



Root Causes Cover Sheet
Economic Growth Region #4: TECUMSEH AREA PARTNERSHIP

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Economic Growth Region 4

(Benton, Carroll, Cass, Clinton, Fountain, Howard, Miami, Montgomery,
Tippecanoe, Tipton, Warren and White Counties)

Strategic Skills Initiative Root Causes Report

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Executive Summary

Economic Growth Region 4 (EGR 4) conducted comprehensive, group-specific surveys to gather information from representatives of eight distinct groups:

- Secondary school students
- Secondary school counselors and teachers
- Post-secondary students
- Job seekers
- WorkOne partner organizations
- Incumbent workers
- Manufacturing industry employers
- Post-secondary education and training institutions

We chose these groups because each represents an important component of a workforce development system model consisting of: **Input** (secondary and post-secondary students and job seekers); **Throughput** (secondary school counselors/teachers, WorkOne partner organizations, and employment/training institutions); and **Output** (incumbent workers and manufacturing industry employers).

We sought information that would help us determine the root causes for skill shortages in six occupations that we identified in an earlier report to be critical to the growth of our region's three key industries:

- Advanced Manufacturing
- Advanced Materials
- Agribusiness, Food Processing and Technology

We asked participants to respond to the survey questions in the context of these six critical occupations:

- Material Recording, Scheduling, Dispatching and Distributing Workers
- Supervisors of Installation, Maintenance and Repair Workers
- Installation, Maintenance and Repair Workers
- Supervisors of Production Workers
- Metal and Plastics Workers (CNC Machine Tool Operators)
- Material Moving Workers

Using the information gathered through the surveys we conducted focus groups with employers, WorkOne partner organizations, and Career & Technical Education students. The EGR 4 Strategic Skills Initiative Consortium convened to validate the early findings.

Survey questions were designed to explore five potential contributing factors to the shortage of critical manufacturing occupations and skills:

- Employer Recruitment and Retention

- Education and Training Capacity and Student Completion and Placement
- Student and Worker Access to Career Information
- Wage Rates and Benefits
- Labor Force “Leakage” and “Brain Drain”

What follows is a discussion of our findings and conclusions that identify the root causes of occupation and skills shortages that are attributable to each of these factors.

Employer Recruitment and Retention

Root Cause #1: Companies are not attracting young people to manufacturing careers.

Employers report concern that young people are not interested in manufacturing careers (Figure 1). They believe that a significant factor contributing to the shortage of workers is that parents and schools do not encourage students to pursue careers in manufacturing.

As one employer commented, “(What is needed is) an increased awareness of prospective employees of what the job entails, the benefits of job stability, and job growth as being important as well.”

High school students rated pay and benefits as most important in their consideration of future careers. However, they also gave high responses to “interesting and challenging work” and “feeling like I am making a difference; what I do is important” (Figure 2.1). Fewer than 10% of high school students who responded to the survey said they were really interested in manufacturing careers, but over 40% said they would work in manufacturing if they thought the jobs provided really interesting work (Figure 2.2).

Sixty-five percent (65%) of employers said they would encourage their own children to pursue manufacturing careers. Slightly less than half of school counselors, however, would recommend manufacturing careers to their children. Only a fourth of incumbent workers would encourage their children to enter manufacturing, but over half would recommend manufacturing careers to others.

This finding is consistent with the National Association of Manufacturer (NAM) *2005 Skills Gap Report—A Survey of the American Manufacturing Workforce* which came to the same conclusion. NAM researchers found “a direct relationship between manufacturing’s negative image—which is tied to the old stereotype of the assembly line—and the decreasing number of young people pursuing careers in the industry.”

Root Cause #2: Employer screening and assessment capabilities are limited and less effective than desired.

Only 10% of employers reported that they were very satisfied with their screening and assessment results (Figure 3.1). While interviews and reference checks are routinely used, most employers do not use the more objective measures of career fit such as WorkKeys, skill tests, or work samples (Figure 3.2). Interestingly, nearly 70% of employers responded that their

personnel management resources were adequate (Figure 3.3). Employer focus group participants confirmed, however, that smaller manufacturing employers do not have the staff capacity to adequately screen and assess applicants. Focus group employers who were able to make the greatest up-front investment in the hiring process were the most satisfied with the results.

Employers seemed less concerned with their ability to screen and assess for specific job-related skills and foundational skills. In these areas they reported dissatisfaction with their new hires in the range of 0-7%. They were more concerned with their capability to assess skills that are harder to measure, such as problem identification, problem solving, critical thinking, and the ability to communicate effectively in writing. In these areas they expressed dissatisfaction with new hires in the range of 15-17%. Employers were most concerned with being able to adequately screen and assess for the so-called work ethic skills, such as attendance, punctuality, attention to work, etc. Here their dissatisfaction with new hires rose to 22%.

Education and Training Capacity and Student Completion and Placement

Root Cause #3: Misalignment of secondary and postsecondary education and training with student and employer needs.

When asked to give us ideas on how the critical skill shortages challenge could be resolved, employers expressed concern that secondary and postsecondary schools are not teaching the skills required for success in manufacturing careers (Figure 1). They commented extensively on how they thought the secondary schools could be more supportive by providing students with information, skill development, and work experience in manufacturing career areas.

Employers also commented on the need for postsecondary institutions to better understand their skill needs and provide more industry-specific training. Smaller and lower paying manufacturing employers commented that it is often not practical for them to provide extensive training in-house and on company time. This has to do with the direct costs involved, but also with the realization that, once trained, employees are more likely to be lured away by larger, higher paying companies. Several employers supported the idea of community-level studies involving manufacturing employers, workforce development agencies, and postsecondary institutions that would lead to a clearer understanding of what the critical occupations' skill requirements are and how to adapt curricula to accommodate them.

Root Cause #4: Low postsecondary participation and graduation rates in manufacturing career areas.

A survey of the EGR4's two-year college degree programs that relate to manufacturing careers was conducted. Graduates with Associate of Applied Science (AAS) degrees or, in some cases, Technical Certificates, would be well positioned for success in the region's critical occupations according to their plans of study. It should be noted here that one of the critical occupations, Material Moving Workers, is not included in any of the programs we surveyed. Enhanced training in this occupation is provided through customized Industrial Safety training programs offered by Ivy Tech; however, by necessity, basic training must occur on the job.

There are three, two-year community colleges serving EGR 4. Data for Ivy Tech-Lafayette includes its Crawfordsville site. Data for Ivy Tech-Kokomo includes the Logansport campus. Danville (IL) Community College (DACC) provides training services to residents located in the western part of EGR 4. Only about 20% of the DACC students/graduates are residents of EGR 4.

Relevant Associate of Science (AS) and Certificate programs offered through Purdue University's College of Technology at both its West Lafayette and Kokomo sites were also surveyed.

The surveys revealed that EGR 4's two Ivy Tech institutions generated 27 AAS and Technical Certificate graduates over the past year in the manufacturing related disciplines we targeted. Another 34 students completed training in the specialized areas of Welding and Heating, Ventilation, and Air Conditioning (HVAC). Some of these "specialists" may very well end up in manufacturing in one of the critical occupations, e.g., Installation, Maintenance, and Repair Workers. Many, however, will work in welding specialty shops and residential/commercial HVAC installation and repair businesses.

DACC generated 35 AAS and Technical Certificate graduates over the past year. We estimate that seven (7) of those graduates reside in EGR 4.

The two Purdue campuses generated 28 graduates with AS degrees or Technical Certificates that met our survey criteria.

Programs that reported drop-out rates placed them in the range of 5-19%. Placement rates averaged over 90%. No programs indicated that they were near enrollment capacity. Program costs for tuition and books were reasonably low: \$5,700 for an Ivy Tech AAS degree; \$11,000 for a Purdue AS degree. All offered some accommodation for distance learning, off-site instruction, transfer of credits to 4-year institutions, and articulation with area high schools.

A survey of postsecondary students, most of whom were attending Ivy Tech, indicated high levels of satisfaction with their programs of study. About 80% of the respondents indicated they planned to work in Indiana. Their colleges reported that closer to 90% of graduates actually accept jobs within EGR 4.

When colleges were asked why enrollment in manufacturing-related programs was below capacity, the most common response was that potential students were not aware of the programs they offered or of the employment opportunities in manufacturing. Ivy Tech-Lafayette also cited difficulty finding properly credentialed faculty who are available at the times they are needed and obsolete lab equipment.

In its November, 2005 *Occupation and Skill Shortages Report* the EGR 4 SSI Consortium estimated that there would be about 900 vacancies each year among the six occupations considered to be critical to the growth of the region's key manufacturing industries. Regional two-year college program graduates are meeting less than 10% of that demand. Of course, some of the demand for Supervisors will be met by four-year college program graduates; some of the

demand for highly trainable but minimally skilled CNC Machine Tool Operators may be met by recent graduates of secondary technical education programs; and some through the migration of skilled workers into the region. But if our estimate of the size of the demand is on target, much of it will have to be met by workers who are not adequately trained or experienced.

There are at least four sub-issues related to this issue of low enrollment. One was previously discussed under *Issue #3: Misalignment of postsecondary education and training with student and employer needs.*

In its 2003 White Paper, *Keeping America Competitive—How a Talent Shortage Threatens U.S. Manufacturing*, the National Association of Manufacturing (NAM) found nationally what we also are experiencing locally. Manufacturers prefer community colleges as the training providers for skilled workers because they are flexible and responsive to their needs. However, it is often the case that the programs manufacturers value are not sufficiently financed as a result of community college funding formulas that do not take in consideration the higher costs of providing technical education.

Two other sub-issues having to do with the lack of career information and career ladders will be discussed next.

Student and Worker Access to Career Information

Root Cause #5: Lack of accurate information on manufacturing careers for the emerging workforce.

Secondary and postsecondary students reported that they rely very little on teachers and counselors for career guidance. Secondary students cite parents as the single greatest influence on their career decision-making. Sixty percent (65%) of postsecondary and 41% of secondary students rely on a variety of other sources including their personal interests, work experience and independent research (Figure 4.1). Fewer than 10% of the respondents in either group rated the critical manufacturing occupations or manufacturing careers in general as Highly Favorable. Secondary students expressed much more interest if the jobs paid well (30%) or if the work was really interesting (40%).

Seventy-five percent (75%) of school counselors rate the quality of labor market and career information available to them as Fair to Very Poor (Figure 5.1). Ninety percent (90%) of counselors report that they are interested in learning more about manufacturing careers and their education and skill requirements. They mentioned in equal frequency (60%) that they would be interested in learning more about manufacturing careers through in-service workshops, publications and marketing materials, and on-site visits to observe manufacturing work in progress (Figure 5.2). Over one-third responded that they were interested in a “teachers in industry” project during the summer.

A little over one-third of high school counselors were aware that there were critical skill shortages in the selected occupations. Fewer than 20% of postsecondary students were aware.

WorkOne partner organizations reported that they had a good grasp of manufacturing employers' needs and expectations. Most were familiar with the occupations in demand, Staff members, however, indicated that they do not typically promote careers in manufacturing or direct their customers to information about such careers unless the customer expresses an interest or initial assessment results indicate that manufacturing work would be a good fit.

Root Cause #6: Lack of clear career ladders within the manufacturing sector.

This cause can be inferred from survey responses from three groups: employers, students, and counselors.

By a two to one margin employers report that their recruitment problems are more a matter of too many applicants without the right skills than too few applicants with the necessary skills. In other words, there appears to be a lack of preparedness on the part of applicants for manufacturing positions from the start. They really don't know what employers are looking for. Employers describe applicants as job hunters who are not career oriented.

When employers were asked to comment on why they believed workers in critical occupations left their companies, the most common response was not directly related to pay and benefits as might be expected, but to boredom, job redundancy, and opportunity for advancement elsewhere. As one employer put it, "Work environment and defined career paths are just as important as wages and benefits."

Overwhelmingly, students expressed interest in pursuing careers in the healthcare industry compared to only a handful who reported interest in manufacturing (Figure 4.2). Of course there could be many reasons for this disparity, but one can readily infer that it is more reasonable to consider a "career" in a field like healthcare that has such a clearly laid out career pathway, than to consider a "job" in manufacturing.

School counselors and teachers were asked to comment on whether they thought the K-12 system has a responsibility to resolve shortages in skills and occupations that are important to our regional economy. Among many insightful responses there was one that summarized what most expressed: "The educational community provides basic skills for entry level occupations. However, they need to broaden their knowledge of pathways, job opportunities, salaries, required skills, etc. They have a responsibility to help make their community better by preparing people for jobs locally as well as preparing children for jobs that are not local."

As referred to earlier, 75% of school counselor and teacher respondents expressed concern that they did not have enough information to be able to assist their students in making decisions about careers in manufacturing.

Wage Rates and Benefits

Employer responses did not indicate that wages and benefits were at the root of their skill shortage dilemma. Employers (36%) expressed willingness to increase wages (but not benefits) to attract skilled workers. They were more concerned that there were too few qualified applicants available, in spite of the fact that they had an abundance of applicants from which to

select. Employers (18%) acknowledged that pay was a major contributing factor affecting employees' deciding to leave their hard-to-fill positions. However, employers did not indicate their reluctance or inability to offer competitive wages and benefits as a key issue in resolving the skill shortage problems.

Fewer than 20% of incumbent workers expressed any level of dissatisfaction with their pay; fewer than 10% expressed dissatisfaction with their benefits. Their chief concern was job security (49%).

Students (28%) rated pay as their top choice among factors contributing to future job satisfaction. They also indicated they would be willing to work in manufacturing if the jobs paid well. For 88% of students a "good paying job" was one paying from \$8 to \$20 an hour. Most of the skilled occupations that employers consider hard-to-fill offer wages near or above \$20 an hour.

Labor Force "Leakage" and "Brain Drain"

Survey information and focus group discussions did not support the concern that leakage/brain drain was responsible for skills shortages in the region's critical occupations.

Education and training institutions reported that most graduates (as high as 90%) from the programs we studied remained in the region. Eighty percent (80%) of postsecondary students said they planned to remain in Indiana. Seventy percent (70%) of secondary students with college location plans said they would attend Indiana schools. Fifty-three (53%) of secondary students said they planned to live and work in Indiana.

Only 10% of employers responded that the problem of skilled workers' leaving for jobs outside the region was a major factor in retention.

Relative Importance of Root Causes

Six root causes for the shortage of skills in critical manufacturing occupations have been identified in no particular order of importance thus far:

1. Companies are not attracting young people to manufacturing careers
2. Employer screening and assess capabilities are limited and less effective than desired
3. Misalignment of secondary and postsecondary education and training with student and employer needs
4. Low postsecondary participation and graduation rates in manufacturing career areas
5. Lack of accurate information on manufacturing careers for the emerging workforce
6. Lack of clear career ladders with the manufacturing sector

Root Cause Priority #1: Lack of awareness of career opportunities and pathways in manufacturing.

Root Causes #'s 1, 4, 5, and 6 are closely related. They commonly point to the lack of communication, or miscommunication, among manufacturers, workers, secondary and

postsecondary education and training institutions, and, indeed, the regional community as a whole. The result has been waning interest among young adults and other marginal workforce participants in even considering careers in manufacturing, let alone preparing for them. Those who do consider manufacturing employment tend to think in terms of jobs that pay well rather than careers that are personally fulfilling.

The root causes, when taken together, point toward a concerted effort to actively promote the features and benefits of manufacturing careers in light of that industry's prominent role in the economic vitality of the region. While acknowledging that there are dynamic changes taking place in the manufacturing sector that often negatively affect workers and communities, the greater reality is that EGR 4's manufacturing productivity is healthy and there are great career opportunities awaiting skilled workers. The single most important contributor to meeting employers' demand for skilled workers is a pipeline of career-oriented young (and some not so young) people who show up at an employer's door knowing what the work entails and being prepared to do it.

Root Cause Priority #2: Employer screening and assessment capabilities are limited and less effective than desired.

It will take time for any initiative focused on resolving Root Cause Priority #1 to have its desired effect. In the meantime manufacturing company HR departments have to screen and assess too many applicants to find one who has the skills they are looking for. They aren't satisfied with their screening and assessment processes. While this would seem on the surface to be an internal matter that the companies themselves should resolve, the publicly funded workforce development system is in a position to assist them; and it is reasonable to expect that it would, especially in the case of smaller firms. Reducing the amount of unnecessary "friction" that currently exists in the selection process will bring manufacturing employers some immediate relief to their skill shortage dilemma.

Root Cause Priority #3: Misalignment of secondary and postsecondary education and training with student and employer needs.

If misperceptions about manufacturing are corrected and clearer career paths are established, there still remain employers' concerns with the skill development of their future employees. Because careers in manufacturing are not highly valued by students, parents, and schools, curricula are not likely to be developed with the academic, critical thinking, and work ethic requirements of the manufacturing sector in mind. While technical career centers and cooperatives have been effective in meeting this need, they serve a relatively small number of the 4,600 students who graduate from EGR 4 secondary schools each year.

Likewise, secondary institutions, because of low student enrollments in programs that prepare students for manufacturing careers, may not have the incentive they need to develop those programs in line with employers' evolving needs.

Employers have expressed the desire to work with schools and intermediary organizations to resolve this issue. They will need a structure and a means of facilitation to do so.

Assessment of the Sensitivity to Change in Skill Shortages Due to Root Cause Resolution

Root Cause Priorities #1 and #3 deal with people's perceptions and behaviors that lead to structural changes in programs and services. It will take time for the resolution of these root causes to "fill the pipeline" from which future skilled workers will flow. The work that is done to resolve them will provide no immediate relief to the current skill shortage problem. The work is necessary however, if a better pipeline is to be built. Our research points to no "quick fix" causes.

Root Cause Priority #1. We predict that heightening the awareness of manufacturing careers and providing career pathways can realistically reduce the expected regional annual shortage of 900 skilled workers by 10%, or 90 workers, during 2007. We predict that as the worker pipeline fills, the impact will increase incrementally to 50%, or 450 workers, by 2012. Now only 10% of secondary students say they are interested in manufacturing careers. Through heightened awareness and improved career planning, we believe that percentage can be increased over time to 30%, which mirrors the percentage of the regional labor force who actually works in the manufacturing sector.

Root Cause Priority #2. Unlike the other root causes we have identified, employers' limited screening and assessment capabilities constitute a frictional employment problem. A new pipeline does not have to be constructed; we simply have to reduce friction or "lubricate" the existing one. Resolving this root cause will not directly result in more skilled workers and more workers will not necessarily enter the pipeline. They will simply move through it more efficiently. There will be less unemployment or underemployment while qualified workers wait to be hired. Skilled positions will not go unfilled for as long.

Employers report that it takes an average of five weeks to fill a skilled position. By reducing this to a more realistic period of two weeks, the employer would gain 6% of a work year for each new employee hired or one year for every 16 new workers. If all other variables are held constant and assuming a skilled worker deficit of 900, then 56 fewer workers would be needed.

Root Cause Priority #3. The misalignment of secondary and postsecondary education/training with the needs of manufacturing employers and workers relates to the priority #1 cause. If it is not resolved, there will be a bottleneck in the education and training system that impedes the flow in the pipeline that is created by greater awareness of manufacturing career opportunities and career paths. If this root cause is resolved it will not only help satisfy employers' need for highly qualified skilled workers, but it will actually have a "pull" affect on those about to enter the pipeline, either increasing the flow rate or expanding the diameter of the pipeline.

The resolution of Root Cause Priority #3, therefore, will have a qualitative effect by stimulating manufacturer's productivity growth as well as a quantitative effect as it supports and expands growth in the supply of new skilled workers. We predict that its resolution will contribute to a reduction in the expected regional annual shortage of 900 skilled workers by an additional 5% or 45 workers during 2007. As the student pipeline fills, the impact will increase incrementally to 25%, or 225 workers, by 2012.

Background Information

EGR 4 used the methods and guidance made available by Indiana Workforce Development (IWD), including participation in on-line seminars provided by Workforce Associates, Inc. We have endeavored to maintain a “line of sight” connection throughout the Strategic Skills Initiative by keeping causes aligned with symptoms. We centered our investigation into root causes by focusing on areas of research recommended by IWD.

With assistance provided by the Corporation for a Skilled Workforce and input from the EGR 4 SSI Consortium we designed eight survey instruments that were used to obtain information from distinct groups whom we believed would represent all components of the workforce development system. These groups are briefly described in the Executive Summary. The surveys were posted on the websites of Workforce Development Strategies, Inc. and WorkOne-Lafayette. Some respondents chose to complete the surveys off-line. Those results were also included in the final survey reports. We broadly announced the surveys’ availability to all representative groups, directly and through other organizations. We specifically invited the responses of the 80 key industry representatives whom we identified as being particularly interested in the results of this study.

After receiving the survey results we conducted forums with representatives of three groups: manufacturing employers, WorkOne partner organizations, and secondary students. Input from forum members served to validate some of our preliminary findings, cause us to deepen our analysis of others, and to exclude some from further consideration. Ultimately the EGR 4 SSI Consortium members provided validation for the findings and conclusions contained in the final Root Causes report. Representatives from 12 manufacturing industries located throughout the region actively participated in the root cause analysis process as Consortium members and focus group members. Forty (40) industry employers responded to the employer survey from which many of the findings in this report were generated.

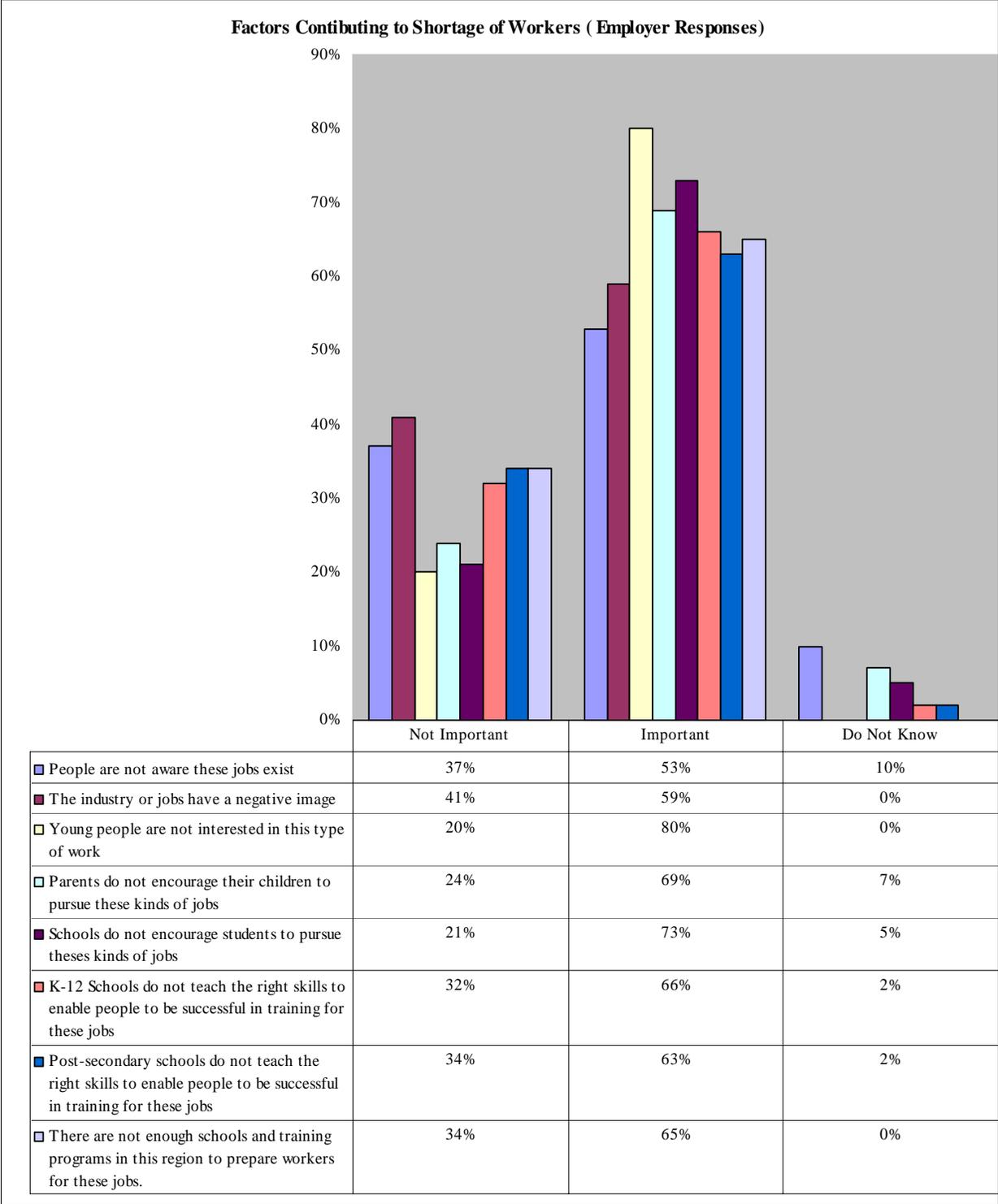
We determined that there were six root causes for the region’s skill shortages that were worthy of further investigation. These are discussed in some detail in the Executive Summary. Three of the six were complementary enough to allow us to consolidate them into one Priority Root Cause. The remaining two Priority Root Causes seemed to stand alone.

Although it is difficult to objectively and accurately predict the true effect that resolving the root causes would have, we believe that they account for at least 75% of the regions skill shortages. Purdue University, in behalf of a consortium of EGR 4 partnering organization recently applied for a \$15 million U.S. DOL grant (WIRED Initiative) aimed at connecting economic development, workforce development, and education at the regional level. It is encouraging to note that a large component of the grant, if awarded, would support the development of EGR 4’s manufacturing industry clusters, of which the resolution of our workforce development system’s priority root causes is an important piece.

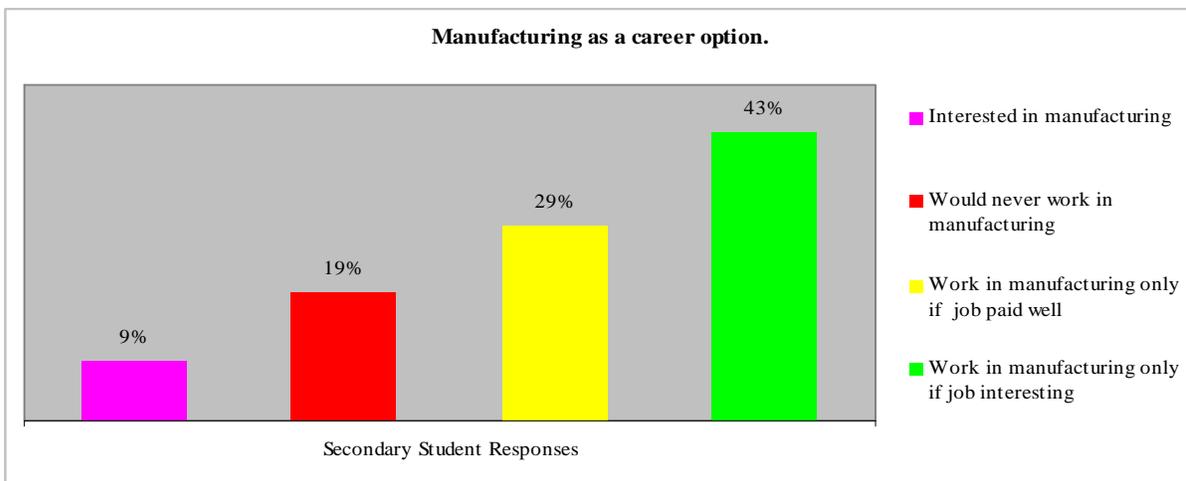
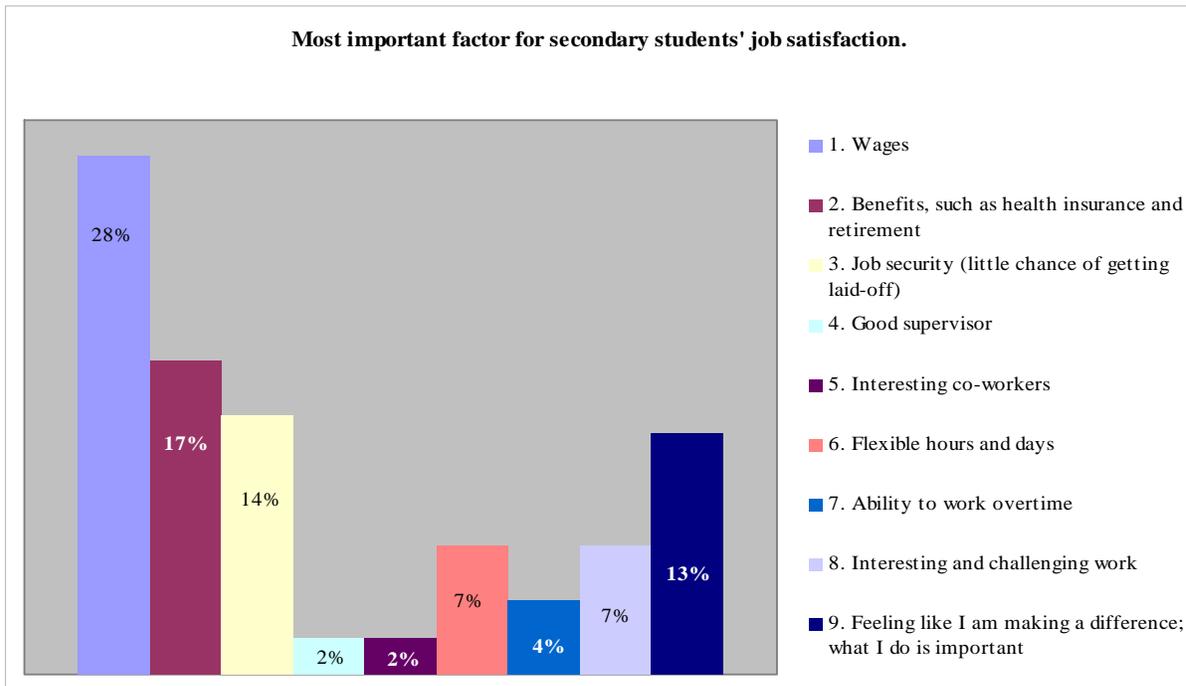
It is also relevant to note that the conclusions of this report, especially as they relate to Priority Root Causes #1 and #3, are consistent with the conclusions of recently published research conducted by Deloitte Consulting LLP for the National Association of Manufacturing (NAM),

Keeping America Competitive (2003) and *2005 Skills Gap Report—A Survey of the American Manufacturing Workforce*. We also found reassuring the 2004 study conducted by Thomas P. Miller and Associates, *What Indiana Makes, Makes Indiana: Analysis of the Indiana Manufacturing Sector*. This report further affirmed us in our conviction that manufacturing industries and careers really are alive and well in Indiana, including especially here in EGR 4.

Figure 1

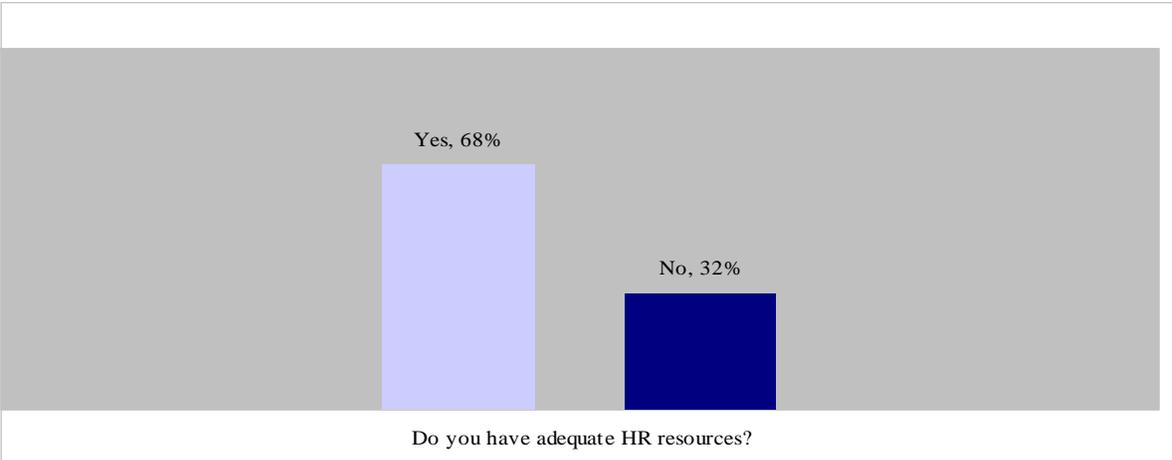
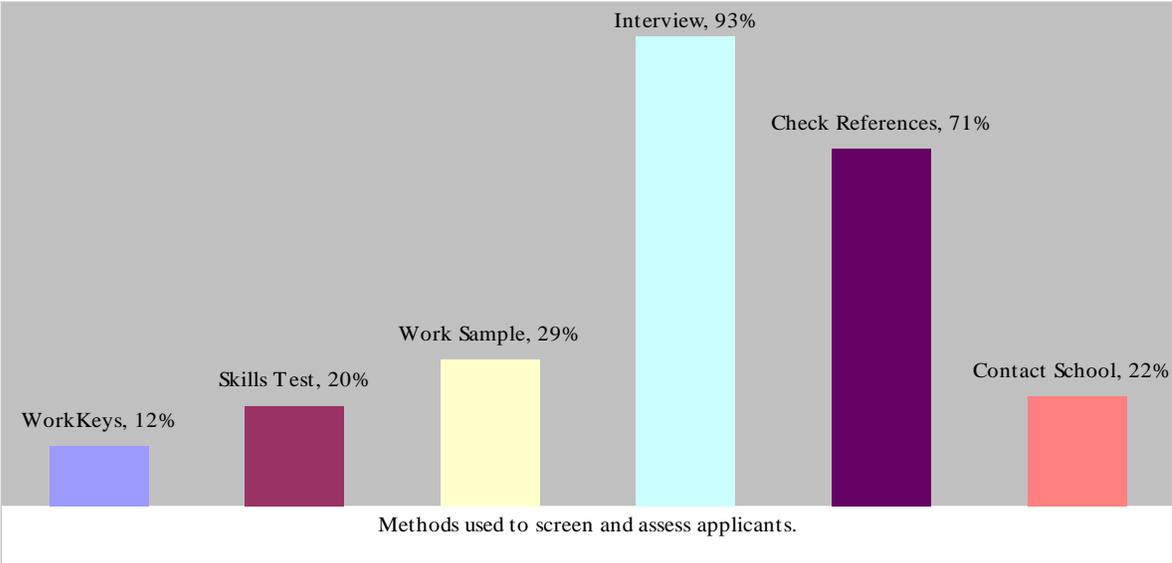
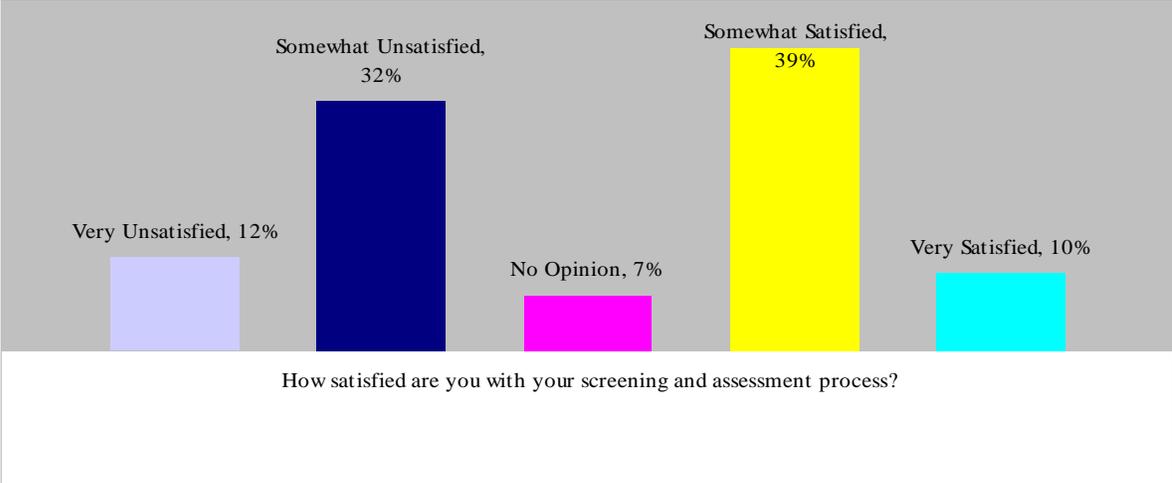


Employers N = 41



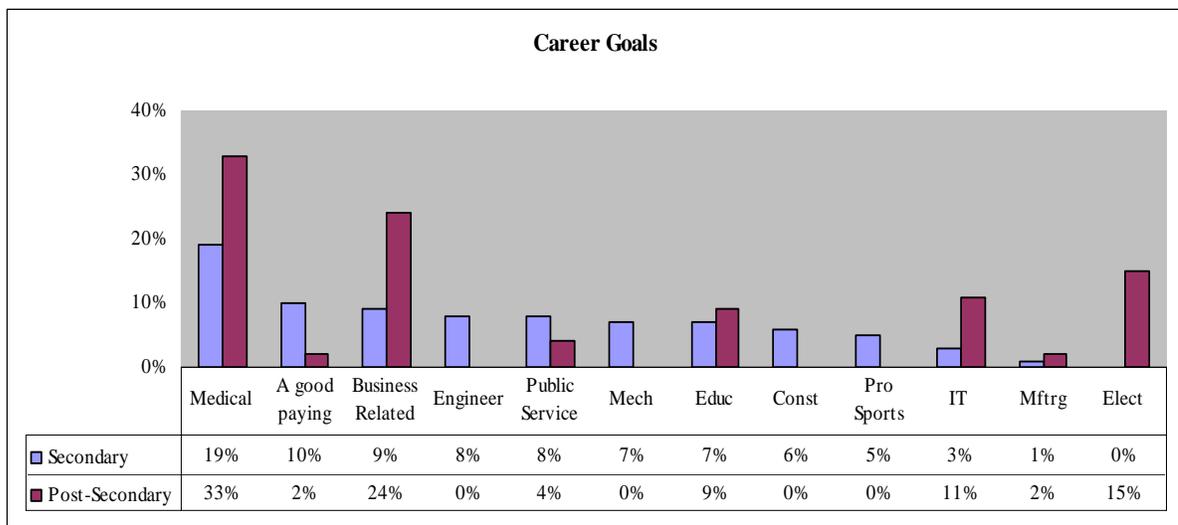
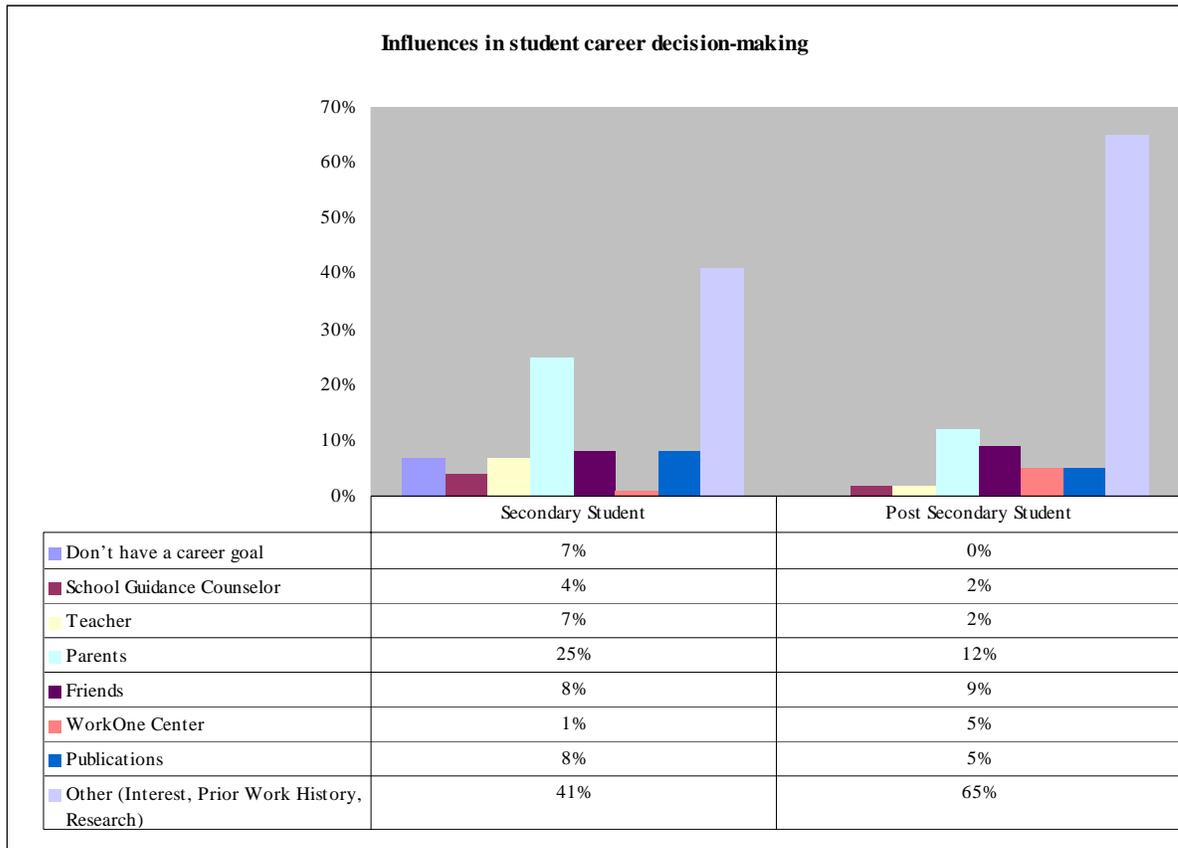
Secondary Students N = 596

Employer Screening and Assessment

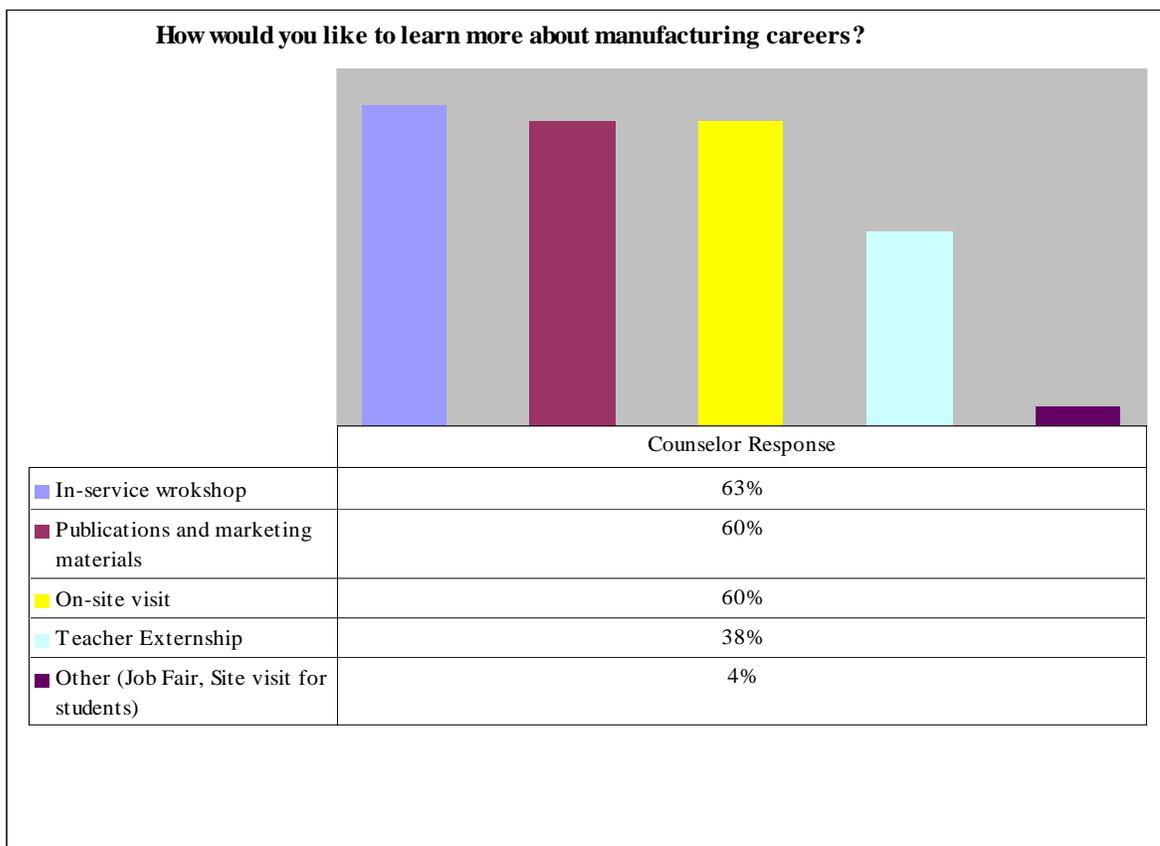
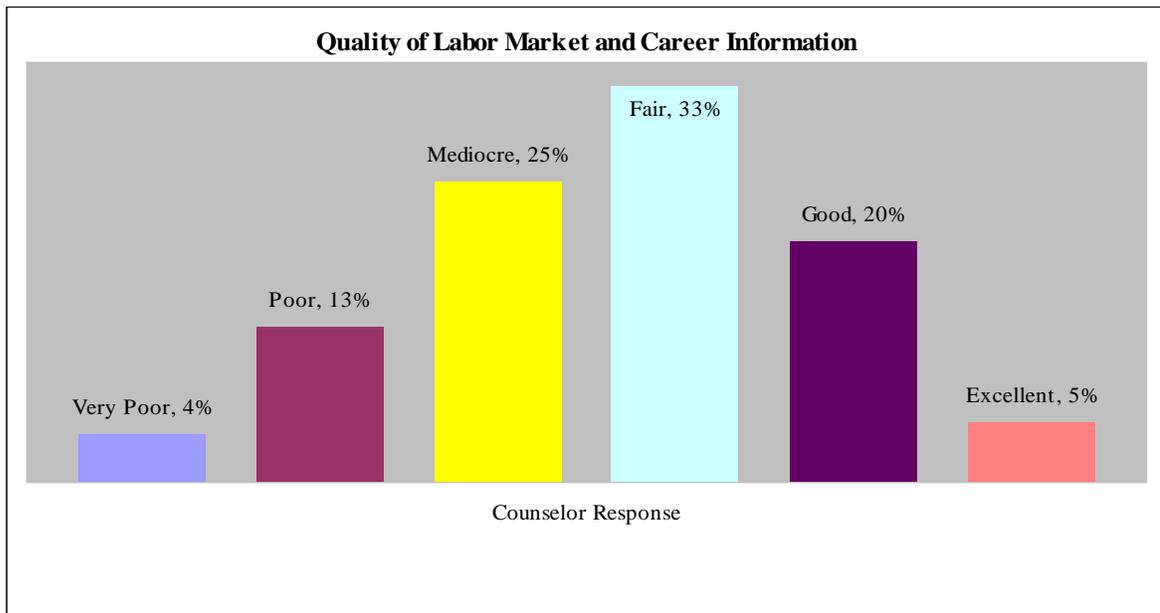


Employer N = 41

Figures 4.1, 4.2



Secondary Students N = 596
 Post Secondary Students N = 46



Counselor N = 65

SSI One-Stop Partner Focus Group
EGR 4

The WorkOne Focus Group was held on December 14, 2005 at the Kokomo WorkOne office. Nine (9) One-Stop partner staff attended, representing the Department of Workforce Development, Vocational Rehabilitation and Department of Family Resources.

The SSI Focus Group Protocol was followed. Following are the results of the focus group.

Please go around the room and introduce yourselves and as you do, give a one-word description of how you perceive jobs in manufacturing.

- Computerized
- Experience
- Chrysler
- Income
- Carpel tunnel
- Factory
- Competition
- Repetition
- Boring
- Global
- Mexico/china
- Mexican/Hispanics

How do you/your staff learn about the industries in the region and their skill and occupational needs?

- Straight from employers – probe degrees/experience required
- Reading articles in newspapers – hires/layoffs/new hires
- Company websites
- Workers
- Word-of-mouth
- Read want ads
- Relatives of people employed in factories
- Chamber of commerce/economic development
- Labor market information
- Manufacturing fast track program offered through IMPACT provider in Miami County
- Employment training specialist funded by Vocational Rehabilitation
- Laid off workers
- Human Resource Associations

When/how/what time does you/your staffs spend at manufacturers' places of employment to help understand what the occupations are all about?

- Department of Workforce Development partner has two dedicated staff for employer services. There are not regularly scheduled visits to employers. Monthly range of visits range from 0-3or4 per month. Will stop by employers, usually able to talk to HR – do about 5-6 visits per month. Also try to get company/plant tours when possible.
- Participate in employer visits with partner organizations.
- Partner agencies set up visits.
- VR and DFC have contracts with Job Placement agencies. Those organizations visit employers daily. They are paid to get placements.
 - Quarterly meetings – review data – provides a good pulse of what is happening
 - Work w/Work One staff
- Network for Success monthly meetings in Miami County – too many people visiting single employers – need to coordinate efforts

Are you familiar with the six occupations that were selected for the SSI initiative? What do you know about the skill requirements, wages and benefits?

- Look up information on the internet.
- Skills required are broad
- Companies demand degrees (BA) and experience, especially for supervisors
- Low wages/no or low benefits
- Employers market
- High skilled workers competing for \$10 per hour
- Skilled/degreed workers not hired- leaving the area
- Indiana has little too offer
- Employers using contract workers
- Region/city does not attract workers –cultural issues
- Job market is competitive
- Not many qualified candidates
- Reliable, attendance, on-time
- Apply on-line – applicant must be computer literate

Are there any visuals in your offices about these particular occupations that might help acquaint job seekers with them and pique their interest?

- WDSI developed the TOP 50 Critical Occupations for North Central Indiana. There are posters and the guidebook in all of the WorkOne offices and throughout partner locations. Staff has been trained to use these resources.
- No other specific information about these occupations.

What do you/your staff hear customers say about their interest in manufacturing? What attitudes do they have towards the industry?

- Want to work in factory but skills may not match employer requirements
- Work history
- Cultural expectations → parents worked in factory → assumption that is where I will work → do not value education
- Perception → good benefits/pay/pensions/retirement possibilities
- Those being dislocated from factories are looking for new skills/careers
- Blame politicians for not being hired
- Cultural issues – do not want to work at Tyson, ConAgra, etc.

How do you talk to job seekers about occupations in demand?

- Cultural aspect of the region is changing – need to change mindset and need to be sensitive to language issues
- Education will need to advance educations- credentials/classes
- PLC- programmable logic control
- High school diploma is minimum
- Female clients – non traditional jobs
- Competitive
- Degree's – GPA must be high
- Career guidance → make choices about classes and careers
- Job seekers need exposure to jobs – we need tools – videos real people working showing this area

What barriers do your clientele have for entering training/occupations in or manufacturing?

- Financial
- Ability
- Transportation
- Lack of information about the occupation
- Connections
- Lack of self-confidence
- Can't pass drug-test
- Understand profile and fit profile of the job
- Basic skills
- Work history

If your funding source pays for training, what kind of training for manufacturing occupations do you fund? How many per year do you train toward these occupations or in these skills?

- Vocational Rehabilitation – very few
- DFC – material handling, warehouse, CNC, welders (IMPACT contract short-term training/non-degree)
- TAA – maintenance and CNC

What barriers do your customers have to retention in training for manufacturing jobs? Why do they leave? About what percentage decide the training/occupation is not right for them?

- TAA- stay in training about 95% completion rate
- DFR – high drop our rate
 - Life skills issues
 - Child care
 - Mental health issues
 - Lack of family support
- VR – about 2/3 finish

What makes you/your staffs think a client would be appropriate or interested in manufacturing?

- Knowledge of someone who does job
- People are drawn to the security even though they are often unstable careers
- Try to talk people out of it
- Negative publicity
- If invest themselves in training- they look elsewhere for work and have also have transferable skills

Why do customers stay or leave a job in manufacturing?

STAY

- Money
- Benefits/retirement
- Security

LEAVE

- Jobs go South
- Not many leave willingly
- Forced to leave or stick it out
- Go to better jobs
- Working conditions
- Health problems
- Fear for future
- Computerized manufacturing - change

Strategic Skills Initiative Economic Growth Region 4

Employer Focus Group
Thursday, December 8, 2005
8:30 am

Tecumseh Area Partnership
2300 Concord Road
Lafayette, Indiana

What methods do you use to recruit workers for hard-to-fill job openings?

For professionals – go outside of area

Head hunters

Monster.com

Trade magazines

Word of mouth

Hourly/Bargaining Unit workers

Work Keys assessed

Change minimum requirements

Referrals from other workers

Mechanical/electrical test

Basic math

90 day wonders – new employees who demonstrate work/attendance issues after 90 day probationary period – a lot of these!

Small companies do not have the staff to screen applicants adequately.

Companies who make a greater investment up front in the hiring process = better results

Multiple screens

Peer reviews

Behavioral based interviewing

Training of supervisors

Review new employees during probationary period

Industry always behind the curve with hiring

Put together hiring pools

Drop –out rate/drug screen

New hire orientation

Do you use the WorkOne?

Haynes – uses WorkOne for hourly workers

Perry Chemical – does not use WorkOne

Bill Henderson, Crawfordsville EDC – most employers do not use the WorkOne

Wants to make Montgomery/Crawfordsville a WorkKeys community

Logansport Memorial Hospital does not use the WorkOne

Testing depending on position

Relies on walk-ins

Approved to complete 5 WorkKeys profiles

Language issues are becoming barriers

Exit Interviews

Professionals move out of the area

Scheduling – demands on family versus work

Physical demands of work

Leaving for next opportunity

Key Positions to Fill

Specific skills are important

Maintenance Positions

Haynes – uses apprenticeship programs – grow their own

Other employers – maintenance, mechanical, electrical – hard to fill

Technicians/Process Workers

Most critical positions and hardest to fill

Must be trained internally

Hard to find people with thought process and ability to solve problems

Quality of life is important to workers

How mobile are the production/hourly workers?

Hourly workers are not mobile – need to develop locally to ensure skilled workforce

Professional workers- need to recruit – have to compete at the state/regional/national level – need to local and state efforts to address these issues

Industry Survey

1

What is the industry with which you most closely align?

- Machinery Manufacturing
- Turbine and Power Transmission Equipment Manufacturing
- Electronic Instruments Manufacturing
- Transportation Equipment Manufacturing
- Chemicals
- Agricultural Chemicals
- Resin, Rubber, and Artificial Fibers
- Pharmaceuticals and Medicines
- Paint, Coatings, and Adhesives
- Printing Ink
- Copper and Aluminum Production
- Aluminum and Steel Foundries
- Semiconductor and electronic components manufacturing
- Crop and animal production
- Food and dairy product manufacturing
- Other, Please Specify

2

What is your position in your company?

- Owner/CEO
- Human Resources Manager
- Production Supervisor or Manager
- Other, Please Specify

3

How do you recruit employees for your hard-to-fill production positions? Check all that apply.

- Referrals
- Newspapers
- Job Fairs
- Electronic job boards or internet
- Staffing agencies
- Private recruitment firms
- From within (lateral transfers or upgrades)
- Indiana WorkOne Offices
- College placement offices, internships, etc.
- Schools/training programs
- Community organizations
- Other, Please Specify

4

Of the above, what is the MOST effective recruiting

method?

5

Of the above, which is the LEAST effective recruitment method?

6

In my experience, my hard-to-fill jobs have...

- ...always been hard-to-fill.
- ...have been hard-to-fill from time to time.
- ...have rarely been hard-to-fill before now.
- ...not existed in the past. We just started hiring for them.

7

Have you had to change your recruitment strategies over time as these positions became harder to fill? If so, in what way? Check all that apply.

- Have not changed recruitment methods.
- Increased my use of technology (e.g., internet)
- Recruit from farther away.
- Use a larger number of different kinds of recruitment strategies.
- More likely to "grow my own" than recruit from outside.
- Loosened my hiring requirements (qualifications).

- Offer incentives (e.g, hiring bonus, flexible work schedule)
- Increased wages to be more competitive.
- Increased benefits to be more competitive.
- Other, Please Specify

8

How long, on average, does it take for you to fill one of these hard-to-fill jobs?

- 1-2 weeks
- 3-4 weeks
- 5-6 weeks
- 7-8 weeks
- Longer than eight weeks

9

What is the average length of time workers remain in these hard-to-fill jobs?

- Less than one year
- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21 or more

10

Is your turnover rate for hard-to-fill positions higher, lower, or about the same as your other positions?

- Higher
- Lower
- About the same

11

How do you screen or assess applicants for these hard-to-fill positions? Check all that apply.

- Use Work Keys.
- Use another skills test.
- Use a work sample (observe applicant actually doing the work).
- Interview.
- Check references.
- Contact training institution or school to verify how well applicant performed.
- Other, Please Specify

12

How satisfied are you with your screening and assessment processes?

- Very unsatisfied
- Somewhat unsatisfied

- No opinion
- Somewhat satisfied
- Very satisfied

13

Do you feel like you have adequate HR resources to handle all the recruitment, assessment, orientation, mentoring, retention, and skill development work that need to be done?

If not, where do you think you have the greatest gaps?

14

Which of the following is most true?

- The applicants for these hard-to-fill positions have the necessary skills, there just aren't enough applicants.
- There are many applicants, but not enough of them have the right skills.

16

Do you conduct exit interviews with employees who leave your hard-to-fill jobs? If so, what have you learned?

Additional Comment

17

Do you use retention strategies for the hard-to-fill positions?
Check all that apply.

- Do not use retention strategies.
- Provide competitive health care benefits.
- Provide competitive wages.
- Train supervisors and managers in effective people management skills.
- Improve the working conditions or company culture.
- Offer a career ladder; opportunities for advancement.
- Offer flexible working arrangements (job-sharing, flexible days/hours)
- Provide tuition reimbursement.
- Provide training on company time.
- Provide formal mentoring programs.
- Provide bonuses, stock options, or other pay incentives.
- Other, Please Specify

18

Rate these reasons as factors for why people in these hard-to-fill positions leave their jobs.

1 2 3 4
Not an factor Somewhat of a factor Major factor Do not know

Advancement to a higher position within the industry.

1

2

3

4

Leave to take different work in a different industry.

1 2 3 4

Personal problems (drug, alcohol, family).

1 2 3 4

Retirement.

1 2 3 4

Co-worker problems.

1 2 3 4

Supervisor problems.

1 2 3 4

Pay not competitive.

1 2 3 4

Benefits not competitive.

1 2 3 4

Working conditions too unpleasant.

1 2 3 4

Don't have the skills to do the job well.

1 2 3 4

Work is too hard.

1 2 3 4

Job security not good enough.

1 2 3 4

Go back to school.

1

2

3

4

Want to leave the region and live elsewhere.

1

2

3

4

19

How important are each of these factors to the shortage of workers for these hard-to-fill jobs?

1
Not important

2
Somewhat important

3
Very important

4
Do not know

People are not aware these jobs exist.

1

2

3

4

The industry or jobs have a negative image.

1

2

3

4

Young people are not interested in this type of work.

1

2

3

4

Parents do not encourage their children to pursue these kinds of jobs.

1

2

3

4

Schools do not encourage students to pursue these kinds of jobs.

1

2

3

4

K-12 Schools do not teach the right skills to enable people to be successful in training for these jobs.

1

2

3

4

Postsecondary schools do not teach the right skills for workers to be successful in these jobs.

1

2

3

4

There are not enough schools and training programs in this

region to prepare workers for these jobs.

1

2

3

4

20

Would you encourage your own children to pursue a career in one of these occupations?

YES NO

Why or why not?

21

What three trends or developments do you think are going to have the greatest impact on shortages for these jobs in the future (whether for better or worse)? Please select only three.

- New technology
- Retirement of older workers
- Increase in education level/skills required to do the job
- Increased diversity (race, ethnicity) in the workforce
- Demand for improved work/life balance
- Outsourcing
- Domestic Competition
- Global Competition
- Change in product line
- Other, Please Specify

22

What ideas do you have for how skill shortages in these occupations might be resolved?



Education and Training Matrix Questions

1. What kind of degree or certification is provided for this program?
2. What was the number of program graduates in 2004-2005?
3. What was the cost to the student of full program completion? (*for Career Centers, specify "If an adult."*)
4. How many credit hours are required to complete a certificate or degree?
5. (*For IVY Tech Schools only*) Are any of those credits transferable to a four year university degree at Purdue? If YES, how many?
6. What is the average length of time it takes a student to complete the full program? (*for Career Centers, specify "If an adult."*)
7. Will the program be offered in 2006-2007?
8. Does this program have any dual credit options for high school students?
 - a) If YES, how many credits are allowed?
 - b) If YES, how do you market dual credit opportunities and to whom?
9. Is all or part of the program currently offered through distance learning?
 - a) If YES, which courses are and which are not? Are any individual courses offered as hybrids – part on-line and part in-class?
 - b) If YES, what percentage of students in this program take advantage of distance learning?
 - c) If YES, how do you market distance learning opportunities to the public?
 - d) If NO, are there any plans to offer distance learning in the future?
10. Are any or all of the program's classes available to be taught on-site at a workplace? If YES, what percent of the coursework can be offered on-site?
11. Is there a waiting list for enrollment into the program?
 - a) If YES, how many are on waiting list?
 - b) If YES, what are the barriers to increasing enrollment capacity?
 - Is equipment a barrier? Do you have the equipment you need, where you need it? If not, describe the equipment and geographical gaps and why they exist.
 - c) If ENROLLMENT IS BELOW CAPACITY, to what would you attribute this?
12. How do you determine the changing skill needs of the industry; i.e., how do you know when a skill is obsolete and stop teaching it, and how do you know when to add a new skill to the curriculum?
13. Do you encounter any barriers to adding new courses or deleting old courses from a curriculum, or barriers to changing skills taught within a course? If YES, what are they? How about for adding or deleting entire programs?

14. What is the annual dropout rate from the program?
15. What are the reasons students drop out?
16. What is the placement rate of graduates in their field of study (or advancement rate for incumbent workers)?
17. Geographically speaking, where do graduates who get jobs go? Are they staying in the local area or moving elsewhere?