Indiana's Workforce and Economy

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Indiana

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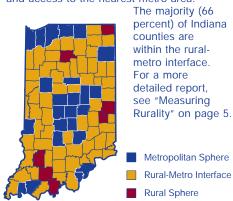
November Unemployment

Both Indiana and the United States reached their lowest November unemployment rates since the 2001 recession, down to 4.5 percent and 4.3 percent respectively.



Indiana's Rural-Metro Interface

A new way to measure rurality is by classifying counties into three main categories, including metropolitan sphere, rural-metro interface and rural sphere. These classifications are based on rurality and access to the nearest metro area.



From a Lost Job to a New Career

n today's rapidly transforming economy, dislocations and disruptions are inevitable for various segments of the workforce as employers adapt to changing circumstances. Indiana's Department of Workforce Development (IDWD) assists Hoosiers whose jobs have changed or disappeared prepare for new careers. The Research and Analysis arm of IDWD is looking to new skills-based career clusters to assist workers with those transitions. Skill assessments may direct dislocated workers to new careers that require similar skills in seemingly unrelated occupations or industries.

Based on previous analysis, the department found 10 basic skills important for all employment. It also found other skills that differentiate occupations into four career clusters, or occupational groups, highlighted in last month's issue of *InContext*. Table 1 lists the skills that differentiate the four new career clusters.

Which Industries Have the Most Layoffs?

The Mass Layoff Statistics (MLS) program of IDWD uses data from unemployment insurance claims to track major job cutbacks. When an establishment's employees file at least 50 initial claims for unemployment insurance during a consecutive fiveweek period, IDWD contacts them to determine whether the separations are permanent. A mass layoff is identified, studied and tracked when these separations last more than one month.

Table 2 shows the industry supersector and specific industries that have had the highest number of separations (layoffs) since 2000. A total of 72,813 layoffs occurred over this six-year period. About 34 percent of these cutbacks have been in manufacturing or trade, transportation and utilities. Figure 1 depicts the reasons cited by the establishments for the mass layoffs. Company reorganization or some sort of financial difficulty accounts for most

TABLE 1: Skills in Each of the Four Career Clusters

Cluster	Number of Occupations	Skills
People People	329 (46%)	Learning Strategies, Instructing, Social Perceptiveness, Time Management, Service Orientation, Persuasion, Monitoring, Negotiation and Coordination
Things	224 (31%)	Equipment Maintenance, Repairing, Operation Monitoring, Troubleshooting, Equipment Selection, Operation and Control, Installation and Quality Control Analysis
Systems	111 (16%)	Systems Evaluation, Systems Analysis, Management of Financial Resources, Management of Personnel Resources and Judgment and Decision Making
Information and Concepts	40 (6%)	Programming, Technology Design, Operations Analysis and Complex Problem Solving

Source: Research and Analysis Department, Indiana Department of Workforce and Development





layoffs (58 percent); while overseas relocation and import competition was cited in only a combined 9 percent of cases.

Occupations Lost

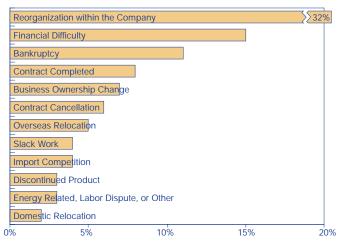
Which occupations are at risk within these industries? Mass Layoff
Statistics do not provide IDWD with a listing of occupations. However, using staffing patterns developed from the Occupational Employment Statistics program for those industries cited in Table 1, the Advanced Economic and Market Analysis section of IDWD (AEMA) derived specific occupations. The 25 occupations AEMA estimates to have lost the most employment (at least 650 separations) are shown in Table 3.

Table 3 also shows the skills the workers affected by these mass layoffs possess. How can these skills be updated or reapplied to provide the worker with success in a new career or industry? While industry experience

plays a role in the hiring process, the skills necessary for occupational success often transfer across industries. For example, a general and operations manager whose job in the manufacturing sector has been eliminated may still have the same skills necessary for

a different job in another industry, such as health care or construction. Machinists and assemblers working in one sector of manufacturing may have the operational skills (a Things skill) needed in another growing sector or in one of the high-wage and high-growth occupations listed in **Table 4**.

FIGURE 1: PRIMARY REASON FOR SEPARATION



Source: Research and Analysis Department, Indiana Department of Workforce and Development

New Career Opportunities

To illustrate the practicality of the new skill clusters, we will examine a few possible career path scenarios from the perspective of a worker who has lost his or her job. First, consider the office clerk, whose occupational prospects have diminished with the new technology of the information age. An office clerk has been developing People skills such as service orientation, social perceptiveness and time management. These skills are also vital to the emerging People occupations of legal secretaries and paralegals. Both of these occupations also value time management. However, to follow this career path our office clerk may also need some additional education and training. A postsecondary vocational training degree will be needed to succeed as a legal secretary, and an associate's degree should be acquired to find work as a paralegal. While our office clerk is returning to school, he or she may need to find temporary work in food service or as a cashier. Although this may seem like a setback, in the long run these positions will further develop the worker's People skills

TABLE 2: Industry Supersector with the Highest Number of Separations Since 2000

	Separations	
Super-Sector Super-Sector	Number	Percent of Total
Total for All Jobs	72,813	100%
Goods-Producing	46,683	64%
Manufacturing	44,989	62%
Services-Providing	26,130	36%
Trade, Transportation and Utilities	16,470	23%
Professional and Business Services	3,704	5%

	Separations	
Industry	Number	Percent of Total
Manufacturing	44,989	62%
Transportation Equipment Manufacturing	14,929	21%
Motor Vehicle Parts Manufacturing	11,245	15%
Primary Metal Manufacturing	6,327	9%
Iron and Steel Mills and Ferroalloy Manufacturing	3,800	5%
Electrical Equipment, Appliance and Component Manufacturing	5,498	8%
Household Appliance Manufacturing	4,130	6%
Machinery Manufacturing	4,643	6%
Retail Trade	10,014	14%
General Merchandise Stores	4,977	7%
Department Stores	4,502	6%
Transportation and Warehousing	4,816	7%

Source: Research and Analysis Department, Indiana Department of Workforce and Development

TABLE 3: Occupations with the Most Losses in Employment Since 2000 by Educational Attainment

Educational	Skill			2005 Median	
Requirement	Cluster	Occupation Title	Layoffs	Wage	Skills
Work Experience in a Related Occupation	(3)	First-Line Supervisors/Managers of Production and Operating Workers	1,623	\$44,417	Instructing, Management of Personnel Resources, Time Management
		Retail Salespersons	2,276	\$18,037	Management of Personnel Resources, Judgment and Decisior Making, Social Perceptiveness
	•	Cashiers	2,254	\$15,707	Instructing, Service Orientation, Social Perceptiveness
	•	Laborers and Freight, Stock, and Material Movers, Hand	2,052	\$21,797	Coordination, Equipment Selection, Operation and Control
Short-Term	•	Stock Clerks and Order Fillers	1,552	\$19,695	Coordination, Service Orientation, Social Perceptiveness
on-the-Job Training		Helpers—Production Workers	1,513	\$21,440	Equipment Selection, Installation, Operation and Control
Irailing	B	Industrial Truck and Tractor Operators	1,323	\$28,254	Equipment Maintenance, Instructing, Operation and Control
	•	Packers and Packagers, Hand	1,047	\$19,892	Coordination, Service Orientation, Social Perceptiveness
	•	Shipping, Receiving, and Traffic Clerks	807	\$25,406	Coordination, Social Perceptiveness, Time Management
	•	Office Clerks, General	702	\$21,713	Service Orientation, Social Perceptiveness, Time Management
	(B)	Team Assemblers	5,630	\$26,836	Instructing, Operation Monitoring, Quality Control Analysis
	B	Inspectors, Testers, Sorters, Samplers, and Weighers	1,787	\$29,186	Operation and Control, Operation Monitoring, Quality Control Analysis
	B	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	1,232	\$26,339	Equipment Maintenance, Equipment Selection, Operation and Control
	E	Truck Drivers, Heavy and Tractor-Trailer	1,098	\$36,406	Equipment Maintenance, Operation and Control, Operation Monitoring
Moderate-Term on-the-Job	•	Customer Service Representatives	969	\$27,939	Service Orientation, Social Perceptiveness, Time Management
Training		Assemblers and Fabricators, All Other	961	\$28,291	Equipment Selection, Quality Control Analysis, Operation Monitoring
	B	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	712	\$27,402	Equipment Selection, Operation and Control, Operation Monitoring
	8	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	686	\$31,025	Operation and Control, Operation Monitoring, Quality Control Analysis
		Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	679	\$46,884	Persuasion, Service Orientation, Time Management
	B	Maintenance and Repair Workers, General	1,418	\$31,894	Management of Financial Resources, Management of Personnel Resources, Programming
Long-Term	E	Machinists	1,131	\$34,899	Equipment Selection, Operation and Control, Operation Monitoring
on-the-Job Training	B	Computer-Controlled Machine Tool Operators, Metal and Plastic	784	\$31,523	Equipment Selection, Operation and Control, Operation Monitoring
	B	Electricians	764	\$50,810	Equipment Selection, Installation, Troubleshooting
Postsecondary Vocational Training	Vocational Welders, Cutters, Solderers, and Brazers		1,004	\$31,656	Equipment Maintenance, Equipment Selection, Operation and Control
Bachelor's or Higher Degree, Plus Work Experience	•	General and Operations Managers	707	\$77,402	Judgment and Decision Making, Management of Personnel Resources, Time Management

Source: Research and Analysis Department, Indiana Department of Workforce and Development

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(such as coordination and decision-making skills). Each new skill and each additional year of education will lead to higher wages and job stability. With just one year of postsecondary training and skill development, the laid-off office clerk will have the qualifications to find work as a legal secretary and increase his or her salary from \$21,713 to \$29,941. A two-year associate's degree will increase the salary to \$35,160 as a paralegal.

Next, consider the production worker with a salary of \$21,440 and the metal casting machine operator (average salary \$27,402) who lost their jobs. Both of these workers have developed equipment selection, operation and control, and installation skills. These are also the three most important skills necessary to succeed as a structural iron and steel worker, which ranks on Indiana's Hot Job list with an average salary of \$48,434.

Lastly, think about the retail salesperson, who has been making approximately \$18,037 annually. Whether he or she worked for a department store, a lawn and garden store, or even a local grocer, that person has been developing Systems skills (including management and coordination experience). With an interest or previous work experience in landscaping or construction, the salesperson may find work as a firstline supervisor, making \$31,000 to \$51,000 annually, depending on industry and experience. Many other Systems and Information cluster occupations will require additional education or training. However, the skills mentioned throughout this article and in the enclosed tables will prove beneficial and necessary for occupational growth. Skill development will lead to worker success in an

emerging or expanding occupation. All workers will open new doors of opportunity and increase their personal income by building their skills, through work experience, vocational training and/or higher education.

Conclusion

The above analysis should illustrate the wide range of potential career opportunities available to Indiana's workforce and the importance of all types of skills in today's fast-paced and unpredictable economy. With a renewed focus on skills, AEMA hopes to better prepare the workforce to achieve their career goals. In some cases, additional education or training may be required; in others, it may be a simple matter of recognizing workers' existing skills. The skills necessary to succeed transcend industry—from manufacturing to health care and

information. As dislocated workers, new job seekers and career counselors analyze future opportunities, the hope is that we will all gain new understanding of the transferability of skills from declining to emerging occupations. Further encouraging Indiana workers to focus on developing their skills and abilities will benefit employers and future economic growth in the state.

Notes

- Active Learning, Active Listening, Critical Thinking, Learning Strategies, Mathematics, Monitoring, Reading Comprehension, Science, Speaking, Writing
- Allison Leeuw, "The Butcher, the Baker and the Candlestick-Maker Revisitied: Indiana's New Skills-Based Career Clusters," *InContext*, 7 (12): 8–9; available at www.incontext. indiana.edu/2006/december/6.html
- For more data, visit Hoosiers by the Numbers at www.hoosierdata.in.gov/

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TABLE 4: Hot Jobs—High Wage, High Demand Occupations in Indiana

	Occupation	Annual Wages	Education or Experience Required
	Industrial Engineers	\$61,530	Bachelor's degree
	Market Research Analysts	\$44,463	Bachelor's degree
	Social Workers	\$32,625	Bachelor's degree
	Legal Secretaries	\$29,941	Postsecondary vocational training
1	Registered Nurses	\$49,067	Associate degree
	Occupational Therapists	\$56,080	Bachelor's degree
	Physical Therapist Assistants	\$42,452	Associate degree
	Fire Fighters	\$37,175	Bachelor's degree
	Paralegals and Legal Assistants	\$35,160	Associates degree
	Medical and Clinical Laboratory Technologists	\$45,355	Bachelor's degree
	Structural Iron and Steel Workers	\$48,434	Bachelor's degree
(E)	Bus and Truck Mechanics and Diesel Engine Specialists	\$35,523	Postsecondary vocational training
	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$35,547	First professional degree
	Computer and Information Systems Managers	\$73,068	Bachelor's degree, plus work experience
	Construction Managers	\$68,532	Bachelor's degree, plus work experience
	Medical and Health Services Managers	\$62,163	First professional degree
	First-Line Supervisors/Managers of Landscaping	\$34,556	Work experience in a related occupation
	First-Line Supervisors/ Managers of Construction Trades	\$51,047	Work experience in a related occupation
	Computer Software Engineers, Applications	\$65,549	First professional degree
(i)	Network Systems and Data Communications Analysts	\$56,212	First professional degree
	Surgical Technologists	\$35,483	Postsecondary vocational training

Source: Research and Analysis Department, Indiana Department of Workforce and Development