

The Business Perspective on Regional Economic Prosperity:

Input for North Carolina's Eastern Region

Background

North Carolina's Eastern Region (NCER) is one of seven state-designated partnerships created to promote economic development across the state. The region includes the thirteen counties of Carteret, Craven, Duplin, Edgecombe, Greene, Jones, Lenoir, Nash, Onslow, Pamlico, Pitt, Wayne, and Wilson. The area includes several small metropolitan and micropolitan areas – with Rocky Mount on the northwest corner of the region, Greenville on the northeast, Jacksonville on the southwest, and Morehead City on the southeast.

In 2004, the North Carolina General Assembly mandated that all seven partnerships develop a strategic vision plan for their respective regions. In developing its work program for the vision plan, NCER felt it important to integrate the economic development planners from the region's three councils of governments and the respective economic development districts served by those areas. North Carolina's Eastern Region includes all nine counties of the Eastern Carolina Council (Carteret, Craven, Duplin, Greene, Jones, Lenoir, Onslow, Pamlico, and Wayne), three counties from the Upper Coastal Plain Council of Governments (Edgecombe, Nash and Wilson), and one county from the Mid-East Commission (Pitt). All three of the area's Councils of Governments (COGs) are also designated as Economic Development Districts.

The goal of this proposed effort was to develop a "super-regional" strategy in conjunction with the region's three economic development districts so NCER sought EDA funding to expand the Eastern Region's industry cluster study and strategic planning initiative to include in-depth interviews with business leaders in the region's 13 counties. This was intended to strengthen the planning initiative and cluster study, create stronger linkages between the economic development districts and the private sector, as well as integrate the findings from the NCER study with the required Comprehensive Economic Development Strategy updates being completed by the three economic development districts.

The interviews conducted with EDA support also benefits NCER's visioning process in several ways. Most importantly, it provides all local leaders with a better understanding of the challenges the Eastern region's business community faces. The survey and interviews also offered an opportunity to enhance input from the region's business leaders about the economic development issues they think should receive the greatest attention during the vision planning process.

Through the data gathered in the interviews, the economic development leaders in the region were better able to refine the selection of the targets for growth identified in the NCER's mandated cluster study. While quantitative data analysis conducted as part of the NCER vision plan process helped in the initial identification of these clusters, it was clear in the process that business input was necessary to appreciate fully the complexities of the regional economy. The interviews conducted for this study therefore provided invaluable insights into these activities, and better informed our analysis.

This report provides a summary of the results of the business survey and is organized as follows. The first section below provides a brief overview of the Eastern Region and its economy. Following that section is one that summarizes the industry cluster study findings. The subsequent sections provide background on the methodology

used and findings from the business survey. In addition, a section of the report is devoted to describing the region's industry clusters in light of the findings from the business interviews. Finally, the report identifies several ways these findings have been used in the region's strategic planning process.

North Carolina's Eastern Region

North Carolina's Eastern Region (NCER) encompasses 7,000 square miles and includes more than 938,000 people.¹ Like other US regions, NCER is undergoing an economic transformation that involves moving away from traditional labor-intensive industries. Many of the area's long-established industries—such as textiles and tobacco—grew in the area because of widely available low-cost, low-skill labor. Because lower-cost labor can be found in other countries or can be replaced by advanced technologies, the region's strategy must focus on ways to change the economic environment to replace the jobs being lost in traditional industries. The cluster report undertaken as a component of the regional visioning process examined the regional economy to identify those industries that will have the greatest competitive advantage in the region.

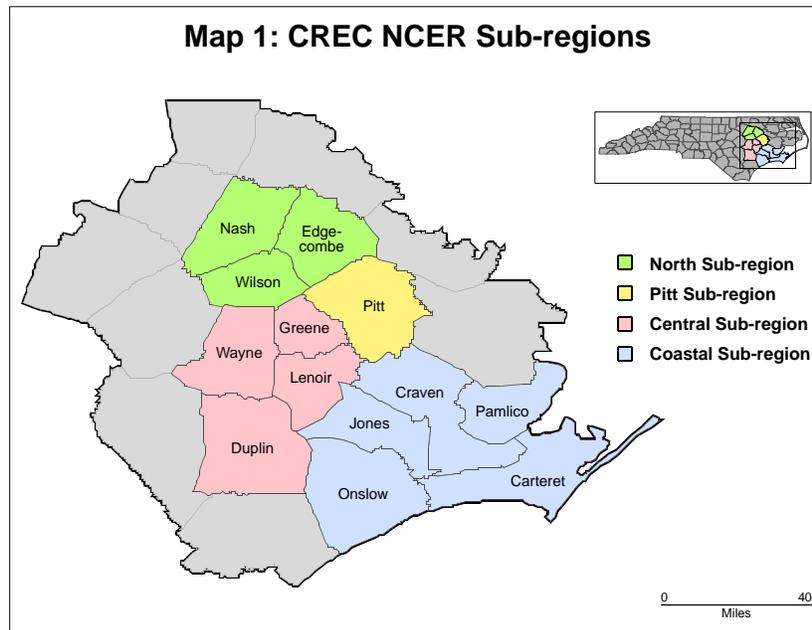
The region's population continues to grow despite the challenges it faces in creating new jobs. Since 2000, the North Carolina's Eastern Region added nearly 22,000 residents. This growth is near the average for the nation, but is somewhat more modest than elsewhere in the state, especially in the Raleigh and Charlotte metropolitan counties. In particular, nearby Wake County's population grew by more than twice the state average. Between 2000 and 2004, Wake County alone added more than four new residents for every one new resident in all 13 Eastern Region counties combined.

Rapid growth in other parts of the state is important to NC's Eastern Region for two reasons. First, the Raleigh-Durham area is a powerful economic force driving growth for the entire state of North Carolina—including the Eastern Region. Firms in Wake County employ nearly 400,000 wage and salary workers. If NCER's military workers were excluded, the Wake County economy would employ more than the entire Eastern Region economy. Second, the Research Triangle area represents a powerful magnet that draws people from the Eastern Region because Raleigh-area jobs pay much higher wages. According to the North Carolina Employment Security Commission (NCESC), the average 2004 wage for all jobs in Wake County was about 37 percent higher (or nearly \$10,800 per year more) than average wages offered in NC's Eastern Region.

In addition to a large number of high-paying, high-skilled job opportunities, the Research Triangle area also offers a broad array of urban amenities. These characteristics combine to make Raleigh particularly attractive to many young adults in the Eastern Region. The Eastern Region's future success depends heavily on the development of an economic base that can compete and keep talented human capital at home while simultaneously taking advantage of the opportunities arising from Raleigh's continued growth and expansion.

The consequences of the Research Triangle region's growth are felt unevenly throughout the Eastern region. Unlike many economic regions, the Eastern Region has no single major urban area to act as a focus of activity. While state leaders often treat NC's Eastern Region as a single homogenous unit for planning and investment purposes, many local leaders recognize that the region is not a single economic entity. Instead, the region is composed of a number of smaller economic areas centered on important local employment hubs. These differences mean that different parts of the regions face different challenges and opportunities. In analyzing NC's Eastern Region

¹ Source: US Census, 2004 population estimates.



economy, it is important to recognize these sub-regional areas (displayed in Map 1) focused on growth centers.

The Northern counties depended heavily on traditional manufacturing, but with the loss of labor-intensive manufacturing overseas and the growth of the Raleigh suburbs toward Rocky Mount and Wilson, retail/commercial, healthcare, and education services are expanding rapidly. The Central counties remain dependent on the agricultural and food processing sectors. The Coastal sub-region relies heavily on military and beach-related tourism spending as its economic base.

Pitt County also differs from the other Eastern region counties in two important ways. First, East Carolina University and the related medical complex create very different economic growth patterns that clearly distinguish Pitt County from Edgecombe, Nash, and Wilson Counties. Second, journey-to-work data provided by the US Census Bureau show that Pitt may be more closely linked with the Central than the North sub-region. Pitt serves as an administrative and economic center for the area east of I-95, not just the NCER.

Targeted Industry Clusters

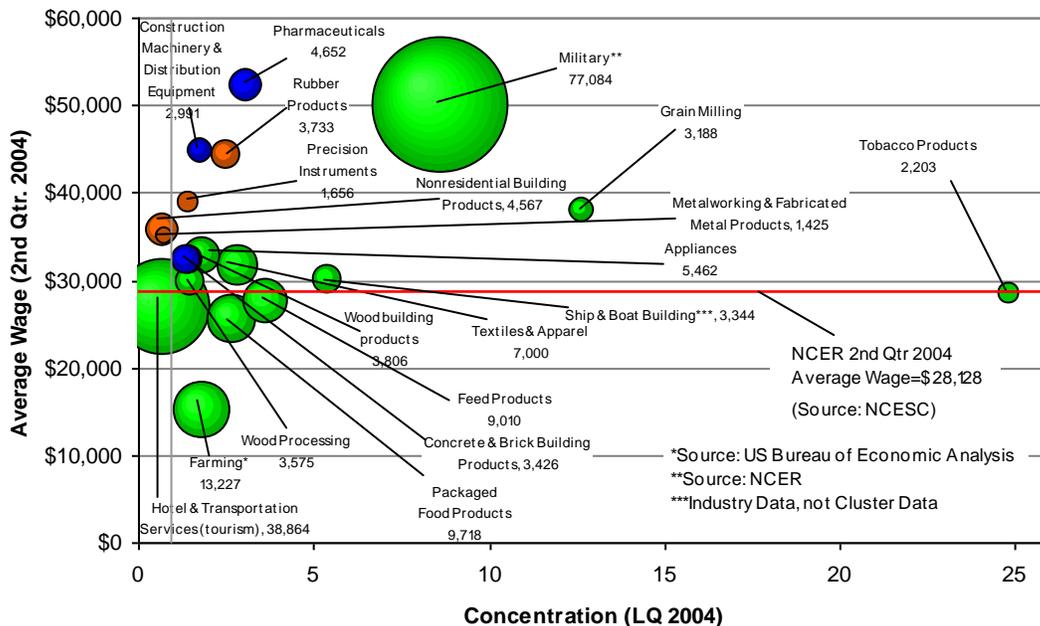
To identify the appropriate cluster targets for NCER, CREC reviewed regional data for nearly 50 different industry clusters that are found in the national economy. CREC then compared the economic structure of NC's Eastern Region to similar national clusters. Each of these "national clusters" has a unique structure. The industries buy and sell from one another, creating a "value-chain" in which the industries provide or process inputs into products or services that are eventually sold to consumers. The contributing industries are collectively called a "value-chain cluster."

Not every cluster found on the national list is present in NC's Eastern Region. If no cluster-related industries are found, then it is highly unlikely that the region could compete to attract it; therefore, the cluster is not considered as a potential target. Furthermore, even when the cluster appears to exist in the region, it frequently can be "incomplete." In other words, some or all of the cluster's important industries are not found within the region. In some cases, many of the core industries that make up a cluster are found locally while, in other cases, very few of a cluster's industries are

found. The most promising economic development targets should include those clusters that appear to be either more complete than others or growing faster than others.

Even though industry clusters such as healthcare are large employers, these are not considered opportunities because the Eastern region possesses no unique advantage relative to the rest of the country. Frequently, these “local serving” clusters are found in similar sizes all over the US and their growth depends on larger market factors rather than creating a competitive local advantage. Figure 1 shows the clusters of greatest significance to the Eastern region. CREC classified these clusters into three major categories based on several factors including their size in terms of the number of establishments and employees as well as how many of the national cluster's industries have a presence in the region. The categories were existing, emerging, and potential clusters.

Figure 1: NCER Industry Clusters



Existing Clusters represent the NCER's traditional economic base, and include activities such as textiles and apparel, packaged food products, feed products, tobacco products, farming, appliances, grain milling, wood processing, hotels and transportation services (tourism), and military. If large and growing clusters were missing significant complementary industries, then CREC described these as “emerging clusters.”

NCER's Emerging Clusters include pharmaceuticals, construction equipment and industrial machinery, building products using concrete, brick, and wood materials (referred to as concrete and brick as well as wood building products). Finally, “potential clusters” may create many local jobs but a small number of firms account for the majority of that employment. Potential Clusters identified in NCER include metalworking and fabricated metal products, precision instruments, nonresidential building products, and rubber products.

These data, combined with previous industry research in the region (e.g. studies completed by Market Street Services, 310 Marketing Ltd., and East Carolina University's Regional Development Services) and input from the region's economic development

organizations, led to an interest in the needs and concerns of firms in seven industry clusters. Those clusters include:

- Marine trades and boat building;
- Pharmaceuticals and medicine manufacturing;
- Wood kitchen cabinet and countertop manufacturing, including wood building products;
- Travel and tourism, including retiree attraction;
- Meat processing and agricultural production;
- 'Advanced Manufacturing' activities related to heating equipment manufacturing, appliances, electrical equipment manufacturing and engine equipment manufacturing;
- Military and military procurement activities related to food service, logistics, construction and aviation repair.

Obviously some of these activities are more appropriate for some parts of the region than others. For instance, boat building is more prevalent in the coastal counties than in the northern counties. In contrast, pharmaceuticals are more relevant for the northern counties than the coastal counties. The cluster analysis provides an in-depth discussion of the clusters important to each sub-region of the NCER.

Nevertheless, successfully developing these clusters and unlocking their full potential requires more information about the needs of industries in these clusters. The survey of businesses provides more information about the needs of companies in these targeted clusters. The next two sections describe the survey process and the findings from that research.

Survey Results

Methodology

The survey and interviews of businesses was designed to paint a more complete picture of the region's seven targeted clusters. Thus, the survey population was focused primarily on companies in the industry clusters. The clusters consisted of 37 different industries (listed in Appendix 1). Beginning with these industries, NCER and CREC staff used a collaborative process to compile the list of companies receiving surveys. Initially, firms from these industries in the 13-county eastern region were identified using the ReferenceUSA database. This list was then sorted by county and distributed to each county's economic development corporation (EDC) in order to review their county's companies, delete those companies that were no longer in business and allow each EDC to add important firms missing from the list.

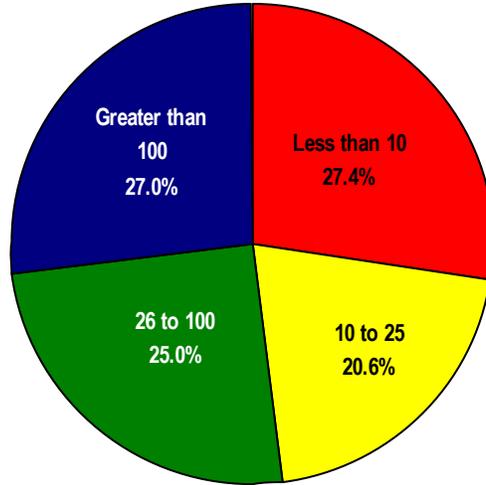
The survey instrument (shown in Appendix 2 with a simple tabulation of the results for many of the questions) asked firms about their business, suppliers, customers, workforce and general impressions of the region's infrastructure and economic development needs. NCER, CREC, and partner EDCs mailed surveys and cover letters to businesses throughout the 13 counties. The surveys were mailed in June 2005. In some cases, the local economic development organization sent the survey directly, and in other cases, the EDC provided stationary and envelopes so that the survey appeared to come directly from county officials. These efforts were designed to enhance the response rate.

After receiving the initial responses, NCER and CREC collaborated with area economic development districts to conduct in-person interviews with companies. The goal was for each district to conduct an average of 10 business interviews per county, with an appropriate mix of firms from the targeted clusters. The Eastern Carolina Economic Development District included nine of the 13 NCER counties so local representatives from the North Carolina Department of Commerce assisted in completing the interviews within the allotted time period. All of the in-person interviews were conducted in August through October 2005. To ensure consistency across the interviews, CREC developed an interview protocol for the three economic development districts that was aligned with the mail survey. These efforts generated 251 responses from 1,554 firms for an overall response rate of 16.2 percent. With the exception of Pitt County—which had a response rate of 23.4 percent, the response rate for the other sub-regions were consistently around 15 percent. This consistency suggests that the survey provides a representative sample of firms in the targeted industries.

Basic Firm Characteristics

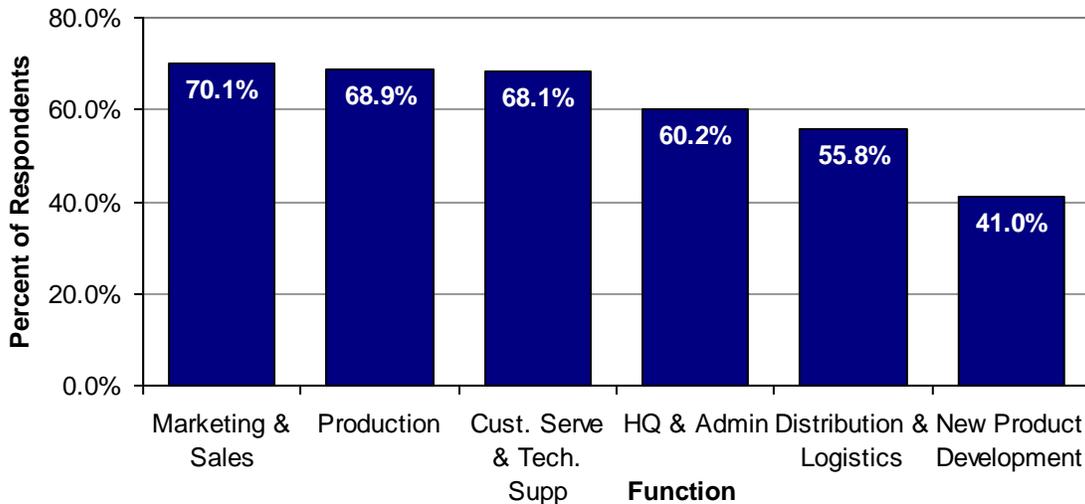
The survey respondents included firms of all sizes. Figure 2 shows the distribution of respondents according to employment size. There is a roughly even distribution between firms employing less than 10 employees, 10 to 25 employees, 26 to 100 employees and greater than 100 employees. Overall the median number of employees for all the respondents was 28. When examining different types of the respondents, a number of differences emerged. For example, firms in the north sub-region had the highest number of employees with 45. Conversely, respondents from Pitt County and the coastal sub-region had the smallest median employments with 18 people. Additionally a clear distinction emerged between locally-oriented firms producing for just North Carolina and more export-oriented firms producing for wider markets. Locally producing firms had a median firm size of 12 employees, while the more export-oriented firms had median employments of 70 employees.

Figure 2: Employment Size of Respondents



Survey respondents also reported that their operations were involved in a wide variety of activities in support of the cluster. Recent literature regarding cluster building suggests that clusters depend on product innovation, design, production, sales, and service. In other words, it is simply not sufficient to have firms represented in each part of the cluster's value chain. Complete clusters must have access to companies involved in each of these activities to ensure that the cluster will continue to develop over time. Figure 3 shows that most of the region's firms are involved in production, marketing, and customer service – the “latter stages” of the product life cycle. Areas related to decision making, distribution, and innovation are frequently present within the region, but are almost as likely to be found elsewhere. One troubling finding from the survey is that so few of local firms are involved in product development and design. Only 41 percent of firms indicated that they undertook new product development, an activity often recognized as a high value-added activity.

Figure 3: What NCER Firms Do



One of the most critical concerns for local economic development is the ability of local firms to make their own decisions about company strategy and investments. Thus, we are concerned with the proportion of firms headquartered in the region. Table 1 shows the activities undertaken by the region's firms according to where the firm's

Table 1: What NCER Firms Do By Location of Firm HQ

Location of Firm HQ	HQ & Admin Functions	Prod. Dev.	Marketing & Sales	Prod.	Dist. & Logis.	Cust. Service & Tech. Support
Current Location	---	50.3%	84.7%	69.3%	60.7%	74.8%
Other Eastern NC Location	36.4%	9.1%	54.5%	45.5%	27.3%	63.6%
Other US Location	9.1%	21.2%	40.9%	68.2%	43.9%	53.0%
Foreign-Owned	30.0%	60.0%	40.0%	100.0%	80.0%	70.0%

headquarters are located. Those not headquartered in the region (branch plants) almost universally indicated during the surveys and interviews that they located in the region for reasons related to costs – competitive labor rates or the area's non-union environment. Among those branch facilities, foreign-owned affiliates appeared to be more willing to invest in local product development activities than other firms. Nevertheless, in most cases both the branch plants and locally headquartered plants are comprised of basic skill, labor intensive operations.

Locally headquartered firms performed a wider range of activities including production, marketing and sales, customer service and technical support. These firms also placed less emphasis on production-related labor rates. Not surprisingly, locally controlled firms are more likely to expand locally and less likely to be easily enticed away by incentives offered elsewhere.

Infrastructure-related Issues

Table 2 shows that a majority of the survey respondents indicated that three aspects of the region's infrastructure—Roads, Telecommunications and High Speed Internet Access was either 'Excellent' or 'Good'. Slightly less than 50 percent of the respondents indicated the same for the 'Air Freight' infrastructure. Firms viewed the air passenger infrastructure the least favorably, as over 42 percent considered it either 'Fair' or 'Poor'. Two other infrastructure components—Waterways and Rail, were seen as not applicable to over 60 percent of the survey respondents.

Table 2: NCER Firm Impressions of Regional Infrastructure Assets

Infrastructure Component	Excellent	Good	Fair	Poor	Not Applicable
Road	17.9%	50.6%	22.7%	6.0%	2.8%
Air Freight	7.2%	41.8%	12.4%	8.0%	30.7%
Air Passenger	5.2%	34.3%	26.3%	15.9%	18.3%
Waterways	5.2%	21.9%	8.4%	3.2%	61.4%
Rail	4.0%	14.3%	9.2%	8.4%	64.1%
Telecommunication	12.0%	65.7%	13.9%	4.4%	4.0%
High Speed Internet	18.7%	58.6%	11.2%	6.8%	4.8%

There were, however, important regional differences related to the perceptions of the area infrastructure. For instance, firms in a relatively 'road rich' area like Nash, Edgecombe and Wilson counties that have access to I-95 and US 264 were more apt to view the road infrastructure favorably. While 43 percent of respondents from those counties rated the road infrastructure as 'Excellent,' only 5 percent of respondents from

the coastal counties rated roads as 'Excellent.' In addition, firms in the coastal areas saw the waterways as more relevant to their business than did other regions. Over 70 percent of firms in the central region saw the waterways as not applicable to their business, whereas only 50 percent of businesses in the coastal counties felt the same way.

The survey asked additional questions about the responding firms' internet access. An overwhelming majority—over 85 percent of the survey respondents—had a **high speed** internet connection of some form. Generally speaking, larger firms were more likely to have a direct line or satellite connection. Smaller firms more often indicated that they used either a cable or DSL connection to supply their internet access. Smaller firms were also more apt to consider the price of their internet connection more expensive. Regarding this latter point, there were also some regional distinctions as firms in the central region were most likely to view their internet connection as relatively inexpensive while the responding firms in Pitt County were more likely to view their connection as relatively expensive.

Workforce Needs and Assessment

The survey shed light on many of the Eastern region's key workforce issues. As shown in Figure 3, most respondents found worker recruitment rather difficult. Almost 70 percent of respondents found the recruitment of both semi-skilled and skilled workers either 'Sometimes Easy' or 'Never Easy'. Skilled workers were particularly difficult to attract as 57 percent of respondents found recruiting skilled workers 'Never Easy'.

Figure 3: Worker Recruitment in NCER



Regarding unskilled and semi-skilled workers, physically demanding and low wage positions combined with the region's relatively low level of educational attainment make worker recruitment difficult. In order to overcome some of their difficulties, a number of industries—both large and small, use temporary staffing agencies. Respondents that used these agencies did so because of the agencies' ability to screen potential employees. This in turn saved the employer both time and money. This situation also gives the employer the opportunity to "try out" a potential employee without having the liabilities associated with terminating new employees who prove unable to meet their job requirements.

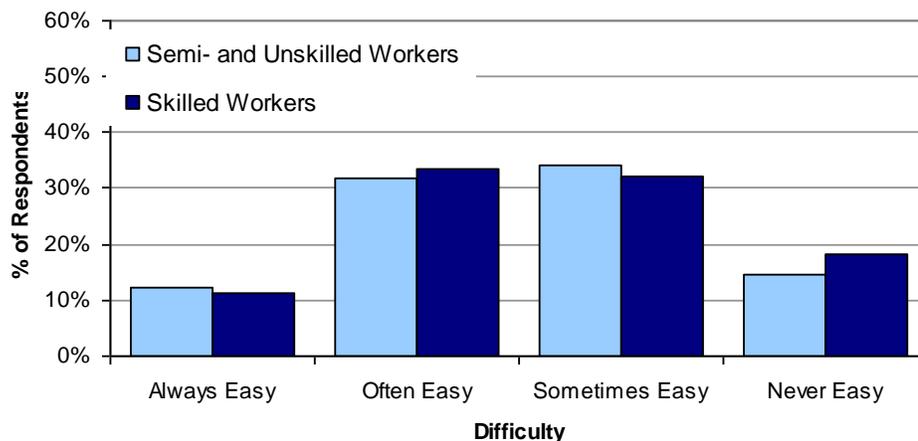
In addition to the workforce deficiencies, several large companies expressed concerns about the region's lack of affordable housing. Although not an immediate concern, these employers felt that these housing issues will eventually hinder their ability

to recruit and retain unskilled and semi-skilled workers. There were some sub-regional differences as well, as 23 percent of respondents in the northern counties found recruiting unskilled and semi-skilled workers 'Never Easy' while almost 46 percent of respondents in the coastal counties answered the same way.

Several different reasons contributed to the difficulties in recruiting skilled workers. The Research Triangle region offers more opportunities for skilled workers, luring skilled people away from the Eastern region. In addition to losing skilled workers to other regions, many of the Eastern region's industries experience difficulty in getting skilled workers to move into the region.

Existing perceptions and first impressions of the region are major barriers to recruitment. Companies reported that first impressions made by abandoned buildings, junkyards, mobile homes and pawn shops reinforce the notion that the region is poor and lacks an environment where professionals can have both a challenging job and a desirable family environment. Consequently, many managers and skilled employees live outside of the community where they work. In the western part of the region employees migrate towards Raleigh's eastern suburbs, in the central part of the region they migrate to the Greenville area, and in the eastern part of the region they migrate towards Wilmington and the coast. Managers and skilled employees of branch plants mentioned more frequently the region's lack of cultural attractions, recreation, shopping, restaurants, and other amenities.

Figure 4: Worker Retention in NCER



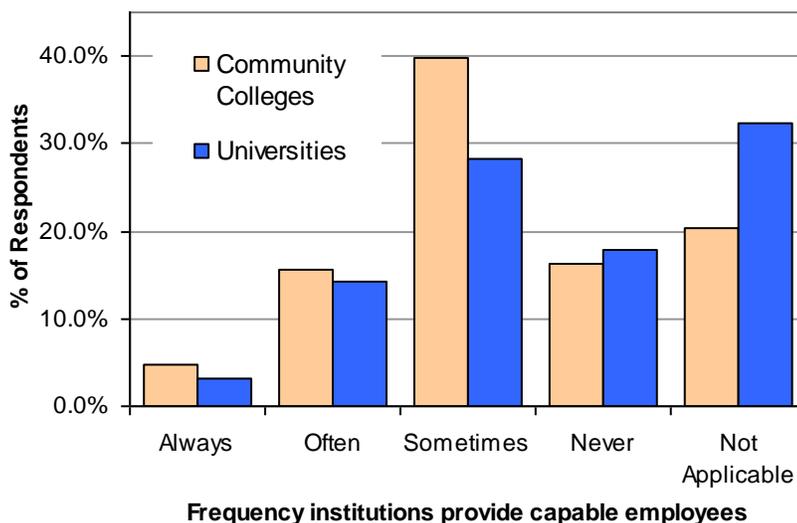
Generally speaking, talent retention appears to be a bit easier than worker recruitment for both all types of workers. Figure 4 demonstrates that the majority of firms found retention either "Often Easy" or "Sometimes Easy". The greatest difference was found between the recruitment and retention of skilled workers. Whereas 57 percent of respondents found recruiting skilled workers 'Never Easy', only 18 percent found retaining skilled workers 'Never Easy'. Several factors explain the relative ease of retention over recruitment. For instance, once employees work in the region for a while, they learn to appreciate the slower paced friendly environment and are often easy to retain. Managers not native to the Eastern region, point out that southern culture generally values family over wealth and achievement. Although this creates an environment where the highest achievers leave the region, it also creates an attraction for others more oriented toward family.

It should also be noted that smaller firms find the retention of both unskilled/semi-skilled workers and skilled workers more difficult than larger firms. This is partially

because larger firms tend to pay better wages and provide greater benefits packages. As a result, small firms feel as though they are less able to compete for workers, particularly those with higher skill levels. On several occasions, respondents from smaller companies stated that they spent money on worker training only to see that employee leave once they were trained. They also expressed the opinion that larger companies garner a greater share of the state and local financial benefits and incentives.

The region's institutions of higher education are an important resource for area employers in finding and retaining workers. More firms use the community colleges for training than the universities. As demonstrated in Figure 5, 46 percent of respondents indicated that they found capable employees from the region's 4-year institutions, with 18 percent using the universities 'Always' or 'Often' to find workers. Over 60 percent of the respondents indicated that the community colleges provided capable employees, with 20 percent using community colleges 'Always' or 'Often'. Most all companies that use local community colleges for employee training are pleased with the responsiveness and quality of instruction².

Figure 5: NCER Higher Ed. Inst. providing capable employees



The survey results show that a number of skilled occupations are more difficult to find than others. These results are shown in Table 3A. Given that the firm sample included a significant number of manufacturers, it is not a surprise to see the two most in demand occupations are Production & Assembly workers as well as Installation,

Table 3A: Most Difficult to Find Skilled Employees (10 Occupational Categories)

Occupations	% firms finding skilled workers difficult	Occupations	% firms finding skilled workers difficult
Prod & Assembly	21.5%	Computer & Math	9.6%
Install, Maint & Repair	20.3%	Trans. & Mat. Moving	5.6%
Eng & Arch	15.1%	Construction	4.8%
Business, Mgmt & Fin	12.7%	Life or Physical Sci.	4.0%
Office & Admin	11.2%	Other	25.1%

² During the course of the interviews, it became apparent that a majority of people answering 'Never' actually meant to answer 'Not applicable'.

Maintenance and Repair occupations. Over 20 percent of the respondents noted that they experienced difficulty in filling these positions. The next most difficult to fill was Engineers and Architects with 15 percent of respondents indicating difficulty in filling these positions. These numbers are somewhat different when the results are divided between Locally-serving firms (Customers limited to just North Carolina) and more Export-oriented firms (Serving customers beyond North Carolina).

Local serving firms, more likely to be service oriented tend to be focused on providing engineering design and repair services while export-oriented firms tend to need workers involved in production, assembly, and installation activities. Table 3B illustrates that the two most difficult to fill occupations for locally-serving firms are Engineers and Architects and Installation, Maintenance and Repair. For export-oriented firms, there again demonstrates slant towards manufacturing with the two most prominent occupations being Production and Assembly and Installation, Maintenance and Repair. It should also be noted that while almost 30 percent of export-oriented firms identified production and assembly as their most difficult occupation to fill, only 10 percent of locally-serving firms did the same.

Table 3B: Hardest to Fill Jobs

Local Serving Firms (Working for Customers only in NC)		Export Oriented Firms (Working for Customers Outside NC)	
Occupations	% firms finding skilled workers difficult	Occupations	% firms finding skilled workers difficult
Eng & Arch	18.6%	Prod & Assembly	29.1%
Install, Maint & Repair	16.5%	Install, Maint & Repair	23.2%
Office & Admin	15.5%	Business, Mgmt & Fin	15.2%
Trans & Mat. Moving	10.3%	Eng & Arch	13.2%
Construction	10.3%	Computer & Math	11.3%
Prod & Assembly	10.3%	Office & Admin	8.6%

Preferred Economic Development Strategies

The firms receiving the mail survey³ were asked to rate the importance of several potential economic development strategies. Several strategies stood out as being either 'Very Important' or 'Important' for the region to pursue. The strategy deemed most important to the region was to improve grade school and high school education throughout the region. The region's low educational attainment levels are clearly a concern for the region's employers. In many cases firms are able to find workers from the universities and community colleges, but finding workers with basic skills appears to be particularly problematic. Making the necessary changes to the region's basic educational system is clearly an important task for improving the region's overall competitiveness. The second most important economic development strategy to companies was efforts aimed at addressing the needs of existing firms. Many firms are looking for greater assistance in supporting training for their workforce or in expanding their operations. Consequently, there appears to be a sentiment that greater effort should be put toward more business retention/expansion efforts than recruitment.

Three other strategies received similar amounts of support from the responding businesses. One indicated that the region needs to pay greater attention to the needs of start-up companies and entrepreneurs. As noted above, firms that are

³ Slightly more than half of the respondents (130 of 251) were respondents to the mail survey. The question that asked respondents to this question was only included in the mail survey.

headquartered in the area are most likely to remain in the area and undertake greater value-added activities. Therefore if the region as a whole is to become more involved in the global knowledge economy, its best chance of success will be through growing its own companies. Firms also identified the need for more specialized training opportunities in their industry. This potentially requires greater interaction and communication with the region's community colleges and North Carolina State University's Industrial Extension Services (IES). Regarding the latter, only 5 percent of the firms interviewed indicated that they made use of the IES programs. Finally, a number of firms indicated that the regulatory compliance procedures relating to their industry should be made less complicated.

Refining the Targeted Clusters

From the surveys and interviews, NCER learned more about the firms in its target industry clusters. Following are brief summaries of findings regarding each of these clusters.

The **marine trades and boat building industry** has been the focus of economic development efforts in the region during the past several months. The industry appears to have developed a critical mass, and it appears that there may be continued opportunities for attracting new boat building operations. The interviews revealed that the region's boat builders have actively encouraged suppliers of fiberglass, engines, transmissions and masts/towers to locate in the region. Given the presence of electronics and metal structure manufacturers in the region, there may be other opportunities for high value-added suppliers in the region. In particular, the navigation equipment sector may represent a cross-cutting targeting opportunity to build on the existing demand of boat builders as well as the demands from the area's engine production and nascent aviation repair industry.

The interviews further revealed that workforce issues are inhibiting industry growth opportunities. In particular, many boat builders reported that they experience difficulty in attracting and retaining skilled workers. Companies valued the Marine Training and Education Center (MARTEC) at Carteret Community College as an important resource for developing workers for the marine trades. However, several firms noted that the quality of the jobs and wages offered at Cherry Point's Naval Air Depot (NADEP) siphoned workers away from smaller firms in the marine trades industry who could not compete with NADEP wages.

The **pharmaceuticals industry** presents an appealing target because it pays well and its firms employ a large number of workers. The tendency appears to be for major multinational firms to utilize contract manufacturers produce pharmaceutical products. To increase economic activity in this industry may require attracting major contract manufacturers serving RTP's pharmaceutical firms in order to determine their interest in an eastern North Carolina location.

Increasingly, contract manufacturers are also exploring opportunities to serve as contract research organizations for global pharmaceutical giants, providing assistance in preparing very short-run products used in clinical trials being held at area hospitals. The interviews showed that the location of several large pharmaceutical manufacturers create opportunities for future investments in packaging and distribution or packaging manufacturers (e.g. plastic bottles). While the region's pharmaceutical firms indicated that finding skilled workers east of Wilson proves especially difficult, there are some encouraging signs. These firms did indicate that worker retention was far easier than recruitment. Moreover, the pharmaceutical firms that were interviewed noted that the region's community colleges served as invaluable resources in finding and training workers.

Wood processing, especially related to **wood building products**, is another cluster offering potential for the region. Even though, these firms are facing growing competition from lower cost countries, the interviews showed that the Eastern Region still offered them a good location from which to produce. From the Eastern region, these firms can serve the growing residential and commercial construction markets along the Eastern Seaboard.

However much like other industries, these firms experienced difficulty finding skilled workers—particularly craftsmen. While several interviewed firms used the community colleges, one firm indicated that they would like to see one of the region's community

colleges introduce curricula devoted specifically to woodworking. Nevertheless, the region could build this cluster further by attracting and developing firms involved in hardware and related machining activities that support the building products industries. In addition, the region might appeal to cardboard and paperboard manufacturers as well as related plastics packaging.

The area is also known for its **meat processing and agricultural production** capabilities. Efforts to support these industries might focus on attracting firms that employ state-of-the-art technology. Similarly to the pharmaceutical firms, opportunities to attract packaging firms to supply this industry may exist. Although several of the firms interviewed used the community colleges to find and train workers, they did note two key workforce challenges. First, firms experience difficulty in finding workers who want to live in rural areas. This limits the labor pool from which they can draw. Second, people with certified driver's licenses are in short supply, thereby inhibiting the development of their distribution operations.

Moving forward, efforts to help develop markets for niche farm products should be an important focus of economic development efforts, especially in the Central counties. There may be tremendous opportunities for entrepreneurial farmers or new firms considering alternative higher value crops (e.g., organic) in the region if trucking, rail and air access are suitable to get products to markets throughout the mid-Atlantic and Northeast. In order to support these developments, the region's agricultural and food processing firms must make better use of North Carolina's industrial and agricultural extension services that assist firms in improving their production processes.

The region also possesses a group of industries that could be categorized as **'Advanced Manufacturing'** activities. These industries include *heating equipment, electrical equipment, large appliances* and *engine equipment*. Heating equipment manufacturing is a small but growing industry in the region. Efforts to attract new firms in this area and help existing firms develop stronger ties should focus on the demands for suppliers among area appliance and manufactured home producers. The electrical equipment is also a small niche in the area's economic structure that is unique and offers one of the greatest opportunities for the region in terms of technology-intensive activities. The region's large appliances sector is growing rapidly but represents only a few firms. Potential suppliers to this industry are directly related to the area's heating, electrical, and small engine equipment producers.

Much like the wood processing and building products cluster mentioned above, all of these industries benefit from their proximity to the growing construction markets along the East Coast. The area also has several major engine equipment firms that might serve as the foundation of another possible cluster. Currently, most engine equipment producers in the region serve the automotive and heavy truck industries. In addition, it would be important to identify whether opportunities exist to attract engine equipment firms that would serve the area's boat building and nascent aviation industries.

The interviewed firms from each of these industries noted that they were becoming affected increasingly by global competition. In order to remain competitive, these firms must become more sophisticated in their production processes. Although many of these firms look to the region's community colleges as a source of workers and a place for training, they still experience difficulty finding skilled workers. Moreover, only a small number of the firms interviewed indicated that they made use of North Carolina State University's Industrial Extension Service. The NCSU IES assists firms implement programs related to lean manufacturing and quality control. For these activities to remain viable in the Eastern region, they must make greater use of these programs.

The **travel and tourism** cluster represents another industry target of interest. In the coastal area, the research indicates that single family homes and condos are more

popular than hotels with coastal area vacationers. According to firms involved in the hospitality industry, many of their customers come from the East Coast and the Midwest. Nonetheless, the hospitality industry faces workforce challenges with regard to both staff recruitment and retention.

The interviews revealed local efforts to find potential workers from the region's pools of retirees and military spouses. According to people in the hospitality industry, the area's retirees show little desire to work in the industry. Similarly, military spouses are underemployed in the industry, and firms therefore find it difficult to both recruit and retain this potential labor pool. The region's best approach to expanding the industry is to participate actively in efforts to attract more travelers to the area with an emphasis on business travel for the North and "pre-retiree" or "retirement-ready" vacation travelers in the Coastal area.

Military and military procurement – while not technically a cluster – represents an important set of activities upon which the region's economic development activities should focus. The region's military bases employ almost 80,000 people and generate opportunities for local firms in industries such as construction, food services and retail. The region must attend to its capacity to expand procurement opportunities for area companies. Economic developers should examine the current local contractors to provide technical assistance in making them aware of additional contracting opportunities both at bases within the region as well as others around the country. The region's companies have been most successful in winning construction and logistics contracts. Consequently, regional developers should build on this strength in increasing procurement contracts among companies in the region.

The military also presents opportunities for more technology-oriented activities relating to aviation. Two of the region's major military installations—NADEP and Seymour Johnson Air Force are both actively involved in aircraft maintenance and repair. According to data provided by NADEP, almost 65 percent of their 3,753 person workforce is involved in mechanical and technical occupations. Another 15 percent are involved in engineering-related activities. The 4th Maintenance Group of the 4th Fighter Wing at Seymour Johnson Air Force Base in Goldsboro has another 2,300 military and civilian personnel that are involved in activities related to aircraft maintenance.

These assets, in conjunction with the Global TransPark, would seem to provide the foundation for a cluster of aviation and aircraft maintenance activities. Three of the region's community colleges—Wayne, Lenoir and Craven, also offer programs in aircraft maintenance. These activities have not yet translated into an extensive network of ancillary activities. While four firms—Maintain Air Cargo, Seagrave Aviation, Boeing and Sikorsky—are responsible for about 100-150 jobs in aviation-related activities, there remains much greater potential for more aviation-related activities. Fostering development in this arena will involve greater engagement with both military personnel and people leaving the military. These individuals represent a potential pool of both skilled workers and entrepreneurs.

During the course of the interviews, representatives from the region's military bases noted that greater interaction is needed between the military and military-related businesses and the region's economic development intermediaries. To be successful into the future, economic developers in North Carolina's Eastern Region must vary their efforts with an emphasis on attracting suppliers where there are few existing companies. Existing industry efforts should focus on helping firms to expand their existing markets or help entrepreneurs to take advantage of local opportunities to connect up with area firms.

Implications for NCER's Vision Plan

The survey provides invaluable information about the key issues facing NCER's target clusters. The data also helped in refining the target cluster selection. Many of these cluster industry representatives pointed to the need for a better prepared workforce. Thus, workforce strategies must be an integral part of the region's economic development plans. Efforts to respond should aim to increase high school graduation and improve the availability of targeted training programs at area community colleges.

The data collected also point to more specific opportunities for firms that could serve as suppliers for area companies. For instance, both the pharmaceutical companies and the food processors indicated that they would benefit from a greater regional presence of firms in the packaging and package manufacturing industry. Thus, packaging and related activities should be included among targeted efforts to attract employers.

In addition to providing important data, the business interviews served other purposes in support of implementing economic development strategies. For instance, the process of undertaking these interviews has helped to strengthen the linkages between area businesses and economic development district representatives. The interviews also offered another opportunity to solicit greater input and involvement from the business community in support of the strategic planning process. Because the concerns of the region's business community are formally voiced from such a large number of companies, these concerns are more likely to influence the direction of the plan in its implementation.

In voicing their concerns, the region's business leaders expressed similar ideas to those identified as important by the NCER Vision Plan's Strategic Planning Committee (SPC). As a result of their dialogue and other input, the SPC identified six broad areas of concern. These areas include:

- Knowledge Capacity and Institutions (Strengthen capacity—people and institutions)
- Innovation (Encourage entrepreneurs, new products, risk-taking)
- Global Image and Competitive Location (Compete with the world's best regions and "play" in global markets)
- 'The Third Place' (Expand amenity assets to attract and retain people)
- Connectivity (Upgrade linkages for goods, people, services, and knowledge)
- Governance (Improve capability of leaders to come together on regional issues)

The interviews showed that these issues also resonate with many of the region's business leaders. Almost every business expressed concerns about the need for strengthening the region's human capital by enhancing schools and helping area colleges offer specialized education or training in response to target cluster needs. A number of businesses pointed out that they felt the region ought to pay closer attention to existing industries, but the survey made it clear that attention should focus on helping those existing firms become more entrepreneurial. Furthermore, many companies compete outside the region so they understand the need for the region to compete on a global basis. An important challenge in this regard is the difficulty for many workers who must travel on business to access adequate, cost-effective travel options. Also, company executives expressed concerns about attracting and retaining the "best and brightest" workers when the area has only limited amenities.

In conclusion, the survey suggests that the region can only compete if it addresses the limitations that business respondents noted. Asset-building must be an integral part of NCER's Vision Plan in order to meet the needs of existing and future businesses in the area.

Appendix 1: Industries Comprising Surveyed Clusters

Industry	NAICS Code
Grain farming	1111
Power generation and supply	2211
Animal Slaughtering and Processing	3116
Seafood Product Preparation and Packaging	3117
Bread and Bakery	3118
Pharmaceutical and medicine manufacturing	3254
Motor Vehicle Parts	3363
Grocery and Related Product Wholesalers	4244
Farm Product Raw Material Merchant Wholesalers	4245
Transit and ground passenger transportation	485
Warehousing and storage	493
Architectural and engineering services	5413
Scientific research and development services	5417
Advertising and related services	5418
Waste management and remediation services	562
Fruit and vegetable canning and drying	31142
Carpet and rug mills	31411
Textile bag and canvas mills	31491
Veneer, Plywood, and Engineered Wood Product Manufacturing	32121
Paperboard container manufacturing	32221
Flexible packaging foil manufacturing	322225
Commercial printing	32311
Plastics material and resin manufacturing	325211
Other miscellaneous chemical product manufacturing	325998
Plastics packaging materials, film and sheet	32611
Plastics bottle manufacturing	32616
Tire manufacturing	32621
Fabricated structural metal manufacturing	332312
Machine shops	33271
Turned product and screw, nut, and bolt manufacturing	33272
Search, detection, and navigation instruments	334511
Motor and generator manufacturing	335312
Boat building	336612
Marketing Research and Polling	54191
Translation and Interpretation Services	54193
All Other Professional, Scientific, and Technical Services	54199
Hotels (except Casino Hotels) and Motels	72111

ness Survey—North Carolina's Eastern Region

The purpose of this survey is to help leaders in the 13 counties of North Carolina's Eastern Region better understand and respond to your business' most critical concerns. Your answers will be kept **strictly confidential** and reported only in aggregate. If you have any questions, please contact Mark White at 703-522-4980 or mwhite@accra.org. Please return the survey via mail in the enclosed envelope or by fax to 703-522-4985 as soon as possible or provide your answers online at www.nceast.org/survey. Thank you for your participation!

1. Please identify the type of product or service produced by your firm:

2. Please identify the location of your MOST important... (Answers left blank not included)

	Eastern North Carolina	North Carolina	Southeast US	United States	North America	Global
...Customers:	80	16	29	73	17	32
...Competitors:	60	29	24	71	7	44
...Suppliers:	28	28	29	96	11	45

3. During the past year, have you sold any goods or services to companies in any of the following industries? (select all that apply)

54 Automotive mfg, including parts	32 Hotels
39 Boat building and related accessories	31 Industrial or construction equip mfg.
43 Building products mfg (wood, concrete, or metal)	22 Manufactured housing
16 Electricity or signal testing instruments mfg	51 Military
20 Engine equipment mfg	16 Motors and generators mfg
47 Food processing	45 Pharmaceutical or medical mfg.
58 Health care	39 Tourism or recreation
27 Heating ventilation, or air conditioning equip mfg	25 None of these
113 Other _____	

4. Have you actively encouraged any of your suppliers to locate a facility in Eastern NC?

52 Yes 186 No

5. If yes or maybe, what product or service do they produce:

6. In your opinion, please rate the following infrastructure's ability to meet your business needs:

(Blanks not included)	Excellent	Good	Fair	Poor	Not applicable
Road	45	127	57	15	4
Air Access: Freight	18	105	31	20	68
Air Access: Passenger	13	86	66	40	42
Waterways	13	55	21	8	144
Rail	10	36	23	21	148
Telecommunications	30	165	35	11	6
High speed Internet	47	147	28	17	7

- 7.** You consider your internet access:
- | | | | | |
|-----|---------------------|--|-----|---------------------|
| 69 | Very affordable | 7a. Which of the following describes your internet access | 77 | Fiber optic/T-1/T-3 |
| 118 | Somewhat affordable | | 133 | DSL/Cable |
| 37 | Somewhat expensive | | 4 | Satellite |
| 10 | Very expensive | | 20 | Dial-up |
| 10 | Not applicable | | 1 | Not available |
- 8.** In the next year, how well will your existing facility meet your firm's planned needs?
- | | | | | | |
|-----|-----------------------------|----|--------------------|----|----------------------|
| 177 | Adequate in size and design | 59 | Inadequate in size | 10 | Inadequate in design |
|-----|-----------------------------|----|--------------------|----|----------------------|
- 9. Recruiting semi-skilled/unskilled workers, when you need them, is:**
- | | | | | | | | |
|----|-------------|----|------------|----|----------------|----|------------|
| 24 | Always easy | 39 | Often easy | 84 | Sometimes easy | 90 | Never easy |
|----|-------------|----|------------|----|----------------|----|------------|
- 10. Recruiting skilled workers, when you need them, is:**
- | | | | | | | | |
|----|-------------|----|------------|----|----------------|-----|------------|
| 14 | Always easy | 25 | Often easy | 60 | Sometimes easy | 142 | Never easy |
|----|-------------|----|------------|----|----------------|-----|------------|
- 11. Retaining semi-skilled/unskilled employees is:**
- | | | | | | | | |
|----|-------------|----|------------|----|----------------|----|------------|
| 31 | Always easy | 80 | Often easy | 86 | Sometimes easy | 37 | Never easy |
|----|-------------|----|------------|----|----------------|----|------------|
- 12. Retaining skilled employees is:**
- | | | | | | | | |
|----|-------------|----|------------|----|----------------|----|------------|
| 28 | Always easy | 84 | Often easy | 81 | Sometimes easy | 46 | Never easy |
|----|-------------|----|------------|----|----------------|----|------------|
- 13. Community colleges in your region provide your business with capable employees:**
- | | | | | | | | | | |
|----|--------|----|-------|-----|-----------|----|-------|----|---------------------------------------|
| 12 | Always | 39 | Often | 100 | Sometimes | 41 | Never | 59 | Not applicable to my firm's employees |
|----|--------|----|-------|-----|-----------|----|-------|----|---------------------------------------|
- 14. Universities in your region provide your business with capable employees:**
- | | | | | | | | | | |
|---|--------|----|-------|----|-----------|----|-------|----|---------------------------------------|
| 8 | Always | 36 | Often | 71 | Sometimes | 45 | Never | 91 | Not applicable to my firm's employees |
|---|--------|----|-------|----|-----------|----|-------|----|---------------------------------------|
- 15. What percentage of your employees participated in a formalized training program during the past year?**
- | | |
|----|-----------|
| 71 | 0% |
| 79 | 1 to 19% |
| 25 | 20 to 39% |
| 17 | 40 to 59% |
| 13 | 60 to 79% |
| 12 | 80 to 99% |
| 25 | 100% |
- 16. What kinds of skilled employees do you find most difficult to find (please check all that apply):**
- | | | | |
|----|------------------------------------|----|------------------------------|
| 32 | Business, Management & Finance | 24 | Computer and Mathematical |
| 28 | Office & Administrative Support | 38 | Engineering and Architecture |
| 51 | Installation, Maintenance & Repair | 12 | Construction |
| 14 | Transportation & Material Moving | 54 | Production and assembly |
| 10 | Life or Physical Science | 63 | Other: _____ |

Please provide examples of the skilled jobs you find most difficult to fill.

- 17.** Listed below are several broad actions to help foster economic development in Eastern NC. Please rate on a scale of 1 to 6 how important each action would be from the perspective of your company.

Possible Economic Development Action	Very important	Not important
Improve grade school and high school education	V. Important + Important =83	
Pay greater attention to needs of existing firms in my industry	V. Important + Important =69	
Support the specific needs of start-up companies and/or entrepreneurs	V. Important + Important =64	
Offer more specialized training for my industry	V. Important + Important =62	

Possible Economic Development Action	Very important	Not important
Improve access for workers to post-secondary education	V. Important + Important =58	
Simplify regulatory compliance procedures related to my industry	V. Important + Important =58	
Help firms like mine export from Eastern NC	V. Important + Important =34	
Support local inter-firm networking efforts in my industry	V. Important + Important =28	
Attract more companies in my industry	V. Important + Important =26	
Help firms in my industry identify and access university research	V. Important + Important =22	
Increase funding for university research related to my industry	V. Important + Important =20	

18. Your firm is part of what industry? _____

19. Approximately how many people does your firm employ at your location: Median=28

20. Where is your firm headquartered:

- 163 In our current location
- 66 In a US location outside of Eastern North Carolina
- 11 In another location in Eastern North Carolina
- 10 In a location outside the United States

21. Which of the following activities does your firm undertake at your current location? (select all that apply)

- 176 Marketing & Sales
- 173 Production
- 171 Customer Service & Technical Support
- 151 Headquarter Functions & Administrative Activities
- 140 Distribution & Logistics
- 103 New Product Development

22. Which best describes your position with the firm:

- Owner, President, CEO, etc.
- Senior Executive
- Department Manager
- Office Staff

23. What county is your business located in: _____

24. Are there any specific things you believe should be done to enhance the region's economic development potential that have not been addressed in this survey?

If you would allow us to contact you about your views or follow up on any issues that you raise, please provide the following information:

- Name:
- Phone:
- E-mail:

Provide any additional comments here:

Thank You for Your Cooperation