

CRITICAL SKILL SHORTAGES INITIATIVE

Identification of Root Causes Education

Prepared by the



Southern Economic Development Region

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**SOUTHERN ECONOMIC DEVELOPMENT REGION
CRITICAL SKILLS SHORTAGE 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 Root Causes Report for Education. 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. This report fulfills the first half of report submissions **Phase Two: Root Causes.**

Section One: Root Causes Report:

- Part One:** Description of the comprehensive methodology utilized:
- Employer Recruitment and Retention
 - Education and Training Capacity
 - Student/Worker Career Awareness and Access
- Part Two:** Regional Coalition and Industry Partner Engagement
- Required regional coalition partner input
 - Regional identification of root causes
 - Industry partner involvement and support
- Part Three:** Description of Root Causes
- Evidence used in identification of root cause
 - Ranking of root causes

SECTION 1: ROOT CAUSES REPORT

Part One: Description of Comprehensive Methodology

The Southern Economic Development Region (SEDR) includes the counties served in Workforce Investment Areas 25 and 26. Representatives of education, workforce development, labor, economic development and business/industry have been aggressively preparing a plan of action for addressing critical skill shortages in the region.

Staff have examined both quantitative and qualitative research in an attempt to identify critical skills shortages in the 19 southernmost Illinois counties served in the SEDR. Using this mixed-method research and complementary results of focus group summits and local surveys, staff were able to analyze and document the underlying root causes for shortages in education.

As a part of this initiative, staff involved in the SEDR has worked closely with Drs. Richard Judy and Jane Lommel who conducted community audits for LWA 25 and 26. In addition, Sandra Hastings from Sandra Hastings and Associates and John Washburn, professor of Workforce Education and Development of Southern Illinois University Carbondale, were involved to: facilitate a series of summits to more clearly focus on critical skills shortages and the underlying root causes behind those shortages in the SEDR.

In addition, data culled from the Community Audits for regions 25 and 26 were used to validate the recommendations of the focus groups and Steering Committee. The data used for discussion to make decisions included:

- Comparisons of national, state, and county economic and employment trends
- Economic and workforce projections for areas 25 & 26 (e.g., workforce shortfalls, migration patterns)
- Workforce skill gaps and long-term needs

Gathering data from multiple resources insured a comprehensive evaluation of root causes for critical skills shortages within the education sector in the Southern Economic Development Region. The following resources were used to identify root causes:

- Five Year Regional Development Strategy Report, administered by SIU-C, Office of Economic and Regional Development
- Southern Illinois Workforce Investment Board Survey (November 2001)
- Southern Illinois Workforce Investment Board ERISS Employer Survey (May 2003)
- North American Industrial Classification System (NAICS)

- Standard Occupational Classification information (SOC)
- Illinois Department of Employment Security (IDES) LMI for state, county and local projections
- ES 202 wage data
- O*NET job descriptions
- U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook, 2004-2005*
- Training provider and enrollment data from the six local community colleges (i.e., John A. Logan, Shawnee, Rend Lake, Wabash Valley, South Eastern Illinois, and Frontier) as well as Southern Illinois University – Carbondale
- Illinois State Board of Education
- Illinois Board of Higher Education
- Illinois Community College Board
- WIA training provider student data
- Education Summits & Focus Groups (June 2003, February 2004, May 2004)

In summary, there are focus group data, statistical data, and data from other information resources to support the root causes of critical skills shortages education occupations within the SEDR.

Critical Skill Shortage Area: Education

Introduction

One of the three critical skills shortages areas identified for the SEDR is *educational services*. While at first glance this may not be an area that appears to be appropriate for use of CSSI training dollars, it is an area that represents a critical industry sector in southern Illinois. Most of the employment in southern Illinois is in government-sponsored entities such as education.

Tables I-V provide information associated with skills shortages in educational services in southernmost Illinois. These data include occupational projections for LWA 25 and 26, specific projections provided by IDES, enrollment data provided by SIU Carbondale, WIA participant data, wage data for teachers (particularly high school and special education), and results of the root causes survey for school administrators.

Data/Content Analysis

Review of the Substate Employment Projections provided by IDES evidence that Education is a critical industry sector in the Southern region. In the SEDR, compared with other industry sectors, Education Services is defined as a select industry anticipated to have the second highest number of position changes (2,217) between the years of 2000 and 2010.

Common Industries in the Southern Economic Development Region

SIC	Industry Title	Employment 2000	Projected Employment 2010	# Change
800	Health Services	16,459	18,750	2,291
820	Educational Services	19,448	21,665	2,217
730	Business Services	5,881	7,685	1,804
590	Misc. Retail Stores	3,526	4,005	479
170	Special Trade Contractors	3,503	3,947	444
830	Social Services	3,587	4,021	434
580	Eating & Drinking Places	9,653	11,205	1,552
420	Trucking & Warehousing	1,948	2,241	293
870	Engineering, Accounting, & Mgmt. Services	1,648	1,893	245
790	Amusement & Recreation Services	1,657	1,831	174
530	General Merchandise Stores	4,195	4,357	162

Source: Substate Employment Projections System; IDES – Economic Information & Analysis Division

Education Services is ranked first on the Industry Rank by Employment and second on the Industry Rank by Number Change. Within our area, educational services will continue to be one of the leaders in employment change through 2010.

The data shown in Tables I – V were used as a part of this analysis including long-term projections for SEDR, education enrollment data, and salary/wage data. These data were used in conjunction with data collected for extensive community audits conducted for LWA 25 and 26 by Workforce Associates, Inc. This quantitative information was used to focus specifically on critical skill shortages in education in Secondary teachers and Special Education teachers.

TABLE I - SEDR Occupational Projections & Wage Data

Occupation	Average Entry wage	Employment		Average Annual Job Openings due to:		
		Short-term shortage projections for SEDR (2004-2006)	Long-term shortage projections for SEDR (2000-2010)	Growth	Replacement	Total
Secondary Teacher, exc. Special Ed & Voc Ed	\$27,332	136	232	23	45	68

Source: Substate Employment Projections System; IDES, Economic Information & Analysis Division

TABLE II - Occupational Projections & Wage Data for LWA 25

Occupation	Average Entry wage	Employment		Average Annual Job Openings due to:		
		Short-term shortage projections (2004-2006)	Long-term shortage projections (2000-2010)	Growth	Replacement	Total
Secondary Teacher, exc. Special Ed & Voc Ed	\$26,487	94	161	16	31	47
Special Ed, Secondary	\$37,018	8	26	3	2	4

Source: IDES Labor Market Information

TABLE III - Occupational Projections & Wage Data for LWA 26

Occupation	Average Entry wage	Employment		Average Annual Job Openings due to:		
		Short-term shortage projections (2004-2006)	Long-term shortage projections (2000-2010)	Growth	Replacement	Total
Secondary Teacher, exc. Special Ed & Voc Ed	\$24,320	42	71	7	14	21
Special Ed, Secondary	\$24,701	4	12	1	1	2

Source: IDES Labor Market Information

The long term shortage projections reflect a 15.8% change in secondary education and 32.5% change in special education.

When wage data was examined, it was determined that both occupations would provide workers with a self-sufficient wage that is bolstered by health benefits (Tables II-III). Both jobs are considered good career options because of advancement opportunities and salary increases over time.

In addition to the data provided in the tables, educational services summits were held on April 14, May 17, and May 18. (See Appendix, Attachment 1, for a list of participants in those sessions.)

For the 19 southernmost counties of Illinois, educational services remain a critical skills shortage area. There are 97 projected shortages in educational services (teachers) annually. Of that number, approximately 43 come from growth in new teaching jobs and 54 from replacements of those leaving the profession. Seventy percent of the projected job openings are in the area of secondary education with approximately 30% of that number being secondary special education teachers. Supply data shows a mismatch in the number of teachers being prepared in these areas. Specifically, shortages exist for secondary level mathematics, science, foreign language and special education teachers.

Additional Data to Support Skill Shortages in the Education Services Sector – High School Teachers and Special Education Teachers

These numbers are substantiated by the several other resources used to analyze the area’s critical needs:

1. The Community Audits reveal that the Education Services sector is also vital to the area’s vibrant local economy because:
 - Some of the most rapidly growing jobs in the area will be concentrated in education services.
 - The bulk of the teachers in the local schools are Baby Boomers that will be eligible for retirement in the next ten years.
 - Many of the graduates from SIUC with teaching degrees either take jobs in private industry or take teaching jobs in other areas.
 - Recruiting and retaining enough properly educated and qualified persons to meet the growing needs for teachers will present a growing challenge in the years ahead.
2. Focus group participants unanimously identified the skill shortages in this sector- especially among special education and high school teachers- as being acute in the short-term as well as long-term future. In fact, a group of local Superintendents has recently formed to address the teacher shortages in Southern Illinois (see Appendix, Attachment 2).
3. State data project a need for educators at the secondary school level based on current elementary school enrollment figures. The *Educator Supply and Demand in Illinois 2002* annual report prepared by the Illinois State Board of Education (ISBE) states:

“K-12 student enrollments are expected to continue growing but only at the secondary level. Illinois public school enrollments have been increasing since 1990 and that overall trend is expected to continue through 2007. But all of the growth in the next few years will be at the secondary level.” (Page vi)

The report further states that “Illinois public schools are staffed by an aging workforce.” (Page vi) In 2002, 39% of Illinois teachers were at least 50 years old. Teachers are considered to be eligible to retire if they are at least 55 years old and have 20 or more years of experience. With large numbers of teachers reaching retirement age and projected secondary school enrollment increases, the combination may potentially intensify the demand for high school teachers in the state.

Additionally, the report discusses the results of surveys sent to all Illinois school districts to rate the supply for specific teaching areas. Topping the list of the positions with the most severe shortages and with the greatest number of districts experiencing shortages was Special Education teachers. Foreign language teachers and math teachers also ranked third and fourth places respectively on the list after special education teachers. Science teachers ranked held the seventh spot on the severe shortage list also.

Education and Training Capacity

Southern Illinois University in Carbondale was contacted to gather enrollment data pertaining to special education and secondary education teachers. This information appears in Tables IV and V.

**TABLE IV – SEDR Training Provider/Education Institution Enrollment
SIU-Carbondale Academic Degree Programs in Education – Source: IBHE**

Program	Fall 2002 Enrollments	2002 Degrees Conferred
B.S. in Special Education	139	43

**Table V - 2002-2003 Alternative Route to Teacher Certification Program Completers –
Source: SIUC, College of Education & Human Services**

Program	# Completers 2003
Art	2
Biological Science	5
Business Education	7
Elementary Education	4
English	1
Health Education	1
History	1
Mathematics	2
Music	2
Physical Education	2
Social Science	2
Spanish	2
Special Education	9
Technology Education	2
Total for all programs	47

Projected admissions to Alternate Route to Teacher Certification for 2004-2005 are 30 per year.
Source: Jackie Bailey, Chief Academic Advisor, SIUC, College of Education and Human Services.

The information provided by the education institutions highlights:

- The difficulty gathering specific information because the Education Departments report the high school teacher information as a total number and do not keep records of those graduating with specialized certificates (e.g., high school math teacher)
- A response to the need for teachers is already being addressed through the Alternate Route to Teacher Certification Program

Student/Worker Career Awareness and Access

Participants in the focus groups believed that career awareness, including the long term potential salary and benefits for the teaching profession was sorely lacking. Lack of career awareness and development has been cited repeatedly by participants across partner groups. Additionally, focus group participants spoke of the negative image associated with teaching, and particularly for special education teachers, that should be addressed when educating young people about a rewarding career in teaching.

Part Two: 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 area 25 and area 26 and is co-chaired by Bill Jackson, WIA 26 and John Rendleman, WIA 25. (See Attachment 3 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 at 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 1 for a list of focus group and consortia committee participants.)

Regional Identification of Root Causes

In an effort to involve more coalition and industry partners, a CSSI Website was constructed at www.mantracon.org/cssi. The website includes project information, submitted reports, meeting dates and locations, and on-line root causes and solutions surveys for Education. To date, over 125 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 Illinois State Board of Education school district listings.

The Education focus group meetings were held as follows:

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

Industry Partner Involvement and Support

Key stakeholders in the focus groups were asked to identify the root causes for the education 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, a survey was mailed on July 9, 2004 to over 300 teacher aides in the SEDR to gauge the level of interest of current aides in pursuing teaching certificates in key shortage areas. (See Appendix, Attachment 5, for the survey.) Superintendents in the region participated with the mail out by distributing the survey within their districts or by providing lists of their current teacher aides. The survey was placed on the CSSI website at <http://www.mantracon.org/cssi> to conveniently gather responses. The responses will be tabulated and the results will be included in the next reporting phase.

The project team contacted Superintendents in the local school systems for data to support their projected shortages in special education and high school math, science, and foreign language teachers. School superintendents are actively working to fill these positions and anticipate continued shortages in the future. In fact, superintendents have created a work group, the Southern Illinois Educational Recruitment Committee, to develop recruiting activities to attract qualified teachers in mathematics, science, special education, and foreign language (see Appendix, Attachment 2). The group will target the 19 counties making up the Southern Economic Development Region. A career fair will be held at SIU-C in March 2005 to promote the teaching opportunities available in southern Illinois. The group will also be focusing on additional ways to promote career awareness, job shadowing, the strengths of southern Illinois, and partnerships with Business & Industry and tourism groups.

Part Three: Description of Root Causes

Evidence Used in Identification

According to data tabulated from the root causes survey and discussions by summit participants, causes for the secondary school teacher and special education teacher shortages can be attributed to:

- Retirements of an aging secondary school faculty.
- Inadequate efforts to promote education as a career.
- Insufficient alternative delivery strategies, perhaps sharing teachers on a regional basis.
- Lack of job shadowing for young people with teachers as well as providing mentoring/collegial support, professional development and new teacher induction programs.
- Establishing career awareness programs in cooperation with the One-Stops and community colleges.
- Inadequate tuition incentives at State schools for targeted occupations.
- Lack of sign on bonuses as a way of encouraging people to enter the profession.
- Deficient guidance with those students involved in a community college Associate of Arts program.
- Inadequate special incentive programs for certifying teachers aides, certifying teachers who cannot find employment, and certifying those with a baccalaureate degree in a non-teaching field into science, mathematics, foreign language, and special education positions.
- Lack of understanding by high school students of requirements and options for considering a teaching career.
- The image associated with teaching (particularly for special education teachers).
- Teachers commanding higher salaries in metropolitan areas of Illinois.
- The working conditions of teachers employed by area high schools.

Ranking Order of Root Causes

In narrowing the list of root causes it would appear that three root causes have precipitated the teacher shortage in southernmost Illinois. Retirements by an aging faculty would account for the need for a high number of replacement workers in the teaching profession. New teachers leave the area for better paying jobs in metropolitan areas. Finally, the negative "image" of teaching as a career was also identified as a principal cause for shortages at the secondary school level. The following points are indicative of summit discussions.

- Most new growth in the need for teachers will come in the area of special education. A large percentage (20%) of the students in southern Illinois is identified as needing special education services as compared with the national average of 12%. These high numbers of special education students and a much more stringent Illinois law than required by federal legislation appear to be the cause for the growing numbers of new teachers needed, particularly in special education.
- There are bottlenecks in the teacher certification process making it very difficult for someone to have a transcript evaluated and move seamlessly into the teaching profession. This is not true for students leaving a university-based entitlement program.
- Student teacher ratios (particularly for special education) contribute to the high growth needs in that area. Further, after special education teachers enter the profession, they often "bump" into a regular teaching position because of stress, burnout and federal/state requirements.
- Working conditions become an issue most often after teachers enter the profession and decide for a variety of reasons that they can command better salaries in the private sector. Working conditions associated with lack of support from school board/administrators, pressure from parents, expanded academic/legal requirements of the profession all contribute to difficult working conditions.

Summary of Data

The shortages in the teaching profession mirror the shortages experienced across the nation. Using multiple sources of data, the SEDR has documented the area's rationale for including the Education Sector in the CSSI:

- There are anticipated shortages in these occupations across the 19 county area for the rest of the decade
- Good schools are critical as a draw for new businesses and as a draw for the immigration of workers
- Good schools are also critical for the retention of the current workforce
- Special education jobs as well as high school teacher jobs pay well and offer benefits

Additional Rationale for Inclusion of the Education Sector

Although the SEDR will not be able to fund a four year education for WIA Title I participants as part of the CSSI initiative, the individuals serving on the committees want to include this industry sector because it is one of the most significant sectors in the local area. The community experts believe it is important to use the CSSI process to determine and implement solutions for the root causes. Committee members also hope to find ways to implement short-term solutions (e.g., Alternate Route to Teacher Certification) so as to address the acute shortages that are already impacting the educational experiences of local students.

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 countless 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. Work has begun on a Teacher Aide survey to determine the number of practicing aides interested in pursuing teacher education certification. Superintendents have pledged their support in distributing the survey and in working together to address the shortage situation through their new Southern Illinois Educational Recruitment Committee.