LABOR MARKET STUDY REPORT

May 2011

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The Summary

1. **Executive Summary**

The New Vision Council was established by Lake Sumter Community College to investigate the possibility of offering four year degrees. For several years now the State of Florida has supported the entry of the community college system into that area formerly the prerogative of the state colleges and universities which previously had been protected by state laws and guidelines. Six years ago only four community colleges offered four year degrees, today the number has grown to eighteen! The New Vision Council has recommended that Lake Sumter join this group, but prior to making any decisions regarding the specific degrees to offer, a recommendation was made to undertake a study focused on local employers and their workforce needs (as well as their perspective on the nature of workforce education in general). In addition, this study supports the Lake County Economic Action Plan goal: “Assure that we have an available and well-prepared workforce for existing, emerging and prospective businesses, and collaborate with Lake County educators to meet workforce needs and achieve educational excellence.”

The study question charged by the New Vision Committee was:

*What academic and technical four year degrees do employers in Lake and Sumter Counties consider important for LSCC to offer in order to support their workforce needs?*

What was an important indirect result of conducting the study?

- Lake Sumter Community College has made a significant effort to connect with employers and show the willingness of the organization to address their concerns and initiate a dialogue. In essence, the study served as a bridge to the community.

- Expectations are that the results will be shared and discussed with employers.

What was the design and methodology conceived to answer the question?

- A qualitative study was deemed most appropriate as there was a desire to achieve a greater understanding of the perceptions and experiences of the employer than that possible through the use of surveys.

- Approximately forty employers were selected and interviewed in Lake and Sumter County.

- Several community meetings related to economic development and workforce development were attended.

- Two focus group style meetings were held under the auspices of the Leesburg Chamber of Commerce. Companies included a variety of businesses based in Lake County, central Sumter County and the Villages.
• Data from the interviews, meetings, focus groups and other documents were analyzed using social scientific methods and the results reported in this document.

What is the nature of the employers and the workforce focused on in the study?

• Major employment sectors interviewed in the study included health care, manufacturing, agriculture, education, public administration, tourism, construction, retail, services, tourism and new and emerging occupations.

• Employers are concerned that there are no jobs for new graduates and thus expectations may have to be tempered. The question became: What is the role of LSCC vis-à-vis economic development (see below).

• Major employers vary depending on the county of focus, i.e., different industries are dominant in Lake, Sumter, Seminole and Orange Counties.

• The identification also varies geographically within the same county. For example, 13% of the companies in Clermont are based in the construction industry, while in Leesburg it is closer to 9.5%. In Sumter County, the northern part of the county is dominated by Wildwood and the Villages while the southern maintains a more agricultural and rural nature and is centered in the towns of Bushnell and Sumterville.

• In a similar vein, the workforce is also regional in nature, that is, many cross county lines to work for employers in other counties. Whose workforce is being educated?

• The workforces in Lake and Sumter have fewer post high school degrees than those in neighboring counties and this has a potential impact on economic development.

• The population in Lake and Sumter Counties continue to grow, particularly in the number of residents over age 65, and these older workers tend to be active members of the workforce.

What degree areas were suggested by employers?

• In general, there was strong consensus, encouragement, and support for offering four year degrees in Lake and Sumter Counties.

• A major concern of employers is not for specific knowledge and skills, but rather in the basic qualifications that include a proper attitude, communication and critical thinking.

• The results indicate that there was general consensus among employers that the demand for more technical degrees and trades should guide LSCC in its choice of programs. Engineering technologies such as bio-medical, electrical, mechanical, and bio-fuel as well as a broad range of general trade and skilled technical areas were often mentioned.

• Health occupations were definitely the most often mentioned as either a need of a given employer or one perceived as the number one need by those in other industries. The primary need was for baccalaureate level nurses, but it was also recognized that any health field would be an area of need. It gets complicated with the number of certification level (as opposed to degreed) occupations there are in
the health field, but as this study was sensitive to education levels outside of the four year degree, they were certainly considered relevant.

- Public Safety including areas related to correctional institutions (Florida has one of highest prisoner populations in the country), as well as law enforcement, fire science, industrial safety and paramedics.

- Organization Management, either related to a specific field such as accounting or marketing, or as a more general degree (perhaps with an emphasis in a given area). In addition, many employers suggested that degrees in respective fields such as sales and marketing, construction management, international business management, public and non-profit management, health and medical office management or others would be useful.

- In a similar vein, computer technology was considered important as a general field, but also as specific sub-fields such as GIS or computer security. It was often pointed out that almost every workforce position today requires some knowledge of technology and thus it would be useful to have a method to integrate this into any given educational program.

- Education – particularly math and science teachers. There also appears to be potential for partnering with education (and actually health as well) in areas that might be considered continuing education.

- Agribusinesses are major employers in Lake and Sumter Counties and representatives from these industries suggested degrees related to this field such as agricultural economics, horticulture and other specific environmental specialties (e.g., waste water technicians).
2. **Summary of Other Findings**

What were the findings related to the business of education?

- There are at least three markets; the new student, the returning adult student and the current workforce with the latter providing a potential source of business development for LSCC.

- Two ways to look at the development of degree products would be a) survey the competition for open niches and b) offer programs in new and emerging occupational areas (such as biodiesel plant management).

- A concept that might be called “My Backyard” appeared, that is, the tendency for people to identify with their geographic center, i.e., looking for products and services that are closer to home.

- Most employers are not aware of the various educational opportunities offered at LSCC and are open to closer connections with the school.

- There are concerns about the flexibility in the delivery of the educational product due to limitations of work and home schedules with ideas such as Saturday classes and more on-line instruction being offered.

- LSCC’s student customers offer challenges regarding service and also present opportunities related to market development – specifically, there is an unawareness on the part of students of the variety of occupations available to them.

- There are a number of possible collaborative efforts or joint ventures that need to be explored with UCF, UF, FAMU and other universities, the SBDC, Lake Tech and the high schools.

- There is a great amount of enthusiasm for internships or other experiential learning components as a foundation to any educational product offered and these can provide a basis for collaborative efforts with employers.

What is the relationship of the study to economic development?

- For employers currently located in the region, quality of life, location and cost of living are more significant than workforce availability as factors in economic development.

- Employers felt that bureaucratic obstacles were a hindrance to economic development and the concept of “concierging” business prospects might serve to make relocation and/or expansion more attractive.

- Customized education for employers by LSCC may be an attractive factor in economic development.

- The provision of new and emerging occupational education by LSCC can be an important impetus for economic development.
3. **Summary of Recommendations**

What recommendations are prompted by the study?

1. Consider regular communication mechanisms to employers.

2. Create a task force with other community partners, including employers, other educators, families, government, and social service agencies to address the issue of basic workforce attitudes.

3. Consider mapping employers for pockets of industry concentrations, perhaps by using economic development GIS data.

4. Be aware of differences among employers and treat each one as a unique entity—especially as they differ in industry, size or location.

5. Be aware of similarities among employers and maximize the value of similar industries, sizes or locations.

6. Be sensitive to employment realities. Consider placing more emphasis on placement and career development.

7. Consider the interests, needs, and potential of the older adult student population.

8. The definition of “local” when considering workforce needs should be expanded beyond immediate county lines.

9. Consider active representation in economic development forums in Sumter County.

10. Consider the product and the process based on the nature of the market being served.

11. Consider a business development effort aimed at the currently employed.

12. Review and consider the competitive analysis provided in the last strategic plan if there is one, or create a new analysis with special consideration given to workforce education and available niches.

13. Consider offering degrees in new and emerging occupations, even if only on a trial basis.

14. Participate in and encourage regional approaches to workforce education, but offer local solutions.

15. Develop a marketing strategy aimed at keeping employers informed and engaged.

16. Consider increasing availability of online course work as well as creative options such as weekend classes.

17. Determine and implement a method to measure customer loyalty.

18. Use the data acquired from these measures to develop a strategy to improve and continue to monitor levels of customer satisfaction and loyalty.

19. Develop a mechanism to educate students regarding occupations and encourage exploration of those that they were not previously aware.

20. Create and implement a strategy aimed specifically at low income, disadvantaged and minority students.
21. Create a task force or reinforce current efforts towards expanding the partnership with UCF.

22. As above, create task force or reinforce current effort towards expanding partnerships with other universities.

23. Expand current collaboration efforts with Lake Tech Vocational School.

24. Explore mechanisms to make LSCC an active partner in high school CTE academies.

25. Revisit SBDC relationship particularly as it relates to current employers.

26. Develop plan and implement expansion of internship program.

27. Consider the workforce factor in economic development but do not place undue emphasis on this factor.

28. Counties should consider a “concierge” approach to economic development.

29. All players, government, private, and educational, should be teamed in the concierge approach to assure authentic community commitment.

30. The workforce needs of relocating or expanding business should consider being met on a customized basis. This not only eliminates any possible obstacle, but in fact becomes a positive motivator.

31. Consider the potential for those educated in new and emerging areas to provide an impetus for economic development.

32. Give special attention to those being educated in new and emerging areas and provide them with support that fosters entrepreneurial endeavors.

In the end, the study should be seen as a beginning. The data should provide a general direction and should now be followed by specific feasibility studies taking into consideration this data and other relevant factors.
The Study

1. Study Question

What academic and technical four year degrees do employers in Lake and Sumter Counties consider important for LSCC to offer in order to support their workforce needs?

Approximately ten years ago, several Florida state agencies concerned with higher education identified access to the baccalaureate as a major issue. It was decided that community colleges, traditionally institutions offering two year associates degrees, could now begin offering appropriate four year bachelor’s degrees. In 2005 four community colleges, Chipola College, Miami Dade College, Okaloosa-Walton College, and St. Petersburg College, offered a total of nineteen bachelors programs. Today there are eighteen colleges offering four year degrees (many of whom have changed their names to reflect their new status as four degree conferring institutions) and the range of programs being offered by these schools has increased to over 100!! Many of the degrees are in health (particularly nursing) and education but a wide range of concentrations is becoming available (such as fire science management and international business). A sample of these institutions and the degrees offered may be found in the Appendix.

In 2009 and 2010, Lake Sumter Community College convened a New Vision Council to explore the expansion and/or revision of the mission of the college to include offering 4 year degrees in keeping with the state-wide trend. Several questions were raised in the process, including: What degree or degrees can be offered that are sustainable over a long period of time? Can LSCC offer a degree, hire the full time faculty required under its accreditation, and enroll students? Can that degree continue to attract students? Or is there a less specific, more general degree that can be of value across the employment sectors?

The New Vision Council decided that it would be beneficial to directly approach employers in Lake and Sumter counties and explore their specific needs and recommendations regarding four year degrees. The study was considered an important source of additional information for the Council to consider as it reached recommendations regarding new educational programs offered by Lake Sumter Community College. However, it was understood that once the issue was raised, discussion could easily lead to general workforce educational needs such as certificates, other associates degrees or customized training. The researcher was open to this possibility.

2. Methodology

2.1 Qualitative Research

Most workforce studies are conducted as surveys and several are available locally, regionally, and nationally. However, surveys do not allow the depth of data that a personal interview generates. A qualitative research study is more appropriate when depth and perspective is required from the target audience. Interviews use open-ended questions that allow the person to provide in-depth feedback. The nature of the qualitative interview results in data that must be interpreted analyzed and reported differently than that found in quantitative surveys. Results are no less “scientific” and, in fact, often produce data that is richer and much more valuable as often these could never be foreseen in a quantitative survey. The focus is on the individual’s experience and not simply their responses to set questions.
2.2 Interview Protocol

An interview guide was created and input from a variety of sources was elicited in order to fine-tune the questions to be used as a guide in the interviews. The guide provided just that – a guide. Interviews were conducted as qualitative research – thus the focus was more on experience than on simple responses to questions (which is more equivalent to the familiar face-to-face survey). The fact is that the interview guide served more as a framework for the conversations that took place as opposed to being a strict format for a question and answer interaction.

Questions highlighted in the interview guide include items centered on these areas (see Appendix):

1. Description of business
2. Awareness of programs at LSCC
3. Current educational level and degrees held by employees
4. Recruitment challenges – preferences in degrees
5. Perception of higher education needs in local area
6. Impact of needs being (or not being) met in the area
7. Incentives to encourage workforce development
8. Responses to several select degree areas (such as mgmt., computer tech and new & emerging areas)

2.3 Selection of Interviewees

Due to the nature of the qualitative study, the selection of interviewees was critical. The right balance of geographic and economic/industrial sector was necessary to provide the information necessary to assist in guiding the school in its decision making. The first step was to identify prospects. Leaders in economic development and chambers of commerce in Lake and Sumter County were asked to provide names of employers they felt would be appropriate for interviewing. These leaders added their own thoughts and stand as informants in their own right. Over a hundred and fifty names were collected and of these, sixty were determined to be sufficient to provide a pool for an initial round of inquiry. In the end, over thirty five individual interviews were conducted with employers in Lake and Sumter Counties representing health care, manufacturing, agriculture, education, public administration, tourism, construction, retail, services, tourism and new and emerging occupations. Specific details are listed in the Appendix.

2.4 Other Sources of Data

In addition to the individual interviews several other sources of data were utilized:

1. Two focus style groups were conducted under the auspices of the Leesburg, FL Chamber of Commerce. Participants included leaders of several of the largest employers in the area as well as smaller businesses representing retail, health, services, and non-profits. Although focus groups do not provide the depth of information personal one-on-one interviews do, they do allow for greater breadth of data collection without sacrificing as much as a general survey.
2. In addition to the focus groups, the researcher attended several general meetings aimed at economic development in both Lake and Sumter Counties. Not surprisingly these meeting addressed topics that were directly relevant to workforce education. These meetings also provided additional venues for informal data collection in the form of general conversations with employers, providers or community leaders who were in attendance.

3. A large library on workforce education is available. Examples familiar to those involved in local economic development include the Workforce Development Committee report to the Lake County Economic Development Advisory Council and the State of the Workforce reports published by the Workforce Central Florida. These documents were reviewed and analyzed for additional relevant data. See Resources.

2.5 Analysis, Findings and Report

The challenge of analyzing qualitative data is the search for meaning within the streaming output generated from the free flowing discussion within which the data collection takes place. Nevertheless there are scientifically agreed on methods to perform such an analysis. The primary goal is to identify general themes as well as specific data relevant only to isolated cases that emerges from the narratives. Detailed notes were taken and analyzed for such themes and for other data deemed relevant to workforce education and the context in which it takes place. Following the analysis, findings are identified and discussed in a report. This written report is the result of this process.

2.6 Limitations

Every study has its limitations and this one is no exception. The following discussion highlights some of those encountered in this research:

1. A primary limitation was the diversity of businesses in Lake and Sumter County. More is included on this topic in the following section. Suffice to say at this point that there are not only a variety of industry sectors in the region, but that there are significant differences in the economic mix between the counties in Central Florida. Thus, any study conducted within the area must necessarily take these differences into account.

2. The initial “short list” of identified employers considered as key informants numbered over one hundred and fifty. This initial list was subsequently trimmed to approximately sixty, and the actual number of interviews conducted numbered approximately thirty five. This limitation is more of a pseudo-limitation however. The number of interviews to be conducted is not determined as one would for a quantitative survey. The issue of sample size is still relevant, but it is more important to get a balance of informants with quality as opposed to quantity being the determining factor. Thus the limitation of “breadth” in this study is easily countered with the strength of “depth” that would have been difficulty for a survey to reveal.

3. Every attempt was made to interview employers from different economic sectors and in different areas of Lake and Sumter Counties. The data generated from the representative employers generated enough information due to produce findings that must necessarily be considered. Nevertheless, it is not possible nor was it intended, for every economic sector to be approached.
4. Overwhelmingly, the identified employers were extremely cooperative and willing to spend time with the researcher. The reason the number of interviews was less than the identified sixty was almost universally tied to the availability of the employers. Only in one very isolated case was the reason due to a refusal to meet. Although availability was not the fault of any party, it nevertheless limited the interviews that were able to take place.

5. Every person sees the world from their own perspective. Thus, the data collected in this study is limited to the informants and their world view. Almost all interviews were with members of company leadership, although some data was collected in forums where line level staff provided information (generally the group meetings). Leadership was the most appropriate group to approach for the data, but nonetheless it needs to be recognized that this is the perspective from which most informants were operating from.

“Our HR Manager has closer ties to Lake Sumter than I do.”

6. Do not confuse intention with action. The researcher asked one of the departments at UCF the reason why they were not providing courses in their academic area on the Lake County campus. The reply was that they had tried to accommodate requests from several regional campuses, including Lake, but their experience was that when it was time to actually fill the classes, enrollment was limited and the attempt was unsuccessful. This does not mean that attempts should not be made – it is simply a word of caution heard in the field.

**The Employers**

The operating assumptions in use by the new State College system in promoting the entrance of community colleges into four year degree granting status is based on the premise that each 4-year degree should enable existing industries to upgrade their workforce locally as well as attract new ones. The first question that must be addressed then is what are the existing industries in Lake and Sumter Counties? Many of the efforts focused on regional economic development do not account for the variety of dominant industries in the local areas within the region. Therefore as one begins to investigate workforce needs the geographic diversity of the supported industries must be taken into account. Simply put, who are the employers?

1. **Major employers**

The answer is: it depends. When looking at statistics, it is always important to realize that methods, analysis and reporting differ on the source and the definition utilized (for example, defined by employees, number of businesses, or sales?). In this case, for the sake of consistency, we will use data researched by MGT of America and reported in Workforce Central Florida’s State of the Workforce 2010 report with figures based on size of the workforce. It is interesting to note the disparities between Lake and Sumter County and between these counties and the larger ones in the region, namely Orange and Seminole. The following diagrams illustrate the differences. *Note: As an example of differences it is interesting that, according to the TIP report, retail trade, construction, health care, and local government are the sectors with the highest employment levels in Lake County.*
Lake County:

Sumter County:
Seminole County

Orange County:

Source: Workforce Central Florida Survey 2010
This data is reported on a county by county basis. As we can see, there are differences across county lines. However, there are also differences within counties. A recent study of the Lake County Division of Economic Growth and Development provided data on a city by city basis within the county. For example, 13% of the companies in Clermont are based in the construction industry, while in Leesburg it is closer to 9.5%. The differences in the various parts of the county are one reason why there are multiple chambers of commerce. However, an attempt has been made for the various communities in Lake County to work together under the umbrella of the Chamber Alliance of Lake County.

Another example of the intra-county difference is evident in Sumter County, where the northern part of the county is dominated by Wildwood and the Villages while the southern maintains the more agricultural and rural nature of the county and is centered in the towns of Bushnell and Sumterville.

It is beyond the scope of this study to address the challenges of regionalism and intra-county tensions. However, it is important to recognize the challenge this results in when any attempt is made to address the needs of a “dominant” industry, as we shall see later in this report.

“One thing about our industry is that every market is different. The way we do business in one place is totally different than another. Each one has its own idiosyncrasies and it takes experience to figure it out.”

2. There are no jobs

It is a challenge to educate a workforce that is not currently in demand.

It cannot be news to anybody reading this report that this country’s economy has been devastated. Unemployment, especially in this state, is at an all-time high. Comments from the field included,

“We have somewhat of a glut in our area because of so much downsizing.”

“We have no jobs right now.”

According to Workforce Central Florida, over the next 12 months, five out of eight employers across the region do not expect to expand their workforce. The Partnership Central Florida survey found that 36% of employers will need more employees, 46% will need the same number, and 9% will need fewer employees. However, the survey did find that Lake/Sumter counties registered higher on the need for more employees (43%), as did businesses that were in health (56%), and in the leisure/hospitality industry (52%). And indeed, there is room for optimism. According to recent Workforce Central Florida figures, unemployment rates have dropped in the last two years, from 11.5% to 10.2% in Lake and from 8.7% to 7.6% in Sumter.

This issue often led to a discussion regarding the role LSCC plays in economic development, discussed later in the report. The point, as one respondent made, is that the work and business of education must go on.

“If you can’t get these kids employed, what are you doing? “

“There are no jobs. Of course we need to educate their students and of course we need to give those degrees in certain areas but the fact is there’s no work out there.”
The Workforce

1. **Education**

The Workforce is, of course, the focus of this study. The current statistics as reported by the Workforce Central Florida report based on US Census data again highlights the differences across county lines. Data extrapolated from the report shows the percent distribution of education among the following counties in Central Florida:

<table>
<thead>
<tr>
<th>County</th>
<th>Estimated 2020 Population</th>
<th>High School 2009 (est.)</th>
<th>Associate 2009 (est.)</th>
<th>Bachelors 2009 (est.)</th>
<th>Graduate/Professional 2009 (est.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake</td>
<td>427,200</td>
<td>35%</td>
<td>8%</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Sumter</td>
<td>168,000</td>
<td>40%</td>
<td>7%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Seminole</td>
<td>531,000</td>
<td>26%</td>
<td>9%</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>Orange</td>
<td>1,158,400</td>
<td>28%</td>
<td>10%</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Source: Workforce Central Florida 2010*

The great discrepancy in post associate degrees among the population in Lake and Sumter Counties when compared to Seminole and Orange is apparent. As will be noted later in the study, there are definite economic development implications to these figures, as well as a measure of the opportunity presented for higher education.

2. **Demographics**

In addition to educational level, the demographics of the workforce would be useful to consider. Over the last nine years, Lake County’s population has soared to an estimated 312,119 residents in 2009, representing a growth rate of more than 48 percent. Sumter County’s population growth puts it in the top ten fastest growing counties in the country with estimates at over 75% growth!! In addition, the number of persons aged 45-84 years living in Lake County is expected to increase significantly. As it is right now, in the Central Florida region, Lake County has the highest percentage of residents age 65 and older estimated at 30% of the population, followed by Sumter County, estimated at 22%. To put this in perspective, Seminole County estimates are 11% of current residents over age 65 and Orange County it is estimated at 10%.

**Lake County:**


*State rank, 2009: Est. 18th  
Population between 15 & 44 years: 34%  
Population 65 years & over: 30%  
Population female: 51%*
Sumter County:

These demographics have several implications:

1. First of all, perhaps most importantly, is that an aging population will mean that it is possible the available workforce population may actually decrease as Lake and Sumter County continue to grow. It may become not only expedient, but imperative that four year degrees (as well as other educational opportunities) are offered in order to maintain, if not grow, the current educated and trained workforce.

2. Second, an aging population will provide its own impetus for economic development as it relates to demands on the health sector. More will be said on this topic below regarding health related careers.

3. One cannot ignore the nature of the aging population, namely we are looking at an active baby boomer population. People are remaining in the workforce longer and provide an experienced, educated competitor for available positions. As one informant noted in regards to the workforce in northern Sumter County, namely the Villages:

   “We have a lot of people here that are retired and want to work, there’s a plethora of applications for any job, full or part time.”

4. There may be a need for additional education and training but a senior student has significantly different learning styles than a student right out of high school.

5. A younger workforce, fewer in numbers, and especially with characteristics that we will discuss shortly, will challenge educational economic systems.
3. The workforce is regional in nature

The Lake and Sumter workforce is regional in nature and this fact must be considered when addressing workforce education needs. “The largest employer in Lake County is Disney.”

An important question was raised, but not answered, in this study. That is, whose workforce are we educating? The focus of the study was education and training needs of the employers in Lake and Sumter County. The assumption, of course, is that LSCC and the other educational stakeholders in the area would be the ones responsible for this education and training and that the workforce being educated would be working in local businesses. However, an interesting fact was brought up by several employers:

“I need to have a huge staff available for coverage but it’s not here in Clermont, they are South Lake employees but working at Disney with the contract we have there.”

“Who is the biggest employer of Lake County citizens – it’s Disney. If you are offering four year degrees are you doing it for people who live here, or people who will work here? That becomes the big question....focusing solely on the industries that are here or are you trying to make that 39/40% switch and is that a good thing, if you only have 20% of your residents working outside of the area? Is that good, is that bad?”

“Many people think we’re the largest employer in Lake County, but that’s not true. The largest employer in Lake County is Disney.”

The recent Partnership Central Florida found that (54%) of companies did business in 4 or more of the 8 counties!!

<table>
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<tr>
<th>From:</th>
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<td>Lake Co. FL</td>
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19
### Table 2 Inbound Commuters to Lake County Total: 27%

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### Table 3 Outbound Commuters from Sumter County Total: 40%

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<td>Seminole Co. FL</td>
<td>105</td>
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### Table 4 Inbound Commuters to Sumter County Total: 32%

<table>
<thead>
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<th>From:</th>
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<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumter Co. FL</td>
<td>Sumter Co. FL</td>
<td>7,960</td>
<td>68%</td>
</tr>
<tr>
<td>Lake Co. FL</td>
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<td>10%</td>
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</tr>
<tr>
<td>Hernando Co. FL</td>
<td>Sumter Co. FL</td>
<td>303</td>
<td>3%</td>
</tr>
<tr>
<td>Hillsborough Co. FL</td>
<td>Sumter Co. FL</td>
<td>147</td>
<td>1%</td>
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*Source: US Census Bureau*

The evidence is clear – a significant number of employees cross county lines. The factor that must be taken into account is from where to where...for example, in Lake County a significant number (34%) of commuters travel to Orange County for work. In Sumter County the number is even greater (40%), but the county these commuters travel to is Lake. It was noted in an earlier section the differences in employment sectors between counties – the question that remains, which County and employer’s workforce is being educated?
The Findings

There was a clear and strong consensus for offering four year degrees in Lake and Sumter Counties. Employers were very supportive and encouraged achievement of this goal. As might be expected, the particular perspectives regarding degrees, delivery, the workforce and economic development were varied. This section outlines the specific findings from the study.

1. **How about the Basics?**

   1.1. **Attitude: The need for American Essentials**

   The challenge presented to employers by entry level employees and their lack of basic workplace knowledge, skills and most importantly, behavior was expressed as strongly as was the support for internships. Perhaps there is a correlation between the two?

   Comments included:

   “..young people coming through the door extremely receptive, extremely hungry and knowledgeable, humble are just the kinds of things you would expect and want for your workforce – well those are missing”.

   “..just want them to come in with a great attitude..”

   “...Get the things that employers are in tune for and looking for, help them come in confident but humble, strong but willing to listen, those are the things that young people need to be prepared for..”

   “I want those children to learn to have a smile before they come to me. I want them to learn to be customer oriented before they come to me. I want them to understand that that tattoo that they are thinking of putting across their face could limit them in terms of where they can work.”

   “I need help, but I can’t find people for the low-paying jobs. I don’t why – people just aren’t hard working, they won’t take those jobs....as immigrants we do anything, then we Americanize, then we’re just not as hard-working.”

   “I want to give a class on how to come to a job interview, how to handle themselves, how to have eye contact, how to shake a hand, anybody in business looks for that. The fundamentals are not being taught right now.”

   “...If younger people coming out of college, if they came in through the door hungry, knowledgeable, humble”

   , ...the very first class should be here’s what we want to work with you on the next four years and get very individualistic, here’s how we’re going to prepare you for life. The last class – when you go into workforce - a solid dose of reality.”

   “...the kids are coming out....they don’t have basic work skills, work ethic”

   “...basics, how to dress, how to come in to work at time”

   “...remediation for entering the workforce”.


“The people that are left don't want to work because they don't have a work ethic, because there have not been instilled with that.”

“Maybe if there was a young group of people that want to go to work, that don’t find that they can do just as well on unemployment…but I don’t see young people having that kind of drive.”

“You can't teach enthusiasm you can't teach attitude but that's obviously key pieces of what we look for.”

The results from the Workforce Central Florida 2010 survey confirmed what was heard in the field. When asked the question regarding the greatest challenges employers faced with the workforce today the following answers were provided:

Source: Workforce Central Florida Survey 2010
Employers surveyed by the American Association of Colleges and Universities in 2010 provided similar answers to a different question referring to college responsibility for basic workplace knowledge and skills. It would be difficult to refute the premise that these are not only workplace essentials, but perhaps American essentials?

The title of the results in the survey above challenge colleges to provide the outcomes indicated. But if these are indeed American essentials and not simply those required by the workforce, then who must bear the responsibility for achieving these outcomes? It might be argued that the challenge is not one for the schools alone to face, but rather for every American family and individual who has the capacity to model these traits for those who follow.
2. Engineering Technology

Engineering is one of the highest paying occupations and one of those most in demand. It is also a very diverse field, with at least twenty six (yes, 26) subcategories!! Being related to engineering, engineering technology has the same level of diversity. What is the difference between the two? The Accreditation Board for Engineering and Technology highlights these differences (among others) (http://www.abet.org/faqs_hs.shtml):

- Engineering undergraduate programs include more mathematics work and higher level mathematics than technology programs.
- Engineering undergraduate programs often focus on theory, while technology programs usually focus on application.
- Once they enter the workforce, engineering graduates typically spend their time planning, while engineering technology graduates spend their time making plans work.

There was general consensus among employers that the demand for more technical degrees and trades should guide LSCC in its choice of programs. When employers spoke about engineering they often added “technology” to point out the difference, and if they did not, they certainly implied that this is what they meant. Although the following specific areas of engineering technology were brought out in field discussions, it certainly does not mean that a review of the extensive list of possibilities should not be undertaken!

“Skilled engineering, skilled maintenance….there are technical opportunities.”

2.1. Bio-Medical Engineering Technology

Health oriented degrees were highlighted as a major need, and the field of engineering technology was no exception. As new equipment is developed and becomes more and more complex, the need for engineers to service the equipment seems to grow as well.

“Who's going to maintain all this? Who works on all this equipment, who maintains all this you're talking about equipment that I've never see, high-tech equipment, who services that? Are we bringing people out of Tampa, Orlando if something breaks down?”

“I need a biomedical engineer. They basically service equipment.”

“There's another program, it's critical to us, and that is medical engineering or biomedical engineering – it's learning how to handle all our repair, all our equipment.”

2.2. Electrical/Electronic Systems Engineering Technology

Electronics are at the core of many of our telecommunications, data, entertainment and many other automated systems. Circuit boards, a basic focus of electronic systems engineering, is ubiquitous, found in almost every electronic component.

“We can’t find that locally either, the four year science and engineering degree, or the more hands on experience of working with circuit boards, electronic components, doing component level electronic troubleshooting, and those kinds of work experiences.”
“The hardest challenge is recruiting the engineer talent we need. To do that, we have a lot of qualified technicians that have the capability to develop into those engineering roles but there’s not any education here, in fact, some have gone to part-time status to acquire that education outside the area. We have people commuting to Orlando or Tampa in order to get that degree.”

“We’ve got a lot of technicians that have wonderful aptitude but they don’t have the theory behind electronics. They know how to break stuff down with their hands and do it but had only get that to the level of an engineer without educational program to supplement what they know how to do with their hands.”

Another area related to electronic systems is that of PLC technology. PLC stands for Programmable Logic Controller and these controllers are the hearts of much of the manufacturing equipment used by employers today.

“PLC programming, everything nowadays is PLC. “

2.3. Mechanical/Industrial Engineering Technology

Mechanical engineering is one of the broadest of the engineering disciplines. They may work on power-producing machines such as generators, engines, and turbines or on power-using machines such as HVAC equipment, machine tools, material-handling systems, elevators and escalators, or on industrial production equipment, such as robots used in manufacturing.

“Mechanical is one of the places where we fall short. When people need machinists or maintenance mechanics….there is not that educational opportunity for them to learn. “

“CFCC offers a few programs that individuals seem to zero in on, as far as that mechanical background. I will see associates degrees that lend towards mechanical engineering field coming out of CFCC, but I have multiple positions right now for mechanical engineers, industrial, these guys have to have bachelor’s degrees. I had about 10 positions in the last year looking for those skills.”

2.4. Computer Aided Design (CAD)

Computer Aided Design is used in a variety of settings, including construction, manufacturing and even marketing. The need for CAD trained employees was emphasized by employers representing these sectors.

“We need for people trained in 3-D CAD. I brought out a boy from Michigan, he wants to be a CAD operator but I have to send him clear to Orlando because I looked on the Internet and it’s the only place that offers those classes. Why don’t we offer it right here close by?”

“Technical programs and CAD design. “

“There’s always room in the CAD market. One of the big things that’s coming out now is 3- D cad, the use of it is becoming more and more popular because a streamlined your ability to design something, specially laying out in designing machinery.”
2.5. Alternative Energy/Biofuel Technology

There are several “green” energy companies located in the area and although there are no biofuel engineering programs per se, there are several opportunities available as has been noted earlier in the report. To summarize those earlier points:

1. There is an opportunity in regards to economic development. Create a program and develop an economic development strategy around that program. As was noted by one employer,

   “There only six bio diesel labs in the country and one of them is right here.”

2. Create a program for biofuel plant managers and take a lead in the educational marketplace.

The 2008 TIP report identified clean energy as one of Lake County’s targets for future economic development. The area of Clean Tech has subsequently been incorporated into that county’s long term plan:

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**Clean Tech**

**Green Building**

Green building refers to the design, manufacture, and marketing of materials that promote efficiency and environmentally friendly technologies. Activities include the research and development of materials and systems, manufacture of building components and final assembly of complete systems. Some definitions are also stretched to include building "systems" such as concrete, modular and panelized products. In addition, "integrated" building systems tend to use a greater degree of information technology in the design and operation of new homes and commercial buildings.

**Clean Energy**

Innovative technologies in the energy sector usually involve renewable or "sustainable" sources of fuel, but may also include applications to harness the potential of fossil fuels in much cleaner ways. Those power sources most commonly associated with "clean energy" potential include solar, wind, biomass, energy-from-waste, fuel cells, alternative batteries and hybrid engines. The research & development, manufacture, and deployment of these types of innovations is grouped under the broadly defined category of "energy technology."

**Green Building Examples**
- Materials Research
- Energy efficiency systems
- Weather-proofing systems
- Computer systems integration
- Modular or prefab buildings design and assembly

**Clean Energy Examples**
- Ethanol production
- Energy-from-waste
- Applied technology development in alternative energies (nuclear, wind, & solar)
- Related manufacturing (advanced structural composites, turbine manufacturing, photovoltaic cells, etc.)

Source: [http://egr.lakecountyfl.gov/about/targeted_industries.aspx](http://egr.lakecountyfl.gov/about/targeted_industries.aspx)
3. **Trades**

There appears to be concern that too much attention is given to general upper level academic degrees. It was emphasized numerous times, and by many employers, that there is a need for a workforce educated in vocational trade areas.

3.1. **More Vo-Tech**

“Not necessarily the degree side but the technical courses that would be something our guys would be interested in that.”

“My answer is I don’t need managers, I don’t need accountants, I don’t need lawyers. Most of the kids, even with their four-year degrees, are up working for McDonald’s...”

“You got a lot of people being turned out of the schools that are all getting degrees in the same thing. We need to have people to build motors, build things, repair things and most people say yuck I don’t want to do that and those people’s salaries will really go up and up and all those people who don’t want to will see their wages go down.”

“....we found fairly lacking in the local community; it’s hard to find talent. That two year electronic repair technician has been essentially the area we’ve been challenged in and we’ve actually been successful in recruiting from Ocala, Orlando Tampa, we have people driving here from all over the place.

“Many years ago there used to be a Lake Vo Tech repair technician program but it doesn’t exist any longer, but that would be the type of talent that we could use locally and then they could progress into the engineering degrees”

“My target area would be the blue-collar areas that support the black collar around.”

“You need people to grow lettuce, you need people to build cars, you need people to plumb houses, and I would say the need is there more so than academia.”

“As much as I like to see the college go from 2 to 4 when I really like to see is more vo-tech.”

The 2011 Central Partnership confirmed the field findings. The survey found that the greatest needs in business were in the areas of skilled/technical workers and entry level employees. In Lake and Sumter Counties the needs in these areas were even greater (37% and 28% respectively).
3.2. Electric Lineman

LSCC currently has an electrical distribution program in Sumter County that supports SECO’s need for electric linemen. However, SECO is not the only electric provider in the area and it was suggested that this program could be expanded.

“Electric industry is a big concern for us when it comes to workforce, especially smart grid technology.”

3.3. Forklift

Several employers mentioned forklift training. One concept that was suggested related to a train the trainer program as this required certification that is not available in the Lake or Sumter area.

“A forklift certification trainer program. You have to have a certified trainer – there are very few programs and there is a huge waiting line for that.”
4. **Health, Health, Health**

The number one area of interest, without exception, as one respondent made it clear:

“They should be doing medical, medical, medical.”

“Health care in this area is the future.”

“The needs in our area, healthcare, are going to be enormous. We’re going to need everything from physicians, nurses, radiologic technicians, pharmacy techs; you name it we’re going to be lacking.”

4.1. **Nurses**

The area of most immediate concern is that of nurses. The demand is on four year degreed nurses, that is, those with BSNs. Every single health institution, every single one, cried for this level of nursing help. For example, as reported to the New Vision Council in April of 2010, the LSCC Nursing Director has been informed that Dr. Phillips Hospital, the seven hospitals in the ORMC system, and Health Central are only hiring BSNs as new graduates.

“Nurses, particularly baccalaureate level as they have the knowledge and skills that we need.”

“The vast numbers of our nurses are GNs or AA level and we really need a direct source of baccalaureate level nurses.”

The medical institutions noted that they often have to support financially those nurses returning to school for their BSN degrees. These employers noted that they contributed heavily to LSCC but felt that they were pressured financially as they also had to financially support their employees in furthering their education. It was apparent that LSCC has a great opportunity in providing this service (the BSN degree) to these employers.

It was also pointed out that the hospitals maintain education departments in order to provide for the training required by most medical personnel to maintain their licenses and certifications. It was suggested that it might be possible to consolidate these services in order to take some of the educational burden off the medical establishment.

“The economies of scale that could be derived by offering this education more globally might make it less expensive for them to provide than for us to provide. We shift those dollars from us trying to do that internally ....we would pay less and the college can maintain that for us.”

This concept was also promoted by a local school district as will be noted in the section on Education.
4.2. Certifications and Associate degrees

The range of health care occupations is enormous. A visit to the Central Florida Area Health Education Center web site gives one some indication and the reader is encouraged to visit the site (a picture is worth a million words): (http://www.flahec.org/hlthcareers/EDUC.HTM). This report cannot come close to covering this area. Those mentioned by employers interviewed for this study include:

- Pharmacy Techs
- Surgical Techs
- Respiratory Therapist
- Patient Care Tech
- Radiology Tech
- Occupational Therapists
- Laboratory Technicians
- Imaging
- Sonographers
- Med Tech

“There is something called med techs, they’re not a nurse but they can give medications in an assisted-living. It won’t be a four-year degree it’s more like a 12 week training course.”

- Physical Therapist Assistants

“Physical therapy assistants are two-year program not offered at LSCC. We get these from Seminole community college or Polk community college.”

4.3. Medical Coding

The need for employees with skills in medical coding was mentioned enough times and with enough emphasis that it warrants its own finding. At times it was mentioned in the context of information management, but it always stood out as a distinct need.

“...some billing and coding, medical records, that’s a big thing right now.”

“..we are seeing shortages, deficits in the number of people that are available to fill those medical coding slots.”
4.4. Community Education

Compared to the areas mentioned above, health education did not seem to be a major focus. However, this might be because of the dire need in the more direct service areas and because of the variety of employers beyond these providers that provide for such community education.

“I believe there's going to be a greater demand for education, community education as it relates to prevention of disease, how to keep people out of the hospital, how do we keep them healthy.”

There are three more areas that were highlighted and are health related. One is what was called health field or health facility maintenance, but as it was also referred to as Biomedical Engineering and has been previously discussed. Another was the area of Health Information Management and due to its connection with computer technology will be discussed in that relevant section. Finally, the third is Health Administration and this will also be discussed in a section that follows.

5. Public Safety

Public safety encompasses a number of different areas relating generally to law enforcement, fire science and industrial safety.

5.1. Correctional and Criminal Justice

There are a number of correctional facilities located in Lake and Sumter Counties. In addition to the county and state facilities, one of the largest Federal prisons is located in Coleman, FL near the Lake and Sumter County border. Florida has the third largest prison counts in the country, with 104,000 prisoners, third nationally after California and Texas (note, New York is 4th with 58,000). See Appendix

“There are a whole slew of folks that could be potential customers of the community college if they reached out to the County state and federal correctional systems.”

“When you have that combination that's a huge opportunity for our kids.”

“We have a County jail, we have a State jail, and now we have a bigger jail than what we need so we've rented it out to federal prisoners. Do we have the people we need?”

The field of corrections is only one aspect of the larger discipline called criminal justice. Currently, although Lake Tech has a police academy in Tavares, FL, the combined law enforcement workforce including city and county officers presents an opportunity for additional education beyond that offered vocationally. The promotion of the idea of four year degrees for police officers has actually become so strong that an organization was formed: “The mission of the Police Association for College Education (PACE) is to advance the quality of police agencies and services through police officers, by encouraging and facilitating a minimum education level of a four-year college degree for officers.” Currently there are no departments in the state of Florida advocating for four year degrees and there are only about 50 police departments nationally that require degrees, but in general their value is not disputed.
5.2. Fire Science

Fire Science is similar to criminal justice in that Lake Tech offers the vocational program but interest in four year programs might exist for those in the existing workforce:

“There’s a pretty big market in fire science. There are probably a few thousand in Lake County and maybe thousand in Sumter County and they have incentives to further their education.”

“The history of fire service was, you are in the fire service okay you don’t have to go to school. Things have changed now they’re looking for degreed people.”

One of the country’s finest and most experienced providers of emergency response and safety training is located in Lake County. Employers in general expressed willingness, no, perhaps an enthusiasm, to work with the College and this employer was no exception. The facilities provided by this company may present a unique opportunity for the school to provide specialized instruction in these areas.

5.3. Industrial Safety Applications

A concern over workplace safety was mentioned by several employers interviewed for this study, particularly manufacturers. The field of industrial safety is a subcomponent of a larger academic area focused on public safety and disaster preparedness.

“I know two guys who took an OSHA four-year public safety degree in safety sciences. USF has a program in that.”

“…it’s beneficial if the candidate shows that they’ve gone through applied industrial knowledge, safety applications, they’ve taken the set of coursework…”

Another area mentioned was a position called Industrial Hygienist. The employer explained that under certain conditions, OSHA requires the monitoring of such workplace dangers as invisible odors and bacteria.

5.4. Paramedics

The field of emergency medical service is one that can fall under health or public safety. Due to the “emergency” nature of the occupation, it has been placed under the latter category. Perhaps due to the health related area, as previously discussed, there appears to be a demand for paramedics.

“...the EMS, because I know that a lot of the paramedics are going outside of the county because what they are looking for is not here.”

“You read in all the papers about our EMT, who teaches them? Do we have classes that teach that or do we go to Inverness? There are 5000 people a year moving into the Villages, all over 55. Every four blocks there’s an ambulance sitting there- where are those people coming from - who is teaching them?”
6. **Organization Management**

When employers brought up the need for employees with management education they seemed to fall into three camps. These camps were not unfamiliar. In a broad sense people tend to feel that one should either be a good generalist or that without a niche, that is, a specialty, one was in for a difficult road in today’s day and age. Does the generalist vs. specialist argument sound familiar?

6.1. **Specific Field**

The first camp felt that the school should offer degrees in specific functional areas such as accounting, marketing, finance, etc.:

“...If Lake Sumter had a four year in accounting I would have gone there instead of DeVry (degree in technology management with a concentration in accounting).”

The rationale for those in this camp was that a general degree was just that, and today’s market required those with specialized knowledge:

“*General business administration degrees, those people are very hard to place. They know a little about a lot, but lack the knowledge in any one area.*”

6.2. **General Management**

The next camp felt the opposite. In particular there was recognition that in Lake and Sumter Counties the vast majority of businesses were small retail enterprises. Thus there was a need for employees with business knowledge, but such that there was some understanding and appreciation for all areas:

“We are a one store operation at this point but as we grow I would think we need people with business and marketing backgrounds. We would need general management staff, with our specific method, that’s something that’s learned in house.”

“...everything used to be well defined, but it’s not anymore, so that education touching on everything has been very beneficial because now at least they have some background in everything.”

“*General management or business would be your ideal degree.*”

6.3. **General with emphasis on.....**

Finally, towards the end of the data collection process one employer came up with the compromise solution:

“*An idea might be a general business degree with a focus in one of the functional areas.*”

Many universities offer four year business degrees in both general management and in specific functional areas. For example UCF offers Accounting, Economics, Finance, General Business, Management, Marketing and Real Estate. USF, in a similar vein, offers degrees in General Business Administration, Accounting, Business Economics, Finance, Information Systems, Management & Organization, Marketing/Advertising, and International Business.
6.4. Sales and Marketing

Today’s economy is clearly putting stress on employers today. Perhaps this is one reason that the area of sales and marketing was mentioned more than any other specific functional area. The need is two-fold, first, knowledge and skills in the sales concept, and secondly, knowledge and skills relating to specific technical or industrial sectors:

“I need salespeople, people who know how to work with people.”

“The hardest area for us would be technically founded salespeople and marketing.”

The technical knowledge for the sales person relates to the specific industrial area employing the sales person. Therefore it should not be surprising that another approach was presented by some employers, especially those representing the economic areas discussed below. This does not mean that they did not suggest one or the other general or specific functional areas noted above, but rather they introduced the additional element of a management degree earned within the context of their own industries.

6.5. Construction Management

At one time employers representing the construction industry were leading Lake County as one of the most active in terms of sales, numbers employed and number of companies. The industry has lost this dominant position, but nevertheless maintains a significant presence in the region’s economy.

“One of our best employees has a degree in construction management from UF.”

“There is a big demand in construction, but for construction management we only have a couple of schools we can draw from, FIU and UF.”

The degrees alluded above are Bachelors in Construction Management. According to FIU, student enrollment increased for the fifth consecutive year to an all-time high of 594 (4% increase over the previous year). There are actually three schools in Florida accredited by the American Council for Construction Education, FIU, UF and UNF (see http://acce-hq.org/baccalaureateprograms.htm). However, there is only one community college offering an associate degree, Santa Fe College. The opportunity this presents was recognized by employers:

“As these community colleges turn to four year degrees, I think it’s a great opportunity for one of these schools to take advantage of the fact that there’s not a lot of competition for the construction field and to put together a program.”

“If there was a construction degree in a two-year program we would consider hiring one of these.”

6.6. International Business Management

Metro Orlando Economic Development Commission has identified international business development as a priority and created a distinct division to focus on this task. The global economy is becoming an important element in even the smallest regional economies and Lake and Sumter County are no exception. Several local employers are very dependent on international business and thus expressed interest in having employees that would be more educated and experienced in this area.
“...International business development would be a great course of study”

“World global studies would be one of the biggest things - understand how the rest of the world works, that would be very important and we don't have a lot of that.”

“...learn how commodities trade globally and what impacts things that happen globally affect the agricultural markets. Everything is fully globalized, currency exchanges, we need a broad knowledge”

6.7. Public and Non-Profit Management

Public administration employs a significant percentage of the workforce in Lake and Sumter County. Although a number of positions fall into other areas discussed in this study (such as engineering and trades), there appears to be sufficient demand for management positions that are oriented to the unique public sector.

“What degrees do you need for the county? Administration is a big one, general business and administration, government affairs, general four year...”

“CPM, certified public managers, offered through FSU, that's been a useful tool for us to get some lower level managers who might not have masters to get them to the next level of management.”

Related to the public sector due to its tax status and nature of its operations is that of non-profit organizations. According to government statistics compiled by taxemptworld.com, there are over 1300 non-profits in Lake County and 270 in Sumter. Given that not all of these are actually operating social service agencies (the list may include private foundations and religious organizations), the fact remains that it is a recognized potential area of focus.

“...non-profit administration is another area; they get into it and realize they’re running a business here”

6.8. Health and Medical Office Management

The demand for health workers has already been noted. These workers need to be supervised and managed – therefore it is only logical that several employers expressed a need for employees trained in the administrative aspects of the health industry.

“One of the hardest is for us to find the people with the nursing background and then the marketing background. They are hard to find.”

Once again, in the complexity of workforce education, there is a sub-category in the area of health management, and that is the one related to the administration of the small physician office. Physicians are trained to treat people medically and are given very little training in how to run their offices as businesses. This need is recognized by patients who see themselves as customers and sometimes by those in the health profession themselves.

“One issue that’s out there is not having qualified people to run physicians’ offices and practices. It's kind of a unique need out there to manage an office, call it medical office administration.”
6.9. “Other” Management

Finally, representatives of several business sectors expressed interest in having employees educated in the individual and specific aspects that define their particular sectors. These areas included:

- Production Management
- Hospitality Management
- Sports Management
- Education Management

7. **Computer Technology**

It is recognized that computers and computer technology have become an essential element of even the smallest business. It is for this reason that the field is a perennial member of every list of the fastest growing fields or most in demand. It has been noted several times in this report that there are a number of sub-categories to many occupations. This is certainly true in computer technology and employers recognized several of these as is noted in this section.

7.1. **General**

Computer support is needed in every field. Sometimes the need is basic and general, and sometimes, depending on the size and complexity of the organization, there is a need for a more sophisticated employee. For example, within the area of computer technology, degrees and certifications might include:

- Software development
- Software programming
- Software Application Specialists
- Network and Systems Engineer
- Computer Tech – Basic Repair
- Document Control
- Database Administrators

“The medical system is moving to electronic medical records but we need IT support for all that new software and hardware.”

“Regarding computer technology, we need people to do regular checks basic troubleshooting and problem resolution.”

“We have openings we can’t fill in the computer tech side, software application specialists, implementation experts...”

“The more technical positions are harder to fill, like CRM administrator, database administrator, director of IT, high-level positions.”

“In the IT area, those that graduate with a degree and have picked up some certifications on the way have a leg up.”
7.2. GIS

GIS stands for Geographic Information Systems and the tools associated with the task allow the employee to digitally compile, integrate, analyze, and display data about a wide variety of information related to location. GIS is used in a variety of areas including environmental studies, geology, engineering, planning, business marketing, and other disciplines.

“GIS going to get bigger and bigger”

“GIS is one of the keys to economic gardening”

“GIS, everybody uses it, utility, fire, police – it’s centralized GIS”

7.3. Computer Security, Computer Forensics, E-Discovery

The FBI maintains an Internet Crime complaint center. Statistics show that in 2009 there was a 22.3% increase in complaints compared to 2008. In addition, Florida was only second to California in complaints and perpetrators apprehended for computer crimes. The area of computer security is growing and, once again, there are a number of sub-categories, including cyber-security, computer forensics and e-discovery. The field also crosses discipline lines as it could easily have been included in the area of public safety.

“Cyber security is a big issue for us”

7.4. Website Development/ Communications

Website development is another area that crosses lines and might have been included under management, and specifically, under marketing. It is included in this section as website development has been historically seen as a technical, computer related field. However, today there is abundant user-friendly software available for even the most novice person to design a website. The challenge is in designing the “right” kind of website, that is, one that will address the needs of the employer for having the website to start with – thus, marketing.

“We found out that IT guy is okay for nuts and bolts but the real stickler is website sales content- we need someone who can write content, proofread and we went for someone with a degree in journalism.”

7.5. Integrated Need

Computer use is a widespread tool used in a vast number of occupations. The only difference is what the tool is used for – for example, a teacher needs to know how to run the various internet and computer based multimedia tools developed for the classroom today, or the health professional needs to be able to enter or access a myriad of patient related information in the appropriate database (medical coding was discussed above, a field that again crosses over and is considered a computer information system subfield rather than a health one).

“I need help with integrating technology throughout operations at all levels.”

“Another area that is going for us is we need all of our patient care staff to be computer literate. It’s like pulling teeth to get them document and make sure they synchronize after every visit.”
8. **Education**

The State of Florida Department of Education annually announces the areas of need for teachers, and these areas guide the state recruitment efforts. These needs are obviously a result from polling the various school districts and thus the state need areas are simply a reflection of local needs.

8.1. **Math and Science Teachers and….**

The following statement emphasizes the continuing need of the educational system for teachers in certain areas:

<table>
<thead>
<tr>
<th>Proposed State Board of Education action:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on these indicators, the Commissioner recommends that the State Board approve the identification of the following fields as critical shortage areas for 2011-2012: (1) middle and high school level mathematics; (2) middle and high school level science; (3) middle and high school level English/language arts; (4) reading; (5) exceptional student education programs; (6) English for speakers of other languages (ESOL); (7) foreign languages; and (8) technology education/industrial arts. These are the same fields that were designated as critical shortage areas for 2008-2009, 2009-2010, and 2010-2011.</td>
</tr>
</tbody>
</table>

8.2. **Integrate Endorsements**

The areas noted in the state’s identification of critical shortage areas were confirmed in discussions with representatives from Lake and Sumter county school districts. However, one item needs to be pointed out and should be taken into account Many teachers add endorsements to their teaching credentials which require minimum additional coursework and shows an expertise in certain specific subject matters. Endorsements include American Sign Language, Athletic Coaching, Autism Spectrum Disorders, Driver Education, English for Speakers of Other Languages (ESOL), Gifted, Orientation and Mobility, Prekindergarten Disabilities, Reading, Severe and Profound Disabilities.

“**Most of our teachers, graduates from the college of education, are coming well versed with the individual endorsements. If Lake Sumter’s pursues four year degrees we want to make sure that the component is incorporated into it**”.

8.3. **Alternative Certification**

Potential teachers have two methods to be certified and enter the workforce. They can either graduate with an education degree and be instantly eligible, or they can enter with a relevant subject matter four year degree and receive specific training in the field of education by the school district. The latter program is called the ACP, or Alternative Certification Program. The specific training is equivalent to several of the teacher preparation courses offered by the higher education system in the traditional certification track (including that offered by LSCC). It was suggested that LSCC could play a role by providing this training to current teachers eligible for alternative certification since these are largely duplicative of the curriculum already included in the traditional track at the college.
9. **Agriculture, Horticulture, Botanical**

Lake and Sumter County have strong agricultural bases. Sumter County has decided to capitalize on that base and has developed a key strategic objective in their economic plan aimed at becoming an agricultural business and research center. In fact, Sumter County’s 2011 Enterpriser of the Year award went to the CEO of one of the county’s largest employers, an agribusiness enterprise.

Likewise, Lake County has included agribusiness as one of its target sectors, but has defined it in terms of agritechnology. Agritechnology is defined as a segment of biotechnology that focuses on genetic engineering, cloning and high-tech horticulture and agriculture.

9.1. **Agribusiness**

This area might have been discussed under the category of management above. It is not critical in which category the field is placed as long as it is recognized, particularly as it was highlighted by several employers.

> “Typical business disciplines, but they needed to be targeted with specific knowledge of our industry, because our industry is unique. So anyway we can bring in more awareness and knowledge of the agriculture industry into any aspect of business, sales, marketing, engineering, economics, it helps”.

> “If there were generic agricultural and environmental sciences that would lead to work with government agencies, water districts or engineering firms it would be great. The field of agriculture and environmental sciences is really vast. Something like that would be of great value.”

One employer in Sumter County was particularly concerned about the lack of programming in the field and it appears that some efforts may already be underway to confront the problem:

> “We have a lot of agribusiness and there isn’t much at LSCC to support that business.”

The crossover among disciplines has already been pointed out. Agriculture is no exception. Employers recognized a need for the following areas but aimed specifically within the context of agriculture:

- Agricultural Economics and Marketing
- Agricultural Communications (discussed as advertising, web content creation, etc.)

9.2. **Horticulture**

There are a number of nurseries, plant and tree farms in both counties and the area of horticulture was brought up by several employers. However, there was some skepticism as to whether LSCC would be in a position to meet the educational challenge.

> “Citrus, horticulture program, those people worked out pretty good, real specific”

> “We have a lot of needs in horticulture, but I don’t think you guys are going to be able to do that.”
9.3. Other

Waste water technicians were mentioned as a need, but one with very limited employment opportunities. In addition, it was pointed out that there may be several opportunities for workforce training specializations aimed at meeting new state regulations.

“Any of the environmental specialties like storm water wastewater management any of the licensed programs”

“We have hundreds of landscape companies. The state is getting ready to require certification of pesticides application fertilizer application, all these guys are good and need some sort of certification process and that would be very right. I think there would be a lot of requests.”

10. The Business of Education

A business is an organization that provides a product or service of value to a customer. Lake Sumter Community College is in the business of education, that is, it provides education to the student and a workforce to the employer. This study was based on interviews with business employers, and thus, much of the language that was used was couched in the terms of a business. Using this approach as a framework for the following discussion will allow for a greater appreciation of the findings discovered in the field.

10.1. Market: Current Workforce and “new” students

The first question to be addressed is who is the customer? The answer is that the college has at least three customers, at least as it does in consuming (as opposed to supporting) the product, education:

a. The first is the more traditional student base that comes from local high schools and vocational technical schools. The interests and inclinations of these students, usually ranging in age from 16 (in the case of dual enrollment students) to 25 (graduates from vo/techs), are quite different than those older workers we will identify in a moment. In fact, within this range there are quite a few differences in terms of maturity and outlook on life. Our society sees these differences clearly – you have to be 18 years old to vote, 21 years old to drink, and only at age 25 are you allowed rent a car without additional qualifications other than a driver’s license and credit card.

b. The second market is that of the adult learner who has returned to school for various reasons, ranging from a simple desire to continue to grow and learn as a human being to a more practical desire to retrain for a new career. In fact, it is widely recognized that as the economy worsens and unemployment grows, more people return to school for retraining or additional education. This fact is one reason for the spike in enrollment at Lake Sumter. It is also a fact to be considered as the reverse is bound to be true as well, that is, as the economy improves, this student profile has the potential to diminish in numbers.
c. The third market generated extensive discussion in the field. Without exception, every employer recognized the value and importance not only of entry level members of the workforce, but more dramatically the need to continue to upgrade the existing workforce. Throughout this entire study, informants provided perspectives that not only focused on new workers, but also focused on their need to provide their current employees with opportunities for continued education. This market, as we shall see, has not only been largely overlooked but can provide a tremendous source of additional financial support for the college.

“If there were any opportunities locally would they take it, yes, probably.”

10.2. Employee Benefit: Employer Support

The previous discussion raised the potential for an additional source of income from the business community. This opportunity comes in the way of tuition incentives as a form of employee benefit. The pool of dollars provided for this benefit varies considerably by employer, and, in fact, in several cases this particular benefit has been frozen due to financial pressures on some companies. However, in these cases, the employer was apologetic about this situation and indicated a desire to unfreeze these funds as soon as possible. One point stands clear; this market can provide the community college with a tremendous opportunity.

“We support our employees furthering their education. The general AA degree or something related to their work.”

“We’ve had a lot of people take advantage of our support”

10.3. Product Development: Competition - “They all compete”

Educators, as is the case with most non-profits, don’t often refer to their “competition”. But the business community considers competition regularly as they assess their own places in the marketplace. One of the basic elements in strategic planning is to look at the opportunities and threats in the external environment and the organization’s competition is often a focus for these opportunities and threats. In the case of LSCC, as it looks to offer four year degrees, many of the business informants took this approach and suggested that LSCC look at its competition and plan on its educational product as it relates to others in the marketplace.

“Lake Sumter needs to find a way to differentiate itself from its competitors. Restructuring a four-year degree different from what other universities are doing because Lake Sumter isn’t huge with lecture halls with 200 or 300 students in it – they already have an advantage over UCF, but the quality needs to be up there.”

“I believe partnerships are a way of life but Central Florida College doesn’t work with Lake Sumter College which doesn’t work with Seminole College. They all compete.”

“As they embark on a four-year degree school I think they should specialize... They can't be everything to everyone. Do you need to go head-to-head with the other players in the market, Full Sail has Internet marketing wrapped up, do you have to be the school for that type marketing, probably not.”

“New emerging or niche, to me that's a smart move. You look at what Valencia's doing, say in the medical field, and you say what is not on the list and why. Then you go and see what's on this list that still has a net need.”
This discussion raises once more the nature of regionalism. If one were to take this approach and offer degrees that were filling regional niches not being met by other regional public education providers would students travel to this side of town? And perhaps as importantly, as one informant noted,

“When you start looking at Lake and Sumter there are not a lot of large companies based here so would the companies in Orlando pull from Lake Sumter, I have no idea?”

The reader may refer to the appendix where a sample of four year programs offered by other community (they’re now just “colleges, so what do we call them?).

10.4. Product Development: New and Emerging

In a previous section the new and emerging workforce was discussed as it related to economic development. Another aspect of these occupations relates to the specific education required to qualify for these positions. It was suggested in the field that Lake Sumter might want to consider taking this approach to its development of four year degrees, namely a variation of niche marketing, a focus specifically on new and emerging occupations.

“I would look at every 4 year degree that exists and try to find the one that doesn’t and that’s the one that I would offer - especially anything emerging.”

“We have two professional arborists on staff both came out of Lake City community college which has a very big program I think they call green space program. That’s could be an area of growing demand.”

“Create your own marketplace”

The latter comment is to the point. If the college were to provide new and emerging degrees it would indeed be creating its own marketplace. In a discussion with one employer in the alternative energy field the subject came up directly. The employer was explaining how difficult it was to fill plant manager positions. These positions were not available in the county, but rather were available in other plant locations owned or managed by this company. The dearth of available candidates led him to comment,

“I think if you have a four year plant manager degree for ethanol bio diesel plants I think that you could get people from all over the world to come, honestly.”

10.5. Service Delivery Area: My Backyard

It is very difficult to get away from the concept of regionalism. In this case, it relates to service delivery and in a way this discussion has more to do with the concept of My Backyard, that is, the forces that community planners know so well as “my backyard”.

From a broad perspective, there is clearly a strong desire to have four year degrees offered close to home and comments lead one to believe that any four year degree offered is better than none:

“I wish my folks had access to more advanced degrees, whether it’s an advanced degree or advanced training with an academy concept, something we could have here partnered with UCF.”
“We’re too large a County not to have a four year program in Lake County. There are counties a lot smaller in Alabama and Mississippi and they’ll have a four-year institution that can accommodate the needs of that area.”

The geography of Central Florida, or more specifically the nature of urban and suburban growth, plays a role here as do the locations of the closest universities. It is 38 miles from Clermont to UCF, the closest university to Lake County, while it is a long 58 miles from Leesburg. For residents of Leesburg, USF in Tampa is about 85 miles, only 25 miles further than UCF. In addition, UCF has a presence, albeit a small one, on the campus in Clermont. Thus as was pointed out by one informant in the northern part of the county in reference to efforts to date to provide baccalaureate education in the area,

“Southlake has the UCF campus next door and Lake Sumter emphasis has been there.”

….and the sentiments work both ways,

“Trying to get them to go to Leesburg to take courses even if we’re paying for it, isn’t easy; they’d rather go to Orlando than go the other way sometimes.”

10.6. Service Delivery Area: My Backyard – “It hasn’t been offered in Sumter County”

The case of Sumter County, although related to the concept of My Backyard discussed above, merits a finding of its own. The sentiments encountered in Sumter County were strong and obvious.

“If there were something more convenient they would be more involved in pursuing education opportunities.”

“Funding that is hitting Lake Sumter community college is all going to Lake campuses because there’s no interest shown or demonstrated for any type of development in Sumter County.”

“We’re not using local people because we haven’t trained them. It hasn’t been offered to Sumter County.”

“…because what is missing in this county is there really is no post-secondary training and the workforce academic and even the community college input to this date has been very small.”

“There’s no vocational education in this area.”

The LSCC campus in Sumter County is located in Sumterville. Although that provides the college with a physical location, it appears that the lack of programs offered is the impetus behind the perception of the lack of local services. The general sense seems to be that the location is suitable, although there is a strong push to develop a common campus in the northern part of the county. This will be re-addressed below as this concept is tied to an initiative promoting partnership and collaboration in the County.

10.7. Marketing/ Awareness: “I don’t know what is offered.”

Marketing is a business initiative that is targeted at customer development. As noted previously, LSCC has a variety of customers and thus is challenged with developing a variety of marketing activities aimed at making the potential customer aware of the educational product. The focus of this study was on the employer and the general consensus was that most employers, although aware of the institution of Lake Sumter Community College, were woefully unaware of the specific programs being offered.
“Awareness? They can do a better job because quite honestly I don’t know everything that they offer.”

“I’m not very aware and I’m not sure how much our staff is aware either of the offerings.”

“’I guess because they’re an institution they assume people know what they do – but they need to look at it as an outsider - what is it, just a building.”

“How do you get the word out to the community that these programs are available at the college and these are the top 10 top programs?”

“(employees)....they’ve never really been exposed to it”

In fairness, the sentiment was not unanimous, only near so. The larger employers, particularly the hospitals, did indicate that efforts were made to reach out to the existing workforce. This comment came from a hospital with over 1000 employees:

“Lake Sumter is pretty communicative down here, they’ll setup tables in the cafeteria plus the campus is right here.”

The employers were clear about advising the college to more actively market the product:

“You can’t sit there and expect people to come to you – you need to market.”

“They’ve never come to see me – you’re the first person to see me. You’re the first person to reach out – and it’s good that they want to do that.”

“I have some knowledge about it but I don’t have anybody over there that contacts me directly. I think it could only help. I don’t know what is offered so I don’t know if it would help or not.”

It is not clear how useful the results of this study will eventually be in the decision making process to determine four year degrees. However, one thing is very clear. If nothing else, the very task of going into the field and making the effort should count as a tremendous positive move and generate substantial goodwill on the part of the community’s employers.

“I haven’t seen an active survey of industry needs from the community college.”

Needless to say, this employer was very appreciative of the visit!


It should not be surprising that within any discussion regarding the development of a product there is also a question of production methods and process. In the case of education, it was the nature of the teaching method that was raised as a concern. A primary concern was the challenge for a workforce that had daily responsibilities to find the time to fit it into their schedule:

“How can we fit the education in and work at the same time?”

“How many people can work a job and still take classes? How many night classes are offered? Can they get the classes they need during the night?”
“Very interesting if you could do a four year degree as a Saturday school – that would compete with UCF.”

“For Lake Sumter Community College do you have an online program because that works super well in my busy schedule.”

This last comment highlights another concern. Once again, the factor identified as geography, distance, regionalism and My Backyard emerged.

“The time and energy to go to a night class, it’s not convenient anymore.”

One result of this concern over schedule and distance was the recognition that, thanks to modern technology, there is an alternative.

“We are doing a lot more web training now since we’re so spread out.”

“So many are now doing online. I think it has something to do with how far UCF is.”

“I left Lake Sumter for Valencia College because, I’m a dad, a professional, a father, I work at all those things, and the online classes work best because I can work it with my schedule.”

The prominence of distance education was also made obvious in discussions regarding the need for nursing education and the availability of online courses for the theoretical and academic portion of the program.

One final point must be made regarding delivery of the educational product. Some concern was raised about the ability of the school (any school, actually) to keep up with the changes in any given industry, not only as it related to the more obvious concern in technology programs, but even with traditional mode courses.

“...a lot of the courses need revision. It’s gotten to be too much of the canned programs, there is a better way to do it.”

A good example was provided by one employer who pointed out that marketing taught in traditional business classes do not come close to taking into account the “new” techniques surrounding internet marketing such as SEO, search engine optimization – knowledge imperative to the modern businessman.

10.9. Customers: Service

In a discussion with a young lady who had transferred from Lake Sumter to another private college, DeVry in this case, a question was asked regarding the reasons for the transfer. Side note: DeVry University happens to offer a number of programs that can serve as a potential model for LSCC and thus its programs are attached in the appendix. The answer regarding the transfer to DeVry:

“They had a four year degree, they had online classes, and one thing that impressed me was that they treated everyone as individuals, you weren’t just a number”

This was not an isolated case and thus warranted a finding dedicated to the topic. The concerns ranged from the more mundane indications of customer service,

“There was a time when there were only a few programs here and you had to go up to Leesburg, but they’ve built up this campus to the point where it’s very difficult to find parking.”
....to perhaps a more serious concern that was evident in an anecdote related by a member of the leadership team of one business that reported the result of an attempt to approach the school for help in filling an open position:

“\textit{When we approached them they acted like they weren’t at all interested - when we needed them you wouldn’t even know we were talking the same language. There was no follow up – I didn’t get past the first phone call.}”

Even the process of enrollment seemed to be a target of these sentiments:

“\textit{Have you ever tried to register at the college? It’s insane, it’s insane. They don’t make registration easy - you’re always waiting. They need to do it themselves so they understand.}”

However, a word of caution. These were individual cases reported in the pursuit of qualitative data. They are real and should be treated as valid. However, the power of qualitative data is that it allows issues to be raised and further study to take place. The finding relating to customer service simply indicates a need for further investigation regarding the level of customer satisfaction and loyalty.

\textbf{10.10. Customers: Opportunity}

The issue of minority opportunity was raised in the course of this study. One respondent was very passionate about the need for LSCC to make an active effort to inform potential customers, students that were disadvantaged, low income or a member of a minority regarding the possibilities open to them at the school:

“\textit{There are options; these kids don’t know what their options are.}”

“\textit{We’re not doing a very good job of exposing them to something outside of their world.}”

“\textit{That’s always a struggle for us. Unless you’re tied to agriculture somehow, FFA or 4-H, you’re not going to think of agriculture as a career despite the fact that it’s the largest industry in the state and has the highest paying jobs in the state. They’re just not exposed to it.}”

This need at all of the educational institutions was evident at a local open house held by a local vocational center. Vocational schools do not offer degrees but rather certificates. The student that was approached was Hispanic. He told the researcher that he was the first member of his family to ever graduate high school, let alone attends a post-graduate institution. He was very proud and understood how important it was for him to serve as a model for his family.

The challenge of providing additional and equal opportunity to the more disadvantaged members of our community might also be tied to the availability of alternative modes of instruction noted above, as well as such other factors as economic and social demands on the individual. There are demands on employers in terms of equal opportunity and diversity and these comments may be related to those demands. It is beyond the scope of this study to have investigated this further. It is simply brought up as a finding that, again, may be worth of additional investigation.
10.11. Joint Ventures: Collaboration

A number of potential collaborative efforts were suggested by employers. These ranged from a variety of institutional partnerships to those with the employers themselves. The first partner was the one brought up the most often, that is, the current arrangement with UCF.

“The first thing that Lake Sumter College needs to do is get themselves fully integrated and aligned with UCF.”

Another potential partner was brought up in relation to a degree in construction management. The only three universities in Florida offering such a degree are FIU in Miami, UF in Gainesville, and UNF in Jacksonville:

“If they could partner with UF and offering construction management degree of it would be big.”

Perhaps the most significant finding relating to university partnerships has to do with the concept advocated in Sumter County for a hub campus modeled after the one in St. Petersburg, FL. St. Petersburg College currently offers access to junior and senior level courses for bachelor’s and graduate degrees at the University Partnership Center with the University of South Florida, University of South Florida at St. Petersburg, Eckerd College, University of Florida, Florida State University, Embry-Riddle Aeronautical University, Florida A&M University, Saint Leo University, Florida Gulf Coast University, Florida Institute of Technology, Barry University, Case Western Reserve University, Cleveland State University, and the National University of Health Sciences. One respondent in Sumter County explained the opportunity thus:

“Lake Sumter Community College has other university systems, UCF USF, FAMU,... They could potentially be a hub campus location for each of those universities to have a presence there whether they’re directly offering the four-year degree opportunity or if they’re offering the campus opportunity for the four-year programs it still helps the community college business with the other offerings they have.”

In addition to partnering with the university system, LSCC may consider partnering with the local Lake Tech. Findings related to Lake Tech included their contracting with Sumter County for paramedic training and the fact that the school is actively pursuing other opportunities to serve the community.

“Lake Tech came over to see what we do and find out what we need and then customized their program to at least accommodate that.”

Recently, an open house was held at the school and numerous vocational programs were highlighted. The articulation agreements currently in place between the school and LSCC were noted as an additional benefit for students to attend the vocational school. The significance of trade education will be noted later in the report.

Another clear partner for LSCC are the high school career and technical academies provided by Lake and Sumter School Districts. These career academies allow young students to start developing their career paths at a young age:

“We are looking to partner with....High School to do one of their academies. This model has already been created with other high schools. In high school they come out able to get good paying jobs.”

“East Ridge High School has a CNA Health Academy. I use their participants to come out and help us – they work on some of the triathlon events.”
“We feel it’s important to encourage high school students to look into careers in agriculture and environmental sciences and open their eyes to the possibilities because there are a lot of promising careers.”

The Small Business Development Center is located on the Leesburg campus of Lake Sumter Community College. Several employers asked a question similar to this one respondent:

“That little place next to the school, the SBDC. What are they doing? What is their purpose?”

Several suggestions were made regarding the Center including the development of a role related to workforce education.

“The business resource center of the college has been searching around for its mission. This (workforce education) should be done in concert with that.”

Several people recognized that the role of the SBDC centered on Entrepreneurship, and several suggested that the Center might play a role in supporting a cadre of consultants to assist existing employers or in the development of customized, specialized programs.

Finally, and perhaps most importantly as it relates to this study, are partnerships with employers:

“I believe the collaboration between Lake Sumter Community College and the local business’ can become extremely powerful, that being a big area for them.”

“Right next to the current Sumter County campus is a lengthy medical center a perfect partner for health profession internships like CNA’s.”

“...that might be a really powerful, cool thing to focus on. The collaboration between LSCC and local business’ could become extremely powerful.”

What is “that” alluded to in the last comment? – perhaps the most significant finding in this entire study, a concept that can cement the collaborative efforts between the educational institutions in this community and the employer, namely, the development of internships.

10.12. Joint Ventures: Employer and Education Internships

Almost without exception every employer noted that their criteria for hiring new employees were education and experience. Also, almost without exception, every employer put much more emphasis on experience than they did education. The solution presented by internships is powerful on many different levels.

“When you’re 18 or 19 years old things sound good but once you get out there doing it then you realize whether you want to do the job or not.”

“A lot of kids are doing general studies, especially in dual enrollment; they have no idea what they wanted to do. We’ve got to do more partnering with local businesses, government, high schools, and colleges so the kids have a chance to taste something different. They don’t know what we do. I’ve had two interns and now they are getting degrees in my field.”

“So the question is how to distinguish yourself. It goes back to apprenticeship.”
“Practical side, so what does that mean? Well let’s say you’re getting your degree in finance or accounting, well great, well the obligation is that at least two days a week, in the county, I don’t care where, you must work in a finance and accounting department – I don’t care if you have to file, learn to file.”

“Apprenticeship… It’s an introduction to what we do, we’re very involved. It’s good for us.”

“There’s always been this gap between education and experience… that’s where that internship really helps out. You get a much more balanced person coming in through the door.”

“Applies Industrial Knowledge”

….there’s a disconnect between academia and applied knowledge”

“When I was a kid I did an internship with a senator that was a wonderful experience because it helped me understand government and maybe appreciate our Constitution and how this country works.”

“Internships, maybe the reason you don’t see much is because productivity is an issue and it takes time to work with them. But I think it’s something that needs to come back, think it’s critical.”

“I wish the educational system could do a better job helping them find out what they’re doing and internships help with that…. And should be way before the senior year, its way too late at that point.”

In a 2010 survey report by the Association of American Colleges and Universities, 79% of employers stated the desire for higher education to put more emphasis on "the ability to apply knowledge and skills to real-world settings through internships and other hands-on experiences."

This is not to say there are no concerns on the part of the employers. These were mentioned only in response to questions related to possible obstacles. One related to the potential cost to the employer if they have to pay the interns and the other to potential liability.

“Interns don’t bring a lot of productivity, but they get paid. It’s going to cost me not to get the best skilled employee that I need, and then it cost me to set them up. It’s hard for me to justify doing large-scale internship program.”

“Regarding apprenticeship the risk isn’t worth it. Industries like ours we get sued if we don’t pay people straight up what they earned because at the end of the road someone might come up to us and say you cheated us.”

The Department of Labor provides guidelines for internships and additional information is included in the appendix:

Department of Labor statement regarding unpaid internships (see Appendix for additional information)

There are some circumstances under which individuals who participate in “for-profit” private sector internships or training programs may do so without compensation. The Supreme Court has held that the term "suffer or permit to work" cannot be interpreted so as to make a person whose work serves only his or her own interest an employee of another who provides aid or instruction. This may apply to interns who receive training for their own educational benefit if the training meets certain criteria. The determination of whether an internship or training program meets this exclusion depends upon all of the facts and circumstances of each such program.

Source: Department of Labor
There are other ways to achieve exposure to real life experience. The Lake County School District has initiated an ambitious mentoring program seeking 1000 mentors for their students. In addition there are shorter term programs and mechanisms such as service learning projects that have potential to achieve similar results. One employer who felt a bit unsure about his ability to sponsor an intern suggested:

“If not internship program then at least a job shadowing program. I have a student who comes in here, they can send in as many as they want, come in here for a week, sit with my employees and learn what they do and see it work.”

The unbounded enthusiasm exhibited by employers concerning the concept of internships was overwhelming. A copy of the Department of Labor guidelines regarding internships is included in the appendix.

11. Economic Development

It is widely recognized that community colleges are primary providers of workforce education. In fact in October 2010 President Obama invited Dr. Jill Biden, wife of the Vice President and a leading educator in her own right, to chair the first-ever White House Summit on Community Colleges. This event clearly highlighted the importance the White House placed on the role that community colleges played in the development of our country’s workforce.

The mission statement of Lake Sumter clearly reflects this role:

<table>
<thead>
<tr>
<th>Excerpt of Lake Sumter Community College Mission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake-Sumter Community College is a public, multi-campus college offering associate degrees and certificates that prepare students for employment, career advancement, and four-year college or university transfer, and specialized training for business and industry that improves the workforce.</td>
</tr>
</tbody>
</table>

In addition, it is widely accepted that there is a direct link between workforce education and economic development. Granted, LSCC’s current mission statement does not yet include the offering of four year degrees. However, the LSCC’s New Vision Council has already accepted the premise that four year degrees are tied to economic conditions. First, the dearth of baccalaureate degrees in the general population was the impetus for the state-wide drive to allow community colleges to confer four year degrees in the first place and second, the shortage of four year degrees “retards economic growth and suppresses wages”. These assumptions lead to the next logical action step – that is, offering four year degrees that should enable existing industries to upgrade their workforce locally as well as attract new ones.

The obvious connection between workforce education and economic development is the basis for findings that, although not specifically related to the research question, do relate to the obvious issue of the impact workforce education might have on current and future economic development initiatives in the area.
11.1. Quality of Life is more significant than availability of workforce

The availability of an educated workforce, or lack thereof, need not be an obstacle to economic development. In addition location, quality of life, and cost of living may be as important as workforce availability.

The finding speaks directly to the question of workforce as a factor in company relocation and growth. The question of workforce availability as a basis for a decision not to relocate must necessarily be answered by those companies who are the subject of the question, that is, those who in fact made this decision! Although the focus of this study was not on these companies, data from the interviews reveals a hint at the answer as will be seen in the next finding.

In addition, the following question was raised in the 2010 Workforce Central Florida survey, “What are the primary reasons employers are located in Central Florida?” The answer to this question identified by employers as the major reasons they located in Central Florida was that it was strategic location within Florida, quality of life, and competitive cost of living. These findings from the Workforce survey are confirmed by the 2011 Central Florida Partnership survey in which 69% rated quality of life and 40% cost of living as factors business respondents found Central Florida an advantageous location.

What are the advantages to having your business located in Central Florida?

![Chart showing the advantages of locating in Central Florida]

What is particularly notable with this particular question is that only 15% considered availability of skilled workers as a factor in locating to the area. In addition to these findings, the survey also found that technical skilled positions and entry level positions were the areas of greatest workforce needs (see Trades findings section). Perhaps even more interesting is that incentives was ranked the lowest at 4%, maybe because incentives are more widely available and are considered a “given” while the other factors are not.
11.2. Bureaucratic obstacles to growth creates need for “Concierging”

Bureaucratic obstacles or lack thereof, may account for the ease, or the obstacles, to business growth and relocation.

It appears that city and county government might be guilty of additional obstacles to economic development, albeit unwittingly one would imagine, by creating additional requirements centered on bureaucratic red tape.

“Government should be saying, what are your long term growth plans and how can we help you?”

“There is no sense of urgency, no sense of need because they’re government employees and because their paycheck is secure every week and because they have no reason to be in a hurry. Their attitude is nonchalant and uninterested.”

The researcher was told a story about a company looking to relocate from abroad lost by Lake County because the owner of the business got scared away by the false impression that a large number of additional permits would be required (actually this was not the case but being from outside the area he was unaware of this fact). He ended up relocating to Sumter County (at least he relocated to our region!) because the city and county “rolled out the red carpet”. From this anecdote it would seem that the problem is more acute in Lake County than in Sumter County.

Perhaps one reason for the difference between Lake and Sumter is the greater disparity found among the cities and county at large in Lake. The Chamber Alliance of Lake County consists of 8 very different chambers of commerce representing equally diverse communities. Sumter County, by contrast, has only one chamber of commerce and its diversity can more easily be seen in the agricultural, more rural south and the northern part of the county represented by Wildwood and the Villages.

The long and short of it is that it probably be beneficial for both Lake and Sumter counties to develop a policy of “concierging” (a new word not accepted by current spell checkers) our economic development prospects. The 2011 Central Florida Partnership survey found that businesses cite three issues as most critical to the growth and expansion of business in the area:

- Streamline Permitting & Licensing
- Review Impact Fees
- Open Up Access to Capital & Credit

The key point of the Central Florida Partnership, in fact the core of its mission (along with several other area economic development agencies) is to promote regional cooperation. It might be suggested that Lake and Sumter could be perfect partners to promote the concept in the western part of the region.

11.3. Customized Education

Customize education and training to the needs of companies considering growth and relocation.

It is not being suggested that workforce needs as they relate to economic development be ignored. Rather, it appears that there are other factors, perhaps more significant factors, than workforce availability that comes into play. Findings suggest that one approach to addressing the concerns regarding workforce is to address potential needs “head on”. That is, for education providers, namely LSCC in this case, to concierge the prospect by
providing customized, responsive education or training to directly meet the needs of any large business considering development in the area but challenged by any particular workforce need.

In effect, workforce availability need not be an objection to any given business considering relocation, growth or expansion. The local college (or one of its partners – more on this later) will provide.

11.4. New and Emerging Workforce

Consider new and emerging workforce education as well as future workforce needs in the region. There is potential for those educated in new and emerging areas to provide an impetus for economic development.

Employers felt that, on the one hand, it was important for LSCC to consider education for the current workforce. However, there was also much discussion that, on the other hand, the school had to consider education for the future workforce in the area. The subsequent question was, of course, well, what are the future workforce needs? As might be guessed there were no clear answers.

One perspective worth noting came in regards to research opportunities in biofuels in the area:

“From research comes small business and from small business comes expansion into bigger business”.

In other words if research is being conducted in the area, this would lead to the creation of a small business in that field and that, in turn, leads to potential growth in the field. Other informants looked at this idea a little differently. That is, if education is provided in a given new and emerging field, there is potential that these educated individuals would stay in the area and develop relevant businesses. In addition, education is an industry itself and can attract new business and growth by offering niche degrees (more on this later). In other words, another approach to economic development!!

“I would say specialized niches because people would come here for that, it's Florida.”

It is interesting to note that of the 965 occupations listed in the U.S. Department of Labor’s 2009 O*NET database, 215 are classified as "green" occupations. This same database provides a list of the top “new and emerging” occupations in the country. The latest list is included in the appendix.

Another item to note: Lake County high school career and technical education is based on the fact that students may be attending higher education out of the area and the role of the school is to prepare them for such education. Thus in a conversation regarding the offering of robotics at the high school level the comment was made:

“Should we impede them from their dreams?”

Would this not hold true for students at Lake Sumter as well? In fact, almost 23% of LSCC graduates go on to continue their education outside of the region, generally at FSU or UF.

In addition to new and emerging, it is worth noting the Florida Agency for Workforce Innovation list of future hot jobs. These contrast with the new and emerging as these jobs are simply those that are growing faster in the
area than others, as well as additional criteria noted below. This list is included here for informational purposes, with some of these appearing in the field study and others not.

Future Hot Jobs in the Central Florida Region

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Annual Growth Rate</th>
<th>Annual Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Systems and Data Communications Analysts</td>
<td>6.4%</td>
<td>194</td>
</tr>
<tr>
<td>Cost Estimators</td>
<td>5.4%</td>
<td>76</td>
</tr>
<tr>
<td>Dental Hygienists</td>
<td>4.9%</td>
<td>40</td>
</tr>
<tr>
<td>Dental Assistants</td>
<td>4.9%</td>
<td>91</td>
</tr>
<tr>
<td>Veterinary Technologists and Technicians</td>
<td>4.8%</td>
<td>29</td>
</tr>
<tr>
<td>Special Education Teachers, Middle School</td>
<td>4.7%</td>
<td>28</td>
</tr>
<tr>
<td>Special Education Teachers, Preschool, Kindergarten</td>
<td>4.7%</td>
<td>52</td>
</tr>
<tr>
<td>Personal Financial Advisors</td>
<td>4.7%</td>
<td>100</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>4.6%</td>
<td>175</td>
</tr>
<tr>
<td>Employment, Recruitment, and Placement Specialists</td>
<td>4.5%</td>
<td>93</td>
</tr>
<tr>
<td>Cement Masons and Concrete Finishers</td>
<td>4.5%</td>
<td>55</td>
</tr>
<tr>
<td>Physical Therapists</td>
<td>4.4%</td>
<td>61</td>
</tr>
<tr>
<td>Elementary School Teachers, Except Special Educatio</td>
<td>4.4%</td>
<td>415</td>
</tr>
<tr>
<td>Middle School Teachers, Except Special and Vocatio</td>
<td>4.4%</td>
<td>181</td>
</tr>
<tr>
<td>Plasterers and Stucco Masons</td>
<td>4.4%</td>
<td>30</td>
</tr>
<tr>
<td>Drywall and Ceiling Tile Installers</td>
<td>4.4%</td>
<td>35</td>
</tr>
<tr>
<td>Computer Software Engineers, Applications</td>
<td>4.4%</td>
<td>155</td>
</tr>
<tr>
<td>Kindergarten Teachers, Except Special Education</td>
<td>4.3%</td>
<td>61</td>
</tr>
<tr>
<td>Heating, Air Conditioning, and Refrigeration Mecha</td>
<td>4.3%</td>
<td>116</td>
</tr>
<tr>
<td>Market Research Analysts</td>
<td>4.1%</td>
<td>35</td>
</tr>
</tbody>
</table>

*Hot jobs are jobs growing faster than the average for all occupations in the area (2.42%), have at least 25 annual openings, have an entry wage of at least $10.45 hr and have an average wage of at least $12.86 hr. Projections to the year 2018 assume a Florida economic recovery, including construction.

Source: Agency for Workforce Innovation - Labor Market Statistics

*Occupational Projection Data 2010-2018*

In addition to this list, Workforce Central Florida publishes a list of the top twenty occupations with the greatest number of openings. The top five on this list includes Registered Nurses, Computer Support Specialists, Truck Drivers, Executive Administrative Assistants and Medical/Health Services Managers. See Appendix.
The Conclusion

This study focused on the research question: What academic and technical four year degrees do employers in Lake and Sumter Counties consider important for LSCC to offer in order to support their workforce needs? Extensive qualitative interviews were conducted with a variety of employers in both counties and the results went far beyond answering the initial question. In addition the results suggested several recommendations that Lake Sumter Community Council may want to consider.

In terms of the specific occupational areas suggested by employers, it will be necessary for LSCC to narrow these down based on some of the factors discussed earlier, i.e., niche marketing, delivery methods, collaborative opportunities, etc. Details about each program area are included in the relevant sections of the report and need not be reported here. Nevertheless, the answer to the original research question posed in the study may be answered with the following general program areas:

- Engineering technologies such as bio-medical, electrical, mechanical, CAD and bio-fuel technology.
- Trade and skilled technical fields.
- Health occupations particularly baccalaureate level nurses, but just about any field including short term certificate programs.
- Public Safety including corrections, law enforcement, fire science, industrial safety and paramedics.
- Organization Management, either related to a specific field such as accounting or marketing, or as a more general degree (perhaps with an emphasis in a given area). Also specific fields such as sales and marketing, construction management, international business management, public and non-profit management, health and medical office management, and other areas.
- Computer Technology in general, but also sub-fields such as GIS or computer security, as well as integration into all education programs.
- Education – particularly math and science teachers. There also appears to be potential for partnering with education (and actually health as well) in areas that might be considered continuing education.
- Agribusiness related degrees such as agricultural economics, horticulture and other specific environmental specialties (e.g., waste water technicians).

Additional recommendations include:

- Employers appreciated the workforce study, not only for the content being researched, but as a bridge to their community.
  - Recommendation: Consider regular communication mechanisms to employers.
• Employers feel that entry level workers, especially those just out of school, lack basic workplace skills.
  ➢ Recommendation: Create a task force with other community partners, including employers, other educators, families, government, and social service agencies to address this issue.

• Employers vary in industry, size and location within the Lake and Sumter area.
  ➢ Recommendation: Consider mapping employers for pockets of industry concentrations. *Tip:* Use economic development GIS data.
  ➢ Recommendation: Be aware of differences among employers and treat each one as a unique entity – especially as they differ in industry, size or location.
  ➢ Recommendation: Be aware of similarities among employers and maximize the value of similar industries, sizes or locations.

• It is a challenge to educate a workforce that is not currently in demand.
  ➢ Recommendation: Be sensitive to employment realities. Consider placing more emphasis on placement and career development.

• The average age is growing in Lake and Sumter County. The nature of the workforce is changing as older workers look to stay employed longer and perhaps in different occupations.
  ➢ Recommendation: Consider the interests, needs, and potential of the older adult student population.

• The Lake and Sumter workforce is regional in nature and this fact must be considered when addressing workforce education needs.
  ➢ Recommendation: The definition of “local” when considering workforce needs should be expanded beyond immediate county lines.

• The educational needs in Sumter County require attention.
  ➢ Recommendation: Consider active representation in economic development forums in Sumter County.

• The market for workforce education can be divided into three segments, new worker, adult learner, and currently employed.
  ➢ Recommendation: Consider the product and the process based on the nature of the market being served.

• There are financial opportunities to working with employers of the currently employed as tuition reimbursement is a common employee benefit.
  ➢ Recommendation: Consider a business development effort aimed at the currently employed.

• All providers of workforce education, including public schools, community colleges, private education providers and public universities are potential competitors (and collaborators).
  ➢ Recommendation: Review and consider the competitive analysis provided in the last strategic plan if there is one, or create a new analysis with special consideration given to workforce education and available niches.
• There are a number of opportunities if new and emerging occupations are accepted as a vehicle for business and economic development.
  ➢ Recommendation: Consider offering degrees in new and emerging occupations, even if only on a trial basis.

• It is recognized that a regional approach to workforce education is beneficial, but attention must also be given to My Backyard.
  ➢ Recommendation: Participate in and encourage regional approaches to workforce education, but offer local solutions.

• There is a lack of awareness on the part of employers and possibly employees regarding opportunities available at the College.
  ➢ Recommendation: Develop a marketing strategy aimed at keeping employers informed and engaged.

• There is interest on the part of the educational customer employed in the workforce for flexible delivery systems such as distance learning and weekend courses.
  ➢ Recommendation: Consider increasing availability of online course work as well as creative options such as weekend classes.

• Both employers and students are customers of LSCC and both have indicated a need for improved customer service.
  ➢ Recommendation: Determine and implement a method to measure customer loyalty.
  ➢ Recommendation: Use the data acquired from these measures to develop a strategy to improve and continue to monitor levels of customer satisfaction and loyalty.

• Employers pointed out the need to expose students to opportunities outside their knowledge and everyday reality.
  ➢ Recommendation: Develop a mechanism to educate students regarding occupations and encourage exploration of those that they were not previously aware.
  ➢ Recommendation: Create and implement a strategy aimed specifically at low income, disadvantaged and minority students.

• There is an expectation that LSCC will be able to expand its partnership with UCF.
  ➢ Recommendation: Create a task force or reinforce current efforts towards expanding the partnership with UCF.

• There may be opportunities to partner with other institutions of higher learning to expand program availability at LSCC.
  ➢ Recommendation: As above, create task force or reinforce current effort towards expanding partnerships with other universities.

• There is room for a closer partnership with Lake Tech which would allow greater opportunity for vocational program expansion.
  ➢ Recommendation: Expand current collaboration efforts with Lake Tech Vocational School.
• The high school systems have active career and technical academies that LSCC should integrate further into their system.
  ➢ Recommendation: Explore mechanisms to make LSCC an active partner in high school CTE academies.

• The Small Business Development Center provides LSCC with an institutional linkage for workforce education in support of employers.
  ➢ Recommendation: Revisit SBDC relationship particularly as it relates to current employers.

• Employers would welcome partnerships with LSCC and many would consider internship agreements.
  ➢ Recommendation: Develop plan and implement expansion of internship program.

• There are other significant factors that influence economic development beyond that of workforce availability.
  ➢ Recommendation: Consider the workforce factor in economic development but do not place undue emphasis on this factor.

• Bureaucratic obstacles or lack thereof, may account for the ease, or the obstacles, to business growth and relocation.
  ➢ Recommendation: Counties should consider a “concierge” approach to economic development.
  ➢ Recommendation: All players, government, private, and educational, should be teamed in the concierge approach to assure authentic community commitment.

• Customize education and training to the needs of companies considering growth and relocation.
  ➢ Recommendation: The workforce needs of relocating or expanding business should consider being met on a customized basis. This not only eliminates any possible obstacle, but in fact becomes a positive motivator.

• Consider new and emerging workforce education as well as future workforce needs in the region.
  ➢ Recommendation: Consider the potential for those educated in new and emerging areas to provide an impetus for economic development.
  ➢ Recommendation: Give special attention to those being educated in new and emerging areas and provide them with support that fosters entrepreneurial endeavors.
# Appendix I: Sample Four Year Programs

*Source: Florida Department of Education*

<table>
<thead>
<tr>
<th>College Name</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broward College</strong></td>
<td>BS Exceptional Student Education, BS Middle Grades Mathematics Education, BS Middle Grades Science Education, BS Secondary Biology Education, BS Secondary Mathematics Education, BS Nursing, BAS Information Technology, BAS Supervision Management, BAS Technology Management</td>
</tr>
<tr>
<td><strong>College of Central Florida</strong></td>
<td>BS Early Childhood Education, BAS Business and Organizational Management</td>
</tr>
<tr>
<td><strong>Chipola College</strong></td>
<td>BS Elementary Education, BS Exceptional Student Education, BS Middle Grades Mathematics Education, BS Middle Grades Science Education, BS Secondary Biology Education, BS Secondary English Education, BS Secondary Mathematics Education, BS Nursing, BAS Organizational Management, BS Business Administration</td>
</tr>
<tr>
<td><strong>Daytona State College</strong></td>
<td>BS Elementary Education, BS Exceptional Student Education, BS Secondary Biology Education, BS Secondary Chemistry Education, BS Secondary Earth/Space Science Education, BS Secondary Mathematics Education, BS Secondary Physics Education, BAS Supervision and Management, BS Engineering Technology</td>
</tr>
<tr>
<td><strong>Edison State College</strong></td>
<td>BS Elementary Education, BS Middle Grades Language Arts Education, BS Middle Grades Mathematics Education, BS Middle Grades Science Education, BS Secondary Biology Education, BS Secondary Mathematics Education, BS Nursing, BAS Cardiopulmonary Sciences, BAS Public Safety Management, BAS Supervision and Management</td>
</tr>
<tr>
<td><strong>Florida State College at Jacksonville</strong></td>
<td>BS Early Childhood Education, BS Nursing, BAS Computer Networking, BAS Fire Science Management, BAS Information Technology Management, BAS Public Safety Management, BAS Supervision and Management, BS Biomedical Sciences, BS Business Administration</td>
</tr>
<tr>
<td><strong>Gulf Coast Community College</strong></td>
<td>BAS Technology Management</td>
</tr>
<tr>
<td><strong>Indian River State College</strong></td>
<td>BS Exceptional Student Education, BS Middle Grades Mathematics Education, BS Middle Grades Science Education, BS Secondary Biology Education, BS Secondary Mathematics Education, BS Nursing, BAS Digital Media, BAS Organizational Management, BS Biology, BS Human Services</td>
</tr>
<tr>
<td><strong>State College of Florida, Manatee-Sarasota</strong></td>
<td>BS Early Childhood Education, BS Nursing, BAS Energy Technology Management, BAS Health Services Administration, BAS Public Safety Administration/Homeland Security</td>
</tr>
</tbody>
</table>
Miami Dade College
BS Exceptional Student Education
BS Secondary Biology Education
BS Secondary Chemistry Education
BS Secondary Earth/Space Science Education
BS Secondary Mathematics Education
BS Secondary Physics Education
BS Nursing
BAS Film, Television, and Digital Production
BAS Health Science with an Option in Physician Assistant Studies
BAS Public Safety Management
BAS Supervision and Management
BS Electronics Engineering Technology

Northwest Florida State College
BS Elementary Education
BS Middle Grades Mathematics Education
BS Middle Grades Science Education
BS Nursing
BAS Project Management

Palm Beach State College
BS Nursing
BAS Information Management
BAS Supervision and Management

Pensacola State College
BS Nursing
BAS Supervision and Administration

Polk State College
BAS Supervision and Management

Santa Fe College
BS Early Childhood Education
BAS Clinical Laboratory Science
BAS Health Services Administration

Seminole State College of Florida
BAS Interior Design
BS Architectural Engineering Technology
BS Business Information Management
BS Construction Management
BS Information Systems Technology

St. Johns River State College
BS Early Childhood Education
BAS Organizational Management

St. Petersburg College
BS Educational Studies
BS Elementary Education
BS Exceptional Student Education
BS Middle Grades General Science Education
BS Middle Grades Mathematics Education
BS Secondary Biology Education
BS Secondary Business Technology Education
BS Secondary Mathematics Education
BS Secondary Technology Education
BS Nursing
BAS Banking
BAS Dental Hygiene
BAS Health Services Administration
BAS International Business
BAS Management and Organizational Leadership
BAS Orthotics and Prosthetics
BAS Paralegal Studies
BAS Public Safety Administration
BAS Sustainability Management
BAS Technology Management
BAS Veterinary Technology
BS Biology
BS Business Administration
BS Public Policy and Administration

Valencia Community College
BS Electrical and Computer Engineering Technology
BS Radiologic and Imaging Sciences
College of Business & Management

Associate Degree Programs
   Accounting

Bachelor's Degree Programs
   Business Administration with emphasis in:
      • Accounting
      • Finance
      • Health Services Management
      • Hospitality Management
      • Human Resource Management
      • Operations Management
      • Project Management
      • Sales & Marketing
      • Security Management
      • Small Business Management & Entrepreneurship
      • Sustainability Management
      • Technical Communication

Management with emphasis in:
   • General Management

Technical Management with emphasis in:
   • Criminal Justice

College of Engineering & Information Sciences

Associate Degree Programs
   Electronics & Computer Technology
   Network Systems Administration

Bachelor's Degree Programs
   Biomedical Engineering Technology
   Computer Engineering Technology
   Computer Information Systems with emphasis in:
      • Business/Management
      • Computer Forensics
      • Database Management
      • Enterprise Computing
      • Flex Option

   Health Information Systems
   Information Systems Security
   Systems Analysis & Integration
   Web Development & Administration
   Web Game Programming

Electronics Engineering Technology with emphasis in:
   • Renewable Energy
   Game & Simulation Programming
   Network & Communications Management

College of Health Sciences

Associate Degree Programs
   Electroneurodiagnostic Technology
   Health Information Technology

Bachelor's Degree Programs
   Clinical Laboratory Science

College of Liberal Arts

Bachelor's Degree Programs
   Justice Administration with specializations in:
      • Corrections
      • Digital Forensics
      • Emergency Management
      • Policing

   Liberal Studies with specializations in:
      • Business Communication
      • Emerging Media Communication
      • Technical Communication

College of Media Arts & Technology

Associate Degree Programs
   Web Graphic Design

Bachelor's Degree Programs
   Multimedia Design & Development with emphasis in:
      • Graphic and Multimedia Design
      • Graphic and Multimedia Management
      • Web Design and Development
      • Web Game Programming
College of Business & Management

Associate Degree Programs
Accounting

Bachelor's Degree Programs
Business Administration with emphasis in:
- Accounting
- Finance
- Health Services Management
- Hospitality Management
- Human Resource Management
- Operations Management
- Project Management
- Sales & Marketing
- Security Management
- Small Business Management & Entrepreneurship
- Sustainability Management
- Technical Communication

Management with emphasis in:
- General Management

Technical Management with emphasis in:
- Criminal Justice

College of Engineering & Information Sciences

Associate Degree Programs
Electronics & Computer Technology
Network Systems Administration

Bachelor's Degree Programs
Biomedical Engineering Technology
Computer Engineering Technology
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College of Health Sciences

Associate Degree Programs
Electroneurodiagnostic Technology
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Liberal Studies with specializations in:
- Business Communication
- Emerging Media Communication
- Technical Communication

College of Media Arts & Technology

Associate Degree Programs
Web Graphic Design

Bachelor's Degree Programs
Multimedia Design & Development with emphasis in:
- Graphic and Multimedia Design
- Graphic and Multimedia Management
- Web Design and Development
- Web Game Programming
## Appendix II: Lake County School District CTE Academies

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<th>HIGH SCHOOL CTE PROGRAMS</th>
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<th>Eustis</th>
<th>Lake Minneola</th>
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</table>
Appendix III: Vocational Technical Programs

Lake (Eustis, FL) Tech Programs

Adult General Education
- Adult Basic Education (ABE)
- English For Speakers of Other Languages (ESOL)
- General Education Diploma (GED)
- Vocational Preparatory Instruction (VPI)

Applied Technology
- Applied Welding Technologies
- Automotive Collision Repair and Refinishing
- Automotive Service Technology
- Commercial Art Technology and Graphic Design
- Commercial Foods and Culinary Arts
- Drafting
- Grooming and Salon Services
- Heavy Duty Truck and Bus, Diesel Mechanics

Business and Information Technologies
- Accounting Operations
- Administrative Assistant
- Business Computer Programming

Early Childhood Education
- Early Childhood Education
- Early Childhood Education Apprenticeship Program
- School Age Credential Training
- Fee-Based Classes Toward National Certification

Health Science Education
- Emergency Medical Technician
- Massage Therapy
- Nursing Assistant (CNA)
- Paramedic
- Patient Care Assistant
- Practical Nursing

Public Safety
- Firefighting
- Corrections
- Law Enforcement

Withlacoochee (Inverness, FL) Tech Programs

- Air Conditioning, Refrigeration & Heating
- Applied Welding Technology
- Automotive Collision Repair
- Automotive Services Technology
- Computer Systems Technology
- Cosmetology
- Culinary Arts
- Early Childhood Education
- Electricity
- Industrial Machinery Maintenance & Repair
- Massage Therapy
- Medical Administrative Specialist
- Nail Specialty
- Nursing Assistant – Long Term Care
- Patient Care Assistant
- Practical Nursing
- Solar Thermal System Design
## Appendix IV: Companies Interviewed

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Type</th>
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<td>Americraft Manufacturing</td>
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<td>Manufacturer/Retail</td>
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<tr>
<td>Central Beef Industries</td>
<td>Center Hill</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Central Florida Health Alliance</td>
<td>Leesburg</td>
<td>Health Care</td>
</tr>
<tr>
<td>Charlotte Pipe &amp; Foundry</td>
<td>Wildwood</td>
<td>Manufacturer</td>
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<tr>
<td>Cherry Lake Tree Farm</td>
<td>Groveland</td>
<td>Agriculture</td>
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<td>City of Leesburg</td>
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<td>Public Administration</td>
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<td>Coleman Correctional</td>
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<tr>
<td>Five Star Airport Alliance</td>
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<td>Green Solar Solutions</td>
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<td>Lake County Government</td>
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<td>Education</td>
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<td>National Training Center</td>
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<td>Tourism</td>
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<td>Waterman Village</td>
<td>Mt.Dora</td>
<td>Health Care</td>
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</table>
Appendix V: Interview Protocol

1. What is your role within the company?

2. How would you characterize your company’s type of business?

3. How many employees (both full and part-time) work for your company in Lake and Sumter county?

4. How would you describe your company’s awareness of LSCC programs and services?

5. Have you employed any graduates from LSCC? If so, from what degree areas?

6. What degrees do you prefer for what type of positions in your company? (Go through levels, e.g., management, production staff, etc.)

7. How much difficulty do you have in recruiting employees with the preferred credentials? What are the reasons?

8. How well do you feel higher education needs are being met in Lake County? ....in Sumter County?

9. What impact would this have for your company and why? (Improve and/or expand the capacity of your workforce?)

10. What impact do you think this would have for other employers? Why?

11. What kind of impact would this have for the community? Why?

12. What type of incentives would you offer workers to attend a four year program? (Tuition, books, time, promotion?)

13. What degree areas would better meet the needs for workforce development in Lake and Sumter Counties?

14. If you had a banner year, had no problem with money to hire anybody you wanted, what type of four year degrees would you want your new hires to have?

15. Specifically, how well would these areas (currently being considered?) meet your workforce needs?
   i. Supervision and management
   ii. Computer technology & support
   iii. Biotechnology
   iv. Nursing
   v. Education/teaching
   vi. Agri-tech
   vii. Green (renewable and sustainable) energy
   viii. Arts, recreation, leisure
   ix. Wireless technology
   x. Cyber security
   xi. Robotics
   xii. Digital Media

16. Any additional thoughts or comments?
### Appendix VI: LSCC Students by Major

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<th>Discipline</th>
<th>Unduplicated Upper Division Headcount</th>
<th>Mean Cumulative GPA</th>
<th>% 3.0 &amp; Above</th>
<th>% Below 2.0</th>
<th>% Suspended</th>
<th>% Graduated</th>
<th>AVG. SSH Per Term</th>
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CCTCMIS - Level I Data 09/10 College Reports By College 09/10/2010 13:59:26
Source: Board of Governors Student Course File
Appendix VII: Department of Labor

U.S. Department of Labor
Wage and Hour Division

Fact Sheet #71: Internship Programs Under The Fair Labor Standards Act

This fact sheet provides general information to help determine whether interns must be paid the minimum wage and overtime under the Fair Labor Standards Act for the services that they provide to “for-profit” private sector employers.

Background
The Fair Labor Standards Act (FLSA) defines the term “employ” very broadly as including to “suffer or permit to work.” Covered and non-exempt individuals who are “suffered or permitted” to work must be compensated under the law for the services they perform for an employer. Internships in the “for-profit” private sector will most often be viewed as employment, unless the test described below relating to trainees is met. Interns in the “for-profit” private sector who qualify as employees rather than trainees typically must be paid at least the minimum wage and overtime compensation for hours worked over forty in a workweek.

The Test For Unpaid Interns
There are some circumstances under which individuals who participate in “for-profit” private sector internships or training programs may do so without compensation. The Supreme Court has held that the term "suffer or permit to work" cannot be interpreted so as to make a person whose work serves only his or her own interest an employee of another who provides aid or instruction. This may apply to interns who receive training for their own educational benefit if the training meets certain criteria. The determination of whether an internship or training program meets this exclusion depends upon all of the facts and circumstances of each such program.

The following six criteria must be applied when making this determination:

1. The internship, even though it includes actual operation of the facilities of the employer, is similar to training which would be given in an educational environment;
2. The internship experience is for the benefit of the intern;
3. The intern does not displace regular employees, but works under close supervision of existing staff;
4. The employer that provides the training derives no immediate advantage from the activities of the intern; and on occasion its operations may actually be impeded;
5. The intern is not necessarily entitled to a job at the conclusion of the internship; and
6. The employer and the intern understand that the intern is not entitled to wages for the time spent in the internship.

If all of the factors listed above are met, an employment relationship does not exist under the FLSA, and the Act’s minimum wage and overtime provisions do not apply to the intern. This exclusion from the definition of employment is necessarily quite narrow because the FLSA’s definition of “employ” is very broad. Some of the most commonly discussed factors for “for-profit” private sector internship programs are considered below.
Similar To An Education Environment And The Primary Beneficiary Of The Activity
In general, the more an internship program is structured around a classroom or academic experience as opposed to the employer’s actual operations, the more likely the internship will be viewed as an extension of the individual’s educational experience (this often occurs where a college or university exercises oversight over the internship program and provides educational credit). The more the internship provides the individual with skills that can be used in multiple employment settings, as opposed to skills particular to one employer’s operation, the more likely the intern would be viewed as receiving training. Under these circumstances the intern does not perform the routine work of the business on a regular and recurring basis, and the business is not dependent upon the work of the intern. On the other hand, if the interns are engaged in the operations of the employer or are performing productive work (for example, filing, performing other clerical work, or assisting customers), then the fact that they may be receiving some benefits in the form of a new skill or improved work habits will not exclude them from the FLSA’s minimum wage and overtime requirements because the employer benefits from the interns’ work.

Displacement And Supervision Issues
If an employer uses interns as substitutes for regular workers or to augment its existing workforce during specific time periods, these interns should be paid at least the minimum wage and overtime compensation for hours worked over forty in a workweek. If the employer would have hired additional employees or required existing staff to work additional hours had the interns not performed the work, then the interns will be viewed as employees and entitled compensation under the FLSA. Conversely, if the employer is providing job shadowing opportunities that allow an intern to learn certain functions under the close and constant supervision of regular employees, but the intern performs no or minimal work, the activity is more likely to be viewed as a bona fide education experience. On the other hand, if the intern receives the same level of supervision as the employer’s regular workforce, this would suggest an employment relationship, rather than training.

Job Entitlement
The internship should be of a fixed duration, established prior to the outset of the internship. Further, unpaid internships generally should not be used by the employer as a trial period for individuals seeking employment at the conclusion of the internship period. If an intern is placed with the employer for a trial period with the expectation that he or she will then be hired on a permanent basis, that individual generally would be considered an employee under the FLSA.

Where to Obtain Additional Information
This publication is for general information and is not to be considered in the same light as official statements of position contained in the regulations.

For additional information, visit our Wage and Hour Division Website: http://www.wagehour.dol.gov and/or call our toll-free information and helpline, available 8 a.m. to 5 p.m. in your time zone, 1-866-4USWAGE (1-866-487-9243).

U.S. Department of Labor
Frances Perkins Building
200 Constitution Avenue, NW
Washington, DC 20210

1-866-4-USWAGE
TTY: 1-866-487-9243
Contact Us

* The FLSA makes a special exception under certain circumstances for individuals who volunteer to perform services for a state or local government agency and for individuals who volunteer for humanitarian purposes for private non-profit food banks. WHD also recognizes an exception for individuals who volunteer their time, freely and without anticipation of compensation for religious, charitable, civic, or humanitarian purposes to non-profit organizations. Unpaid internships in the public sector and for non-profit charitable organizations, where the intern volunteers without expectation of compensation, are generally permissible. WHD is reviewing the need for additional guidance on internships in the public and non-profit sectors.
## Appendix VIII: Top 20 Occupation Report

### PY1112 Top 20 Occupation Report

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<th>RWD 12 Training Counts (April)**</th>
<th>Average Length of Training (Months)</th>
<th>HWOL Openings RWS 12 (Specific Occupation)</th>
<th>HWOL Openings RWS 12 (Minor Group Occupation)</th>
<th>Employment Projections RWS 12 (Annual Expected Growth %)</th>
<th>Average Wage (Orlando MSA)</th>
<th>Rank by Average Rank HWOL 12 (Minor Group)</th>
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5/12/2011
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<td>139</td>
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<td>$8.86</td>
<td>$11.98</td>
<td>236</td>
<td>37</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Instructors &amp; Teachers, Postsecondary</td>
<td>0</td>
<td>0</td>
<td>12.0</td>
<td>15</td>
<td>17</td>
<td>3.43%</td>
<td>$21.82</td>
<td>$30.07</td>
<td>113</td>
<td>36</td>
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<td></td>
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</tr>
<tr>
<td>Electrical Engineering Technicians</td>
<td>0</td>
<td>0</td>
<td>7.0</td>
<td>17</td>
<td>187</td>
<td>2.80%</td>
<td>$15.77</td>
<td>$24.07</td>
<td>59</td>
<td>39</td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Police &amp; Security Patrol Officers</td>
<td>1.4</td>
<td>0</td>
<td>7.0</td>
<td>17</td>
<td>168</td>
<td>2.67%</td>
<td>$18.27</td>
<td>$24.06</td>
<td>11</td>
<td>40</td>
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<td></td>
</tr>
<tr>
<td>Criminal Justice &amp; Law Enforcement Officers, Postsecondary</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>2</td>
<td>11</td>
<td>3.66%</td>
<td>$23.28</td>
<td>$31.74</td>
<td>166</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Architectural &amp; Civil Engineers</td>
<td>1</td>
<td>0</td>
<td>13.8</td>
<td>9</td>
<td>165</td>
<td>2.58%</td>
<td>$15.12</td>
<td>$21.07</td>
<td>81</td>
<td>92</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Camera Operators, Television, Video, and Motion Pictures</td>
<td>0</td>
<td>0</td>
<td>21.0</td>
<td>8</td>
<td>30</td>
<td>1.98%</td>
<td>$11.21</td>
<td>$17.19</td>
<td>78</td>
<td>93</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Human Resources Managers training program includes a subset of Administrative Services Managers (Week 920)  
**April Training Councils represents data as of April 19th, 2011

**NOTE:** RWB12 – Regional Workforce Board 12 (Central Florida)  
HWOL – High Wage Occupation List
Appendix IX: U.S. Department of Labor New and Emerging Occupations

Acupuncturists
Acute Care Nurses
Adaptive Physical Education Specialists
Advanced Practice Psychiatric Nurses
Allergists and Immunologists
Anesthesiologist Assistants
Automotive Engineering Technicians
Automotive Engineers
Baristas
Biochemical Engineers
Biofuels Processing Technicians
Biofuels Production Managers
Biofuels/Biodiesel Technology and Product Development Managers
Bioinformatics Scientists
Bioinformatics Technicians
Biomass Plant Technicians
Biomass Production Managers
Biostatisticians
Brownfield Redevelopment Specialists and Site Managers
Business Continuity Planners
Business Intelligence Analysts
Chief Sustainability Officers
Climate Change Analysts
Clinical Data Managers
Clinical Nurse Specialists
Clinical Research Coordinators
Compliance Managers
Computer Systems Engineers/Architects
Critical Care Nurses
Customs Brokers
Cytogenetic Technologists
Cytotechnologists
Data Warehousing Specialists
Database Architects
Dermatologists
Distance Learning Coordinators
Document Management Specialists
Electrical Engineering Technologists
Electromechanical Engineering Technologists
Electroneurodiagnostic Technologists
Electronic Commerce Specialists
Electronics Engineering Technologists
Endoscopy Technicians
Energy Auditors
Energy Brokers
Energy Engineers
Environmental Economists
Environmental Restoration Planners
Financial Quantitative Analysts
Fitness and Wellness Coordinators
Fraud Examiners, Investigators and Analysts
Freight Forwarders
Fuel Cell Engineers
Fuel Cell Technicians
Genetic Counselors
Geneticists
Geodetic Surveyors
Geographic Information Systems Technicians
Geospatial Information Scientists and Technologists
Geothermal Production Managers
Geothermal Technicians
Green Marketers
Hearing Aid Specialists
Histotechnologists and Histologic Technicians
Hospitalists
Human Factors Engineers and Ergonomists
Hydroelectric Plant Technicians
Hydroelectric Production Managers
Industrial Ecologists
Industrial Engineering Technologists
Informatics Nurse Specialists
Information Technology Project Managers
Instructional Designers and Technologists
Intelligence Analysts
Investment Fund Managers
Investment Underwriters
Logistics Analysts
Logistics Engineers
Logistics Managers
Loss Prevention Managers
Loss Prevention Specialists
Low Vision Therapists, Orientation and Mobility Specialists, and Vision Rehabilitation Therapists
Manufacturing Engineering Technologists
Manufacturing Engineers
Manufacturing Production Technicians
Mechanical Engineering Technologists
Mechatronics Engineers
Methane/Landfill Gas Collection System Operators
Methane/Landfill Gas Generation System Technicians
Microsystems Engineers
Midwives
Molecular and Cellular Biologists
Nanosystems Engineers
Nanotechnology Engineering Technicians
Nanotechnology Engineering Technologists
Naturopathic Physicians
Network Designers
Neurologists
Neuropsychologists and Clinical Neuropsychologists
Non-Destructive Testing Specialists
Nuclear Medicine Physicians
Nurse Anesthetists
Nurse Midwives
Nurse Practitioners
Online Merchants
Ophthalmic Medical Technologists and Technicians
Ophthalmologists
Orthoptists
Pathologists
Patient Representatives
Photonics Engineers
Photonics Technicians
Physical Medicine and Rehabilitation Physicians
Precision Agriculture Technicians
Preventive Medicine Physicians
Quality Control Analysts
Quality Control Systems Managers
Radio Frequency Identification Device Specialists
Radiologists
Recycling and Reclamation Workers
Recycling Coordinators
Regulatory Affairs Managers
Regulatory Affairs Specialists
Remote Sensing Scientists and Technologists
Remote Sensing Technicians
Risk Management Specialists
Robotics Engineers
Robotics Technicians
Securities and Commodities Traders
Security Management Specialists
Security Managers
Software Quality Assurance Engineers and Testers
Solar Energy Installation Managers
Solar Energy Systems Engineers
Solar Photovoltaic Installers
Solar Sales Representatives and Assessors
Solar Thermal Installers and Technicians
Spa Managers
Speech-Language Pathology Assistants
Sports Medicine Physicians
Supply Chain Managers
Sustainability Specialists
Telecommunications Specialists
Transportation Engineers
Transportation Planners
Transportation Security Officers
Tutors
Urologists
Validation Engineers
Video Game Designers
Water Resource Specialists
Water/Wastewater Engineers
Weatherization Installers and Technicians
Web Administrators
Web Developers
Wind Energy Engineers
Wind Energy Operations Managers
Wind Energy Project Managers
Wind Turbine Service Technicians
Appendix X: Prison Count 2010

### STATE AND FEDERAL PRISON COUNTS

<table>
<thead>
<tr>
<th>State</th>
<th>Dec. 31, 2008</th>
<th>Jan. 1, 2010</th>
<th># Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>30,508</td>
<td>31,561</td>
<td>+1,053</td>
<td>+3.5%</td>
</tr>
<tr>
<td>Alaska</td>
<td>5,014</td>
<td>5,204</td>
<td>+190</td>
<td>+3.8%</td>
</tr>
<tr>
<td>Arizona</td>
<td>39,589</td>
<td>40,523</td>
<td>+934</td>
<td>+2.4%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>14,716</td>
<td>15,171</td>
<td>+455</td>
<td>+3.1%</td>
</tr>
<tr>
<td>California</td>
<td>173,670</td>
<td>169,413</td>
<td>-4,257</td>
<td>-2.5%</td>
</tr>
<tr>
<td>Colorado</td>
<td>23,274</td>
<td>22,795</td>
<td>-479</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>20,661</td>
<td>19,716</td>
<td>-945</td>
<td>-4.6%</td>
</tr>
<tr>
<td>Delaware</td>
<td>7,055</td>
<td>6,775</td>
<td>-280</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Florida</td>
<td>102,388</td>
<td>103,915</td>
<td>+1,527</td>
<td>+1.5%</td>
</tr>
<tr>
<td>Georgia</td>
<td>52,719</td>
<td>53,562</td>
<td>+843</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Hawaii</td>
<td>5,955</td>
<td>5,881</td>
<td>-74</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Idaho</td>
<td>7,299</td>
<td>7,100</td>
<td>+199</td>
<td>+2.7%</td>
</tr>
<tr>
<td>Illinois</td>
<td>45,474</td>
<td>45,181</td>
<td>-293</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Indiana</td>
<td>26,322</td>
<td>29,818</td>
<td>+3,496</td>
<td>+12.7%</td>
</tr>
<tr>
<td>Iowa</td>
<td>8,766</td>
<td>8,465</td>
<td>-301</td>
<td>-3.5%</td>
</tr>
<tr>
<td>Kansas</td>
<td>8,539</td>
<td>8,641</td>
<td>+102</td>
<td>+1.2%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>21,706</td>
<td>21,416</td>
<td>-290</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>38,381</td>
<td>38,780</td>
<td>+400</td>
<td>+1.0%</td>
</tr>
<tr>
<td>Maine</td>
<td>2,195</td>
<td>2,226</td>
<td>+31</td>
<td>+1.4%</td>
</tr>
<tr>
<td>Maryland</td>
<td>23,324</td>
<td>22,009</td>
<td>-1,315</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>11,408</td>
<td>11,156</td>
<td>-252</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Michigan</td>
<td>48,738</td>
<td>45,478</td>
<td>-3,260</td>
<td>-6.7%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>9,910</td>
<td>10,004</td>
<td>+94</td>
<td>+0.9%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>21,754</td>
<td>21,521</td>
<td>-233</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Missouri</td>
<td>30,186</td>
<td>30,792</td>
<td>+606</td>
<td>+2.0%</td>
</tr>
<tr>
<td>Montana</td>
<td>3,607</td>
<td>3,605</td>
<td>-2</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Nebraska</td>
<td>4,520</td>
<td>4,490</td>
<td>-30</td>
<td>-0.7%</td>
</tr>
</tbody>
</table>

### State

<table>
<thead>
<tr>
<th>State</th>
<th>Dec. 31, 2008</th>
<th>Jan. 1, 2010</th>
<th># Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nevada</td>
<td>12,743</td>
<td>12,539</td>
<td>-204</td>
<td>-1.6%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>2,904</td>
<td>2,731</td>
<td>-173</td>
<td>-6.0%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>25,953</td>
<td>25,351</td>
<td>-602</td>
<td>-2.3%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>6,402</td>
<td>6,575</td>
<td>+176</td>
<td>+2.7%</td>
</tr>
<tr>
<td>New York</td>
<td>60,347</td>
<td>58,688</td>
<td>-1,699</td>
<td>-2.8%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>39,482</td>
<td>39,381</td>
<td>-101</td>
<td>-0.3%</td>
</tr>
<tr>
<td>North Dakota</td>
<td>1,452</td>
<td>1,486</td>
<td>+34</td>
<td>+2.3%</td>
</tr>
<tr>
<td>Ohio</td>
<td>51,668</td>
<td>51,606</td>
<td>-62</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>25,864</td>
<td>26,397</td>
<td>+533</td>
<td>+2.1%</td>
</tr>
<tr>
<td>Oregon</td>
<td>14,167</td>
<td>14,404</td>
<td>+237</td>
<td>+1.7%</td>
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<tr>
<td>Pennsylvania</td>
<td>45,307</td>
<td>51,429</td>
<td>+6,122</td>
<td>+13.5%</td>
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<tr>
<td>Rhode Island</td>
<td>4,045</td>
<td>3,674</td>
<td>-371</td>
<td>-9.2%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>24,326</td>
<td>24,091</td>
<td>-235</td>
<td>-1.0%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>3,342</td>
<td>3,434</td>
<td>+92</td>
<td>+2.6%</td>
</tr>
<tr>
<td>Tennessee</td>
<td>27,228</td>
<td>27,373</td>
<td>+145</td>
<td>+0.5%</td>
</tr>
<tr>
<td>Texas</td>
<td>172,508</td>
<td>171,249</td>
<td>-1,259</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Utah</td>
<td>6,546</td>
<td>6,535</td>
<td>-11</td>
<td>-0.2%</td>
</tr>
<tr>
<td>Vermont</td>
<td>2,116</td>
<td>2,221</td>
<td>+105</td>
<td>+5.0%</td>
</tr>
<tr>
<td>Virginia</td>
<td>38,276</td>
<td>38,081</td>
<td>-195</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Washington</td>
<td>17,926</td>
<td>18,233</td>
<td>+307</td>
<td>+1.7%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>6,039</td>
<td>6,367</td>
<td>+328</td>
<td>+5.5%</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>23,380</td>
<td>23,112</td>
<td>-268</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>2,084</td>
<td>2,072</td>
<td>-12</td>
<td>-0.6%</td>
</tr>
</tbody>
</table>

**Statistical Notes:**
- **% Change**: Calculated as (Current Year - Prior Year) / Prior Year * 100%
About Robert N. Skolnik, Ph.D.,

- Robert Skolnik, Senior Partner of The Delfin Group is a results-oriented professional who specializes in discovering the real issues affecting organizational performance and assisting in finding solutions that are immediate and long term.

- He holds a Ph.D. degree in Organization Development from the University of Minnesota, a Master’s degree in Counseling from Florida Atlantic University, and an undergraduate degree in Sociology from the University of Montana as well as post-graduate work in Latin American Studies from San Diego State.

- Robert Skolnik takes a practical, down-to-earth, approach to organizational development believing that theory is only as good as its application and that people and organizations must be appreciated for their unique circumstances.

- He has held several executive leadership positions in such varied economic sectors as tourism, non-profit, manufacturing and education.

- Robert is a practitioner with experience in projects including planning and implementing small and large scale organization change interventions, identifying and developing leadership, assessing and aligning individual and organizational cultural elements to meet goals and objectives, and enhancing individual knowledge and skills through internal and external training opportunities.

- He was born in New York, but was raised in Barranquilla, Colombia. He has lived and worked in the Middle East and Central America. He has traveled extensively and is fluent in Spanish and has a working knowledge of several other languages. His international experience has provided him with a unique perspective and expertise in the areas of cross-cultural relations and other general human resource issues as they relate to doing business in today’s global economic climate.

- Robert has served as adjunct professor at several universities and taught diverse subjects including foreign language, economics and strategic planning.
Resources


Workforce Development Committee report to the Lake County Economic Development Advisory Council, 2008


"Raising the Bar: Employers' Views on College Learning in the Wake of the Economic Downturn" (January, 2010) Available at http://www.aacu.org/leap/public_opinion_research.cfm
