



**The Indiana Workforce:
An Employer's Perspective**

January 2000

BOARD OF GOVERNORS

Ian M. Rolland, Chair
Lincoln National Corporation

Michael J. Alley
Fifth Third Bank of Central IN

Hugh A. Barker
Cinergy/PSI Energy

Joseph D. Barnette
Bank One Indiana Corporation

John R. Sampson
American Electric Power

Michael G. Browning
Browning Investments, Inc.

Arthur L. Bryant
State Life Insurance Company

James M. Cornelius
Guidant Corporation

Robert J. Darnall
Ispat Inland, Inc.

Lawrence Feger
Indiana Energy, Inc.

Michael A. Flexsenhar
Caterpillar, Inc.

H. John Gilbertson, Jr.
Goldman Sachs & Company

Charles E. Golden
Eli Lilly & Company

Robert Gramelspacher
Gramelspacher Farms

John Hagaman
Dow AgroSciences

Jess Helsel
Helsel, Inc.

Harry L. Pearson
Indiana Farm Bureau

Stephen C. Hilbert
Conseco, Inc.

John Hodowal
Indianapolis Power & Light

J. B. King
Guidant Corporation

Kent A. Leberz
Ameritech Indiana

L. Ben Lytle
Anthem, Inc.

Don E. Marsh
Marsh Supermarkets, Inc.

James T. Morris
IWC Resources Corp

John Mutz
Cinergy/PSI Energy

Gary Neale
NiSource, Inc.

Ronald G. Reherman
SIGECO

Van P. Smith
Ontario Corporation

John A. Templeton
Templeton Coal Company

Robert Whitsel
Lafayette Life Insurance
Company

BOARD OF DIRECTORS

Allan Rachles, Chair
Crowe Chizek & Company

Harold J. Apple
Vector Technologies

Charles C. Arthur
Arthur Andersen & Company

A. Gerald Backstrom
Central Soya Company, Inc.

Jean S. Blackwell
Cummins Engine Co., Inc.

Daniel Clark
ISTA

Donald E. Covert
Venture Management Intl., LTD

Francina Dlouhy
Baker & Daniels

Stephen E. Rahn, Vice Chair
Lincoln National Corporation

Niel C. Ellerbrook
Indiana Energy, Inc.

Robert D. Kraft
Indiana Farm Bureau

F. Michael Kyle
Charles Schwab Co., Inc.

Martha D. Lamkin
USA Group

Ray Lindsey
Indiana Precision Technology

Gregg McManus
SIGECO

Terry A. M. Mumford
Ice Miller Donadio & Ryan

David A. Kelly, Treasurer
IWC Resources/NiSource, Inc.

William W. Mundell
Inland Steel Industries, Inc.

Judith G. Palmer
Indiana University

James T. Parker
Anthem, Inc.

Jerry Payne
Indiana State AFL-CIO

Michael R. Rhodes
Economic Development Group, Inc.

Stephen W. Robertson
Conseco, Inc.

E. Mitchell Roob, Jr.
IWC Resources, Inc.

D. William Moreau, Jr., Secretary
Bingham Summers Welsh & Spilman

Charles E. Schalliol
Eli Lilly & Company

Gregory Schenkel
Pearson Schenkel Public Affairs

Thomas A. Schilling
American Electric Power

Daniel B. Seitz
Bose McKinney & Evans

Larry J. Stroble
Barnes & Thornburg

Gary T. Taylor
AUL Insurance Co.

Charles J. Winger
Cinergy Corporation

IFPI STAFF

William J. Sheldrake
President

Ryan C. Kitchell
Research Associate

The Indiana Workforce: An Employer's Perspective

January 2000

**Indiana Fiscal Policy Institute
Capital Center, North Tower
251 North Illinois Street, Suite 980
Indianapolis, Indiana 46204
(317) 237-2890
FAX (317) 237-2893**

The Indiana Fiscal Policy Institute (IFPI), formed in 1987, is a private non-profit governmental research organization. It is the only independent statewide source of continuing research into the impact of state taxing and spending policies in Indiana. The IFPI is privately supported by a variety of organizations, corporations, associations, and individuals in Indiana and surrounding states. Contributions to the IFPI are fully deductible under section 501 (c)(3) of the Internal Revenue Code.

Copyrighted © 2000
by the
Indiana Fiscal Policy Institute, Inc.

Permission is granted to make copies of this report
providing copies are not sold and the source is identified.

Foreword

The Indiana Human Capital Retention Project Series

Physical capital was dominant in the economic life of the nineteenth and early twentieth centuries. Machines “made things” and the economy of the United States became the largest and most successful precisely because of its ability to manufacture the products that could be sold around the world. In the last 40 years, economists have increasingly understood that human capital is important to the growth of a country’s economy. The education and experience of the labor force being utilized within a region’s economy makes a significant difference in the rates of return on business investment and on the quality of life within the region. Human capital, therefore, represents a strategic advantage in the increasingly competitive international economy in which we all participate.

One measure of human capital is the educational attainment of a region, state, or nation, defined as the percentage of the population with a certain level of schooling. Indiana is a state with historically low educational attainment at the collegiate level. In 1970 Indiana ranked 44th among the 50 states in terms of population with a four-year college degree; by 1997 the state’s ranking had fallen to 48th. This statistic is even more troubling in a state like Indiana with higher education institutions that are generally regarded as excellent.

The stock of human capital within a state is difficult to affect. It is a function of the jobs within a state’s economy which is in turn affected by the human capital available to the investors who wish to locate new productive enterprises within that economy. The Indiana Human Capital Retention Project was formulated as a research response to Indiana’s perceived human capital problem. It consists of several research initiatives, each of which looks at a different part of the human capital issue.

The Indiana Human Capital Retention Project is funded by a grant from the Lilly Endowment, Inc. and receives additional funding from the Indiana Commission for Higher Education and the Indiana State Chamber of Commerce. The research for the project is being carried out by a number of experienced academic and independent researchers under the direction of the Indiana Fiscal Policy Institute.

The Indiana Workforce: An Employer's Perspective is the third report published in the Indiana Human Capital Retention Project Series. It is a report of the findings from the Indiana Employer Survey and the Indiana Employer Focus Groups which were directed by the Indiana Fiscal Policy Institute. With the insight gained through these and other research tools, this study presents the state’s human capital status from the perspective of Indiana employers.

Executive Summary

Indiana employers are starved for highly skilled workers. This worker shortage is limiting growth and handicapping competitiveness even while the economy is strongly growing. As the new global, knowledge-based economy continues to evolve, employers are recognizing an increasing need for highly skilled workers and devising new strategies to recruit and retain top talent.

As part of the assessment of Indiana's human capital position, this report presents the state's human capital status from the perspective of Indiana employers. This study included six focus groups with 57 Indiana employers and a survey of approximately 3,700 Indiana businesses. Additional interviews with employers and independent research supplements this look at what employers say about the quantity and quality of the workforce in Indiana.

The study found:

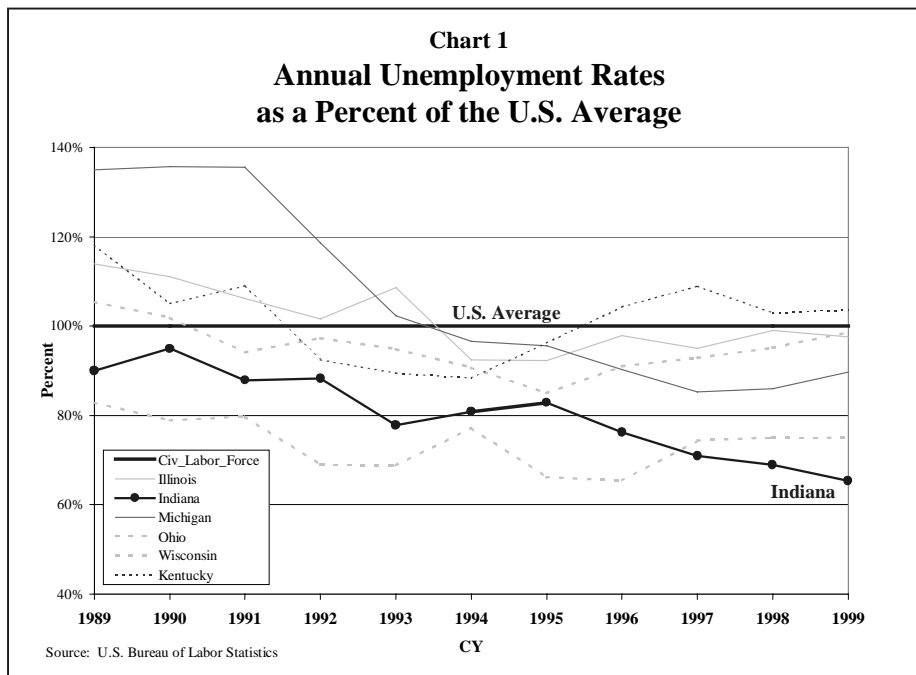
- *There is a quantity and quality shortage of skilled workers in Indiana.* 63 percent of employers need more employees with 2-year degrees, and 71 percent of employers need more employees with 4-year degrees.
- *Thinking, communication and leadership skills are the competencies most lacking among Indiana workers, and the same skills are projected as the most crucial for future growth.* Over 40 percent of employers are dissatisfied with their employees' written communication and critical thinking skills. Employers rated management/leadership as the skill that will be the most important in the future.
- *Graduates of higher education institutions located in Indiana have skills which are a good match for most employers' needs.* 80 percent of employers find that training provided by Indiana's higher education institutions is a good match for their needs and only 10 percent believe the skill sets of out-of-state graduates are a better match.
- *Employers find that internships are one of the most effective methods of finding and recruiting postsecondary-trained workers, but can't locate sufficient numbers of students willing to participate.* Employers would like the state to provide brokering services or incentives to expand the pool of interns and increase the feasibility of internships.
- *Employers are providing training incentives, including tuition reimbursement, for their employees. However, they are frustrated by the small numbers of those taking advantage of the options.* Employers believe that a more flexible set of education options, if made available throughout the state, would address this issue.
- *Improving the skills of existing workers is an effective way to obtain a manager.* With labor shortages so severe, employers are very willing to train current employees for greater responsibility and find that they often have a more stable employee.

The Indiana Workforce: An Employer's Perspective

I. Introduction

Business leaders are experiencing a fact that Adam Smith pointed out more than 200 years ago, a significant portion of any nation's wealth resides in its people. Advances in technology, the incessant pressure to increase productivity and the growth of international competition make the training and skills of a region's workforce a vital piece of the competitive advantage or disadvantage possessed by a particular economy. Like financial capital, the quantity of human capital available to a region's enterprises is an important factor in the ability to grow and produce goods and services. Unlike its monetary counterpart, however, human capital presents many combinations of education levels, skills, character, experience and abilities. The demand for an increased workforce is expressed not as just "more workers" but "more workers *with* higher skills."

The demand for workforce growth is nowhere more pronounced than in this period of economic growth in the Midwest and, of course, Indiana. **Unemployment is stuck at historically unprecedented low rates, making workforce perhaps the most significant limitation on economic growth.**



Although the length of this economic cycle is making the tight labor market more apparent, Indiana's employment success is an old story. For the past ten years, Indiana's unemployment rate has been below its neighboring states, and all Midwestern states [as defined by the U.S. Census Bureau] except Wisconsin. For a state with a manufacturing based economy, which has traditionally experienced boom and bust in its employment picture, this past decade has been remarkable in its stability, relative to the nation. This may be explained in part due to increases in labor force participation that have outstripped the nation. It is also a function of the resurgence of the manufacturing sector, combined with a rapidly growing non-manufacturing economy.¹

Business leaders have a closer, more practical view of the human capital issue. They must hire, train, organize, and retain a productive workforce in order to accomplish their mission of producing goods and services at competitive prices.

Economists, government officials, and educators tend to view human capital limitations as systemic, theoretical problems. Business leaders have a closer, more practical view of the human capital issue. They must hire, train, organize, and retain a productive workforce in order to accomplish their mission of producing goods and services at competitive prices. Workforce problems mean unproductive operations, lost opportunities, and lower profits. While the viewpoint of the employer, the "user of human capital," is not the only perspective from which to evaluate the issue, it is vital to understanding the human capital challenges faced today, and it is the focus of this report.

Employers are direct purchasers of much of the human capital acquired by their employees. They represent the demand for human capital. This study looks at that demand in the same way that a marketing survey for a brand name product tests consumers' reactions to that product. The purpose of a marketing survey is to explore the depth of satisfaction with the product's quality, accessibility, price, and other characteristics. Similarly, this study, based on a combination of surveys, Focus Groups and interviews, has been designed to report on the workforce practices and problems of employers located throughout Indiana.

II. Major National and Regional Workforce Trends

Indiana's workforce, while unique in some aspects, is largely subject to the trends in the U.S. labor markets. Three major trends are now affecting and will continue to affect the State's employers in the next decade. The first two of these trends are demographic in origin. The adult population pool is growing more slowly than the trend two decades ago. When coupled with a strong economy, this is producing unusually low rates of unemployment throughout the U.S. Secondly, the U.S. workforce is aging rapidly with a significant portion of the skilled workers reaching retirement age in the next decade. Third, the demand for educated workers as measured by the premium earned for those with at least a bachelors degree continues to grow, although the growth in the premium has slowed during the 1990's and is expected to slow more so over the next twenty years. According to the Hudson Institute's report, "Workforce 2020,"² 60 percent of net new job growth will occur in the occupations encompassing professionals, service workers, and technicians.

¹ Richard Kaglic and William Testa, "Slow work force growth: A challenge for the Midwest?" *Economic Perspectives*, Federal Reserve Bank of Chicago, Vol. 23, No. 2, Q II, p. 34.

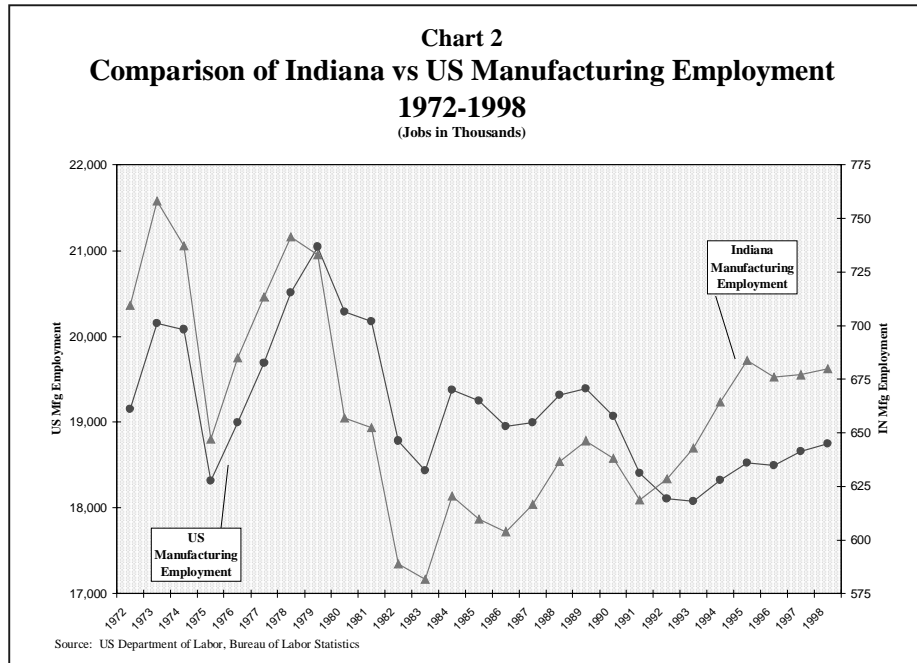
² "Workforce 2020, Work and Workers in the 21st Century," Hudson Institute, Fourth Printing, May 1998.

In general, these national workforce trends are true for central Indiana. Employers in virtually every sector of the central Indiana economy report that severe shortages of skilled and technically proficient workers are beginning to put their business operations at a competitive disadvantage, especially in the high value end of their markets. Their workforce is aging as well. However, no institution has yet been charged with the explicit mission of adding workers to central Indiana's workforce.³

Another common theme from the central Indiana studies is that this area severely lags similar metropolitan areas in associate degree and technical certificate production per capita.⁴ From this, some have concluded that the education and skill levels of central Indiana's workforce are too low to sustain the region's high-value-added manufacturing sector, much less to attract new companies in the "knowledge industry." (Hudson Institute, November 1998)

III. The Composition of the Indiana Labor Force

No analysis of labor market issues in Indiana should exclude mention of those aspects of Indiana's workforce which show divergence from prevailing U.S. patterns. Indiana remains a state in which manufacturing holds an important place to a degree that sets the region apart from the rest of the U.S. Manufacturing employment as a percentage of total non-farm employment was higher in Indiana than for any other state in the 1992-97 period. Across the U.S. since 1972, manufacturing jobs have declined, however, during the 1990's the manufacturing sector has experienced small net growth. In Indiana, during the 1990's, the rate of growth in manufacturing jobs has been even faster than in the nation, see Chart 2.



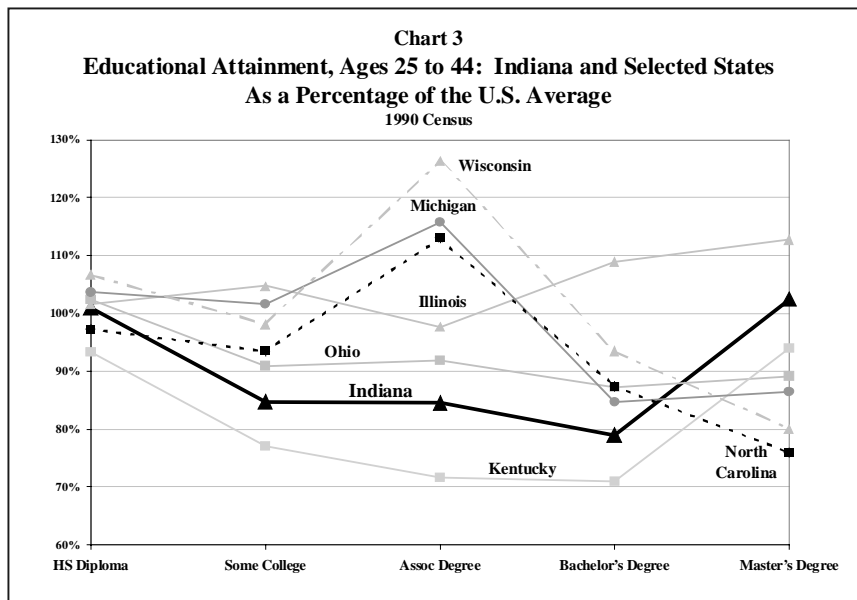
³ *An Assessment of Central Indiana's Workforce Development System*, Hudson Institute, November 1998.

⁴ *A New Approach To Central Indiana Growth and Opportunity*, A Report To The Indianapolis Corporate Community Council from The Corporate Community Council Task Force, July 21, 1998.

This has taken place, even while manufacturing has fallen as a percentage of Indiana's establishment employment. *Stated another way, the Indiana economy is growing a greater percentage of its jobs in non-manufacturing sectors, while the State as a whole is keeping a larger share of the U.S. manufacturing base.* As a measure of concentration within the U.S., the Indiana location quotient for manufacturing employment increased by approximately ten percent from 1991 to 1998.

This historic concentration in manufacturing is observable within Indiana's occupational structure as well. Indiana shows a dependence on those occupational groups which are disproportionately found in manufacturing: Precision, craft and repair; and Operators, fabricators, and laborers. These occupational groups are also those which disproportionately do not require postsecondary training.⁵ It would not be surprising then to find educational and training patterns which are adapted to these employment patterns.

Indiana's workforce does show a pattern of adaptation to a manufacturing concentration. Indiana is below the national average in the percent of its population ages 25 to 44 holding postsecondary degrees [except at the Master's level]. Indiana trails its neighboring states, also heavily invested in manufacturing, except for Kentucky. This situation developed along with the nation's post World War II economy, and serves as an important context to workforce development in the State.



Although the workforce can be segmented into the postsecondary trained and non-postsecondary trained groups, educational trends are moving workers into a more flexible set of categories. For many workers without postsecondary degrees, obtaining a certificate for specialized training proves very valuable. An industry certification represents the completion of a formal technical training program, beyond high school. This report also asks employers about two-year or associate degrees, bachelor's degrees, and graduate degrees [masters,

⁵ U.S. Department of Labor, *1997 Report on the American Workforce*, p. 11. For a more complete discussion pertaining to Indiana, see *The Evolution of Indiana's Labor Force, 1968-1997; A Comparative Analysis*, Indiana Fiscal Policy Institute, December 1998.

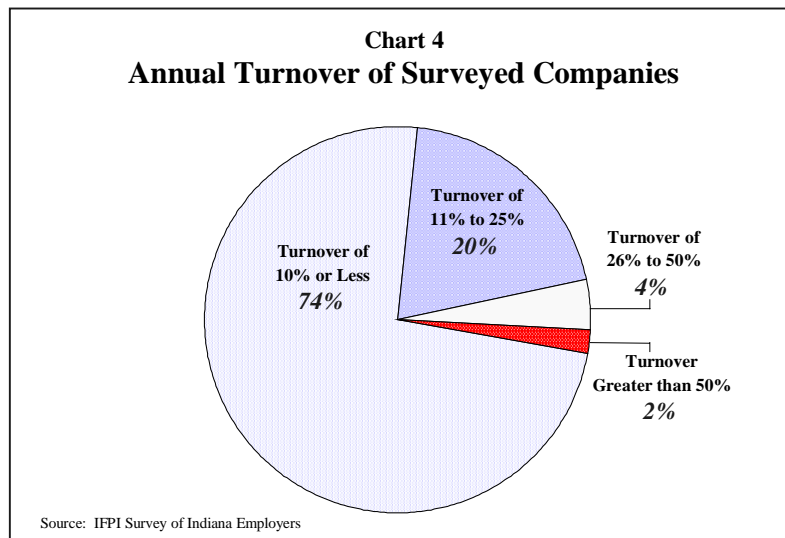
professional and doctorates]. The focus of this study is on credentialed employees and the barriers companies face to hiring and retaining its credentialed workforce. Within this report, credentialed employees are sub-divided into four categories: industry certification, two-year associate degree, four-year bachelor's degree, and masters/Ph.D. For the purposes of this report, a masters/Ph.D. designation represents all degrees that exceed a four-year bachelor's degree.

IV. What Employers Say About the Workforce

In assessing the business environment, employers consistently rank workforce issues as the most important factors with which they must deal in order to grow and achieve their business goals. The surveys, interviews, and Focus Groups reported on in this analysis represent attempts to amplify and clarify the complex and multi-faceted workforce issue. The report begins with a discussion of quantity issues, the extent the workforce shortage and the sectors affected. It extends to quality issues, training, competencies, and skill development. The study also addresses recruitment methods and retention issues.

Quantity

Employers need to find, recruit, hire, and retain a sufficient number of workers to accomplish their business objectives. Indiana's low unemployment rate is an indication of a successful economy both for the businesses in the State and also for the State's workers and their families.



However, because of the low unemployment rate, the pool of applicants is obviously smaller for each job an employer attempts to fill and the turnover, or movement of employees from one job to another and from one firm to another disrupts productive activity. For 74 percent of companies of all sizes, employee turnover as a percentage of total employment is less than ten percent. For the balance of the companies, 26 percent, turnover ranged from 11 to greater than 50 percent, a significant and potentially disruptive level. These turnover statistics were

reported for all employees within the firm, not solely for those hired to fill positions requiring postsecondary training.

The discussion shifts as employers are asked to focus on hiring for jobs requiring a postsecondary degree. In the Focus Groups and on the surveys, a number of business leaders expressed some ability to find persons to fill some of the jobs at their firms. Because of Indiana's occupational structure, the success of recruiting efforts for those jobs requiring postsecondary education should be expected to evidence differences from the overall employment patterns.

There is a difference of opinion about the number of postsecondary trained persons available within the labor pool. In the survey, the largest percentage of employers, 43 percent, said that they could find sufficient numbers to fill their jobs requiring postsecondary training. However, there is a substantial and strong minority, 35 percent, that is unable to find the number of employees needed.

Table 1 Indiana's Workforce					
Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
When recruiting only in-state, we cannot find the quantity of applicants needed.	8%	27%	34%	9%	23%
Our company would hire more people with postsecondary education degrees if we knew where to find them.	11%	45%	25%	6%	13%

There are other reasons to believe that the shortages found in the postsecondary labor market are not always consistent across levels of education. Demographic researchers have repeatedly found that the greater the level of human capital investment, the greater the mobility of the graduate. Specifically the labor market for sub-baccalaureate grads is highly local.⁶ Sub-baccalaureate credentials are not as well recognized across distances, and the degree holders often depend on relationships between employers and institutions for entry-level positions.

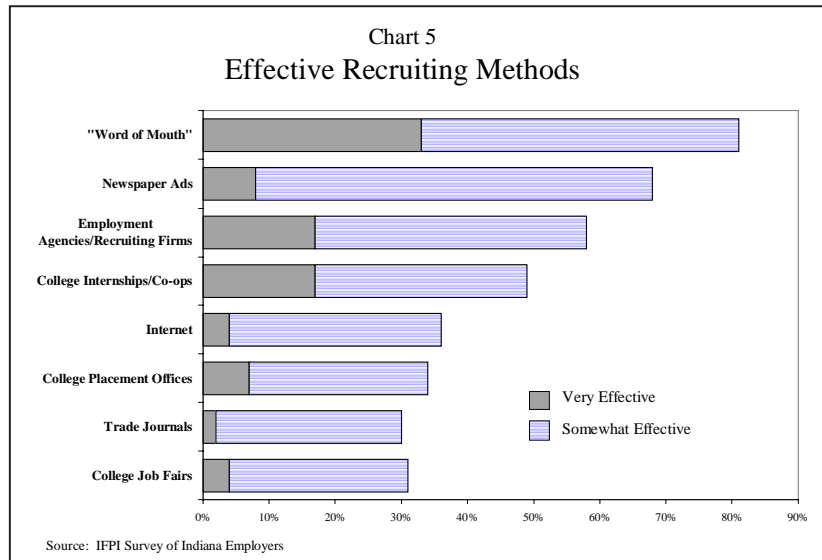
For all of these reasons employers looking to fill jobs with holders of sub-baccalaureate degrees may experience highly diverse local situations of worker shortage that surpass the shortages for baccalaureate and above grads. Because the unemployment rate nationally is at such a low level, and because the U.S. is in essence a single labor market, the recruitment and retention of credentialed employees should be considered a significant problem that will only get worse for Indiana employers.

⁶ Grubb, W. Norton, "Working in the Middle; Strengthening Education and Training for the Mid-Skilled Labor Force," Josey-Bass, San Francisco, 1996.

Indiana employers believe the need for workers with associate and bachelor degrees will increase. Indiana is a state with a heavy manufacturing base, which because of an aging workforce, will require a significant number of workers with skill sets more accommodated to a production environment. However, employers are forecasting an even greater need for persons with bachelor's degrees than for those with two-year degrees.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
Our company needs more employees with 2-year (associate) degrees.	20%	43%	24%	6%	8%
Our company needs more employees with 4-year (bachelor's) degrees.	19%	52%	16%	4%	8%

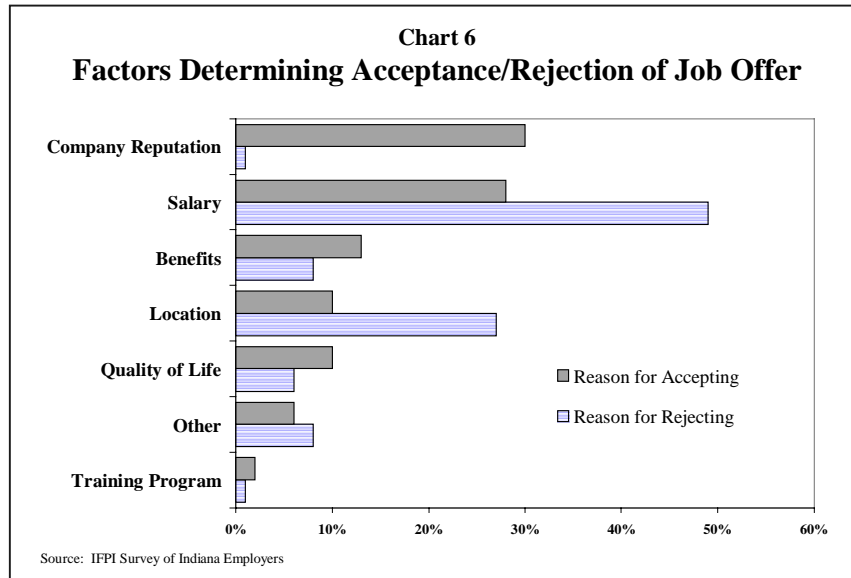
Employers were asked which methods of recruiting postsecondary graduates were most effective. Newspapers were used most often, but not given the highest effectiveness ranking. For executive level recruitments, employment agencies were used more often and considered most effective. Managers said, however, that the most effective recruitment tool for the majority of jobs was simply "word of mouth." Some firms have begun offering bonuses to employees who refer a job applicant for an open position in the company, providing the person is eventually hired.



The Internet was ranked fourth, behind "internships/co-ops" in its effectiveness as a recruitment methodology. Clearly within some occupational categories, those most technologically oriented, the Internet becomes a first rank tool.

In evaluating the most significant factors in an applicant's acceptance of a job offer, employers rated company reputation as the most important. The next most significant, to those who accepted the offer, was salary.

These responses by employers should be interpreted carefully in the absence of any employee-derived data for validation. Employers [or human resource managers] are negotiators in the hiring and retention game. They see themselves as "tough bargainers" in successfully negotiating a hire when the new employee agrees to work for them at a salary the employer deems to be "fair." The employer believes he has only offered the minimum in salary that will convince the recruit to say yes, after other non-salary benefits are thrown in. Therefore, it is company reputation, the unique combination of place, job type, supervisor, management style, and co-workers, that wins the day and convinces the recruit to hire on.



The reverse process operates when someone leaves after the employer has tried to retain him or her. The intangibles, company reputation, the benefits package, and other incentives are well known. It is salary or in many cases the greater responsibility that goes along with higher salary that limits the employer and keeps the employee from staying.

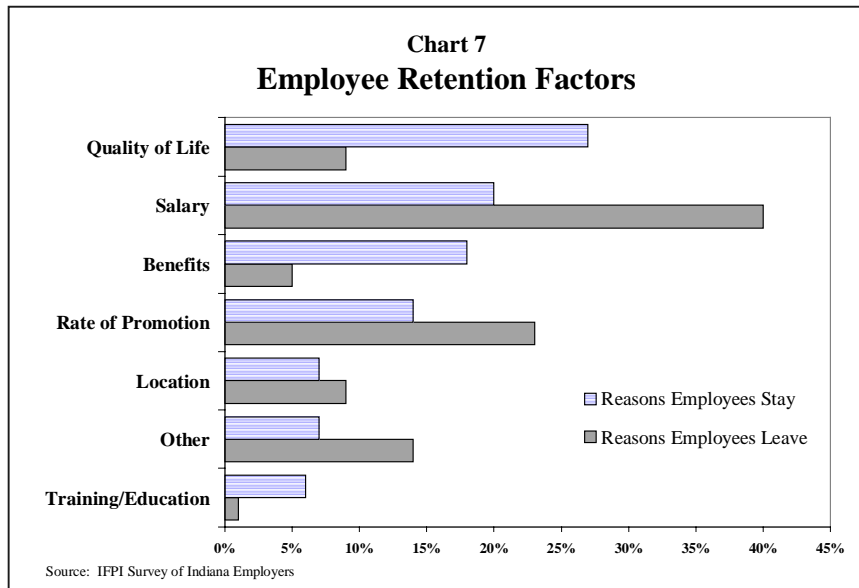
Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
We recruit professional and technical workers outside of Indiana but have difficulty convincing them to relocate to Indiana.	5%	25%	29%	8%	33%

Employers rated salary as the most important factor in their unsuccessful attempts to recruit a new hire, and by a significant margin. The next most significant factor, to those who declined the offer, was location.

The survey results in the table above affirm that location is a recruiting issue for some firms. Of the 67 percent for which this question applied, nearly half agreed that they had difficulty convincing out-of-state candidates to relocate to Indiana. The Indiana Graduate Follow-up Survey, consistent with other demographic research, found that quality of life issues related to location are less a factor in graduates' decision to either stay in the State or leave than either career issues or family. Clearly some potential employees find relocating back to the Midwest less attractive than other options. However, in the discussion of recruitment strategies, employers often relate that some potential employees find the opportunity to return to Indiana with the quality of life found here a very attractive option.

Retention

The low numbers of available workers not only affects recruitment efforts but makes retention difficult as well. Employers ranked the factors that were most important to those workers who left their organization and those that stayed. For those that stayed, the quality of life seemed most significant, with salary second. Those who left told employers that salary was the most important factor with the rate of promotion the second ranked.



Since this is a survey of employers, the retention data is necessarily biased toward that perspective. Those employees who stay with a firm give weight to a broad selection of factors in deciding to stay, and it is likely that they would over a period of time communicate that broad level of satisfaction to their employer. For the leavers, the final set of negotiations represents the last communication between employer and employee. In many cases that negotiation would narrow down to salary and level of responsibility [rate of promotion] as workers decide to move out to move up.

Quality

Few employers believe that workforce problems are solved simply by finding enough people to “fill slots.” Today’s workforce must be more skilled, more knowledgeable and better able to adapt than its competitors. Many experts on work in the US economy have argued that we are moving away from “an old Taylorist system of employment—in which most workers were only moderately skilled; work was finely divided; and layers of supervisors provided direction, decision-making ability, and communication with others inside and outside the firm—to one in which hierarchies are flatter, in which front-line workers are more broadly responsible and, therefore, require decision-making, problem-solving, and communications skills that they didn’t previously need to have.”(Grubb, 1996) This change is not primarily being driven by political and social objectives, but simply by the need to compete more effectively on both cost and quality.

Robert Reich⁷ has argued that four key skills are necessary to the success of high-value enterprises:

Abstraction—the capacity to order and make meaning of the massive flow of information, to shape raw data into workable patterns;

System Thinking—the capacity to see the parts in relation to the whole, to see why problems arise;

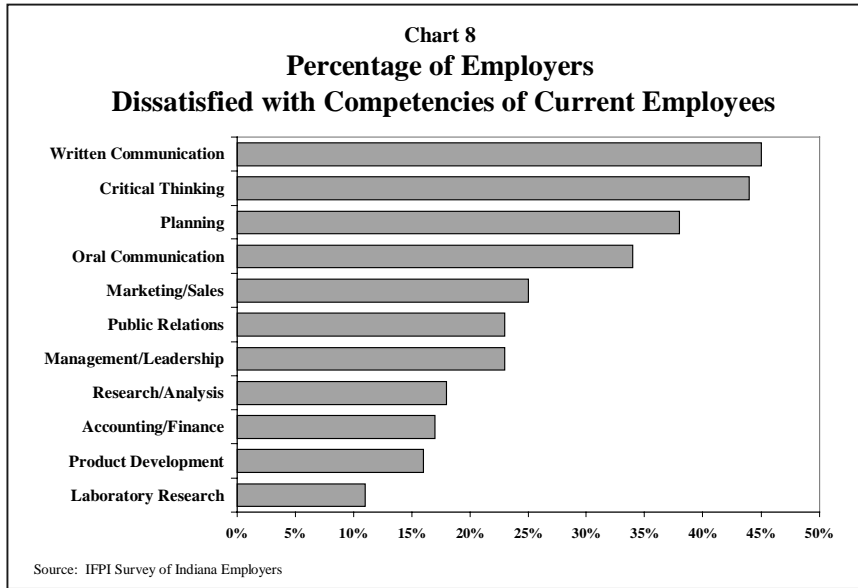
Experimental Inquiry—the capacity to set up procedures to test and evaluate alternative ideas; and

Collaboration—the capacity to engage in active communication and dialogue to get a variety of perspectives and to create consensus when necessary.

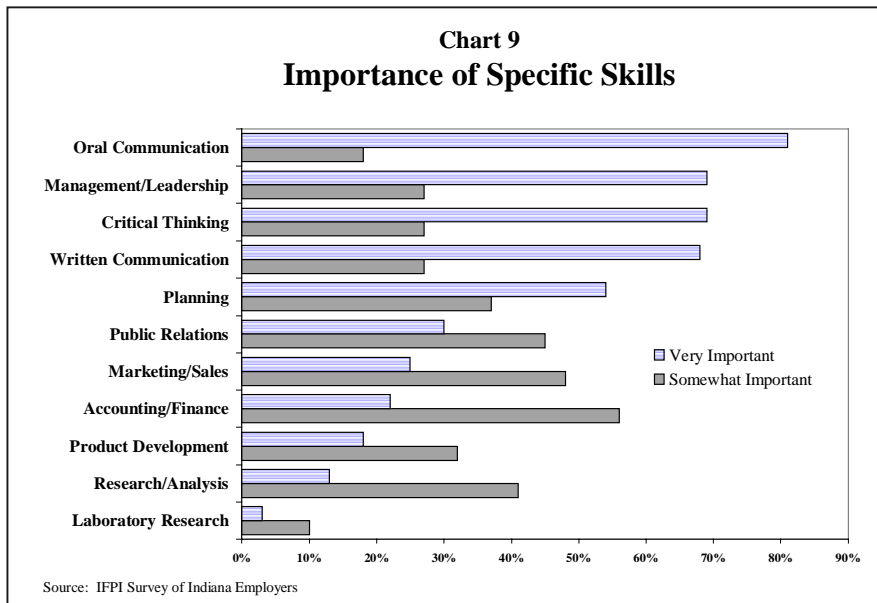
However, in addition to having the skills to process and use information and concepts, experts and employers agree that employees today need more knowledge. The levels of education that were acceptable in the past do not provide the foundation for the training and development within the workplace that employers inevitably want and need to provide for their employees.

The approach to the quality issues within Indiana’s workforce utilized in this study was to ask the purchaser of the product, the employer, in what areas the quality was good and where there was a need for improvement. The Employer Survey asked business managers to rank their satisfaction with their credentialed workforce in eleven skill areas and indicate which skills are most critical to their continued success.

⁷ Reich, Robert, “The Work of Nations: Preparing for 21st Century Capitalism.” New York: Knopf, 1991. Cited from “Winning Ways: Best Practices in Work-Based Learning,” Ed., Albert J. Paulter, Jr., and Deborah M. Buffamanti, p. 46.



Employers are dissatisfied with the critical thinking and communication skill levels demonstrated by their employees. Though this survey question pertained to the postsecondary trained workforce, the employers still found that the skill most lacking was thinking, rather than a particular job-specific competency.



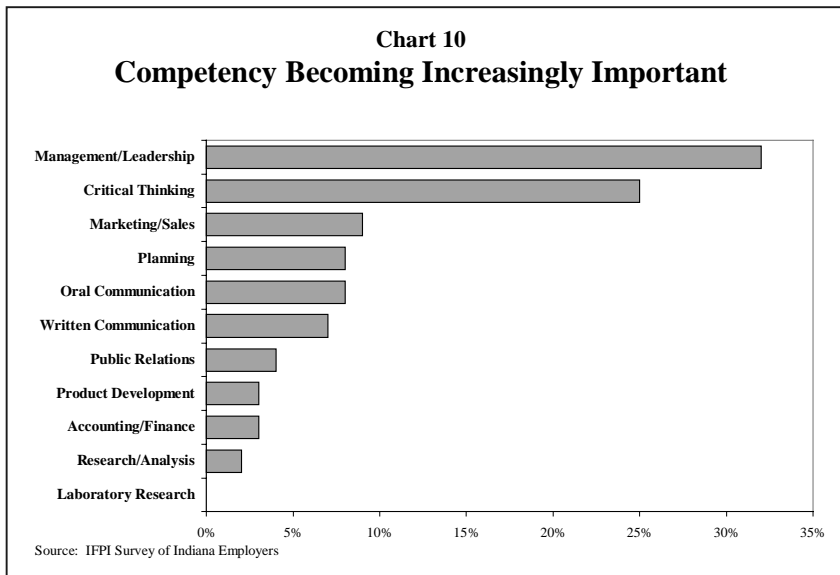
Not surprisingly, the same skills showed up as the most important for the ongoing success of the enterprise. Communication, leadership, thinking and planning—the type of skills Reich identified as being key to the high value, high growth enterprise—those competencies are understood by employers as most important to their operations, today.

Employers were also asked what abilities they believed were going to be most important to the future of their enterprise, taking into account the changes in their own organization and in the business environment. Interestingly, while critical thinking remained important, the ability to lead from within the organization to accomplish the business objectives was ranked first. One plant manager commented on the necessity of having employees who see the business objectives and, whatever his or her job, manage toward them in this way. “Nothing I see today leads me to the conclusion that in the future, ‘bigger – better – faster – cheaper’ is going to go away. The person at the top can’t do it all. If the person operating the forklift isn’t working to make the business more competitive, we simply won’t survive.”

“Our fundamental challenges in business involve people at multiple levels thinking together about significant and enduring solutions we might create, and then helping those solutions come about. Where I’ve seen really significant innovations that have endured, they’ve usually grown out of people from these multiple constituencies working together.”

Peter Senge⁸

Below is a ranking of the skills employers desire in priority order. “The replacement of clearly defined jobs by positions with a wider range of responsibilities places a new premium on workers with numerous skills, including many competencies that are not well-taught in schools.”(Grubb, 1996) This broader requirement for competencies does not lessen employers concern that those they hire have the requisite job skills. The more competitive nature of the business environment today means that all workers need to be integrating the critical thinking and leadership, that in the past was left to a few, into their own daily performance. Employers realize the need to find, hire, motivate and retain employees with these kinds of characteristics.



⁸ Senge, Peter M., “The Fifth Discipline, The Art & Practice of The Learning Organization,” Currency Doubleday, 1990, p. 423.

“It was nothing more complicated than bringing people of all ranks and functions—managers, secretaries, engineers, line workers, sometimes customers and suppliers—together into a room to focus on a problem or an opportunity and then to act rapidly and decisively on the best ideas developed, regardless of their source.”

Jack Welch, Chairman and CEO, General Electric Corporation⁹

V. Workforce Development Strategies

The focus groups, surveys and interviews with employers in Indiana documented a shortage in a critical resource to the growth of the Indiana economy – the supply of skilled, available workers. Employers, however, haven't simply given up in their efforts to solve this resource problem. They recruit outside the State to find “homing pigeons,” former Indiana residents who might like to return. They start early, utilizing internships to develop relationships with potential employees prior to the completion of their requisite training. They develop training programs within their companies to allow employees with the motivation and ability to develop themselves into the postsecondary-trained workers the company needs. These and other strategies are discussed with recommendations for providing assistance to employers as they attack this limitation on Indiana's growth.

Internships and Co-ops

Feedback from Focus Group and Employer Survey participants indicates that internships and work cooperatives are effective ways to recruit credentialed workers. Internships and work cooperatives are programs in which students, who generally have not yet completed their postsecondary training, are employed with a company for a short period of time. An example would be a student working for a company in the summer between her junior and senior year of college.

“Really deep learning is a process that inevitably is driven by the learner, not by someone else. And it always involves moving back and forth between a domain of thinking and a domain of action.”

Peter Senge

For students, internships are effective ways to bridge the gap between college and the workforce. These programs allow students to learn workplace expectations firsthand while earning money and gaining relevant experience.

“First, you have to learn through doing at some level. From John Dewey forward, no learning theorist worth his or her salt would say that you could learn without some opportunity to take action. You know the Chinese proverb: I listen and I forget, I see and I understand, I do and I learn (or I retain).”

Peter Senge

⁹ Donna J. Abernathy, “Leading-Edge Learning,” *Training and Development*, March 1999, Vol. 53, Issue 3, p. 40.

Employers reported in interviews and focus groups that higher education institutions, in many cases, did not understand the needs of employers and how to prepare students to meet those needs. Internships and cooperative programs fulfill several functions in the human capital development and labor markets, but above all, these programs bring employers and postsecondary institutions together, creating connections that benefit the student/graduate, the employer, and the educational institution.

Internships and cooperative programs fulfill several functions in the human capital development and labor markets, but above all, these programs bring employers and postsecondary institutions together, creating connections that benefit the student/graduate, the employer, and the educational institution.

Employers like internship programs because they provide a “screening mechanism, allowing the firm to observe the individual working and to learn about the personal capacities—motivation, diligence, interpersonal skills, and the like—that are so crucial to employment.”(Grubb, 1996) Employers have found that once a student has interned with them, the student is more likely to accept a full time position upon graduation.

Indiana University reports that of its 250-300 MBA students per class, over 90 percent participate in summer internship programs. Immediately following these internships, approximately 60 percent of the students receive offers from their summer employer for full time positions available upon graduation. Of the students who receive offers from their internship provider, I.U. reports that 35-40 percent accept these offers and work for the same company with which they interned.

Though internship programs are abundant and encouraged at the masters level, the undergraduate story is quite different. Undergraduate students and recruiters of undergraduates are frustrated with the lack of internship programs in place. The career placement office of an Indiana public university stated that it is not focused on undergraduate internship programs primarily because it is so focused on full time job placement for undergraduates nearing graduation.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
Our company uses internships to recruit postsecondary trained individuals.	13%	30%	25%	8%	24%
Our company would make use of a state program that assisted our company in finding more employees and hiring them through an internship program.	13%	47%	22%	5%	13%

Additional benefits from internship programs include the positive advertising the company receives on campus. By recruiting for interns, the company's name and line of business will be read by all internship seekers. Some companies hold presentations for students wishing to learn more about an employer which are often held the night before the formal interviewing process. By interviewing and presenting, more students become aware of a company's existence and opportunities. In addition, when students return to campus following an internship, the student tells classmates of the experience. If it was a good one, this free advertising can go a long way to helping a business recruit the intern's classmates for full-time positions the following year.

Internships are quite common among many graduate programs, and some undergraduate technical, engineering and medical programs. For the university, the internship program provides links to employers who then help the university in its placement efforts by hiring the students as graduates when they complete their program. What is less well appreciated is the effect of sustained contact between the university and the employers who are participating in the internship programs. If the postsecondary institutions are alert, the interns coming back to campus and the employers who contact the school can provide a feedback mechanism on the relevance and success of the school's training.

Some companies, which lack a strong connection with a higher education institution, would like to establish an internship program but have no means to get started. The Employer Survey asked employers if they would use a state-facilitated internship matching program, were one available. Sixty percent of respondents said they would participate in a state run internship program. However, companies are quick to note that internships cost time and money. Time is especially sacrificed in training the intern, who has little or no relevant experience. However, many companies believe the benefits of internship programs outweigh the costs, placing this tool among the most effective in combating the recruitment challenge.

Loan Forgiveness

Indiana employers also utilize loan forgiveness as a strategy to recruit and retain highly sought graduates/employees. More often found at the graduate student level, an employer may offer to pay the loans of a student who interns with the employer, if the student agrees to return as an employee after graduation. Typically the loan is paid off in increments, a portion for each year the graduate works for the employer post-graduation.

These types of programs have been enacted in many states to encourage hard to find professionals to locate in particularly underserved geographical areas. [The federal government has had a medical student loan forgiveness program for many years.] In Indiana's program, a doctor with a primary care specialty who agrees to locate in a targeted area can receive a loan forgiveness equal to one year's tuition for each year served [in the State].

For employers, though expensive, loan forgiveness amounts to a signing bonus for hard to recruit professionals in specialties critical to a company's success.

Offering More Attractive Compensation Packages

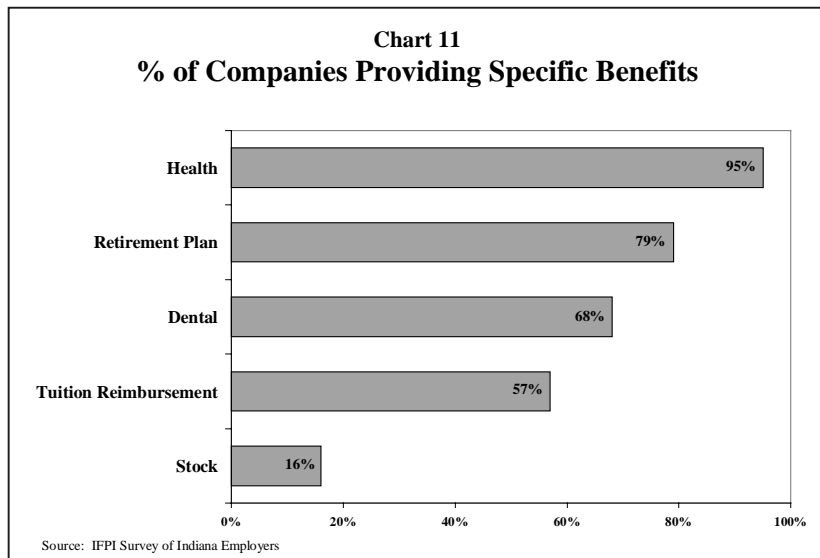
The Indiana Graduate Follow-up Survey conducted by the Indiana Fiscal Policy Institute demonstrates that Indiana businesses lose candidates to out-of-state employers due to the career opportunity and location. Though some aspects of this situation are unchangeable,

there are strategies firms can use to increase the likelihood of getting acceptances from the job offers it extends.

In the Employer Survey, we asked companies why they were able to gain acceptance from candidates they were successful in recruiting and why they lost those who chose other alternatives. In addition, we asked which benefits were offered to credentialed new hires. The results are shown below.

Stated Reason for Acceptance or Rejection	Acceptance	Rejection
Salary	28%	49%
Company Reputation	30%	1%
Benefits	13%	8%
Location	10%	27%
Quality of Life	10%	6%
Other	6%	8%
Training Program	2%	1%

As shown in Table 5, salary is the second most often cited reason for acceptance and the most frequently cited reason for rejection of a job offer. Unfortunately, a company's ability to offer increased salaries is constrained by its need to maintain profitability. To combat this, some companies are emphasizing employees' "true" and "total" compensation to attract and retain its workers. In the "true" salary strategy, companies publish cost-of-living-adjusted salary figures so that employees can see what their salaries equate to if they were living elsewhere. The "total" salary strategy puts a dollar value on employer provided insurance (health, dental, life, etc.), pensions, and other benefits to demonstrate that employees' "total" compensation is much higher than merely their base salary.



Under this approach 95 percent of employers offer health insurance to new postsecondary trained hires while only 16 percent offer company stock. However, according to the National Center for Employee Ownership,¹⁰ employers are increasingly giving workers company stock as part of their total pay. This ownership comes in various forms such as stock options, Employee Stock Ownership Plans (ESOPs), discounts on stock purchases, company contributions of stock to 401k plans, or other approaches. Altogether, at least 16 million employees now get stock as part of their regular compensation.

Stock options are attractive to employees who expect the value of the firm and their company stock to appreciate. To further strengthen retention efforts using this strategy, some employers use stock ownership in conjunction with a vesting formula. In this strategy, company stock is granted to an employee early in his/her career, however, his/her ownership of the stock accrues over time, such as 20 percent per year, thus providing an incentive for the employee to stay with the company.

Recruit Indiana Graduates Now Working Out-of-State

The Employer Survey found that 80 percent of Indiana employers believe that the training students receive from higher education institutes located in Indiana is a good match for their job needs. The survey also found that only ten percent of Indiana employers believe that training provided by out-of-state institutions is a better match for their job needs than training provided by in-state schools. In addition to a comparable skill match, workers educated in Indiana are more likely to want to live in Indiana for family, friends, and lifestyle reasons. Since part of the recruiting challenge is convincing candidates to relocate to Indiana, targeting those with ties to the State may ease this obstacle.

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
Training provided in IN institutions is a good match for our needs.	14%	66%	12%	1%	7%
Training received by out-of-state graduates is a better match than in-state graduates.	1%	9%	61%	13%	16%

Many of the workers who were trained by Indiana institutes have moved out-of-state and are difficult to find. However, programs like Iowa's Human Resource Recruitment Consortium assist employers in locating graduates by utilizing university alumni databases. Indiana University has developed a similar tool in its web site that allows access to alumni resumes. This web site is relatively new, and I.U. has just begun to encourage its alumni to post their resumes on the site.

¹⁰ Rosen, Corey, "Why Is Employee Ownership Spreading So Fast?", *The Employee Owners' Page*, May/June, 1999. <http://www.nceo.org/columns/5-99.html>.

JobTrak.com also helps employers reach alumni of Indiana postsecondary institutions of higher education. Its current capabilities allow employers to post job openings to students and alumni of specific colleges for \$18 per college per job opening. Currently, 15 colleges and universities in Indiana participate in this program. Job Trak plans to allow employers access to the student and alumni resumes which will further improve an employer's ability to implement this strategy of recruiting workers educated in Indiana who might like to return.

VI. Human Capital Strategies Aimed at the Incumbent Worker

Financial investments produce returns, sometimes at high rates, at other times less attractive rates. Likewise, investments in human capital, in education, can also be shown to produce returns of differing types. These benefits accrue first to the individual, then to a wider group which may include the individual's employer and society at large.

Human capital functions as an important criteria for recruitment and hiring. Employers set standards for jobs based on certain training and skill requirements. However, skills development should not be static. Throughout an employee's term of service, employers are interested in their employees making human capital investments, or skill improvements, that produce maximum returns to the workplace.

Education directed at skill improvement is often grouped into the four categories below:

- 1. Schools** (elementary and secondary, junior college, postsecondary technical training, college programs leading to baccalaureate degrees or higher)
- 2. Formal Training** (delivered by the employer)
- 3. Informal Training** (on-the-job training)
- 4. Other Training**

The increasing importance of education and training to employers is also seen in the growth of the workplace as a training provider. The transition from the 1980's to the 1990's witnessed a significant growth in formal company provided training and informal on-the-job training.

"You know, they used to say that school could teach somebody 80 percent of what they need to learn in their lifetime. Today that figure would probably be more like 2 percent. Schools need to focus on thinking skills and learning skills, because those are what will prepare kids for a world of increasing interdependency and increasing change."

Peter Senge

Internally Provided Training Programs

Employers report that business locations in rural and semi-suburban parts of Indiana suffer from a loss of degreed workers to larger metropolitan areas within Indiana. To overcome this intra-state “brain drain,” some employers utilize a strategy of hiring non-degreed workers living in their area and providing them with training to upgrade their skills. As a result, in a tight labor market, training and internal promotion become a desirable source for obtaining supervisors and managers.

Table 7 Indiana's Workforce					
Statement	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
Our company commits significant resources to training new post-secondary educated employees.	13%	43%	29%	7%	8%

Some human resource managers stated that their companies have developed internal universities to meet the needs of new hires unequipped with certain skills necessary for their job. These programs are also used for existing employees who need additional training to move to a position with increasing responsibilities. With training from the internal program, an employee who would not have otherwise been qualified for a position can now fulfill the company's need.

Another type of internal training involves companies providing optional internal educational classes that are not job related, (examples include General Motors and Baxter Healthcare). These companies offer multiple courses on a broad range of topics such as financial planning, parenting, home buying, time management and personal development issues. These programs can also be a very effective retention tool.

Tuition Reimbursement

An alternative to providing training internally is for a company to encourage employees to receive continuing education from outside providers. Part of this encouragement includes the company reimbursing some or all of the employee's tuition costs. A significant difference between this strategy and an internal training program is that most of the time employers can mandate internal training while they can only encourage externally provided continuing education. A large number of employers expressed the frustration that though they pay 100 percent of tuition costs, most of its company's employees do not take advantage of their tuition reimbursement program. Focus group participants agreed that the time and place of course offerings are major contributors to rates of participation among employees.

Table 8 Percent of Postsecondary Employees Participating in Continuing Education Programs	
Employee Participation	Frequency
Less than 10%	32%
10% - 20%	26%
21% - 50%	19%
More than 50%	23%

However, a tuition reimbursement program could be an effective delivery mechanism for certain skills employees need but do not have. As with the internal training program, a tuition reimbursement program could allow a company to either train an otherwise unqualified worker or train an existing employee for a job with increasing responsibilities. In addition, a tuition reimbursement program could be viewed as a useful benefit in recruiting efforts.

Tuition reimbursement is also an effective retention tool, especially for smaller companies who cannot afford on-site educational programs. Although reimbursing tuition costs can be expensive for companies, increased worker productivity and turnover reduction sometimes outweigh the costs. This is especially true if training for new hires is expensive, since a high turnover rate will increase these training costs.

VII. Conclusions and Recommendations

Indiana is a state with a rich history of contributions to the nation's products. It is also a state with a workforce renowned for an ethic of productivity and effort. In the last decade, Indiana has given greater and greater percentages of its available persons to the labor force and as a consequence, the unemployment rate has declined to one of the lowest in the nation. This report investigates the scarcity of workers and strategies for building the workforce both in quantity and quality from the perspective of the State's employers.

Not surprisingly employers report that the lack of available workers is a real limitation on growing their businesses in Indiana. For most employers, recruiting is an operation that is national in scope, not limited to Indiana. However, many attempt to find persons who either grew up in the Midwest or express a desire to live in the Midwest to raise their families, because of the greater likelihood of successful recruitment.

Recruiting and Retention

1. Internships provide a way for employers to find those postsecondary graduates who meet the job requirements, who are comfortable with the employer's work environment and also want to live in Indiana. In addition, internships make a connection between the employer community and the postsecondary institutions in the State. For small and medium size employers, the overhead of trying to find the programs producing good interns and locating the right individuals can be too

much. Employers need a way to have the matching of job [internship opportunity] and student facilitated. This brokering function could be undertaken by the State of Indiana, or a third party on behalf of the State. If the paperwork requirements were minimized it would provide excellent access to Indiana's human capital for Indiana employers.

2. Indiana's employers are already searching nationally for persons with a Midwestern [Indiana] background, to recruit them back to the State. Internet sites, provided either by the private sector or if needed the public sector, which highlight the State's graduates [alumni] and allow for easy searches by Indiana employers would facilitate this process.
3. The State through its public universities and colleges must provide flexible baccalaureate and sub-baccalaureate postsecondary programming to allow employers to upgrade the skill levels of their in-house workforce. The flexibility must extend to allowing programs to be offered at remote sites and business locations in order to allow busy members of the current Indiana workforce access to this programming.
4. Provide a mechanism for Indiana's employers and postsecondary education leaders to confront the issues of workforce development in a cooperative and collaborative fashion.

Crises are times for change. The current record low levels of unemployment present an opportunity to improve what has been a unsystematic approach to workforce development and coordination in Indiana. The recommendations above would begin a process of change resulting in greater access to training for Indiana's workers and a more highly skilled workforce for Indiana's employers.

Appendix A

Survey Methodology

The data gathered for this report came from a survey, focus groups, and individual interviews. The Focus Groups were conducted in five Indiana cities (Indianapolis, Logansport, Columbus, Fort Wayne, and Evansville) with human resource and hiring managers representing 57 Indiana enterprises. A wide range of industries and company sizes were represented at each Focus Group meeting. Because each group afforded the opportunity for a wide-ranging and in-depth discussion of workforce development issues with a diverse group of managers, the information gained from the Focus Groups represents a valuable source of information for this study.

With the assistance of the Indiana State Chamber of Commerce, the Indiana Fiscal Policy Institute surveyed approximately 3,700 Indiana business leaders and top executives for this study. The Employer Survey, attached as Appendix C, focuses on workforce development challenges faced by employers in the State and the tools they use to deal with these problems. Of those surveyed, 373 responded, yielding an 10 percent response ratio. Response rates for the population surveyed are typically low because of the time pressures faced by these individuals. In addition to the Focus Groups and Employer Survey, numerous interviews with Indiana businesses were conducted to clarify issues raised in the study. The combination of data gathering methodologies was used precisely because of the difficulty of surveying the target population.

Appendix B

A Selection of Focus Group Responses

"There's a shortage of those [skilled] people, an extreme shortage."

"This kind of thing, if you discussed it ten years ago, people probably wouldn't have come to a meeting. Do you know what I mean?"

"... it is difficult to find people that are skilled."

"We need alignment with reality of the workplace in terms of skills and areas of study that are employable".

"[Our company is] two years old, we've got 1,400 employees but we wanted 2,400 at this point. We can't [get to 2,400] because there aren't enough people to draw from."

"The pool's shallow. There just aren't enough people out there."

"We'd be ecstatic over someone walking in the door with a two-year degree."

"We were looking for a plastics engineer. We put it on the Internet and got nobody. None. We put an ad in the paper as well, and got a lot from that."

"Anyone that isn't using the Internet today is way behind the curve...we have found that the percentage of people posting resumes on the Internet is not nearly the percentage of people that look at the Internet for jobs."

"...we market our company so that, 'Yes, you may come and have your first assignment in a non-urban Indiana county, but we are a global company and we'll have opportunities in the future to go elsewhere and still stay with our company. Then if you want to come back to Indiana in the future, that's your option."

"We're starting to advertise how close we are to Indianapolis and Louisville."

"Some students are taking an entire semester off just to go work. In fact, it was just last year that I learned that a private university in Indiana, I think it's their business school, is requiring these students to have two internships under their belt before they can graduate. I think that's wonderful."

"We don't want this asset leaving the State, so maybe [we] forget part of the loan."

"When I have an opening for a position . . . I'm willing to pay them to get them. So, no, it's not hard for me to get them, but I do have to pay them."

“We hire from all across the United States, but our preference would be to hire someone who has a special appreciation for this geographic area and might not have a strong temptation to move away two or five years from now.”

“I think that we’re all missing the boat if we don’t focus on trying to get the people back in[to Indiana] that may have left and [have] gone to some of these places that seemed exotic at the time.

“...we found that we’ve been fairly successful recruiting people back to the State of Indiana that have been recruited out of Purdue and Rose Hulman, and some of the other engineering schools.”

“Maybe the hook is to try to get them back three or four years later after they’ve gone out and experienced that Indiana is not that bad a place to be.”

“One of the things the educational institutions need to do is be more flexible. I think that now the public sector institutions need to start taking on some of the mindset of industry and start adapting to their customers.”

“People don’t want to make a 60 mile round trip five nights a week to get their degree, but they might be willing to drive two miles to Ivy Tech or someplace else and sit in a classroom for two hours to get a degree so that they can be more flexible and worth more to the employers in the community.”

Appendix C

Employer Survey: Indiana Human Capital Project

This survey is directed toward hiring and employment practices of Indiana companies for jobs and employees requiring postsecondary education (2-year Associate, 4-year Bachelor, Master/PhD). Throughout this survey, the word "company" refers to your company's operations located within the State of Indiana.

1. General Information about your company:

Please circle the business sector category:

Agriculture Construction Finance/Insurance/Real Estate Government Manufacturing
 Mining Retail Trade Services Transportation Wholesale Trade

Standard Industrial Code (SIC number): _____ **Location (Indiana county):** _____

Annual sales for Indiana operations: _____ **Years in Indiana:** _____

Annual sales for entire corporation: _____

2. Employee Information: For section 2 only, please include both degree holding and non-degree holding employees.

2.1 Please circle the number of workers at your site:

100 or fewer 100-250 250-500 500-1,000 1,000 or more

2.2 How many new workers do you annually hire at your site?

fewer than 10 10-25 25-50 50-100 more than 100

2.3 Check appropriate boxes. Company wide, how many job openings require the following:

	25% or less	25%-50%	50%-75%	75% or more
No Special Training Required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2-Year College Degree/Certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4-Year College Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Masters or PhD Degree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Types of knowledge and competencies important to your company.

3.1 Please rate the importance of these skills for your employees who have postsecondary education.

	Very Important	Somewhat Important	Rarely Important	Not Important	Not Applicable
a. Management/Leadership	1	2	3	4	NA
b. Accounting/Finance	1	2	3	4	NA
c. Marketing/Sales	1	2	3	4	NA
d. Research/Analysis	1	2	3	4	NA
e. Laboratory Research	1	2	3	4	NA
f. Written Communication	1	2	3	4	NA
g. Oral Communication	1	2	3	4	NA
h. Product Development	1	2	3	4	NA
i. Planning	1	2	3	4	NA
j. Critical Thinking	1	2	3	4	NA
k. Public Relations	1	2	3	4	NA

3.2 Using questions 3.1 “a” through “k”, please select the letter beside that competency you believe will be increasingly important for your postsecondary trained employees: _____

3.3 Using question 3.1, “a” through “k”, please select the letter beside that competency you believe will be the most difficult to find among postsecondary trained job applicants. _____

3.4 If you could “magically” provide any key competency or knowledge to your postsecondary trained employees in your company *that they don't currently have*, what would it be? _____

3.5 If you could give advice to any provider of postsecondary education that *would have an immediate impact on your company*, what level would you choose and what would you tell them? (Select one and write a brief statement.)

_____ 2-Year Degree _____ 4-Year Degree _____ Master/PhD Degree

4. Satisfaction with Knowledge and Competencies

Please rate your satisfaction with the knowledge and competencies possessed by your employees who have postsecondary education.

	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	Not Applicable
a. Management/Leadership	1	2	3	4	NA
b. Accounting/Finance	1	2	3	4	NA
c. Marketing/Sales	1	2	3	4	NA
d. Research/Analysis	1	2	3	4	NA
e. Laboratory Research	1	2	3	4	NA
f. Written Communication	1	2	3	4	NA
g. Oral Communication	1	2	3	4	NA
h. Product Development	1	2	3	4	NA
i. Planning	1	2	3	4	NA
j. Critical Thinking	1	2	3	4	NA
k. Public Relations	1	2	3	4	NA

5. Educational Levels, Recruitment, and Retention of Your Current Employees

Please circle one response for each statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
a. Our company needs more employees with 2-year (associate degrees).	1	2	3	4	NA
b. Our company needs more employees with 4-year (bachelor degrees).	1	2	3	4	NA
c. Our company would hire more people with postsecondary education degrees if we knew where to find them.	1	2	3	4	NA
d. Our company would be more productive if more of our employees had postsecondary education.	1	2	3	4	NA
e. Our company would be willing to provide more compensation in order to hire people with postsecondary education degrees.	1	2	3	4	NA
f. Our company uses internships to recruit postsecondary trained individuals.	1	2	3	4	NA
g. Our company would make use of a state program that assisted our company in finding more employees and hiring them through an internship program.	1	2	3	4	NA

6. Applicants/Recruitment/Retention

6.1 During the next two to three years, our company expects to hire more people with (check one):

_____ 2-Year Degrees _____ Graduate Degrees
 _____ 4-Year Degrees _____ Special Certification or Training Other Than Postsecondary Education

Why? _____

6.2 Please rate the effectiveness of each recruitment method in finding qualified postsecondary trained applicants for your company.

	Very Effective	Somewhat Effective	Rarely Effective	Not Effective	Not Applicable
Newspaper Ads	1	2	3	4	NA
Internet	1	2	3	4	NA
Trade journals	1	2	3	4	NA
Employment Agencies/ Recruiting Firms	1	2	3	4	NA
College Job Fairs	1	2	3	4	NA
College Placement Offices	1	2	3	4	NA
College Internships/Co-ops	1	2	3	4	NA
“Word of mouth”	1	2	3	4	NA
Other _____	1	2	3	4	NA

6.3 Please select the annual salary ranges (not including overtime) you offer employees with:

	H.S. Diploma	2-Year Degree	4-Year Degree	Graduate Degree
Less Than \$20,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
\$20-30,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
\$30-45,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
\$45-60,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
More Than \$60,000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6.4 What benefits are typically offered to employees with postsecondary education? Please check all appropriate boxes.

Health Dental Retirement Plan Tuition Reimbursement Stock Other _____

6.5 For postsecondary trained applicants who have recently accepted positions with your company, what has been the most significant determining factor?

Salary Benefits Company Reputation Location Quality of Life Training Program
 Other: (please state) _____

6.6 For postsecondary trained applicants who recently rejected offers from your company, what has been the most common reason?

Salary Benefits Company Reputation Location Quality of Life Training Program
 Other: (please state) _____

6.7 For postsecondary trained employees that your company has successfully retained, what has been the most effective tool for this retention?

Salary Benefits Rate of Promotion Location Quality of Life Training/Education
 Other: (please state) _____

6.8 For postsecondary trained employees who have left your company for other professional opportunities, what has been the most common reason?

Salary Benefits Rate of Promotion Location Quality of Life Training/Education
 Other: (please state) _____

6.9 What is your estimated annual turnover of postsecondary educated employees? _____%

6.10 How much per person does your company annually spend for training of postsecondary educated employees? \$ _____

6.11 What percent of your postsecondary employees participate in any continuing education program? _____%

6.12 How much annually do your Indiana operations spend on recruitment? \$ _____

7. Indiana's Workforce

Many employers express dissatisfaction, for many different reasons, with the workforce available in Indiana. Regarding the pool of professional and technical employees [those with postsecondary education] and those jobs which require postsecondary education, please rate your level of agreement with the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
a. When we confine our recruiting effort to only higher education institutes located within the state of Indiana, our company cannot find the quantity of potential applicants necessary to fill our positions which require a postsecondary degree.	1	2	3	4	NA
b. For those jobs typically requiring a postsecondary degree, the training received by graduates from higher education institutions located <u>in</u> Indiana is a good match for our job requirements.	1	2	3	4	NA
c. Training received by graduates from higher education institutions located <u>outside</u> of Indiana is a better match for our job requirements than the training received by graduates of higher education institutions located <u>in</u> Indiana.	1	2	3	4	NA
d. Our company recruits nationally.	1	2	3	4	NA
e. When recruiting, our company concentrates our efforts on higher education institutions located within Indiana.	1	2	3	4	NA
f. We recruit professional and technical workers outside of Indiana, but have difficulty convincing them to relocate to Indiana.	1	2	3	4	NA
g. In reviewing job applicants, our company emphasizes experience over education.	1	2	3	4	NA
h. Our company would consider hiring people with more education as a substitute for experience.	1	2	3	4	NA
i. The postsecondary educated employees we have recently hired have been willing to do the unglamorous tasks of the business.	1	2	3	4	NA
j. The postsecondary educated employees we have recently hired have been willing to learn aspects of the business which are outside the scope of their current responsibilities.	1	2	3	4	NA
k. Our company commits significant resources to training new postsecondary educated employees.	1	2	3	4	NA

**Please return this survey form by FAX to:
Indiana Fiscal Policy Institute
(317) 237-2893**

Bibliography

A New Approach To Central Indiana Growth and Opportunity, A Report To The Indianapolis Corporate Community Council from The Corporate Community Council Task Force, July 21, 1998.

Abernathy, Donna J., "Leading-Edge Learning," *Training and Development*, March 1999, Vol. 53, Issue 3, p. 40-43.

An Assessment of Central Indiana's Workforce Development System, Hudson Institute, November 1998.

Brown, Camilla Hull; Lad, Larry; Davidoff, Amy, *MAGIC Regional Summit, Executive Summary*, April 23, 1998.

Carnevale, Anthony P., Carnevale, Ellen S., "Growth Patterns in Workplace Training," *Training and Development*, May 1994.

Economic perspectives, Spring Quarter 1999, "Slow work force growth: A challenge for the Midwest?" Federal Reserve Bank of Chicago, p. 31-45.

Freeman, Peter; Aspray, William. *The Supply of Information Technology Workers in the United States*, Computing Research Association, Washington, D.C., 1999.

Fulmer, Robert M., Keys, J. Bernard; "A Conversation With Peter Senge: New Developments in Organization Learning." (Teaching Smart Companies to Learn: Organizational Learning Revisited) *Organizational Dynamics*, Autumn 1998, Vol. 27, No. 2, p. 33.

Grubb, W. Norton, *Working in the Middle; Strengthening Education and Training for the Mid-Skilled Labor Force*, Josey-Bass, San Francisco, 1996.

Indianapolis Business Journal, August 23-29, 1999, "Employee Benefits and Retirement, Most Family-Friendly Indianapolis Employers," p. 23-33.

Lerman, Robert I., Schmidt, Stefanie R.; *An Overview of Economic, Social, and Demographic Trends Affecting the U.S. Labor Market*, Washington, D.C.: Urban Institute Press, 1999.

Poulos, Stacy; Nightingale, Demetra S., *The Aging Baby Boom: Implications for Employment and Training Programs*, Washington D.C.: Urban Institute Press, 1999.

Reich, Robert, *The Work of Nations: Preparing for 21st Century Capitalism*, New York: Knopf, 1991.

Rosen, Corey, "Why Is Employee Ownership Spreading So Fast?", *The Employee Owners' Page*, May/June, 1999. <http://www.nceo.org/columns/5-99.htm>.

Senge, Peter M., *The Fifth Discipline, The Art & Practice of The Learning Organization*, Currency Doubleday, 1990.

The Evolution of Indiana's Labor Force, 1968-1997; A Comparative Analysis, Indiana Fiscal Policy Institute, December 1998.

Toder, Eric; Solanki, Sandeep. "Effects of Demographic Trends on Labor Supply and Living Standards," The Retirement Project, Occasional Paper #2, Washington, D.C.: Urban Institute Press, 1999.

U.S. Department of Labor, *Report on the American Workforce*, 1997.

Wall Street Journal, September 22, 1999, "Employees Who Value Time as Much As Money Now Get Their Reward," p. B1.

Wirth, Arthur G., "An Emerging Perspective on Policies for American Work and Education for the Year 2000: Choices We Face," *Journal of Industrial Teacher Education*, Vol. 31, No. 4, 1994.

Workforce 2020, Work and Workers in the 21st Century, Hudson Institute, Fourth Printing, May 1998.