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ABSTRACT

A study examined the labor market supply in the four counties served by the Southern Ohio Diversification Initiative (SODI). Data were collected on the characteristics of the following groups: labor market entrants from the Joint Vocational Schools (JVSs) serving the four counties and Shawnee State University, area Job Training Partnership Act clients, and workers at the Portsmouth Gaseous Diffusion Plant located in the area served by the SODI. Data were also collected through interviews with area work force development managers and a survey of 2,091 businesses with 10 or more employees that yielded 432 usable responses (response rate, 37.8%). Fewer than half the employers surveyed reported any job openings. Those jobs that were available tended to be in low-skill, low-wage occupations. Current workers and newspaper ads were the primary methods of recruiting new employees. Only about one in five employers recruited at JVSs for high school students, and even fewer recruited for adult trainees. It was recommended that SODI align itself with other economic and work force development initiatives in its service area and coordinate its efforts with theirs. (Thirty-one tables are included. Appended are an explanation of the survey methodology and the number of specific job openings reported.) (MN)

LABOR MARKET SUPPLY IN THE FOUR COUNTIES SERVED BY THE SOUTHERN OHIO DIVERSIFICATION INITIATIVE

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November 1998

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FOREWORD

The Center on Education and Training for Employment is pleased to submit to the Southern Ohio Diversification Initiative (SODI) this report on the labor market supply in the four counties that the Initiative serves.

The conduct of the study that produced this report was a cooperative effort of the Center and five educational institutions in the SODI area. These institutions and the individuals who represented them are listed below:

- Gallia-Jackson-Vinton Joint Vocational School District, Dorna Smith, Adult Education Supervisor
- Pickaway-Ross Joint Vocational School District, William Jarvis, Director Adult Education; and Debra Schiff, Administrative Support, Adult Education
- Pike County Joint Vocational School District, Keith Smith, Career Education Coordinator
- Scioto County Joint Vocational School District, Stacie Staker, Human Resource Development Coordinator
- Shawnee State University, Virginia Ramey, Assistant to the Provost

The following individuals contributed by assembling and providing data that are presented in this report: Anita Dever, Manager - Employment, of the Portsmouth Gaseous Diffusion Plant, and Rosie Picklesimer, Management Information System Supervisor, Service Delivery Area 18.

David Henderson, Research Associate at the Piketon Research and Extension Center of The Ohio State University was very helpful to the employer survey that was conducted as part of this study.

In addition to these individuals, the managers of several workforce development agencies contributed their opinions about the labor market in the four counties. These agencies included the Ohio Works First programs in the County Departments of Human Services, the Ohio Bureau of Employment Services Job Centers in Portsmouth and Wavery, and the Community Action Organization that is the administrative entity for Service Delivery Area 18.

Also essential to the study were the 432 employers who took the time to participate in the survey of job openings and training needs.

To all of those who contributed, we express our thanks and the hope that the results of this study will inform and assist their efforts to prepare and utilize the human resources of the SODI area.

EXECUTIVE SUMMARY

This study was conducted to inform the planning for economic development that is being conducted by the Southern Ohio Diversification Initiative (SODI). This Initiative serves four counties–Jackson, Pike, Ross, and Scioto–that supply 95 percent of the workforce of the Portsmouth Gaseous Diffusion Plant. This plant recently moved from government to private ownership. Some reductions in its workforce have already occurred and more are anticipated.

The study assembled information on the characteristics of labor market entrants from the Joint Vocational Schools (JVS) that serve the four counties and Shawnee State University. It obtained information on the clients served under the Job Training Partnership Act by Service Delivery Area 18 and on the characteristics of the workforce at the Portsmouth plant. The study also included a survey of all employers with 10 or more employees in the four-county area.

The information from the educational institutions revealed a wide range of characteristics of the individuals being served and in the outcomes of their training. Some of the institutions reported virtually full placement of students who had completed their training and others far less success. The tested performance of the clients of these institutions compared well with those from across the state.

Almost 40 percent of the employers who were contacted participated in the survey. Less than half of these reported any job openings at the time of the survey, July 1998. The jobs for which employers were seeking workers tended to be low skill, low wage occupations. Employers primarily use their current workers and newspaper ads to recruit new workers. Only about one employer in five recruits at JVSs for high school students and even fewer for adult trainees. The main reason workers are discharged involve reliability and production, not the absence of needed skills. The main reasons that employees voluntarily leave is to take other jobs.

Interviews with workforce development managers confirmed that there is hierarchy of employers in the area. There are a small number of employers with wage levels and benefits much above the average. When openings are available at these employers, many workers currently employed by other firms apply for these desired jobs.

The major recommendation of the study is that SODI capitalize on the existing resources and cooperative spirit that characterizes this area to determine how it can best involve itself in ongoing efforts to coordinate workforce development activities. Interviews in the area identified at least three such efforts: Common Good, Region 7 School-to-Work, and One-Stop Job Centers. Many of the same agencies and individuals are involved in each of these initiatives. SODI should become actively

engaged with each and determine how its own efforts can be most effectively aligned with these on-going efforts.

Three specific recommendations are offered:

1. Develop a skills certification process for workers displaced by workforce reductions at the Portsmouth Gaseous Diffusion Plant.

2. Support current School-to-Work initiatives in the area.

3. Publicize the findings of the labor market study in a variety of ways.

The most productive role SODI can play is to align itself with other economic and workforce development initiatives in the area and coordinate its efforts with theirs.

CHAPTER 1

INTRODUCTION

The Portsmouth Gaseous Diffusion Plant faces an uncertain future. During the Cold War, this plant, and a similar one in Kentucky, were essential to the nation's defense. They were the original sources of enriched uranium that was further processed to form the plutonium for our ballistic missiles and tactical nuclear weapons. They also supply much of the uranium used in electrical generating plants in the United States and around the world.

In the United States, both of these markets have experienced sharp declines. The collapse of the Soviet Union decreased the need for a nuclear deterrent, but raised a new threat. There is concern that the plutonium removed from the old Soviet missiles might fall into the hands of terrorists or states with long-standing enmity toward the United States. In response to this threat, the United States has entered into agreements to purchase much of the plutonium which will be converted into fuel for electrical generating plants. The accidents at Three Mile Island in Pennsylvania and Chernobyl in the Ukraine and the escalating cost of building nuclear generating facilities have stopped all such construction in the United States.

With a decreased need for their product, and an intent to increase the efficiency of their operation, the federal government made a decision to convert the Portsmouth and Kentucky plants from public to private ownership. The initial public offering of stock in the new corporation was conducted in July 1998, and shortly after there were announcement of planned reductions in the number of workers at the Portsmouth plant.

Any reduction will be blow to the economy of Southern Ohio, particularly to the four counties that supply 95 percent of the Portsmouth workforce: Jackson, Pike, Ross, and Scioto. These counties are part of a band of counties stretching along the Ohio River from Brown County in the west to the border with West Virginia and as far north as Ross, Perry, and Guernsey counties that have for many years had rates of unemployment far higher than the rest of the state.

To prepare for the anticipated reductions at the Portsmouth plant, the U.S. Department of Energy provided funds to the Ohio Valley Regional Development Commission to conduct research and economic development activities. One of these efforts is the Southern Ohio Diversification Initiative (SODI). SODI focuses on Jackson, Pike, Ross and Scioto counties that would be most heavily impacted by reductions.

SODI issued a request for proposals to conduct an analysis of the labor market supply in the four-county area. The Center on Education and Employment of The Ohio State University responded and was selected to conduct the study. This report presents the findings of the study.

The study was conducted in cooperation with five of the educational institutions in the SODI area:

- Gallia-Jackson-Vinton Joint Vocational School District
- Pickaway-Ross Joint Vocational School District
- Pike County Joint Vocational School District
- Scioto County Joint Vocational School District
- Shawnee State University

Representatives of these institutions participated in all phase of the study. Their main tasks were the following:

1. Assemble information on the characteristics of their students who completed programs and entered the labor market during the 1996-97 school year.
2. Assist in the design and conduct of the survey of employers in the four-county area, including the telephone follow-up of a sample of employers who did not respond to the mail survey.
3. Review this report for accuracy and completeness and assist in the development of recommendations based on its results.

In addition to working with the educational institutions, project staff conducted personal interviews with the managers of workforce development agencies in the four counties. These included the managers of the employment and training programs (Ohio Works First) in the County Departments of Human Service, the managers of the Ohio Bureau of Employment Service Offices in Portsmouth and Waverly, and several of the staff of the Community Action Organization, the administrative entity for Service Delivery Area 18.

SDA 18 also made a special tally of the characteristics of the clients it served during the 1997 calendar year from Jackson, Pike, and Scioto counties. A summary of this information is included in the report. SDA 18 does not serve Ross County. Repeated attempts to contact the director of SDA 17, which serves Ross County, to involve that agency in the study were unsuccessful.

The final source of data presented in this report was the Portsmouth plant, itself. Ms. Anita Dever, Manager - Employment, provided summaries of the characteristics of the workers at that plant.

The report is organized by the sources of the data it presents. Chapter 2 provides summaries of the data provided by the educational institutions, SDA 18, and the Portsmouth plant. Chapter 3 presents the results of the survey conducted with employers in the four-county SODI area. Chapter 4 synthesize the main themes discussed in the interviews that were conducted with the managers of workforce development agencies in the area. Chapter 5 summarizes the main findings of the study and suggests some next steps that could be taken to ease the transition of workers who lose their jobs due to reductions at the plant.

CHAPTER 2

INFORMATION FROM INSTITUTIONAL RECORDS

As noted in the Introduction, this study collected information from different sources to provide several perspectives on the labor force supply in the Southern Ohio Diversification Initiative (SODI) area. Five of these sources were institutions in the area that prepare people for the workforce. These were the four Joint Vocational Schools (JVS) and Shawnee State University. Another source was the administrative entity for JTP-Ohio Service Delivery Area 18. This area includes three of the four SODI counties, Jackson, Pike, and Scioto. The SDA prepared special tallies of its clients from these three counties. The final source was the Portsmouth Gaseous Diffusion Plant. This chapter presents the tables that were prepared to summarize the data from these different sources.

The information obtained from the cooperating educational institutions was not uniform, but there was enough similarity to prepare tables that allow comparisons across the institutions. The chapter presents these tables first. It then presents the information from the Service Delivery Area, and it concludes with the information from the Gaseous Diffusion Plant.

Educational Institutions

The four JVSs that participated in the study extracted information from their files on the work-related characteristics of students, both secondary and adult, who completed training programs during the 1996-97 school year, July 1996 through June 1997. Shawnee State did the same for its students, all of whom were adult. Three of the JVSs and Shawnee State provided information on an individual student basis. Scioto County provided a summary of the data. Table 2.1 presents the results on gender, age, and public assistance/poverty status for adult students, and Table 2.2 presents the same information for senior secondary students.

Demographics

Among the adult students, females were in the majority at each institution except Scioto County JVS. The high percentage of adult males at Scioto County was primarily due to Pre-Employment Training. This is a short-term program, 96 hours, designed to teach some basic skills needed in the workplace and to orient potential employees to the expectations of employers. It is taught by employer representatives who may make job offers to promising students. Of Scioto County's 207 adult students for whom demographic data were provided, 79 were from Pre-Employment and 85 percent in this program were male.

TABLE 2.1

CHARACTERISTICS OF ADULT CLIENTS IN FOUR JOINT VOCATIONAL SCHOOLS AND SHAWNEE STATE UNIVERSITY WHO COMPLETED OR LEFT PROGRAMS DURING THE 1996-97 SCHOOL YEAR

Characteristics	Buckeye Hills	Pike County	Pickaway-Ross	Scioto County	Shawnee State
Gender	%	%	%	%	%
Female	63.3	52.0	74.6	39.6	66.5
Male	36.7	48.0	25.4	60.4	33.5
Base for Percent	90	148	118	207	421
Age	%	%	%		%
18	2.3	25.7	1.8		--
19	3.4	49.3	3.5		--
20	6.8	23.6	6.2		0.2
21 - 25	28.4	1.4	26.5		46.2
26 -30	18.2	--	15.9	NA	24.0
31 - 35	9. 1	--	11.5		11.7
36 - 40	13.6	--	14.2		7.9
41 - 45	9.1	--	10.6		6.0
46 and older	9.1	--	9.7		4.0
Base for Percent	88	148	113		420
Public Assistance/ Poverty	%	%	%	%	
No	20.5	88.5	26.7	45.1	NA
Yes	79.5	11.5	73.3	54.6	
Base for Percent	88	148	105	207	

NA = Data Not Available

Buckeye Hills, which serves Jackson County, also has a short-term, two or three week program designed to prepare people with limited work experience for employment which it calls Assessment/Transition. The characteristics of the clients in these orientation-to-work programs in Jackson and Scioto counties, however, are the opposite of one another. Assessment/Transition enrollment, is heavily female, and made up almost entirely of public assistance recipients. The Pre-Employment enrollment is predominantly male, and only 22 percent are recipients.

Pickaway-Ross and Shawnee State have programs similar to the Assessment/ Transition program at Buckeye Hills, but those enrolled in these programs were not separately identified in the demographics data from these institutions.

TABLE 2.2

CHARACTERISTICS OF SENIOR SECONDARY STUDENTS IN FOUR JOINT VOCATIONAL SCHOOLS WHO COMPLETED OR LEFT PROGRAMS DURING THE 1996-97 SCHOOL YEAR

Characteristics	Buckeye Hills	Pike County	Pickaway-Ross	Scioto County
Gender	%	%	%	%
Female	37.5	40.3	49.1	48.6
Male	62.5	59.7	50.9	51.4
Base for Percent	24	159	269	179
Age	%	%	%	
17	41.7	19.5	12.3	NA
18	41.7	59.7	66.5	
19	16.7	17.6	17.5	Mean = 18
20 and older	--	3.1	3.7	
Base for Percent	24	159	269	
Public Assistance/ Poverty	%	%	%	%
No	87.5	75.5	85.5	53.6
Yes	12.5	24.5	14.5	46.4
Base for Percent	24	159	269	179

NA = Data Not Available

If the Pre-Employment enrollment is removed from the Scioto County demographic totals, the percentage of assistance recipients becomes 77 percent, and the percentage of females 55 percent. This makes Scioto County similar to Buckeye Hills and Pickaway-Ross but not Pike County.

Pike County's adult enrollment is much younger and much less likely to be assistance recipients. Almost all of Pike County's adult enrollment is 20 years of age or younger. In the other two JVSs for which age data are available, almost 90 percent are older than 20.

Table 2.2 presents the same characteristics as Table 2.1 but for senior secondary students who completed or left their programs during the 1996-97 school year. The figures for Buckeye Hills are based only on students from Jackson County. This school serves two other counties. The Pickaway-Ross figures, however, are not limited to Ross County.

In Table 2.2, poverty status was defined by eligibility for free or reduced-price lunches. Most school officials agree that many students who qualify for such lunches are too embarassed to request them. Consequently, the figures in the table may understate the actual percentage of these students from families living in poverty. Scioto County reported the highest percentage of seniors in poverty. The most recent published figures on poverty in the four counties are as follows: Jackson 20.7%, Pike 24.7% Ross 18.4%, Scioto 24.1% (*Ohio County Profiles*, Ohio Department of Development, U.S. Bureau of the Census estimates for 1993).

Program Enrollments

The training programs in which these adults and seniors were enrolled or completed during the 1996-97 school year are shown in Tables 2.3 and 2.4.

TABLE 2.3

TRAINING PROGRAMS IN WHICH ADULT STUDENTS WERE ENROLLED OR COMPLETED DURING THE 1996-97 SCHOOL YEAR

Training Programs	Buckeye Hills	Pike County	Pickaway Ross	Scioto County[a]	Shawnee State[b]
	%	%	%	%	%
Assessment/Transition					
Pre-Employment	47.2	--	--	12.3	--
Business/Office	4.5	25.0	12.7	15.6	24.5
Engineering Tech	4.5	4.7	17.8	--	13.8
Food Service Occupations	--	3.4	--	--	--
Health Occupations	16.9	23.0	44.9	18.8	61.7
Construction/Maintenance	13.5	31.8	15.3	1.5	--
Auto Mechanics	--	3.4	--	--	--
Metal Working/Welding	--	8.8	9.3	5.8	--
Protective Services	13.5	--	--	45.9	--
Base for Percent	89	148	118	601	196

[a]Program completers only, not total enrollment. Includes 451 enrollments in short-term programs for which demographic data were not provided. Of these 451, over half, 263, were in firefighter training.

[b]These percentages are based on 192 associate degrees and 4 certificates awarded in technical occupations in 1997. Not included are 208 bachelors degrees or 6 nontechnical associate degrees.

TABLE 2.4

TRAINING PROGRAMS IN WHICH SENIOR SECONDARY STUDENTS ENROLLED IN THE FOUR JOINT VOCATIONAL SCHOOLS DURING THE 1996-97 SCHOOL YEAR

Training Programs	Buckeye Hills	Pike County	Pickaway-Ross	Scioto County
	%	%	%	%
Ag Mechanics, Landscaping	12.5	--	5.6	--
Early Childhood	--	--	8.9	3.9
Sales/Marketing	--	--	5.2	3.9
Cosmetology	16.7	--	2.6	7.3
Business/Office	16.7	22.6	12.3	17.3
Computer/Engineering Tech	4.2	5.0	8.9	6.1
Food Service Occupations	8.3	5.0	3.3	--
Health Occupations	--	13.8	8.9	14.0
Construction/Maintenance	33.3	36.5	12.6	20.7
Auto Body/Technician/Diesel	--	4.4	10.8	8.4
Metal Working/Welding	4.2	12.6	10.0	9.5
Other	4.2	--	10.8	8.9
Base for Percent	24	159	269	179

The figures in Table 2.3 ***should not*** be interpreted as reflecting the total number of adults trained by the institutions during the 1996-97 school year. Buckeye Hills reported only on residents of Jackson County. Pickaway-Ross reported on a random sample of its adult clients from Ross, Pickaway, and other counties. The figures for Shawnee State are only for technical associate degrees and certificates, not for bachelors degrees. What the figures do reflect is the occupational emphasis of the students. Health occupations were dominant at Shawnee State and Pickaway-Ross. The highest percentage in Scioto County is protective services, and this is almost all short-term firefighter training. Over one-third of the total 451 short-term enrollments at Scioto County, (166) were from a 56 hour Fire School program that is conducted for several counties. Pike County, with its younger clients, had an enrollment pattern more similar to traditional secondary offerings.

Secondary seniors were enrolled in a somewhat wider variety of programs than adults (Table 2.4). No adults were enrolled in the four programs listed first in the table. Somewhat surprisingly, neither were any seniors in Pike County. The distribution of enrollments in the other categories was fairly similar across counties. The high percentage of "Other" in Pickaway-Ross includes 7 percent in Law Enforcement and 3

percent in Performing Arts. In Scioto County the Other category included 6 percent in Tech Prep and 3 percent in Printing

Placement rates varied widely across the JVSs. Among adult trainees, all but 2 of the 281 students who graduated from Pickaway-Ross in June 1997 who were available for employment found jobs related to their training. Buckeye Hills provided placement data for 30 percent of its adults. The placement rate for these 27 trainees was exactly two-thirds, 66.7 percent. Scioto County reported placements for those who completed Pre-Employment training of 20 percent, but not for its other adult programs. Pike County reported placement for all of its adult enrollments and its rate was only 18 percent. Shawnee State did not provide placement information. For secondary students, the placement rates were Pike 38 percent, Scioto 76 percent, and Pickaway Ross 95 percent. Buckeye Hills did not provide these data.

It seems likely that both the secondary and adult placements in Pike County are higher than those reported. Pike County provided placement information, "Yes or No," for all its enrollment. Many of the Nos reflect missing information. Given the rates in the other counties, many of the students for whom data are not available may have obtained related employment.

The distribution across occupational categories in Tables 2.3 and 2.4 generally reflect the occupations for which employers were seeking workers that are discussed in Chapter 3. There is not a complete match because many of the job openings identified by the employer survey do not require skill training. These tend to be service occupations in fast food and retail sales, and laboring or factory operative openings.

Test Scores

The JVSs and Shawnee State provided information about the tested skill levels of some of their students. The Work Keys tests were most widely used. Pickaway-Ross administered them to both its adult and secondary students, and Buckeye Hills administered them to its secondary students. Scioto County provide a summary of Work Keys scores for adults in full-time skill training and its Pre-Employment Training program, and for senior secondary students. For most tests, the summary data were based on more students than were included in the demographic data from Scioto. American College Testing (ACT) scores were provided by Pike County and Shawnee State. Buckeye Hills provided SAGE scores for its adult students. No school had scores on all parts of a test battery for all of its student. The percent of reported enrollments for whom scores were provided are shown in the bottom row of figures in Tables 2.5 and 2.6. Because Scioto county provided more test scores than demographic data for most of its tests, the percentages are above 100.

TABLE 2.5

TEST SCORES FOR ADULT CLIENTS FROM BUCKEYE HILLS, PICKAWAY-ROSS, AND SCIOTO COUNTY JOINT VOCATIONAL SCHOOLS

Test Scores	Buckeye Hills, SAGE			Pickaway-Ross, Work Keys			Scioto County, Work Keys[b]		
	Reason	Math	Language	Read	Math	Locate	Read	Math	Locate
	%	%	%	%	%	%	%	%	%
<3	--	--	--	5.0	3.3	6.7	6.9	11.3	10.0
3	20.0	42.0	12.0	5.0	16.7	25.0	8.1	16.2	20.3
4	52.0	36.0	34.0	50.0	48.3	60.0	29.0	29.3	57.5
5	24.0	22.0	36.0	21.7	25.0	8.3	33.6	26.3	11.9
6	4.0	--	18.0	18.3	6.7	--	19.7	13.5	0.4
7	a	a	a	--	--	--	2.7	3.4	--
Base N	50	50	50	60	60	60	259[c]	266	261
N as % Total N	55.6%	55.6%	55.6%	50.8%	50.8%	50.8%	125.1%	128.5%	126.1%

[a]The SAGE test does not have a score of 7.
[b]There were only 7 Applied Technology scores for clients from Scioto County. Because the base was less than 10, percentages are not reported.
[c]More test scores than demographic data on clients were provided, because some applicants for Pre-Employment Training were not accepted due to their low scores.

TABLE 2.6

WORK KEYS SCORES FOR SENIOR SECONDARY STUDENTS FROM BUCKEYE HILLS, PICKAWAY-ROSS, AND SCIOTO COUNTY JOINT VOCATIONAL SCHOOLS

Test Scores	Buckeye Hills[a]			Pickaway-Ross				Scioto County			
	Read	Math	Locate	Read	Math	Locate	A. Tech	Read	Math	Locate	A. Tech
	%	%	%	%	%	%	%	%	%	%	%
<3	14.3	4.2	26.5	21.6	15.2	18.9	45.9	9.9	5.5	7.4	47.7
3	28.6	29.2	30.4	6.1	29.3	28.2	40.4	7.9	28.0	21.8	32.6
4	42.9	45.8	39.1	39.9	29.3	45.9	11.0	47.5	26.6	59.7	15.2
5	14.3	16.7	4.3	24.3	19.9	6.9	2.8	26.7	27.1	11.1	4.5
6	--	4.2	--	7.4	5.1	--	--	6.9	11.9	--	--
7	--	--	--	0.7	1.2	--	--	1.0	0.9	--	--
Base N	14	24	23	148	256	259	109	101	218[b]	216	132
N as % Total N	58.3%	100%	95.8%	55.0%	95.2%	96.3%	40.5%	56.4%	121.8%	120.7%	67.0%

[a]There were only 9 Applied Technology scores for students from Jackson County. Because the base was less than 10, percentages are not reported.

[b]More test scores than demographic data on students were provided.

The SAGE test administered to some of the adult students from Jackson County has scores similar to Work Keys, but they are not identical. The SAGE tests measure Reasoning Development, Mathematical Development, and Language Development and are normed to the levels for these three domains used in the test of General Educational Development. Level 3 involves fairly complex skills especially in mathematics and language. In mathematics, the skills include computing discount, interest, profit and loss, ratios and proportions, surfaces, volumes, weights, and measures, as well as simple algebraic applications. In language, the skills involve writing reports and essays with proper format, punctuation, spelling, and grammar, using all parts of speech. Table 2.5 indicates that all the adult students from Jackson County enrolled at Buckeye Hills who took the SAGE tests scored at these levels or higher.

Comparison of the adult (Table 2.5) and secondary (Table 2.6) Work Keys results reveals wider distributions at the secondary level, especially in the percentages scoring below 3. It is only for the secondary students from Pickaway-Ross and Scioto County that there were adequate numbers of Applied Technology scores to report. These distributions show almost half of the students at both schools scored under 3, a level that is adequate only for jobs requiring very minimal skills. It is in applying general principles to specific problems that students appear to have the most difficulties.

How do the secondary students from Jackson, Pickaway-Ross, and Scioto County compare with all secondary vocational students who took the Work Keys test in the 1996-97 school year? Table 2.7 shows the state-wide distributions.

TABLE 2.7

WORK KEYS SCORES FOR VOCATIONAL STUDENTS IN OHIO, 1996-97 SCHOOL YEAR

Scores	Reading	Mathematics	Locating	Applied Tech
	%	%	%	%
<3	12.0	13.5	20.8	58.7
3	8.9	21.2	22.3	25.1
4	38.1	28.5	46.6	11.9
5	26.6	24.4	10.2	4.4
6	12.8	10.8	0.8	0.2
7	1.6	1.7	--	--
Base N	13,918	25,174	24,263	10,177

Source: Vocational Instructional Materials Laboratory, Center on Education and Training for Employment, The Ohio State University

There is no overall pattern of the JVSs being higher or lower than the state-wide results. Scioto County tends to have the closest parallel with the total state, but the

percentage scoring below 3 on Applied Technology is 11 points lower than the state figure. This was also true of these scores from Pickaway-Ross. For both these JVSs, even though their lowest scores were in Applied Technology, their students scored higher than all vocational students in the state.

On some of the tests, the other JVSs have a lower percentage scoring below 3 than the state-wide results, *e.g.* math at Buckeye Hills and applied technology at Pickaway-Ross. On other tests, the JVSs have a higher percentage, *e.g.*, locating information at Buckeye Hills, reading at Pickaway-Ross. There is a small tendency on the reading and math tests for lower percentages scoring 6 and 7 in the JVSs than in the state as a whole. This was not the case for locating information and applied technology where there were almost no scores above 5 for the whole state. The number of Jackson County students from Buckeye Hills is quite low so all comparison with that JVS must be considered tentative.

The final set of test scores were from limited samples of Pike County adult and secondary students and half the Shawnee State students. These were ACT composite scores which Table 2.8 shows by two-point intervals together with their means. The ACT is designed to measure aptitude for higher education, not employment, and is not as good an index of the skills needed in jobs as Work Keys or SAGE. Nevertheless, it is one indicator of skills for which comparative data are available. The last column of Table 2.8 shows the distribution of scores for all high school students in Ohio who expected to graduate in 1998 and took the ACT.

The distributions and means for Shawnee State and Pike County are clearly lower than those for all of Ohio. The total state scores, however, are based primarily on students who planned to enroll in four-year institutions that required the ACT as part of their admissions procedure. The other scores in Table 2.7 are from a career center that serves secondary and adult students who are preparing to enter the workforce and from Shawnee State that has nonselective admission and about half of its students in associate degree programs preparing for technical occupations. Given the differences in the educational and occupational plans of the Pike County and Shawnee State students and the plans of the students upon which the state totals are based, the differences in ACT scores are in the direction and of a magnitude that would be expected.

Service Delivery Area 18

Service Delivery Area (SDA) 18 is one of the geographic service area established by the Governor under the Job Training Partnership Act. This act has recently been replaced by the Workforce Investment Act, but the essential purpose has not been changed. That purpose is to assist youth and unskilled adults to prepare for entry into the labor market and to provide job training to economically disadvantage individuals and others facing special barriers to employment. The SDA serve three of the

TABLE 2.8

AMERICAN COLLEGE TESTING COMPOSITE SCORES AT SHAWNEE STATE, FOR ADULTS AND SECONDARY SENIORS AT PIKE COUNTY JOINT VOCATIONAL SCHOOL, AND OHIO TOTAL

Composite Scores	Pike County		Shawnee State	Ohio Total 1998
	Seniors	Adults		
	%	%	%	%
10 or lower	--	--	2.4	<0.1
11 - 12	3.6	--	3.3	0.7
13 - 14	25.0	14.8	5.3	4.1
15 - 16	21.4	25.9	7.2	9.5
17 - 18	17.9	22.2	22.5	14.5
19 - 20	28.6	22.2	20.6	16.6
21 - 22	--	11.1	18.7	15.7
23 - 24	3.6	--	11.5	13.6
25 - 26	--	--	5.7	10.4
27 or higher	--	3.7	2.9	14.9
Mean	16.7	17.7	19.3	21.4
Base for Statistics	28	27	209	75,333
Base as % of Total	17.6%	16.0%	49.6%	100%

Source: Ohio total scores provided by ACT, Iowa City, Iowa.

counties in the SODI area, Jackson, Pike, and Scioto, plus three others, Adams, Brown, and Highland. Staff of the SDA prepared special analyses of the characteristics of the adult clients it served during the 1997 calendar year who were from the three SODI counties. The information on these clients is presented in this section.

Two groups of adult clients were served under the Job Training Partnership Act: Title IIA and EDWAA. Clients in families whose total income is under the defined poverty level qualify for services under Title IIA. EDWAA is the acronym for Economic Dislocation and Worker Adjustment Assistance. This was a separate federal law that amended Title III of the original Job Training Partnership Act. Those who qualified under this act were workers who have lost their jobs because their employers went out of business or moved their place of operation. It was not necessary for these clients to have family income below the poverty definition to qualify for assistance.

Table 2.9 shows the basic demographic information about the two classes of clients who obtained employment during the 1997 calendar year. In almost all cases a termination means the client had found employment. In 1997, only 8 percent of the

terminations from the three counties in the SODI area did not have employment at termination. The analysis is limited to those who terminated with employment, because those without employment are unlikely to become part of the labor force supply in the four counties.

The major difference in the characteristics of the clients is the percentage that received public assistance. Half of the Title IIA clients were recipients, only 1 of the EDWAA clients was. This difference reflects the family income criterion for receiving services under Title IIA. Males made up slightly more than half of the EDWAA clients, but only a little over one-fourth of those under IIA. The IIA clients were slightly more likely to have some postsecondary education. The percentage with less than a high school education or General Education Diploma was very low in both groups.

The tested reading and mathematical ability of both the IIA and EDWAA clients were similar. Table 2.10 presents the distribution of grade equivalent scores and means for the Wide Range Achievement Test. All of the means show the average client in both groups performed as well as an average ninth grade student who had completed half to almost all of that grade.

The final data from SDA 18, Table 2.11, shows the types of jobs that program completers obtained and the average starting wages for those jobs. The two distributions show distinct differences. EDWAA clients were more likely to obtain professional/managerial, skilled, and factory operatives jobs. Title IIA clients were more likely to obtain health service and technician jobs.

The differences in the types of jobs were reflected in their wage rates. The average starting wage for EDWAA clients was almost $3.00 per hour higher than the average for Title IIA. The standard deviation for the EDWAA average wage was $2.04 more than that for Title IIA. The higher standard deviation indicates the wide range of starting wages for EDWAA clients. While over one-third started at $10.00 or more per hour, there were also many starting at or slightly above minimum wage. The highest starting wage for an EDWAA client was $25.00 per hour; for Title IIA the highest was $16.25

TABLE 2.9

CHARACTERISTICS OF ADULT CLIENTS OF SERVICE DELIVERY AREA 18 WHO TERMINATED WITH EMPLOYMENT DURING THE 1997 CALENDAR YEAR FROM JACKSON, PIKE AND SCIOTO COUNTIES

Characteristics	Title IIA	EDWAA
Gender	%	%
Female	73.2	44.7
Male	26.8	55.3
Base for Percent	97	85
Age	%	%
25 or younger	28.3	17.6
26 -30	20.7	9.4
31 - 35	22.8	21.2
36 - 40	10.9	11.8
41 - 45	13.0	24.7
46 and older	3.3	15.3
Base for Percent	92	85
Highest Level of Education	%	%
Less than high school graduation	4.1	2.4
High school graduate or GED	49.5	58.8
Some postsecondary education	46.4	38.8
Base for Percent	97	85
Public Assistance	%	%
No	49.5	98.8
Yes	50.5	1.2
Base for Percent	97	85

TABLE 2.10

GRADE EQUIVALENT SCORES IN READING AND MATHEMATICS FOR ADULT CLIENTS OF SERVICE DELIVERY AREA 18 WHO TERMINATED WITH EMPLOYMENT DURING THE 1997 CALENDAR YEAR FROM JACKSON, PIKE, AND SCIOTO COUNTIES

Grade Equivalent Scores	Title IIA		EDWAA	
	Reading	Math	Reading	Math
	%	%		
7th or less	6.5	15.2	14.3	21.4
8th	10.9	7.6	11.9	11.9
9th	46.7	14.1	29.8	16.7
10th	14.1	8.7	19.0	14.3
11th	9.8	16.3	7.1	9.5
12th	10.9	30.4	14.3	19.0
13th and higher	1.1	7.6	3.6	7.1
Mean	9.49	9.98	9.59	9.75
Base Number	92	92	84	84

TABLE 2.11

TYPES OF JOBS OBTAINED BY ADULT CLIENTS OF SERVICE DELIVERY AREA 18 FROM JACKSON, PIKE, AND SCIOTO COUNTIES WHO TERMINATED DURING THE 1997 CALENDAR YEAR AND AVERAGE STARTING WAGES OF THOSE JOBS

Types of Jobs	Title IIA	EDWAA
	%	%
Managerial, professional	--	14.1
Technician	18.1	9.0
Administrative support and clerical	12.0	17.9
Marketing and sales	2.4	3.8
Services		
Food	6.0	1.3
Health	31.3	1.3
Other	4.8	2.6
Precision production, skilled	4.8	15.4
Operators, fabricators and laborers	20.5	34.6
Starting wage		
Mean	7.69	10.58
Standard deviation	2.68	4.72
Base Number	83	78

Portsmouth Gaseous Diffusion Plant

The final source of information on labor force supply comes directly from the Gaseous Diffusion Plant, itself. Ms. Anita Dever, Manager - Employment, provided data on the work-related characteristics of workers at the plant The data reflect the workforce as of July 1, 1998, shortly before the stock offering that converted the plant from government to private ownership. This section presents a summary of the information that was provided.

Demographics

Some of the data provided by the diffusion plant were divided among three pay classifications: hourly, salary, and uranium enrichment (UE) central. Other data were not divided in this way. Table 2.12 and 2.13 present information by the separate pay classifications if they were provided and combined data if they were not. The numbers on which the percentages are based in the separate tables are not all the same, but they are the numbers from the tables provided by the plant. For example, Information

on the gender of hourly workers in Table 2.12 was provided for 1,115, but information on age of hourly workers was provided for 1,155.

TABLE 2.12

CHARACTERISTICS OF THE WORKFORCE OF THE PORTSMOUTH GASEOUS DIFFUSION PLANT BY PAY CLASSIFICATION, JULY 1998

Characteristics	Hourly	Salary	UE Central
Gender	%	%	
Female	12.0	31.9	NA
Male	88.0	68.1	
Base for Percent	1115	1077	
Age	%	%	%
39 or less	23.5	33.7	25.7
40 - 44	24.0	20.6	22.9
45 - 49	21.5	20.6	20.5
50 - 54	15.4	14.5	21.7
55 - 59	11.3	7.0	5.6
60 or older	5.4	3.6	3.6
Base for Percent	1155	1080	249
Highest Level of Education	%		%
High school graduate	69.1	Presented	32.9
Associate degree	13.5	combined	13.6
Bachelor degree	13.3	with Hourly	37.9
Masters and doctorate	4.1		15.6
Base for Percent	2146		243

NA = Not Available

The age groupings used in Table 2.12 are different than those shown in previous tables. The data from the diffusion plant did not have categories for ages younger than 40. The groupings that were provided show that three-quarters of the hourly and UE central workforce and two-thirds of the salary workforce are 40 or older. Many of the plant's workers, as shown in Table 2.13 have spent much of their work lives at the diffusion plant. Half of all workers have 15 years or more of service, and one-third have 20 years or more.

The workforce at the plant is heavily male, especially among the hourly workers. The educational attainment of the hourly/salary workers generally reflects the population in the four counties. UE central has a higher proportion of bachelors and advanced degrees.

TABLE 2.13

YEARS OF SERVICE AND JOB CLASSIFICATIONS OF THE WORKFORCE OF THE PORTSMOUTH GASEOUS DIFFUSION PLANT BY PAY CLASSIFICATION, JULY 1998

Characteristics	Hourly	Salary	UE Central
Years of Service	%	%	%
Less than 5	18.5	15.6	13.7
5 - 9	18.2	27.6	26.1
10 - 14	7.0	5.7	9.6
15 - 19	11.3	14.9	16.1
20 - 24	39.8	27.8	21.7
25 - 29	4.8	5.2	9.2
30 or more	0.3	3.1	3.6
Base for Percent	1155	1080	249
Job Classifications	%		
Officials and Managers	14.4		
Professionals	19.2		
Technicians	8.0	All pay categories	
Office and Clerical	6.8	combined under Hourly	
Craft Workers (Skilled)	38.4		
Operatives and Laborers	1.6		
Service Workers	11.7		
Base for Percent	2243		

Information on county of residence provided by the Portsmouth plant indicates that 95 percent of the Ohio workers come from the four-county SODI area. The percent by counties are as follows:

- Jackson 10.1%
- Pike 23.0
- Ross 14.0
- Scioto 47.5
- All others 5.4

Craft and service workers make up half the workforce at the diffusion plant. Almost all in these categories are in the hourly pay classification. Almost three-fourths (72 percent) are in operations and maintenance with the remainder primarily in site and facility support and a few in materials management. Site and facilities support, in turn, is about half plant protection, security guards. Most of the skilled crafts involved in the operation of the plant are specific to the gaseous diffusion process. The skilled workers in maintenance, however, are likely to have more transferable skills.

Maintenance workers typically must be able to work on electrical, mechanical, and hydraulic systems. An understanding of underlying principles is necessary to diagnosis and repair malfunctioning equipment. The potential for maintenance and security workers to find alternative employment is likely to be higher than for operations personnel.

Summary

This chapter presents the characteristics of individuals entering the workforce in the SODI area from educational institutions and after receiving services from SDA 18, and the characteristics of the workers at the Portsmouth Gaseous Diffusion Plant. The adults completing training at three of JVSs and Shawnee State are mainly in their twenties, and mainly female. The Pike County JVS serves younger students, and the Scioto County JVS serves more males than females. The higher percentage of males at Scioto County is primarily due to the Pre-Employment Training. A majority of adults at the JVSs are from families living below the poverty level, except at Pike County.

In contrast to the adult students at the JVSs, over half the secondary students are male and they are far less likely to be from poverty families, except in Scioto County.

The test scores of both adult and secondary students on the Work Keys test compare well with aggregate state results for all vocational students. ACT scores at Pike County and Shawnee State are lower than the Ohio totals. The total ACT results, however, are based on high school students who plan to attend four-year institutions that require these scores as part of their admissions procedure.

Job placement rates varied widely across the educational institutions that reported them. Pickaway-Ross reported the highest rates with virtually all of its adult and senior secondary students employed at follow-up, and most of them in jobs related to their training. Almost all the SDA 18 clients terminated during 1997 also found employment.

There were surprisingly few high school dropouts among the clients of SDA 18 and their grade equivalent levels in reading and mathematics were above the level currently required for high school graduation in Ohio. EDWAA clients, workers who have lost their jobs because their former employers closed or moved from the area, were more likely than Title IIA clients to obtain managerial/professional, skilled and factory operative jobs. The starting average wage of EDWAA clients was almost $3.00 more per hour than that of Title IIA clients.

The workforce at the Gaseous Diffusion plant is heavily male and over half have 15 years or more of service. Half of the workers are classified as skilled and security. The skilled maintenance workers and security workers are likely to have skills that transfer to other employers more easily than the skilled workers in operations.

CHAPTER 3

EMPLOYERS SURVEY

As part of the labor supply study, a mail survey was conducted with all employers with 10 employees or more in the four counties that make up the Southern Ohio Diversification Initiative (SODI). This survey was designed to determine the need for workers with the kinds of skills that workers from the Portsmouth Gaseous Diffusion Plant were judged likely to have. The survey also collected information about deficiencies in current job applicants and how the educational institutions that serve the area could better meet employers' needs. The questionnaire used in the survey asked about current job openings for positions other than managerial and professional, recruitment for these positions, reasons why workers leave or are discharged, training needs, and how schools could better meet these needs. This chapter presents the findings concerning each of these topics.

To identify the organizations to contact, a complete listing of employers with 10 employees or more in the four-county area was obtained from America Business Information. This listing was reviewed by representatives of the five educational institutions participating in the project to eliminate duplications and employers, such as fast food restaurants, where a single location does the hiring for several other locations. Manufacturers were also eliminated to avoid duplication with another survey being sponsored in the area by the Ohio Valley Regional Development Commission. The other survey was conducted by the Institute for Local Government Administration and Rural Development (ILGARD) of Ohio University.

Two mailings yielded 358 returned questionnaires and 33 envelopes returned as undeliverable. Telephone follow ups were conducted by staff of the educational institutions cooperating in the study with a sample of the nonrespondents, and 81 were completed. The total response was thus 439 or 38.4 percent of the original sample. Seven of the returned questionnaires, however, were unusable because they were not completed or the companies were out of business. The unusable questionnaires were from volunteer organizations, such as volunteer fire companies or charities that had no paid employees. The questionnaires that produced the results presented in this chapter represent 37.8 percent of the sample, minus undeliverables, plus 18 manufacturer questionnaires provided by the ILGARD survey. A fuller discussion of the sampling and data collection procedures is presented in Appendix 1.

Current Job Openings

Employers were asked to list the three main jobs for which they were "currently seeking workers for positions other than mangers and professionals." Almost all the questionnaires were completed during July 1998. The results that follow thus reflect demand in the four SODI counties in mid-summer among organizations employing 10 or more that responded to our survey. The information on the industrial classification of and size of the respondents that is presented in Appendix Tables 2 and 3 indicates that the respondents were similar to the total distribution of employers in the four counties. Table 3.1 presents the distribution of job openings by major occupational categories.

TABLE 3.1

CATEGORIES OF JOBS, OTHER THAN MANAGERIAL AND PROFESSIONAL, FOR WHICH EMPLOYERS WERE SEEKING WORKERS AT THE TIME OF THE SURVEY

Categories	Percent Jobs Listed		
	First	Second	Third
Technicians	2.2	2.0	1.3
Administrative support and clerical	7.3	2.2	2.0
Marketing and sales	7.1	3.6	2.0
Services			
Food	6.2	4.8	2.0
Health	5.5	0.9	0.4
Other	4.0	2.7	2.0
Precision production, skilled	4.4	3.3	1.3
Operators, fabricators and laborers	10.2	4.0	2.2
Agriculture	0.2	0.9	0.2
No openings reported	52.7	75.6	86.4

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey. Employers were asked to report the three main jobs for which they were seeking workers.

Less than half of the employers responding to the survey listed even one job opening for which they were seeking applicants. It was note in Chapter 1, that the SODI area has historically had high unemployment rates. The rates published by the Ohio Bureau of Employment Services for July, 1998, the time of the survey, are the best that this area has had this calendar year (Table 3.2). Even with these favorable figures, a majority of the employers in this study reported they had no job openings.

TABLE 3.2

UNEMPLOYMENT RATES IN THE FOUR-COUNTY SODI AREA DURING 1998

Counties	Unemployment Rates in 1998						
	January	February	March	April	May	June	July
Jackson	9.0	9.9	9.8	7.2	6.7	7.7	5.0
Pike	12.8	12.5	12.3	9.2	9.0	8.3	5.5
Ross	7.0	8.1	7.8	5.7	5.5	5.9	5.0
Scioto	12.4	12.0	11.7	9.4	9.4	9.7	6.7

Source: *Labor Force Estimates, Ohio Labor Market Information*, a monthly periodical published by the Ohio Bureau of Employment Services, Columbus, Ohio.

The figures in the Table 3.1 indicate the percentage of employers that reported job openings, and as noted, slightly less than half did so. When the figures in the first column are doubled, they represent the approximate percentage of first job openings reported. The most frequently category was service occupations, represented one-third of the openings. This general category included food service (cooks, fast food workers, and waiters/waitresses), and health service, mainly nurses aides. This category does not include Licensed Practical Nurses who were included in the technician category.

The next most frequent general category was operators, fabricators, and laborers. Openings for truck drivers were the most frequent here. Administrative support and clerical positions and marketing/sales were next. The marketing/sales category mainly consisted of cashiers and counter clerks. Appendix 2 presents the specific job titles and number of openings reported within each of the categories shown in Table 3.1.

The differences in wages across the occupational categories, Table 3.3, reflect differences in the skills required. The highest average is for precision production. This category includes the construction trades (*e.g.*, carpenter and electrician), mechanics, machinists, and other installers and repairers. The highest starting wage listed for precision production was $17.50 per hour and the highest for technicians was $15.00. Surprisingly, the highest single wage being offered, $19.00 per hour, was for laborers in a unionized construction firm. The average wage for those in food service occupations is lowered by the minimum wage for waiters and waitresses, $2.13 per hour. The employers who reported this wage also added "plus tips," but no attempt was made to estimate an hourly average for tips.

TABLE 3.3

AVERAGE STARTING WAGES, IN DOLLARS PER HOUR, JOBS FOR WHICH EMPLOYERS WERE SEEKING WORKERS AT THE TIME OF THE SURVEY

Categories	Starting Hourly Wage		
	Mean	Standard Deviation	Number
Technicians	9.57	2.83	24
Administrative support and clerical	7.05	1.78	51
Marketing and sales	6.09	1.88	53
Services			
Food	4.77	1.37	56
Health	6.15	1.09	31
Other	7.17	2.00	38
Precision production, skilled	10.34	2.79	37
Operators, fabricators and laborers	7.52	2.68	70
Agriculture	6.79	1.17	6

Note: Means are based on total number of wages reported within each job category.

Table 3.4 indicates that the skills most often listed as needed for the job openings were those specific to the occupation, a license or certificate, and personal qualities. A wide variety of diverse characteristics were combined in the "personal qualities" category. They included such traits as ambitious, self-starter, teachable, grooming, age, and ability to lift heavy objects. Truck and bus drivers accounted for many of the employers who listed a license, a Commercial Driver's License (CDL), as a requirement.

Only 7 percent of employers indicated as the first type of skill required specific types of preparation (such as an associate degree, apprenticeship, or journeyman status), a high school diploma or GED, or basic communication and math skills. Jobs in the operatives category, which includes laborers, were the most likely to have no specific skills requirements.

It is of interest how few employers listed traits usually described as *work ethic*–reliability, desire to work, responsible attitude, etc.–among the skills required for the jobs for which they were seeking workers. This result suggest most employers do not hire directly for these traits, but they expect workers to have them.

TABLE 3.4

SKILLS REQUIRED FOR JOBS FOR WHICH EMPLOYERS WERE SEEKING WORKERS AT THE TIME OF THE SURVEY

Skills	Percent Skills Listed		
	First	Second	Third
Skills specific to occupation	23.0	8.0	1.9
License or certificate	16.9	3.3	0.9
Personal qualities, cooperative, age, etc	15.5	15.0	4.7
Basic skills, communication, English	7.5	9.4	1.4
High school graduate or GED	7.0	2.8	0.9
Specific preparation	7.0	2.8	--
Experience in occupation	3.8	2.8	0.5
Work ethic, reliability	1.4	0.5	0.9
Other	0.9		--
None or no additional skills listed	16.9	54.0	88.7

Note: Percentages are based on 213 employers who reported at least one job they were seeking to fill at the time of the survey. A maximum of three types of skills were tallied for each job listed.

The main reasons that the job opening available at the time of the survey had not been filled are shown in Table 3.5. Employers were instructed to check as many of the reasons listed in the table as applied, and on the average, they checked two characteristics of applicants as reasons. The lack of needed job skills and lack of work experience were the reasons most frequently given, but attitude, poor grooming and poor communication skills were quite close. Over one-third of the employers with job openings reported few applicants. This is somewhat surprising given the relatively high unemployment rates in the SODI area.

One-third of the employers who reported job openings wrote in answers other than those listed in the questionnaire as to why they had jobs that were not filled. Among the most frequent of these was some variation of "People do not want to work." Some employers noted high turnover rates in the positions that were open. Other comments concerned the lack of qualified applicants.

In addition to their current openings, employers were asked to list the jobs that are traditionally most difficult to fill. Table 3.6 presents the responses to this question. In general, the pattern is similar to that found for current openings. Almost two-thirds of the respondents listed such jobs, and service occupations were once again the most frequent followed by operators, fabricators and laborers and administrative clerical support. Only about one our of ten employers reported difficulty filling jobs in the two

TABLE 3.5

MAIN REASONS CURRENT JOB OPENINGS HAVE NOT BEEN FILLED

Reasons	Percent
Characteristics of Applicants	
Lack needed job skills	37.1
Bad attitude	32.4
Lack work experience	31.5
Poor grooming, hygiene	29.1
Poor communication skills	25.4
Cannot pass tests	13.6
Other	32.4
Positions	
Few applicants	37.6
Have just been posted	13.1
Other	14.1

Note: Percentages are based on 213 employers who reported at least one job they were seeking to fill at the time of the survey.

highest paid categories, precision production and technicians. Most employers who reported current openings simply indicated that these openings and those most difficult to fill were the same.

The sources that companies use to recruit new workers for these kinds of positions and the hiring procedures they follow are examined in the next section.

Recruitment, Hiring and Retention

The two most frequent methods used to recruit new workers are current employees (81 percent) and newspaper ads (63 percent). After these two sources, there is a large drop to the proportion that use Ohio Bureau of Employment Service Job Centers, Joint Vocational Schools (JVS), and other sources. The percentages for all sources listed in the questionnaire are shown in Table 3.7.

Using JVSs to recruit adult workers was reported by only one out of seven employers. This low usage is not encouraging if JVSs are to play a major role in retraining displaced workers. More employers will have to become aware of how JVSs can meet their skill needs if these schools are to assist retrained workers to find new jobs.

TABLE 3.6

CATEGORIES OF JOBS, OTHER THAN MANAGERIAL AND PROFESSIONAL, THAT TRADITIONALLY ARE MOST DIFFICULT TO FILL

Job Categories	Percent
Technicians	3.1
Administrative support and clerical	11.6
Marketing and sales	7.1
Services	
Food	9.6
Health	5.3
Other	6.2
Precision production, skilled	7.6
Operators, fabricators and laborers	11.6
Agriculture	0.4
No jobs listed as hardest to fill	37.6

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey

Almost one-quarter of the respondents wrote in recruitment sources other than those listed in Table 7. Among the most common of these was "Walk-ins." In a area with a labor surplus, many employers can wait for prospective workers to come to their door. Some of the government agencies indicated that they do all their hiring from civil service lists prepared by the human resources departments of their agencies.

Once applicants have been recruited, a variety of procedure can be used to screen those who will be hired. Table 3.8 indicates that interviews are used almost universally and requiring references is not far behind. Tests, either written or performance, are used by about one employer out of five.

At the request of the JVSs cooperating in the study, a question on Career Passports was included in the questionnaire. Career Passports are being promoted by the Ohio Department of Education as a mean of documenting the skills that students have acquired through their high school education, work experience, hobbies, or any other activity that imparts skills that are useful in the labor market. The passports have been available on a voluntary basis since the early part of this decade, and starting with the 1996-97 school year all graduates were required to prepare one. Table 3.9 show the percent of employers who reported recent high school graduates present Career Passports when applying for jobs.

TABLE 3.7

SOURCES USED TO RECRUIT NEW WORKERS FOR POSITIONS OTHER THAN MANAGERIAL AND PROFESSIONAL

Sources	Percent
Current employees	80.9
Newspaper ads	62.7
OBES Job Centers	25.3
Vocational schools (JVSs) for high school students	20.9
Now hiring signs	19.6
Colleges/universities	16.9
High schools	14.0
Private agencies, "temps"	13.8
Vocational schools (JVSs) for adults	13.1
Community agencies (JTPA, DHS, etc.)	12.9
Other	22.7

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey. The total exceeds 100 percent to the extent that employers indicated they use more than one of the sources.

TABLE 3.8

PROCEDURES AND CRITERIA USED TO HIRE NEW WORKERS FOR POSITIONS OTHER THAN MANAGERIAL AND PROFESSIONAL

Procedures and Criteria	Percent
Interviews	97.8
References	89.1
Drug screening	28.1
Medical physical	25.1
School transcripts	21.6
Performance tests	20.0
Written tests	19.3
Other	13.3

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey. The total exceeds 100 percent to the extent that employers indicated they use more than one of these procedures and criteria.

TABLE 3.9

DO RECENT HIGH SCHOOL GRADUATES PRESENT CAREER PASSPORTS WHEN APPLYING FOR JOBS?

Responses	Percent
Yes	14.0
No	36.4
Do not hire recent graduates	10.2
Do not know what a Career Passport is	36.7
No answer	2.2

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey.

Given the short period of time that Career Passports have been required, it is not surprising that only one employer in seven reported that recent graduates present them when applying for work. Equal proportions, a little over one-third, of the employers checked that they did not know what a Career Passport was or that recent graduates do not present them. Ten percent of employers said their companies did not hire recent graduates.

Table 3.10 contains estimates of the number of workers hired in the six months prior to the survey, expectations for hiring during the next six months, and the number screened for each hire. Two sets of estimates are presented. The first is based on the employers who actually responded to the questions, even if it was by entering "0" or "none," and the second is based on all usable questionnaires, including those where these questions were skipped. This second set is included on the assumption that employers who skipped these questions hired no one and expected to hire no one.

It should be noted that the standard deviations in Table 3.10 are larger than the means. These standard deviations reflect a wide range of values. The highest number of people reported hired was 400 and expected to be hired was 200 The highest number of applicants screened was 125. Most employers reported much smaller numbers than these. Values that are much different from the others in a distribution are referred to by statisticians as *outliers,* and they have a strong effect upon the mean.

The medians–an alternative measure of central tendency–for these estimates are much different. The median divides a distribution in two, half of the values are lower than it and half are higher. The medians for the number hired and expected to be hired based on actual responses are 4 and 2. The medians based on all usable responses are 3 and 2. The median for number screened is 5, and it is the same for both estimates.

TABLE 3.10

AVERAGE NUMBER OF WORKERS, OTHER THAN MANAGERS AND PROFESSIONALS, HIRED IN LAST SIX MONTHS, ANTICIPATED HIRING IN NEXT SIX MONTHS, AND APPLICANTS SCREENED FOR EACH NEW HIRE

Hiring	Mean	Standard Deviation	Number
Based on Actual Answers			
Hired in last six months	10.24	25.48	442
Anticipate to be hired in next six months	7.75	18.50	417
Number screened for each hire	8.99	13.05	400
Based on All Usable Questionnaires			
Hired in last six months	10.08	25.31	450
Anticipate to be hired in next six months	7.19	17.94	450
Number screened for each hire	8.01	12.63	450

Which statistic more accurately reflects reality in the SODI area? The median is a better reflection of the majority of employers; the mean is a better reflector of large employers. Even though this survey was limited to employers with 10 or more workers, almost half have under 20 employees; only 2 percent have 250 or more (see Appendix Table 3). Nevertheless, this handful of large employers, accounts for a large percentage of the workforce. Firms that have 250 or more workers employ over 40 percent of the total number of workers represented in the survey. Firms with less than 20 workers employ 11 percent. Stated another way: even thought there are more than 20 times as many firms with less than 20 workers, their total employment is less than one-fourth the number employed by firms with 250 or more.

Once workers are hired, what are the main reasons for termination? Table 3.11 presents the reasons obtained by this survey.

The results in Table 3.11 are at variance with much of the rhetoric about the failings of public education. Inadequate job and technical skills and poor reading and math rank much lower than unreliability, poor productivity, and attitude as reasons for dismissal. The resolution of this contradiction is that those with poor job and reading/math skills do not get hired. Applicants who pass employers' screening processes typically have the skills to perform adequately. It is when these skills are not applied that workers are terminated.

TABLE 3.11

MAIN REASONS NEW HIRES ARE NOT RETAINED

Reasons	Percent
Tardiness, absenteeism	53.7
Poor productivity	48.4
Bad attitude	44.4
Inadequate job skills	20.8
Inadequate basic skills	12.7
Inadequate technical skills	6.7
Other	18.1

Note: Percentages are based on 432 usable responses. This question was not included in the ILGARD survey. The total exceeds 100 percent to the extent that employers gave more than one of these reasons.

Employers were also asked why employees voluntarily leave their jobs. The main reason, by a wide margin (Table 3.12), is for other jobs. This finding supports one of the recurrent comments made by employment and training officials in the SODI area who were interviewed for this study. Chapter 4 discusses these interviews. Several of those interviewed noted that there is a hierarchy of employers. At the top of the hierarchy are companies like Mead, Kenworth, and DuPont. These firms offer the best wages and benefits and are very selective in their hiring. When openings are available at these companies, workers who are employed in companies lower in the hierarchy apply for these preferred jobs.

TABLE 3.12

MAIN REASONS WORKERS VOLUNTARILY LEAVE

Reasons	Percent
Take other jobs	70.8
Personal reasons	36.1
Child care, family problems	19.9
Retirement	17.8
Relocation	14.6
Other	13.9

Note: Percentages are based on 432 usable responses. This question was not included in the ILGARD survey. The total exceeds 100 percent to the extent that employers gave more than one of these reasons.

Meeting Training Needs

The survey asked both about the training/upgrading opportunities employers provide for workers who are not managers or professionals and the training needs of the companies. Employers were also asked if there was any kind of training they would like the educational institutions in the area to provide that they were not currently offering. This section presents the results from these three questions.

Table 3.13 shows that employers reported a wide variety of training/upgrading opportunities. On the average, more than three of these opportunities were offered by each employer. Here again, however, the average can be misleading. Some employers offer many of the opportunities and some offer none. The most common patterns were for respondents either to check several of the training methods listed or to skip the question entirely. Among those providing training, formal on-the-job training was the clear leader. Almost half of the employers also reported that participation in conferences and workshops is available to workers below the manager/professional level. Training videos and printed materials are available at four out of ten employers. The most common "Other" response was informal on-the-job training.

TABLE 3.13

TRAINING/UPGRADING OPPORTUNITIES PROVIDED FOR WORKERS WHO ARE NOT MANAGERS OR PROFESSIONALS

Types of Training	Percent
Formal on-the-job training	71.1
Conferences/workshops	43.8
Videos	40.4
Printed manuals	39.3
Assigned mentors	30.0
Job shadowing	24.0
Training by vendors	21.3
Tuition reimbursement	20.2
Self-study programs	13.6
Contract training	6.0
Other	8.9

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey. The total exceeds 100 percent to the extent that employers indicated they offer more than one type of training.

The questionnaire listed nine areas in which an organization might need training for its workforce, and asked the respondents to write in the kind of training they would like the

educational institutions in the area to offer that they are not currently offering. Table 3.14 shows the percent of employers who checked each of the training needs. Table 3.15 presents the categories that were developed to classify the write-in answers.

General skills applicable to all occupations, such as customer service, communications, computer skills and teamwork, were checked most often. Specific skill training was checked by one out of five respondents. Specific occupation skills were also the most frequent type of training written in (Table 3.15).

Questions that require respondents to write an answer rather than just mark a checklist typically yield fewer responses, and that was the case in this survey. Only four out of ten respondents wrote in any type of training. Of those who did, training in specific occupational skills was the most frequent request. Some of the training was in specialized aspects of an occupation and some was for professional or management training. Most of the skills, however, were for occupations, such as metal working or auto technology, for which training already exists. The employers who requested this training were not aware of what is available. Several said precisely that.

TABLE 3.14

EMPLOYERS MAIN TRAINING NEEDS

Training Needs	Percent
Customer service	32.7
Communications	29.8
Computer training	24.0
How to work in teams	21.1
Specific skill training	20.0
Problem solving	18.2
Cross-training	14.9
Upgrading	8.2
Literacy training	3.8
Other	9.1

Note: Percentages are based on 432 usable responses. This question was not included in the ILGARD survey. The total exceeds 100 percent to the extent that employers indicated they have more than one of these needs.

Once again the percentage of employers requesting training in work ethic, job seeking/retention skills, and basic academic skills are lower than the popular rhetoric about the failure of education would lead one to expect.

TABLE 3.15

KINDS OF TRAINING EMPLOYERS WOULD LIKE EDUCATIONAL INSTITUTIONS TO OFFER

Kinds of Training	Percent		
	First	Second	Third
Specific occupational skills	12.2	2.4	1.1
Work ethic, attitude, responsibility	6.2	1.6	0.7
Customer relations/service	4.2	2.2	0.2
Team work, conflict management, problem solving	3.6	2.2	0.7
Broad occupational skills, safety, computer, etc.	3.6	2.9	0.2
Basic academic skills	2.9	2.0	0.2
Common sense, everyday living	2.9	2.0	0.2
Job seeking and keeping	1.6	1.8	0.4
Other	3.1	1.3	--
No suggestions	59.8	82.9	96.2

Note: Percentages are based on 432 employers who returned usable questionnaires plus 18 manufacturers from the ILGARD survey. A maximum of three types of training was coded.

Summary

This chapter presents the results of a survey conducted with all employers with 10 workers or more in the four-county SODI area. Usable responses were received from 432 employers, 38 percent of the sample. An additional 18 questionnaires were provided by the ILGARD survey. The traditional high levels of unemployment in the area were reflected in the percentage of employers who had unfilled jobs openings. Less than half reported such openings, and relatively few of the openings were for workers with high skill levels.

Current employees, and newspaper ads are the ways used most frequently to recruit new workers. Only about one employer in five recruits at JVSs for high school students and even fewer for adult students.

The average number of new hires during the past six months was ten, but this average was strongly influenced by a small number of large employers. Even though this survey was limited to employers of 10 or more, over three-fourths had less than 50 employees. These smaller employers reported hiring only three new employees.

The main reasons that workers are discharged involve reliability and production, not the absence of needed skills. The main reason employees voluntarily leave is to take other jobs.

Employers provide a variety of training opportunities. The most frequent is formal on-the-job training, followed by conferences/workshops, videos, and printed materials. The most frequent training need, reported by one-third of employers, is for customer service. Most employers did not answer an open-ended question on the kind of training they would like educational institutions in the area to provide. Among those who did respond, training in specific occupational skills was most frequently requested.

CHAPTER 4

VIEWS OF WORKFORCE DEVELOPMENT MANAGERS

In contrast to the previous two chapters, this chapter presents opinions and perceptions, not quantitative data. Opinions are influenced by one's role and responsibilities. The interviews that form the basis of this chapter were with managers of workforce development agencies. These managers work primarily with individuals who have had difficulty in obtaining secure, rewarding jobs. This chapter, therefore, reflects the opinions of individuals whose clients have had difficulties in the labor market. The experiences of these clients are not typical of most employed individuals in the SODI area.

Interviews were conducted with the managers of the employment and training programs in the Departments of Human Services in the four counties, with the managers of the Ohio Bureau of Employment Services offices in Portsmouth and Waverly, and with several of the staff of the Community Action Organization, the administrative entity for Service Delivery Area 18. Repeated attempts to contact the director of Service Delivery Area 17 were unsuccessful.

The interviews were open-ended with a list of core topics addressed in each. These topics concerned the characteristics of clients, the barriers that clients encounter when seeking employment, the general nature of the labor market, the responsiveness of training institutions to the needs of clients and employers, and cooperation among the agencies.

Everyone interviewed was promised confidentiality. Consequently, no one is identified or quoted directly. This chapter attempts to summarize the main themes discussed in the several interviews. Unless noted otherwise, the findings reflect the general consensus of those interviewed. When there were major differing positions, these are specifically presented.

Clients

The employment and training programs in the County Departments of Human Services are now called Ohio Works First. The manager of this program in one of the counties that was visited categorized her clients as follows:

- Inter-generational, about 10 percent. (Another manager estimated the inter-generational clients in her county in the 30 to 40 percent range.) These clients are from families that have received pubic assistance for several generations. Children raised in such families have little concept of having a job that takes priority in one's life. They have never seen such behavior modeled by their parents. In fact, just the reverse, they have modeled on how to use the system to stay on assistance.

- People in a temporary bind, about 30 percent. The manager described this group as individuals who have had some bad luck but they want to be employed and have a plan to achieve that objective. She considers them the easiest to work with and most leave public assistance in a relatively short time.

- The remainder, about 50 to 60 percent. This group consists of what the manager called "job cyclers" and those with multiple problem. The job cyclers become employed but do not stay in their jobs. If a problem arises, such as a sick child or a car stops running, the job cyclers have no plans for how to deal with the problem and they lose or quit their jobs. The multiple problem group have difficulty obtaining any employment. They typically have so many barriers to employment that most employers are unwilling to give them a chance.

There was general agreement that as the total number on welfare has been decreasing, the proportion of clients with multiple barriers has been increasing. Ohio has been ahead of the rest of the nation in its welfare reform initiatives. There have been programs for most of the 1990s that have stressed placing recipients in unsubsidized employment. Those clients who were easier to place are no longer receiving assistance. Those who remain have little or no prior work experience, poor basic skills, have not graduated from high school or earned a GED, and often have mental or addiction problems. There are few employers willing to hire individuals with all these handicaps. Some of these people will never be employed regardless of the services they are provided or the incentives and sanctions that are applied.

While the agencies are now working with clients who are harder to place in jobs, those interviewed reported seeing increasing willingness on the part of employers to offer jobs to applicants they previously would not have considered. The robust economy is finally being felt in the SODI area, and employers are finding they cannot be as selective as they have been in the past. Even in this new climate, however, employers are willing to bend only a little. Applicants who previously would not have been hired will get a chance, but they have to be reliable and productive to retain their jobs.

Employers, for the most part, are not interested in tax credits or wage subsidies. They want good workers, not financial incentives. The very fact that an incentive is offered is perceived by some employers as a signal that the applicant might be a source of problems. The employer wonders if there were not some risk involved, why would the agency offer an incentive? Most employers also say the red tape and paperwork are not worth the small amount of subsidy provided.

All those interviewed stressed the importance of attitude in becoming employed. Clients must be willing to "get along" with their employers and co-workers. Those who have had little work experience are often overwhelmed by the need to be at work on-time, everyday. The transition from having virtually no schedule to having very structured requirements is so abrupt that many cannot deal with it.

The SODI Labor Market

The hierarchy of employers mentioned in Chapter 3 was noted by all the workforce development managers interviewed. Virtually everyone in the area wants to work for the preferred employers, such as Mead and Kenworth. One of the OBES managers said that most of the clients registered with that office were already employed but seeking better jobs. As a result, the unemployed in the area are not just competing with one another for better paying jobs, they are competing with employed workers who want to increase their earnings and benefits.

The Portsmouth Gaseous Diffusion plant was considered one of the preferred employers by all those interviewed. Its pay rates are considered excellent. Everyone agreed that it will be almost impossible for workers who lose their jobs at this plant to match their pay in jobs doing similar work for others employers. Examples were cited of security guards at the plant who, with overtime, earn $50,000 a year.

One of the managers thought that private employers are likely to view former employees of the Diffusion Plant with some skepticism. Many in business think government employees do not work as hard as those in the private sector. Even though the plant is now privately owned, the prejudice against government workers may remain. This manager also thought that workers who lose jobs at the plant will be unlikely to retrain or relocate. He thought many of them would opt for early retirement and part-time or occasional employment, if it were offered.

Most clients of the workforce development agencies would like to obtain jobs paying $9.00 to $10.00 per hour, but very few have skills that are compensated at that level. The jobs for which clients can qualify tend to be fast food, sales clerks, entry level health service, laborers, and factory operatives. Most of these have a pay range from the minimum, $5.15, to $7.00 per hour. Fast food restaurants are constantly seeking applicants for jobs that pay the minimum wage or slightly above.

There was agreement that it is virtually impossible to become independent of public assistance by working in a job that pays minimum wage and offers no medical benefits. Transitional Medicaid and subsidized child care help but wages substantially above the minimum are needed if individuals are to become permanently independent of public assistance.

The SODI area has almost no public transportation and many people commute long distances to work. This can make transportation a problem. When the workforce development managers were asked directly if transportation was a barrier to employment, they tended to dismiss it. One replied, "They [clients] say it is." By this she meant that her clients seem to be able to get to places they want to go to, but work is often not one of their priorities. Other managers replied that they can usually find some way to assist clients who have transportation problems, including paying for needed car repairs.

Some residents of the area commute to Columbus and Cincinnati on a daily basis from as far as Portsmouth. Those who commute this far, however, earn enough to justify the trip. They are individuals who have skills that are in demand. Traveling such distances is costly and people do not do it for minimum wage jobs.

One manager said that many of the client of his agency were construction workers for whom there is less demand in the cold months. Many of these clients are among those who travel far distances to work. They are often seeking jobs that pay somewhat less per hour but are year-round and closer to home.

Temporary employment agencies, what are now generally called "staffing" agencies, have been playing an increasing role in placing clients in jobs. Many employers use the period while workers are on temporary assignment to screen for permanent employment. If the temporary workers are judged suitable, they are offered regular jobs.

The human services and OBES managers all spoke positively of their relationships with the JVSs, Shawnee State, and Ohio University, Chillicothe. They see these institutions as responsive to the needs of their clients. One manager said this about the JVS she works with, "You give them an idea and they come up with a program that goes far beyond what you originally asked for."

One such creative programs is the Pre-Employment Training offered by Scioto County JVS. This program is designed to prepare the unemployed for the requirements of jobs, and it is selective. Applicants must pay $20 to take the admissions test and $100 in tuition. The program is a screening mechanism as much as it is delivery of instruction. The instructors are local employers, and they evaluate the trainees on attendance and punctuality as well as performance in class. Trainees who meet the employers' standards are offered jobs upon completion of the training.

There is an effort to establish One-Stop Job Centers in the SODI area. These centers are intended to make it easier for clients to access services through interagency coordination and elimination of duplication The goal is summed up by the phrase "No wrong doors." Everyone supports the concept, but its implementation is questioned. Some of those interviewed think it has been more public relations rather than real change in service delivery.

Case management across agencies has not been achieved in any of the SODI counties, and one of the managers does not think it will be achieved. The laws and regulations that govern the separate agencies prevent the full sharing of client information that true case management would require.

Two of the managers referred to the One-Stop Center in Highlands County as the best example of the concept. In their judgment, this center works well because the cooperating agencies are co-located in one building.

Despite the difficulties implementing One-Stop, the managers generally thought the separate agencies in the area cooperate well. Because they serve low population counties, the agencies have small staffs and the managers interact with one another on a regular basis.

Summary

This chapter presents a synthesis of the view of managers of workforce development agencies in the SODI area. These managers work mostly with public assistance recipients, seasonally unemployed, dislocated workers, and others who have had difficulties obtaining secure employment that provides a reasonable income.

The number of public assistance recipients has been dropping through most of the decade, and the remaining clients tend to have multiple problems that make them hard to place in employment. The demand for workers has caused some employers to hire applicants who previously would have been rejected, but employers still want reliable, productive workers.

There is a hierarchy of employers in the SODI area. Those at the top of the hierarchy can choose not only from the unemployed, but also from those currently employed who wish to improve their earning and benefits. The most widely available jobs in the area require no prior skills and pay in the range of $5.15 to $7.00 an hour.

The workforce development agencies generally cooperate well, but there has been little implementation of One-Stop Job Centers. The educational institutions are seen as quite responsive to the needs of clients.

CHAPTER 5

RECOMMENDATIONS

The Southern Ohio Diversification Initiative (SODI) faces a difficult challenge. The four counties it serves, Jackson, Pike, Ross, and Scioto, have traditionally had wage rates that were lower and unemployment rates that were higher than the rest of the state. The anticipated reduction in the workforce at the Gaseous Diffusion Plant will eliminate some of the best paying jobs in the area. The survey of employers conducted for this study found over half had no job openings, and most jobs for which employers were seeking workers were low-skill and low-paying.

The study did yield some positive results. The tested skills of job seekers, both graduating high school seniors and adults, compare well with the rest of the state. The area has several educational/job training institutions within reasonable travel distance of all residents. These institutions are viewed favorably by other workforce development professionals in the area. The managers of the employment and training agencies in the four counties view the training institutions as responsive to the needs of their clients and willing to try innovative programs.

Another positive finding was the success of adults trained at Pickaway-Ross and displaced workers served by the Community Action Organization of Scioto County, the administrative entity for Service Delivery Area 18. All but two of the adults who completed programs at Pickaway-Ross and were available for employment during the 1996-97 school year found employment and all but two of the jobs were related to their fields of training. Almost all of its clients who received services under the Economic Dislocation and Workers Assistance Act (EDWAA) obtained jobs. The average hourly starting wage of these clients was $10.58, which was $3.50 higher than the average of the job openings reported in the employers survey. The characteristics of the EDWAA clients are similar to those of the current workforce at the Gaseous Diffusion Plant. The success of these clients suggest that dislocated workers with good job histories and skills needed in the labor market, can find jobs that offer higher wages than those identified by the employer survey.

Primary Recommendation

The study did not produce any findings that point directly to steps SODI should take to promote economic development in the four-county area. The conduct of the study, however, did involve considerable cooperation among educational institutions in the area and demonstrated a commitment from these institutions, as well as other workforce development agencies, to contribute to efforts to improve employment opportunities for their clients.

Each of these institutions already has in place services to assist individuals plan, prepare for, and make adjustments in their careers. The Transition/Assessment

program at Buckeye Hills, which was discussed in Chapter 2, has parallels at the other institutions. Here are two examples, and similar programs could be cited from the other institutions:

> The Job Prep program [at Shawnee State] provides assessment, transition, and pre-employment services to Ohio Works First participants. Utilizing, the Workplace Skills Success SCANS-based module, the Wonderlic math and English instruments, and various VALPAR evaluation tools, Shawnee State counselors provide a comprehensive assessment of workforce skills. The Job Prep program, sponsored by the Workforce Development Division of the Ohio Board of regent, is charged to research workforce needs, provide transitional and re-employment activities, and to develop individualized action plans which include various community resources, training opportunities, work experience programs, job development, and work retention. (V. Ramey, personal communication, October 22,1998)

A brochure from the Pickaway-Ross JVS lists the following services:

- Vocational Assessment and Counseling
- Job Search and Job Placement Assistance
- Professional Resume Services
- New Directions, a career and family program which assists people who are making the transition from homemaker to wage earner
- Job Connections, a two-week job club followed by a six week job workshop that provides job seekers with sufficient basic skills, workplace competencies and work ethics to enable them to obtain and retain employment

The major recommendation of the study, therefore, is that SODI capitalize on the existing resources and cooperative spirit that characterizes this area to determine how it can best involve itself in ongoing efforts to coordinate workforce development activities. Interviews in the area identified at least three such efforts, and there may be others: Common Good, Region 7 School-to-Work, and One-Stop Job Centers. Many of the same agencies and individuals are involved to some extent in each of these initiatives. SODI should become actively engaged with each and determine how its own efforts can be most effectively aligned with these efforts in the area:

Common Good Contacts

Jackson County
Michael McPherson
Buckeye Hills JVS
P.O. Box 157
Rio Grande, OH 45674
740-245-5334

Ross County
Kathy Fowler
Goodwill Industry of
South Central Ohio
P.O. Box 93
Chillicothe, OH 45601
740-702-4000

Scioto County
Sandra Lawyer
Shawnee State University
Job Prep Program
940 Second Street
Portsmouth, OH 45662
740-353-6400

Pike County withdrew from Common Good because it duplicated many of its ongoing activities.

School-to-Work Contact	*One-Stop Center Contacts*	
Region 7 David Boothe 379 E. South Street, Room 15 Jackson, OH 45640 740-286-4459	Jackson, Pike, and Scioto Sandy Shaffer Hillsboro Human Services 1575 N. High Street Hillsboro, OH 45133 937-393-4278	Ross County Keith Hyde Private Industry Council P.O. Box 230 Circleville, OH 43113 740-474-7518

One possible approach would be for all parties to cooperate in area-wide strategic planning. The educational institutions that cooperated in this study all indicated their willingness to take part. Employers were not asked directly if they would be interested, but the good response to the employer survey, almost 40 percent, suggest many would be willing to participate also. The first step would be for SODI staff to meet with representatives of all major stakeholders to discuss the strategic planning process, their willingness to be involved, and how it could best be carried out.

Even before these initial meeting, SODI and its parent organization, the Ohio Valley Regional Development Commission, should decide what it hopes to achieve through strategic planning. If the process is successful, it could produce:

- A shared vision of the preferred future for the SODI area
- A commitment from all major stakeholders to make the vision a reality
- An assessment of the strengths and weakness of the area
- Agreement on the strategic initiatives that appear most likely to maximize opportunities and minimize threats
- A plan for translating the initiatives into specific actions

If strategic planning is conducted, it will have a life of its own, and it is impossible to predict what priorities will emerge. As input for consideration in the process, recommendations arising from this labor supply study are presented. The utility and feasibility of these recommendations will have to be evaluated by those who will have the responsibility of implementing whatever final plans are developed.

Specific Recommendations

1. Develop a skills certification process for workers displaced by workforce reductions at the Portsmouth Gaseous Diffusion Plant.

The educational institutions in the area would have to decided how they would want to certify competencies, but a general approach could be something like the following:

1. Employment counselors would meet with each displaced worker to review the kind of work he or she has done at the Gaseous Diffusion Plant and determine the components of that work that could be applied to other occupations or settings.

   Some jobs, such as maintenance electrician, welder, secretary, and security guard, would be largely the same in other settings. Jobs directly involved in the enrichment process may have few direct counterparts in other settings, but they involve skills and knowledge that are transferable. Operators must understand the physical and chemical principles involved in the changes of matter from a solid to a liquid to a gas, and they must be licensed by the Environmental Protection Agency to use Freon. The enrichment process has many similarities to the procedures in petrochemical refineries and requires similar monitoring and interventions from operators. The plant also has metalworkers and mechanics who manufacture much of the equipment used at the plant. The counselors would assist all such workers to identify their skills and develop lists of transferable competencies.

2. Educational institutions in the area would appoint committees consisting of assessment specialists and instructors from different occupational areas to review the competencies that the displaced workers identified.

   The committees would determine the kinds of assessment that would be needed to verify the competencies. Verification could involve either written or performance tests. The Vocational Instructional Materials Laboratory of CETE publishes test in 46 occupational areas that could be used for written testing. The committees may recommend the development of performance tests for skills not amenable to paper and pencil testing.

3. Once tests were selected or developed, one or more of the institutions could assume the responsibility for conducting assessments.

Displaced workers who wanted official verification of their skills would be tested, and for all competencies successfully demonstrated, a certification documentation would be provided. The document could be similar to the Career Passport currently developed by high school seniors. These passports list all competencies within an occupational area that the student has acquired and have sleeves that can be used to display resumes, letters of recommendation, and similar employment-related credentials.

Keith Smith, Career Education Coordinator at Pike County JVS, suggested that the management of the Gaseous Diffusion Plant could contribute to the certification/ retraining process in the following way:

1. The human resources department of the plant could develop a competency/skill list for each job description that will be affected by layoffs.

2. SODI would work with representative of training institutions in the area to develop evaluation forms for each displaced worker.

3. These forms would be submitted to the supervisors of the displaced workers who would provide an initial evaluation of each individuals competency level.

4. The competency/skill lists would be compared to generalized competency lists for specific occupations, such as the Ohio Competency Analysis Profiles (available from the Vocational Instructional Materials Laboratory, The Ohio State University). The comparisons would indicate the match between these occupations and the jobs at the Gaseous Diffusion Plant.

5. The evaluations of current competencies and employment possibilities would suggest the content for training courses that would equip displaced workers with the skills needed for specific occupations. The training could be modularized so that trainees would study only those topics needed to fill gaps between current competencies and those needed for employment opportunities.

The proposed skill certification process would be in addition to other transition services provided displaced workers. The Department of Energy has funded a transition office that is already in operation at the plant providing many services to help those affected by downsizing to develop and carry out plans to find new employment.

2. Support current School-to-Work initiatives in the area.

SODI is seeking ways it can encourage a better match between the current/future workforce and worker training and increase employer-based training. One of the best ways it could contribute to both these objectives is by becoming actively involved in School-to-Work (STW) initiatives in the area. STW is an attempt to make education more meaningful and to prepare young people for the transition from education to the workforce. The mission of the Ohio system is as follows:

> The mission of Ohio's school-to-work system is to ensure that every Ohio student graduates from high school and beyond with the knowledge and skills needed in the ever-changing world of work–and is prepared for lifelong learning.

The legislation authorizing STW is written to encourage systemic change through the development of local partnerships of schools, employers, organized labor, community-base organizations, parents, and students. To administer this legislation, Ohio was divided into 12 regions that serve the same counties as the Governor's Economic Development regions. The four SODI counties are located in Region 7, which has had a high level of STW activity. State funding has been used primarily to develop the partnerships in local school districts. In addition, Shawnee State University and Buckeye Hills JVS have been successful in obtaining federal funds targeted to urban and rural areas that have special problems in implementing STW.

The Shawnee State grant has four major components: career exploration, summer fellowships for teachers, professional development and mentoring and internships. The

fellowship program placed teachers in companies for four weeks to observe their operations and find ways to relate traditional academic subject matter to the skills and knowledge needed for the jobs in these companies. The Buckeye Hills grant targets youth living in poverty. It combines staff development for administrators, teachers and counselors; curriculum development and revision, and mentoring and workplace learning experiences to ensure the youth acquire the skills needed for high-skill, high wage occupations.

How SODI could best contribute to STW in Region 7 would have to be determined through discussions with all interested parties. Collaboration with ongoing initiatives appears far more likely to be productive than attempts to start some new approach would be.

3. Publicize the findings of the labor market study in a variety of ways.

The employer survey yielded some results that may come as a surprise to many in the area. For example, most employers do not think of JVSs as sources at which to recruit adult workers. This was surprising to the outside observer who is responsible for this report. He perceived these schools as essential to the area. They provide a wide variety of service to residents who are seeking to enter employment or improve the opportunities open to them. It has also been noted that the managers of workforce development agencies in the area viewed the JVSs quite positively. These managers indicated that the schools provide good training and are responsive to the needs of their clients. The survey found, however, that few employers, about 1 in 8, recruit for adults workers at JVSs. The figure is somewhat higher for high school students, about 1 in 5, but still far below what is desirable.

Why are JVSs not seen as a primary source for recruitment? The survey cannot answer this question. If the results of the survey are publicized, they may open a dialog between the schools and employers that could help to provide answers.

Other results of the survey replicated the frequent finding that it is not poor technical skills that cause people to be terminated, but poor reliability, productivity, and attitude. A representative of one of the JVSs participating in the study said that this finding has been repeated endlessly to students at his school. He thinks that if students heard the same information from employers and parents, the impact would be stronger than his continuing admonitions.

The major findings on the kinds of jobs that were available and the wages they offer, further reinforce the need for coordinated efforts to retain existing high skill, high wage employers and attract more. One of the workforce development managers noted that attempts to recruit such employers confront a dilemma: one of the most attractive features of the area is a plentiful supply of workers willing to work at relatively low wages. A higher prevailing wage rate would make the area less attractive.

These recommendations seem rather inadequate when evaluated in the context of the problems that the SODI area faces. If there were easy solutions, they would have already been implemented and there would be little need for studies such as this. The major asset of the area, in this writer's opinion, is the cooperative attitude among its workforce development professionals. The most productive role SODI can play is to align itself with other economic and workforce development initiatives in the area and coordinate its efforts with theirs.

APPENDIX 1: SURVEY METHODOLOGY

The survey of employers in the four-county Southern Ohio Diversification (SODI) region was conducted to determine current job openings (other than managerial and professional), recruiting practices, training needs, and opinion about how educational institutions in the area could better serve employers. This appendix describes the procedures followed to select the sample and contact the selected respondents.

Sample

The population to be studied was defined as all organizations, public and private, in Jackson, Pike, Ross and Scioto counties with 10 employees or more in the database maintained by American Business Information, Inc., a private company that develops mailing lists. Since all organizations in the database were included, in a strict sense there was no sample. Those contacted were the total population. Of course, not all those contacted responded. Those responding are, therefore, referred to as the sample.

A second survey of manufacturers in Southern Ohio was scheduled to be conducted at the same time as the survey for this project. This survey was being planned by the Institute for Local Government Administration and Rural Development (ILGARD) at Ohio University. The manufacturers survey was also funded by the Ohio Valley Regional Development Commission.

The Commission wanted to avoid duplicate contact with the manufacturers and arranged a meeting to coordinate the two surveys. As a result of that meeting, the SODI survey attempted to delete manufacturers. Instead ILGARD added questions from the SODI survey to the questionnaire it used with manufacturers in the four counties. The responses from18 manufacturers were provided by ILGARD and included in the results presented in this report.

Attempts to coordinate the two surveys were not completely successful. Some manufacturers were included in the SODI survey because different databases were used. Questionnaires were returned by 17 employers classified as manufacturers. In addition, three of the questions in the SODI survey were not included in the ILGARD survey, because ILGARD had used an earlier draft of the SODI questionnaire. The tables that do not include data from the ILGARD survey are noted in the text.

The original list of employers was reviewed by representatives of the five educational institutions cooperating in the study. This review attempted to identify the same employers who were listed at separate addresses and employers where one location did the hiring for other locations. The elimination of these duplications and the manufacturers yielded a final sample of 1,175 to which the first mailing was made.

As noted in the Foreword, David Henderson, Research Associate 2, with the Piketon Research and Extension Center of The Ohio State University, was most helpful to this

survey. He formatted the database and produced the mailing labels, provided a directory of all organizations in the database for use in coding size and Standard Industrial Classification of the returned questionnaires, and provided tallies of these characteristics for the full sample.

Data Collection

The first mailing to the sample was made on June 26, 1998, and the second mailing was made on July 17. On August 5, a meeting was held with representatives of the educational institutions cooperating in the study to instruct them in the procedures for the telephone follow-up. County lists were distributed with a randomly selected sample of employers who had not responded to either mailing and whose mailing envelope had not been returned as undeliverable. Telephone contacts began shortly after this meeting and continued through August. Appendix Table 1 shows the response obtained from the two mailing and the telephone contacts.

About 3 percent of the mailing, 33 envelopes, were returned as undeliverable. Since the full population of organizations with 10 or more employees had been included in the first mailing, it was not possible to select substitutions for the undeliverables. Response rates are caluculated on the original sample minus the envelopes returned as undeliverable.

APPENDIX TABLE 1

RESPONSE TO MAIL SURVEY AND TELEPHONE FOLLOW-UP OF THOSE THAT DID NOT RESPOND BY MAIL

Number Mailed		Returns	Undeliverable	Cumulative Completion	Percent Completed[a]
First	1,175	235	24	235	20.4
Second	916	123	9	358	31.3
Telephone Attempts		Completed Interviews	Refusals, Voice Mail		
	b	81	b	439	38.4

[a]Percentages are based on original sample of 1,175 minus 33 undeliverable envelopes.
[b]Complete records were not kept by all those conducting telephone follow-ups. It is impossible to report the number of telephone interviews attempted but not completed.

Seven of the returned questionnaires were unusable because the companies to which they were sent were out of business, they were volunteer organizationswithout employees, or the respondent said the firm had only independent contractors, not

employees. The number of usable questionnaires was therefore 432 or 37.8 percent of the original mailing of 1,175 minus 33 undeliverable envelopes.

Appendix Table 2 shows the Standard Industrial Classifications (SIC) of all employers in the SODI area and the percentage in each of these categories that returned usable questionnaires.

APPENDIX TABLE 2

STANDARD INDUSTRIAL CLASSIFICATION OF EMPLOYERS WITH 10 EMPLOYEES OR MORE IN THE FOUR-COUNTY SODI AREA AND OF EMPLOYERS WHO RETURNED USABLE RESPONSES

Type of Company	Percent	
	Total	Response
Manufacturing	7.1	3.9
Construction	5.1	3.9
Wood Products/Agriculture	0.9	1.2
Transportation/Communications/Utilities	5.2	6.5
Finance/Insurance/Real Estate	8.8	11.6
Retail/Wholesale Trade	18.3	17.6
Restaurants	14.0	9.7
Health Service	7.9	10.6
Other Services	25.2	24.5
Government, Education, and Corrections	7.4	9.3
No answer, missing data	--	4.3[a]

[a]Includes 16 telephone interviews for which the employer identification numbers were not recorded.

Note: Total percentages are based on a list of 1,284 employers obtained from American Business Information. Response percentages are based on 432 usable questionnaires.

Even though an attempt was made to remove manufacturers from the sample, some were included. Employers in Finance/Insurance/Real Estate and Health Services were the most likely to return questionnaires. Their representation in the response is 3 percentage points higher than in the total population of employers. Resturants were the least likely to return questionnaires. The percentages in the other categories are fairly close in the total and response distributions.

A few who returned questionnaires blacked out the identification numbers that were used to track responses. And one of the telephone interviewers did not put identification numbers on 16 of the questionnaires. These numbers were used to look up the SIC and size of the respondents to add to the returned questionnaire and for those without these numbers this was not possible

Appendix Table 4 presents the size of the employers in the total population and the respondents. If it is assumed the questionnaires for which size could not be determined are probably in the two smallest categories, the two distributions would be almost identical.

APPENDIX TABLE 3

SIZE CATEGORIES OF EMPLOYERS WITH 10 EMPLOYEES OR MORE IN THE FOUR-COUNTY SODI AREA AND OF EMPLOYERS WHO RETURNED USABLE RESPONSES

Number of Employees	Percent	
	Total	Response
10 to 19	47.0	44.9
20 to 49	34.7	29.9
50 to 99	10.1	12.5
100 to 249	6.2	6.2
250 to 499	1.2	1.2
500 to 999	0.2	0.2
1,000 or more	0.7	0.5
No answer, missing data	--	4.6[a]

[a]Includes 16 telephone interviews for which the employer identification numbers were not recorded.

Note: Total percentages are based on a list of 1,284 employers obtained from American Business Information. Response percentages are based on 432 usable questionnaires.

APPENDIX 2

NUMBER OF SPECIFIC JOBS OPENINGS REPORTED

The categories in **bold** type are both the broad grouping of a set of occupations and the code that was used if a more specific code within the grouping was not appropriate. The letters n.e.c. stand for not elsewhere classified.

	Number
Technical and related support (Degree/certificate) (n.e.c)	
Dental hygenist	1
Emergency medical	8
LPN	5
Engineering and science (n.e.c)	8
Drafter	2
Computer programmer	1
Clerical and administrative support (n.e.c)	9
Bank teller	5
Bill, account, case manager/ collector	7
Bookkeeper	1
Customer service representative	8
Information clerks(receptionist, reservation and transportation ticket agent, hotel desk clerk)	8
Mail clerk and messenger (postal clerks)	1
Material recording, scheduling dispatching and distributing	2
Record processing (file clerk, financial records processing)	1
Secretary	2
Instructional/classroom aide	8

	Number
Service Occupations (n.e.c)	5
Cleaning and building service	15
Food preparation (chef, cook, baker)	10
Food preparation (fast food)	20
Food service (food counter waiter/waitress	26
Health service (n.e.c)	8
Dental assistant	1
Medical assistants	3
Nursing aides	18
Physical and corrective therapy aide	1
Personal Service (homemakers, home health aide	9
Protective services (n.e.c)	1
Law enforcement	8
Security guard	1
Agriculture (n.e.c)	
Animal care	2
Gardening, nursery and greenhouse	2
Veterinary assistant	2

	Number
Marketing and Sales (n.e.c)	8
Cashiers	19
Counter clerks	17
Salespersons, retail	10
Precision Production (Skilled) (n.e.c)	
Construction trades (n.e.c)	5
Carpenter	2
Mechanic, installer and repairer (n.e.c)	7
Electrical and electronic	3
Maintenance	3
Heating, refrigeration, air conditioning, ventilation	3
Automotive	6
Production, precision (n.e.c)	3
Metal worker, machinist	1
Woodworker	5

	Number
Operators, fabricators and laborers (n.e.c)	1
Transportation and material moving machines (n.e.c)	9
Bus driver	5
Truck driver	21
Excavating, grader, bulldozer and scraper operator	2
Helpers, laborers and material movers, hand (n.e.c)	16
Freight, stock and material	10
Laborers construction	7
Welder	2

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