

# **CRITICAL SKILL SHORTAGES INITIATIVE**

## **Identification of Solutions Manufacturing**

Prepared by the



# **Southern Economic Development Region**

**Submitted September 30, 2004**

**SOUTHERN ECONOMIC DEVELOPMENT REGION  
CRITICAL SKILL SHORTAGES INITIATIVE**

**Overview of the Southern Economic Development Region's (SEDR) Response to the CSSI**

Due to past successes and the desire to be a successful regional system, the Southern Economic Development Region (SEDR) is applying for CSSI training funds as a calendar year applicant. Included you will find the Solutions Report for Manufacturing. With this initiative, the Southern Economic Development Region's partners are collaborating to ensure a prosperous future for the nineteen county area. Specifically, the workforce development system is working with economic development, local businesses, education, and labor organizations to create effective partnerships which will ensure a strong, vibrant economy in the next decade and beyond. As part of this process, the SEDR previously submitted Phase One: Identification of Industry Sectors and Identification of Root Causes. This report fulfills the second half of report submissions **Phase Two: Solutions.**

Included in the **Section One: Solutions Report:**

- Part One:** Regional Coalition and Industry Partner Engagement
- Required regional coalition partner input
  - Regional identification of solutions
  - Industry partner involvement and support
- Part Two:** Description of Solutions
- Description/Rationale of solution and root causes each addresses
  - Estimates of contribution for each solution
- Part Three:** Action Plan
- Description of responsibility and expected results for each solution strategy
  - Reallocation/Leveraging of Other Funds and Resources

## SECTION 1: SOLUTIONS REPORT

### Part One: Regional Coalition and Industry Partner Engagement

#### Required Regional Coalition Partner Input

The Southern Illinois CSSI is a collaborative effort between Workforce Investment Areas 25 and 26. The Southern 14 Workforce Investment Board guides the WIA 26 and MAN-TRA-CON, Corp. serves as the administrative entity for the Southern Illinois Workforce Investment Board of WIA 25. To ensure cooperation and involvement of both workforce areas in all components of the initiative, the following decisions were made:

1. CSSI project management responsibilities are shared by staff from both regions. Specifically, the co-chairs of the CSSI project (one from each area) have attended and/or shared facilitation of all of the meetings and have shared the responsibility for designing and implementing the project activities.
2. The Steering Committee, which has oversight responsibilities for the CSSI initiative, consists of individuals representing areas 25 and 26 and is co-chaired by Bill Jackson, WIA 26 and John Rendleman, WIA 25. (See Attachment 1 for a list of Steering Committee members).
3. The Chairs of the Workforce Investment Boards from both areas presided over the original Regional Meeting at Southeastern Illinois College and a Regional Briefing held at John A. Logan College. In addition, the Steering Committee, led by Workforce Board members, reviews the work of the consortium committees and focus group meetings.
4. Consortia meetings involved all partners as witnessed in participant lists submitted in the Key Industry Sector and Related Occupations Report. As focus groups emerged in this part of the process, members of the previous consortia committees remained to serve as focus group participants representing an industry. (See Attachment 2 for a list of participants.)

#### Regional Identification of Solutions

In an effort to involve more coalition and industry partners, a CSSI Website was constructed at [www.mantracon.org/cssi](http://www.mantracon.org/cssi). The website includes project information, submitted reports, meeting dates and locations, and on-line root causes and solutions surveys for Manufacturing. (See Attachment 3 for a copy of the survey). To date, over 175 hits have occurred on the website.

In order to gather input from a larger group of participants, advertisements for the April and May focus group meetings were published in *The Southern Illinoisan*, whose circulation area encompasses all of WIA 25 and most of WIA 26. In addition, ads in four regional newspapers in WIA 26 were used to recruit participants from areas not covered by *The Southern Illinoisan*. The website was part of the advertisement. (See Attachment 4 for a copy of the newspaper advertisement). In addition, hundreds of invitations and surveys were mailed to potential participants identified through the Dunn and Bradstreet listings for Manufacturing.

The Manufacturing focus group meetings were held as follows:

April 14, 2004	Marion
May 17, 2004	Marion
May 18, 2004	Harrisburg

In addition, focus group meetings regarding the Community Audit were held in June, 2003 and March, 2004.

## **Industry Partner Involvement and Support**

Key stakeholders in the focus groups were asked to identify the root causes and possible solutions for manufacturing shortages in the SEDR. Hundreds of hours have been spent with industry partners through the original consortia committees and the focus groups which followed.

Additionally, comments received from local manufacturers after a presentation to the Southern Illinois Manufacturers Association on May 19 echoed discussions held in the consortia committee groups and focus group meetings.

A Steering Committee meeting, with representation from all stakeholders within both workforce areas, was held on May 23, 2004. Participants studied the data and input that had been gathered, then recommended adoption of the solutions outlined in this report.

## Part Two: Description of Solutions

### Description/Rationale of Solutions and Root Causes Each Addresses

The variety of summits, focus groups, and Steering Committee meetings held to address critical skill shortages in the manufacturing occupations focused on a number of potential solutions for addressing entry-level manufacturing shortages. A summary of the root causes and solutions identified is provided in a matrix format included as Attachment 5 of this report. The solutions identified by consortium participants include:

- Offering a short term *foundation skills* credential training program for entry-level and incumbent manufacturing workers to include areas such as teamwork, basic math, basic business understanding, general manufacturing processes, work ethic, mechanical aptitude, and computer skills. This solution is proposed to address the root cause of a lack of a foundation skills credential training program in the community colleges for entry-level and incumbent manufacturing workers. Also, this solution would address the root cause of the diminishing overall level of educational attainment of southern Illinois' adult population. The inflow into southern Illinois of adults with poor or modest education greatly exceeds the inflow of well-educated adults. The net effect of this migration flow is to diminish the overall level of educational attainment of southern Illinois' adult population, which, in turn lowers the quality of the workforce.
- Hiring two Career Coordinators (one for LWA 25 and one for LWA 26) to work with youth and to develop career development programs with all high schools in their respective WIA. The Career Coordinators will assist youth with academic preparation and will work with local manufacturers in coordinating career fairs and job shadowing opportunities. Additionally, the Career Coordinators will prepare career information packets for instructors and guidance counselors to promote awareness of manufacturing careers. The Career Coordinators will also identify WIA eligible youth and work with the local One-Stop Centers to ensure that the Youth Career Center Network is available to youth. This solution is proposed to address the root cause of a lack of understanding of career opportunities and benefits within the manufacturing industry, especially in the formative career development years of high school, which limits adequate academic and foundation skills preparation.
- Disseminating information in the *Southern Business Journal*, a special monthly supplement published by the *Southern Illinoisan* newspaper. A 4-page full color "Ad-itorial" would be purchased to include in the journal that would showcase local manufacturers within the SEDR. This publication will address the root causes of an aging workforce requiring the development of a supply of replacement workers equipped with adequate foundation skills for entry-level positions as mentioned in Part One of this report and a lack of understanding by

youth and adults of career opportunities and benefits within the manufacturing industry.

- Creating a virtual tour and youth website to provide exposure of manufacturing facilities and the career opportunities available within the 19 county SEDR. The virtual tours would allow adults and youth the opportunity to experience the atmosphere of manufacturing and develop an interest in the opportunities available within their own communities. The website and virtual tour would also provide information on the skills, education, and training requirements necessary for employment in the manufacturing industry. This solution will address the root cause of lack of understanding of career opportunities and benefits available within the manufacturing industry.

## **Estimates of Contribution for Each Solution**

Local manufacturers have pledged to give hiring preference to new applicants with the foundation skills training program credential and career advancement opportunities to employees who receive the credential. This will aid in replacing workers who will reach retirement age. Labor market data project approximately 114 average annual job openings in entry level manufacturing positions within the SEDR (see Attachment 6 for a chart of this data by county). A conservative estimate would be to calculate a contribution of at least 10% of this total in reducing the short-term and long-term shortages in the manufacturing industry. It is anticipated that providing the training program for incumbent workers at manufacturing facilities will increase retention by at least 10%. The SEDR currently employs over 21,000 workers in the manufacturing industry (see Attachment 7 for a chart of manufacturing workers by county). A 10% increase in retention could result in approximately 2,000 workers remaining with their current employer and maintaining long-term manufacturing employment.

The manufacturing supplement to the *Southern Business Journal* is intended to create interest in youth and adults for manufacturing occupations. A conservative estimate of this impact is in reaching at least one person per issue. Similarly, it is anticipated that the Career Coordinators will assist at least one student per county in developing a career plan centered on employment in the manufacturing industry.

## **Part Three: Action Plan**

### **Description of Responsibility and Expected Results for Each Solution Strategy**

Local manufacturers have pledged their support for the solution strategies identified in the previous section of this report. Specifically, local manufacturers are prepared to offer the foundation skills credential training program to current employees to bolster skill sets and to aid in the retention of their entry-level employees. Additionally, SEDR manufacturers have promised preferential hiring of new employees possessing the credential for the foundation skills training program. The training program would be viable for years as older workers retire and replacement workers are hired to fill these vacancies. Manufacturers repeatedly reported that more advanced positions within their facilities are awarded to entry level workers who have demonstrated the work ethic and skills attainment necessary for advancement. The credential would allow employees to have greater chance for advancement within the manufacturing facilities in the entire SEDR.

The Career Coordinators will work with manufacturers to plan career fairs, to establish job shadowing opportunities for local youth, and to organize the website and virtual tours. Additionally, the coordinators will distribute the youth portion of the *Southern Business Journal* supplement within local high schools and they will work with the local One-Stop Centers to ensure the Youth Career Center Network is available to youth. The Career Coordinators will prepare manufacturing career information packets containing academic and education requirements

MAN-TRA-CON's Graphics Designer will coordinate the content of the manufacturing supplement in the *Southern Business Journal* with local manufacturers, the ad-itorial committee, and the Career Coordinators. Additionally, an ad-itorial committee of local manufacturers will be formed to supply articles. Presently, this publication is a regional effort to unite business and economic development. With the addition of the Manufacturing Supplement, workforce would become part of this important regional effort. Manufacturers have agreed to purchase ad space in the supplement. The community colleges have also expressed support for the publication and will purchase ad space. The *Southern Illinoisan* newspaper will absorb the mailing costs for distributing approximately 10,000 copies of the *Southern Business Journal* throughout the 19 county SEDR.

A multi-media company will produce the virtual tour with the assistance of material from volunteer manufacturing facilities. Local manufacturers would provide the space, time, and facility guides. MAN-TRA-CON, Corp. with the assistance of the Southern 14 Board staff would make the virtual tour available within all One-Stop Centers in the 19 counties and through a Youth Career Center website hosted through the One-Stop Centers. The website will be created by a Graduate Assistant from Southern Illinois

University at Carbondale. The virtual tour will be available through the Web but also on CD for greater mobility and ease of use where the Internet is not available.

## **Reallocation/Leveraging of Other Funds and Resources**

Local manufacturers have promised to give hiring preference to new applicants with the foundation skills training program credential and career advancement opportunities to employees who receive the credential. This will aid in finding replacement workers for current employees who will reach retirement. It is anticipated that the training program will increase retention by at least 10% at manufacturing facilities.

Five high schools within the SEDR have volunteered to serve as pilot sites by hosting one Career Coordinator in each workforce area. The high schools will provide office space, access to office equipment, and a computer for each coordinator representing a value of approximately \$6,000. Local manufacturers will volunteer their time to work with the coordinators in developing career fairs, job shadowing experiences, and materials for the information packets. Additionally, manufacturers will contribute stories and information as well as purchase ad space for publication in the supplement to the *Southern Business Journal*. Also, manufacturers will supply the space and guides for the virtual tours to be created as part of the youth website. The investment of their donated time is expected to be approximately \$3,000.

MAN-TRA-CON, Corp. will contribute the time of their graphics coordinator for content development and staff time to coordinate submission of articles to the supplement of the *Southern Business Journal*. This resource has an anticipated value of approximately \$3,000. The *Southern Illinoisan* newspaper will absorb the mailing costs for distributing the supplement to the journal, a value of approximately \$2,500.

In addition, MAN-TRA-CON, Corp. staff is exploring additional state and federal funding opportunities in order to supplement the costs of the activities mentioned and/or to assist with continuing these important activities in the future.

## **Final Comments**

The SEDR has designed and implemented an inclusive process that engaged key community stakeholders in defining the most pressing critical skill shortages in Areas 25 and 26. Through numerous meetings, paper and Web based survey returns, independent interviews, and extensive discussions; the CSSI team has received input from a variety of sources. The work of the project has encouraged partnerships that were not in place six months ago. The responses generated by the group concerning manufacturing came as a surprise but were echoed throughout the process. Consortia members and focus group participants have shown their support of the selection of manufacturing as a critical shortage sector through continued participation and sign off sheets. Design work has

begun on the elements of the Manufacturing Specialist credential. Community Colleges have pledged their support, manufacturers have promised preferential hiring for those possessing the credential, and business and economic development leaders throughout the SEDR believe this credential will make a difference in the future growth of manufacturing in the area.

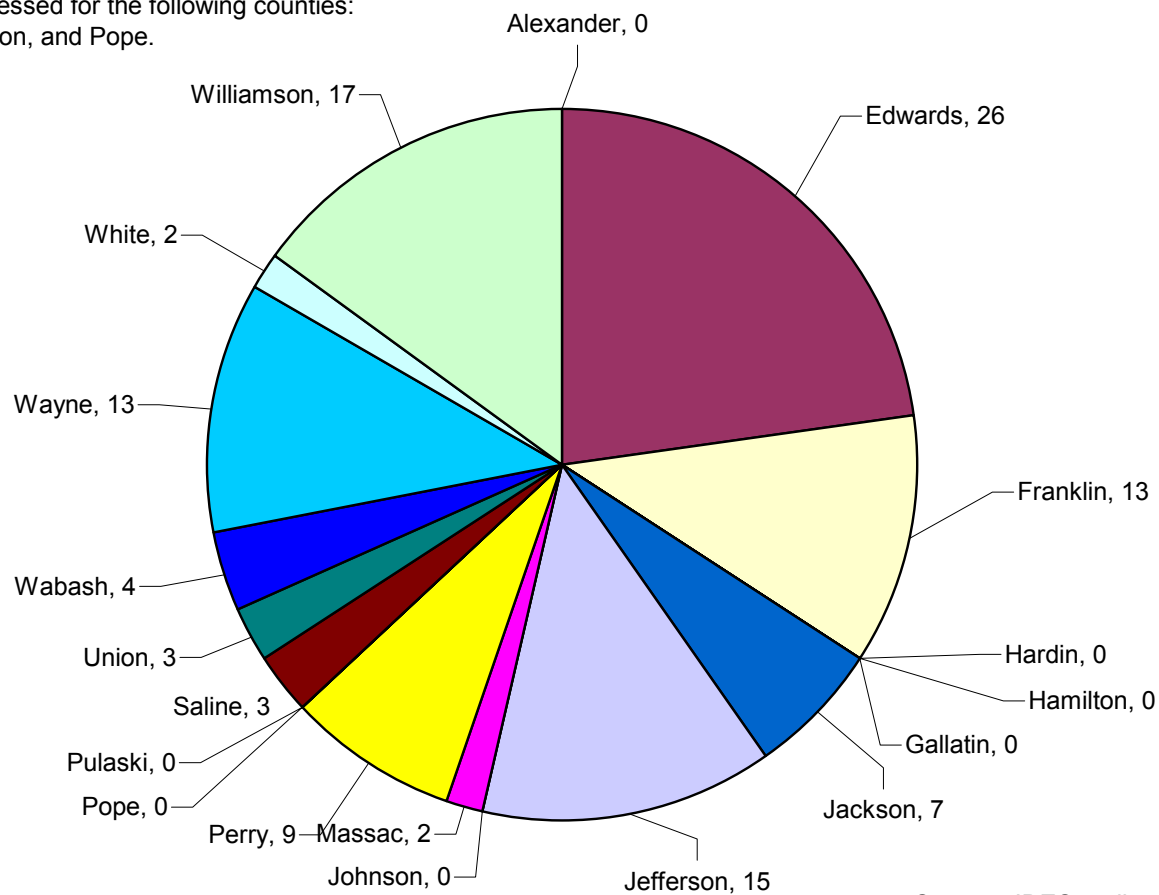
### Root Causes and Solutions Matrix for Solutions Report – Manufacturing

Root Causes	Solutions	Leveraged Resources (Public and Private)	Estimates of contribution toward reducing shortage
<p>1. Lack of a foundation skills credential training program in the community colleges for entry-level manufacturing workers.</p>	<p>Implement a short-term credentialed training program which targets foundation skills training (i.e., teamwork, basic math, general manufacturing processes, work ethic). The SEDR consortium is currently exploring a program developed by the Workforce Development Board of the Treasure Coast in Florida called “Work Certified”. The program would be targeted to new entrants to the workforce as well as incumbent workers.</p>	<p>Manufacturers have promised preferential hiring for new credentialed applicants and career advancement opportunities for incumbent workers who become credentialed.</p>	<p>An anticipated retention rate increase by 10% of current employees would equal approximately 2,000 manufacturing workers remaining in their current positions.</p> <p>There are slightly over 21,000 manufacturing workers in the SEDR (see attached chart).</p>
<p>2. Lack of understanding of career opportunities and benefits within the manufacturing industry, especially in the formative career development years of high school, limits adequate foundation skills for entry-level positions.</p>	<p>Expand knowledge &amp; awareness of career opportunities and benefits in the SEDR to market the advantages of local manufacturing facilities through the following actions:</p> <ol style="list-style-type: none"> <li>1. Disseminate information in Southern Business Journal with a 4-page full color “Ad-itorial” supplement published by the <i>Southern Illinoisan</i> newspaper with circulation in all 19 counties of the SEDR. The supplement would showcase local manufacturing facilities focusing on wages, benefits, and career opportunities as well as the educational requirements of manufacturing occupations. The supplement would also include a pull-out section designed with a youthful graphic appeal to disseminate information to interested students. The Southern Business Journal will be distributed through the One-Stop Centers also.</li> <li>2. Develop Youth Career Center website to include virtual tours of SEDR manufacturers.</li> <li>3. Hire career coordinator in each Workforce Area to work with youth and develop career development program with all high schools in their respective WIA (e.g., academic preparation, career fairs). The career coordinators will also work with the local One-Stop Centers to ensure that the Youth Career Center Network is available to youth.</li> <li>4. Job shadowing experiences will be developed and coordinated by the Career Coordinator with local manufacturers.</li> <li>5. Work with Community Audit Champion and team developing strategies to address career awareness in the K-12 system.</li> </ol>	<p>Career Coordinators:</p> <p>Two local high schools in each WIA will host an office and computer for the coordinator. \$2,000 for computers and \$4,000 for office &amp; equipment use.</p> <p>Manufacturers will volunteer time to coordinate career fairs and job shadowing experiences with the Career Coordinators.</p> <p>Value: \$3,000</p>	<p>19</p>

<p>3. An aging workforce will require the development of a supply of replacement workers equipped with adequate foundation skills for entry-level positions.</p>	<p>Implement a short-term credentialed training program which targets foundation skills training (i.e., teamwork, basic math, general manufacturing processes, work ethic). The SEDR consortium is currently exploring a program developed by the Workforce Development Board of the Treasure Coast in Florida called “Work Certified”. The program would be targeted to new entrants to the workforce as well as incumbent workers.</p> <p>Expand knowledge &amp; awareness of career opportunities and benefits in the SEDR to market the advantages of local manufacturing facilities by disseminating information in the Southern Business Journal with a 4-page full color “Ad-itorial” supplement published by the <i>Southern Illinoisan</i> newspaper with circulation in all 19 counties of the SEDR. The supplement would showcase local manufacturing facilities focusing on wages, benefits, and career opportunities as well as the educational requirements of manufacturing occupations. The Southern Business Journal will also be distributed through the One-Stop Centers located in the 19 county SEDR.</p>	<p>Southern Business Journal:</p> <p>Investment of manufacturers’ time to supply articles and purchase ad space.</p> <p>ManTraCon, Corp. will contribute the time of their Graphics Coordinator for content development and staff time to coordinate the SBJ ad-itorial committee. Value: \$3,000</p> <p><i>Southern Illinoisan</i> newspaper will absorb mailing costs for distributing 10,000+ copies of the SBJ. Value: \$2500</p>	<p>16</p>
<p>4. The inflow into southern Illinois of adults with poor or modest education greatly exceeds the inflow of well-educated adults. The net effect of this migration flow is to diminish the overall level of educational attainment of southern Illinois’ adult population, which, in turn lowers the quality of the workforce.</p>	<p>Implement a short-term credentialed training program which targets foundation skills training (i.e., teamwork, basic math, general manufacturing processes, work ethic). The SEDR consortium is currently exploring a program developed by the Workforce Development Board of the Treasure Coast in Florida called “Work Certified”. The program would be targeted to new entrants to the workforce as well as incumbent workers.</p> <p>Expand knowledge &amp; awareness of career opportunities and benefits in the SEDR to market the advantages of local manufacturing facilities by disseminating information in the Southern Business Journal with a 4-page full color “Ad-itorial” supplement published by the <i>Southern Illinoisan</i> newspaper with circulation in all 19 counties of the SEDR. The supplement would showcase local manufacturing facilities focusing on wages, benefits, and career opportunities as well as the educational requirements of manufacturing occupations. The Southern Business Journal will also be distributed through the One-Stop Centers located in the 19 county SEDR.</p>	<p>Manufacturers have promised preferential hiring for new credentialed applicants and career advancement opportunities for incumbent workers who become credentialed.</p>	<p>11</p>

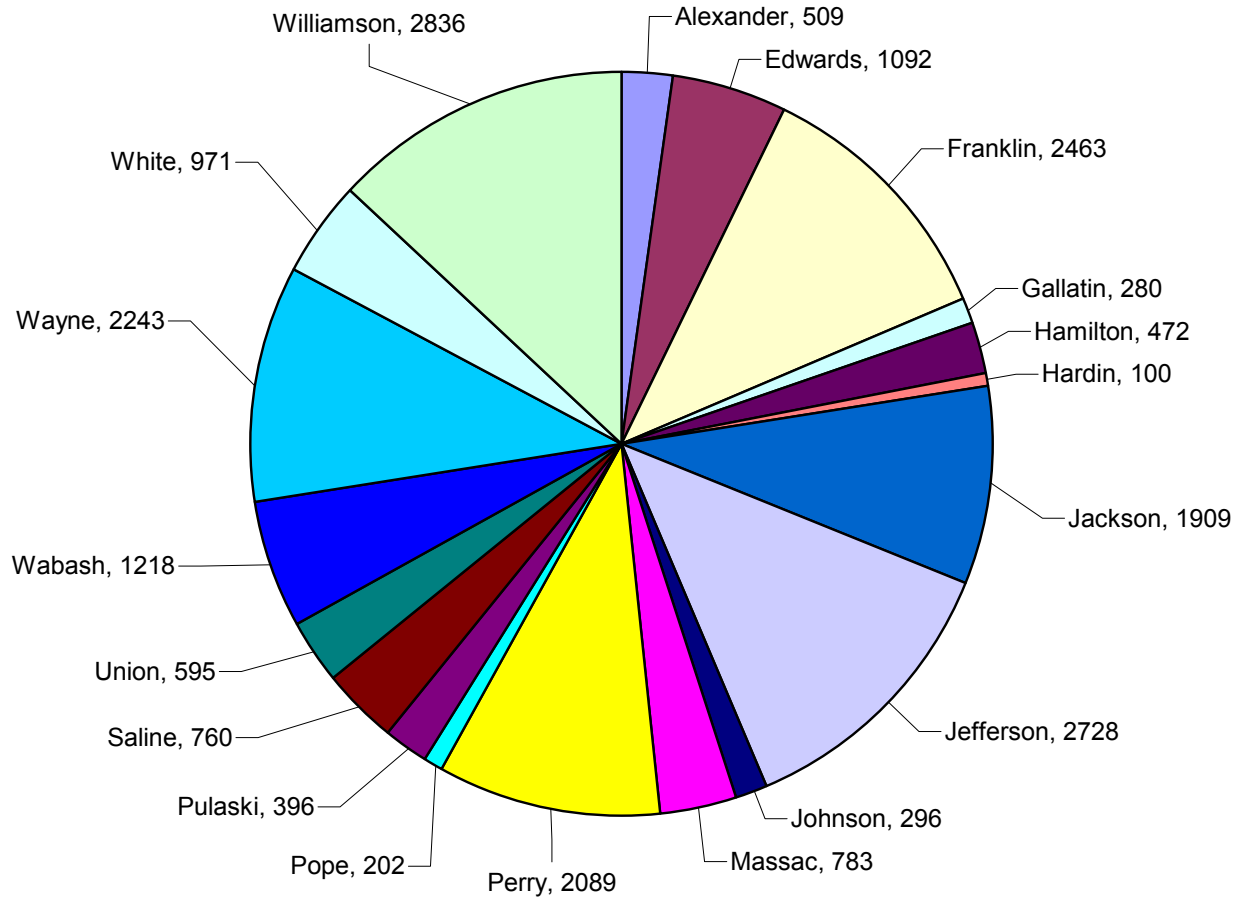
**CSSI - Southern Economic Development Region  
Annual Projected Job Openings by County  
for Assemblers & Fabricators, Team Assemblers, & Production Worker Helpers**

Industry data was suppressed for the following counties:  
Hamilton, Hardin, Johnson, and Pope.



Source: IDES on-line LMI data.

**CSSI - Southern Economic Development Region  
Number of Workers Employed In Manufacturing by County**



Source: U.S. Census Bureau, Census 2000