LINCS Consortium Workplace Competencies Industry Interviews

Presented by

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Executive Summary

The LINCS program offers (8) competency-based certifications in the field of Supply Chain Management (SCM) to participants who successfully complete the LINCS training program and pass certification exams. To ensure that the training and certifications offered by LINCS is current, relevant and adds value to employers, ongoing research is conducted with SCM practitioners in industry.

After conducting interviews with 66 interviews conducted who hire in the field of SCM, we realized that they were enthusiastic about the research and the opportunity to impact LINCS curriculum and content. They clearly expressed the value these courses would add to the skills and profile of the unemployed workers in the United States as most of the interviewees indicated the lack of certain requirements among the current employees in this field. The majority of the companies fund the cost of the proposed certifications as long as it directly adds value to the organization.

Since supply chain management involves not just demand planning but a lot of other aspects which includes warehousing and inventory management, the employees have to work together in a team to gain the maximum benefit out of this. In addition to this, keeping in mind the bigger picture relating to the whole supply chain and aligning it to the company's objectives is crucial. They believe the most important talent these days is the ability to analyze data and make sense of it. Having the right motivation and people skills have become keys to the success of individuals.

Most employers pointed out that supply chain management involves a variety of different functions. Each function requires different skills and competency levels. The Purchasing function, for instance, requires negation, technical, and other higher-level, specialized skills. Warehousing, on the other hand, may be less specialized in nature and may place more emphasis on the 'craft' function. Interpersonal skills play a critical role across organizational functions. Employers look for individuals who possess great problem solving skills, collaboration, and team building skills. Employers also recognize individuals who are driven, motivated, and eager to enhance their working knowledge of supply chain management on their path to become the supply chain leaders of tomorrow.

Purpose

The purpose of this document is to report the findings and conclusions of primary research conducted in the form of interviews with 66 SCM practitioners in industry. The research findings are used as inputs to the development of LINCS curriculum and content and identify the workplace competencies needs of employers who hire in the field of SCM. The research findings also serve to validate that current LINCS curriculum and content is current, relevant and satisfies the needs of employers.

Scope

The scope of this project covers supply chain practitioners in various industries who supervise entry level employees at companies that would be considered "substantial" with respect to size, revenue and employees in Florida, New Jersey, and Illinois.

Methodology

The National Director, Workplace Competencies for the LINCS program assembled a project team (see Appendix II) of LINCS Consortium members who volunteered to participate in the research. The State Colleges were then organized by geographic region to pair them with either a participating University or the project prime (see Appendix III). The roles of the universities and project prime were to provide leadership and guidance to the colleges regarding the research to be conducted.

A question library was created and placed on a shared information site accessible to all Consortium members. Project team members developed a list of questions they thought were relevant to ask in the interviews with CSM practitioners. The library was available for approximately two weeks for project team members to publish their lists of questions to the question library. After two weeks, the question library was closed and no more questions were accepted into the library for considerations. The library consisted of 37 questions and the project team decided 10 questions were sufficient for the interviews.

To select 10 questions out of the 37 questions in the question library, a sub-committee of six project team members reviewed all questions and selected the 10 questions that best fit the aim of the interview. The interview questions were loaded into a standard format (Appendix I) and submitted for IRB approval (if required).

Sixty-six interviews were setup and conducted by LINCS partner colleges and universities. The students selected SCM practitioners, conducted interviews and reported findings and conclusions in accordance with procedure LP-W-01 Procedure for Industry Interviews (Appendix IV).

Findings and Conclusions

Challenges faced related to workforce

The greatest challenge that the organizations expressed with their existing workforce is the failure to see the bigger impact that a Supply Chain has on the company's objectives. The organizations believe it is difficult to keep up with the rapid growth in the US market as there is a shortage in terms of workforce who would want to continue in SCM due to the attractive choices such as IT, Finance that are available in the current market. Many organizations are also experiencing rapid growth and serve a varying and very perceptive customer base; therefore, attracting the right talent to meet these needs is critical. Nearly every respondent emphasized the ability to adapt to change as a necessary trait for any employee. Many of the supply chain management challenges noted across the various organizations and industries included access to (and synthesis of) data and information, and the ability to translate disparate pieces of information into forecasting and demand planning processes. Finally, all of our respondents noted the ability to find qualified talent as an ongoing challenge as many potential candidates who might have strengths in a particular area of the supply chain, may be lacking in overall business acumen and the ability to navigate broader organizational challenges.
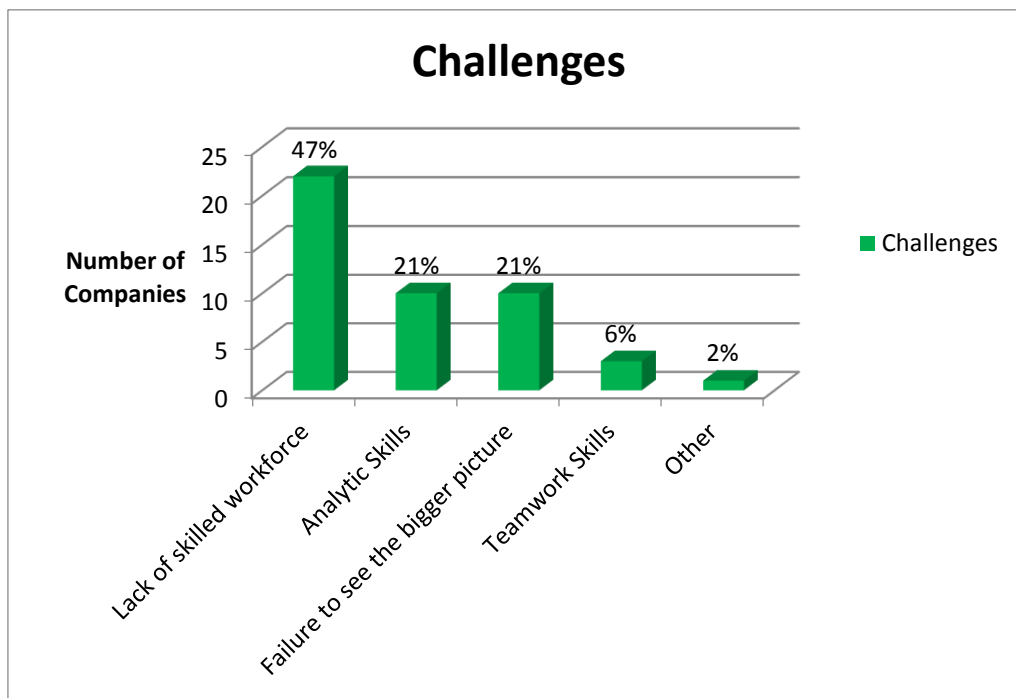
Challenges

47%
25
20
Number of 15
Companies 10   21%   21%
5   6%
0   2%

Lack of skilled workforce   Analytic Skills   Failure to see the bigger picture   Teamwork Skills   Other

■ Challenges

Figure 1 Challenges with regards to workforce

Skills highly valued by the organization

Technical Skills

Number of Companies

25	
20	
15	71%
10	35% 29% 29% 12%
5	12% 9%
0	

Basic Data Analysis, Basic Programming, Critical Thinking, Project Management, Process Aptitude, Business Acumen, Other

Technical Skills

Skills

Figure 2

Workplace and Leadership Skills

Number of Companies

18	
16	
14	
12	
10	40%
8	35% 33%
6	26% 26% 23%
4	14% 12%
2	
0	

Customer Focus, Continuous Improvement, Building relationships, Fulfill tasks on schedule, Team Work, Encouraging and Consistent, Creativity, Other

Workplace and Leadership Skills

Skills

Figure 3

Interpersonal Skills

Number of Companies

- 91% — Communication Skills (Oral and...)
- 33% — Ability to take up responsibility
- 30% — Integrity among co-workers
- 28% — Positive attitude
- 28% — Being courteous and respectful
- 26% — Team Work
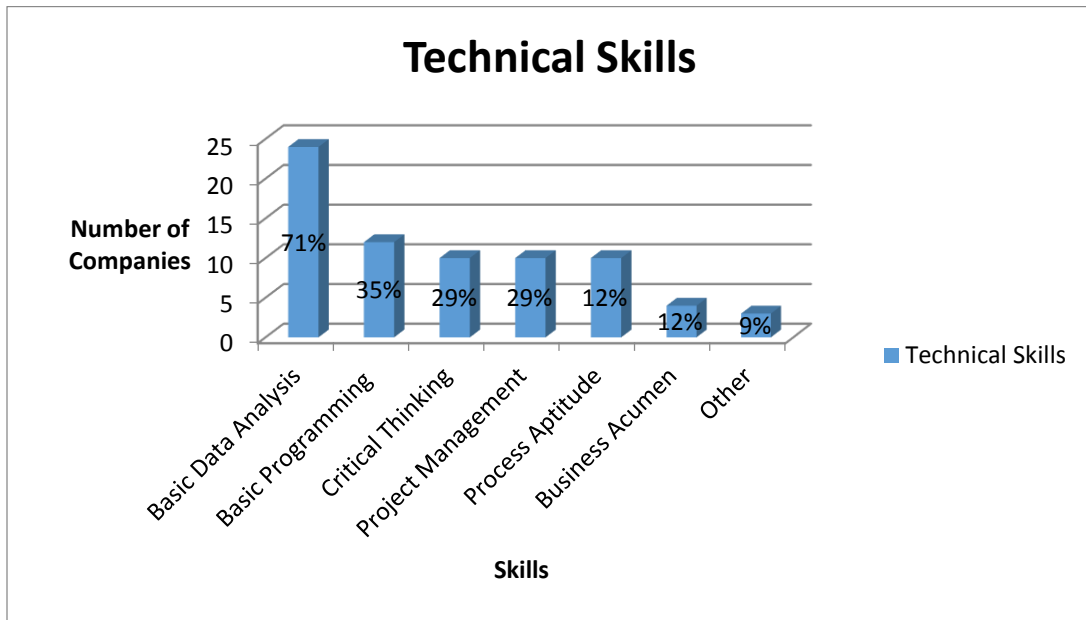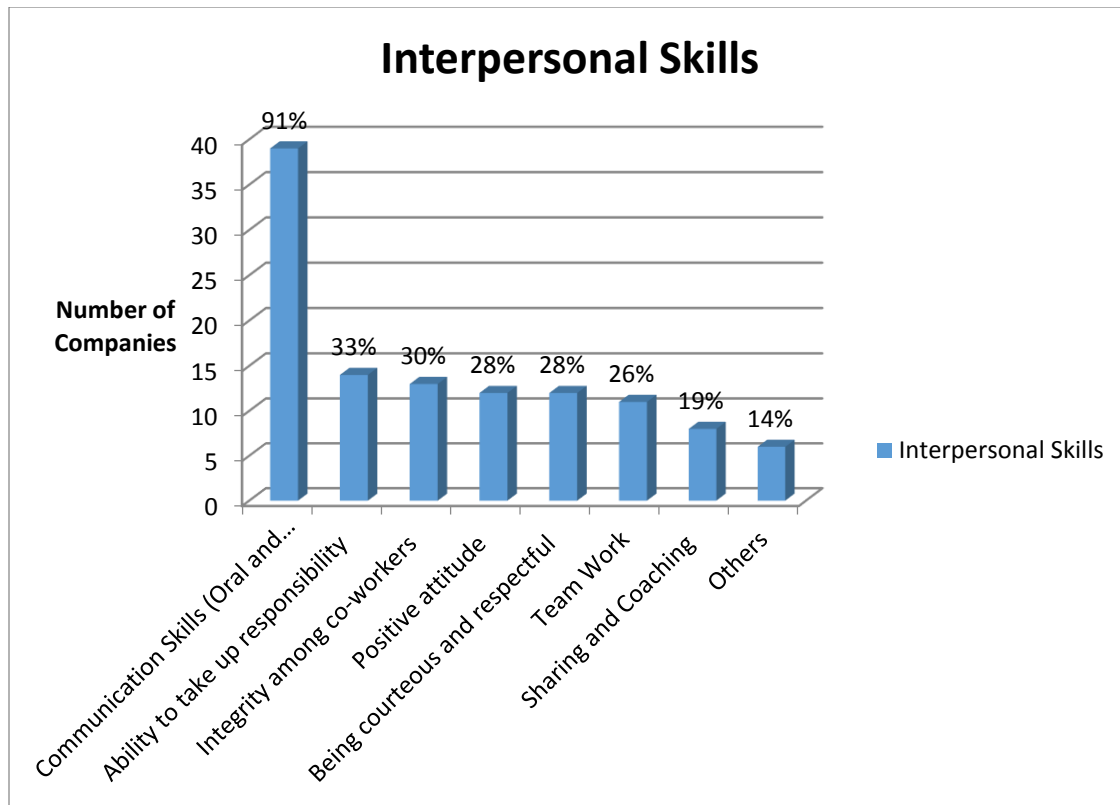- 19% — Sharing and Coaching
- 14% — Others

Legend: ■ Interpersonal Skills

Figure 4

Most important skill in each category:

Problem Solving/Data Analysis: The ability to work through challenges in a level headed manner, and the complex thinking skills to recommend solutions based upon limited data and information is found to be very critical. This also expands into the overall ability to design business continuity and managing and leading change. B

Customer Focus: A good leader has the customer as his first priority**.** Customer satisfaction matters not only to the customer, but even more so to the business because it directly impacts a company's bottom line profits. Understanding and fostering key relationships can create short and long-term value in customer loyalty and marketplace alliances.

Communication: The ability to communicate one's point clearly "up and down the chain" to people in different roles was mentioned by all respondents. Outside the organization, employees need to be able to communicate clearly to stakeholders, customers and partners. This skill is relevant to the others skills in this list, as an employee needs to effectively communicate her vision and objectives in order to be effective.

List of critical skills listed by the respondents

Technical Skills	Workplace and Leadership Competencies	Interpersonal Competencies
• Basic Data Analysis	• Fulfill tasks on schedule	• Communication Skills (Oral and Written)
• Project Management	• Customer Focus	• Integrity among co-workers
• Critical Thinking	• Creativity	• Positive attitude
• Developing a Business Mindset	• Encouraging and Consistent	• Being courteous and respectful
• Manufacturing Aptitude	• Building relationships	• Sharing and Coaching
• Having Excel in your tool kit	• Continuous Improvement	• Ability to take up responsibility
• Basic Programming	• Team Work	• Crisis Management
	• Negotiation Skills	

Important Certifications

The old assumptions driving supply chain design and strategy were focused on achieving the lowest possible cost of goods and the most efficient distribution to stores. Today, a new model is emerging, not driven by enterprise technology or supply chain innovations, but by customers. The most important course certification that would add value to their supply chains is Fulfillment and Customer Services due to its focus on the crucial and all-important internal and external customer. Supply Chain Overview was also widely selected due to its overview of the various functions within the supply chain spectrum as it represented a great opportunity for entry to mid-level supervisors to attain a bigger picture of their job function.

Certifications

Number of Companies

- Customer Service: 43%
- SCM Principles: 40%
- Procurement: 38%
- Inventory Management: 33%
- Demand Planning: 31%
- Transportation: 31%
- Warehouse Operations: 28%
- Manufacturing / Service Ops: 16%
- All areas: 12%

Figure 5 Number of companies favoring a particular certification

Knowledge of certain SCM techniques

All organizations consider familiarity with Microsoft office products is a must especially Excel. In addition to that having a little idea about other SCM/ Lean technologies is definitely a plus.

Regarding software, most interviewees stated unequivocally that the logic of software or the capabilities of typical software (TMS, WMS) is what matters, more than a specific software brand. Any experience with software is better than none, but if an employee understands the logic and frameworks behind SCM technologies, and perhaps has some experience using the software in a classroom, this should be sufficient. However, many organizations have developed software tools "in-house" and therefore employees must learn this custom software. However, once a candidate has been identified as a potential employee, technology and certification knowledge would most likely assist in bringing the candidate to the top of the hiring list.

A basic understanding of Lean/6 Sigma tenets (e.g. the 5 Whys, waste reduction) is an important skill, but it would not be necessary for them to have achieved a level of Lean in order to be hired. Specific supply chain management (SCM) software and Lean/ Six Sigma certifications were not highly important to most respondents.

SCM Technology

- Basic idea about any WMS/TMS software is good as most of the firms have homegrown software.
- Demonstrate the ability to learn the new software, so the motivation is important.

Lean Six Sigma Knowledge

- Understanding the basic principles of cost reduction, process improvement techniques is important.
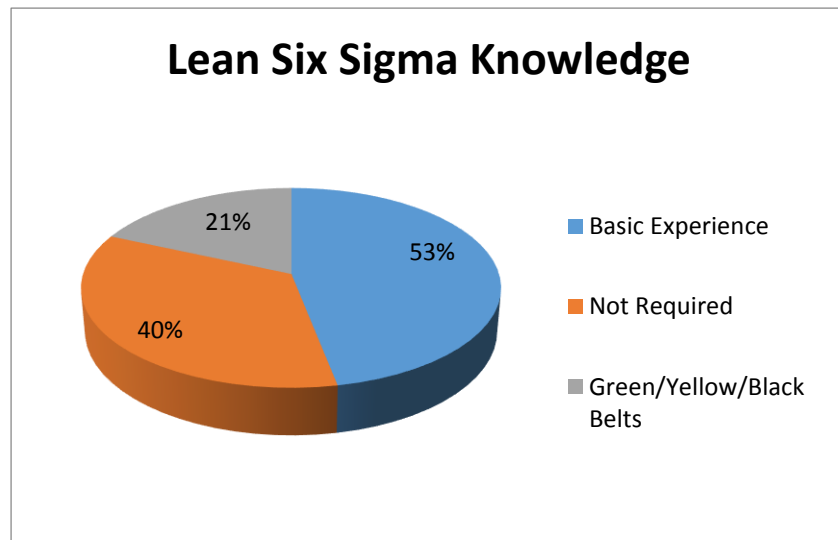- Most companies prefer a little bit of experience rather than a particular certification.

Lean Six Sigma Knowledge

- Basic Experience — 53%
- Not Required — 40%
- Green/Yellow/Black Belts — 21%

Figure 6 Percentage of Companies wanting Lean Six Sigma knowledge

SCM Technology

- Yes — 47%
- No — 35%
- General Knowledge — 56%
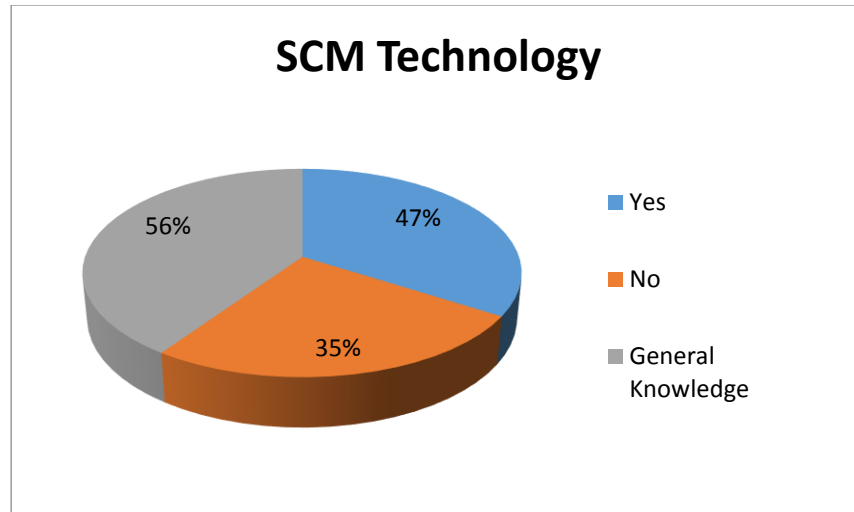
Figure 7 Percentage of Companies wanting SCM Technology knowledge

Assessment for Certifications

Industry certifications have been identified as valuable. They indicate that the individual has invested himself/herself to master a certain aspect of supply chain. Generally, the motivation aspect was ranked higher than the skill assessment. The ideal candidate would possess sufficient motivation to seek out necessary training in order to advance in the company and adapt to changes in the supply chain industry. Respondents indicated that motivation indicates the drive and ambition the individual possesses, especially in entry-level positions. Higher end positions may require more specialized knowledge; whereas, the skill component would play a more critical role and carry a heavier weight. They trust that the skill can be learnt with time but motivation is something that is very crucial right from the start. When someone has these qualities, they have the ability to work well with others and are effective in leading change.
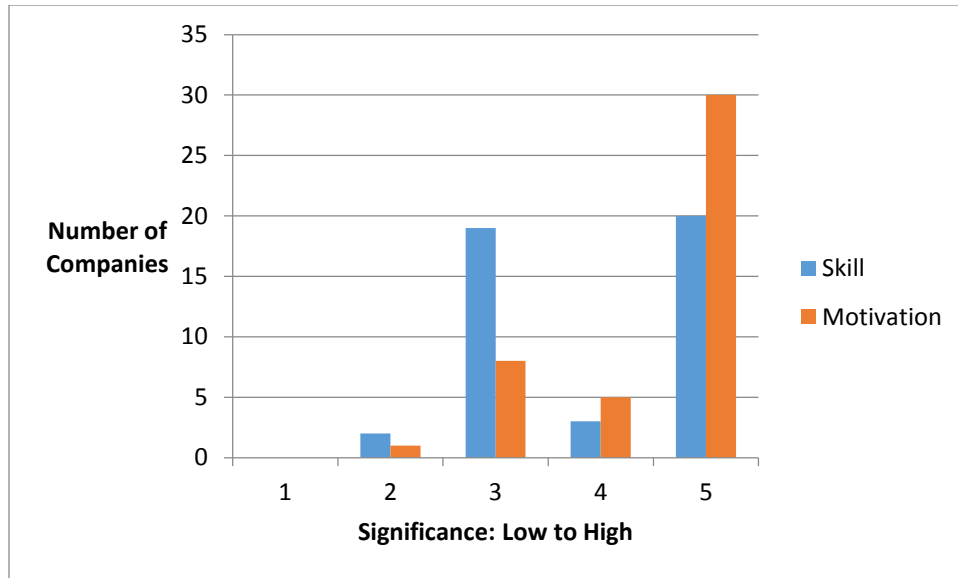
Figure 8 Industry Certifications
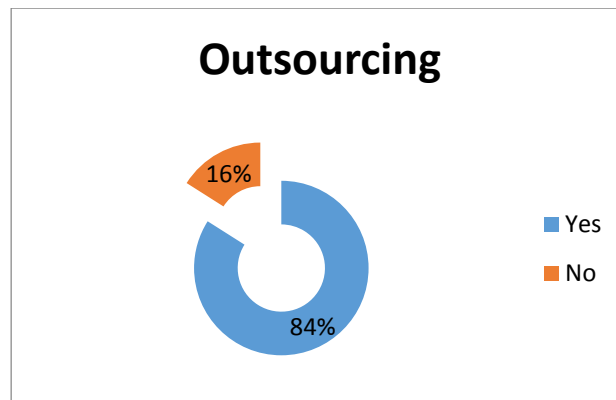
Outsourcing

Figure 9 Percentage of companies outsourcing

Most of the organizations outsource some of their operations. To bring these operations in house, lot of experience with data analytics to check the profit-loss statement for such a change and some experience with operations management is required. In addition to that, it is a matter of doing a cost comparison and reducing the liability to the company is crucial. So, most of them have no plans in the near future to bring these operations in-house.

The reasons for outsourcing operations are:

- Less labor and real-estate investment is required.
- Being familiar with customs requirements, labor contracts in the countries of operation.
- Extra costs are incurred as companies do not have sufficient tonnage to transport goods during the backhaul.

- Limitations on our storage capacities.

Educational Benefits

All respondents indicated that professional development is highly valued and encouraged and they value continued education. Most companies offered limited opportunities for professional development and job skills at the entry-level. The organized programs in place were for new college graduates but there were not parallel or similar offerings at the entry-level. Many organizations offer tuition reimbursement for their employees to pursue training, certifications and degrees that are tied to their job function and will assist in their professional development irrespective of Bachelor's, Master's or an MBA degree. The respondents strongly agreed that training and certification of supply chain management employees is critical, as technological aspects of the field grows at a rapid pace. In conclusion, a combination of educational and co-operative training program should be implemented by all industry leaders, both as an initial requirement and a continuing educational requirement.
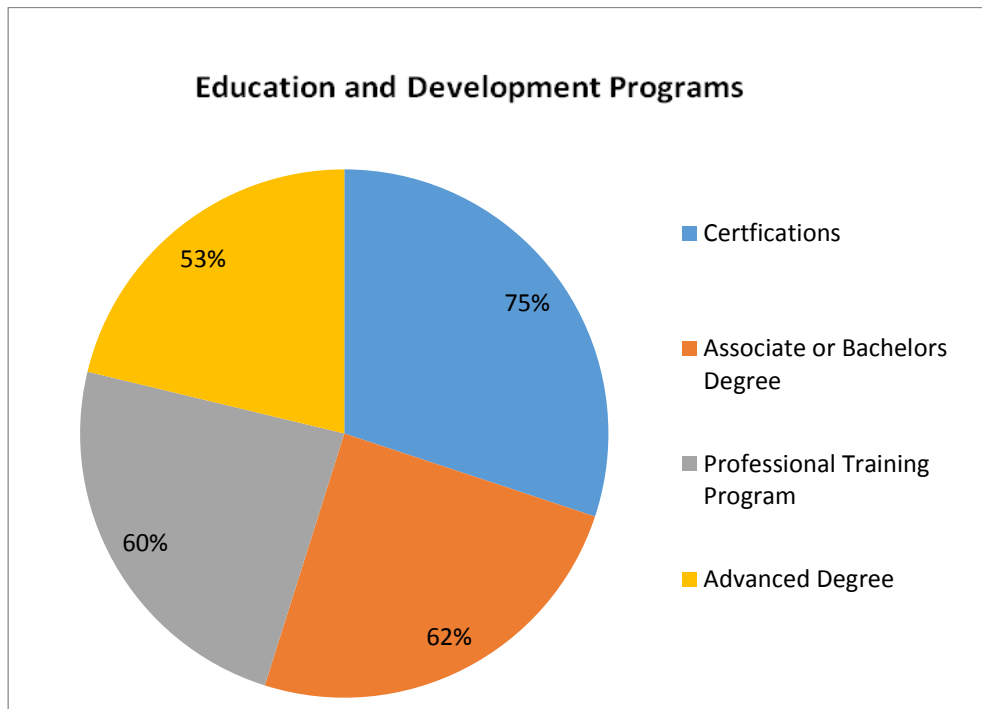

Figure 10 Percentage of companies offering training/program

Appendix I

LINCS Industry Interview Questions

SCM Professional Information

Name (First and Last)	
Company Name	
Position Title	
Email	
Phone	

1. What is the greatest challenge you face with your existing workforce as it relates to supply chain management?

2. When you think of the top technical skills for an incumbent to be successful in your supply chain, what comes to mind? Can you elaborate on the details of these skills?

3. Of the eight certification areas below, which is most important to you?
   Supply Chain Overview   Warehousing   Fulfillment & Customer Service
   Demand Planning   Procurement   Transportation
   Manufacturing and Service Operations   Inventory Management

4. What kinds of workplace and leadership competencies (top 5) are highly valued by your organization?

5. Would knowledge of a certain SCM technology or brand increase the likelihood of someone being hired at your company?

6. What kinds of interpersonal competencies (top 5) are highly valued by your organization? ***This may not address a hard skill for LINCS content but our community outreach partner may be able to provide this training.*

Appendix I

LINCS Industry Interview Questions

7. Does your firm plan to do any re-shoring or bringing back in house outsourced operations? If so, what operations? What skills will be needed to execute these operations?

8. Lean Six Sigma knowledge (which may be categorized with "quality") was described as highly important by respondents to a prior survey. As we will not be producing black belts or greenbelts through LINCS, what level of Lean Six Sigma knowledge would be appropriate for an entry level employee that would add value to your organization?

9. How significant in your assessment is it for an unemployed worker to seek an industry certification?
   In Skill Assessment: 1 = Low; 5 = High
   In Motivation Assessment: 1 = Low; 5 = High

10. Does your organization currently have a professional development training program? Can you elaborate on the details of this program? Does your organization value employee continued education? Certifications? Associate or Bachelor Degrees? Advanced degrees? Does your firm pay for employee education?
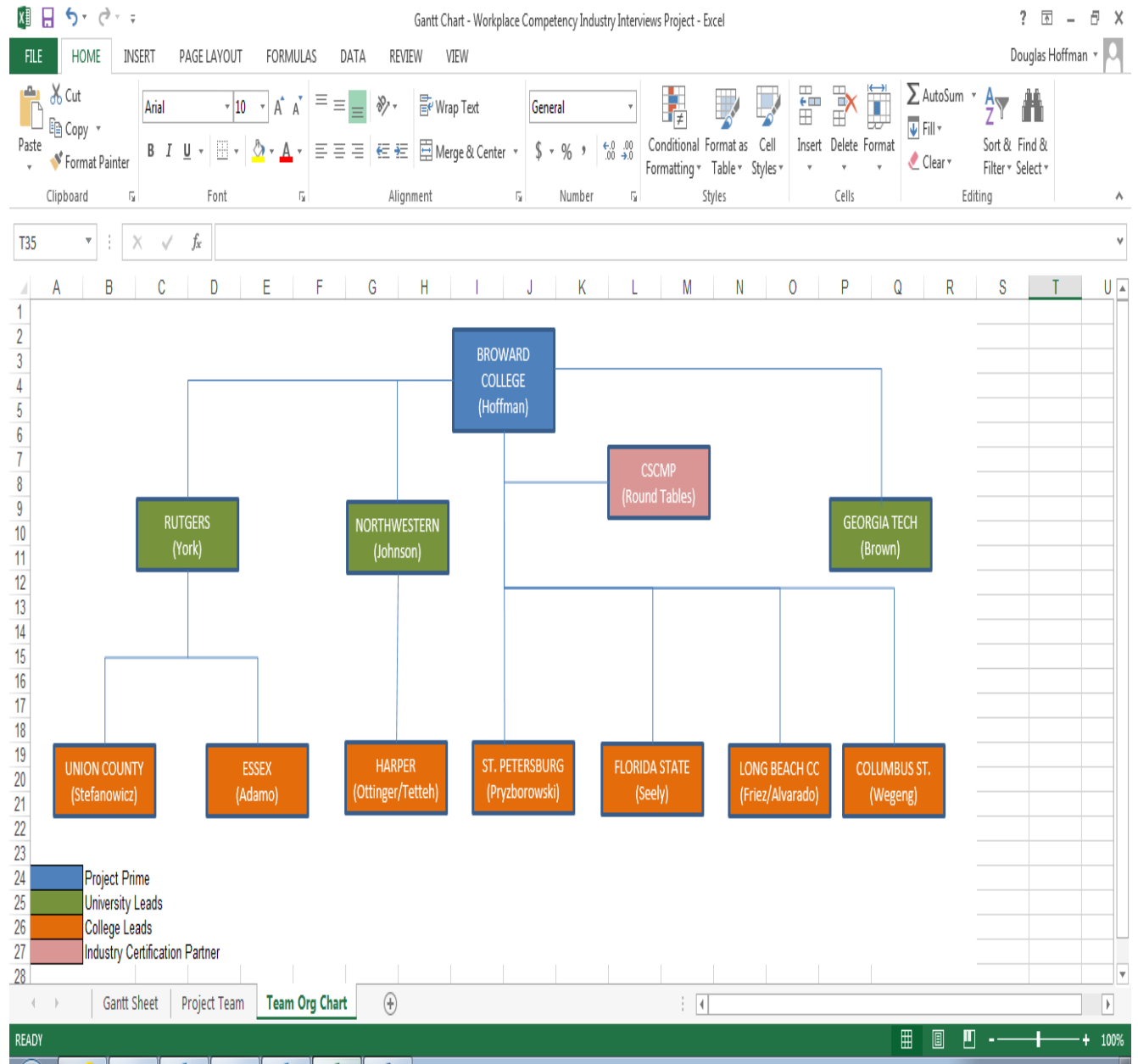
Appendix II

LINCS Industry Interview Project Team

Institution	Name	Phone	Email
Broward College	Douglas Hoffman, Joelle Hutchings	954-201-8443	dhoffma1@broward.edu
Cal State	-		
Columbus State	Scott Wegeng	614-287-2287	swegeng@cscc.edu
Essex County	Michael Adamo	973-567-3011	madamo@webmail.essex.edu
Florida State College	Philip Seely	904-874-9810	pseely@fscj.edu
Harper	Mary Beth Ottinger, Desmond Tetteh	847-925-6936 / 240-533-1119	mottinge@harpercollege.edu; dtetteg@harpercollege.edu
Long Beach City College	Dana Friez, Marty Alvarado	562-938-4453 / 562-938-4546	dfriez@lbcc.edu;mjalvarado@lbcc.edu
St. Petersburg	Marta Przyborowski	727-341-7973	przyborowski.marta@spcollege.edu
Union County	Ronald Stefanowicz	908-965-6005	Ronald.stefanowicz@ucc.edu
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Northwestern	Bret Johnson	847-491-2194	bretj@northwestern.edu
Rutgers University	Tom York	848-207-1494	tyork.drm@gmail.com
CSCMP	Ann Neumann, Chris Adderton	630-645-3476	anuemann@cscmp.org

Appendix III

LINCS Industry Interview Project Team Organizational Chart

Appendix IV

LINCS Procedure

Procedure #: LP-W-01		Revision: 0
	ProcedureType: Workplace Competencies	
Procedure Title: Procedure for Industry Interviews	**Original Date Published**: 12/2/14	RevisionDate: N/A
Policy Owner: Doug Hoffman	**Owner Contact:** dhoffma1@broward.edu	Revision Description: N/A

Procedure for Industry Interviews

1. **PURPOSE**

The purpose of this document is to provide a procedure for conducting and reporting results of interviews with supply chain management practitioners in industry as part of the primary research to be led by the LINCS National Team.

2. **SCOPE**

    a. This procedure applies to all LINCS employees, management, contractors, student interns, and affiliates who conduct primary industry research on behalf of the LINCS program.
    b. Supply Chain Management practitioners employed in industry at all levels of the organization.

3. **REFERENCES**

    a. LINCS grant proposal pages 1 - 45.

4. **DEFINITIONS**

Term: Sharepoint

Definition: An information repository used by LINCS consortium members to collaborate on work, communicate and share tools.

Term: LINCS Consortium

Definition: The combination of three (3) universities and nine (9) state colleges formed to create the eight (8) certification tracks in supply chain management for a target population.

Term: Procedure Owner

Definition: The individual who develops a procedure or leads the development of a procedure.

5. **RESPONSIBILITIES**

   a. National Director, Workplace Competencies – LINCS National Team

      1) Create and lead research project teams.
      2) Ensure research is conducted in accordance with LINCS policies and procedures.
      3) Reports findings and conclusions of research.
      4) Make reports available to Consortium and U.S. Department of Labor.

   b. LINCS Research Project Team Members

      1) Assist in creating research projects.
      2) Assist with development of procedures.
      3) Conduct research in accordance with LINCS policies and procedures.
      4) Report findings and conclusions in accordance with LINCS policies and procedures.

6. **DESIGNATED RECORD SET (REPOSITORY)**

   a. Sharepoint → Libraries → Shared Documents → LINCS Procedures

7. **PROCEDURE FOR INDUSTRY INTERVIEWS**

   a. Determine who (individual or project team) will be conducting interviews and reporting results.
   b. Select a minimum of twelve (12) supply chain management practitioners at the appropriate supervisory level within qualified firms.
   c. Set appointments with each of the interviewees for conversations in-person, by phone, or via teleconference.
   d. Use Appendix I of this procedure for direction on questions to be asked.
      1) So long as all questions in Appendix I are asked and responses received, an interviewer may use follow up questions at the interviewers discretion to obtain more detailed knowledge of discussion subject.
   e. Repeat item "d" (above) until all interviews are complete.

f. Report findings and conclusions (interview data from all interviews compiled in a single report) using the standardized format provided in Appendix I of this document. Appendix I should consist of a minimum of 12 "Appendix I's) with all the responses to the interview questions.

8. **INTERVIEWEE SELECTION**

a) Criteria for selection:

1) Will be a supply chain management practitioner with practical experience that responses to interview questions produce useful information.
2) Will be a supervisor at the appropriate level for LINCS (supervisor of entry level employees) – supervisor, manager, director (at highest) depending on the size of the organization.
3) Supervises functions relevant to LINCS certification programs.
4) The interviewer will make a good faith effort to draw at least 50% of interviewees from CSCMP Roundtables (assuming a CSCMP Roundtable exists in the particular area).

9. **COMPANY SELECTION**

a) Companies targeted for interviews should meet the following criteria:

1) Employee supply chain management practitioners who meet the requirements of Section 8 of this document.
2) Listed on the current Fortune 1000.
3) Be considered a "major" employer in the area.
4) Employ at least 150 people at the site to be researched.
5) Be a manufacturing or service firm who employ people with skill sets relevant to the LINCS certifications.

10. **FINAL REPORT OUT**

a) A final report of findings and conclusions will be submitted to the National Director, Workplace Competencies – LINC National Team at the adjourning of the Industry Interview project.

b) A standardized report out template has been provided (Appendix I).

c) Appendix I will be a combination of all Appendix I's (interview question lists) used for all interviews with all interviewee responses included.

d) The author(s) of the report will create an executive summary, purpose statement, methodology description, findings / conclusions and appendices as demonstrated by the standardized report out template.

e) The author(s) of the report will report all findings and attempt to analyze the data and make inferences that would be an input and guide to accomplishing the mission of the LINCS program.