

# **Columbus State Community College Logistics Engineering Technician Industry Survey Results**

## **Prepared for:**

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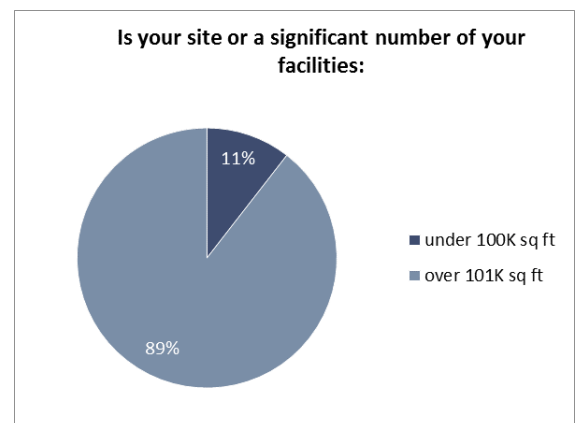
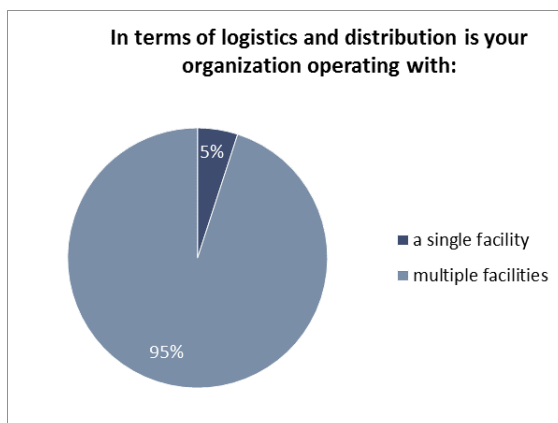
The Rucks Group, LLC  
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**Overview.** The primary purpose of the Logistics Engineering Technician (LET) project funded by the National Science Foundation is to develop an career pathway. Achieving this goal requires input from industry partners which was initially obtained in a compression planning session in February 2015. The session involved the entire project staff, seven industry leaders from large employers within Central Ohio and a representative from the Columbus Regional Logistics Council (CRLC). Through that process, the project team was able to gain a clearer conceptualization of the position and related skills needed by industry.

A follow-up survey was disseminated to obtain feedback from a larger representation of industry regarding the skills needed for a LET or related position. The survey was disseminated to project partners and to members of CRLC. A total of 21 industry representatives completed the survey. Most industry respondents worked for organizations that had multiple logistics and distribution facilities with over 101K sq ft.



## Key Highlights.

- About 25% of respondents indicated that their organization hires an operations analyst, systems specialist, or other comparable position with a two year degree and with experience in logistics. But only 5% of companies indicated that there would be no need for an individual with this skill in the future.
- Of the six (6) competencies identified through the DACUM: accounting, communication, information technology, leadership, logistics, and technical knowledge the competencies of logistics and communication were ranked the highest.
- Leadership was ranked third when respondents were forced to rank the importance of each competency, however, respondents indicated that students finishing the LET training should be an expert on most individual attributes.

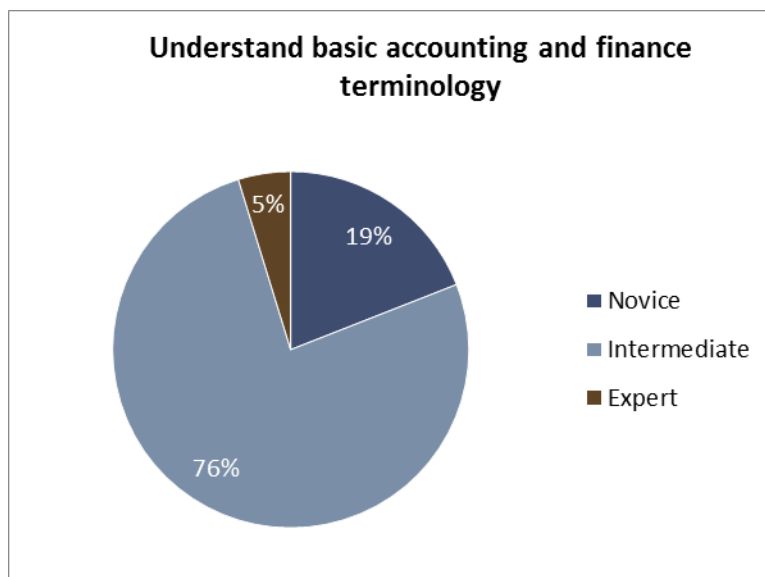
**Accounting and Finance.** A total of five (5) competencies were identified related to Accounting and Finance. These competencies are:

1. Understand basic accounting and finance terminology.
2. Apply managerial and cost accounting concepts in daily work.
3. Conduct return on investment analysis.
4. Employ inventory and inventory controls.
5. Formulate and use key performance indicators.

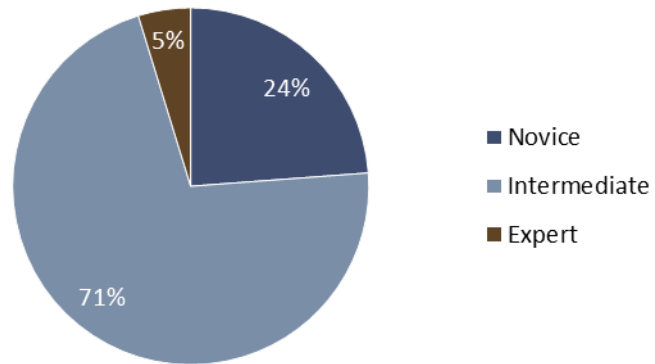
The competencies that a technician should have after completing training are: “Employ inventory and inventory controls” and “Formulate and use key performance indicators.”

Through open-ended comments, respondents also identified two additional competencies:

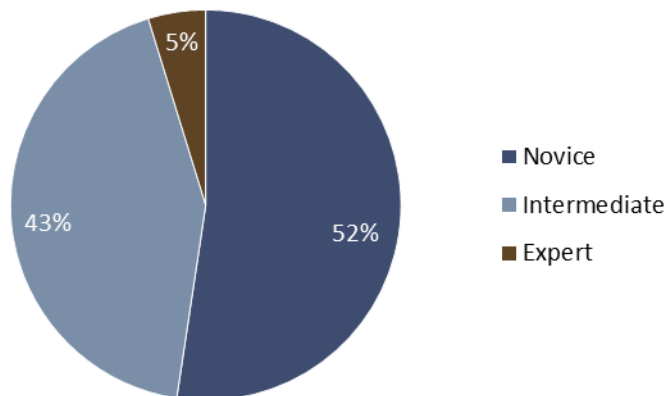
- Ability to easily do and understand spreadsheets.
- P & L, Balance Sheet, and Inventory Calculations (e.g., costs).



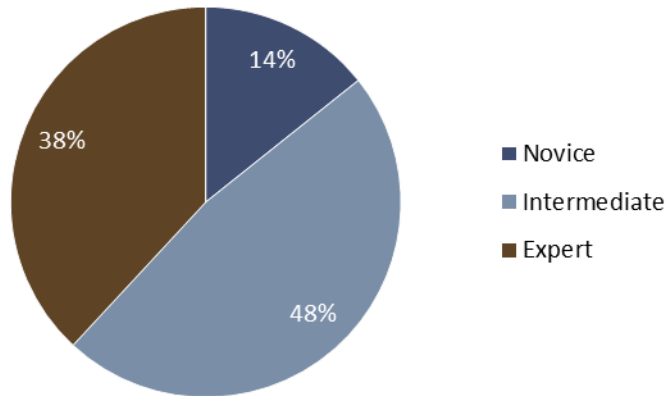
**Apply managerial and cost accounting concepts in daily work**



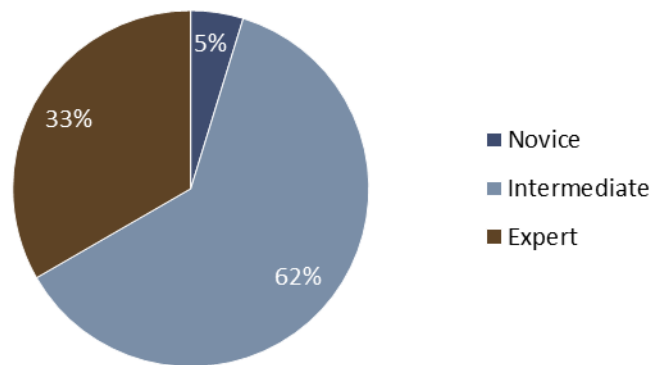
**Conduct return on investment analysis**



**Employ inventory and inventory controls**



**Formulate and use key performance indicators**

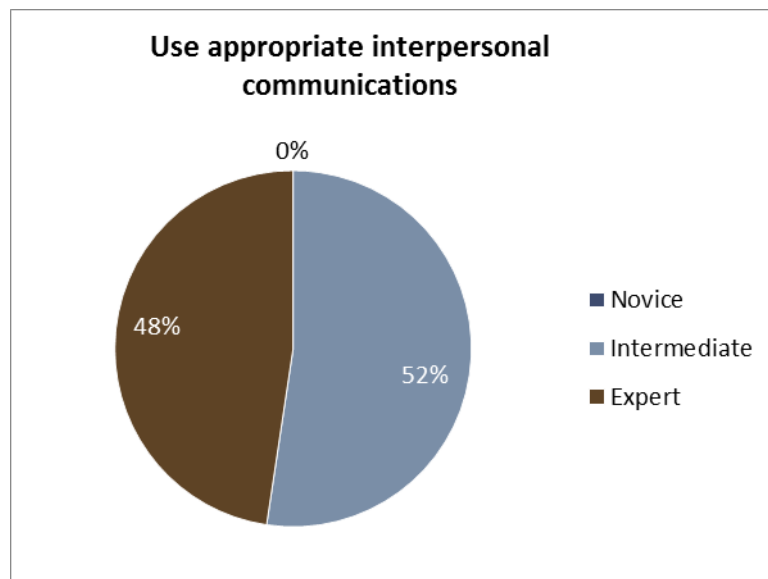


**Communication Competencies.** A total of three (3) competencies were identified related to Communication. These competencies are:

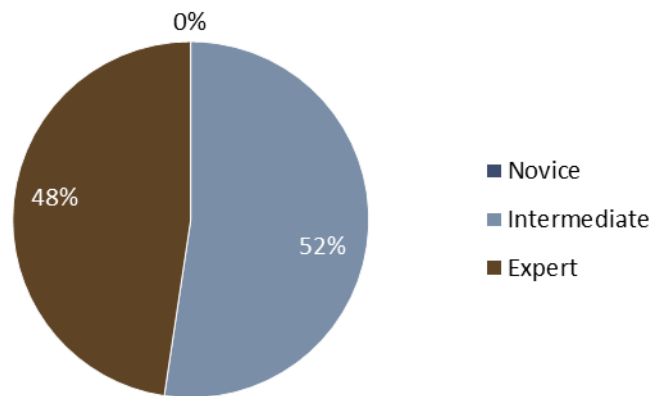
1. Use appropriate interpersonal communications.
2. Utilize effective oral and written presentation skills.
3. Interpret data and translate to co-workers and supervisor.

The competencies that a technician should have after completing training are: “Employ inventory and inventory controls” and “Formulate and use key performance indicators.”

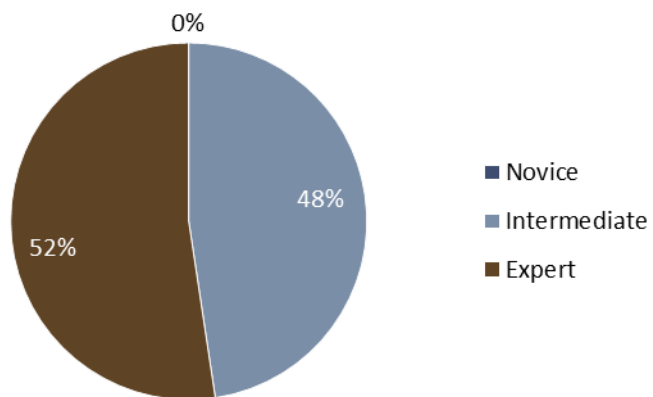
Through open-ended comments, respondents provided “ability to use common sense in daily activities.”



**Utilize effective oral and written presentation skills**



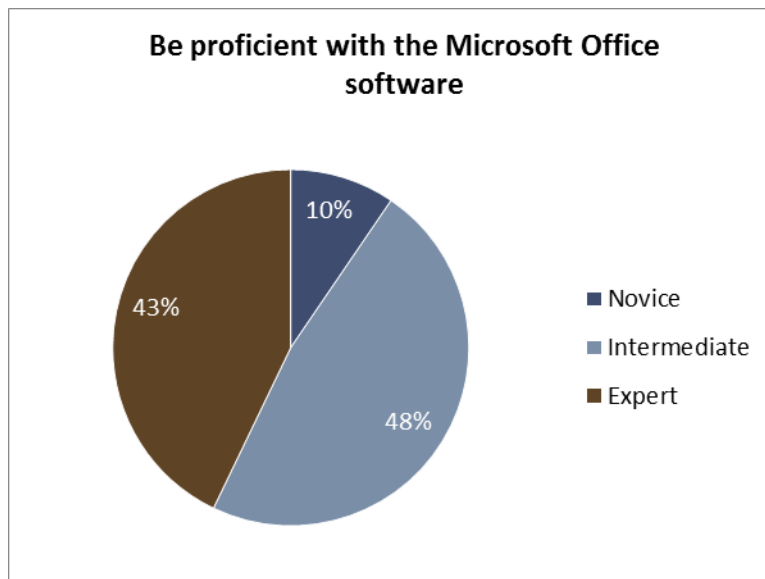
**Interpret data and translate to co-workers and supervisor**



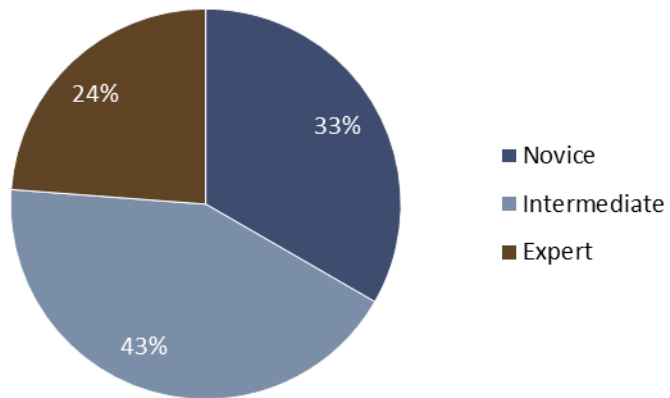


**Information Technology.** There are eight (8) competencies were identified related to information Technology. These are:

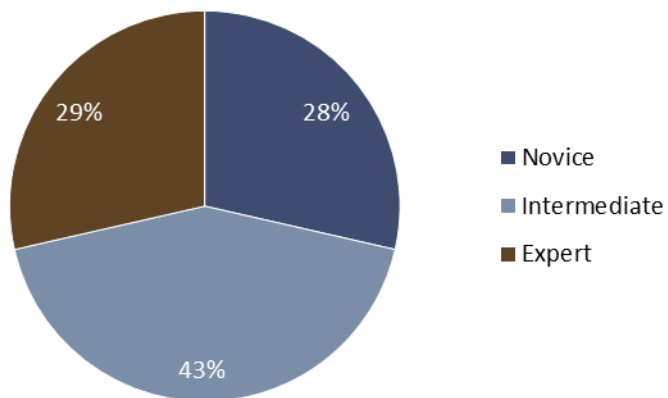
1. Be proficient with the Microsoft Office software.
2. Operate a labor management system.
3. Operate a warehouse management system.
4. Conduct a data mining and analysis.
5. Depict results of data mining into a report.
6. Extract data from a programmable logic controller and analyze results.
7. Use data identification systems including barcodes and RFID tags.
8. Understand general networking concepts.



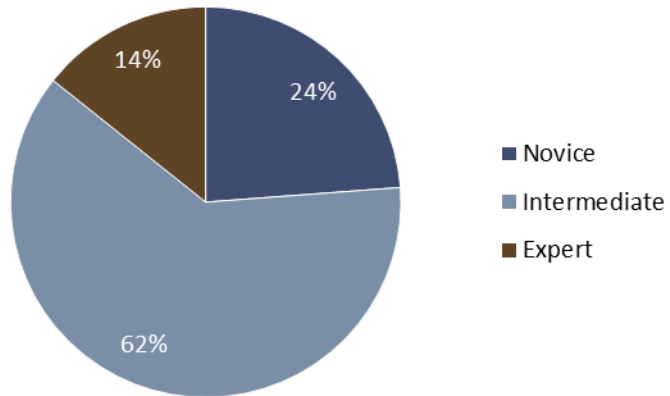
**Operate a labor management system**



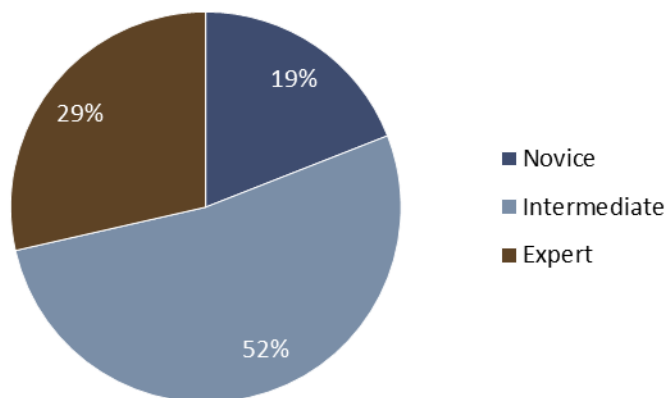
**Operate a warehouse management system**



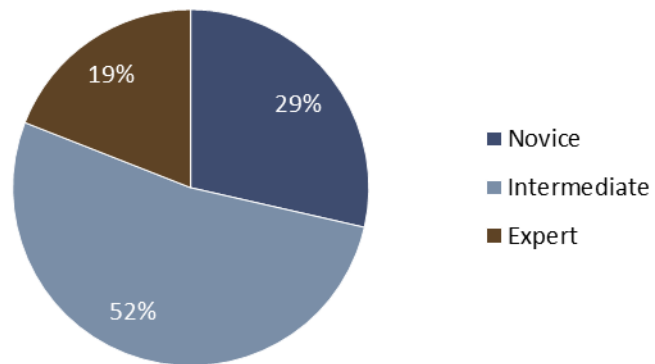
### Conduct data mining and analysis



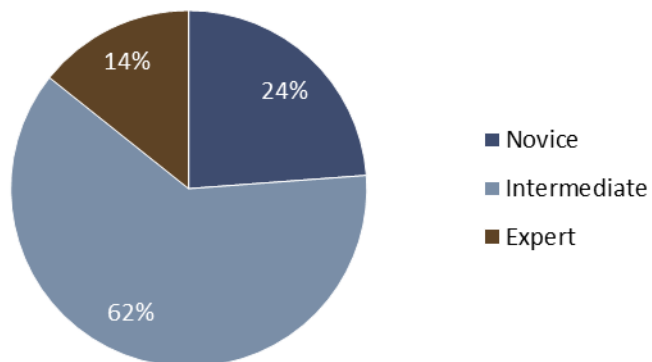
### Depict results of data mining into a report



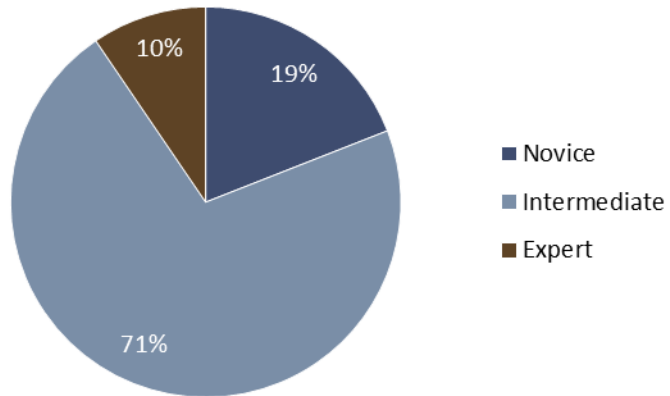
**Extract data from a programmable logic controller and analyze results**



**Use data identification systems including barcodes and RFID tags**



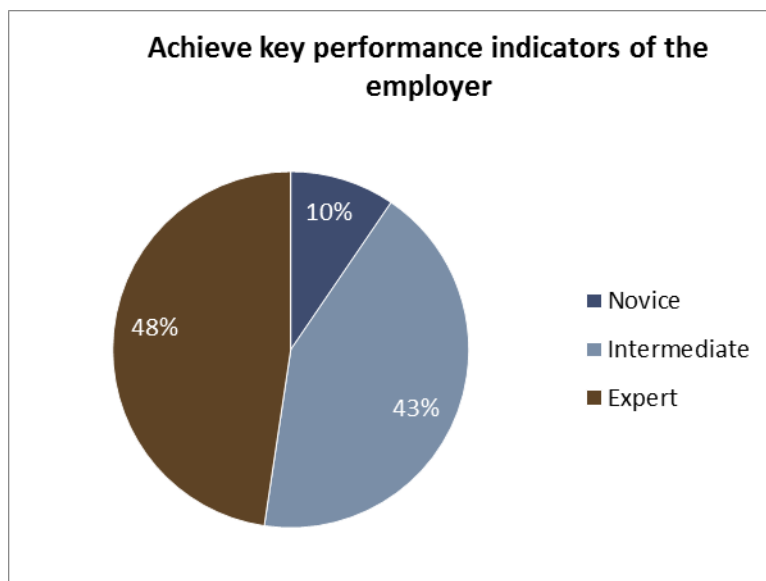
### Understand general networking concepts



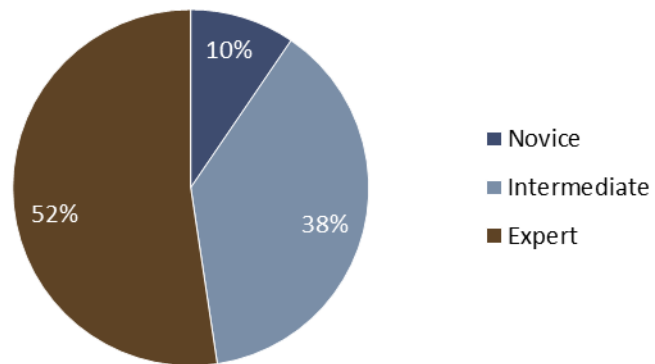
**Leadership.** There are eight (5) competencies associated with the knowledge area of leadership. Specifically, these include:

1. Achieve key performance indicators of the employer.
2. Achieve key performance indicators of immediate customers.
3. Serve as liaison between the operations team, equipment, and space.
4. Conduct “what if” analyses of multiple scenarios.
5. Serve as project manager.

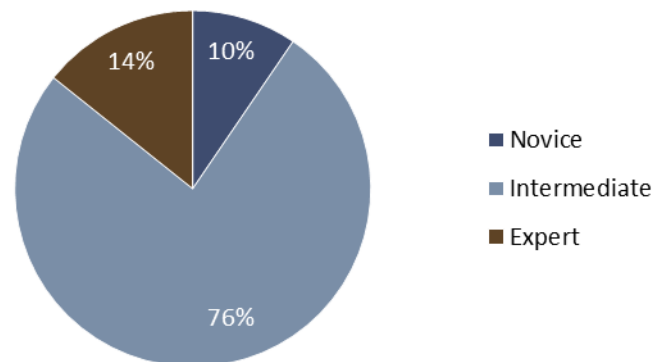
An additional competency identified is “Team Leadership and Personal Development.”



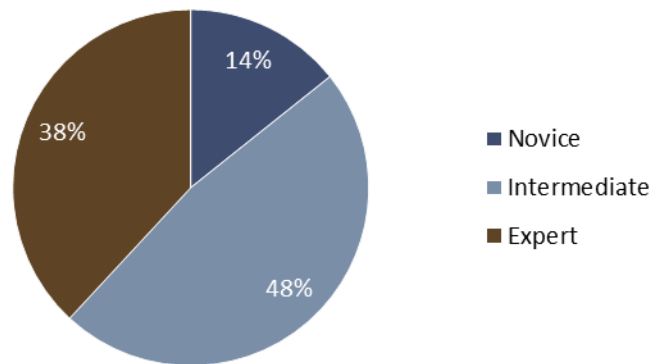
**Achieve key performance indicators of immediate customers**



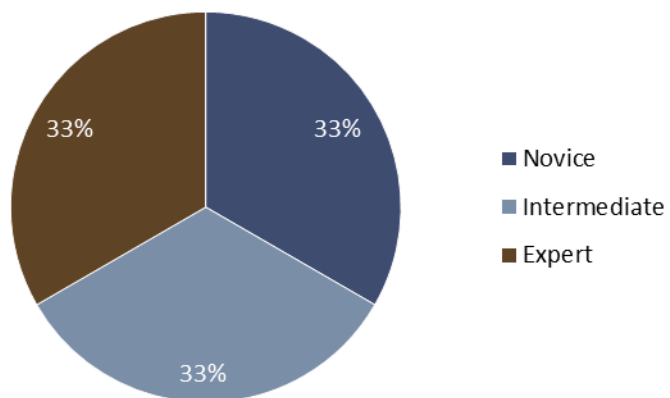
**Serve as liaison between the operations team, equipment, and space**



**Conduct "what if" analyses of multiple scenarios**



**Serve as a project manager**

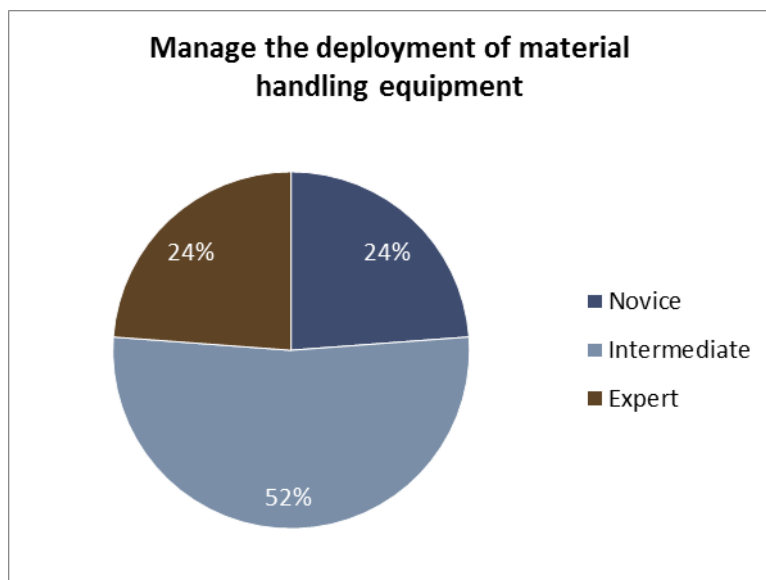
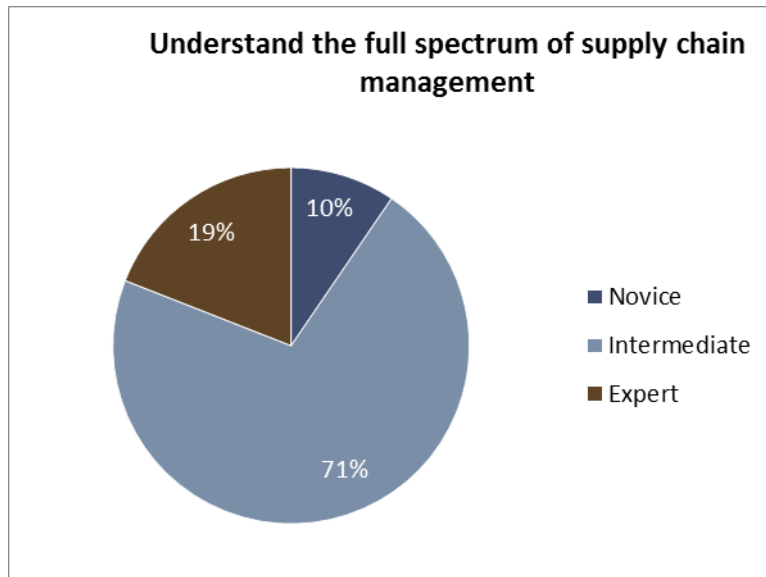




**Logistics.** There were two (2) competencies identified related to logistics. These are:

1. Understand the full spectrum of supply chain management.
2. Manage the deployment of material handling equipment.

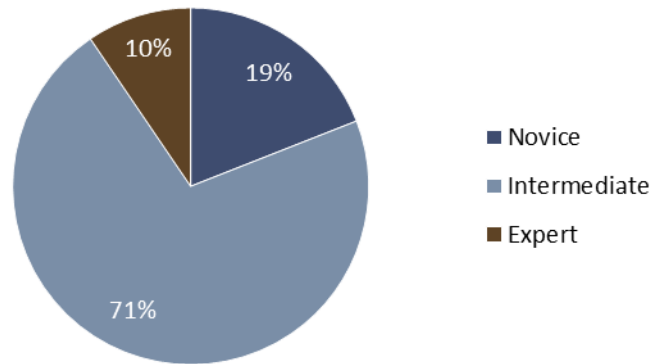
Additional competencies reported are: “General concepts of warehousing, ABC inventory, 3PL’s, buy vs. make, mode decision tradeoffs” and “Inventory lifecycles and reporting.”



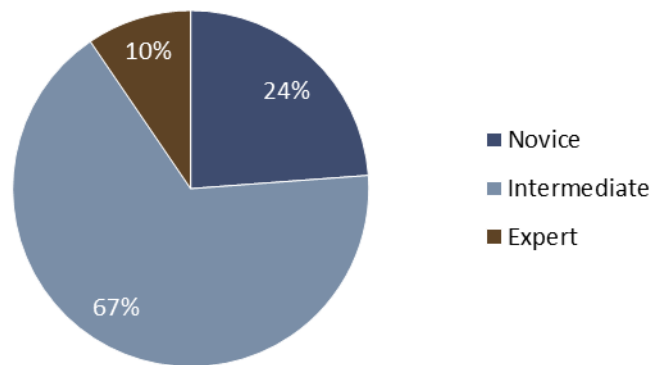
**Information Engineering Technology.** There are 15 competencies identified related to Industrial Engineering Technology. These are:

1. Troubleshoot and resolve issues with unfamiliar processes.
2. Understand basic capabilities and uses of simulations.
3. Review vendor specifications.
4. Use basic AutoCAD software functions.
5. Adhere to safety concepts in operations and materials handling.
6. Be aware of the regulatory environment (codes, permits, etc.)
7. Apply ergonomics concepts within daily work.
8. Conduct fundamental work measurement and time study.
9. Adopt continuous process improvement to discover and resolve problems.
10. Optimize resources (machines, technology, space, funding) within an environment.
11. Review facility layouts for optimization.
12. Design the optimal process for moving products.
13. Understand the impacts of process on operations and equipment.
14. Assist with the conceptual design and execution of processes.
15. Exercise effective decision-making.

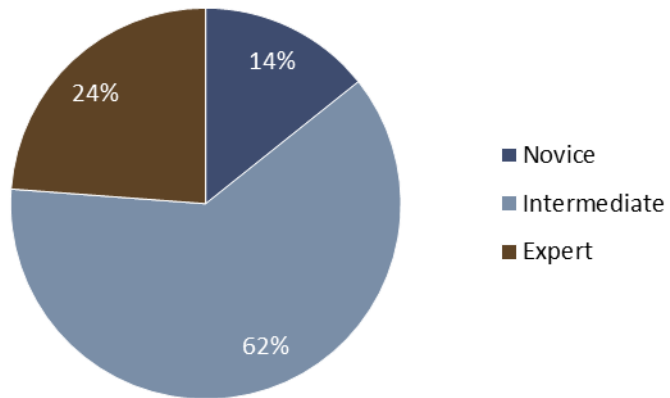
**Troubleshoot and resolve issues with unfamiliar processes**



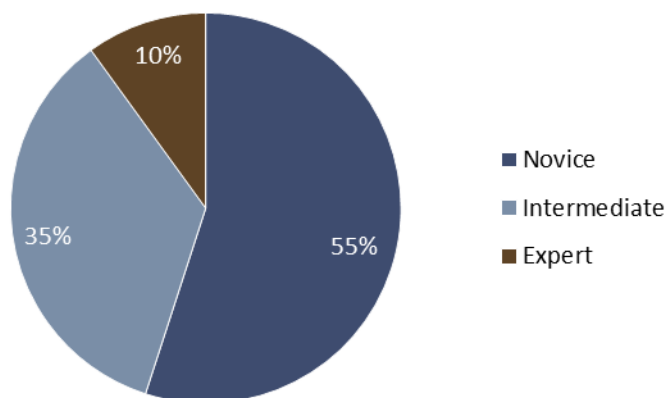
**Understand basic capabilities and uses of simulations**



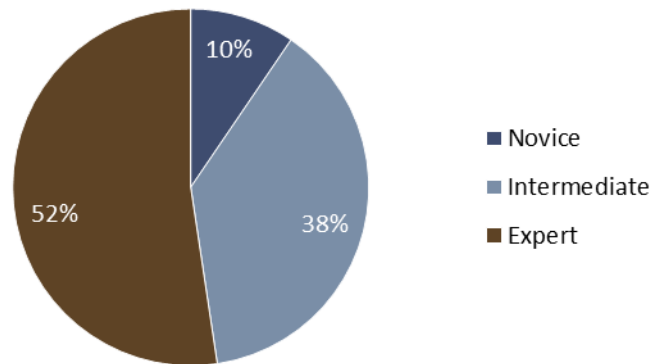
**Review vendor specifications**



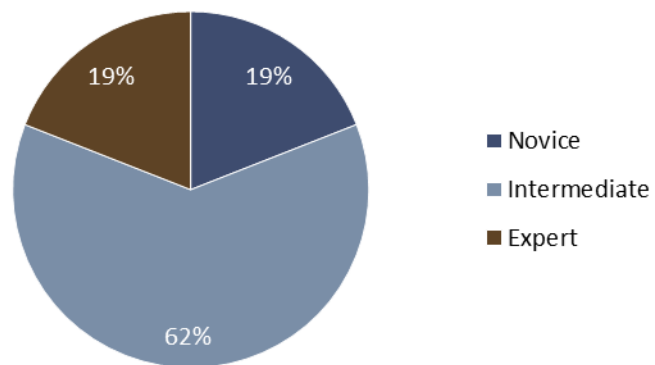
**Use basic AutoCAD software functions**



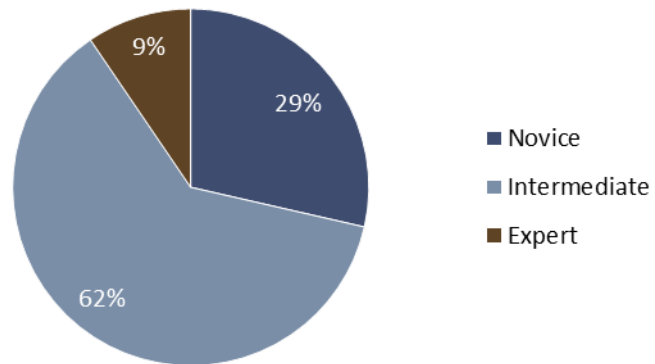
**Adhere to safety concepts in operations and materials handling**



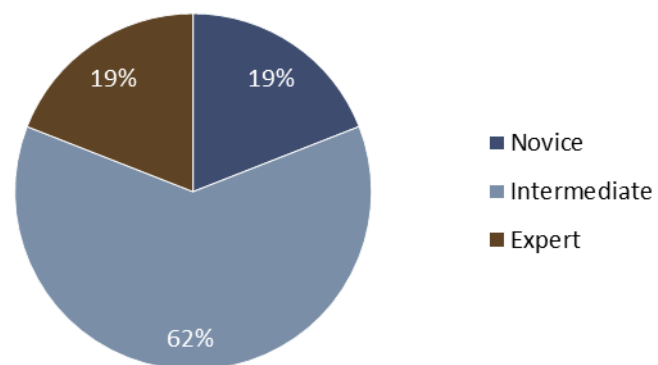
**Be aware of the regulatory environment (codes, permits, etc.)**



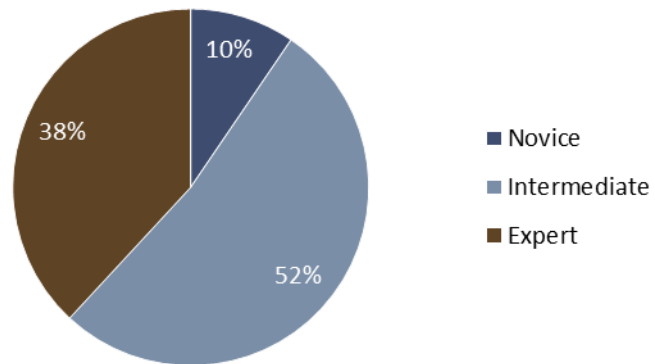
**Apply ergonomics concepts within daily work**



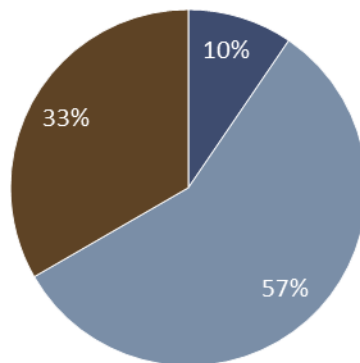
**Conduct fundamental work measurement and time study**



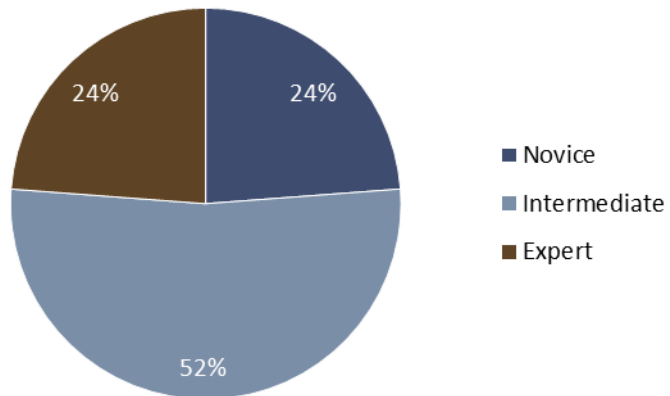
**Adopt continuous process improvement to  
discover and resolve problems**



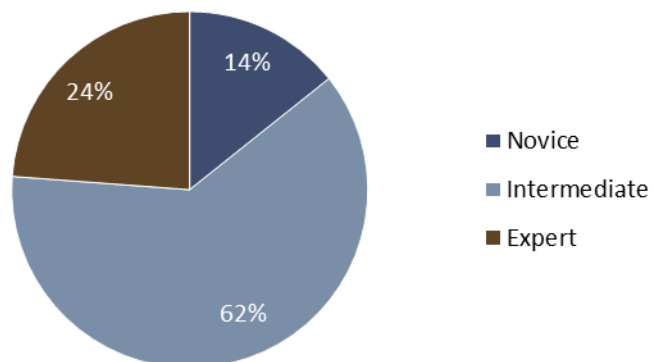
**Optimize resources (machines, technology,  
space, funding) within an environment**



### Review facility layouts for optimization

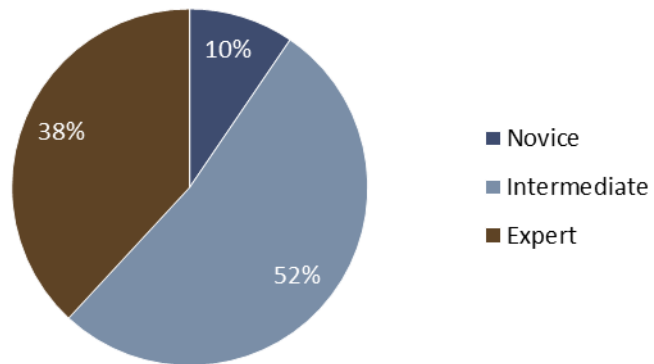


### Design the optimal process for moving products

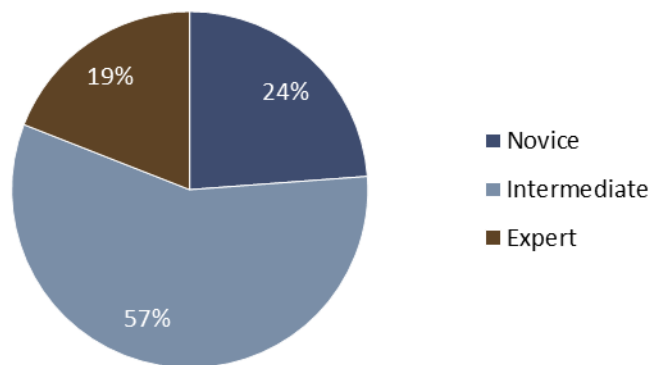




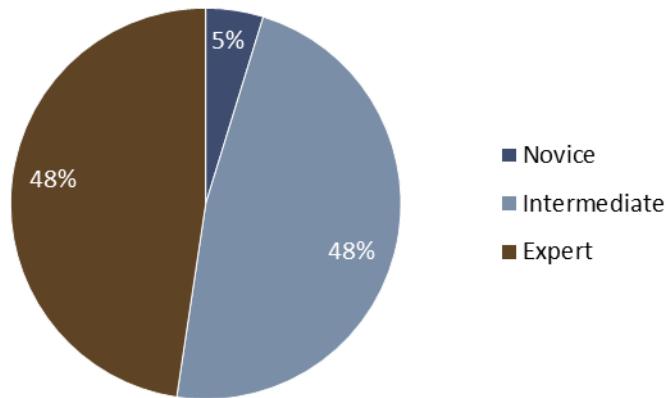
**Understand the impacts of process on  
operations and equipment**



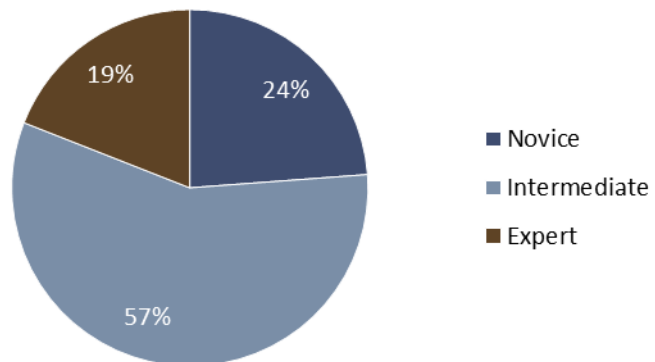
**Assist with the conceptual design and  
execution of processes**



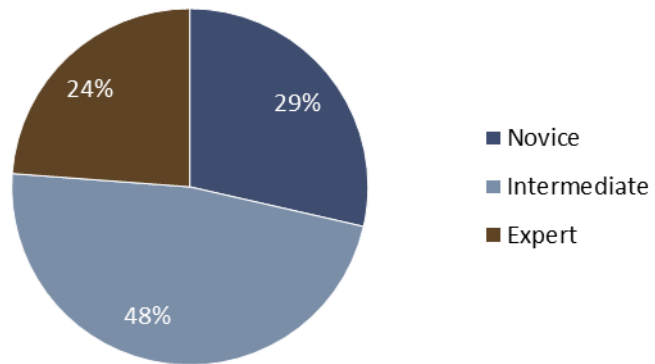
### Exercise effective decision-making



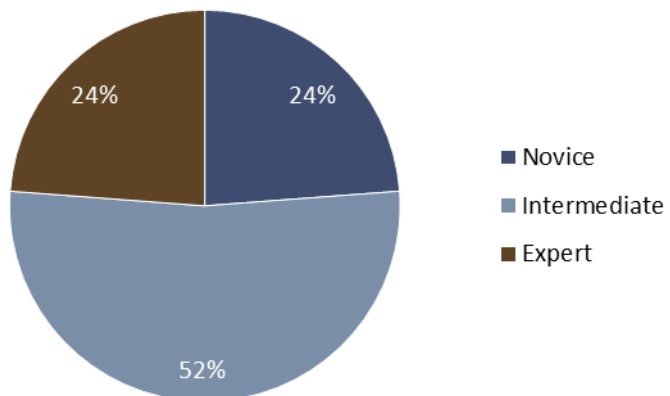
### Understand the use and programming of programmable logic controllers



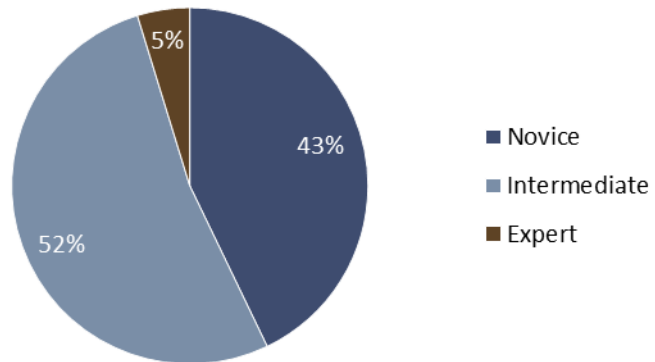
**Recognize the fundamentals of machine control**



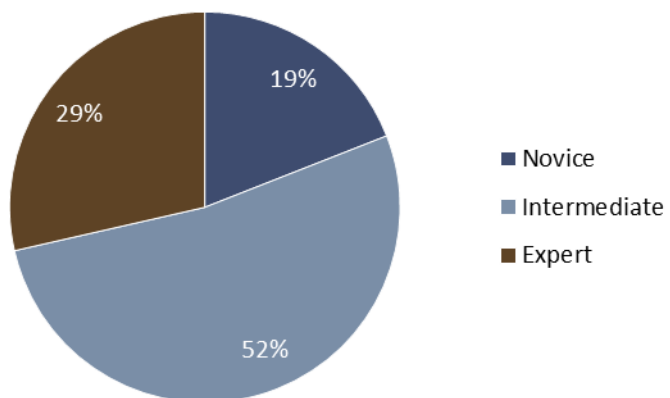
**Use warehouse control systems**



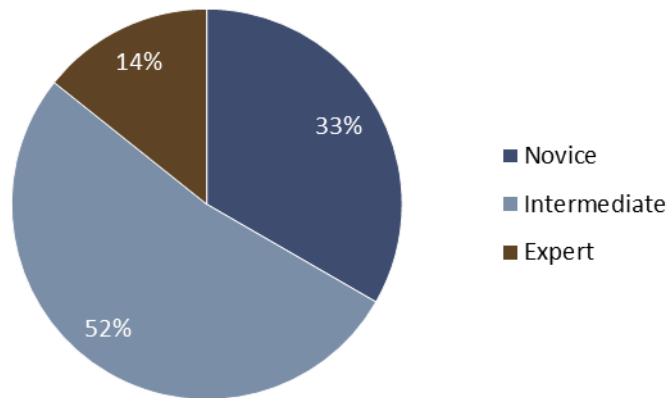
**Understand basic IT networking for the location of data drops**



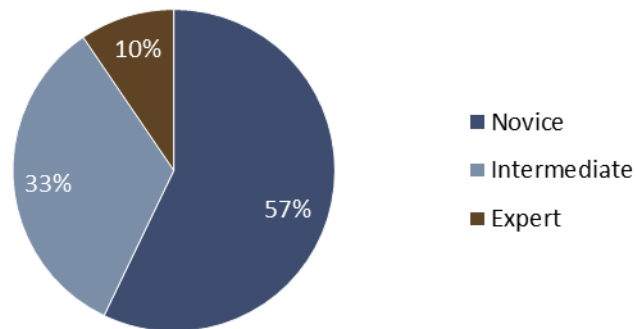
**Operate barcode scanners**



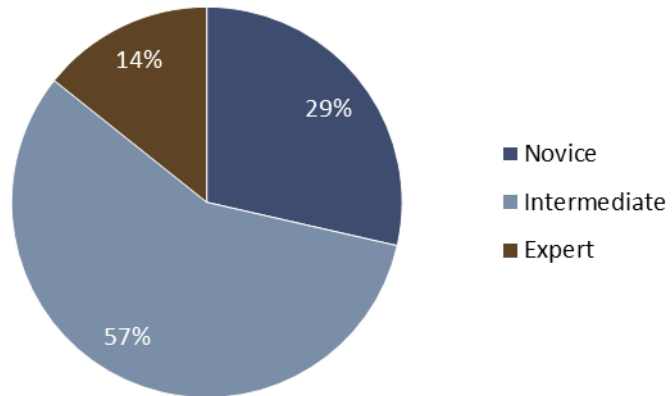
### Operate industrial electricity controllers



### Be aware of the basics of heating, ventilating, and air conditioning within a warehouse



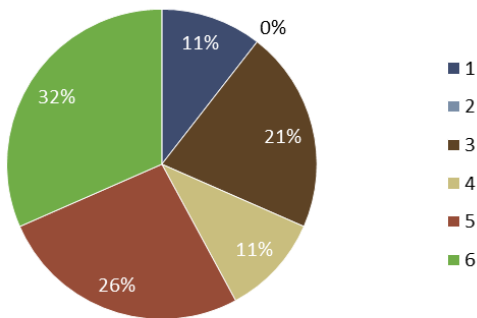
**Apply basic facilities management principles**



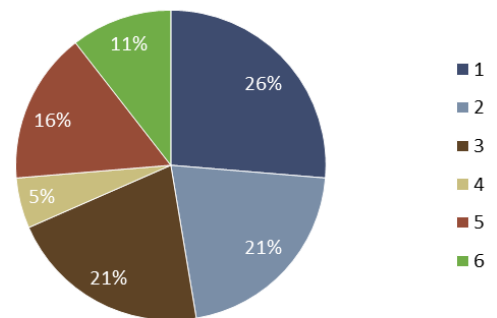
**Rank order of knowledge competencies.** Respondents were asked to rank order the six competencies identified: accounting, communication, information technology, leadership, logistics, and technical knowledge. Respondents provided these comments:

- Knowing the industry is very important followed by leading people and processes. The rest can be learned and is ""nice to have"".
- Sequential for an orderly learning and understanding to building a successful career in Logistics industry
- This is a tough one. They are all important and completing this survey makes me excited about the students that complete it.

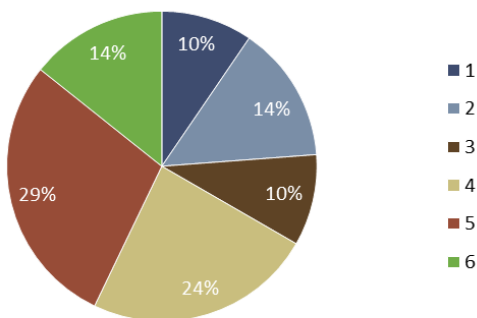
**Accounting**



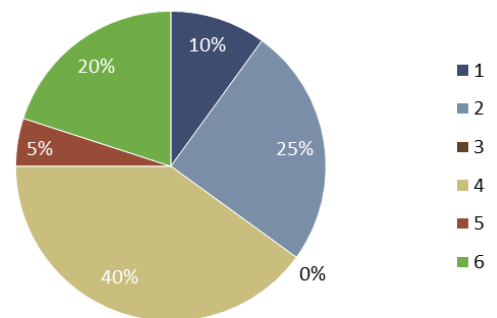
**Communication**



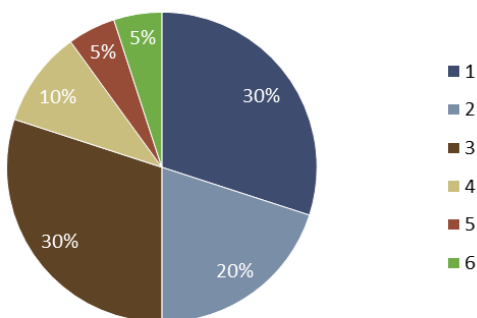
**Information Technology**



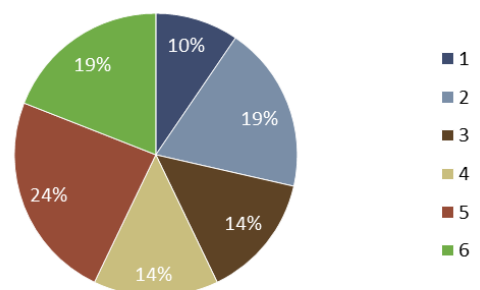
**Leadership**



**Logistics**

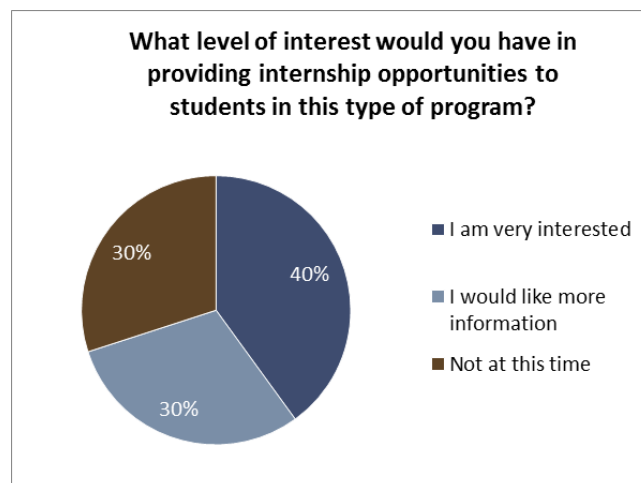
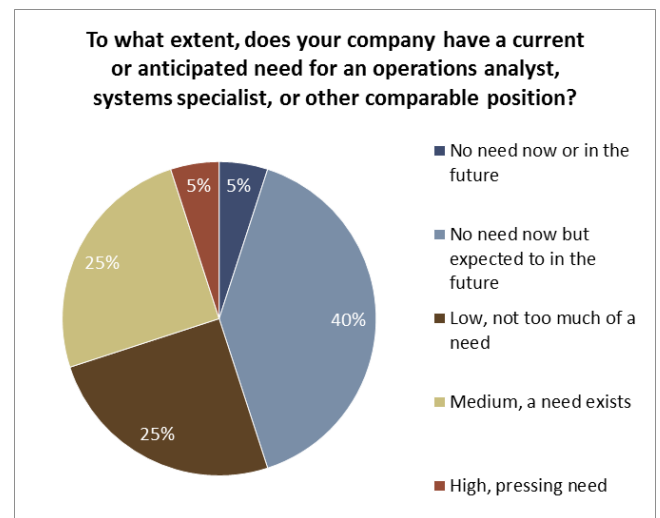
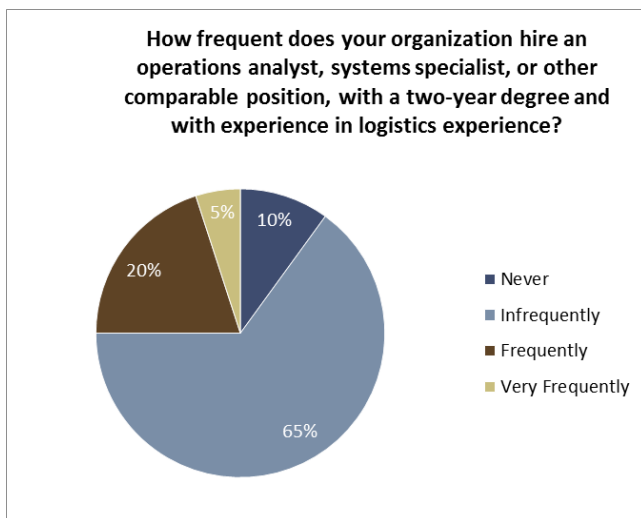


**Technical Knowledge (in Industrial or Electro-mechanical)**



**Industry hiring need and tendencies.** Respondents were asked to indicate the extent to which a LET like position is filled and expected future needs as well as willingness to provide internships. Respondents provided these additional comments:

- The answer to this question depends on the timing and actual need, but it could be urgent or no need at any time. We are always looking for qualified people.
- We have six (6) positions like this in Columbus but they are all currently filled. Two (2) of them just recently and they were VERY hard to fill.







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