree population. Two profiles pertaining to these individuals should be generated, one for those remaining in the North Country and a second for those who will be moving elsewhere. With no name required when filling out the survey form, confidentiality can be assured. Filling out the form would have to be voluntary, but having it available during normal discharge would be convenient and increase the response rate considerably. Again, the Army's cooperation is paramount in this endeavor.

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<sup>46</sup> A Crosswalk that links MOCs with civilian occupations can be found at: <http://online.onetcenter.org/crosswalk>. The US Bureau of Labor Statistics publishes a matrix that links occupations and industry demand.

The combined information from spouses and prior military personnel can then be promoted as “the unknown local labor shed, now known” or a more appropriate lead-in on a one-page white paper titled “The North Country Labor Force: New People, New Skills.”

