

Beyond High School: What Will It Take To Build Cenla's Next Workforce?

Presented to The Rapides Foundation

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Introduction

The future of Central Louisiana's economy will be governed by the skills, know-how, knowledge and availability of its workforce. According to the US Bureau of Labor Statistics for each decade from 1950 to 2000 roughly eighty percent of new and replacement jobs were classified as "non-professional" and required less than a four-year degree. What has changed over this 50 year period are the shares of jobs that are classified as skilled and unskilled. In 1950, 20 percent of these non-professional jobs were classified as skilled. By 2000 65 percent were classified as skilled. This trend is expected to continue. In a market environment where what you know, what you can do, and how fast you can learn is your only sustainable advantage, how should Cenla's post-secondary pre-baccalaureate workforce system function? How can the system and its various actors effectively respond to current employer needs? How can it bring more citizens into the system? How can it best equip its students to follow and sometimes blaze career paths into the future? How can it help build the intellectual adroitness in its citizens to respond to this knowledge economy's emerging opportunities – the ones that are at our feet and the ones that are over the horizon?

This report, prepared by Regional Technology Strategies, Inc. (RTS) of Carrboro, North Carolina for The Rapides Foundation, offers a response to these questions. Its analysis, findings, and recommendations point to a single goal. How best to develop and implement a comprehensive, responsive, forward-thinking and coordinated approach to post-secondary pre-baccalaureate education and training for entire region. The starting point is a challenge. In 2007 over one-half of the region's high school graduates did not go on to a two-year or four-year school.

During the course of its post-secondary education and training best-practice work that RTS has performed over the last two decades throughout the United States and overseas, it has identified eight functions that define comprehensive approaches to post-secondary education and training within regions and communities. These functions, which will be described in some detail later in this document, inform and shape this analysis. They are:

- Bridge to a four-year school
- Specialized or customized training for employers
- Terminal degrees
- Technical certifications
- Continuing education
- New technology and process adoption

- Cultural activities
- Economic development presence

The structure and content of this report tracks the research approach used to produce the findings and is comprised of six chapters.

Chapter One. An Analysis of the Cenla Economy

What will drive the need for a trained, skilled and creative workforce?

Chapter Two. Understanding Future Post-Secondary Education and Training Demand

What occupations will be in demand in the future? What workforce skills will Cenla businesses most need to compete? A look at Cenla employer perceptions about their workforce needs.

Chapter Three. The Supply: Cenla's Post-Secondary Education and Training Provider Community

Understanding the roles, programs, output levels, contributions and challenges within Cenla's community of existing education and training providers.

Chapter Four. The Gap Analysis

If there are gaps between what Cenla's current group of education and training organizations can effectively provide under their current circumstances and the likely future demand for the eight functions of a comprehensive post-secondary, pre-baccalaureate system both in terms of overall scale and in terms of education and training programs, then we need to identify them and understand them.

Chapter Five. Best Practice Analysis

What is working well in other regional, comprehensive post-secondary systems? How are they responding to the demand for the post-secondary functions and at what scale?

Chapter Six. Beyond High School: Where Do We Go From Here?

Findings and Recommendations

Chapter 1

Cenla's Economic Landscape

An examination of the post-secondary workforce training needs of the region's economy must begin with an understanding of the past, present and future that has driven and will drive the need for a trained, skilled and creative workforce. This understanding also provides the basis for understanding the continuous improvement required of workers to remain competitive in tomorrow's market and presents part of the blueprint for the life-long learning strategies required. This section is designed to build that understanding and perspective.

We will focus on the drivers of the economy, those industries and clusters that export goods and services outside of the region and provide the biggest economic bang for the buck – in economic parlance the businesses that have the highest job and output multipliers. But because this analysis feeds into the understanding of *all* workforce needs, we will also examine the support economy, those businesses, governments and non-profits that provide or goods and services to the economic drivers and the regional populace. Restaurants, retail, most business services, banking, real estate, construction and legal services are all segments of the support economy.

This section will describe past, present and projected future economic circumstances using 2002, 2005 and 2012 as points of comparison. Projections are always fraught with difficulties as economic conditions change dramatically with local, regional, national and world changes. For Cenla projections are particularly difficult. First, it will be decades before the Louisiana economy fully recovers and adjusts to the changes brought by Hurricane Katrina in 2005. Second, changing energy markets, both from dramatic price increases and from improving technology, will influence Cenla with expanding economic opportunities and increasing competition for the region's scarce workforce talent. Third, the impact from natural gas development surrounding the Haynesville shale formation northwest of the region will also generate both opportunities and challenges.

A regional economic analysis is usually based on what is called a *functional economic area*. Economists are interested in areas that are bound together by trade links—the buying and selling of raw materials, industrial and consumer goods and services, and labor. A functional economic area (FEA) is an area that covers a relatively contained and cohesive network of trade. Decisions, though, are made using other regional definitions. We examined various regional definitions in Cenla and found that The Rapides Foundation's nine-parish area of Allen, Avoyelles, Catahoula, Grant, LaSalle,

Natchitoches, Rapides, Vernon and Winn provides a good approximation of a distinctive functional economic area.

First, though, some introductory demographics.

1.1 Demographics

The nine-parish region has over 344,000 residents as of 2007 with Rapides Parish the dominant parish with 130,079. The Alexandria metropolitan statistical area (MSA), which includes Rapides and Grant parishes, contains 44 percent of the region’s population (Table 2.1).

Growth has been stagnant for the region as a whole but varies drastically across parishes. The Alexandria MSA and Avoyelles and Allen parishes experienced growth while significant declines were found in Vernon (home of Fort Polk) and Winn.

Table 1.1 Cenla Population 2002-2007

| Area | 2002 | 2007 | Change | % Change |
|--------------|-------------|-------------|------------|----------|
| Allen | 25,124 | 25,524 | 400 | 1.6% |
| Avoyelles | 41,374 | 42,169 | 795 | 1.9% |
| Catahoula | 10,666 | 10,452 | -214 | -2.0% |
| Grant | 18,672 | 19,758 | 1,086 | 5.8% |
| LaSalle | 14,195 | 14,041 | -154 | -1.1% |
| Natchitoches | 39,034 | 39,485 | 451 | 1.2% |
| Rapides | 126,312 | 130,079 | 3,767 | 3.0% |
| Vernon | 51,548 | 47,380 | -4,168 | -8.1% |
| Winn | 16,439 | 15,521 | -918 | -5.6% |
| Cenla | 343,364 | 344,409 | 1,045 | 0.3% |
| Louisiana | 4,465,490 | 4,293,204 | -172,286 | -3.9% |
| Nation | 288,125,973 | 302,193,898 | 14,067,925 | 5% |

Source: Census Bureau, 2008

Table 1.2 describes the age distribution within the region. Of note is the decline in the younger age cohorts that are the near term future of the workforce. Data for the 2007-2012 period indicate that this trend will continue with growth in older populations (Table 1.3).

Table 1.2 Cenla Population by Age Cohort 2002-2007

| Age | 2002 | 2007 | Change | % Change | % Cohort 2007 |
|-------------------|---------|--------|---------|----------|---------------|
| 0 to 19 years | 102,224 | 99,893 | (2,331) | (2%) | 29% |
| 20 to 34 years | 73,929 | 73,745 | (184) | (0%) | 21% |
| 35 to 54 years | 93,219 | 90,906 | (2,313) | (2%) | 26% |
| 55 to 69 years | 43,906 | 48,569 | 4,663 | 11% | 14% |
| 70 years and over | 30,207 | 30,815 | 608 | 2% | 9% |

Source: EMSI, 2008. Totals do not exactly match Table 2.1 due to different sources

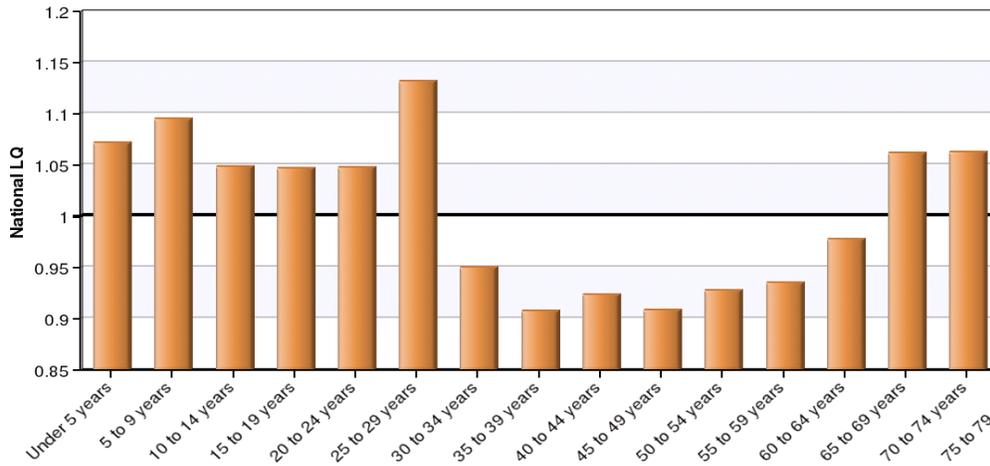
Table 1.3 Cenla Population by Age Cohort 2007-2012

| Age | 2007 | 2012 | Change | % Change | % Cohort 2012 |
|-------------------|--------|--------|---------|----------|---------------|
| 0 to 19 years | 99,893 | 97,542 | (2,351) | (2%) | 28% |
| 20 to 34 years | 73,745 | 74,979 | 1,234 | 2% | 22% |
| 35 to 54 years | 90,906 | 84,835 | (6,071) | (7%) | 25% |
| 55 to 69 years | 48,569 | 53,919 | 5,350 | 11% | 16% |
| 70 years and over | 30,815 | 31,615 | 800 | 3% | 9% |

Source: EMSI, 2008. Totals do not exactly match Table 2.1 due to different sources

In addition, Cenla has a lower concentration of people in the working age cohort than does the nation as a whole as reflected in the location quotients shown in Figure 1.1. Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average. A location quotient of 1 means that the region mirrors the national concentration. The bars in the chart that are below 1 (the dark horizontal line) have a lower concentration of population compared to the nation, above 1 a higher concentration. All age cohorts between 30 and 64 years old are below the national average. As can be seen by the bars on the left side of the chart, Cenla has higher concentrations in younger cohorts.

Figure 1.1 Age Concentrations in Cenla compared to the US, 2007



Income levels in Cenla continue to lag behind the state and the nation. Only Rapides and Vernon match the state and no parishes are near the national per capita income (PCI).

Table 1.4 Cenla Per Capita Income 2006

| Area | Per Capita Income | PCI as % of the State | PCI as % of the Nation |
|--------------|-------------------|-----------------------|------------------------|
| Allen | 19,386 | 61% | 53% |
| Avoyelles | 22,286 | 70% | 61% |
| Catahoula | 22,972 | 72% | 63% |
| Grant | 23,034 | 72% | 63% |
| LaSalle | 24,497 | 77% | 67% |
| Natchitoches | 25,482 | 80% | 69% |
| Rapides | 31,977 | 100% | 87% |
| Vernon | 32,636 | 103% | 89% |
| Winn | 21,613 | 68% | 59% |
| Cenla | 27,655 | 87% | 75% |

Source: U.S. Bureau of Economic Analysis, REIS

1.2 Big Picture Economics in Cenla

It is useful to understand the broad picture of the regional economy before we look at specific key industries and clusters. This subsection provides that perspective.

The Cenla economy has strengthened over 2002-2007 in terms of unemployment, number of jobs and average earnings. The improvements in unemployment have occurred in all nine parishes with the overall rate falling from 6.6 percent to 4.2 percent in 2007 (Table 1.5). That level of unemployment suggests a tight labor market, an assessment borne out by our discussions with the region's leading employers.

Table 1.5 Regional Unemployment 2002 and 2007

| Area | Number | | Number | |
|--------------|--------------------|-------------------------------|--------------------|-------------------------------|
| | Unemployed 2002 | Unemployment Rate 2002 (%) | Unemployed 2007 | Unemployment Rate 2007 (%) |
| Allen | 679 | 7.8% | 443 | 5.1% |
| Avoyelles | 1,097 | 7.0% | 740 | 4.7% |
| Catahoula | 379 | 9.3% | 215 | 5.2% |
| Grant | 526 | 6.6% | 359 | 4.2% |
| LaSalle | 453 | 7.5% | 213 | 3.5% |
| Natchitoches | 1,126 | 6.8% | 789 | 4.6% |
| Rapides | 3,279 | 5.9% | 2,242 | 3.8% |
| Vernon | 1,183 | 6.4% | 858 | 4.1% |
| Winn | 442 | 7.3% | 287 | 4.6% |
| Cenla | 9,164 | 6.6% | 6,146 | 4.2% |

Source: Labor Market Statistics, Local Area Unemployment Statistics Program

All major industrial sectors, except for government (affected by troop deployments) saw employment gains over the five-year period from very minor gains in agriculture and natural resources to increases over 15 percent in construction, financial and business services, and health care (Table 1.6). Professional and business services grew by nearly 6,000 jobs, an increase of 56 percent. Overall employment grew 7 percent, a healthy increase particularly compared to the small increase in population in working age population.

Government provides the highest average earnings per worker (EPW) at \$53,674. (Note that EPW includes salaries, fringe benefits and all employer contributions and provides

a better measure of job quality than salaries alone). Other leading sectors in terms of earnings include manufacturing, information and construction.

Table 1.6 Industry Size and Growth 2002-2007

| Description | 2002 Jobs | 2007 Jobs | Growth | % Growth | Earnings per worker |
|--|----------------|----------------|---------------|-------------|---------------------------|
| Agriculture, natural resources, and mining | 9,074 | 9,145 | 71 | 1% | \$27,699 |
| Construction | 9,563 | 11,623 | 2,061 | 22% | \$37,035 |
| Manufacturing | 9,347 | 9,881 | 534 | 6% | \$48,881 |
| Trade, transportation, and utilities | 25,563 | 27,929 | 2,366 | 9% | \$31,167 |
| Information | 1,774 | 1,881 | 107 | 6% | \$39,057 |
| Financial activities | 7,836 | 9,093 | 1,257 | 16% | \$30,329 |
| Professional and business services | 10,594 | 16,502 | 5,908 | 56% | \$34,511 |
| Education and health services | 19,100 | 21,954 | 2,855 | 15% | \$34,020 |
| Leisure and hospitality | 9,868 | 11,021 | 1,153 | 12% | \$13,001 |
| Other services | 8,059 | 8,495 | 435 | 5% | \$16,763 |
| Government | 47,814 | 42,836 | (4,978) | (10%) | \$53,674 |
| | 158,592 | 170,361 | 11,768 | 7% | |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

The percent concentration of jobs across major industries is shown in Table 1.7. Cenla's industrial makeup differs significantly from the state and nation with higher concentrations of jobs in government (partially due to Fort Polk) and agriculture and natural resources (largely due to the forest industry but also affected by significant concentrations in horticulture and mining). As is the case in the US economy, services dominate over goods production (manufacturing, construction and agriculture, natural resources and mining). This trend is expected to continue.

Table 1.7 Industrial Makeup 2007

| Description | 2007 Jobs | % Regional Jobs |
|--|----------------|-----------------------|
| Agriculture, natural resources, and mining | 9,145 | 5% |
| Construction | 11,623 | 7% |
| Manufacturing | 9,881 | 6% |
| Trade, transportation, and utilities | 27,929 | 16% |
| Information | 1,881 | 1% |
| Financial activities | 9,093 | 5% |
| Professional and business services | 16,502 | 10% |
| Education and health services | 21,954 | 13% |
| Leisure and hospitality | 11,021 | 6% |
| Other services | 8,495 | 5% |
| Government | 42,836 | 25% |
| | 170,361 | |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

1.3 Economic Drivers of the Cenla Economy

As noted in the introduction, all economies live or die on the basis of its core export sectors and clusters. Only by selling goods and services outside of the regional economy can a region prosper. This section will examine the drivers of the Cenla economy.

A *cluster* is a geographic concentration of interrelated competitive firms and institutions of sufficient scale to generate external economies...making the whole greater than the sum of its parts. A cluster occurs where a group of businesses, drawing on similar resources, exist in relationships with other nearby businesses and institutions that contribute to their competitiveness. Any concentration of similar businesses that draw on a common pool of suppliers, services, educational institutions, workforce skills, natural resources, or other assets that can be found in a region may be a cluster. The main established clusters in the region are wood products and health services.

In addition, Cenla has several strong industrial sectors based on the location of a single large plant or series of facilities owned by one corporate entity. These company-led sectors, such as tank cars made by Union Tank Car or detergents made by Proctor and Gamble, do not have the depth or breadth to qualify as a cluster but still represent strong economic drivers. As we will see, these firms have attracted and/or helped

develop the strong supply chain they need to be successful. First we'll examine the established wood products and health and medical clusters.

Wood Products Cluster

The production of wood products in Cenla is a textbook example of a fully articulated cluster. The raw product is grown and harvested in the region. Specialized transportation services have developed around moving this product to market. The large number of producers of lumber, paper and other wood-based final products range from smaller locally-owned firms to large plants that are part of international supply chains for major multinational corporations. These companies sometimes sell intermediate and final products to each other. A specialized workforce has developed surrounding the industry and companies and plants look to their regional competitors for technology changes. Finally regional firms have developed internally or located as a market response to supply just-in-time parts, equipment and maintenance on the machinery used in the plants.

The cluster employs about 7,200 in 317 establishments, a 7 percent increase in jobs from 2002. The lead sectors within the cluster are shown in Table 1.8. The table reflects the depth of the cluster where all parts of the supply chain from harvesting lumber to manufacturing and wholesale distribution are represented. The number of establishments (companies and plants) also reflects the depth of the sectors with, for example, more than 15 locations manufacturing wood-based products. The average earnings per worker shows that the jobs are good quality. Finally while some sectors declined in employment over the 2002-2007 period, cluster employment increased by 7 percent.

Table 1.8 Lead Sectors in the Wood Products Cluster 2007

| Description | 2007 Jobs | % Change from 2002 | Earnings per Worker | 2007 Establishments |
|---|--------------|--------------------|---------------------|---------------------|
| Logging | 1,653 | 6% | \$58,775 | 152 |
| Sawmills | 1,030 | 68% | \$46,044 | 15 |
| Hardwood veneer and plywood manufacturing | 878 | (1%) | \$53,478 | 7 |
| Paperboard mills | 821 | 14% | \$75,508 | 3 |
| Softwood veneer and plywood manufacturing | 722 | (32%) | \$42,974 | 5 |
| Lumber and wood merchant wholesalers | 305 | 44% | \$41,848 | 5 |
| Residential finish carpentry contractors | 210 | 42% | \$20,723 | 24 |
| Wood preservation | 189 | (25%) | \$43,145 | 6 |
| Timber tract operations | 159 | (16%) | \$69,524 | 10 |
| Support activities for forestry | 159 | (37%) | \$44,787 | 22 |
| Totals including all sectors | 7,177 | 7% | \$50,398 | 317 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

One of the main measures used to classify clusters is the location quotient (LQ), a measure of industry relative concentration. As noted above, a location quotient is a way of quantifying how concentrated a particular industry, cluster or occupation is in a region as compared to the nation. If an industry in a region has the same concentration (measured by, say, number of jobs) as does the nation, then the LQ is 1. A LQ over 1.2 is often considered sufficient to suggest concentration (EMSI, 2008).

An LQ over 2 represents strong concentration. The overall wood products cluster LQ is 2.3. Within the cluster, the dominant sectors in Cenla have LQs above 10, a remarkable level of concentration. Figure 1.2 and Table 1.9 describe the by-sector location quotients and other relevant economic measures.

**Figure 1.2 Wood Products Cluster
Location Quotients, Jobs and Percent Job Growth 2002-2007**

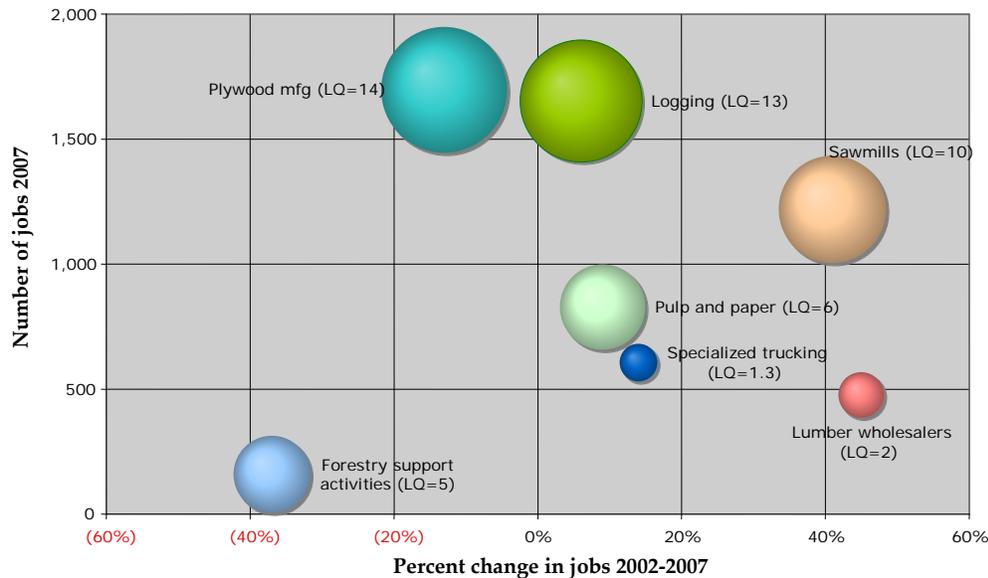


Table 1.9 Location Quotients in the Cenla Wood Products Cluster 2007

| Description | Jobs | Location Quotient |
|---|-------|-------------------|
| Logging | 1,653 | 13 |
| Sawmills | 1,030 | 9 |
| Hardwood veneer and plywood manufacturing | 878 | 37 |
| Paperboard mills | 821 | 23 |
| Softwood veneer and plywood manufacturing | 722 | 37 |
| Lumber and wood merchant wholesalers | 305 | 2 |
| Residential finish carpentry contractors | 210 | 1 |
| Wood preservation | 189 | 15 |
| Timber tract operations | 159 | 22 |
| Support activities for forestry | 159 | 5 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

Discussions with leaders in the Cenla wood products cluster reveal its strength and long-term viability. The reasons they listed include:

- Quality and quantity in the “timber basket,” the raw input for the industry. Essentially, Cenla has very good forests!

- A high quality forestry management and logging industry. Good forest resources are managed by good forest companies.
- Weather allows year round harvesting, unlike some major competitors in North America.
- Good access to growing markets.
- Support services to the manufacturing plants are excellent and the necessary supply chain merchants are within the region.
- The concentration of firms provides a good workforce in management and production occupations though supply is sometimes constrained.

The impact of these factors may explain why the wood cluster grew 7 percent within Cenla from 2002 to 2007 while growing less than half as fast within the US. Clearly this cluster will remain a bulwark of the Cenla economy for some time to come.

The top occupations within the cluster are shown in Table 2.10. Note that all of these occupations grew during the 2002-2007 period.

Table 1.10 Lead Occupations in the Cenla Wood Products Cluster 2007

| Occupation | 2007 Jobs | % Change 2002-2007 |
|---|--------------|-----------------------|
| Logging equipment operators | 594 | 9% |
| Laborers and freight, stock, and material movers | 587 | 11% |
| Truck drivers, heavy and tractor-trailer | 363 | 6% |
| Industrial truck and tractor operators | 245 | 3% |
| Helpers--Production workers | 249 | 18% |
| Secretaries, except legal, medical, and executive | 222 | 8% |
| Carpenters | 219 | 20% |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

Health and Medical Cluster

Medical care and its related sectors are not usually thought of as an export industry. In most regions the doctors, hospitals etc. essentially serve just the regional market. Within Cenla though the cluster serves a much broader market and effectively “exports” health and medical services in both specialized (for example psychiatric and mental retardation facilities) and non-specialized sectors.

While the level of concentration is not as high as within wood products, the cluster itself is larger and is growing faster. In 2007 more than 14,000 people worked within the

cluster, an increase of 13% from 2002 (Table 1.11). It should be noted that, with the exception of the general hospital sector, earnings per worker tend to be lower than within wood products.

Roughly half of the employment within the cluster is contained within two sectors – general medical and surgical hospitals and nursing home facilities. Still there is significant employment across a broad array of sectors.

Table 2.11 Lead Sectors in the Health and Medical Cluster 2007

| Description | 2007 Jobs | % Change from 2002 | Earnings per Worker | 2007 Establishments |
|---|---------------|-----------------------|------------------------|------------------------|
| General medical and surgical hospitals | 3,991 | 4,457 | \$48,653 | 12 |
| Nursing care facilities | 3,479 | 3,211 | \$21,560 | 40 |
| Residential mental retardation facilities | 1,153 | 1,297 | \$17,067 | 44 |
| Home health care services | 828 | 1,544 | \$28,999 | 57 |
| Pharmacies and drug stores | 712 | 900 | \$35,414 | 82 |
| Continuing care retirement communities | 327 | 247 | \$19,194 | 3 |
| Psychiatric and substance abuse hospitals | 292 | 245 | \$27,277 | 3 |
| Ambulance services | 273 | 178 | \$35,404 | 6 |
| Cosmetic and beauty supply stores | 213 | 269 | \$9,773 | 16 |
| Residential mental and substance abuse care | 212 | 203 | \$21,776 | 8 |
| Medical equipment merchant wholesalers | 166 | 168 | \$33,249 | 18 |
| Outpatient mental health centers | 122 | 97 | \$32,052 | 6 |
| Blood and organ banks | 117 | 134 | \$38,600 | 1 |
| Kidney dialysis centers | 108 | 138 | \$32,628 | 9 |
| Totals including all sectors | 12,559 | 14,127 | \$33,031 | 380 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

As can be seen in Figure 1.3 and Table 1.12, the location quotients (concentration measures) are not as consistently high as in wood products. Nevertheless the overall LQ is 1.1 and the lead sectors have LQs from 1.1 up to 3.8, demonstrating significant concentration.

Finding, training and keeping employees in the health and medical cluster is a significant challenge, not just in Cenla, but across the country. While more discussion of occupational needs will follow in later sections, Table 1.13 lists the largest occupational categories in the cluster.

**Figure 1.3 Health and Medical Cluster
Location Quotients, Jobs and Percent Job Growth 2002-2007**

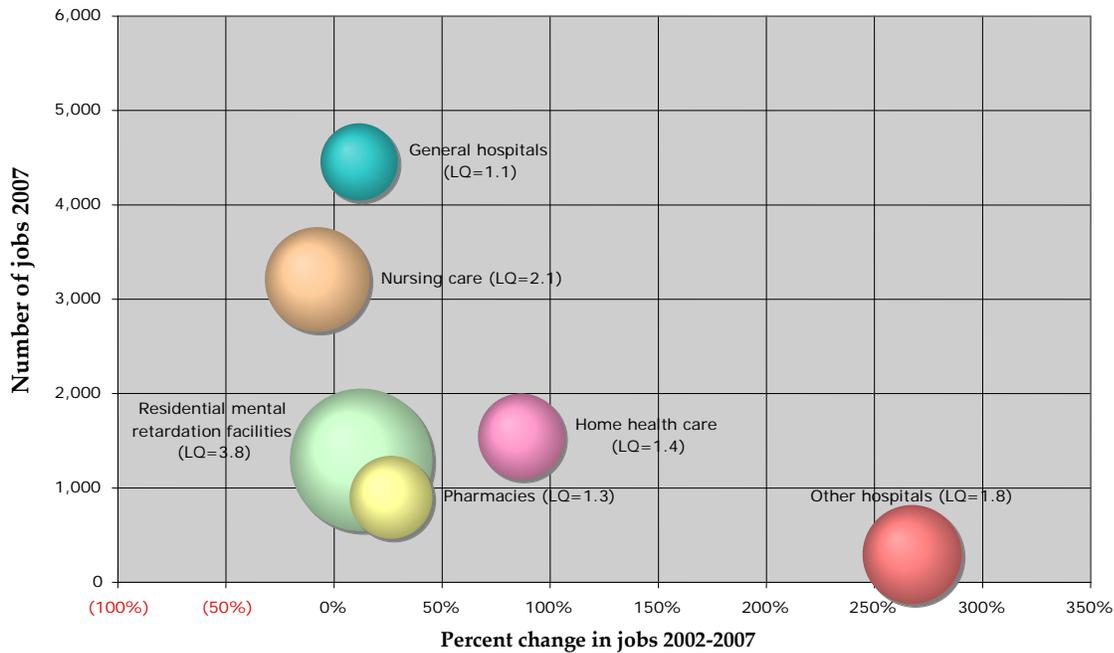


Table 1.12 Location Quotients in the Cenla Health and Medical Cluster 2007

| Description | Jobs | Location Quotient |
|---|-------|-------------------|
| General medical and surgical hospitals | 4,457 | 1.11 |
| Nursing care facilities | 3,211 | 2.05 |
| Home health care services | 1,544 | 1.38 |
| Residential mental retardation facilities | 1,297 | 3.79 |
| Pharmacies and drug stores | 900 | 1.29 |
| Other hospitals | 294 | 1.83 |
| Cosmetic and beauty supply stores | 269 | 1.29 |
| Continuing care retirement communities | 247 | 0.76 |
| Psychiatric and substance abuse hospitals | 245 | 2.64 |
| Residential mental & substance abuse care | 203 | 1.21 |
| Ambulance services | 178 | 1.05 |
| Medical equipment merchant wholesalers | 168 | 0.92 |
| Kidney dialysis centers | 138 | 1.74 |
| Blood and organ banks | 134 | 1.72 |
| Freestanding emergency medical centers | 120 | 1.53 |
| Other residential care facilities | 100 | 0.61 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

Table 1.13 Lead Occupations in the Cenla Health and Medical Cluster 2007

| Occupation | 2007 Jobs | % Change 2002-2007 |
|---|--------------|-----------------------|
| Nursing aides, orderlies, and attendants | 2,018 | 1% |
| Registered nurses | 1,941 | 21% |
| Licensed practical and licensed vocational nurses | 1,178 | 8% |
| Personal and home care aides | 857 | 43% |
| Maids and housekeeping cleaners | 378 | 3% |
| Home health aides | 478 | 31% |
| Psychiatric aides | 360 | (1%) |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

1.4 Leading Sectors In Cenla

Section 1.2 above gave some insight into the broadest levels of economic activity. Now we look at more specific industries, for example, moving from manufacturing down to sawmills and wood preservation. Technically we change focus from the NAICS code two-digit level (manufacturing) to the four-digit level (sawmills).

While the export base drives the Cenla economy, it represents only a portion of the companies and jobs within the region. When planning for workforce issues, it is important to focus on both the economic drivers and the support sectors. This section will describe the leading sectors within the economy regardless of whether they are public or private sector, export or support, growing, stable or declining. We will focus on size (numbers of jobs and establishments), job change, average earnings and sector competitiveness. We will look at past, present and projections over the 2002-2012 time frame.

We'll start with the largest sectors. Table 1.14 and Figure 1.4 reflect the importance of the public sector within Cenla, state, local and Federal. Together they account for nearly 43,000 jobs, a quarter of the region's employment. Not only are these sectors large, they are also much more concentrated than is the norm with location quotients of 1.5 and higher. In addition they have some of the highest average earnings in the region ranging from \$37,000 up to nearly \$90,000. Lastly, all parts have declined in terms of jobs since 2002 when they represented 30 percent of all jobs.

The table presents some other interesting data. First, only plywood and engineered wood products manufacturing shows up from the wood products cluster. The health and medical cluster shows up stronger with three sectors and a total of nearly 10,000

mostly high paying jobs. Still, combined the region's two dominant clusters make up only a small subset of the largest sectors.

Table 1.14 Leading Sectors in Cenla, 2002 and 2007

| Description | 2002 Jobs | 2007 Jobs | % Change | Location Quotient | Earnings per Worker | Establishments |
|---|----------------|----------------|-------------|----------------------|---------------------------|----------------|
| Local government | 23,107 | 21,145 | (8%) | 1.52 | \$36,902 | 431 |
| Federal government, military | 10,230 | 8,929 | (13%) | 4.53 | \$79,312 | 0 |
| State government | 8,860 | 7,726 | (13%) | 1.55 | \$46,704 | 176 |
| Crop and animal production | 5,520 | 5,338 | (3%) | 1.91 | \$8,524 | 83 |
| Federal government, civilian | 5,617 | 5,036 | (10%) | 2.60 | \$89,332 | 97 |
| Limited-service eating places | 4,073 | 4,621 | 13% | 1.16 | \$11,756 | 213 |
| General medical & surgical hospitals | 3,991 | 4,457 | 12% | 1.11 | \$48,653 | 12 |
| Nursing care facilities | 3,479 | 3,211 | (8%) | 2.05 | \$21,560 | 40 |
| Services to buildings & dwellings | 1,803 | 3,077 | 71% | 1.01 | \$17,423 | 136 |
| Full-service restaurants | 2,550 | 2,873 | 13% | 0.66 | \$13,131 | 138 |
| Other general merchandise stores | 3,000 | 2,822 | (6%) | 2.07 | \$22,652 | 99 |
| Other specialty trade contractors | 1,424 | 2,260 | 59% | 1.46 | \$34,717 | 81 |
| Religious organizations | 2,467 | 2,259 | (8%) | 1.42 | \$12,597 | 3 |
| Offices of physicians | 1,976 | 2,203 | 11% | 0.94 | \$80,985 | 265 |
| Child day care services | 1,679 | 2,151 | 28% | 1.32 | \$8,477 | 103 |
| Grocery stores | 2,183 | 1,918 | (12%) | 0.79 | \$20,076 | 122 |
| General freight trucking | 1,869 | 1,859 | (1%) | 1.20 | \$29,304 | 98 |
| Lessors of real estate | 1,330 | 1,709 | 28% | 0.72 | \$29,698 | 128 |
| Plywood and engineered wood | 1,951 | 1,697 | (13%) | 13.85 | \$47,788 | 13 |
| Cenla Total | 158,592 | 170,361 | 7% | | \$36,909 | |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

The remaining sectors are part of the *support economy*, sectors like restaurants, grocery stores and day care. Some of these are growing rapidly but it should be noted that most of the sectors have below average earnings.

Table 1.15 lists the fastest growing sectors over the 2002-2007 period. Of note is the strength of various parts of the construction and real estate industries. Second, as in all regions of the US, service sectors, as opposed to good-producing sectors, make up most of the employment growth. While several of the growing service sectors have good wages, many have average annual earnings under \$20,000.

Figure 1.4 Leading Sectors in Cenla, 2007

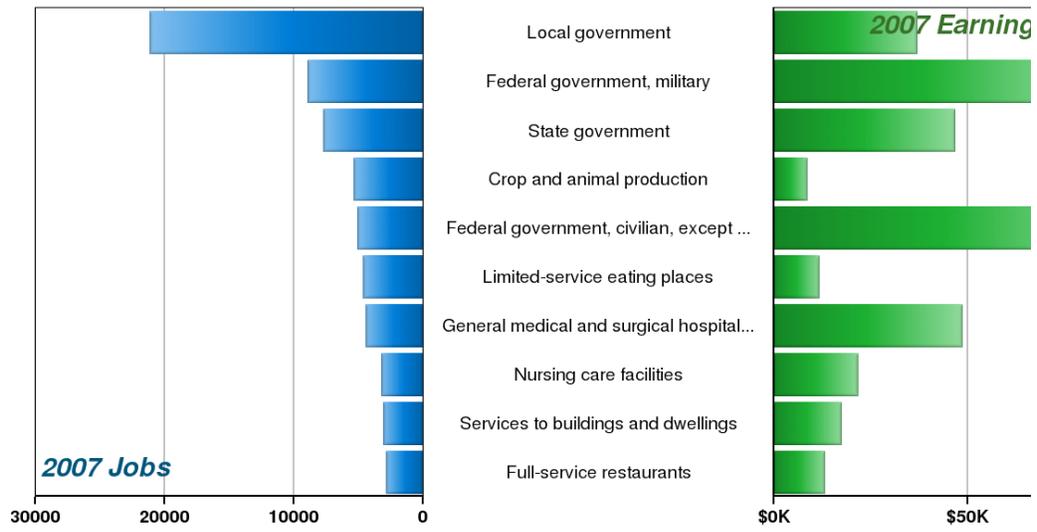


Table 1.15 Fastest Growing Sectors in Cenla, 2002-2007

| Description | 2002 Jobs | 2007 Jobs | Change | Change % | Earnings |
|--|--------------|--------------|--------|-------------|----------|
| Services to buildings and dwellings | 1,803 | 3,077 | 1,274 | 71% | \$17,423 |
| Computer systems design & related services | 244 | 1,384 | 1,140 | 467% | \$33,709 |
| Other specialty trade contractors | 1,424 | 2,260 | 836 | 59% | \$34,717 |
| Employment services | 828 | 1,634 | 806 | 97% | \$18,443 |
| Home health care services | 828 | 1,544 | 716 | 86% | \$28,999 |
| Architectural and engineering services | 672 | 1,381 | 709 | 105% | \$47,585 |
| Nonresidential building construction | 771 | 1,350 | 579 | 75% | \$46,809 |
| Limited-service eating places | 4,073 | 4,621 | 548 | 13% | \$11,756 |
| Colleges, universities | 378 | 924 | 546 | 144% | \$28,829 |
| Individual and family services | 643 | 1,183 | 540 | 84% | \$14,166 |
| Child day care services | 1,679 | 2,151 | 472 | 28% | \$8,477 |
| General medical and surgical hospitals | 3,991 | 4,457 | 466 | 12% | \$48,653 |
| Office administrative services | 341 | 781 | 440 | 129% | \$33,274 |
| Lessors of real estate | 1,330 | 1,709 | 379 | 28% | \$29,698 |
| Management & technical consulting services | 610 | 989 | 379 | 62% | \$42,061 |
| HVAC and commercial refrigeration equipment | 353 | 712 | 359 | 102% | \$37,987 |
| Sawmills and wood preservation | 864 | 1,219 | 355 | 41% | \$45,594 |
| Other professional & technical services | 899 | 1,245 | 346 | 38% | \$53,649 |
| Full-service restaurants | 2,550 | 2,873 | 323 | 13% | \$13,131 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

Figure 1.5 displays the highest average earnings within the Cenla economy. What is most noticeable in the figure is that most of the highest paying sectors are quite small with only Federal and medical having substantial employment levels.

Next we will look at the most *competitive* sectors with Cenla over the 2002-2007 period (Table 1.16). We will look at this using *shift-share* analysis:

Shift share is a standard regional analysis method that attempts to determine how much of regional job growth can be attributed to national trends and how much is due to unique regional factors. Shift share analysis looks at national and regional trends over a certain timeframe and asks, "If the region had just followed national trends during this time, what would it have looked like at the end?" It then compares this picture

of "expected" change to the region's actual change during that time. The difference between the two is one measure of regional performance. (Strategic Advantage, 2008)

To understand Table 1.16, look at the top competitive industry, computer systems design and related services. The sector grew rapidly during the five years, adding 1,140 good paying jobs to the region. But if computer systems design had grown like the industry did in the US, it would have added only 31 jobs! In several sectors, for example HVAC and commercial refrigeration equipment, national trends for 2002-2007 suggest that the region's sector would have *lost* jobs. Instead the HVAC sector *added* 359 jobs.

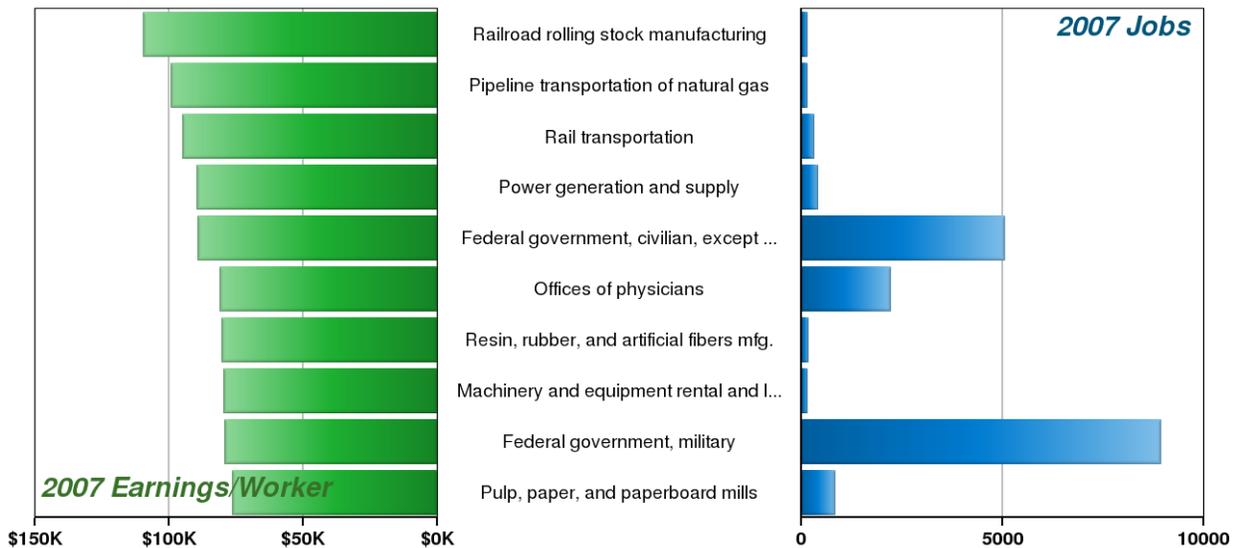


Figure 1.5 Highest Paying Sectors in Cenla, 2007

Table 1.16 Most Competitive Sectors in Cenla, 2002-2007

| Description | Job Change | Competitive Effect | Earnings |
|--|------------|--------------------|----------|
| Computer systems design and related services | 1,140 | 1,109 | \$33,709 |
| Services to buildings and dwellings | 1,274 | 990 | \$17,423 |
| Employment services | 806 | 724 | \$18,443 |
| Architectural and engineering services | 709 | 618 | \$47,585 |
| Nonresidential building construction | 579 | 531 | \$46,809 |
| Colleges, universities, and professional schools | 546 | 487 | \$28,829 |
| Home health care services | 716 | 434 | \$28,999 |
| Child day care services | 472 | 411 | \$8,477 |
| HVAC and commercial refrigeration equipment | 359 | 378 | \$37,987 |
| Sawmills and wood preservation | 355 | 375 | \$45,594 |
| Individual and family services | 540 | 365 | \$14,166 |
| Office administrative services | 440 | 301 | \$33,274 |
| Investigation and security services | 302 | 288 | \$21,584 |
| Other heavy construction | 288 | 251 | \$51,436 |
| Other specialty trade contractors | 836 | 233 | \$34,717 |
| Electric goods merchant wholesalers | 221 | 223 | \$34,488 |
| Health and personal care stores | 260 | 208 | \$29,514 |
| Pulp, paper, and paperboard mills | 67 | 203 | \$76,594 |
| Management and technical consulting services | 379 | 203 | \$42,061 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

Of note is that six of the most competitive sectors have average earnings above the regional average and five more are near the average.

Lastly we will look at job change projections for the 2007-2012 time frame. Projections are, by their nature, subject to considerable fuzziness. This is even truer for Cenla in 2007. The state and region continue to deal with the aftermath of hurricanes Katrina and Rita. The dramatic increase in oil and natural gas prices has made it hard to predict economic growth implications for the region. The opening of the Haynesville Shale natural gas field to production will have enormous impacts on central and north Louisiana. Finally the location and/or expansion of several large industries, such as Union Tank Car, will have big impacts on supply chains, area businesses and workforce needs. Little of this is reflected in the data we have now to project future growth.

Still the projections can provide us a baseline while we continue to monitor the game-changing events the region faces. Table 1.17 provides that baseline. Most of the growing sectors are expected to be in services of various types with very little expansion in goods-producing sectors.

Table 1.16 Employment Growth Projections in Cenla, 2007-2012

| Description | 2007 | 2012 | Change | |
|--|--------|--------|--------|----------|
| | Jobs | Jobs | % | Earnings |
| Local government | 21,145 | 23,189 | 10% | \$36,902 |
| Computer systems design and related services | 1,384 | 2,242 | 62% | \$33,709 |
| Services to buildings and dwellings | 3,077 | 3,672 | 19% | \$17,423 |
| Home health care services | 1,544 | 2,104 | 36% | \$28,999 |
| Employment services | 1,634 | 2,177 | 33% | \$18,443 |
| Other specialty trade contractors | 2,260 | 2,801 | 24% | \$34,717 |
| Limited-service eating places | 4,621 | 5,146 | 11% | \$11,756 |
| Other general merchandise stores | 2,822 | 3,321 | 18% | \$22,652 |
| Architectural and engineering services | 1,381 | 1,804 | 31% | \$47,585 |
| State government | 7,726 | 8,129 | 5% | \$46,704 |
| Child day care services | 2,151 | 2,554 | 19% | \$8,477 |
| Full-service restaurants | 2,873 | 3,255 | 13% | \$13,131 |
| Office administrative services | 781 | 1,149 | 47% | \$33,274 |
| General medical and surgical hospitals | 4,457 | 4,812 | 8% | \$48,653 |
| Lessors of real estate | 1,709 | 2,036 | 19% | \$29,698 |
| Management and technical consulting services | 989 | 1,282 | 30% | \$42,061 |
| Pulp, paper, and paperboard mills | 828 | 1,092 | 32% | \$76,594 |
| Individual and family services | 1,183 | 1,441 | 22% | \$14,166 |
| HVAC and commercial refrigeration equipment | 712 | 968 | 36% | \$37,987 |

Source: EMSI Complete Employment - Spring 2008 Release v. 2

1.5 Summary

This section describes the Cenla region's economy as a basis for understanding present and future workforce needs. It presents the case that change is a fact of life in today's and tomorrow's economies and provides part of the rationale for workforce strategies and a move to a system of life-long learning.

Chapter 2

The Demand Side

The Cenla region currently has more than 170,000 jobs. This chapter will look closely at the jobs by occupation, industry and drill even deeper to examine the high-demand occupations, and industries that are key to Cenla's economy such as wood cluster, health care, and manufacturing supply chains. In each case, using several data sources we will estimate job growth between 2007 and 202 for both new and replacement jobs, and focus on the jobs that require training beyond high school but less than a four-year degree. This chapter also details employers' perceptions of their training needs and how well those needs are being met. We will conclude with the overall projections of job growth for the next five years.

2.1 Cenla Occupational Projections and Composition

Policy-makers, business organizations and educational institutions analyze workforce composition as a means to assess the current structure of the economy, productivity, competitive advantages, and a host of other attributes. Understanding the types of occupations present in the economy and making projections can help communities to prepare for the needs of an expanding or contracting segment of the workforce as well as allow advertise the skills embedded their pool of labor. Analyzing a workforce also allows the suppliers and consumers of labor to determine the best course of action for proper succession planning.

Although often said, but not as often heeded, projections are based on trends and depict one possible course of action. Projections are not predictions and should not be used as such; however, predictions can be used to make plans for what is likely to occur given history and anticipated economic outcomes. Projections help to prepare for the future so the users of these forecasts can take appropriate action.

Administrative and sales occupations comprise a large portion of the Cenla region's jobs. Table 2.1 below shows the number of jobs grouped by major occupational classification. While office and administrative support occupations hold the most jobs, military occupations are highly concentrated in the Cenla region with a location quotient of 4.53. Other highly concentrated occupational groups include jobs related to healthcare practitioners and technical occupations (LQ of 1.31); healthcare support occupations (LQ of 1.30); protective services (LQ of 1.89); and farming, fishing, and forestry occupations (LQ of 2.54). Not surprisingly, the occupational groups with

higher than average location quotients tend to support the industries in which the Cenla region has a unique advantage: Health and Medical and Forestry.

Table 2.1 Jobs by Major Occupational Classification, 2007 and 2012

| Occupational Categories | 2007 Jobs | 2012 Jobs |
|--|----------------|----------------|
| Office and administrative support occupations | 22,240 | 24,009 |
| Sales and related occupations | 19,025 | 20,744 |
| Management occupations | 13,751 | 14,761 |
| Transportation and material moving occupations | 11,116 | 11,809 |
| Food preparation and serving related occupations | 10,919 | 12,043 |
| Education, training, and library occupations | 10,620 | 11,676 |
| Healthcare practitioners and technical occupations | 9,608 | 10,429 |
| Military Occupations | 8,929 | 8,450 |
| Construction and extraction occupations | 8,735 | 9,602 |
| Building and grounds cleaning and maintenance occupations | 7,523 | 8,636 |
| Installation, maintenance, and repair occupations | 7,271 | 7,943 |
| Personal care and service occupations | 6,690 | 7,554 |
| Production occupations | 6,663 | 7,030 |
| Protective service occupations | 5,829 | 6,563 |
| Business and financial operations occupations | 5,069 | 5,629 |
| Healthcare support occupations | 4,922 | 5,255 |
| Arts, design, entertainment, sports, and media occupations | 2,573 | 2,774 |
| Community and social services occupations | 2,569 | 2,803 |
| Farming, fishing, and forestry occupations | 1,840 | 1,791 |
| Architecture and engineering occupations | 1,279 | 1,479 |
| Life, physical, and social science occupations | 1,235 | 1,356 |
| Legal occupations | 992 | 1,098 |
| Computer and mathematical science occupations | 964 | 1,206 |
| Total | 170,361 | 184,641 |

Area-Wide Occupational Projections

As presented in the table above, the Central Louisiana (Cenla) region had 170,361 jobs in 2007. By 2012, the jobs associated with these occupations are projected to grow by 8.4 percent to 184,641 jobs. Thus, by the end of 2012, employment in Central Louisiana will represent 7.1 percent of the total jobs in the state. New jobs created in the region between 2007 and 2012 are estimated to be 10.9 percent of total new job creation in the state over the same time period. These jobs include not just those covered under State and Federal unemployment and compensation programs, but also include the self-

employed, proprietors, military, and other workers not typically included in your standard labor market information employment counts¹.

Based on projections, the region should anticipate 30,226 job openings in the short-term due to overall economic expansion in the area as well as changes in the dynamics of the labor force. This number includes 14,280 new jobs and an additional 15,946 existing jobs that will need to be replaced with new workers over the next five-years.

Replacement jobs are the result of natural turnover, attritions and deaths and are typically filled by entry level workers who require some education and/or training to be brought up to speed in an occupation.

Occupations in the region can be broken down by education level. The education levels are from the Eleven Category System used by the Bureau of Labor Statistics and range from on-the-job training to first professional degree². These categories are based on the “most significant source of education or training needed to become qualified in an occupation.” For the purposes of this report, the study team aggregated occupational employment into two main categories based on the BLS system: ‘**Less than a 4-year degree**’ and ‘**4-year degree or higher**.’ Anything above an associate’s degree was placed in the latter category.

In the Cenla region 77 percent of the jobs are in occupations that require less than a 4-year degree. Roughly 24,000 of the new and replacement jobs are in occupations requiring less than a 4-year degree.

Table 2.2 Jobs by Educational Attainment

| Educational Level | 2007 Jobs | 2012 Jobs | New | | Replacement | | New & Replacement | |
|-------------------------|----------------|----------------|---------------|--------------|---------------|--------------|-------------------|---------------|
| | | | Jobs | Change | Jobs | Change | Jobs | Change |
| Less than a 4-Yr degree | 131,639 | 143,039 | 11,409 | 8.67% | 12,620 | 9.59% | 24,029 | 18.25% |
| 4-Yr degree or higher | 29,283 | 32,626 | 3,320 | 11.34% | 2,200 | 7.51% | 5,520 | 18.85% |
| All Occupations* | 170,361 | 184,641 | 14,280 | 8.38% | 15,946 | 9.36% | 30,226 | 17.74% |

*Jobs will not add to total due to suppressed data

¹ The complete occupational profile of the Cenla region was conducted with data from Economic Modeling Specialists, Inc. (EMSI). For information regarding their data sources and calculations see <http://www.economicmodeling.com/data/sources.php>.

² For detailed descriptions and methodology of education and training classification systems used by state and federal data sources (and EMSI) refer to Chapters 1 and 3 of the *Occupational Projections and Training Data*, 2008-09 edition. <http://www.bls.gov/emp/optd/>

Less than a Bachelor's degree – A deeper look

Of the 754 standard occupational classifications³ reviewed for this report, 554 occupations require less than a four-year degree for an applicant to be considered qualified. Nearly 16,500 jobs are in occupations that require completion of an educational award from a post-secondary institution. In addition, roughly 2,800 new and replacement jobs will also require a diploma, certificate or diploma over the five-year time period ending 2012. The rest of the workforce in this group requires on-the-job training often times in conjunction with some occupational extension from a neighboring educational institution. According to a study conducted by CCBenefits, Inc., nearly 49 percent of a community college's student body is seeking workforce and other non-credit training while another 32.6 percent is seeking credits for the purpose of transferring to another degree-granting institution⁴. This suggests that the greatest need for occupational training will come from the existing workforce trying to upgrade their skills to advance in their current profession.

Table 2.3 Jobs by Type of Training

| Education Level | 2007 Jobs | 2012 Jobs | New & Replacement Jobs |
|------------------------------------|-----------|-----------|------------------------|
| Associate's degree | 5,682 | 6,362 | 1,194 |
| Postsecondary vocational award | 10,790 | 11,591 | 1,587 |
| Work experience in a related field | 14,453 | 16,062 | 2,455 |
| Long-term on-the-job training | 14,325 | 15,022 | 1,685 |
| Moderate-term on-the-job training | 32,273 | 35,445 | 6,004 |
| Short-term on-the-job training | 54,116 | 58,557 | 11,104 |

The top occupations are retail salespersons and cashiers with each occupation responsible for at least 4,000 jobs in the region. Occupations with higher than average concentration of employment, as compared to the nation, are usually employed in export-oriented industries. Highly concentrated occupations (calculated as a location quotient) provide a workforce-oriented perspective of a region's economic base. Such occupations are considered to be strategically important for the continued prosperity of the region.

The occupations with the highest concentration in Cenla:

³ Information regarding the development, structure, and use of Standard Occupational Classifications can be obtained from <http://www.bls.gov/soc/socguide.htm>.

⁴ The Economic Contribution of America's Community and Technical Colleges: An Analysis of Investment Effectiveness and Economic Growth. [Internet]. Moscow, ID: Robinson M, Christophersen KA; c2004 [cited 2008 Nov 3]. Available from <http://www.ccbenefits.com>

Table 2.4 Cenla Occupations by Highest Concentration

| Occupation | 2007 Jobs | 2007 LQ |
|--|-----------|---------|
| Logging equipment operators | 596 | 14.10 |
| Forest and conservation workers | 89 | 8.62 |
| Ship engineers | 116 | 8.31 |
| Petroleum pump system operators, refinery operators, and gaugers | 271 | 6.68 |
| First-line supervisors/managers of correctional officers | 239 | 6.53 |
| Gaming surveillance officers and gaming investigators | 96 | 5.58 |
| Correctional officers and jailers | 2,227 | 5.40 |
| Logging workers, all other | 106 | 5.35 |
| Log graders and scalers | 99 | 5.33 |
| Tank car, truck, and ship loaders | 76 | 5.10 |

While the table above shows occupations that appear to be a key part to the Cenla economy, it does not tell where the demand for occupations requiring less than a four-year degree is greatest. Demand, estimated based on the number of new and replacement jobs over the 2007 to 2012 time period, is greatest in office administrative and health-related occupations. The table below lists occupations by total projected demand and the percentage of change from the base year (2007). These jobs are not necessarily responsible for the most employment in the region, but may require the most education and training of new workers entering these professions.

Table 2.5 In-Demand Occupations: Less Than a 4-Year Degree

| Occupation | Projected Demand | Increase from 2007 |
|--|------------------|--------------------|
| Customer service representatives | 757 | 36% |
| Registered nurses | 651 | 20% |
| Correctional officers and jailers | 549 | 25% |
| Office clerks, general | 515 | 20% |
| Secretaries, except legal, medical, and executive | 458 | 14% |
| Licensed practical and licensed vocational nurses | 366 | 19% |
| Bookkeeping, accounting, and auditing clerks | 350 | 17% |
| First-line supervisors/managers of retail sales workers | 335 | 13% |
| Sales representatives, wholesale and manufacturing, except technical and scientific products | 302 | 29% |
| First-line supervisors/managers of office and administrative support workers | 271 | 18% |

The table above just looks at total demand without comparing the wages associated with the top occupations. Using the same criteria as used above, but taking into account wages begets a list of high-paying jobs with a strong demand needs.

Table 2.6 Highest Paying Occupations: Less Than a 4-Year Degree

| Occupation | Projected Demand | Avg. Hourly Earnings |
|--|------------------|----------------------|
| Sales representatives, wholesale and manufacturing, technical and scientific products | 148 | \$37.73 |
| Sales representatives, wholesale and manufacturing, except technical and scientific products | 302 | \$25.50 |
| First-line supervisors/managers of non-retail sales workers | 129 | \$23.92 |
| Registered nurses | 651 | \$23.85 |
| First-line supervisors/managers of mechanics, installers, and repairers | 106 | \$22.26 |
| First-line supervisors/managers of construction trades and extraction workers | 153 | \$20.00 |
| Carpenters | 207 | \$16.75 |
| Automotive service technicians and mechanics | 118 | \$14.66 |
| Heating, air conditioning, and refrigeration mechanics and installers | 118 | \$14.19 |
| Bookkeeping, accounting, and auditing clerks | 350 | \$12.59 |

Four-Year Degrees and Higher

Cenla employment at the bachelor degree level and higher tends to focus on the management and education related occupations. The occupations requiring at least a bachelor's degree with the most employment in 2007 were: Elementary school teachers, except special education (2,912 jobs); General and operations managers (2,292 jobs); Secondary school teachers, except special and vocational education (1,469 jobs); Postsecondary teachers (1,112 jobs); Accountants and auditors (939 jobs); and Chief executives (788 jobs). All of these occupations are forecasted to experience a growth rate of at least 7% over the next five years. Occupations related to teaching in the K-12 system, management, health diagnostics, and community and social services are very important to the region. These occupations show higher than average concentrations in the nine-parish region than in the nation as a whole. The strongest concentration of employment in the occupations requiring at least a bachelor's degree is foresters, which has a LQ of 11.02.

Table 2.7 Cenla Occupations, Total Number and LQ

| Occupations | 2007 Jobs | 2007 LQ |
|--|-----------|---------|
| Foresters | 175 | 11.02 |
| Legislators | 207 | 3.41 |
| Special education teachers, secondary school | 388 | 2.77 |
| Geoscientists, except hydrologists and geographers | 107 | 2.47 |
| Recreational therapists | 59 | 2.42 |
| Farm, ranch, and other agricultural managers | 698 | 2.06 |
| Marine engineers and naval architects | 17 | 2.02 |
| Educational, vocational, and school counselors | 501 | 1.97 |
| Counselors, all other | 77 | 1.96 |
| Elementary school teachers, except special education | 2,912 | 1.81 |

Individuals employed as foresters typically start out in the field with a bachelor's degree. Over the next five years, the demand for employment is projected to be 26 jobs (25 of which existed in 2007 but will need to be replaced by the end of 2012). Contrary to the forester example, occupations with higher educational levels typically have lower replacement needs than the demand for new job openings. For example, the total demand for accountant/auditor jobs is spurred by the need for 125 new jobs between 2007 and 2012 as compared to an estimated 51 jobs to needed due to attrition or other replacement needs. The table below presents 10 of the top 25 occupations requiring at least a bachelor's degree (based on total demand for employment over the next five years).

Table 2.8 In-Demand Occupations requiring 4-Year degree or higher

| Occupation | Projected Demand | Increase from 2007 |
|--|------------------|--------------------|
| Elementary school teachers, except special education | 616 | 21% |
| General and operations managers | 462 | 20% |
| Secondary school teachers, except special and vocational education | 317 | 22% |
| Postsecondary teachers | 258 | 23% |
| Accountants and auditors | 176 | 19% |
| Business operation specialists, all other | 130 | 19% |
| Personal financial advisors | 126 | 34% |
| Construction managers | 118 | 16% |
| Pharmacists | 84 | 21% |
| Computer programmers | 65 | 32% |

Not only do the replacement needs of occupations appear to decrease with an increase in the level of educational attainment, an inverse relationship between income and the quantity demanded also seems to occur in the central portion of Louisiana. Below is a list of 10 occupations with at least 75 new and replacement jobs needed over the next five years. With the exception of a few occupations, the projected demand for jobs is less in the higher wage occupations like physicians, pharmacists and lawyers.

Table 2.9 Highest Paying Occupations: Bachelor's degree and Above

| Occupation | Projected Demand | Avg. Hourly Earnings |
|--|------------------|----------------------|
| Physicians and surgeons | 87 | \$106.23 |
| Pharmacists | 84 | \$40.97 |
| Lawyers | 87 | \$39.20 |
| Education administrators, elementary and secondary school | 83 | \$38.63 |
| Medical and health services managers | 84 | \$37.18 |
| Postsecondary teachers | 258 | \$33.78 |
| Secondary school teachers, except special and vocational education | 317 | \$31.14 |
| Elementary school teachers, except special education | 616 | \$30.14 |
| Education administrators, postsecondary | 77 | \$24.55 |
| Construction managers | 118 | \$20.04 |

The occupational data mimics the industry data with regards to the naturally forming clusters in the Cenla region: Forest and wood products and Health and Medicine. These clusters account for more than 12 percent of the Cenla region’s total employment and over \$828 million in total payroll.

Forest and Wood Products Occupational Projections

The forest and wood products cluster is made up of 232 occupations and 7,177 jobs. Last year the earnings⁵ for this cluster totaled \$361.7 million. The forest and wood products cluster is projected to add 293 jobs, an increase of 4.1 percent, by the end of 2012. The cluster is mainly comprised of occupations requiring less than a four-year degree. Of total employment in the any one year, more than 6,000 jobs will be in occupations requiring an associate’s degree or less. Expected replacement jobs needed over the next five years amounts to 10 percent of the 2007 jobs for both educational groupings.

Table 2.10 Cenla Forest and Wood Products Cluster, Employment by Educational Level

| Educational Level | 2007 Jobs | 2012 Jobs | New Jobs | Change |
|---|--------------|--------------|------------|-------------|
| Less than 4 Yr | 6,308 | 6,589 | 229 | 3.6% |
| 4 Yr or higher | 450 | 478 | 18 | 4.0% |
| Total Forestry Industry Employment | 7,177 | 7,471 | 293 | 4.1% |

*Jobs will not add to total due to suppressed data.

Logging equipment operators comprised the largest percentage of cluster employment with almost 600 jobs. With 8 percent of the cluster’s total employment and 6.7 percent of total cluster earnings, logging equipment operators is of great importance to the forest and wood products cluster. Other large contributors to cluster earnings include heavy and tractor-trailer truck drivers, with 5 percent of cluster employment, and laborers and freight, stock, and material movers with 8 percent of industry employment. Both occupations contribute 2.8 percent each to total cluster earnings.

⁵ The terms “earnings”, “wages”, and “payroll” are use interchangeably throughout this section of the report as benefits and discretionary pay are not included in the dollar figures reported.

Table 2.11 Forest and Wood Products Cluster Employment by Occupation/Earnings

| Description | 2007 Jobs | 2012 Jobs | % of Cluster | Hourly Earnings | Portion of Cluster Earnings |
|---|--------------|--------------|-----------------|--------------------|-----------------------------------|
| Logging equipment operators | 594 | 570 | 8% | \$19.93 | 6.7% |
| Truck drivers, heavy and tractor-trailer | 363 | 350 | 5% | \$13.68 | 2.8% |
| Laborers and freight, stock, and material movers, hand | 587 | 563 | 8% | \$8.37 | 2.8% |
| Logging workers, all other | 105 | 106 | 1% | \$44.88 | 2.7% |
| Log graders and scalers | 98 | 100 | 1% | \$46.31 | 2.6% |
| General and operations managers | 176 | 176 | 2% | \$25.78 | 2.6% |
| Fallers | 109 | 109 | 2% | \$41.36 | 2.6% |
| Foresters | 145 | 145 | 2% | \$30.26 | 2.5% |
| Supervisors, farming, fishing, and forestry workers | 105 | 105 | 1% | \$38.14 | 2.3% |
| First-line supervisors/managers of production and operating workers | 167 | 174 | 2% | \$22.42 | 2.1% |
| Carpenters | 219 | 245 | 3% | \$15.04 | 1.9% |
| Sales reps, wholesale and mfg, except technical and scientific products | 120 | 129 | 2% | \$23.57 | 1.6% |

The projected “in-demand” occupations in the cluster all require less than a bachelor’s degree. Laborers and freight, stock, and material movers have the greatest demand for jobs. The occupation is actually experiencing a decline in employment and is projected to shed 24 jobs between 2007 and 2012, but the number replacement jobs is far greater with 99 needed over the same period of time. As with other labor-intensive occupations, older workers are expected to retire faster than the anticipated job declines. The table below lists the “in-demand” occupations based on total demand needs and percent of cluster employment. Combined, the occupations presented below make up 40 percent of the jobs in this cluster.

Table 2.12 Forest and Wood Products Cluster “In-Demand” Occupations

| Description | 2007 Jobs | 2012 Jobs | Replacement Jobs | Total Demand | Education Level |
|---|--------------|--------------|---------------------|-----------------|------------------------------------|
| Laborers and freight, stock, and material movers, hand | 587 | 563 | 99 | 75 | Short-term on-the-job training |
| Paper goods machine setters, operators, and tenders | 111 | 143 | 15 | 47 | Moderate-term on-the-job training |
| Logging equipment operators | 594 | 570 | 38 | 14 | Moderate-term on-the-job training |
| Helpers--Production workers | 249 | 254 | 34 | 39 | Short-term on-the-job training |
| Industrial machinery mechanics | 118 | 142 | 12 | 36 | Long-term on-the-job training |
| Carpenters | 219 | 245 | 16 | 42 | Long-term on-the-job training |
| Production workers, all other | 128 | 143 | 16 | 31 | Moderate-term on-the-job training |
| Millwrights | 153 | 171 | 17 | 35 | Long-term on-the-job training |
| Industrial truck and tractor operators | 245 | 240 | 35 | 30 | Short-term on-the-job training |
| First-line supervisors/managers of production and operating workers | 167 | 174 | 11 | 18 | Work experience in a related field |
| Secretaries, except legal, medical, and executive | 222 | 227 | 18 | 23 | Moderate-term on-the-job training |
| Sales reps, wholesale and mfg, except technical and scientific products | 120 | 129 | 13 | 22 | Moderate-term on-the-job training |

While none of the top occupations chosen from this cluster have an associate's degree listed as the most common path to employment, over 4,000 jobs are in occupations that need a hybrid of on-the-job training and coursework. The breakdown of jobs by educational level is presented below. This table is based on the educational level of the existing workers in the forest and wood products related occupations.

Table 2.13 Forest and Wood Products Cluster Jobs by Educational Level

| Educational Level | 2007 Jobs | 2012 Jobs | New Jobs | Replacement Jobs | Total Demand |
|------------------------------------|--------------|--------------|-----------|------------------|--------------|
| Associate's degree | 0 | 0 | 0 | 0 | 0 |
| Bachelor's degree | 145 | 145 | 0 | 31 | 31 |
| Degree plus work experience | 176 | 176 | 0 | 27 | 27 |
| Long-term on-the-job training | 490 | 558 | 68 | 45 | 113 |
| Master's degree | 0 | 0 | 0 | 0 | 0 |
| Moderate-term on-the-job training | 2,384 | 2,429 | 45 | 211 | 256 |
| Postsecondary vocational award | 0 | 0 | 0 | 0 | 0 |
| Short-term on-the-job training | 1,305 | 1,283 | (22) | 186 | 164 |
| Work experience in a related field | 272 | 279 | 7 | 15 | 22 |
| Total | 4,772 | 4,870 | 98 | 514 | 612 |

Health and Medicine Cluster Occupational Projections

The other cluster with a significant presence in the region is Health and Medicine. Total employment in the health and medicine cluster is just over 14,100 jobs with a projected 10 percent increase by 2012. Within the Cenla region, these 14,100 jobs are spread across 313 occupations and have 2007 total earnings of \$466.7 million.

Table 2.14 Health and Medicine Cluster Employment by Educational Level

| Educational Level | 2007 Jobs | 2012 Jobs | New Jobs | Change |
|--|---------------|---------------|--------------|--------------|
| Less than 4 Yr | 11,921 | 13,079 | 1,124 | 9.4% |
| 4 Yr or higher | 1,649 | 1,884 | 215 | 13.0% |
| Total Health and Medicine Industry Employment | 14,127 | 15,537 | 1,410 | 10.0% |

*Jobs will not add to total due to suppressed data.

As with the forest and wood products cluster examined above, most of the jobs in the health and medicine cluster are in occupations that typically require education and training equivalent to an associate's degree or some combination of work experience and coursework. In 2012, more than 6,500 jobs (46 percent of cluster employment) in this cluster will require either an associate's degree or post-secondary vocational training while 25 percent of the jobs will be in occupations that require a doctoral degree.

Nursing occupations comprise most of the employment in the health and medicine cluster with nursing aides, orderlies and attendants making up 14 percent of industry

employment. Below is a list of top occupations based on their contribution to cluster earnings. As probably suspected, registered nurses make up most a large percentage of employment in the cluster and an even larger percentage of the total cluster earnings. Close to 40 percent of the cluster’s earnings are made by nurses (RN and LPN) and nursing aides. The occupations listed below account for 58 percent of the \$466 million in wages paid in Cenla’s health and medicine cluster. Physicians and surgeons, with the highest hourly earnings in the cluster, account for 6.5 percent of the total cluster earnings.

Table 2.15 Health and Medicine Cluster Employment by Occupation and Earnings

| Description | 2007 Jobs | 2012 Jobs | % of Industry | Hourly Earnings | Portion of Cluster Earnings |
|---|--------------|--------------|------------------|--------------------|-----------------------------------|
| Registered nurses | 1,941 | 2,202 | 14% | \$22.94 | 19.7% |
| Licensed practical and licensed vocational nurses | 1,178 | 1,252 | 8% | \$14.63 | 7.6% |
| Nursing aides, orderlies, and attendants | 2,018 | 2,104 | 14% | \$7.51 | 6.7% |
| Physicians and surgeons | 143 | 162 | 1% | \$102.28 | 6.5% |
| Pharmacists | 262 | 304 | 2% | \$42.38 | 4.9% |
| Medical and health services managers | 275 | 305 | 2% | \$33.52 | 4.1% |
| Personal and home care aides | 857 | 1,067 | 6% | \$8.84 | 3.3% |
| Home health aides | 478 | 571 | 3% | \$9.24 | 1.9% |
| Psychiatric aides | 360 | 331 | 3% | \$10.33 | 1.6% |
| General and operations managers | 114 | 127 | 1% | \$25.78 | 1.3% |
| Medical and clinical laboratory technologists | 124 | 138 | 1% | \$22.70 | 1.2% |
| Cashiers, except gaming | 386 | 407 | 3% | \$7.03 | 1.2% |

Nurses and nursing aides are also the most “in-demand” occupations based on the need for new and replacement jobs between 2007 and 2012 in the Cenla region. The demand for registered nurses (RN) is driven by new job creation in the cluster while the demand for licensed practical and licensed vocational nurses (LPN) is driven by replacement jobs. This scenario may be the result of individuals working as LPNs going back to school for training to become RNs and thus requiring their old jobs to be filled by new workers. This scenario points to an issue that cannot be obtained through simply data analysis: the transition among various related occupations and the training needed to upgrade skills.

Table 2.16 Health and Medicine Cluster “In-Demand” Occupations

| Description | 2007 Jobs | 2012 Jobs | Replacement Jobs | Total Demand | 2007 Median Hourly Earnings | Education Level |
|---|-----------|-----------|------------------|--------------|-----------------------------|-----------------------------------|
| Registered nurses | 1,941 | 2,202 | 160 | 421 | \$22.94 | Associate's degree |
| Personal and home care aides | 857 | 1,067 | 58 | 268 | \$8.84 | Short-term on-the-job training |
| Licensed practical and licensed vocational nurses | 1,178 | 1,252 | 160 | 234 | \$14.63 | Postsecondary vocational award |
| Nursing aides, orderlies, and attendants | 2,018 | 2,104 | 88 | 174 | \$7.51 | Postsecondary vocational award |
| Cashiers, except gaming | 386 | 407 | 97 | 118 | \$7.03 | Short-term on-the-job training |
| Home health aides | 478 | 571 | 19 | 112 | \$9.24 | Short-term on-the-job training |
| Pharmacists | 262 | 304 | 23 | 65 | \$42.38 | First professional degree |
| Medical and health services managers | 275 | 305 | 22 | 52 | \$33.52 | Degree plus work experience |
| Retail salespersons | 167 | 196 | 22 | 51 | \$8.98 | Short-term on-the-job training |
| Cooks, institution and cafeteria | 268 | 277 | 35 | 44 | \$6.85 | Moderate-term on-the-job training |
| Office clerks, general | 171 | 193 | 14 | 36 | \$7.94 | Short-term on-the-job training |
| Food preparation workers | 168 | 174 | 29 | 35 | \$6.64 | Short-term on-the-job training |

As shown above most of the “in-demand” occupations require a level of education less than a bachelor’s degree. An expanded look at occupational needs based on industry employment and total demand for jobs educational level shows the that most of the jobs in the cluster require either a post-secondary vocational training or short-term apprenticeship training. The table below looks at the top 25 occupations by educational level. The number of jobs presented in the table represents 72 percent of total cluster employment. Over 90 percent of these jobs require less than a four-year degree as qualification for employment.

Table 2.17 Health and Medicine Cluster Jobs by Educational Level

| Educational Level | 2007 Jobs | 2012 Jobs | New Jobs | Replacement Jobs | Total Demand |
|------------------------------------|---------------|---------------|------------|------------------|--------------|
| Associate's degree | 2,179 | 2,461 | 282 | 183 | 465 |
| Bachelor's degree | 124 | 138 | 14 | 9 | 23 |
| Degree plus work experience | 389 | 432 | 43 | 34 | 77 |
| First professional degree | 405 | 466 | 61 | 30 | 91 |
| Long-term on-the-job training | 0 | 0 | 0 | 0 | 0 |
| Master's degree | 0 | 0 | 0 | 0 | 0 |
| Moderate-term on-the-job training | 619 | 662 | 43 | 61 | 104 |
| Postsecondary vocational award | 3,368 | 3,490 | 122 | 258 | 380 |
| Short-term on-the-job training | 3,072 | 3,451 | 379 | 276 | 655 |
| Work experience in a related field | 155 | 179 | 24 | 7 | 31 |
| Total | 10,311 | 11,279 | 968 | 858 | 1,826 |

Other Occupational Drivers

While understanding the major clusters and their implications for occupational employment, it is also important to understand and other key wealth drivers can affect occupational needs in the region. As stated in the industry section of this report, companies like Proctor and Gamble, Crest, Union Tank Car, and Dresser are strategically important to the region as these companies and their suppliers export product and services in exchange for new revenue brought into the Cenla region.

The table below presents a sample of occupations that are likely to be employed at one or more businesses like those mentioned above. The occupations were selected reviewing the national staffing patterns of companies employed in the same industries as the aforementioned companies and then identifying the occupations that were common across the various groups of industry codes.

Table 2.18 Sample Occupations, Other Cenla Industry, 2007 and 2012

| Description | 2007 Jobs | 2012 Jobs |
|---|-----------|-----------|
| General and operations managers | 2,292 | 2,496 |
| Industrial production managers | 92 | 103 |
| Cost estimators | 123 | 137 |
| Industrial engineers | 50 | 64 |
| Mechanical engineers | 77 | 91 |
| Engineers, all other | 108 | 120 |
| Mechanical drafters | 25 | 29 |
| Electrical and electronic engineering technicians | 81 | 91 |
| Chemical technicians | 18 | 20 |
| Weighers, measurers, checkers, and samplers, recordkeeping | 62 | 61 |
| Computer operators | 51 | 47 |
| Electricians | 445 | 470 |
| Plumbers, pipefitters, and steamfitters | 366 | 404 |
| First-line supervisors/managers of mechanics, installers, and repairers | 536 | 582 |
| Electrical and electronics repairers, commercial and industrial equipment | 104 | 120 |
| Rail car repairers | 30 | 32 |
| Industrial machinery mechanics | 332 | 384 |
| Maintenance workers, machinery | 97 | 104 |
| Millwrights | 202 | 233 |
| Helpers--installation, maintenance, and repair workers | 159 | 176 |
| Structural metal fabricators and fitters | 63 | 64 |
| Team assemblers | 400 | 461 |
| Assemblers and fabricators, all other | 332 | 348 |
| Computer-controlled machine tool operators, metal and plastic | 17 | 18 |
| Machinists | 122 | 138 |
| Metal-refining furnace operators and tenders | 12 | 10 |
| Welders, cutters, solderers, and brazers | 382 | 413 |
| Tool grinders, filers, and sharpeners | 29 | 27 |
| Inspectors, testers, sorters, samplers, and weighers | 270 | 286 |
| Truck drivers, heavy and tractor-trailer | 2,172 | 2,263 |
| Industrial truck and tractor operators | 541 | 553 |

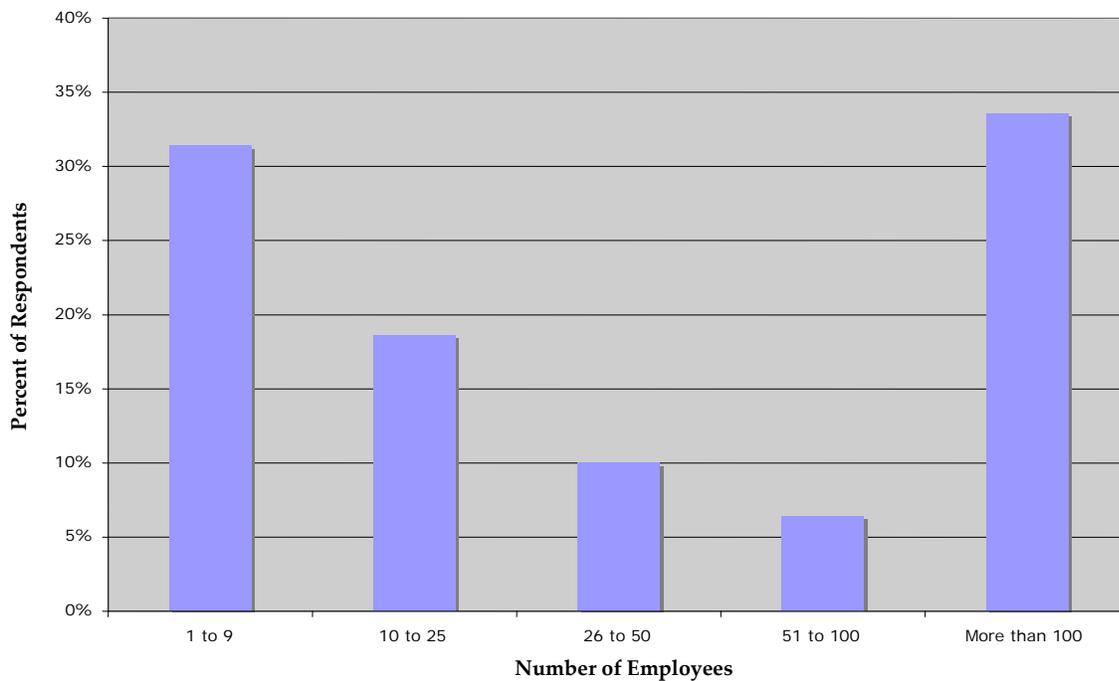
The sample of occupations consistent among the wealth drivers in the Cenla region range from maintenance and repair jobs to supervisors and engineers. Employment growth for many of these occupations is fairly flat and the number of replacement jobs in many of the jobs requiring higher levels of education are very small. As these companies continue to grow and foster new business relationships, suppliers and competitors may begin to relocate to the Cenla region to take advantage of inherent skills present in the workforce.

2.2 Employer Perceptions About Their Workforce Needs

The region’s workforce needs are best learned by actually communicating with Cenla’s employers. Accordingly, The Rapides Foundation sent out a short survey to employers in the region, receiving 141 responses. The respondents represented a wide cross-section of companies—from 44 small businesses, which have fewer than 10 employees to 37 companies, which employ more than 100.

Figure 2.1 shows the size breakdown of employees in the survey.

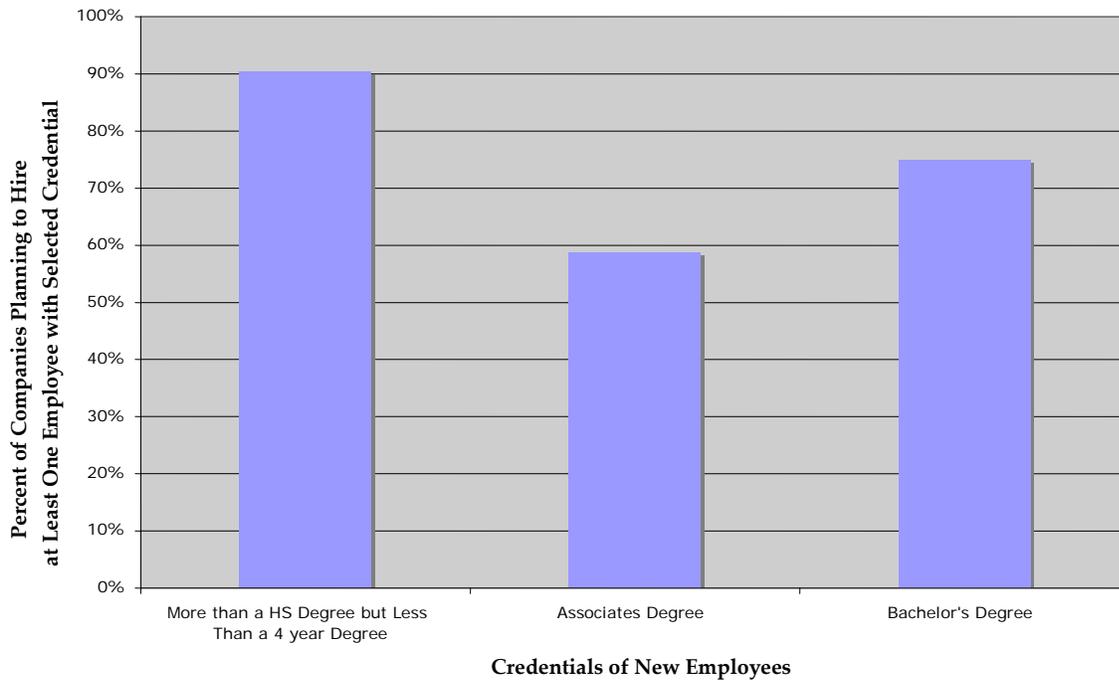
Figure 2.1: Number of Employees at Respondent Firms



The respondents all planned to expand in the coming years and almost all planned to hire workers with less than a four-year degree but more than a high school degree.

Indeed, 90 percent of respondents said they would hire at least one such employee and 31 percent stated they would hire at least 20 such employees over the next four years. The need for credentials beyond a high school degree was also apparent: 59 percent of respondents expected to hire someone with an associate's degree and 75 percent expected to hire someone with a baccalaureate degree in the next four years. Figure 2 details this response.

Figure 2.2: Hiring Plans of Cenla Firms

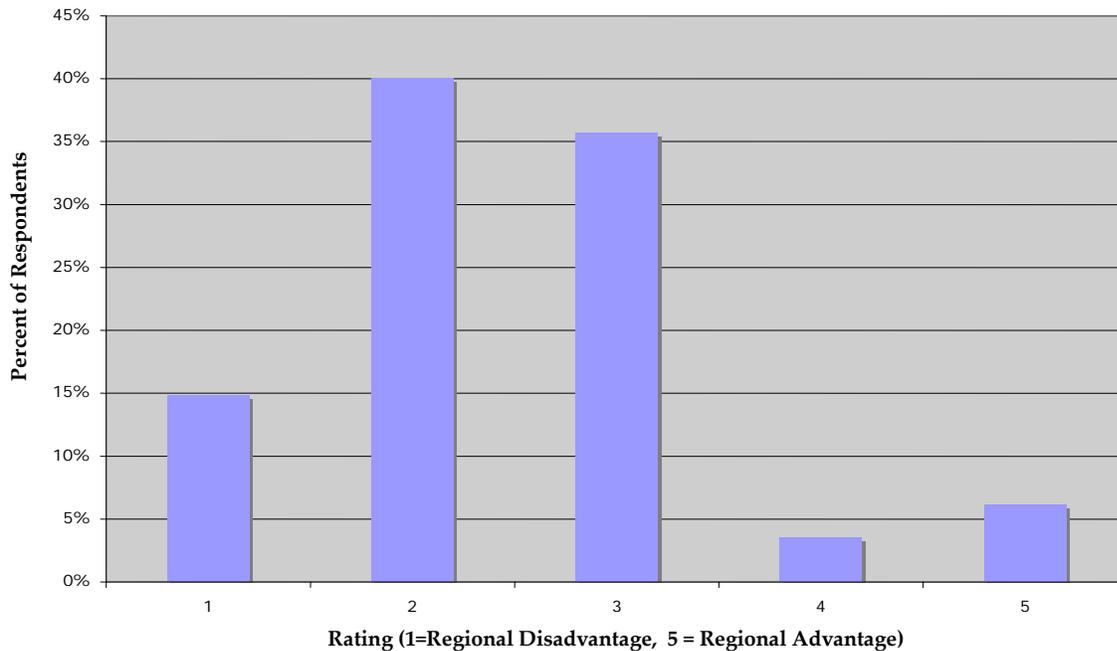


While the companies expect to look for new workers in the coming years, they expressed concern about the pipeline of qualified workers. Respondents cited attracting professional level workers as the most difficult task, though manufacturing companies did report challenges in finding production level workers. Companies exhibited unfortunate consensus in the general lack of qualifications of the applicants they attract for all open positions, with 83 percent stating that less than half of people who apply for a job are qualified. In terms of skills, respondents consistently pointed to concerns around work ethic such as punctuality as well as wishing their employees had stronger math and communication skills.

More generally, companies shared negative perceptions about the workforce development system in Cenla. Forty seven percent expressed negative opinions about the workforce system in the region compared to only 12 percent who reported positive

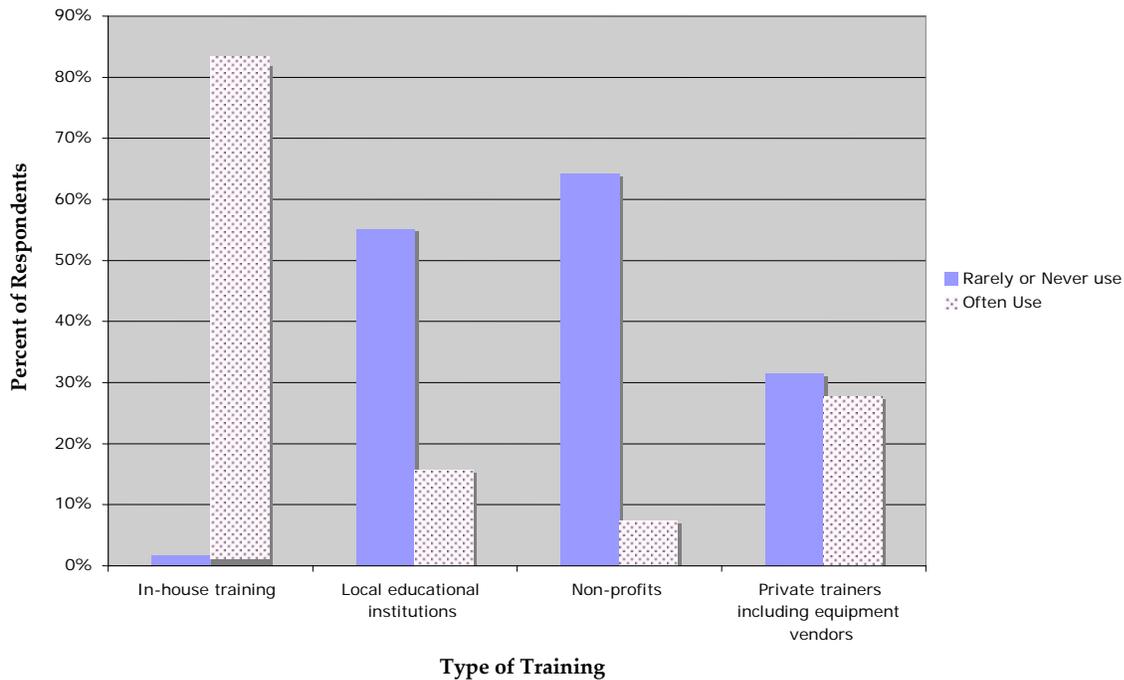
opinions. Figure 2.3 shows the respondents answering the question: Is the quality of the mid-skilled workforce (those that require more than a high school education) a competitive advantage or disadvantage for the Cenla region?

Figure 2.3: Is Cenla's Mid-Skilled Workforce a Competitive Advantage or Disadvantage?



The lack of confidence in the system is reflected by the relatively few companies who use local education providers to provide training for current employees—56 percent of respondents rarely or never use local providers to meet their training needs. Figure 2.4 shows the breakdown on how respondents currently use various training entities.

Figure 2.4: Sources of Incumbent Worker Training



While statistics about these companies' responses tell part of the story, the survey also asked for some general thoughts about the greatest challenges facing the region. Many focused on concerns about the work ethic of Cenla residents, with one respondent stating the biggest challenge is finding "People who want to work who are willing to start an entry level and who can a pass a drug screen." Another individual echoed this concern saying "The jobs are out there, it's finding people who are ready and willing to work that is the challenge."

Other individuals focused on the challenge of finding and keeping high-level talent to Cenla. For these individuals, the biggest concern is "keeping qualified, educated individuals home. . . The best and brightest seem to leave the area."

There were definitely those individuals who expressed more general concerns about finding skilled individuals regardless of employment level. "[It is hard to find] skilled people in general," one respondent stated. "Those that are skilled and want to work have jobs. The rest tend to be problem employees who jump from job to job."

2.3 The Demand Numbers

Between 2007 and 2012, 30,226 new job openings are forecast in Cenla. Of this total, 14,280 will be new jobs.

Table 2.19 New Cenla Jobs: Required Educational Level, 2007 and 2012

| Educational Level | 2007 Jobs | 2012 Jobs | New Jobs |
|-------------------------------|----------------|----------------|---------------|
| Less than a 4-Yr degree | 131,639 | 143,039 | 11,409 |
| 4-Yr degree or higher | 29,283 | 32,626 | 3,320 |
| All Cenla Occupations* | 170,361 | 184,641 | 14,280 |

*Jobs will not add to total due to suppressed data

The remainder of the jobs - 15,946 - will be replacement jobs.

Table 2.20 Required Educational Level, Cenla Replacement Jobs

| Educational Level | Replacement Jobs (2007-2012) |
|-------------------------------|------------------------------|
| Less than a 4-Yr degree | 12,620 |
| 4-Yr degree or higher | 2,200 |
| All Cenla Occupations* | 15,946 |

Of the total jobs, 77 percent will require some training beyond high school, but less than a four-year degree. *This means that 23,274 jobs, or nearly 6,000 jobs per year, will require some training beyond high school.*

This training will occur in a variety of methods. Some of it will be two-year associate degrees, and some will be one-year training certificates. Some training will consist of one or several courses in office management or computer software, etc. Many of these courses will be obtained through continuing education. Frequently those who are self-employed or starting a new business will take advantage of continuing education courses. In addition, industries will provide on-the-job training to new workers and workers who make a job change. The Bureau of Labor Statistics categorizes on-the-job-training in three categories: Short-term (less than a month); moderate-term (up to twelve months); and long-term (more than twelve months) (See Appendix A for detailed definitions). In addition, community colleges provide customized training onsite to companies who are starting, expanding, or installing new machinery or new processes. It should be noted that the above presented general training demand estimate of 6,000 jobs per year is relatively conservative because it does not include training needs for skills upgrading for existing jobs nor continuing education demand from citizens.

Chapter 3

The Supply Side – An Inventory of the Current Post-Secondary, Pre-Baccalaureate Workforce Development and Training System

3.1 Introductory Observations

The tests of an effective regional workforce development system are how closely it matches the contours of the region's present and anticipated economy, how quickly it can respond to new needs, and how well it prepares all residents for employment, advancement and entrepreneurship. Effectiveness depends on, among other things, good information, coordination, cooperation and well-deployed resources.

This report segment will map and analyze workforce intermediaries, educational institutions, adult education, and proprietary schools, as well as offer observations. Figure 1 illustrates the various elements of Cenla's skills development system and how they relate to one another, but the focus of this report is the post-secondary, pre-baccalaureate system.

Louisiana's postsecondary workforce development system is less developed compared to many of its Southern neighbors, primarily due to the fact that the state created its community college system only 10 years ago, and community colleges have emerged nationwide as leading providers of entry-level and technical workers for companies.

Yet when the Southern Growth Policies Board formed its benchmark community college alliance in the late 1980s, the Consortium for Manufacturing Competitiveness, Louisiana was the only state unable to select a community college—because it still had no system. The state depended on poorly-managed vocational education programs spread throughout the state and managed by the state's Board of Elementary and Secondary Education and a small number of university-based pre-baccalaureate programs for its mid-skilled technical workforce.

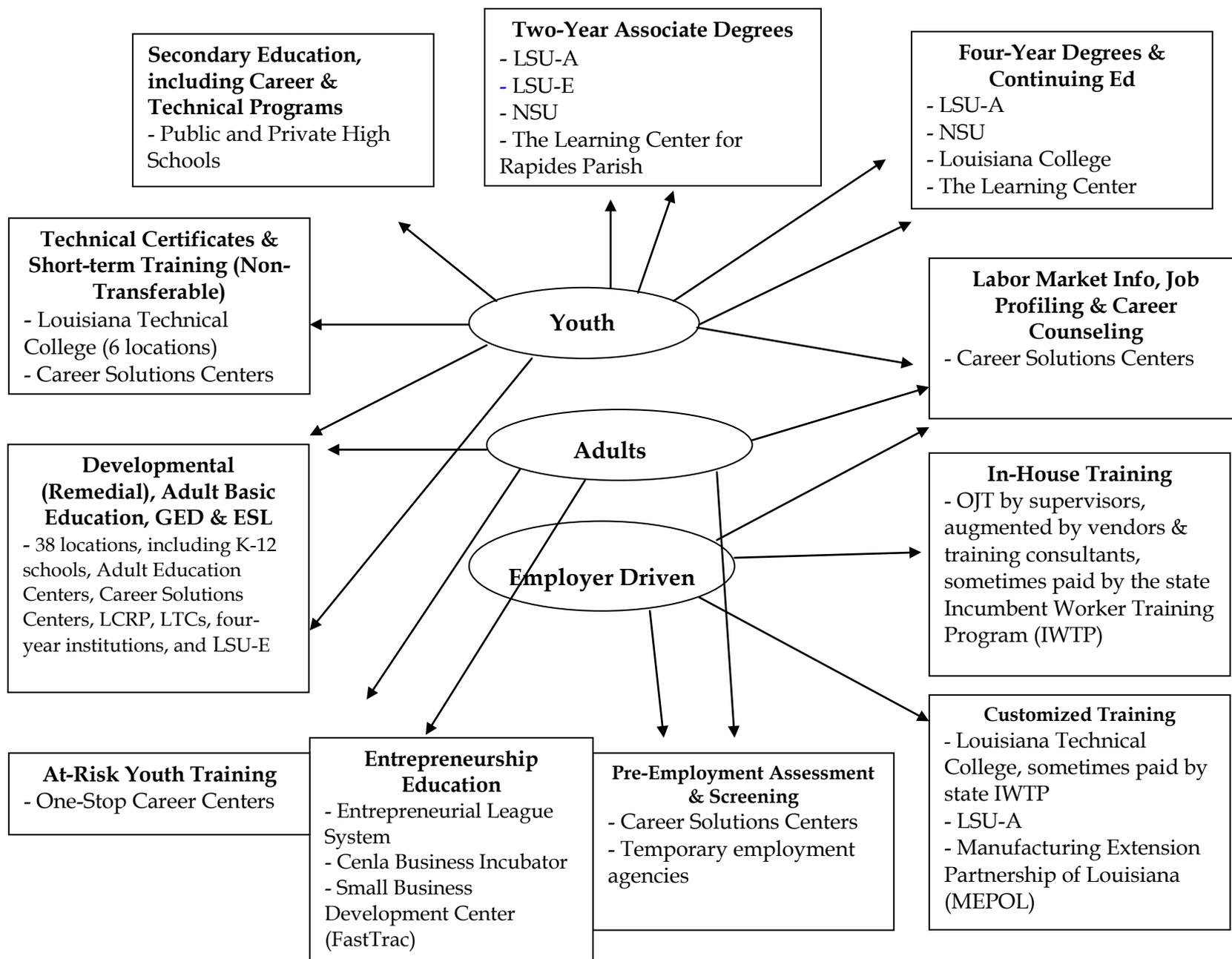
Statewide, the relatively new community college system—the Louisiana Community and Technical College System (LCTCS)—is working to improve a system long dominated by its four-year academic institutions and win the trust of the business community. However, it is a work in progress and one that is hindered because of the number of institutions under different postsecondary institutions. In addition, Louisiana Technical College's (LTC) many branches across the state are anachronistic,

occupying space in an educational landscape somewhere between high schools and true high level post-secondary education. There are few other states that continue to operate technical colleges; most have been upgraded or integrated with community college systems (Kentucky and Georgia did so in the 1990s).

In some regions of the state, LCTCS appears to be making substantial progress, providing pre-baccalaureate education and vocational training and working hard to meet the needs of the regions' companies. However, in Central Louisiana, postsecondary pre-baccalaureate education and training appears fragmented and uncoordinated. It is offered by many different institutions/organizations with no one group leading the efforts. As a result, students seeking courses or credentials have no good way to determine where they should go, and companies find various groups/organizations asking them the same questions about needs and all trying to meet those needs but none adequately funded to do so.

At the same time, the federally-funded workforce investment system is undergoing a major system redesign in Louisiana, placing a greater emphasis on services to employers and coordination among partnering agencies, as described later.

Figure 3.1: Cenla's Skills Development System



The Career Solutions Centers, the Learning Center (the various entities that offer courses and/or degrees at that location), LSU-Alexandria (LSU-A), LSU-Eunice (LSU-E), Northwestern, the LTCs (including the workforce division), as well as the Chamber committee all are trying to meet the needs of companies and individuals in the region. All of them are doing pieces, some presumably meet the needs of one or a few companies, and presumably some are meeting the needs of individuals (or maybe all are meeting the needs of some students), but efforts are disconnected, uncoordinated and appear to be inadequate.

Today, at least some of these groups providing workforce services are hampered by a lack of funds for facilities, equipment, instructors and marketing. Funding to support workforce training and to provide the courses and programs for individuals comes from a variety of sources and funding streams, including state funds to the LTCs based on full time equivalent (FTE) data with no regard to program costs; Workforce Investment Act funds; Temporary Assistance for Needy Families (TANF) funds; Strategies to Empower People (STEP); Incumbent Worker Training Program (IWTP); Rapid Response; and US Department of Housing and Urban Development; as well as the Louisiana State University System (LSU-A and LSU-E) and the University of Louisiana System (Northwestern). Recently-passed legislation was originally intended to consolidate some funding streams to allow Workforce Investment Boards (WIBs) to better provide services, but it is unclear whether those funding streams will actually be consolidated and the WIBs given the authority to manage them in ways not yet done in Louisiana. While a detailed analysis of budget issues is not a part of this project, it is fair to say that some believe that the funds the state receives could be better used to meet the workforce training needs of area citizens and businesses.

The following are more detailed descriptions of the components of the workforce system and their operations in Cenla, beginning with the intermediaries working to convene and coordinate workforce issues.

3.2 Workforce Intermediaries

Workforce Intermediaries are organizations that broker training, coordinate training, and suggest training, but do not provide the training themselves. These organizations see a need to address workforce challenges and are convening educational providers and employers to identify issues and develop strategies. These efforts are not well-coordinated despite the fact that the same players are often invited to participate across the various efforts. There is no single “go to” voice for workforce development in

Cenla. The following describes these workforce intermediaries and their role/interest in workforce issues.

The Federally-Supported Workforce Investment System

The federal Workforce Investment Act of 1998 established a system of business-dominated Local Workforce Investment Boards across the country, providing funding for counseling, training, and employment services. These services include the provision of Individual Training Accounts to jobseekers that need training in order to obtain a good job. These ITAs provide vouchers to cover the costs of training.

The Workforce Investment Boards serve a dual purpose. They play a policy and coordination role, and they oversee the implementation of service in the One-Stop Career Centers, which are known in Louisiana as the Career Solutions Centers. The policy and coordination role has largely been ineffective in serving as a conduit between education providers and employers.

Also, legislative changes enacted in the 2008 Regular Session are not being implemented. Louisiana's Workforce Commission (formerly the Louisiana Department of Labor) is in the process of giving all WIB boards more local flexibility and control over how to spend federal and state training funds. As the conduit of significant training dollars into the regions, this could open up the potential for a greater role.

The second role, of overseeing the implementation of the Career Solutions Centers is described in greater detail below.

Four Workforce Investment Areas – and so four Workforce Investment Boards (WIBs) -- cover the parishes included in The Rapides Foundation service area. However, as indicated in Table 3, these Workforce Investment Areas and WIBs cover more than The Rapides Foundation service area.

Table 3.1: Jurisdiction of Cenla’s Workforce Investment Boards

| LWIA | Parishes Covered |
|-----------|--|
| LWIA # 50 | Beauregard, Allen, Vernon |
| LWIA # 60 | Avoyelles, Catahoula, Concordia, Grant, LaSalle, Winn |
| LWIA # 61 | Rapides |
| LWIA # 70 | Bienville, Bossier, Caddo, Claiborne, Desoto, Lincoln, Natchitoches, Red River, Sabine, Webster |

Note: Parishes in bold are those in The Rapides Foundation service area.

Source: LA Dept. of Labor

The Workforce Investment system in Louisiana is undergoing major changes. Over the past year, the “one-stops,” now called Career Solutions Centers have undergone changes, merging previously separate state and federal programs into a single coordinated system for program service delivery. In addition, several of the region’s LWIAs (50, 60, 61, and 40, which is south of The Rapides Foundation service area) have signed Memorandums of Understanding , pledging to work more closely together, use common application forms, and more. These changes are intended to better serve clients – both individuals and businesses.

In its 2008 Regular Session, the Louisiana legislature made what are intended to be substantial changes in the state’s workforce system. The new statute, which changes the name of the Louisiana Department of Labor to the Louisiana Workforce Commission, opens the door for re-designation of workforce development areas, which could lead to a consolidation of the existing WIBs in the region into a single, larger Workforce Investment Area with a new Workforce Investment Board. The new statute also provides for better coordination of services now housed in other agencies, such as child care and transportation, needed by individuals using Career Solutions Center services. The changes are intended to better meet the needs of area companies while also improving service to individuals.

WIA funds are used to provide services to the region’s employers, unemployed youth and adults, dislocated workers, and some incumbent workers. WIA funds may be used to pay employers for on-the-job training of clients and to pay for training at other institutions.

Table 3.2, which provides the WIA allocations by parish, shows that \$2.4 million is allocated to The Rapides Foundation region for program year 2008 -- 34 percent less than the original amount allocated for 2007. This decrease is a result of federal cutbacks

that occurred because of the state's low unemployment rate. Approximately 2/3 of the federal allocation formula is related to the statewide unemployment rate.

Career Solutions Centers (CSCs) generally provide assessments and a limited amount of training, such as soft skills training and some basic computer training, with the amounts of training offered different from center to center. CSCs primarily refer clients for occupational skills training at other education and training sites in the area.

Table 3.2: Total WIA Allocations in Cenla for Program Year 2008
(July 1, 2008 – June 30, 2009)

| Local Area (Local Workforce Investment Area) | Parish | Allocation |
|--|--------------|--------------------|
| LWIA #50 | Allen | \$355,994 |
| LWIA #50 | Vernon | 245,627 |
| LWIA #60 | Avoyelles | 364,024 |
| LWIA #60 | Catahoula | 109,560 |
| LWIA #60 | Grant | 97,987 |
| LWIA #60 | LaSalle | 65,556 |
| LWIA #60 | Winn | 141,804 |
| LWIA #61 | Rapides | 822,573 |
| LWIA #70 | Natchitoches | 217,038 |
| Cenla Total | | \$2,420,163 |

Source: LA Dept. of Labor

Customized Training Programs

Unlike the institutions and programs discussed previously in this chapter, this section discusses a mechanism for funding training that occurs at other locations. The Louisiana Workforce Commission (LWC) provides funding for customized training for incumbent workers through the Incumbent Worker Training Program (IWTP). These funds can be used to do training to meet the specific needs of a company or group of companies that pays into the Unemployment Insurance system. Funds may go to an educational institution or a private company – to develop the program and teach the classes. Since 2004, LSU-Alexandria (2 grants), LTC-Alexandria (6 grants) and the Louisiana Bankers Association (3 grants) have served as the primary training providers for IWTP grants in The Rapides Foundation service area. Table 5 provides information on the IWTP grants by industry.

**Table 3.3: Incumbent Worker Training Program Grants in
The Rapides Foundation Service Area, FY 2005 – FY2007**

| Industry | Number of firms | | | Amount of funding (\$) | | | Number of trainees | | |
|-----------------------------------|-----------------|----------|----------|------------------------|------------------|----------------|--------------------|--------------|------------|
| | FY 2005 | FY 2006 | FY 2007 | FY 2005 | FY 2006 | FY 2007 | FY 2005 | FY 2006 | FY 2007 |
| Finance and Insurance | 2 | 1 | 2 | 353,500 | 228,000 | 122,500 | 130 | 128 | 143 |
| Wholesale Trade | 1 | | | 196,000 | | | 75 | | |
| Construction | 1 | | | 133,700 | | | 67 | | |
| Information | 1 | | | 18,500 | | | 17 | | |
| Manufacturing | 3 | 2 | | 3,281,000 | 1,707,000 | | 976 | 792 | |
| Accommodation and Food Service | 1 | | | 359,400 | | | 225 | | |
| Health Care and Social Assistance | | 1 | 2 | | 65,900 | 186,100 | | 101 | 327 |
| Retail Trade | | 1 | | | 89,500 | | | | |
| Agriculture, Fishing, and Hunting | | | 1 | | | 77,000 | | | 100 |
| Totals | 9 | 5 | 5 | 4,342,100 | 2,090,400 | 385,600 | 1,490 | 1,021 | 570 |

Source: LA Dept. of Labor

Central Louisiana Chamber of Commerce

The Cenla Chamber Education Division now has two workforce-related committees that meet regularly – the Postsecondary Education Coordinating Committee and the High School to Work Committee. The Postsecondary Education Coordinating Committee is focused on bringing all the postsecondary education and training providers together to coordinate activities to meet the needs articulated by companies in the region. This group conducted a survey of employers’ workforce needs in the spring 2008. The Chamber also published a directory on the Chamber’s website that lists postsecondary education providers and offers broad descriptions of their programs; however, this “Education/Training Resource Directory” is difficult to find on the website and the Louisiana Technical Colleges in the region are not listed. An administrator from LSU-A chairs the task force, and LSU-E and other regional education providers attend the meetings. LTC-Alexandria has just begun sending a representative to the Postsecondary Education Committee meetings.

Cenla Advantage Partnership (CAP)

In the past, CAP has taken a significant interest in helping address regional workforce challenges facing employers. These include the “Bring ‘Em Home” advertising campaign to attract skilled workers to Cenla by matching them to available jobs, the “Raise ‘Em Up” effort to assess the skills of small groups of disadvantaged workers and connect them to training and jobs, and job profiling for a few key positions at large companies to help employers understand the true skill levels associated with their jobs in order to make sure the assessment tests they use to find employees properly reflect actual skills required. Both these initiatives are suspended as CAP’s new CEO assesses the organization’s future role in Cenla’s workforce development.

3.3 Training Providers

Postsecondary, pre-baccalaureate education in Cenla is delivered by six branches of Louisiana Technical College, the Learning Center for Rapides Parish (LCRP); LSU-Alexandria (LSU-A); Northwestern State University (NSU); and LSU-Eunice (LSU-E). This means that postsecondary, pre-baccalaureate education is delivered by three systems – LCTCS, the LSU System, and the University of Louisiana System – and one general facility under the Board of Regents. Appendix Table 1 shows the number and types of non-general education certificates and degrees conferred by public colleges and universities in Cenla, as well as Louisiana College.

Other pre-baccalaureate postsecondary education is offered to adult learners through program funding from the Louisiana Department of Education, and some training is done at the Career Solutions Centers (one-stops). There are also four proprietary schools registered with the Board of Regents offering training in the region. All of these proprietary schools are located in Alexandria.

It should be noted that, according to the Board of Regents’ *Louisiana 2001 Higher Education Master Plan*, four-year institutions must move away from providing two-year degrees. Regents allowed associate degree programs that were directly related to four-year programs to remain, but they are working to reduce the number of two-year programs at four-year schools. No four-year institution will be authorized to offer any new two-year programs.

The following paragraphs provide additional detail on the institutions and organizations providing postsecondary pre-baccalaureate education in Cenla. A chart containing the number and types of degrees awarded by Cenla institutions is available in the appendix.

Louisiana Technical College

The Louisiana Technical College (LTC) is one college with 40 campuses throughout the state operating under the Louisiana Community and Technical College System (LCTCS). Six of these campuses are within The Rapides Foundation service region.

Five of the Rapides service region's technical colleges – LTC Alexandria, LTC Avoyelles, Huey Long (Winnfield), Lamar Salter (Leesville), and LTC-Oakdale are within LTC Region 6 – and one, LTC- Natchitoches, is in Region 7. The LTCs provide training to students seeking to learn a trade and in some cases to incumbent workers both at the LTC and in their workplace. Three of the region's LTCs also offer adult basic education classes, although adult basic education services fall under the Department of Education and are not, at this time, the responsibility of the LTCs or their governing organization, LCTCS.

In general, the LTC campuses suffer from outdated facilities and equipment and a lack of funding for marketing. Administrators feel that they are hampered in their ability to attract students and interest parents in programs that could benefit many students. The LTC campuses are also hindered by historical perceptions that only those who cannot make it in college go to the "vo-tech school," probably at least partly because they continue to hold classes in the old vo-tech facilities. Some also reported that they are hesitant to work hard to determine the needs of the region's companies, as they know they do not have the funding to meet their needs. It will take leadership, funds for facilities and equipment, investments in marketing, and expansions of programs to change these perceptions.

Funding for LTC campuses is an issue across the state. Today, LTC campuses are funded based on the number of students – full-time equivalents (FTEs) – enrolled. This essentially means that the campuses have no flexible funds for training to meet the needs of companies. They also have no funds for recruiting and outreach to students and parents, and they have no regular funds for equipment. In response to concerns about this funding system, both the House and Senate recently passed concurrent resolutions urging the Board of Regents to modify the existing funding formula to take into account issues such as differential training costs, the need for funds for recruiting and outreach, and the need for funds for materials and equipment. The resolutions ask that these changes be made for the FY 2009-2010 budget and beyond. Although the legislature has no direct control over the funding, it appears that some changes will be made. Still, the future funding formula, as well as the amount of funding available, is unknown.

LTC - Alexandria Campus

LTC Alexandria is the largest of the regional technical colleges and the home of Region 6. In the fall semester 2006, 431 students were enrolled, and by the Fall 2007 semester, enrollment increased to 504. In the 2006-07 year, 80 students completed degrees, diplomas, or certifications. Healthcare training accounted for 58 percent of those credentials (48 percent in practical nursing and 10 percent for patient care technicians). Business related credentials accounted for 17 percent, with most of the remainder in various levels of training to meet industrial electronics and electrician needs.

LTC-Alexandria services students who are looking for a trade. While there are some “developmental classes” to get students up to levels they need to learn their chosen trade, there are no basic adult education services provided at the Alexandria LTC, and the basic adult education classes offered in the parish are not linked with training available at LTC-Alexandria. Some customized training to meet the needs of companies is done at this location through the Workforce Department using various sources of funds for customized training.

The LTC Alexandria is housed in an old facility that is not an attractive site for education and training. It has aging equipment, and lacks funds for marketing its programs. Also as a result of budget issues and resistance to change, this location does not offer night or weekend classes. This issue was mentioned by many interviewees as many of those seeking to upgrade or learn new skills work during the day and are unable to attend classes when they are offered.

In order to better meet the needs of companies in the region, instructors at LTC-Alexandria are expected to meet with an area company monthly to determine their issues and workforce needs and seek jobs for graduates. They are required to turn in a report each month that summarizes these visits. In addition, each campus has an occupational advisory committee to provide the instructors with information on needs of the companies in the region.

LTC Region 6 Workforce (LTC - Alexandria Campus)

Workforce training for Region 6 is managed out of the LTC-Alexandria campus. This department is responsible for working with the region’s employers to meet their customized training needs. This group works with all seven Region 6 campuses on workforce initiatives and grants, including IWTP grants. They also partner with other LTC regions for training such as OSHA safety training for small businesses and have

managed construction training under the Pathways to Construction Program initiated in response to construction needs related to the 2005 hurricanes.

This group also directs training at four prisons in the region. Training offered at the prisons includes welding, upholstery, electrical and masonry. They also offer developmental courses.

The Workforce group reports that it is difficult to find skilled instructors who can serve as adjunct teachers. They also have issues with limited amounts they can pay adjunct teachers, and they deal with limited times available for training at LTCs because of teacher availability and classroom space. They are also hampered by the limited hours the LTCs are open and the lack of night classes at some, including LTC-Alexandria. As a result of the LTC funding limitations and the funding structure allowed for the IWTP, training funds often go to out-of-state companies/instructors. The LTC also uses instructors from the companies seeking the training. One person interviewed noted that there are no evening classes at LTC-Alexandria, and "that's why the Learning Center is so successful."

LTC – Avoyelles Campus

LTC Avoyelles is located in Cottonport. In the fall semester 2006, 319 students were enrolled. That number dropped to 292 students in the fall 2007 semester. For the 2006-07 year, credentials were awarded to 91 students (more than the much larger Alexandria campus). Practical nursing accounted for 62 percent of the credentials (56 technical diplomas), with most of the remainder focused in diesel engine technology (10 students), welding (5 students), and culinary arts (16 students). A new administrator has recently been appointed to lead the LTC Avoyelles Campus, which has been operating under an interim director from another LTC campus.

This campus focuses on students interested in training for a trade. Adult basic education classes are not offered at or linked directly to the LTC-Avoyelles.

LTC – Huey Long Campus

LTC – Huey Long Campus is located in Winnfield. In the fall semester 2006, 170 students were enrolled, with that number increasing to 208 in the fall 2007. For the year 2006-07, 56 students received a credential. Of those credentials, 35 students (63 percent) were in practical nursing, 16 percent (9 students) in office technology fields, 13 percent

(7 students) received technical diplomas in welding, six percent in auto technology, and 4 percent in carpentry.

This campus focuses on students interested in training for a trade. Adult basic education classes are not offered at or linked directly to the LTC-Huey Long Campus.

LTC – Lamar Salter Campus

LTC - Lamar Salter is located in Leesville. In the fall semester 2006, 292 students were enrolled, with only a slight increase to 296 in the fall 2007. For the year 2006-07, 59 students received a credential. General business categories accounted for 28 percent (technical diplomas in accounting tech – 9 students - and office systems tech – 5 students), with an additional 27 percent receiving certificates in the medical office assistant program.

This campus focuses on students interested in training for a trade. The LTC-Lamar Salter Campus is one of four sites in Vernon Parish that offers adult basic education classes.

LTC - Oakdale Campus

The LTC Oakdale Campus offers several programs that are not offered by other LTCs in The Rapides Foundation region, including forest technology, custom sewing, upholstery, criminal justice, and cabinet and furniture construction. In the fall semester 2006, 253 students were enrolled, with that number increasing to 310 in the fall 2007. For the year 2006-07, 49 students received a credential. Custom sewing accounted for 24 percent (12 students), cabinet and furniture construction for 22 percent (11 students), and upholstery technicians for 14 percent (7 students).

LTC - Oakdale is planning to align itself with Sowela Community/Technical College in Lake Charles. That alignment will be limited until Sowela receives SACS accreditation. Sowela will offer an Instrumentation/Industrial Electronics program in the fall 2007. This is a program LTC-Oakdale would take over and continue if demand is confirmed. Oakdale is also working with South Louisiana Community College.

The Oakdale Campus administrators reported that they know of other needs they want to address. They thought they had funds saved to begin these new programs, but excess funds saved for these new programs were transferred to other campuses in

Region 6 that ran a deficit, essentially penalizing the Oakdale Campus for efficient management of funds.

This campus focuses on students interested in training for a trade. The LTC-Oakdale Campus is one of four sites in Allen Parish that offers adult basic education classes.

LTC – Natchitoches Campus

The LTC- Natchitoches Campus is in LTC Region 7, based in Minden. It is the only campus in The Rapides Foundation region that is not in Region 6. In the fall semester 2006, 254 students were enrolled, with that number increasing to 275 in the fall 2007. For the year 2006-07, 38 students received a credential. Seven of those were in cosmetology and seven in early childhood development. Six (16 percent) were for Industrial Electronics Technicians, and 10 (28 percent) were in various business-related fields.

The LTC Natchitoches is located next to the high school, which allows dually-enrolled students to walk between the campuses to attend classes. They report that the industrial maintenance program is very popular, but many do not finish the program, as they are hired out of the program before completing the programs and receiving a credential.

Learning Center for Rapides Parish

The Learning Center for Rapides Parish (LCRP) is located in the England Airpark in Alexandria. Its institutional mission is “to serve as a host facility coordinating efforts of existing postsecondary institutions to provide education and workforce training opportunities responsive to the needs of students, employers, and the Central Louisiana region.”

Originally founded in the mid-1980s, the LCRP was later authorized by the state legislature as a “consortium of existing institutions of postsecondary education to ensure provision of a comprehensive offering of college courses and programs.” It was originally known as the University Center at England Airpark and had LSU-A as fiscal agent and Northwestern State University as a partner institution. Beginning in 2001, it became the LCRP and went under the purview of the Louisiana Board of Regents. In 2003, a new administrator took charge. That same year, its fall enrollment was nearly 750 students, and nine colleges and universities offered courses there. Since

then, enrollment has nearly doubled and there are twelve colleges and universities⁶ offering courses from the continuing education level through the doctorate level. A renovation last year doubled seating capacity and classroom space, and there is additional expansion space available at the Airpark.

Northwestern State University and LSU-A offered a majority of the classes for the Spring 2007 and Fall 2007 semesters, and had the most students taking classes at LCRP.

There is no cost to schools offering courses at the LCRP unless they use office space, and LCRP takes care of marketing. The facility is also open to the community for such things as training and depositions.

The Administration noted that having multiple affiliations was fairly easy and made things “smooth.” A low amount of resources is required, and there is abundant opportunity for collaboration. For example, it took the LCRP one semester to establish an MBA program. The LCRP recently added community college services. During the Request for Proposals process, both Bossier Parish Community College and LSU-E applied to provide associate-level coursework, and LSU-E was awarded the contract. This agreement will run through 2010.

The LCRP focuses on cultivating demand/interest of the community, noting that it seems like the community is unaware about what a community college is. They also note the need for additional financial resources to accomplish this. Currently, the college conducts community meetings to determine demand for programs, and they survey employers as well.

Most students at the LCRP are from Rapides Parish. About 50 percent are non-traditional students, and there are many students who are active military.

⁶ Bossier Parish Community College; LSU; LSU-Alexandria; LSU-Eunice; LSU-Shreveport; Louisiana Tech University; Louisiana Technical College; Northwestern State University; Southern University at Shreveport; Texas Wesleyan; University of Louisiana at Monroe; Upper Iowa University

Louisiana College

Louisiana College, located in Pineville, is a “private Baptist coeducational college of liberal arts and sciences with selected professional programs.” It was founded in 1906. Most of the students at Louisiana College are from Central Louisiana. Current enrollment for the school is just over 1,000 students.

The College offers the following degrees:

- Bachelor of Arts
- Bachelor of Music
- Bachelor of Science
- Bachelor of Science in Nursing
- Bachelor of Social Work
- Bachelor of General Studies
- Associate of Applied Science, Physical Therapy Assistant

The AAS degree is seeking accreditation; clinical classes may begin as soon as February 2009. An occupational therapy assistant associate degree program is projected to begin in January 2010.

Louisiana College does not offer continuing education courses.

LSU-Alexandria

LSU-Alexandria opened its doors in 1960 as a two-year college. Its first degree program was nursing, followed by liberal arts, business administration, and sciences. In 1986, Associate of Arts and Associate of Science transfer degrees were approved, and in 2001 LSU-A began offering baccalaureate degrees after approval by the LSU Board of Supervisors, the Louisiana Board of Regents and the Louisiana Legislature.

The first baccalaureate degrees were: Bachelor of Science in Biology; Bachelor of General Studies; Bachelor of Science in Elementary Education; and Bachelor of Liberal Studies.⁷ In addition to these degrees, students may now also obtain a Bachelor of Science in Psychology; a Bachelor of Science in Mathematics; a Bachelor of Science in Criminal Justice; and a Bachelor of Arts in History.

Aside from these programs, LSU-A offers seven associate degrees, including an Associate of Arts in Early Childhood Education; an Associate in Criminal Justice;

⁷ Majors for this program include Business, Communication Studies, English, History, Psychology and Theatre.

Associate in Nursing; an Associate of Science in Radiologic Technology; Associate in Clinical Laboratory Science; or Associate in Criminal Justice, Associate of Arts; or Associate of Science. The most popular program at the Associate level by far is nursing, with 100 completers in 2006. There is also a certificate program in pharmacy technology and a variety of continuing education programs. They do not have demand for graduate programs, although they noted that The Learning Center had a good model for the provision of graduate education.

According to interviews with LSU-A's administration, they are depending on LTC-A to offer technical training, and they cooperate with LTC-A for a number of workforce education programs. They noted that the lack of night courses at LTC-A was challenging.

LSU-A also partners with LSU-Eunice to offer remediation for incoming students. Once students have completed coursework at LSU-E, they transfer to LSU-A for the remainder of their classes. LSU-A also offers evening general education classes at The Learning Center for Rapides Parish. Under the Board of Regents' Louisiana 2001 Higher Education Master Plan, they will not be able to offer any additional 2-year degrees.

LSU-A reports that it has "plenty of capacity" for workforce education programs. At present, they offer night classes, and will be beginning Saturday classes soon. Administrators also noted that online and hybrid classes – especially non-credit offerings – were popular, and growing rapidly. In addition to its main campus, LSU-A has its new Allied Health building downtown, near the hospital, and space at the Alexandria Museum of Art. The latter location offers early morning and lunchtime classes.

At present, LSU-A has over 2,500 students, with a little over half attending full time. Students under age 25 make up 58 percent of the student population, and 73 percent of its students are female.

LSU-Eunice

LSU-Eunice is a two-year college, and markets itself as the community college for Cenla. The school offers transferable Associate of Arts and Associate of Science degrees in eleven fields, including:

- Arts, Science, General Studies
- Computer Information Technology
- Criminal Justice
- Early Childhood Education
- Fire and Emergency Services
- Management
- Nursing
- Office Administration
- Paralegal Studies
- Radiologic Technology
- Respiratory Care

The school also offers certificates in Arson Investigation, Fire Science, and Office Practices, and technical curricula in Crime Scene Management, Medical and Health Services, and Environmental Health and Safety Technology.

In addition to its campus in Eunice, daytime and evening courses are offered at The Learning Center for Rapides Parish in Office Administration/Medical Office Systems, Hospitality Management, Fire Science/Occupational Safety, General Studies, Respiratory Care, and General Education.

LSU-E acts as a “front door” for LSU-A, offering developmental courses to students unable to meet the LSU-A admission standards. These students attend class at LSU-A and are treated like LSU-A students, although they register at LSU-E. Prior to the Fall 2007 semester, nearly 100 students from LSU-A enrolled at LSU-E.

LSU-E’s students come from 44 parishes. LSU-E was the only LSU campus to increase enrollment in 2007, with an enrollment of just over 2,800. Administrators noted that people in the region are confused about “what’s out there, and where” in terms of educational offerings.

LSU-E also tries to “make itself available” and responsive for workforce development, through various partnerships with institutions, like the Chamber of Commerce, and

employers. They consider themselves a well-kept secret but note that additional staffing and funding are needed.

Northwestern State University

Northwestern State University (NSU) is a four-year institution located in Natchitoches. Its undergraduate enrollment is nearly 8,000 students, with another 1,000 enrolled in graduate programs.

In addition to baccalaureate and graduate degrees, NSU also offers several associate degrees: business administration; office administration; nursing; criminal justice; and general studies. They also offer a public safety administration degree with three tracks and are encouraging community and technical colleges to offer associate degrees that will feed into it. NSU also offers a variety of courses, from certificate to master's level, at the LCRP. In addition, 15 of their degree programs are available online. In the 2006-07 school year, NSU awarded the most baccalaureate degrees (172) in nursing (BS), followed by business (122, BS). Nursing and business were also the largest associate level degrees awarded, with 170 and 33, respectively.

NSU also has a strong commitment to area businesses. They work with a number of local companies and have assigned a faculty member to do outreach. This person spends much of his time in the field and surveys companies to determine industry needs and interests, as well as determine interest in establishing internships and hiring recent graduates. The school also has a number of advisory groups, both for specific programs and the university as a whole.

NSU's SBDC sees from 400-500 clients a year. Many of these clients have training requests, while others need technical assistance. The SBDC has been successful in developing partnerships and offers a variety of short courses and forums in addition to their usual training. They have offices at the main campus as well as in Alexandria and will be adding an additional staff person soon. They note the need for additional funding to be more proactive in addressing the needs of business.

The tables below show the number and type of degree awarded by each of these institutions.

| Table 3.4: Degree Awarded by Institution, 2006-07 | NSU | LSU -A | LTC-A | LTC Av | LTC HL | LTC LS | LTC Nat | LTC Oak | LA College | Cenla Total |
|---|------------------------|--------|-------|--------|--------|--------|---------|---------|------------|-------------|
| | Health Sciences | | | | | | | | | |
| Nursing Administration MS | 28 | | | | | | | | | 28 |
| Nursing BS | 172 | | | | | | | | 28 | 200 |
| Practical Nursing TD | | | 38 | 56 | 35 | | | | | 129 |
| Nursing AS | 170 | 100 | | | | | | | | 270 |
| Radiologic Technology BS | 31 | | | | | | | | | 31 |
| Radiologic Technology A | | 12 | | | | | | | | 12 |
| Clinical Lab Sciences A | | 4 | | | | | | | | 4 |
| Pharmacy Technician CPT | | 10 | | | | | | | | 10 |
| Medical Technology BS | 1 | | | | | | | | | 1 |
| Patient Care Technician CTS | | | 8 | | | | | | | 8 |
| Information Technology | | | | | | | | | | |
| Computer Information Technology BS | 21 | | | | | | | | | 21 |
| Computer Information Technology A | | 4 | | | | | | | | 4 |
| Business Administration | | | | | | | | | | |
| Bus BS# | 107 | | | | | | | | 1 | 108 |
| Bus AA/AD | 29 | | | | | | | | | 29 |
| Management/Marketing BS | | | | | | | | | 11 | 11 |
| Accounting BS | 15 | | | | | | | | 1 | 16 |
| Accounting Tech TD | | | 6 | | | 9 | | 1 | | 16 |
| Accounting Tech Assoc | | | 2 | | | | 4 | | | 6 |
| Office Administration Assoc | 4 | | | | | | | | | 4 |
| Office System Tech CTS | | | | | | | 1 | | | 1 |
| Office System Tech TD | | | 5 | 1 | 8 | 5 | 1 | 5 | | 25 |
| Office System Tech Assoc | | | | | 1 | | 4 | | | 5 |
| Medical Office Assistant - CTS | | | | | | 13 | | | | 13 |

| 2006-07 Degrees Awarded | NSU | LSU - A | LTC A | LTC Av | LTC HL | LTC LS | LTC Nat | LTC Oak | LA College | Cenla Total |
|---|-----|---------|-------|--------|--------|--------|---------|---------|------------|-------------|
| Engineering & Electronics | | | | | | | | | | |
| Engineering Tech BS | 13 | | | | | | | | | 13 |
| Electronics Technology AS | 16 | | | | | | | | | 16 |
| Major Appliance Repair TD | | | 1 | | | | | | | 1 |
| Computer Elect Tech TD | | | | | | 2 | | | | 2 |
| Industrial Engr Technology/Industrial Technology BS | 22 | | | | | | | | | 22 |
| Industrial Elect Tech CTS | | | 1 | 1 | | | | | | 2 |
| Industrial Elect Tech TD | | | 7 | 1 | | 1 | 6 | | | 15 |
| Industrial Electrician TD | | | 3 | | | | | | | 3 |
| Technical / Trade | | | | | | | | | | |
| Industrial Maintenance Technology | | | | | | | 1 | | | 1 |
| Auto Tech TD | | | | 1 | 1 | 6 | 2 | | | 10 |
| Auto Tech CTS | | | | | 2 | | | | | 2 |
| Diesel Pwrd Equip Tech TD | | | 1 | 8 | | | | | | 9 |
| Diesel Engine Tech CTS | | | | 2 | | | | | | 2 |
| Outdoor Pwr Equip Tech TD | | | | | | 1 | | | | 1 |
| Outdoor Pwr Equip Tech CTS | | | | | | 1 | | | | 1 |
| Welding TD | | | | 5 | 7 | 5 | | 1 | | 18 |
| Draft / Design Tech TD | | | 7 | | | | | | | 7 |
| Draft Design Tech CTS | | | 1 | | | | | | | 1 |
| Cabinet/Furniture Const TD | | | | | | | | 11 | | 11 |
| Carpentry CTS | | | | | | 1 | | | | 1 |
| Carpentry TD | | | | | 2 | 3 | | | | 5 |

| 2006-07 Degrees Awarded | NSA | LSU-A | LTC-A | LTC Av | LTC HL | LTC LS | LTC Nat | LTC Oak | LA College | Cenla Total |
|--------------------------|-----|-------|-------|--------|--------|--------|---------|---------|------------|-------------|
| Forest Tech TD | | | | | | | | 1 | | 1 |
| A/C Refrigeration TD | | | | | | 1 | 2 | | | 3 |
| Upholstery Tech TD | | | | | | | | 7 | | 7 |
| Custom/Commercial Sewing | | | | | | | | 12 | | 12 |

Source: Louisiana Board of Regents and Louisiana College

NSU – Northwestern State University

LSU – A – LSU Alexandria

LTC – A – Louisiana Technical College – Alexandria

LTC Av – Louisiana Technical College – Avoyelles

LTC HL – Louisiana Technical College – Huey Long in Winnfield

LTC LS – Louisiana Technical College – Lamar Salter in Leesville

LTC Nat – Louisiana Technical College in Natchitoches

LTC Oak - Louisiana Technical College in Oakdale

Adult Education Services

Adult education services are funded through the Louisiana Department of Education and delivered at multiple sites in most of the nine parishes in The Rapides Foundation region. In the 2007-08 fiscal year, funding (federal and state) for adult education in the region was almost \$1.2 million – up from \$988,107 in FY 2006-07. Enrollment increased slightly from 3,229 in 2006-07 to 3,292 in 2007-08. As shown in Table 1 below, only four of the nine parishes met their state-mandated enrollment target (five percent of parish adults without a high school credential based on the 2000 census).

In the 2007-08 year, classes were provided at 38 locations in The Rapides Foundation service area, including seven at elementary schools, six at middle and high schools, three at LTC campuses, seven at adult education/other center one at a one-stop (in Rapides Parish), and the remainder at correctional facilities and workplace locations.

Table 3.5: Enrollments in Adult Basic and Adult Secondary Education in The Rapides Foundation Service Area

| Parish | Enrollments 2006-2007 | Enrollments 2007-2008 | State-mandated Enrollment Target* | Number of Sites | 2007-08 Funding |
|--------------------|--------------------------|--------------------------|--------------------------------------|--------------------|---------------------|
| Allen | 134 | 144 | 309 | 4 | 52,829 |
| Avoyelles | 281 | 324 | 535 | 3 | 108,968 |
| Catahoula | 7 | 9 | 133 | 1 | 45,000 |
| Grant | 71 | 71 | 160 | 4 | 45,000 |
| LaSalle | 262 | 262 | 145 | 4 | 94,448 |
| Natchitoches | 285 | 209 | 301 | 1 | 106,956 |
| Rapides | 1,396 | 1468 | 1,013 | 12 | 446,415 |
| Vernon | 393 | 427 | 291 | 4 | 146,611 |
| Winn | 400 | 378 | 192 | 5 | 113,430 |
| Cenla Total | 3,229 | 3292 | | 38 | \$ 1,159,657 |

*Five percent of parish adults who do not have a high school diploma, based on 2000 Census data as analyzed by LA Dept. of Education.

Source: Louisiana Department of Education, US Census

Table 3.6, below, presents outcomes of these adult education programs -- the percentage of adult education students completing at least one Educational Functioning Level (EFL) in the 2007-08 school year. It shows that in two parishes – Grant and Winn – only 13

percent of students achieved a one-level gain in proficiency. LaSalle and Allen parishes were only slightly better, with 20 and 23 percent, respectively. Catahoula Parish, with only seven students enrolled, led the region with 67 percent of students showing at least one level gain in proficiency. In Rapides Parish, which serves more students than any other parish, 50 percent of the students achieved at least a one-level gain during the year.

Table 3.6: Adult Education Outcomes in The Rapides Foundation Service Area, 2007-08

| Parish | Percentage of Students Completing At Least One Educational Functioning Level | Average Grade Level on Entry | Average Grade Level at end of year | Average Age of Students |
|--------------|--|------------------------------|------------------------------------|-------------------------|
| Allen | 23% | 5.6 | 6.1 | 25.6 |
| Avoyelles | 62% | 4.9 | 6.3 | 23.5 |
| Catahoula | 67% | 5.1 | 5.9 | 19.7 |
| Grant | 13% | 4.9 | 5.2 | 24.1 |
| LaSalle | 20% | 5.0 | 5.6 | 29.5 |
| Natchitoches | 54% | 5.6 | 7.9 | 24.3 |
| Rapides | 50% | 4.2 | 5.4 | 26.1 |
| Vernon | 47% | 5.6 | 7.1 | 25.0 |
| Winn | 13% | 5.6 | 6.0 | 28.5 |

Note: In Adult Education (AE), students are placed into 1 of six educational functioning levels upon assessment and entry into AE. Five levels have a 2 grade level span and one has a 3 grade level span. The percentage represents the total number of students who completed at least one Educational Functioning Level.

Source: Louisiana Department of Education, US Census

There is now some talk of changes in the Adult Education – to transfer that program from the Department of Education to the Louisiana Community and Technical College System. In 2005, the Adult Learning Task Force delivered its report to then Governor Blanco. The Task Force concluded that “adult learning has not been a priority of the state of Louisiana” and recommended that the mission of LCTCS be expanded to include adult education programs in order to better serve adults and link adult education to vocational training.

More recently, in the 2008 Regular Session, the Louisiana House of Representatives passed a resolution (HCR 116) calling for a study of the feasibility and advisability of transferring the administration of the adult education programs to LCTCS and reporting

to the legislature prior to the 2008 regular session. Many believe that could happen as early as next year, but for now the programs remain under the Department of Education.

Proprietary Schools

There are also four proprietary schools offering training in the region, all of which are located in Alexandria. These schools include:

Central Louisiana School for Dental Assisting

This school began in 2006 in response to a need identified by a local dentist. They offer two or three 10-week sessions a year, depending on demand, with classes held all day on Saturday at the dentist's office. Class size is 20-25 students. Students earn a certificate upon completion. Students have classroom sessions in the morning and hands-on practice in the afternoon. The school offers job shadowing as students near completion of the program, so the students get a feel for the realities of the job.

Fees for the program are \$2,475, with a discount for up-front payment. The school is listed on the Louisiana Works website. They also advertise in the local paper some weeks prior to the beginning of a session. The school maintains a list of students. Dentists throughout Central Louisiana contact the school when they have an opening, and the school works to connect them to graduates.

Coastal Truck Driving Academy

Coastal Truck Driving Academy provides a 16-day course for cross country truck drivers. They also do testing for Commercial Drivers Licenses (CDL) for the state.

Coastal has a process for accepting students into the program that includes obtaining pre-hire letters from trucking companies before the students begin. This ensures that the students will have a job upon satisfactory completion of the program. It also provides a way for the school to determine up-front if the student has a record that will keep them from getting a CDL. In asking for the pre-hire letters, Coastal lets the trucking companies do background checks, and while the school does not receive the results, if a potential student is rejected by several trucking companies, the school sits down with the student to determine the problem and work to see if it can be resolved.

Coastal also maintains relationships with local companies that need truck drivers and is often able to place new drivers locally where they can get experience.

The program costs \$5,795. Coastal offers student loans with students receiving a discount if they do their own financing. The company is also on the approved vendor list for WIA and vocational rehab, so it can train students with funding from those sources.

The company started in the mid-1980s, with the Cenla office opening in the mid- to late-1990s. They have seven locations in Louisiana with corporate offices in New Orleans. They train about 100 students a year in Cenla. The company has dormitories for students who need a place to stay during training.

Blue Cliff College

Blue Cliff College offers an associate degree in criminal justice and diplomas in cosmetology, massage therapy, medical assisting, medical office administration and esthetics.

Central Louisiana Medical Academy

Central Louisiana Medical Academy offers Certified Nursing Assistant (CNA) and Phlebotomy Technician programs. The CNA program is a four-week course of study, with the phlebotomy classes lasting five to seven weeks. The programs include classroom instruction and clinical training at medical facilities in the region.

3.4 Summary

Disconnected system/overlap

One of the most striking aspects of the post-secondary/pre-baccalaureate system in Cenla is the level of disconnection. With the number of schools and programs in the region, it is somewhat difficult to determine which institutions provide which classes and/or types of training. There also tend to be overlap in offerings, especially at the developmental level, and several institutions suggested they were the “only” provider of certain training. While the schools certainly appear to be doing their very best to meet the community’s needs, this scenario undoubtedly adds a layer of opacity to both students and employers looking for further education and training. Generally, the infrastructure for a comprehensive system is in place, but the coordination is not, and the area is underserved.

Funding

In addition to making the system difficult to navigate, the overlap also impacts funding. Administrators routinely noted that funding was generally inadequate to fulfill their mission. Most often cited was a need to update and/or expand facilities; add new instructors and meet a standard pay scale; and improve marketing and outreach programs. They also noted the need for spending flexibility.

Facilities tended to be older and in need of expansion and equipment upgrades. Administrators noted that with additional classroom space and new equipment, they could offer more classes, which could lead to additional revenue. Additionally, with more funding available for marketing and outreach, schools could improve their profile and better explain their mission, and additional students could be attracted.

One administration mentioned the budgetary process in general. He cited uncertainty of funding streams as an impediment. In the current process, funding can be moved between schools to make up budgetary shortfalls, making it difficult to plan for the future and follow through with programs that respond to the needs of companies.

Education

Most notably, adult basic education is under the auspices of the K-12 system, which is unusual. Several of those interviewed noted the stigma of attending ABE classes at a K-12 school, as opposed to those held at a postsecondary campus. In addition, these classes are not linked to training although most adult students are seeking employment or attempting to increase their skill level.

Additionally, many programs offer non-transferable credit, making it difficult for students to pursue further education if they so desire.

Despite all of these institutions and all of this activity only 763 students received credentials from Cenla institutions in the 2007-2008 school year. These credentials included associate degrees that are considered transfer degrees for those planning to continue to a four-year college as well as credentials showing completions of various levels of technical training.

Table 3.7 Number of Credentials* by Institution, 2007 – 2008

| Institution | Associate | | | Total |
|--------------------|------------|------------|--------------|------------|
| | Degrees | Diplomas | Certificates | |
| NSU | 238 | 0 | 0 | 238 |
| LSU-A | 156 | 0 | 8 | 164 |
| LSU-E* | 12 | 0 | 0 | 12 |
| LTC- Alexandria | 4 | 85 | 3 | 92 |
| LTC-Avoyelles | 0 | 51 | 6 | 57 |
| LTC - Huey Long | 0 | 21 | 21 | 42 |
| LTC - Lamar Salter | 0 | 44 | 7 | 51 |
| LTC - Natchitoches | 11 | 28 | 5 | 44 |
| LTC - Oakdale | 11 | 49 | 3 | 63 |
| Totals | 432 | 278 | 53 | 763 |

** The number of credentials listed for LSU-E are the number awarded to students from the 9-parish Rapides Foundation region, as shown in the Board of Regents data available at <://as400.regents.state.la.us/pdfs/cmpl/cmpl0708/cmplprsh.pdf>.

Source: Louisiana Board of Regents

Chapter 4

Best Practices: How Do Other Regions Respond to the Need for a Coordinated Workforce Development System?

Introduction

Chapters one through three describe Cenla's economic, education and training, and workforce circumstances. How have other regions responded to these challenges?

Every region in America faces the same problem of creating and coordinating the workforce development system to undergird and grow the region's economy. The array of federal funding and state funding sources for training, working with new and expanding industries, training incumbent workers, and serving jobseekers produces a fragmented system with structures that arise from federal laws (The Workforce Investment Act and the Vocational Education Act, et al) as well as state laws. In addition, these structures and agencies have different but overlapping purposes.

Throughout the country, regions have addressed this issue by establishing a Comprehensive Community College that performs all of the workforce development functions and becomes the central focus for training in partnership with business. Looking first in Louisiana we find that every region in Louisiana has a community college but one:

- Baton Rouge Community College
- Bossier Parish Community College
- Delgado Community College (New Orleans)
- L.E. Fletcher Technical Community College (Houma)
- Louisiana Delta Community College (Monroe)
- Elaine P. Nunez Community College (Chalmette)
- River Parishes Community College (Sorrento)
- South Louisiana Community College (Lafayette)
- SOWELA Technical Community College (Lake Charles)

Looking across the nation, only 6 of America's 255 largest U.S. Metropolitan Statistical Areas (MSAs) do not have a community college.

Table 4.1: US largest MSAs without a community college

| MSA | Population | Distance to Closest Community College |
|-------------------------|-------------------|--|
| Ogden-Clearfield, UT | 518,349 | 39 miles |
| Provo-Orem, UT | 493,306 | 34 miles |
| York-Hanover, PA | 421,049 | 26 miles |
| Erie, PA | 279,092 | 58 miles |
| Columbia, MO | 162,314 | 36 miles |
| Alexandria, LA | 149,837 | 89 miles |

4.1 The Functions of a Comprehensive Post-Secondary Education and Training Approach

RTS, in the course of its work over the past two decades with the postsecondary, pre-baccalaureate education and training arena in the U.S. and internationally, has identified eight core functions that characterize an effective comprehensive community college. These functions are described below, with representative best practice examples.

- Bridge to a four-year school
- Specialized or customized training for employers
- Terminal degree
- Technical certifications
- Continuing education
- New technology and process adoption
- Cultural activities
- Economic development presence

Bridge to a four-year school

The bridge to a four-year degree is important and works best if there is a specific agreement that the four-year institution will accept the course work and give full credit for the first two years. The income differences are generally consistent – a two-year degree is worth \$10,000 more than a high school degree, and a four-year degree is worth \$10,000 more than a two-year degree.

The State Community College System in Mississippi, consisting of fifteen community colleges, has a statewide articulation agreement with all the Universities that guarantees recognition and acceptance of course work at the two-year schools. Graduates with an A.A. or A.S. degree enter the University as juniors. The same is true for the 58 community and technical colleges in North Carolina. A statewide articulation agreement is in place and is currently being revamped in order to strengthen and clarify it.

Specialized or Customized Training for Employers

This is essential for a vibrant economy. It is often the case that a manufacturer purchases a new piece of equipment that will operate better and/or faster. The employees need training on that new machinery. It is also a frequent occurrence that a company decides to expand by making a new product and needs external help in training on that piece of equipment. Finally, a decision of a new company to locate in Central Louisiana may depend on that availability of customized training. The community college either uses a current instructor or finds an instructor with that specialty and contracts with them. For example, Jones Junior College in Mississippi has contacted with two experts in LEAN Manufacturing processes in response to several manufacturers who wanted to increase productivity. Hol-Mac Company of Bay Springs, Mississippi, says their company was turned around by the introduction of LEAN Manufacturing techniques. Central Community College in Lynchburg, Virginia, designed Advanced Manufacturing Technology in response to a group of six employers and has since raised \$10 million to build a state-of-the-art manufacturing center. SeverCorr Steel Company decided to open its new processed steel plant in Columbus, Mississippi, paying its 400 employees an average of \$27.00 per hour, after East Mississippi Community College designed an advanced manufacturing technology curriculum to fit their needs. This curriculum has now been adapted to several of the auto suppliers for Toyota and Nissan, and Paccar, a truck-building company.

Terminal Degree

Many students earn an A.A. or A.S. and do not necessarily transfer to a four-year institution. Nationwide, the average earnings for someone with a two-year degree are \$10,000 more annually than for a high school degree.

Technical Certification

There are many certifications that a community college offers. Frequently the business requires that as a condition of employment or continued employment. There are many one-year certifications in Computer Technology, and in the medical/healthcare field, and in business and office management. As an example, truck-driver training results in a certification, and the courses range from six weeks to six months. Trucking companies only hire those with the certification.

Continuing Education

Continuing Education is one of the primary services provided to the community by a Community College. Short-term courses are offered in topics as diverse as automotive repair to “Covey’s Seven Habits” to computer-related topics like Quicken or PowerPoint presentations. Last year the Continuing Education Department at Itawamba Community College offered 304 non-credit courses to 3,276 people. In addition, many Community Colleges offer on-line courses for free; for example, Itawamba Community College served 619 individuals in on-line courses. Mission College in Santa Clara is preparing this year to offer more than 20 courses online in Digital Arts, Creative Arts, and Entrepreneurship.

In addition, across the nation many community colleges offer most of their workforce development courses as part of Continuing Education. This is due to the source of funding. Many states do not include workforce training under the FTE formula that reimburses schools for the number of full-time students in classrooms.

New Technology and Process Adoption

A very useful function of many community colleges is partnering with businesses to develop and implement new technologies and diffuse that technology to other companies.

In the Lynchburg, Virginia area, six manufacturers formed the Advanced Manufacturing Technology Association (AMTA) to promote manufacturing as an attractive career choice and to provide educational and training opportunities for manufacturing technology. As the association grew, equipment vendors brought in the latest equipment and set up a “teaching factory,” offering precision machining; machine tools; customized training; support for existing company training; OJT exposure in the simulated factory environment for apprentices; and a venue for vendor training. Central Virginia Community College formed a partnership with AMTA, and subsequently

raised \$10 million to build a state-of-the art manufacturing technology center on its campus.

Gadsden State Community College in Gadsden, Alabama, built the Thomas Beville Advanced Manufacturing center to acquire the latest production technologies that it demonstrates to local companies interested in modernization. Its success has contributed to Alabama acquiring three major auto assembly plants in the last ten year.

Cultural Activities

Many community colleges are located in rural areas that simply do not have the commercial viability to sustain many cultural activities. So, as part of its community service, the community college fills that role. Itawamba Community College has established a beautiful performing arts center that hosts dramatic productions, musical presentations, opera, and symphonic performances. Also, many community colleges provide the venue for local crafts people in such arts as ceramics, quilting, and painting. This function helps pull the community together, improves the quality of life, and in many cases becomes a valuable economic development recruiting tool.

Economic Development Presence

This very important function is the key in regions across the nation to sustaining and expanding the economic well being of communities. The community college provides training for companies' incumbent workforce, as well as provides training on new machines and on new processes. The community college becomes an integral part of encouraging and enabling existing companies to expand and an important part of the recruitment effort to convince new companies to locate in the region.

At Itawamba Community College in Tupelo, Mississippi, the Vice President for Economic and Community Services partners with County economic developers, the community development foundation, and the state's economic development team on expansion and recruitment efforts. When local businesses need to train their existing workforce, or train new employees, or, as the case with the Cooper Tire Plant, convince the national headquarters to not close down their plant, he is the "go-to" guy.

Over the past year, Itawamba Community College partnered with 144 businesses in various training efforts, provided On-The Job Training to 18 companies, and participated in 12 recruitment efforts to attract new businesses. Economic developers are not successful without the partnership of a community college to assure companies of the provision of focused, quality training of their prospective employees.

4.3 Lessons from the Site Visit to Itawamba Community College

In order to select a Community College that is comprehensive and executes all eight of the functions, we looked within Cenla, within Louisiana, and to other outstanding community colleges.

While many of Louisiana’s Community Colleges do an excellent job, none exhibit activity in all eight of the comprehensive functions. So RTS provided examples of some of the best community colleges in America.

Table 4.2: Functions of Selected Cenla Community and Technical Colleges

| Institutions in the Rapides Foundation Region | Bridge to a 4-year school | Terminal Degrees | Technical Certifications | Continuing Education | Center of Excellence/Technology adoption | Specialized/customized training for employers | Economic Development Presence | Cultural Activities |
|---|---------------------------|------------------|--------------------------|------------------------|--|---|-------------------------------|---------------------|
| LCRP | x | A,B,M,D* | x* | professional | | | | |
| LSU-A | 4-year | A,B | | personal, professional | | IWTP | incubator | x |
| LSU-E | x | A | x | personal, professional | | | | |
| LTC-A | x | A,B | x | | | IWTP | | |
| LTC-Av | x | A | x | ABE/GED | | | | |
| LTC-HL | x | A | x | ABE/GED | | | | |
| LTC-LS | x | A | x | ABE/GED | | | | |
| LTC-N | x | A | x | | | IWTP | | |
| LTC-O | x | A | x | ABE/GED | | | | |
| NWU | 4-year | A,B,M | | professional | | IWTP | SBDC | x |
| Louisiana College | 4-year | A**,B | | | | | | x |

* LCRP offers courses at these levels but is not a degree-granting institution

** LC currently offers only 1 Associate program, an AAS for Physical Therapy Assistant

Table 4.3: Functions of Selected Community and Technical Colleges

| Institutions Outside the Rapides Foundation Region | Bridge to a 4-year school | Terminal Degrees | Technical Certifications | Continuing Education | Center of Excellence/Technology adoption | Specialized/customized training for employers | Economic Development Presence | Cultural Activities |
|--|---------------------------|------------------|--------------------------|-----------------------------|--|---|--------------------------------|---------------------|
| Baton Rouge CC | x | A | x | personal, professional | | IWTP | Small Business Training Center | x |
| Baton Rouge LTC | | A | x | | | IWTP | | |
| Bossier Parish CC | x | A | x | personal, professional, ABE | | IWTP | x | x |
| LTC-Northwest | | A | x | ABE/GED | | IWTP | | |
| LTC-Shreveport/Bossier | | A | x | ABE/GED | | | | |
| Southern University at Shreveport | x | A | x | personal, professional, ABE | | IWTP | x | x |
| | | | | | | | | |
| Central Virginia CC | x | A | x | personal, professional, ABE | x | x | x | |
| Gadsden State CC | x | A | x | personal, professional, ABE | x | x | x | x |
| Itawamba CC | x | A | x | personal, professional, ABE | x | x | x | x |
| Pitt CC | x | A | x | personal, professional, ABE | x | x | x | x |

The final decision was made to visit Itawamba Community College in Northeast Mississippi. Its main campus is in Fulton, and its secondary campus, with most of its workforce development activities, is in Tupelo. The reasons for selecting Itawamba were:

- Tupelo is a Micropolitan Statistical Area with 129,000, slightly smaller than Alexandria’s 147,000.
- Itawamba’s service area encompasses five primary counties and four additional counties with a population nearly 300,000 slightly smaller than Cenla’s 450,000.

- The demographics of the Tupelo area are similar to Alexandria, and the socio-cultural norms of Mississippi are similar to Louisiana.
- Mississippi has a similar state Incumbent Worker Training Program.
- Dr. David Cole, President of Itawamba Community College, is well-respected among community college professionals, and Itawamba is known for its leadership and innovation in Workforce Development Activities.

On December 11, 2008, 24 representatives from Central Louisiana flew to Tupelo, Mississippi for a daylong visit to Itawamba Community College's two campuses in Fulton and Tupelo. What they saw was a vision for the future of Cenla's workforce development system. Dr. Cole and his workforce development system staff are in the center of the workforce development activity, partnering with businesses, economic developers, the WIA system, Tennessee Valley Authority, the Planning Development District, and state organizations to provide workforce training in a variety of ways to support the continued growth in the tupelo region's economy. Itawamba Community College has become the coordinator, the "Go-To" institution for workforce development activity, can provide information on all workforce services in the region, and has a system of accountability measures for all of the training results.

With less a population base then Central Louisiana, in the 2007-2008 fiscal year, Itawamba Community College:

- Trained 16,00 people
- Placed 85 percent of those trained in jobs
- Partnered with 144 businesses
- Provided On-The-Job Training to 18 companies
- Obtained more than 10 percent of Mississippi's Incumbent Worker Funds
- Obtained a USDOL Job Training Grant in excess of \$2 million
- Participated in more than 10 recruitment efforts
- Designed a new advanced manufacturing curriculum in partnership with four local companies
- Assisted Cooper Tire in staying open and employing 1,400 people
- Was a key factor in Toyota's decision to build a new auto assembly plant in their region

While Itawamba Community College is an excellent example of a comprehensive community college providing workforce development leadership, it is not unique. There are dozens of examples across the nation of community colleges performing these functions and making a difference within their regional economies.

Chapter 5 The Gap Analysis

In order for the economy of Central Louisiana to stay robust and to grow, there must be a steady supply of qualified workers that will add value to the companies that employ them. This is certainly true for new hires, but it is also true for incumbent workers who must stay current on new processes and new machinery.

What is the demand? As detailed in Chapter 3, from 2007 – 2012 there are 30,226 job openings, with new jobs accounting for 14,280, and replacement jobs accounting for 15,846. Seventy-seven percent of these jobs, or 23,724, will require some training or certification beyond high school, but will not require a four-year degree.

What is the supply? As described in Chapter 4, in 2007 only 770 individuals received a certificate, a diploma, or Associate degree. That is a tremendous shortfall from the 5,924 new and replacement jobs.

Table 5.1: The Numbers Gap: Less than Four-Year Degree

| | |
|--|--------------|
| Total Demand <i>New and replacement jobs 2007</i> | 5,924 |
| Total Supply <i>Associate degrees, diplomas, certificates 2007-08</i> | 770 |
| Gap | 5,154 |

This is a conservative estimate of the gap that exists. This does not include the need for skills for existing jobs, or the needs of thousands for continuing education. While this does not include the supply side numbers for Incumbent Worker Training, that number varies widely depending on the state’s funding decisions. One gauge of the gap is that Itawamba Community College provided training to 16,000 in fiscal 2007 to a population base that is nearly 100,000 less than Central Louisiana.

5.1 Lack of Coordination and Information

There are over a dozen institutions and several proprietary schools providing training in Central Louisiana. Each is doing an excellent job within the parameters of its mission, its funding and its service area. But none of them is comprehensive, and none of them have the responsibility of unifying the overall training efforts, or providing a centralized point for information or economic development coordination.

As RTS attempted to compile information on training, it encountered a jigsaw puzzle with pieces missing and scattered among the training providers. It was impossible to identify the full range of continuing education and incumbent worker training.

In addition the lack of coordination results in duplication in some areas and shortfalls in others. Both employers and jobseekers have no central contact point to determine a career pathway.

5.2 Opportunity Costs

Central Louisiana is missing funding possibilities, economic development possibilities, and the synergistic opportunities for new training programs that arise out of partnerships between businesses and training providers.

Cenla is missing millions of dollars a year to fund additional training because it is no institution's job to watch for the funding possibilities, and then develop a plan and submit applications. For example, the U.S. Department of Labor-Employment Training Administration has awarded \$375 million for Community-Based Job Training Grants to more than 400 Community Colleges to provide training in high-growth or demand occupations. Cenla has not received a penny! In that same period Arkansas has received five grants, Mississippi has received three, and Alabama has received seven. An additional \$125 million solicitation was issued by USDOL-ETA in October, but once again no institution in CENLA was aware of this, and no applications were developed or submitted. A second example is funding from Louisiana's Incumbent Worker Training Program. Prior to Katrina, Louisiana was awarding \$50 million per year, and since Katrina, the funding is \$20 million per year. Yet year after year, Cenla does not receive its fair share, which should be no less than one-ninth of the total. If there were one

institution that was in charge of coordinating training and seeking funding, then it would assist businesses in applying for these funds.

Cenla does not have the single entity in workforce development times that would partner with state, regional, and local economic developers that encourage business expansion, relocation, or start-up. Survey upon survey shows that the quality of the workforce and the quality of workforce training are always among the top two or three reasons for businesses to locate in a particular region. When Toyota announced last year that it would locate its newest automotive assembly plant in Blue Springs, Mississippi, near Tupelo, it stated that the number one determinant was the quality of the workforce development system in Northeast Mississippi. When businesses are struggling to survive by increasing productivity and profitability or to convince the national headquarters to not close their location, they need one institution to immediately assist them in upgrading the worker quality by developing specific customized training for that employer. Examples of this abound around the nation between comprehensive community colleges and companies. Howard Industries in Laurel, Mississippi landed a contract to build the world's largest transformers after Jones Junior College designed a specific training program for them and assisted in the presentation to the customer.

Frequently one company or a consortium of companies in the same industry cluster work closely with a training provider to develop some special training to address a new need. This happened between Central Virginia Community College and a consortium of companies. They jointly developed a new curriculum for advanced manufacturing. In Northeast Mississippi a finished steel manufacturing plant, a truck diesel engine manufacturing plant, and Toyota worked with four community colleges to develop a new sequence of training courses for their specific needs in advanced manufacturing.

Summary

The difference between the demand for training and the supply of training, the lack of information on training and the coordination of training efforts, and the missed opportunities for increased training, specialized training, and maximizing economic development efforts are gaps that need to be filled with a lead training institution that meets all those needs.

Chapter 6

Cenla's Workforce Development System: Supporting Economic Growth and Expanding Opportunity

Summary of Findings and Recommendations

The economy of Central Louisiana is stable, with low unemployment. However, the national and international pressures on virtually every business sector demand that current businesses need help to stabilize, businesses that want to expand need assistance with locating and training productive workers, and businesses that consider locating in Cenla must be presented with an integrated and coordinated plan for workforce training.

The single greatest threat to Cenla's continued economic vitality is the lack of a comprehensive, integrated, and coordinated workforce development system.

Demographics

The population growth is flat. Cenla's population increased by slightly more than 1,000 (0.3%) over the past five years. There will not be a baby boomer "echo" that will provide new workers into the labor force. The population in the primary working age cohorts (30 years to 69 years) is lower than the state of Louisiana and in the United States. There are low unemployment rates. Anyone who wants a job can find a job.

This makes training of new workers and incumbent workers even more important because current workers have to increase productivity, and new workers must add value to the company immediately. Northrop/Grumman in Louisiana, Mississippi, and Alabama, has found that more and better training has reduced their turnover rate by 20 percent.

Employers are concerned

In a survey of 140 employers:

- 47 percent expressed negative opinions about the workforce system
- Only 12 percent had positive opinions about the workforce system
- 54 percent thought that the quality of the mid-skilled workforce was a competitive disadvantage
- Only 11 percent thought that the quality of the mid-skilled workforce was an advantage

Drivers of the Economy

The Cenla economy has strengthened over the past five years with less unemployment, more jobs and an increase in average earnings. The overall unemployment rates fell from 6.6 percent to 4.2 percent.

The Wood Products Cluster is very strong, employing 7,200 workers in more than 300 establishments. All parts of the supply chain are represented, from harvesting lumber to manufacturing to wholesale distribution. The Location Quotient of more than 2.3 indicates that this concentration is more than twice the national average. Furthermore, some of the dominant sectors, like plywood manufacturing, logging and sawmills have location quotients above 10.

The Health and Medical Cluster is also very strong, employing more than 14,000 people. Hospitals, nursing care facilities and residential mental retardation facilities provide the bulk of employment.

The public sector within Cenla (state, local, and federal employment) accounts for 43,000 jobs, nearly a quarter of the region's employment. Construction and real estate are thriving, and the service sector is the fastest growing.

The Supply Side – Who is Training the Workers?

There are many institutions that participate in training, but these institutions vary so widely in purpose, mission, size and funding that it appears dysfunctional and uncoordinated. An individual or an employer does not have a central referral source but must shop around. In addition, most of these institutions do not have adequate funding, facilities, equipment, instructors and marketing.

The Louisiana Technical College is one college with 40 campuses, six of which are located in Cenla. They provide basic occupational training, some incumbent worker training, and Adult Basic Education on three campuses.

The Learning Center for Rapides Parish is an umbrella institution that houses programs from 12 universities and colleges, with degrees ranging from continuing education to doctorates.

LSU-Alexandria shifted from a two-year community college to a four-year institution offering baccalaureate degrees in 2001. It still offers some two-year degrees, but the Board of Regents Master Plan is for it to continue migrating to a university.

LSU-Eunice is a two-year college offering eleven Associate degrees and serves as entry to LSU-Alexandria for students unable to meet admission standards.

Northwestern State University is a four-year institution located in Natchitoches. NSU offers associated degrees in nursing, business administration, office administration, criminal justice and general studies.

Adult Education Classes, funded through the Department of Education, served 3,229 students in 38 locations, including seven elementary schools; six middle and high schools; three at LTC campuses; seven at adult education centers; five at correctional facilities; five at workplace locations; and one at a one-stop center. Many states have located Adult Education in the community college system, where it is integrated as the first step to specific vocational training.

Customized Training Programs are funded through the State's Incumbent Worker Training Program. These funds are designed to meet the specific needs of a company or group of companies. Since 2004, LSU-Alexandria has had two grants, LTC-Alexandria has had six grants, and the Louisiana Bankers' Association has had three grants. This is not nearly enough activity for a workforce and economy the size of Central Louisiana.

There are four proprietary schools, all located in Alexandria: The Central Louisiana School for Dental Assisting; Coast Truck Driving Academy; Central Louisiana Medical Academy for certified nursing assistant and phlebotomy technician programs; and Blue Cliff College with training in massage therapy, medical assisting, cosmetology and criminal justice.

There are three Workforce Intermediaries that focus on workforce issues with overlapping intentions and missions. The Central Louisiana Chamber of Commerce has two committees, the Postsecondary Education Coordinating Committee and the High School to Work Committee, that meet regularly.

The Cenla Advantage partnership has taken a significant interest in addressing regional workforce challenges facing employers. These include the “Bring ‘Em Home” advertising campaign and the “Raise ‘Em Up” effort focusing on connecting disadvantaged workers to training and jobs.

There are four Workforce Investment Boards in Cenla, supported with federal funds under the Workforce Investment Act. The Boards composed of a majority of private sector members are supposed to play a coordinating role for training and job placements for their respective regions. Through their Career Solutions Centers they focus primarily on job counseling and referral services with some basic skill and occupational training. There are plans at the state level to strengthen and consolidate the Workforce Investment Boards. But, generally these boards are an important funding mechanism, but they do not provide training, nor do they have any authority to coordinate the training system.

The Demand Side – How Many Workers in What Types of Occupations does the Cenla Economy Need?

The good news is that Cenla’s economy is growing at a steady rate. The bad news is that there is a tremendous gap between the jobs and the needed training.

There are 14,000 new jobs, forecast using occupational projections of the existing workforce, by 2012. There will be 15,900 existing jobs that will have to be replaced with new workers over the next five years. These job openings are the result of attrition, turnover and deaths. In addition, the need for training is amplified in two more ways. Many employers need for their incumbent workers to be trained on new machinery or processes, and a large portion of incumbent workers seek non-credit training in order to improve their skills and credentials in pursuit of promotions. One additional need is for flexibility and rapid turnaround in the case of a new business deciding to locate in Central Louisiana.

24,000 of these job openings are in occupations requiring less than a four-year degree, or about 6,000 per year.

The key problem for Central Louisiana is that, in the past year, only 770 degrees, diplomas and certificates were awarded, leaving a per year gap of over 5,000. This information is difficult to gather because the workforce training system is so fragmented. There is no denying the scale of the problem – workforce training by all the institutions in Central Louisiana is failing to reach 80% of those who need it each year. This gap must be closed soon or the result will be a decline in the region's economy.

Cenla should adopt a goal of providing training to at least 3,000 annually by 2010.

Recommendation: Central Louisiana Must Establish a New Entity That is a Comprehensive Community College

The only way that Central Louisiana can address its multiple problems in the workforce development system is to establish one institution that will focus fulltime on workforce development and provide a specific “go-to” point for businesses and jobseekers.

This comprehensive community college, as described in chapter 4, will have the following functions:

- Articulation agreements with a four-year school
- Specialized or customized training for employers
- Occupation degrees and certification
- Technical certification
- Continuing education
- New technology and process diffusion activities
- Cultural activities
- Economic development mission
- Entrepreneurial and business support

The comprehensive community college will be able to coordinate with the fragmented workforce training that already exists. It will be able to work hand in glove with businesses that need specialized training for new or incumbent workers. It will also be able to gain additional levels of funding from the Incumbent Worker Training Program. Cenla is nearly one-tenth the population of Louisiana and therefore should average more than three million dollars annually from the state funds.

APPENDIX

A Little Background on Education Levels

The Office of Occupational Statistics and Employment Projections of the Bureau of Labor Statistics (BLS) classifies 753 occupations into education and training categories.

The “eleven category system”⁸ assigns occupations into a single education and training categories reflecting the most common path into the occupation. A category is defined as the most significant source of education and training needed to become qualified in an occupation. The categories are as follows:

First professional degree: Completion of this degree requires at least 3 years of full-time academic study beyond a bachelor’s degree. This is typically the minimum requirement for occupations like lawyers, physician and surgeons, veterinarians, and pharmacists.

Doctoral degree: Completion of a Ph.D. or other doctoral degree that requires a minimum of 3 years of full-time academic works beyond a bachelor’s degree. Sample occupations requiring this level of educational training include postsecondary teachers, medical scientists (except epidemiologists), and biochemists and biophysicists.

Master’s degree: This type of degree usually requires 1 or 2 years of full-time academic study beyond a bachelor’s degree.

Degree plus work experience: This education level is also known as “*Bachelor’s or higher degree, plus work experience*”. Most of the occupations in this category are management occupations typically filled with experienced staff, with a bachelor’s degree, promoted into these groups after significant worker experience. Examples are engineers promoted to engineering managers.

Bachelor’s degree: Self-explanatory

Associate’s degree: Completion of this degree usually requires at least 2 years of full-time academic study beyond high school.

Post-secondary vocational award: These programs lead to a certificate or other award, but not a degree. Occupations in this category include some that require only the

⁸ BLS actually uses two different methods to classifying occupations by education and training requirements. The second method, the “educational attainment cluster system”, groups occupations according to the highest level of educational attainment of current workers. This system is typically used to study the job outlook for college graduates. This system, unlike the “eleven category system”, allows occupations to fall into multiple educational attainment categories (or “mixture” occupations).

completion of a training program and some that require individuals to pass a licensing exam before they can begin work. Examples include nursing aides, orderlies, and attendants and hairdressers.

Work experience in a related occupation: Many of these occupations require work experience such as first-line supervisors/managers of service, sales and related, production, or other occupations, or are other types of managers.

Long-term on-the-job training: More than 12 months of on-the-job training or combined work experience and formal classroom instruction are needed for workers whose occupations fall into this category. Included in this group are formal and informal apprenticeships that may last up to 5 years and occupations specific, employer-sponsored programs (i.e. police academies).

Moderate-term on-the-job training: Occupations in this category usually require 1 to 12 months of combined on-the-job experience and informal training. For example, heavy and tractor-trailer truck drivers.

Short-term on-the-job training: Includes occupations that require short demonstrations of job duties or 1 month or less of on-the-job experience or instruction.

Limitations of “eleven category system”:

This classification system does not show the extent to which there are multiple paths of entry into an occupation. Occupations are assigned to one of the categories based on BLS economists’ knowledge and judgment based on data gathered from government agencies, private organizations, interviews with educators, employers, trade associations, etc. When an occupation has more than one path of entry, BLS identifies the path that research suggests is applicable to most current entrants.

About the Data

The data used in this report was collected from the Economic Modeling Specialists, Inc. EMSI provides integrated regional economic and labor market data, web-based analysis tools, data-driven reports, and consulting services. EMSI's expertise is centered on regional economics, data analysis, programming, and design so that it can provide the best available products and services for regional decision makers.

In an effort to present the most “complete” possible picture of local economies, EMSI estimates jobs and earnings for all workers using Bureau of Labor Statistics data, data from the U.S. Bureau of Economic Analysis and information from the U.S. Census Bureau.

Because the number of non-covered workers in a given area can be large, job figures in EMSI Complete will often be much larger than those in state LMI data.

Occupational Data

In order to estimate occupation employment numbers for a region, EMSI first calculates industry employment. EMSI then uses regionalized staffing patterns for every industry and applies the staffing patterns to the jobs by industry employment data in order to convert industries to occupations. EMSI bases occupation data on industry data because it is generally more reliable and is always published at the county level, whereas occupation data is only published by Occupational Employment Statistics (OES) region (usually 4-6 economically similar counties). Occupation employment data includes proprietors and self-employed workers.

Annual Openings and Replacement Jobs

When projecting occupational employment, EMSI measures a change in New Jobs and Replacement Jobs. The New Jobs figure captures the change in the total number of workers employed in the occupation (the difference between the base and projection year), while the Replacement Jobs figure estimates the number of jobs needing to be filled within existing positions on account of people migrating out of the region, retiring, or dying. A combination of both numbers indicates total job openings over the projection period. Replacement jobs are an estimate based on national occupation-specific percentages from the U.S. Bureau of Labor Statistics Employment Projections program.

Occupational Earnings

Occupation earnings displayed in the tool are, by default, median hourly earnings based on data from Occupational Employment Statistics (U.S. Bureau of Labor Statistics) and the American Community Survey (U.S. Census Bureau). Unlike industry earnings, earnings for occupations do not include benefits.

In addition, county/ZIP industry earnings are used to adjust occupational earnings at the county and ZIP level. So, if local industries generate more income per worker than the state average, our data will show higher occupational earnings for occupations in that industry.

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