Education and Work Survey of the Manufacturing Industry
Summary Report

conducted for
University of Missouri at St. Louis
Public Policy Research Center

by

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December 2006
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Manufacturing Industry Survey
Executive Summary

Methodology

ETC Institute administered a survey for the University of Missouri at St. Louis, Public Policy Research Center, during the Fall of 2006. The purpose of the survey was to gather input from businesses in the manufacturing industry to help identify current and future industry workforce needs.

The survey was administered by phone to a random sample of 203 manufacturing companies in the St. Louis metropolitan area. The overall results of the survey have a 95% level of confidence with a precision of at least +/- 5.4%.

This report contains (1) a summary of the major findings, (2) charts depicting the overall results of the survey, (3) tabular data for the overall results to each question on the survey, and (4) a copy of the survey instrument.

Major Findings

- **Current Stage of Manufacturing Companies.** Four percent (4%) of the companies surveyed indicated that they were a “start up or brand new business.” Forty-seven percent (47%) of the companies surveyed indicated that they were a “well established and stable business;” 38% were “well established and expanding,” and the remaining 11% “well established and downsizing.”

- **Resources Used for Staff Development/Training.** In-house staff (85%) was mentioned most often by manufacturing companies as a resource used to meet staff development and training needs. Trade Associations was next at 21%; followed by Private Vendors (20%), Career and Technical centers (14%), Community Colleges (13%), and Private Technical Colleges (13%).
Past Employee Growth. More than two-thirds (69%) of those surveyed had added at least once employee during the past year. One-third (31%) of the manufacturing companies surveyed have not added any full-time employees.

How Manufacturing Companies Think The Number of Positions They Have Will Change. One-third (35%) of companies surveyed thought that Production/Assembly positions would increase over the next 12 months. Thirty-one percent (31%) of the companies thought that Technical Skill positions will increase.

Current Challenges for Manufacturing Companies. Twenty-seven percent (27%) of the manufacturing companies surveyed felt that it was challenging to find employees that have advanced computer skills. Other skills/attributes that manufacturing companies considered to be challenges were: technical job skills, time management skills, and getting employees to show up to work on time.

Projected Growth in the Manufacturing Industry. Nearly half (47%) of the manufacturing companies surveyed indicated that their total employment would “increase” over the next 12 months. Forty-nine percent (49%) of the companies surveyed thought their company would “stay about the same.” Only one percent (1%) of the manufacturing companies indicated that total employment would “decrease” within their company over the next 12 months. The remaining 3% did not have an opinion.

Other Findings

- The three most beneficial types of training to the manufacturing companies surveyed were: OSHA 10 Safety Certification, training to develop basic math skills, and forklift operation training.
- Thirty percent (30%) of the manufacturing companies that participated in the survey have an Internal Training Department.
- More than one-third (36%) of the manufacturing businesses surveyed have added at least one (1) temporary employee to their company over the last 12 months.
Charts and Graphs
Q1: Current Stage of Manufacturing Company Respondents
by percentage of respondents

- Well estab.-stable: 47%
- Well estab.-expanding: 38%
- Well estab.-downsizing: 11%
- Brand new: 4%

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q2: Resources Manufacturing Companies Use to Meet Staff Development & Training Needs
by percentage of respondents (multiple responses)

- In-house staff: 85%
- Trade association: 21%
- Private vendors: 20%
- Career & Technical centers: 14%
- Community Colleges: 13%
- Private technical colleges: 13%
- Other: 10%
- Don't know: 2%

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q3: Percentage of Manufacturing Companies That Have an Internal Training Department

by percentage of respondents

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q3a. Number of Staff in the Internal Training Department

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q4: Number of Full-Time Employees That Have Been Added to Manufacturing Companies Over the Last 12 Months

by percentage of respondents

Mean # of employees = 7.03

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q5: Number of Temporary Employees That Have Been Added to Manufact. Companies Over the Last 12 Months

by percentage of respondents

- zero employees: 64%
- 1 employee: 12%
- 2 employees: 8%
- 3 employees: 5%
- 4 employees: 2%
- 5 employees: 2%
- 6 employees: 1%
- 7+ employees: 6%

Mean # of employees = 3.5

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q6a: Number of Permanent Employees Manufacturing Companies Have in Various Positions

median number of employees reported by companies that responded to the survey

- Production/Assembly employees: 5
- Other employees: 4
- Technical skill employees: 2
- Marketing/Customer Service personnel: 1
- Administrative/Financial/Clerical personnel: 1
- Maintenance workers: 0
- Research & Product Development employees: 0
- Transportation employees: 0

Source: ETC Institute: Manufacturing Industry (Fall 2006)
### Q6a: Number of Temporary Employees Manufacturing Companies Have in Various Positions

- **Administrative/Financial/Clerical personnel**: Mean # of employees = 4
- **Marketing/Customer Service personnel**: Mean # of employees = 3
- **Production/Assembly employees**: Mean # of employees = 1
- **Technical skill employees**: Mean # of employees = 1
- **Research & Product Development employees**: Mean # of employees = 1
- **Other employees**: Mean # of employees = 1
- **Transportation employees**: Mean # of employees = 1
- **Maintenance workers**: Mean # of employees = 0

**Source:** ETC Institute: Manufacturing Industry (Fall 2006)

### Q6b: How Manufacturing Companies Think the Number of Employees in Each Position Will Change Over the Next 12 Months

- **Production/Assembly employees**: Increase: 35%, Same: 63%
- **Other employees**: Increase: 32%, Same: 68%
- **Technical skill employees**: Increase: 31%, Same: 69%
- **Maintenance workers**: Increase: 14%, Same: 84%
- **Marketing/Customer Service personnel**: Increase: 14%, Same: 84%
- **Transportation employees**: Increase: 13%, Same: 85%
- **Administrative/Financial/Clerical personnel**: Increase: 7%, Same: 89%
- **Research & Product Development employees**: Increase: 4%, Same: 96%

**Source:** ETC Institute: Manufacturing Industry (Fall 2006)
Q7: How Challenging it Currently is For Manufacturing Companies to Get Employees With Various Skills or Attributes

by percentage of respondents who rated each item as a 1 to 5 on a 5-point scale (excluding don't knows)

- Have basic math skills: 66% Not challenging (1/2), 22% Neutral (3), 12% Very challenging (4/5)
- Have basic computer skills: 65% Not challenging (1/2), 17% Neutral (3), 18% Very challenging (4/5)
- Have good reading skills: 64% Not challenging (1/2), 20% Neutral (3), 16% Very challenging (4/5)
- Show up to work on time: 64% Not challenging (1/2), 14% Neutral (3), 22% Very challenging (4/5)
- Have advanced computer skills: 62% Not challenging (1/2), 11% Neutral (3), 27% Very challenging (4/5)
- Have communication skills: 61% Not challenging (1/2), 21% Neutral (3), 18% Very challenging (4/5)
- Are productive: 59% Not challenging (1/2), 21% Neutral (3), 20% Very challenging (4/5)
- Have time management skills: 57% Not challenging (1/2), 21% Neutral (3), 22% Very challenging (4/5)
- Have technical job skills: 56% Not challenging (1/2), 19% Neutral (3), 25% Very challenging (4/5)

Q8: Training Topics Manufacturing Companies Would be Interested in Offering to Their Employees

by percentage of respondents (multiple responses)

- First aid training: 18%
- Basic OSHA training: 18%
- OSHA supervisor training: 13%
- Industrial safety training: 13%
- Diversity training: 9%
- Sexual Harassment training: 9%
- Training to prevent violence: 9%

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q9: **Computer Training Topics** Manufacturing Companies Would be Interested in Offering to Their Employees

by percentage of respondents (multiple responses)

- Microsoft Word: 8%
- Beginning Excel: 7%
- Advanced Excel: 7%
- Beginning Project Management: 5%
- Intermediate Excel: 5%
- Advanced Windows: 5%
- Intermediate Project Management: 5%
- Advanced Project Management: 5%
- Beginning Windows: 3%
- Training to use e-mail: 3%

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q10: **Management Training Topics** Manufact. Companies Would be Interested in Offering to Their Employees

by percentage of respondents (multiple responses)

- Time management skills training: 12%
- Team leadership training: 11%
- How to manage problems: 10%
- Communicating & Listening skills: 9%
- How to motivate others: 9%
- Basic supervisory certificate program: 8%
- Training on how to lead meetings: 5%
- How to improve interviewing skills: 5%
- Business writing & grammar skills: 4%
- Other: 1%

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q11: OTHER Training Topics Manufacturing Companies Would be Interested in Offering to Their Employees

by percentage of respondents (multiple responses)

- Principles of lean manufacturing: 10%
- Auto Cad: 9%
- Production & inventory management training: 7%
- Fundamentals of set-up reduction: 7%
- Hydraulic troubleshooting: 7%
- Electrical troubleshooting: 6%
- Blueprint reading: 6%
- CNC programming: 5%

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q13: How Beneficial Respondents Thought Various Training Topics Would Be

by percentage of respondents who rated each item as a 1 to 5 on a 5-point scale (excluding don't knows)

- OSHA 10 safety certification: 18% Very beneficial, 4% Neutral, 78% Not beneficial
- Forklift operations: 16% Very beneficial, 9% Neutral, 75% Not beneficial
- Basic math skills: 15% Very beneficial, 9% Neutral, 76% Not beneficial
- Basic mechanical skills: 13% Very beneficial, 5% Neutral, 83% Not beneficial
- Workplace readiness: 12% Very beneficial, 5% Neutral, 83% Not beneficial
- Basic computer skills: 10% Very beneficial, 6% Neutral, 84% Not beneficial
- Precision measurement: 10% Very beneficial, 4% Neutral, 86% Not beneficial
- Basic hand tool use: 9% Very beneficial, 6% Neutral, 86% Not beneficial
- Basic welding skills: 8% Very beneficial, 3% Neutral, 88% Not beneficial
- Blue print reduction skills: 6% Very beneficial, 5% Neutral, 89% Not beneficial

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q14: Training Topics That Manufacturing Companies Indicated Are MOST Beneficial to Their Company

by percentage of respondents who selected the item as one of their top three choices

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<thead>
<tr>
<th>Topic</th>
<th>1st Choice</th>
<th>2nd Choice</th>
<th>3rd Choice</th>
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<td>Basic math skills</td>
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</tbody>
</table>

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Q15: Does Your Company Plan to Increase or Decrease Total Employment Over the Next 12 Months?

by percentage of respondents

- Increase: 47%
- Stay about the same: 49%
- Don't know: 3%
- Decrease: 1%

Source: ETC Institute: Manufacturing Industry (Fall 2006)
Q15a & b. How Many Jobs Does Your Company Plan to Add (or Reduce) Over the Next 12 Months?

Source: ETC Institute: Manufacturing Industry (Fall 2006)

Mean number of employees reported by companies that plan on increasing or decreasing employment

- Manufacturing Jobs: 5.6
- Non-Manufacturing Jobs: 1.6

Q16: Would You be Interested in Participating in a Regional Training Group That Would Inform Training Providers of Current and Future Needs and to Share Training Costs?

Source: ETC Institute: Manufacturing Industry (Fall 2006)