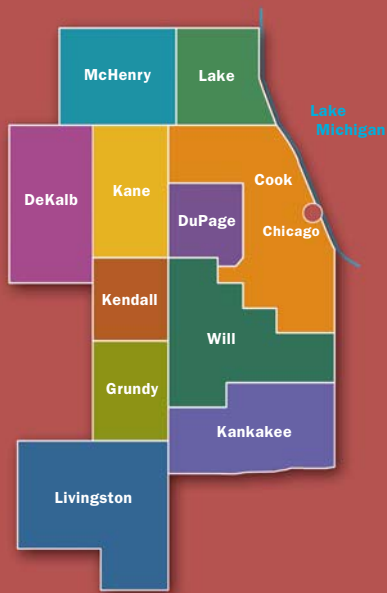


MANUFACTURING WORKFORCE

Not Disappearing – Just Changing





The Workforce Boards of Metropolitan Chicago

- Chicago Workforce Board
- Cook County Workforce Investment Board
- DuPage Workforce Board
- Grundy Livingston Kankakee Workforce Board
- Lake County Workforce Investment Board
- McHenry County Workforce Investment Board
- River Valley Workforce Investment Board
- The Workforce Board of Northern Cook County
- Workforce Investment Board of Will County

An Unprecedented Collaboration

The intelligence gathered and initiatives currently underway are the result of a regional collaboration that is unprecedented. The success of this process was dependent on regional stakeholders¹ and employers sharing their knowledge and experience. The Workforce Boards of Metropolitan Chicago are grateful for their energy, enthusiasm and insight, and look forward to continuing to work with them to insure the metropolitan Chicago region’s manufacturing industry is amongst the most competitive in the world.

¹ Regional stakeholders included professional and trade associations, labor unions, secondary and post secondary educational institutions, training providers, employment programs and staffing firms, community organizations and interest groups, foundations, local and state government, economic development professionals, and workforce professionals.

Manufacturing Workforce

The manufacturing industry worldwide is in the midst of structural change — technology, globalization and competition are permanently changing what gets manufactured, as well as how, where, and by whom. These frequently cited and interrelated dynamics are not unique to manufacturing, however their combined and simultaneous impact on the industry has been formidable.

While the metropolitan Chicago region² has seen a significant drop in manufacturing employment, the industry still employs nearly half a million people in the area, produces two-thirds of Illinois' total exports (most of which are distributed through Chicago), and generates one of every three jobs in the state.³

Chicago area manufacturers must find new ways to remain competitive through quality improvement, innovation, and the identification of new markets. These strategies require the development of a flexible and highly skilled workforce; it's not just today's skills shortages that pose challenges, but the skills needed for tomorrow as well.

The Workforce Boards of Metropolitan Chicago (Workforce Boards) are a consortium of nine Workforce Boards that began working together several years ago, as a region, to address workforce issues. As a result of a comprehensive analysis of the region's present and forecasted economic status and labor market, as published in the *2003 State of the Workforce Report for the Metropolitan Chicago Region*⁴, the Workforce Boards identified the manufacturing industry as one of six industries in the region to address through sector-based workforce strategies.

In May 2003, the Workforce Boards in cooperation with the manufacturing industry convened the Manufacturing Workforce Summit. The summit and follow-up activities focused on identifying how the workforce development system could assist the industry in addressing their workforce challenges.

Those efforts continued and expanded in the past two years. During 2004, the Workforce Boards developed and deployed an online curriculum designed to help workforce development professionals expand their knowledge of the manufacturing industry and to offer improved services to manufacturing employers. The Workforce Boards, in cooperation with several co-sponsors, also convened a technical assistance conference designed to stimulate the development and implementation of "bridge" programs for individuals pursuing entry-level employment or job advancement in the manufacturing industry.

² The metropolitan Chicago region includes the City of Chicago, and Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will counties.

³ The State of Illinois Manufacturing, A Report to the Illinois Manufacturing Association, Center for Labor and Community Research, December 2003.

⁴ A copy of the 2003 State of the Workforce Report for the Metropolitan Chicago Region can be found at <http://www.workforceboardsmetrochicago.org/articles/article2.cfm>.

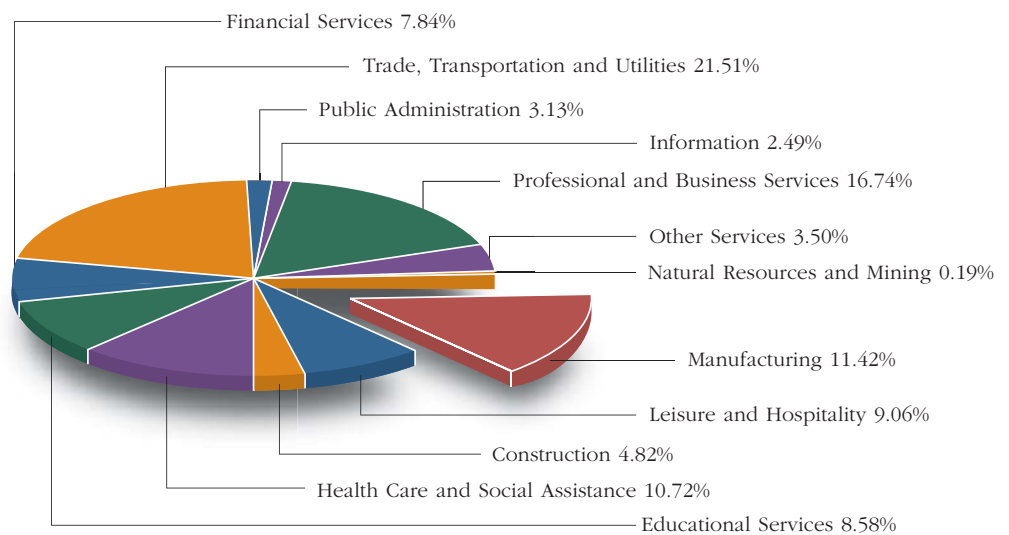




Regional activities undertaken with the industry also benefited from an initiative launched by Governor Blagojevich: Illinois' Critical Skill Shortages Initiative (CSSI)⁵. The CSSI was designed to:

- Assess the occupational and skill needs of industry sectors deemed critical to the region's economy;
- Identify critical workforce needs and challenges that threaten to undermine their competitiveness;
- Identify the reasons for these workforce shortfalls, both short-term and long-term; and
- Involve employers and key industry associations, as well as other stakeholders, in the process of identifying and implementing solutions to these challenges.

2004 EMPLOYMENT BY INDUSTRY⁶



This report highlights The Workforce Boards of Metropolitan Chicago's efforts to address the manufacturing workforce critical shortages in the Northeast Economic Development Region⁷. It is a snapshot of the workforce challenges facing the manufacturing industry in metropolitan Chicago and is not intended to be a comprehensive assessment of the industry or its needs. The report focuses on unfilled jobs, skill gaps, and related human resource and training issues. Additionally, the report includes solutions developed by the stakeholders in the Northeast Economic Development Region, with support and leadership from the Workforce Boards, and a description of the initiatives funded under the CSSI.

⁵ The Critical Skill Shortages Initiative is supported with Workforce Investment Act funds administered by the Department of Commerce and Economic Opportunity. More information on this initiative is available at www.illinoisbiz.biz/wia2/CSSI.html.

⁶ Employment data for Northeast Economic Development Region, 2004 Quarter 1, provided by Illinois Department of Employment Security.

⁷ While the Workforce Boards have defined the metropolitan Chicago region as including Livingston County, the Illinois Department of Commerce and Economic Opportunity has defined Northeast Economic Development Region as not including Livingston County.

Understanding the Problem

Illinois has had a strong presence and tradition in manufacturing since the turn of the 20th century. In the past few decades Illinois' manufacturing sector has been facing competition from low-wage manufacturers in developing countries, highly skilled manufacturers in developed countries, and southern and western states in the United States. The outlook for Illinois' manufacturing economy, however, is not bleak.

- The manufacturing sector continues to be an important contributor to the state economy. It contributes \$0.48 in purchases within the state for every dollar spent on manufacturing output, putting \$34 billion back into the Illinois economy⁸.
- For every one manufacturing job created in Illinois, another 2.7 jobs are created in other sectors, which in 2000, equated to 1.4 million jobs that relied on the manufacturing sector⁹.
- While the number of very small and very large manufacturing companies is diminishing, the number of companies with between 10 and 19 workers grew about 13 percent between 1982 and 2001¹⁰.
- In order to stay competitive, manufacturing companies are also becoming more high-tech. Illinois ranks highly in high-tech manufacturing measures, which bodes well for the state's manufacturing base.¹¹

Companies are using more sophisticated computerized packaging lines, inventory management, and delivery systems. These new employment opportunities in the sector require new skills, additional training, and more advanced education. In order for the metropolitan Chicago region to stay competitive, they must retain and attract highly skilled workers into their manufacturing subsectors. Without these employees many startup companies will locate in other areas or move to where they can find a highly skilled workforce. Larger companies will not reinvest in manufacturing facilities that cannot employ the facilities with qualified employees.¹²

PERCENTAGE EMPLOYMENT¹³

Employment	USA (in millions)	Illinois (in millions)	Large Metro Areas in USA (in millions)	Chicago Region (in millions)
Total	129,931	5.80	40.3	4.1
Total manufacturing	14,525	0.72	3.0	0.5
Percent employed in manufacturing	11.2%	12.3%	11.0%	11.5%

^{8,9} The State of Illinois Manufacturing, A Report for the Illinois Manufacturers' Association, Center for Labor and Community Research, December 2003.

¹⁰ Bureau of Labor Statistics, Covered Employment & Wages, 2001.

¹¹ From Cyberstates 2002, "Illinois Tech Job Growth Slows in 2001," American Electronics Association, released in Rolling Meadows, IL, June 26, 2002.

¹² Chicago Federation of Labor and the Center for Labor and Community Research, "Creating A Manufacturing Career Path System in Cook County" December 2001.

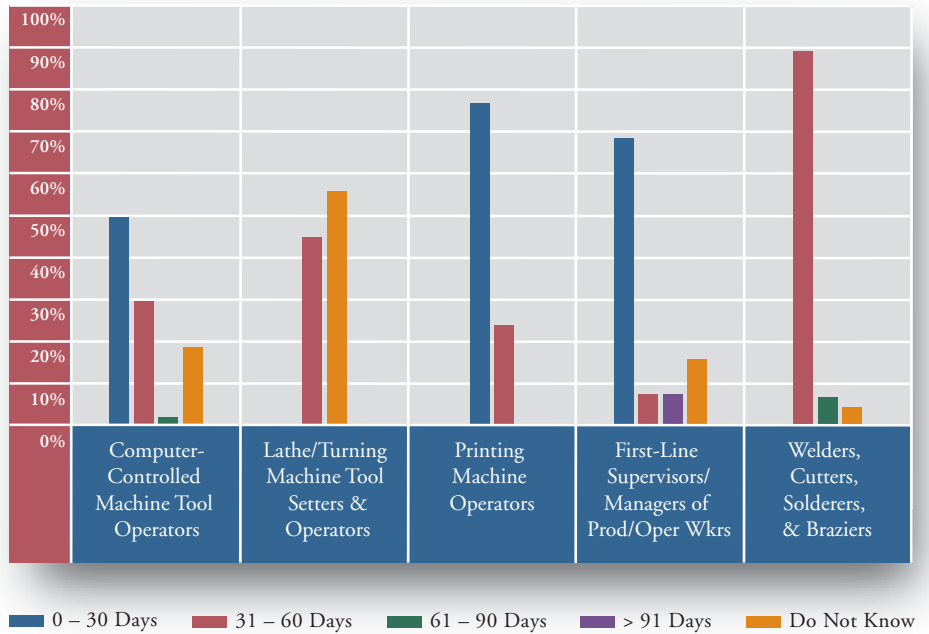
¹³ US Bureau of Economic Analysis, 2003, Illinois Workforce Info Center <http://wic.ilworkinfo.com/analyzer/cesNaics.asp?cat=IND&session=INDCES&subsession=99&tableused=CES&rollgeo=02&defaultcode=&time=20030100&currsubsessavail=&siclevel=3&naicslvl=6&incsource=&sgltime=0&AreaAbr=&geo=1702001600&areaname=Chicago%20PMSA&codeleagl>, and US Conference of Mayors, 2003. Although the publication dates differ, the source data is from the same year.





The manufacturing industry does face serious skills shortages in a number of occupations within specific subsectors and across the industry, both short-term and long-term. The Workforce Boards in cooperation with public- and private-sector stakeholders committed to the continued health and further development of this important industry, set out to determine "why" these skill shortages exist.

DURATION OF VACANCY¹⁴



The framework for gathering baseline research for the purpose of identifying critical skill shortages in the metropolitan Chicago’s manufacturing industry, as well as the factors contributing to them and potential solutions, included the following:

- A national scan of literature defined workforce challenges and identified emerging strategies/practices to address them;
- Secondary data was compiled to provide a basis for analysis of the industry;
- Employer surveys, interviews, and focus groups determined critical hiring needs and related information such as hiring practices, duration of vacancies, qualifications required, and reasons for a lack of qualified job candidates.
- Surveys, interviews, and focus groups of current employees offered insights into occupational requirements and working conditions;

¹⁴ The Workforce Boards of Metropolitan Chicago, Job Vacancy Survey Final Report, prepared by the Economic Information and Analysis Division of the Illinois Department of Employment Security, May 2004, pages 22 and 23. A total of 1,273 non-durable manufacturers and 1,729 durable manufacturers were included in the survey sample; data is based on responses from 788 non-durable manufacturers and 1,083 durable manufacturers.



- Focus groups with high school students, community college students, and job seekers identified common perceptions and misperceptions associated with manufacturing careers;
- An inventory of producers provided a picture of regional and local capacity in training qualified workers for high-demand occupations;
- Career paths that would allow entry level employees to move into high-demand occupations were identified;
- A group of stakeholder employers were consulted for the purpose of validating research results and providing much-needed input; and
- Brainstorming sessions with representatives of the industry assisted with the identification of possible solutions.

Critical Occupations: Defining the Demand

In the Northeast Economic Development Region, 14 critical skill shortage occupations were identified for the manufacturing industry on which to focus regional efforts. These occupations were identified through a process that included the analysis of projected short-term and long-term growth in the metropolitan Chicago region, length and level of education required to attain needed skills, and/or certifications for each occupation, and wage information.

Projected short-term and long-term shortages are reflected on the chart that follows. The demand is based on labor market projections that have been adjusted with supply data.¹⁵

DEMAND VS. SUPPLY: CRITICAL CAREER SHORTAGES

Occupation/Occupational Clusters	Demand ¹⁶	Supply Short Term	Supply Long Term	Estimated Shortage Short Term	Estimated Shortage Long Term
Electrical and Electronic Engineering Technicians	297	263	104	34	193
Welders, Cutters, Solderers, and Braziers	754	77	215	677	539
Machinists	380	119	313	261	67
Metal and Plastic Machinery Cluster ¹⁷	2,243	195	0	2,048	2,243
Supervisors/Managers Cluster ¹⁸	1,317	186	0	1,131	1,317

¹⁵ For the purpose of projecting the supply of skilled workers for critical skill shortage occupations, completer data available through the Illinois Community College Board as well as the Workforce Boards of Metropolitan Chicago's Inventory of Producers produced by Thomas P. Miller were used.

¹⁶ Demand — annual job openings 2000 to 2010 plus current vacancies based on data available through the Illinois Department of Employment Security.

¹⁷ The Metal & Plastic Machinery Cluster includes: Metal Workers and Plastic Workers; Mixing and Blending Machine Setters, Operators, and Tenders; Printing Machine Operators, Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic; Rolling Machine Setters, Operators, and Tenders, Metal and Plastic; Computer-Controlled Machine Tool Operators, Metal and Plastic; Maintenance and Repair Workers, General; and Industrial Machinery Mechanics.

¹⁸ The Supervisors/Managers Cluster include: First-Line Supervisors/Managers of Production and Operating Workers; First-Line Supervisors/Managers of Mechanics, Installer, and Repairers; and First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand.



Increasing Production of Skilled Workers: The Solutions

Further analysis of the region's skill shortages focused on the following questions: "Why aren't there enough workers for these jobs?" and "How do we turn the situation around?"

It is also important to note that despite the differences among the 10 industry subsectors, the challenges were remarkably common across manufacturing. The differences in challenges between durable and non-durable manufacturing were virtually non-existent. Thus, the proposed solutions are not separated by subsector.

METROPOLITAN CHICAGO'S MANUFACTURING SECTORS¹⁹

Type of Goods	Specific Manufacturing Sector
Durable Goods	Primary Metals
	Fabricated Metals
	Industrial Machinery and Equipment
	Electrical Equipment
	Professional and Scientific Instruments and Supplies
Non-durable Goods	Food and Kindred Products
	Printing, Publishing, and Allied Products
	Chemical and Allied Products
	Petroleum Refining and Related Products
	Rubber and Plastic Products

Solutions identified for addressing the causes contributing to supply shortages are summarized as follows:

Enhance regional collaboration across the industry.

The metropolitan Chicago region is fortunate to have numerous excellent manufacturing workforce programs and organizations. Many of these organizations operate in a specific area within the region while others focus on

¹⁹ These sectors were selected using specific criteria that identified them as "strong performers," with growth potential or currently in growth mode, and among the industries with a greater than average impact on the regional economy. For more information on the selection criteria, see *Critical Skill Shortages Report on the Manufacturing Sector for the Northeast Illinois Economic Development Region*, prepared by Hudson Institute for The Workforce Region, June 2004.

a specific occupation or subsector. These programs and organizations offer the possibility of leveraging resources, the ability to learn from what's been done and expand it to other parts of the region, and a means of accelerating the implementation of solutions.

CSSI stakeholders propose enhanced collaboration in the region through some formal organizational structure, but the type of structure is less important than its existence. One model is a regional umbrella organization — a consortium, alliance, collaborative, or partnership;²⁰ another comprises a network where different partners own responsibility for different program or service elements; another might be a series of inter-organization agreements that detail a course of action to address frequent and common requests or needs.

A collaborative approach — regardless of the form it takes — would enhance cooperation and coordination among and across sectors and professional associations and their members. It would bring the key players in the region together to work on shared challenges. Many organizations likely to play important roles in the consortium have worked closely with the Workforce Boards during CSSI project planning activities.

The consortium might focus on both the solutions presented in this report as well as provide a vehicle for identifying and addressing new challenges over time. It could serve as an organized source of information about and referral to manufacturing workforce programs and initiatives across the region, and as a clearinghouse, seeking to leverage and improve existing efforts and provide information about best practices, referral, and direct help as needed.

A specific area of focus in the short-term might be strategic workforce planning — within subsectors, within firms, and within supply chains or groups of firms — to address the consequences of the aging manufacturing workforce and its far more diverse and much younger replacement. Firms participating in the CSSI project expressed a demand for help:

- Finding ways to enable older workers to remain on the job. Flex-time, job-sharing, and part-time work arrangements were all suggested as potential approaches;
- Finding ways to extract, manage, and share the knowledge and expertise of skilled employees before they retire. Mentoring programs, documentary initiatives, and formal succession planning at all levels were suggested as potential approaches;
- Finding new and better ways to do existing work (innovation); and
- Finding effective and efficient ways to fill open jobs with qualified candidates, including filling specific skill or language gaps that might prohibit otherwise qualified employees from advancing.

²⁰ This collaboration will be referred to as "consortium" throughout the remainder of this document for purposes of clarity.





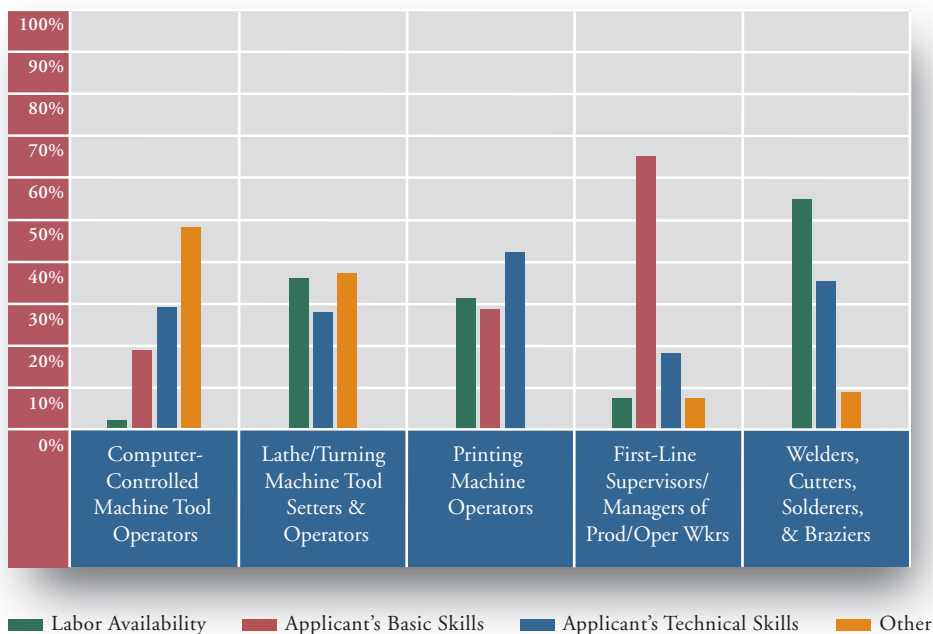
A collaborative approach to addressing these challenges can greatly reduce the costs of these services to individual firms, and improve dissemination of good practices throughout the region.

Promote training that delivers results.

The most common need expressed by the region’s manufacturing firms was providing new skills and knowledge to its workforce. The demands of entry-level jobs are increasing and new technologies and processes are requiring on-going training for life. As part of the CSSI process, many firms pointed to specific practices that were raising their skill demands:²¹

Automation — The integration of new technologies on the factory floor has been, and will continue to be, relentless. Economists²² argue that any manufacturing job that can be broken down into repeatable tasks will soon disappear. The new jobs will be fewer, and will require more sophisticated skill sets. Automation — from robots to RFID²³ tags — is not about "learning to use the new computer." Increasingly, firms expect employees to be able to learn to operate, integrate, and manage new equipment on an ongoing basis, and to look for ways these technologies could be made better, faster, or be applied elsewhere as part of a lean, high-quality production process.

HIRING DIFFICULTIES²⁴



²¹ Root Causes for Critical Skill Shortages in Manufacturing, prepared by Corporation for a Skilled Workforce for The Workforce Boards of Metropolitan Chicago, July 2004, pages 28 and 29.

²² "The Future of Work," *Business Week Special Report*, March 2004.

²³ Radio-frequency identification tags; many of the firms with whom we met are using more and more of this technology at the request of their customers.

²⁴ The Workforce Boards of Metropolitan Chicago, Job Vacancy Survey Final Report, prepared by the Economic Information and Analysis Division of the Illinois Department of Employment Security, May 2004, pages 47 and 48. A total of 1,273 non-durable manufacturers and 1,729 durable manufacturers were included in the survey sample; data is based on responses from 788 non-durable manufacturers and 1,083 durable manufacturers.

Quality initiatives or processes — Lean Manufacturing²⁵ and Six Sigma²⁶ or Zero Defect initiatives were common²⁷ processes firms participating in the CSSI project were introducing into their operations. A few firms also cited ISO 9000 and 14000.²⁸ While these firms were at very different levels of progress, they shared the recognition that new quality improvement methods were increasing the skill levels expected of employees. All of these quality improvement processes rely on measurement, analysis, and problem-solving. They demand that employees see their roles in relation to the whole manufacturing process and be able to own and improve the variables over which they exercise control.

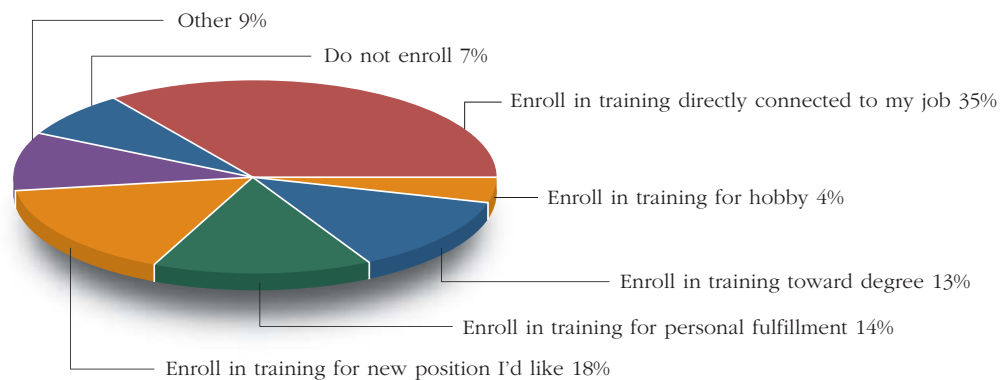
New (and more diverse) customer demands — Manufacturers are demanding more of their suppliers as their customers demand more of them. Firms are increasingly expected to adhere to a greater variety of standards and processes to which they must adapt with increasing speed and accuracy. This constant change requires employees who are flexible and ever willing to learn, and able to contribute new ideas as their firms seek to remain competitive in the new economy.

Three types of training in particular emerged as critical to the health and economic competitiveness of the metropolitan Chicago region's manufacturing industry. These include:

- **Training for job-seekers and career changers seeking to work in entry-level high demand occupations.** This training focuses on skills for specific high demand occupations, with the expectation that individuals seek careers in the industry.

OPPORTUNITY FOR TRAINING²⁹

Individuals currently employed in manufacturing occupations were asked what kind of training they would pursue if they had an opportunity to improve their skills at little or no cost to themselves.



²⁵ Lean manufacturing comprises a series of techniques used to eliminating waste (or non-value added activities or processes) by continuously improving the processes used to move the product from design to customer.

²⁶ Six-Sigma is disciplined, systemic approach to improving efficiency by reducing error in the manufacture of products to zero.

²⁷ Familiarity and practice with these tools did vary by sector. The food manufacturing sector, for example, had less experience with these tools than the durable goods manufacturing sectors.

²⁸ ISO is the International Standards Organization that defines and certifies a wide range of industry standards. ISO 9000 is the first in a series of standards around quality, while ISO 14000 reflects the inclusion of sustainable business practices.

²⁹ Information is based on 141 manufacturing employees responding to a survey conducted by Corporation for a Skilled Workforce for The Workforce Boards of Metropolitan Chicago, June 2004.



- **Training for incumbent workers whose jobs or job requirements are changing.** This training is tied to the adoption of new technologies, processes, and quality initiatives by firms in competitive sectors.
- **"Bridge" programs to fill specific gaps that would enable job seekers to fill manufacturing jobs with career potential.** This training helps individuals overcome specific skills gaps, from math to language, and helps identify whether and how transferable skills are applied in the new workplace.

Chicagoland manufacturing has been going through radical changes for decades, but Chicago still has a bright manufacturing future. As high-tech automation increasingly takes the dirty work out of people's hands, the skills needed to operate and maintain that automation will become increasingly in demand. The future of manufacturing here will be determined by the future skill levels of our manufacturing workforce, which makes significantly better pay than most other sectors.

Paul O'Connor
Executive Director
World Business Chicago

Improve the image of manufacturing.

Manufacturing suffers from a poor public image that makes it difficult for the industry to attract the talent they need today and in the future. The National Association of Manufacturers found that "the sector's image was ... heavily loaded with negative connotations and universally tied to a stereotype of the "assembly line." As well, it was perceived to be in a state of decline.³⁰

These findings were validated through the regional focus groups and interviews conducted with employers, job seekers, and students in the Chicago metropolitan region.³¹ A common theme was that manufacturing was shrinking and employment was cyclical and unstable. Most people did not believe that becoming part of the manufacturing workforce today had real long-term viability. Focus group participants associated the manufacturing industry with harsh or unpleasant work environments, extreme physical demands, and jobs that did not provide benefits or career paths.

- **The image of manufacturing has a significant impact on the industry's ability to attract and retain quality employees.** If new labor market entrants have

employment alternatives, they may pursue them rather than seeking work with an industry about which they feel negatively (even if the job is actually better than the alternatives). It also encourages current workers to seek employment in other industries, and imposes invisible limits on the effort or performance of

³⁰ "Keeping America Competitive," 2003.

³¹ CSSI Awareness and Perception Focus Groups, prepared by Corporation for a Skilled Workforce for The Workforce Boards of Metropolitan Chicago, June 2004, pages 7 and 8.

workers who stay (e.g., 'losers get jobs in manufacturing, I'm in manufacturing, therefore I'm a loser, so I guess I'll just put in my time and get a paycheck'). Even workers who enjoy their manufacturing careers tended to differentiate their individual firms from the manufacturing industry when they discussed their work, positioning their firms or jobs as positive exceptions to the negative rule.

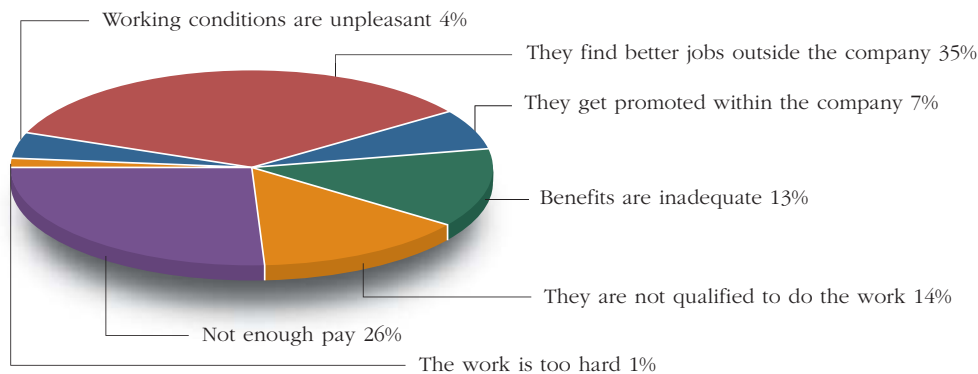
Focus group participants did not think of manufacturing as being on the cutting edge of science and technology. Many people thought that the available jobs in manufacturing were low paying, unskilled and offered limited prospect for advancement. When asked to list some manufacturing occupations, the vast majority of the participants focused on occupations that were traditionally blue-collar (e.g., assembly line worker, machine operator, packer) and clerical (e.g., front office clerk, shipping/receiving clerk).

Manufacturing jobs were also thought to demand difficult hours. Many people perceive manufacturing jobs as requiring long hours and overtime and lacking flexibility.

The work environment in manufacturing was thought to be physically uncomfortable and sometimes dangerous. For example, some people said that the work place was "hot in the summer and cold in the winter" and had "bad air quality". Some thought it was "noisy". There were also comments about assembly line work and forklift operations being dangerous.

EMPLOYEE TURNOVER³²

Responses of individuals employed in manufacturing occupations when asked why their colleagues leave their job.



³² Results of Employee Surveys and Focus Groups in the Manufacturing Industry, prepared for The Workforce Boards of Metropolitan Chicago by Corporation for a Skilled Workforce, June 2004, page 15.





- **Schools, both K-12 and community colleges, have decreased their investments in manufacturing-related education** (vocational and technical programs, as well as internships, mentoring, and single events such as field trips or "industry days."). The education community is simply responding to market signals: fewer parents, teachers, or students are interested in manufacturing or see it as a viable career path, and more feel that the direct route to college or university is, increasingly, a necessity. As a result, fewer students are exposed to manufacturing jobs, careers, or even firms, tools, and technologies.

To address the negative image of manufacturing, a regional image campaign is needed — preferably building on some of the current efforts already underway within the region. The campaign should use a strategic approach to reach key target audiences such as high schools, parents, immigrants, different parts of the region, and career changers. A cohesive campaign might include outreach programs that redefine manufacturing, communicating the message that modern manufacturing offers innovative, creative, technologically advanced professions. Additionally, this solution focuses on the need to create curricula for K-12, community colleges, and universities that help change the image of manufacturing and create awareness of the career opportunities.

Addressing the Workforce Challenge

In the metropolitan Chicago region, over \$1.7 million in Governor's Reserve Workforce Investment Act funds is being invested to implement creative solutions aimed at addressing the manufacturing industry's workforce needs. An additional \$2 million in leveraged and redirected resources, consisting of both public and private funds, are committed to these initiatives.

The solutions — or demonstration projects — will be administered during the coming two years. While the projects will have only a modest short-term impact on the industry's skill shortages, a significant impact will be achieved in the long-term through replication and expansion of successful practices and programs. The projects will also serve as a catalyst for increased collaboration of the workforce preparation system and the manufacturing industry.

City of Chicago, Mayor's Office of Workforce Development will collaborate with Ford Motor Company, Daley College, the Illinois Institute of Technology, and Comau Pico, a leading provider of advanced manufacturing equipment and software, to develop a customized skills training program. The project will target incumbent workers that have an interest in advancing to skilled maintenance and repair positions at the Ford Chicago Assembly Plant and its Stamping Plant. The objective of the program is to provide required foundational and high-tech skills

and knowledge to the employees who will transition from unskilled labor positions to these new maintenance and repair positions.

College of DuPage will administer the "Skills for Success" training program. The program includes a bridge program that will support enrollment and success in college certification programs and an industry partnership program component focusing on the advancement of incumbent workers.

College of Lake County will design and deliver an introduction to manufacturing course developed in partnership with area employers, to expose students to the wide range of occupations and technologies within manufacturing. Upon completion of the intro course, students will enter a certificate training program that provides them with foundational skilled needed for successful employment with manufacturing companies.

Cook County President's Office of Employment and Training, in partnership with regional employers and Triton College, will administer the Manufacturing Skill Development Program. The certificate training program, will prepare individuals for entry-level employment in welding occupations. Additionally, a bridge program component focuses on basic skills needed to complete training.

Commission on Economic Opportunity, Inc., in cooperation with South Suburban, Moraine Valley, and Prairie State Colleges, will provide individuals with the skills needed for critical skill shortage occupations. The project design will include a career progression component and intensive case management/support services to improve success of students.

Elgin Community College has invested \$1,500,000 in the purchase of state-of-the-art instruction equipment for its Integrated Systems/Maintenance Technology (IS/MT) program. However, while many business partners provide release time so their workers can obtain training, they lack the funds needed to pay for skill assessment and the actual cost of training. This program will offset these costs and upgrade the skills of existing employees through customized training programs for maintenance and repair workers and industrial machinery mechanics.

The CSSI provided an opportunity for open and frank discussion about the workforce needs of the region's manufacturing industry and how the workforce system can assist in addressing those needs. Employers must be "at the table" in designing a system that is demand-driven.

Sandra M. Pierce
President
Phoenix Woodworking Corporation



Greater West Town Community Development Project's Solid Surface Manufacturing Training Program, a state certified, nationally accredited vocational training program, prepares individuals for careers with manufacturing companies and distributors. The program is operated in cooperation with area employers and economic development organizations.

Joliet Junior College's Institute of Economic Technology, through a partnership with Three Rivers Manufacturer's Association, will promote careers in manufacturing and provide training that supports entry or advancement into critical skill shortage occupations.

Northeast Community College Consortium, a partnership of Moraine Valley Community College, South Suburban College, and Prairie State College, will provide training that allows individuals to advance from production occupations to higher level production "plus" occupations. The program design includes extensive testing and assessment of individuals, a bridge program component addressing basic skill deficiencies, and customized, skills training specific to eight critical skill shortage occupations and employer needs. Through a second project, the Consortium will address basic skill gaps of dislocated workers and provide training through existing programs to prepare individuals for employment in a variety of critical skill shortage occupations.

The Aurora Hispanic Chamber of Commerce will offer core bi-lingual courses in shop mathematics, adult basic education, essential skills and advanced technology. In partnership with employers, training specific to developing skills and knowledge required for critical skill shortage occupations will be provided.

William Rainey Harper College will utilize a maintenance tech curriculum that supports career pathways into manufacturing occupations. Individuals will be prepared for entry-level employment and for advancement in manufacturing occupations utilizing existing capacity in its AAS and certification programs.

Workforce Services Division of Will County: will provide a comprehensive training program for industrial maintenance, welding, and work readiness training for individuals.

Additional initiatives to be undertaken by the Workforce Boards in cooperation with regional stakeholders include:

- **Regional Collaboration:** The enhancing regional collaboration solution will be implemented under the leadership of economic development organizations in partnership with the Workforce Boards.

- **Image Campaign:** In partnership with regional industry associations and manufacturers, a regional campaign will be launched that is designed to increase awareness and understanding of career opportunities in the industry.
- **Retaining and Recruiting Mature Workers:** During 2006, a conference will be conducted for employers to heighten awareness about the aging workforce and share best practices related to the retention and recruitment of mature workers.

Conclusion

The free exchange of information and open, honest discussion have resulted in creative, innovative partnerships that will go a long way toward addressing the shortages in the manufacturing workforce. Each project will be evaluated to identify practices that are worthy of continuation and replication. The Workforce Boards of Metropolitan Chicago are excited to be part of a system that will bring quality employees to employers and expand the career opportunities available to the region's current and future workforce.

For more information on research conducted by The Workforce Boards of Metropolitan Chicago and activities undertaken in cooperation with the manufacturing industry to address its workforce challenges, please visit www.workforceboardsmetrochicago.com.

The Illinois Department of Commerce and Economic Opportunity is credited with providing the policy framework and funding to catalyze innovative public/private partnerships designed to equalize the supply and demand for skilled workers. This publication was developed and printed with Workforce Investment Act funds through a grant provided by the Illinois Department of Commerce and Economic Opportunity.





For additional information regarding healthcare solution projects, contact the Workforce Board in your area.

Chicago Workforce Board

Linda J. Kaiser
60 W. Randolph, Suite 200
Chicago, IL 60601
(312) 553-4430

**Cook County Workforce
Investment Board
(South and West Suburban Cook County)**

Anne Hogan
69 W. Washington Street, Suite 2860
Chicago, IL 60602
(312) 603-0203

DuPage Workforce Board

Mary Beth Marshall
837 S. Westmore/Meyers Road, Suite B1
Lombard, IL 60148
(630) 495-4345

**Grundy Livingston Kankakee
Workforce Board**

Elisabeth Dunbar
187 S. Schuyler Avenue, Suite 560
Kankakee, IL 60901
(815) 935-0074

**Lake County Workforce
Investment Board**

Vicki Gordon
One N. Genesee Street, First Floor
Waukegan, IL 60085
(847) 377-2225

**McHenry County Workforce
Investment Board**

Carl Martens
500 Russel Court
Woodstock, IL 60098
(815) 338-7100

**River Valley Workforce
Investment Board
(DeKalb, Kane and Kendall Counties)**

Pamela Fettes
2 Smoke Tree Plaza
North Aurora, IL 60542
(630) 844-6640

**The Workforce Board of
Northern Cook County
(North and Northwest Suburban
Cook County)**

Mary Pepperl
2604 E. Dempster Street, Suite 502
Park Ridge, IL 60068
(847) 699-9195

**Workforce Investment
Board of Will County**

Pat Fera
57 N. Ottawa Street, Suite 514
Joliet, IL 60432
(815) 727-5670



Visit our website at:
www.workforceboardsmetrochicago.com