INSTITUTE FOR PUBLIC POLICY AND BUSINESS RESEARCH
THE UNIVERSITY OF KANSAS

ADULT BASIC SKILLS AND THE KANSAS WORKFORCE

A Report to

Kansas Inc.
Kansas State Department of Education

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1 | Introduction: The Challenge Facing Kansas

Overview

Over its 130 year history, Kansas has made the education of its youth a top priority. The mission of the Kansas public education system has encompassed two major objectives: 1) preparing college-bound students for post secondary education; and 2) providing non-college youth with a set of very general skills. Over time, non-college youth have become a lower priority for the system and are typically provided with generic skills which are not directed toward the workplace, in contrast to education systems in Germany and Japan. In the past, this system was acceptable to businesses. Assembly-line production techniques were based on less complicated technology and processes, requiring few skills on the part of workers. Also, employers were able to choose from a large pool of applicants and could be assured that at least a few—or the "cream" of the crop—would be suitable. If their skills were inadequate, employees could be replaced or easily trained to do a single task.

Business and education function separately, each carefully avoiding the "domain" of the other. In other words, the two have functioned separately in a sequential training system. The role of education is to provide future employees with general skills which are applicable to any firm or job. The role of business is to take those generically trained employees and give them specific training required to complete a particular task or set of tasks. The drawback to this sequential system is that education provides the skills without input from business, even if the array of skills is too narrow or the level of skills too low to be helpful in the workplace. As a result, education is considered "responsible" for employees who lack adequate basic skills.

But times have changed. Kansas needs to reexamine the relationship between business and education for several reasons:

1. *Rapid changes in technology demand that workers have a greater array of skills.* Basic workplace skills are the key to learning new skills required in today's workplace. If non-college youth lack a comprehensive set of basic skills, employment opportunities will not be available. Traditional production methods did not require the same level of skills that have become necessary in the last decade. The workplace has changed and will continue to become more complex, placing even higher demands on the skills needed by the labor force. Skills that are necessary in today's workplace include: the ability to learn new skills; math, reading, and writing competency; listening and oral communication; creative thinking and problem solving; personal management; working in groups; and organizational effectiveness.

2. *Businesses will have to rely on groups which have customarily had low basic academic skills.* Demographic changes have slowed the growth of the labor force. Employers who have become accustomed to a steady stream of applicants may find it increasingly difficult to fill jobs, especially skilled positions. As a result, employers will have to draw on non-traditional parts of the

labor pool: women and minorities. However, women and minorities often do not have the same levels of education and skills that white males have traditionally had.

3. *Non-college youth must be told that there is life after high school.* For those not going on to college, there are few incentives or clear reasons which encourage young Kansans to complete their education; therefore, there is a slow statewide trend towards an increasing number of dropouts. This problem must be immediately addressed with the message that there is life after high school: the world of work. Young Kansans must be shown the future value of their education. To do this, education must become integrated with business—especially for those not going to college—and it must link workplace skills and traditional curriculum.

Kansas has begun to address the skill needs of its workforce by making training a high priority. The next step is to upgrade the basic skills of Kansans so that they can benefit from training to improve those skills. The ultimate objective of this strategy is to have a highly skilled workforce which is able to meet the demands of competitive industry and business.

Businesses are learning important lessons in their drive to remain competitive in a global economy. A critical ingredient in this process is forming alliances with customers and suppliers. By forming a close relationship with their customers, businesses ensure that their products and services meet the customer's specifications, satisfy their ideas of quality and durability, and continually improve—in terms of cost, options, and quality—over time. Businesses also talk with their suppliers for the same reasons, so that suppliers can provide materials which meet the businesses' expectations and do not have to be returned, discarded, or reworked after delivery.

A similar alliance must be formed between business and education; education is a supplier to business and must talk with its customer so that business can avoid treating its employees as it once treated raw materials: returned (sent back for remedial education), discarded (fired), or reworked (retrained by employer). Education and business in Kansas need to evolve from the sequential training system to a coordinated and integrated business/education partnership. Business will have a role in K-12 to ensure that the array and level of basic academic skills are compatible with the workplace, and in a similar fashion, education will have a role in training adults whose basic academic skills need upgrading.

Kansans without basic skills face a bleak future. Education and business in Kansas must ensure that all adults—both those with and without high school diplomas or GEDs—have the opportunity to get the basic academic skills needed to function in the future workplace and society. We must make this a high priority for our state, and education and business should take the lead by working in partnership. If Kansas is successful in addressing this issue, we will establish a comparative economic advantage for the state and effectively compete with other states and nations.

Does our workforce lack basic skills? Is this a problem in Kansas? *Yes:* Kansas employers report a gap between the skills that newly hired employees have and those needed to perform the job. Skills needed by new employees are basic skills: goal setting and personal motivation; proper attitudes toward work and work habits; listening and communication, problem solving. Kansas employers also report that *current* employees, who probably exited the educational system with adequate skills, need to upgrade their skill levels in basic academic areas (goal setting and personal motivation, work habits, listening and communication, writing, problem solving, etc.).[1]

These results suggest that Kansas needs to focus upon the basic skill needs of three groups: 1) adults without a high school diploma or GED; 2) adults with a high school diploma or GED who need to improve their basic academic skills; and 3) adults who are already in the workplace but lack basic academic skills. Public education already addresses the needs of those without a high school diploma or GED. But neither

education nor business have made basic skills training a high priority for those adults who have a high school diploma or GED, especially those in the workforce today.

This study was undertaken to determine whether or not the state's adult education system is positioned to meet the needs of Kansas' workforce. Keeping this in mind, the major goals of this study were to:

1. Describe the current programs offering adult basic academic skills instruction, including the state's Adult Basic Education system and independent community-based organizations;

2. Propose policy options.

To achieve these goals, six areas of research were undertaken:

1. An analysis of the technological and competitive changes in the world, U.S., and Kansas and their impact on the economic environment and labor supply, and, in turn, the implications for adult education (Chapter 1);

2. A literature review of the issues regarding the concept of literacy and an estimation of the size and scope of the literacy problem (Chapter 2);

3. A broad summary of the Adult Basic Education system in Kansas, comparing it to other states' efforts (Chapter 3);

4. An inventory of adult basic education and literacy programs within the public school system and those available through supportive state and community agencies. This included on-site visits, surveys, and an examination of statistics collected on organizations and agencies in the public sector and in community based organizations that deliver adult education and literacy services (Chapter 4);

5. A survey of large Kansas businesses which assessed workforce deficiencies in basic skill areas and identified what firms were doing to improve basic skills (Chapter 5);

6. An assessment of other states' policies and current business programs targeting literacy and the basic educational needs of their workforce. Information was collected through on-site visits to key states and businesses, and a review of literature describing state policy and programs was conducted (Appendices 1 and 2).

Based upon the results of the research, policy options (Chapter 6) are proposed. These policy options do not attempt to address specific areas of skill shortages or identify the exact number of adults needing basic skills instruction. Rather, the policy options focus upon improvements in the educational system that will enable the state to strategically and proactively address skill shortages in the workforce. The policy options cover the following major areas: adult basic skills instruction, workplace literacy, and K-12 basic skills education.

The basic findings of this report demonstrate that basic skills education must become a key component of the Kansas strategy for economic development. The Kansas workforce must first be proficient in basic skills in order to benefit from advanced training and assume positions beyond entry-level employment. To address this issue, the policy options target the basic skills of the present and future workforce by building partnerships between education and business, increasing the reach of the state's Adult Basic Education system, enhancing the basic skills of high school students, and reducing the state's dropout rate. Kansas faces a clear competitive challenge from other states and nations. The state must respond by addressing the skill needs—especially basic skills—of its workforce.

The Workforce Challenge

Kansas faces a new challenge: the workforce challenge. Kansas has historically made a strong commitment to education, and the result has been a well-educated workforce which has been an economic comparative advantage for the state. The U.S. and Kansas face new challenges which must be addressed through a comprehensive economic development strategy which includes human

capital as a key component. Consider the following:

- Since 1969, U.S. real average weekly earnings have fallen by 12 percent, with the incomes of the top 30 percent of earners increasing from 54 percent of national income in 1967 to 58 percent in 1987. The lower 70 percent have, therefore, dropped from a 46 percent share of national income to 42 percent.
- Even though the United States experienced one of the longest economic expansions in its history in the 1980s, this expansion was largely driven by the fact that more people were working than ever before, producing more goods. Fifty percent of the population is working today, compared with 40 percent in 1973. Workforce growth will decrease significantly in the 1990s, however, and economic growth will no longer come from simply adding more workers.
- Productivity growth in the U.S. has declined rapidly over the last twenty years, with productivity improvements which took place in one year now taking three. In order to maintain (or improve) its standard of living, the U.S. must begin to continually increase productivity rates.[2]

Kansas is also confronted by a difficult situation: Kansans' per capita personal income has been growing at a slower rate than the national average over the past decade (Table 1.1). In 1984, for example, the gap between Kansas' personal income and the national average was $92, but in 1989 it increased to $1,385. When compared to surrounding states, Kansas' position has also eroded. For example, Kansas ranked 2nd in per capita personal income, after Colorado, in 1984. In 1989, however, Kansas dropped to third, following Colorado and Missouri.

The reasons for this relative decline in Kansas' per capita personal income growth are not entirely clear. One possible explanation is that the majority of new jobs created over the past five years have been in lower paying sectors, such as government and services. This may be a reflection of an indirect or direct strategy simply to create new jobs. As the Kansas strategy for economic development continues to evolve, it must begin to consider not only the number of jobs created, but

Table 1.1
Per Capita Personal Income:
U.S., Kansas, and Surrounding States, 1984-1989

	1984	1985	1986	1987	1988	1989p
United States	$13,114	$13,896	$14,597	$15,471	$16,491	$17,567
Colorado	14,094	14,699	15,135	15,678	16,465	17,494
Kansas	**13,022**	**13,812**	**14,482**	**15,085**	**15,736**	**16,182**
Iowa	12,022	12,619	13,290	14,014	14,680	15,524
Missouri	12,494	13,250	13,913	14,630	15,458	16,431
Nebraska	12,323	12,967	13,504	14,123	14,783	15,360
Oklahoma	11,692	12,139	12,286	12,569	13,355	14,151

p-preliminary data.

Source: U.S. Bureau of Economic Analysis, April 1990.

the quality of potential jobs as well. In other words, Kansas should embark on a high wage/high skills strategy which seeks to establish employment opportunities for Kansans in competitive, high growth firms.

A high wage/high skills strategy will pit Kansas against other states and nations who also seek to develop and attract high growth firms. In developing a competitive advantage, the state should employ an economic development strategy with two main thrusts. First, the state should examine its strengths and weaknesses across the seven foundations of economic development—financial capital, technology/innovation, human capital, infrastructure, business environment, commitment/capacity capital, and quality of life—in creating a business environment conducive to attracting, creating, and retaining/expanding firms in high growth areas. The second, and crucial, component of this strategy will be to develop human capital capable of meeting the skill demands of high growth industry. Even though the state has historically had a well-prepared workforce, continual changes in the global and technological environment, workforce, and business environment have had an impact on the level of skills required in the workplace. Traditionally, individuals without a high school diploma—and especially those with low basic skills—could find their place in the workforce in manufacturing or other jobs. Because the workplace has changed, workers who met the skill needs of yesterday's businesses may be out of place in the current work environment.

Kansas' economic development strategy, therefore, should focus on the demand for high skilled labor from high growth firms, as well as supplying skilled labor to meet the demand. A fundamental part of this strategy will be to ensure that all Kansans possess adequate or superior basic academic skills so that they can acquire more specific, complex job-related skills. The end result of this strategy will be a better standard of living for all Kansans and a more stable state economy.

The purpose of this chapter is to outline the changes which have taken place in the world economy, workplace technology, U.S. demographics, and management style. We conclude that Kansans without basic academic skills will face a bleak future in the workplace and society.

Economic and Technological Changes

World Economy

The economy of the State of Kansas does not exist in a vacuum; it is constantly interacting within the national and global economic environments. Economic decisions made by other states or nations have enormous impact upon the state, and in turn, economic decisions made in Kansas also have global effects. As the political and economic structures in both Eastern and Western Europe continue to evolve, global economic interdependence will also increase. Other countries, such as Japan, have highly educated workforces which are capable of working with higher levels of technology and adapting to changes more quickly than American workers.

For example, when comparing the basic skills levels of the U.S. to other nations, the data show that over 85 percent of young people in England and over 90 percent in Japan, Sweden, and West Germany have at least the equivalent of eighth grade skill levels. In the U.S., however, only 80 percent function at this level. Considered further, additional data suggest that although many U.S. students are able to grasp basic mathematics skills, they cannot manage problem solving or other higher-order thinking skills. This skills discrepancy, especially in comparison to the youth in other nations, suggests difficulties for the U.S.'s ability to compete in a global economy.[3]

Preparation and Investment in Workforce

In preparing its workforce, the U.S. invests very little in terms of expectations, skills, and training. When compared to workers in some newly industrializing countries, U.S. workers' educational performance is well below the average, and they are becoming unemployable at their current wage levels.[4] America is not alone in trying to compete with newly industrializing

Table 1.2
Manufacturing Labor Costs
U.S. and Other Countries, 1980-1988

Country	Unit Labor Cost 1980-1987 Cumulative Change	1988 Hourly Compensation (in US$)
Germany	19.7%	$18.07
Sweden	-2.1	16.85
United States	**8.5**	**13.90**
Japan	49.8	13.14
United Kingdom	-14.2	10.56
Taiwan	47.3	2.71
Korea	0.0	2.46

Source: Bureau of Labor Statistics as referenced in Dornbusch et al., *Meeting World Challenges: U.S. Manufacturing in the 1990s*, 1989.

countries: other nations, including Germany, Japan, and Sweden all have high wage rates (Table 1.2),[5] and they also face tight labor markets, tough government labor regulations, and strong unions. However, they have countered these problems and increased productivity by:

1. Setting high academic expectations for all young people. Table 1.3 ranks the math skills of 12th grade students in the top 15 countries, and as the data shows, U.S. students rank 12th or 14th.[6] Table 1.4 compares U.S. and Japanese schooling and shows that the U.S. spends more but requires less of its students;[7]

2. Developing strong school-to-work transition programs;

3. Providing lifelong training/occupational opportunities to front-line workers. Figure 1.1 compares public expenditures on job training, job counseling, and unemployment insurance as a

Table 1.3
Student Achievement Scores in Mathematics:
Top Fifteen Rankings, 12th Grade Students, 1981-1982

Advanced Algebra	Functions/Calculus	Geometry
1. Hong Kong	1. Hong Kong	1. Hong Kong
2. Japan	2. Japan	2. Japan
3. Finland	3. England/Wales	3. England/Wales
4. England/Wales	4. Finland	4. Sweden
5. Flemish Belgium	5. Sweden	5. Finland
6. Israel	6. New Zealand	6. New Zealand
7. Sweden	7. Flemish Belgium	7. Flemish Belgium
8. Ontario	8. Ontario	8. Scotland
9. New Zealand	9. Israel	9. Ontario
10. French Belgium	10. French Belgium	10. French Belgium
11. Scotland	11. Scotland	11. Israel
12. British Columbia	**12. United States**	**12. United States**
13. Hungary	13. Thailand	13. Hungary
14. United States	14. Hungary	14. British Columbia
15. Thailand	15. British Columbia	15. Thailand

Source: Barrett, *The Atlantic Monthly*, November 1989.

percentage of Gross Domestic Product (GDP) for several countries;

4. Valuing the skills of front-line workers;

5. Working in partnership (government, business, and other groups) to create high performance work organizations.

These five characteristics of our international competitors have given them an edge in increasing productivity (Table 1.5). Higher rates of productivity increase standards of living and real wages.

Workplace Technology

Changing Processes

Workplace technology has undergone several dramatic changes in the past few decades and continues to do so at an increasing pace. Thousands of workers once performed simple and repetitive tasks, but in today's automated workplace, workers function in a more sophisticated environment, performing many jobs requiring higher skill levels. In the past, factory jobs did not require a great deal of mental activity, and workers were hired for their ability to manipulate and assemble parts; today, however, most of these movements can be performed by machinery. Therefore, it is not that workers have lost skills but that the traditionally required skills have evolved. In fact, it is estimated that by the year 2000, approximately 5 to 15 million manufacturing jobs will require different skills.[8]

For example, workers have begun to take on new responsibilities which require them to use a wider inventory of skills, including basic skills. Workers must be able to operate, and in some cases maintain, more complex machinery. To do so, they will have to be able to read technically explicit manuals in order to understand how to operate new equipment, read blueprints and information listed on computer screens, and work with new process techniques such as Statistical Process Control (SPC). SPC materials not only require basic skills; some are written to be understood by workers with the skill level of a college freshman.

Rapid Technological Change

The advancement of new technology continues and, according to the Commerce Department, approximately 90 percent of all present scientific knowledge has developed in the last 30 years; this pool of knowledge will probably double again by the end of the century.[9] As an illustration, the rate of technological development is so great that the life cycles for electronics products and processes have already diminished to 3-5 years and will rarely exceed 5-10 years in most industries.[10] One result of this rapid rate of technological advancement is that any given worker's skills can become obsolete within 5-10 years; therefore, it is essential to sustain a continuous effort to re-train the workforce.

The U.S. may not be keeping pace with technological change in the world economy; for example, a study on recent developments in weaving equipment found that the U.S. ranked 6th in equipment innovation, compared to other nations (Table 1.6). Innovations in equipment, as previously discussed, are important to maintain increasing rates of productivity; however, about nine percent of weaving innovations introduced between 1970 and 1984 were by U.S. firms, whereas Japanese innovations represented twice that amount.[11]

Change in Management Styles: The Third Wave in Production

The workplace has undergone massive changes in the last few years, and this evolution can be thought of in terms of a new order of production methods: the third wave. The first wave represented the beginning of the industrial revolution and the mechanization of production processes. In the second wave, Taylorism, or production-line assembly, refined simple mechanization and increased output and efficiency when creating single products. The next and most recent phase, the third wave, marks the death of Taylorism and the birth of new, flexible processes which do not use assembly-line techniques and are driven

Table 1.4
Education Commitment: Japan and the U.S.

	Japan	U.S.
Expenditure on Education, (as a % of GNP)	6.0	7.0
Hours Spent on Homework per Day, High School	2.0	0.5
% of Students Absent	neglig.	9.0
Years of math req. (avg.)	3.0	1.0
Years of Foreign Language, Jr. and Sr. High School	6.0	0-2.0
% Majoring in Tech. Fields	20.0	5.0

Source: Japan Update, Summer 1988, p. 6, as referenced in Dornbusch et al., *Meeting World Challenges: U.S. Manufacturing in the 1990s*, 1989.

Table 1.5
Manufacturing Productivity Growth Per Year: U.S. and Other Nations

	U.S.	Japan	Germany	Canada	UK
1970-79	2.6%	6.0%	3.7%	3.0%	2.2%
1980-87	4.3%	4.8%	2.2%	3.3%	5.6%

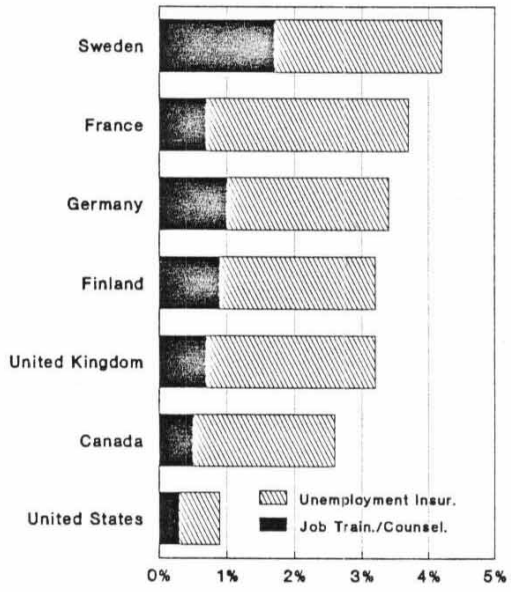
Source: U.S. Bureau of Labor Statistics as referenced in Dornbusch et al., *Meeting World Challenges: U.S. Manufacturing in the 1990s*, 1989.

Table 1.6
Equipment Innovations in Weaving: Ranking by Country, 1970-1984

Rank/Country	Number of Innovations
1. Japan	27
2. Switzerland	21
3. Italy	20
4. West Germany	17
5. Czechoslovakia	14
6. United States	**13**
7. Belgium	11
8. Spain	10
9. France	6
United Kingdom	6
10. Ireland	5

Source: Alok K. Chakrabarti, *Trends in Innovation and Productivity: The Case of Chemical and Textile Industries in the U.S.*, paper presented at the INSEAD conference, July 1987; Science and Engineering Indicators, 1987.

Figure 1.1
Public Expenditure on Labor Force Programs as a Percentage of GDP



Source: Commission on the Skills of the American Workforce, *America's Choice: High Skills or Low Wages!*, Rochester, NY: National Center on Education and the Economy, 1990.

by customer demand for quality products. In this new wave of production management, Total Quality Management (TQM) relies on techniques such as Statistical Process Control, integrating all design and production processes, working more closely with suppliers and customers, and meeting customer demands for useful, well-made products.

The consequences of this new production paradigm require employees to have a greater inventory and array of skills, including basic academic skills, as increasing international competition, changes in technology, international competition, and demographic shifts influence the workplace. These new skills are necessary because the workplace itself has changed, evolving into a more complex and dynamic environment.

The Traditional Production Paradigm

Technical changes have led to changes in production techniques, management styles and expectations, and employees' duties. Traditionally, management has focused its attention more on workplace equipment and processes than on human capital. As the manufacturing environment has evolved in the last thirty years, it has marked the death of the mass-production paradigm which was developed during the early part of this century. In the traditional mass production facility, long production runs of a single product were the norm. Employees were placed within distinct "stages" of the production run, completing a single task, such as tightening a particular bolt, over and over. Workers did not have to possess many skills, other than the ability to understand and complete the particular task, and management closely supervised employees to ensure that they were doing their job. Other than having a "good work ethic" and the ability to show up for work on time, workers had few responsibilities.

This production model was successful for many decades. Nevertheless, it began to break down, becoming less efficient as products and processes became more complex. Use of more advanced technologies and processes, coupled with consumer demand for higher quality products, strained the traditional method of production. In other words, the increase in production requirements, through higher levels of technology and a demand for quality means that more information, parts, and products are involved, breaking down the efficiency of traditional methods.

A New Production Paradigm

The breakdown of traditional methods forced the shape and nature of the workplace to change. The manager in today's workplace typically approaches his/her job in a much different fashion. One of the most crucial changes is found in the relationships between worker and supervisor. Today's emphasis is placed upon giving workers increased levels of responsibility and the authority to make many decisions relating to their jobs—decisions that once were in the exclusive domain of management. These new duties require that workers be able to reason, follow oral and written instructions, and articulate their thoughts to coworkers.

Additionally, increased interdependence between jobs due to advancements in production technology has caused workers to familiarize themselves with more than one task. Obviously, this requires the ability to understand greater amounts of varied information. Advances in technology have also brought about increased expectations for the production of high quality products, and workers must now possess skills in order to utilize quality control techniques, such as Statistical Process Control (SPC), which requires workers to use higher levels of mathematical, analytical, and reading skills than have traditionally been necessary. Other techniques, such as quality circles, require small groups of workers to meet and discuss quality problems in their areas and make recommendations as to how the problems could be solved. Such techniques not only require mathematical, analytical, and reading skills, but problem solving and interpersonal skills as well.

Changes in management style and expectations are necessary for the U.S. to compete in the world

Table 1.7
Kansas Total Employment, 1950-2000

Year	Labor Force (thousands)	% Gain From Previous Period
1950	724	--
1960	828	14
1970	885	7
1980	1,131	28
1990	1,338	18
2000	1,470	10

Source: Historical Data from Kansas Department of Human Resources, Research and Analysis Section. Projections from U.S. Department of Labor, Bureau of Economic Analysis Regional Projections.

economy. As many of these techniques are already in place and functioning effectively in foreign countries, it is essential that American businesses continue to improve workplace functions and processes. However, it is also necessary for workers to be proficient in all basic skills and several higher-level skills; consequently, the education of the American workforce in these areas is critical.

Workforce Changes

Demographics: Changes in Labor Supply

The labor supply in the U.S. and Kansas is also undergoing several major changes. First, as a result of a decline in new entrants into the workforce, the growth rate of the labor supply will slow for Kansas (Table 1.7). New entrants into Kansas' workforce (those between ages 15-24) peaked in 1980 when they represented 19 percent of the Kansas population; however, this group will decline to below 14 percent of the Kansas population by the year 2000 (Table 1.8). Similar trends will be seen in the U.S. workforce.

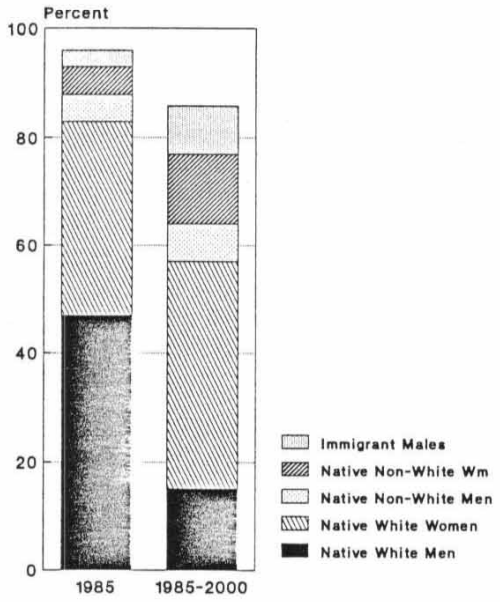
A dramatic change in the composition of the workforce will accompany the decreasing growth rate. Traditionally, the composition of the workforce has been dominated by white males (Figure 1.2). In 1985, native white males accounted for 47 percent of the labor force, but only 15 percent of new entrants to the labor force between 1985-2000 will be native white males: the entering workforce will be dominated by women, native minorities, and immigrants. According to Arnold Packer, co-author of *Workforce 2000*, between 1986-2000, "55 percent of the net addition to the labor force (new hires minus retirees) will be Blacks, Hispanics, Asians, and other minorities.[12]" Additionally, 64 percent of new entrants to the

Table 1.8
Age Group as a Percent of the Kansas Population, 1960-2020

Age Group	1960	1970	1980	1990	2000	2010	2020
15-24	13.31	18.06	19.06	13.62	14.53	13.99	12.33
25-44	24.99	22.30	26.41	32.24	29.29	25.89	26.83
45-54	10.88	11.00	9.79	9.66	13.75	15.50	11.47
55-64	8.93	9.42	9.56	8.28	8.45	12.25	14.11
65 and over	11.03	11.85	12.96	12.95	12.69	13.01	16.77
Total (thousands)	2,179	2,247	2,364	2,497	2,601	2,699	2,780

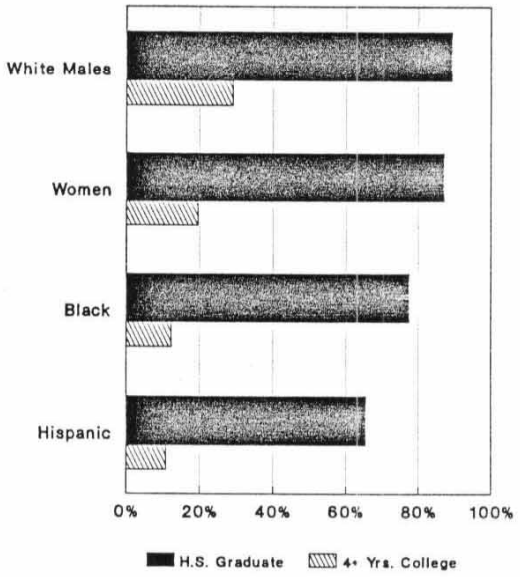
Source: U.S. Bureau of the Census, and IPPBR Population Projections for 1990-2020.

Figure 1.2
U.S. Labor Force Entrants, 1985-2000



Source: William B. Johnson and Arnold E. Packer, *Workforce 2000: Work and Workers for the Twenty-first Century,* Indianapolis, IN: Hudson Institute, 1987.

Figure 1.3
Education Rates for
Kansans Aged 25-44 Years



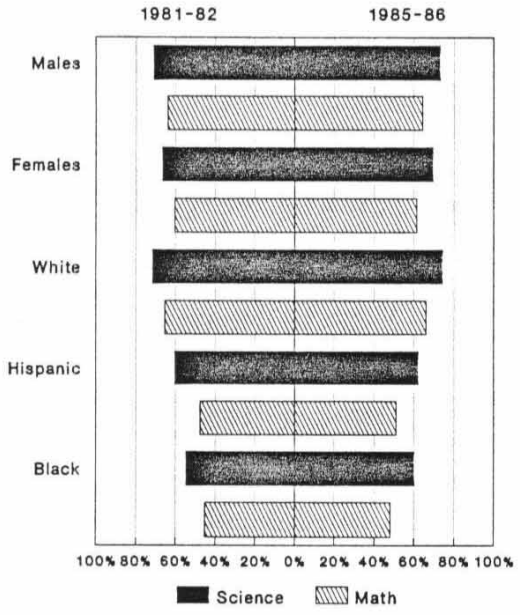
Source: U.S. Bureau of the Census, *Census of Population 1980.* Vol. 1, Chap. C, Part 18 (PC80-1-C-18).

labor force between 1985 and 2000 will be women. Finally, immigrants will account for 22 percent of new entrants to the labor force. By the year 2000 these three groups—native minorities, women, and immigrants—will account for 85 percent of the U.S. labor force, compared to 53 percent in 1985.

Implications of Changes in Labor Supply Patterns

Business will have to adjust to the changes in labor supply patterns for two reasons. First, there will be a smaller pool of labor, in absolute terms, to choose from. Therefore, employers who were once able to pick the best potential employee(s) from a relatively large pool of applicants may have to settle for the less skilled ones from a shrinking pool. Those employees lacking basic academic skills, in turn, may require increased company investment in training; otherwise, the other option for firms is to employ more technology in place of employees. Second, for organizations that have traditionally and predominantly hired white males, the years ahead will require major adjustments, as the groups that will dominate the workforce in the coming years are those that have traditionally not fared as well in acquiring education and basic skills. According to 1980 census data (Figure 1.3), 88.1 percent of white Kansas males, ages 25-44, graduated from high school. High school graduation rates for Kansas women, Blacks, and Hispanics for the

Figure 1.4
U.S. Science and Math Scores by Gender and Race, 1981-82 and 1985-86 School Years



Source: National Science Board, *Science and Engineering Indicators, 1987,* Washington, D.C.: U.S. Government Printing Office, 1988.

same age group are 87.2 percent, 77.5 percent, and 65 percent, respectively. Even more disturbing are the figures for those who have completed four or more years of college. Of white Kansas men, ages 25-44, 29.06 percent have completed four or more years of college. When compared to Kansas women, Blacks, and Hispanics, the rates are 19.5 percent, 12.2 percent, and 10.8 percent, respectively. These data also reiterate that in the years ahead employers will have a less educated pool of applicants to draw from.

Another example of the skills gap between gender and race can be found in the results of achievement tests of 12th grade students in the areas of mathematics and science. Figure 1.4 compares the test results for 1981-1982 and 1985-1986 for five sample groups: males, females, whites, Blacks, and Hispanics. Males and whites perform better in both areas than women, Blacks, and Hispanics. Hispanics also perform significantly better than Blacks in both areas. When comparing the test scores from 1981-1982 and 1985-1986, the data also show that scores are improving for minorities; however, these results signal that the backbone of tomorrow's workforce—women and other minorities—are not as prepared for the workplace as the traditional source of labor—white males—has been.

Changes in Labor Demand

Current jobs in the U.S. can be broken into three skill level areas:

1. *Manual Labor*—requires only eighth grade level math and communication skills and includes jobs such as janitorial work, taking care of sick and elderly, food preparation, etc. Thirty-four percent of all workers are employed in jobs which require less than a high school education.

2. *Traditional Skilled Workers*—require a significant amount of training beyond a basic education and include auto mechanics, secretaries, fire-fighters, plumbers, electricians, etc. Thirty-six percent of all workers are employed in jobs which do not require a four-year college degree.

3. *Advanced/Managerial Skills*—require a four-year college degree and include managers, financial analysts, doctors, etc. Thirty percent of all workers are employed in these types of jobs.[13]

While the majority of today's workforce is employed in medium to low skilled areas, future jobs will demand more, better skilled employees. New technology, adopted at increasing rates, and changes in the nature of the workplace are increasing the level of basic skills required of workers; consequently, increased education levels will be required of future workers. According to the U.S. Bureau of Labor Statistics, more than half of all new jobs created between 1984-2000 will require some education beyond high school,

Table 1.9
Required Education for Current and New Jobs

Category	Current Jobs	New Jobs
8 years or less	6%	4%
1-3 yrs. high school	12%	10%
4 yrs. high school	40%	35%
1-3 yrs. college	20%	22%
4 or more yrs. college	22%	30%
Total	100%	100%
Median yrs. of school	12.8	13.5

Source: U.S. Bureau of Labor Statistics, Hudson Institute.

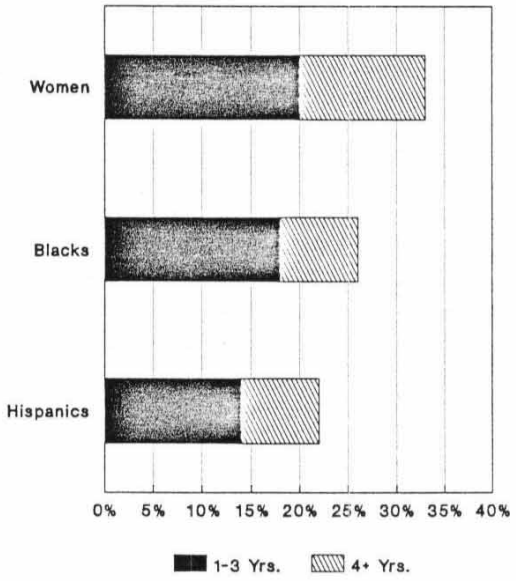
and almost a third will require a college degree (Table 1.9).

Currently, job growth is highest in skilled occupations, such as technical, professional, sales, service, and managerial, and lowest in fields that have traditionally required modest education levels. In fact, jobs that have traditionally required very few or no skills are disappearing rapidly; therefore, the skill levels required for future jobs overall—between now and the end of the century—will rapidly increase. Most new jobs will require higher levels of basic skills and increased education.

The Skills Gap

The changes in labor supply and demand are significant when viewed separately, but when examined together, there appears to be a growing gap between business needs and the number of entry workers available. According to one study, two-thirds of employers surveyed assessed entry-level applicants as being insufficiently prepared in basic skill areas, and almost all survey respondents agreed that the competencies of their entry level workers were deficient.[14] This gap is often referred to as the "skills gap," and it is estimated

Figure 1.5
Education Levels Beyond High School for Women and Minorities in Kansas



Source: U.S. Bureau of the Census, *Census of Population 1980.* Vol. 1, Chap. C, Part 18 (PC80-1-C-18).

that it costs the business community between $25 and $30 billion annually, in terms of low productivity, poor product quality, absenteeism, workplace accidents, and lost managerial and supervisory time.[15] This amount does not include funds spent on training programs to close the gap.

As more education and skills are required of workers, the vast majority of new workers entering the labor force come from demographic groups that have traditionally received the least amount of education. For example, as noted earlier, over half of all new jobs created between 1984 and 2000 will require some education beyond high school, and almost a third will require a college degree. In fact, future job qualifications will probably exceed the qualifications of

the labor pool. Job projections for the year 2000 indicate that future jobs will require a workforce whose median level of education is 13.5 years;[16] however, only 33 percent, 26 percent, and 22 percent of Kansas women, Blacks, and Hispanics over the age of 20 have completed one or more years of education beyond high school (Figure 1.5). If competent labor is going to fill tomorrow's jobs, it is necessary to increase the educational attainment and basic skill proficiency of these groups.

To some, the obvious solution to this problem is to make improvements in the public school system. While this is important, it will not solve the skills gap problem that we will face during the next several years. Seventy-five percent of the people that will be in the American workforce in the year 2000 are adults who have exited the school system, and most are already in the workforce;[17] therefore, if Kansas is to have a skilled and qualified future labor force, educational efforts must be directed to these individuals through the adult education system.

Summary

In summary, global, national and state-wide changes have taken place which have a significant impact on the Kansas economy:

1. Global competitiveness, coupled with increasingly advanced technology, demands that workforce skills become more complex.

2. Changes in technology and customer demands for quality have created a new production environment. The third wave represents more flexible production processes which require workers to be able to read, write, solve computations, communicate, solve problems, and adapt to change.

3. Demographic data suggest that a shift in the labor pool is taking place, and groups which are traditionally less educated—women, Blacks, and Hispanics—will be the backbone of the future labor supply. Because 75 percent of this pool has already left the education system (and most are already working), the problem goes beyond restructuring the education system for tomorrow's labor force.

Kansas faces an important strategic decision. Can it ignore the economic and technological changes which have taken place—and will continue—or will it proactively assist business in meeting these changes? Phrased differently, should the state ignore the skill needs of our workforce, and continue to rely on a low-skilled labor pool? If so, the result will be low wages, and Kansas will be then competing with developing nations, such as Mexico, in attracting businesses which require workers with few skills. This scenario is not realistic, as developing nations would always have the upper hand: their labor force will work for much lower wages than Kansans. Even if Kansas could compete with developing nations, our standard of living, tax base, and public services would deteriorate substantially.

Kansas' objective should be a high wage/high skills strategy which focuses not only on the creation of jobs, in overall numbers, but the creation of high quality jobs in high performance businesses. Kansas will not be able to compete successfully in global markets unless its workers have basic academic skills comparable to those in other countries. Kansans must possess reading, math, communication, and problem solving skills which match or exceed those of the German, Japanese, or British workforces. In order to embark on this strategy, Kansas must address the skills of its current and future workforce. □

NOTES

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10. U.S. Departments of Labor, Education, and Commerce, p. 10.

11. National Science Board, *Science and Engineering Indicators, 1987*, Washington D.C.: U.S. Government Printing Office, 1988.

12. "Four by Four; How Can Businesses Fight Workplace Illiteracy?" *Training and Development Journal*, January 1989, p. 22.

13. Commission on the Skills of the American Workforce, p. 27.

14. U.S. Departments of Labor, Education, and Commerce, p. 13.

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2 | Background: Adult Basic Skills

Introduction

Adult basic academic skills are receiving more attention as the U.S. contends with new economic competitors and their better skilled workforces. In fact, two-thirds of U.S. employers state that the current pool of entry-level applicants is insufficiently prepared in academic skills.[1]

The U.S. is also beginning to realize that other social problems—and their tremendous costs—may be related to low basic skills. Among 19-23 year olds, for example, 68 percent of those arrested, 72 percent of the unemployed, 79 percent of welfare dependents, 85 percent of unwed mothers, and 85 percent of dropouts have low basic skills.[2]

It is difficult to assess the basic skills abilities of the Kansas population because there are no definitive measures, partially due to the fact that the terminology used to describe the array of skills needed by adults is not absolute. The term literate, for example, refers to "having the ability to read and write."[3] The notion of literacy is not constant; as changes in technology increase the complexity of the workplace and society, the standards of basic skills must also increase. The result has been the terms "functional literacy," basic academic skills, and basic workplace skills. These terms generally refer to the set of basic skills necessary to function in today's complex workplace and society. Basic workplace skills, for example, include those skills necessary to perform certain tasks, such as reading instruction manuals, communicating with others, utilizing problem solving techniques, or measuring materials.

The purpose of this chapter is to describe the evolution of the concept of literacy and to estimate the number of adults who lack basic academic skills. Then, the cost of inadequate basic skills to the individual, society, and business will be considered. This analysis reaches several conclusions:

1. Of the various measures of adult basic skills, Kansas generally does better than other states;

2. However, a problem exists in Kansas, and schools must continually revise their standards—in partnership with the business community—to ensure that students have the necessary basic skills competencies to function in the workplace and society;

3. Further analysis of this problem is necessary, and education and business need to work together in assessing the skills of the Kansas workforce; and

4. Above all, the state must take action immediately to correct deficiencies in basic skills preparation of future adults, and to address the needs of adults who need additional instruction today.

Evolution of Basic Skills Terminology and Measures

Traditional Definition of Literacy

Over the last eighty years, the definition of literacy has attempted to address two questions: 1) *how* to determine the extent of illiteracy; and

2) *who* should be counted as an adult (persons age 14, 16, or 18 years old and older?).[4] Early approaches seemed straightforward and logical. For example, the early U.S. censuses simply asked adults whether they could read or write. The difficulty in assessing literacy skills is that there is no consensus on who should determine the skills or tasks that make adults "literate" and how performance should be measured: in terms of 1) test scores; or 2) ability to perform literacy tasks in real world settings. Then, after the results are determined, what is considered acceptable?[5]

Literacy has traditionally been treated as a fixed inventory of skills, such as reading and writing, that can be defined and measured by a single test. The results of literacy tests were represented by a fixed point that lies along a single continuum. Along this continuum were scores indicating the various amounts of the trait or ability that the individual possessed, and if the test scores fell below one of those points, people were classified as "illiterate." Such test results are seen as being universally applicable to a wide range of contexts.[6] However, it has been difficult to establish accurate, universal, lasting literacy measures because there is no specific point on a scale that separates the "literate" from the "illiterate."

The concern for adult literacy has been driven by several events in this century: 1) immigration in the early 1900s; 2) mobilization of labor during world wars; 3) civil rights changes in the 1960s; and 4) increased international competition in the 1970s and 1980s. While these social events were instrumental in seizing the attention of policymakers and educators, their responses focused on creating short-term solutions, rather than a long-term strategy.[7]

Functional Literacy

Concurrent with the societal changes taking place in the U.S., several literacy indices were created: reading grade-level scores, years of education completed, and tests of "functional literacy."[8] Implicit in all of those measures, however, was the understanding that "literacy" referred *only* to reading and writing abilities.[9] The term "functional illiteracy" became prevalent after World War II and was first used to refer to individuals who were unable to understand written instructions necessary to accomplish specific tasks. During WWII the U.S. Army utilized various tests to determine whether or not trainees needed additional education to understand military instructions; therefore, the traditional concepts of literacy were not usable in this context.[10] This period marked the starting point of a shift away from simply determining the number of illiterates ("how many") to trying to ascertain the various types and levels of literacy. It was no longer possible to characterize individuals as simply "literate" or "illiterate."[11]

Definitions of functional literacy depend on the requirements or specific skills thought necessary to comprehend a task. As technological and information needs of society have become complex over time, so too have the requirements of functional literacy, in terms of the clusters of necessary skills and their definitions.[12] One example of a standard of functional literacy was established by the National Assessment of Educational Progress (NAEP). In 1985, the NAEP examined the literacy skills of young adults, using a wide variety of tasks in order to simulate work-related, community, school-related, and home tasks which require literacy proficiency. The NAEP also convened a panel of experts who assisted in setting the framework for the assessment, as well as creating the following definition of literacy:[13]

> *Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential.*

Additionally, the NAEP characterized literacy skills in terms of three important aspects:

1. *Prose literacy*—knowledge and skills needed to understand and utilize information from texts, including newspapers and books.

2. *Document literacy*—knowledge and skills needed to locate and utilize information in job applications, bus schedules, maps, tables, etc.

3. *Quantitative literacy*—the knowledge and skills needed to apply arithmetic operations, either alone or sequentially, that are embedded in printed materials, including balancing a checkbook, figuring a tip, completing an order form, or figuring interest.[14]

Therefore, the NAEP definition and literacy parameters are distinct from traditional definitions in that they: a) reject an arbitrary standard of literacy, such as years of school completed; and b) imply a set of complex information-processing skills that include reading, writing, and arithmetic abilities.[15]

Basic Workplace Skills

The traditional definitions of literacy are not adequate in defining the skills requirements of today's workplace. On the surface, it may appear that employers' needs are easy to fill: a good supply of workers who are able to read, write, and do simple math. Beyond those three qualifications, it is assumed that the employer can train his/her employees. But it is not that simple—employers want and need better employee skills in order to adopt competitive strategies. Seven skill groups have been identified as necessary to functioning effectively in the workplace:

1. *The Foundation: Learning to Learn.* This refers to the ability to acquire and understand new information and skills. Learning is an important part of today's business environment, even for routine jobs.[16]

2. *Competence: Reading, Writing, and Computation.* Because today's workplace requires employees to interact with sophisticated equipment, processes, and each other, it is essential that they have the basic tools to accomplish these tasks. *Reading* tasks require the worker to be analytical, to summarize information, and to monitor one's own comprehension of the task at hand.[17] *Writing* focuses on descriptive work (such as describing processes) or articulation of facts and events. This means that employees must be able to analyze, conceptualize, synthesize, and distill information succinctly. *Mathematical* tasks utilize fundamental concepts like addition and subtraction, as well as higher order operations, such as geometry and trigonometry. In the context of mathematical proficiency, workers must be able to identify problems and use reasoning in their tasks. These skills are important because workers spend at least one and one-half to two hours per day reading forms such as charts, graphs, and manuals. Writing is used to communicate with others in the firm, and math skills are essential in calculating inventories, measures of quality, and various specifications.

3. *Communication: Listening and Oral Communication.* Although workers spend much of their workday communicating with others, our schools do not offer much instruction in this area. Understanding proper *oral communication* techniques is important in order to communicate effectively, using proper body language and inflection.[18] *Listening* skills include listening for content, listening to conversations, listening for long-term contexts, listening for emotional meaning, and listening to follow directions. Lack of effective communications skills results in lost productivity and increased employee errors.

4. *Adaptability: Creative Thinking and Problem Solving.* Traditionally, workers did not have to make many decisions on the production line. However, *problem solving* skills are necessary in order to recognize and identify problems, create and implement solutions, and evaluate and monitor results. Because various groups must work together in designing new products, processes, and services, it is important that problem solving take place on an individual and group level. *Creative thinking* allows employees to expand their thinking processes beyond traditional, self-imposed boundaries, in order to escape from logical and sequential thought patterns. Creative solutions are instrumental in moving the organization toward its strategic goals.[19]

5. *Personal Management: Self Esteem, Goal Setting/Motivation, and Personal/Career Development.* The effectiveness of individuals depends on their ability to take pride in their work and meet personal goals. Fostering *self-esteem* means helping employees to recognize their current abilities; to be aware of their impact upon others; to understand their abilities to cope with stress, change, and criticism; and to expand their own limits by seeking new information. *Motivation/goal setting* focuses on an individual's awareness of his/her ability to set and meet defined objectives while recognizing successes in processes. *Personal and career development* is based on the first two areas and increases employees' value to the firm.[20] While these skills have traditionally been viewed as the sole responsibility of the individual, employers have found that it is necessary to go beyond occupational-related training in assisting their employees.

6. *Group Effectiveness: Interpersonal Skills, Negotiation, and Teamwork.* Because of the increase in the use of teams in the workplace, strategies to improve an individual's ability to work with others are essential. *Interpersonal skills* center on recognizing and improving the ability to judge and balance appropriate behavior, cope with stress, deal with uncertainty, inspire confidence in others, share responsibility, and interact effectively with others. *Negotiation* is necessary in order to resolve conflicts by separating people from the problem, focusing on interests, inventing "win/win" situations, and utilizing objective criteria. Both of these points are the essence of good *teamwork.*[21] Group efforts, through teamwork, are utilized to accomplish vital tasks and goals. Learning to deal with individual cultures, approaches, and personalities is an important part of teamwork development. The objective of group effectiveness is to build skills and attitudes which can be applied in the workplace to resolve problems and foster innovation.

7. *Influence: Organizational Effectiveness and Leadership.* Employees must understand how their actions impact the mission and strategic objective of the firm. Instead of interfering with the firm's strategy, employees should be able to further it through being problem-solving, innovative, and team building. *Organizational effectiveness* refers to understanding the concepts behind an organization and synthesizing an individual's goals, values, and culture within the organization. *Leadership* is the ability to influence the behavior of others in order to build on the vision or tasks of the organization.[22] Workers must be able to work within the boundaries of the organization, assume responsibility, and work with others in furthering the growth of the firm.[23]

How Many Lack Basic Skills?

Various Measures of Illiteracy

Because there are many different measures and definitions of "literacy," it is not surprising that we do not have a clear understanding of the number of illiterate adults in the U.S. As a surrogate measure for basic workplace skills, other measures are used in the U.S. as proficiency estimates:

1. *Census data.* 1980 Census results estimated that the U.S. illiteracy rate was approximately 0.5 percent, representing approximately 1 million adults, aged 14 and older.[24] This rate was based on surveys which asked all persons, age 14 and older, who had less than a sixth grade education, whether or not they were: a) unable to read and write English at all, or b) unable to read and write a language, other than English, which they spoke at home.[25]

2. *Grade levels.* Traditional literacy definitions were based on grade level completed. Employers generally agree that entry-level workers should read at least at the eighth grade level, but many also stress that because of the increased complexity of instruction manuals and equipment that workers operate and maintain, workers are now required to have at least an eleventh or twelfth grade reading level.[26] There are 11 million Americans, age 25 years and older (U.S. Bureau of Census, 1985) who have had less than eight

Table 2.1
Estimated Level of Education:
U.S. Youth Aged 16-24, 1988

Education	Number	Percent
College Graduate	5,900,000	18%
Some College (1-3 yrs)	9,900,000	30%
High School Graduate, with competency	7,800,000	24%
High School Graduate, lacking competency	3,800,000	12%
High School Dropout	5,500,000	17%
Total	32,900,000	100%

Source: U.S. General Accounting Office, *Training Strategies: Preparing Noncollege Youth for Employment in the U.S. and Foreign Countries*, May 1990.

years of school. An estimated 38 million Americans (U.S. Bureau of Census, 1985) fit the category of having completed at least three years of high school.[27] The use of grade levels in determining literacy is flawed for one simple reason: the number of grades completed does not necessarily equal the actual level of skills of individual adults.[28] As shown in Table 2.1, approximately 12 percent of high school graduates age 16-24 lack basic skill competencies.

3. *English Language Proficiency Survey (ELPS).* ELPS was a national sample of adults (1982) which asked questions related to English comprehension. For adults age 20 and up, ELPS determined that 13 percent (or 17 to 20 million) are illiterate.[29] Of those classified as illiterate, it was estimated that one-third were born abroad and spoke a non-English language at home and one-third were age 60 and over. Seventy percent of the native English speakers had dropped out of high school.[30]

4. *National Adult Performance Level (APL).* APL was a federally funded literacy study carried out during the mid-1970s, which determined that approximately 20 percent of adults (23 million people) over 18 years of age (1980 Census) did not meet the requirements of functional literacy.[31] One drawback to using APL figures is that a majority of adults were classified by APL as less than competent although they could read, write, and perform simple calculations.[32]

Estimation of Kansans' Basic Skills Proficiencies

It is difficult to determine the number of Kansans who lack basic skills because no survey or study has examined the skills of the Kansas workforce.[33]

In the absence of such data, other measures can be utilized:

1. *Grade levels.* School completion data are used to estimate literacy because some tests have shown a correlation between school completion level and literacy levels. However, experts agree that school completion levels may *underestimate* the ability or skills of the workforce because schools have used age-based, as opposed to achievement-based, student promotion policies. Nevertheless, both the U.S. military and U.S. businesses agree that eight to nine years of education are necessary for an individual to be classified as "literate." If this measure were to be used as an estimate of illiteracy, then in 1980 approximately 15 percent of the Kansas population 25 years of age and older and not currently enrolled in school (or 203,355 Kansans) were illiterate (Table 2.2).[34] Furthermore, if most jobs require at least 12 years of school, then over 25 percent of the state's population (or 370,235 Kansans) 25 years and older were not "work ready" by today's standards. So by traditional measures of literacy, one in four Kansans does not have the basic academic skills necessary to function productively and effectively in today's workplace.

In order to better understand how well the education levels of Kansans meet the requirements of the workplace, the education levels in 1980 outlined in Table 2.2 are compared to the education requirements of new jobs (Table 1.9):

Table 2.2
Grades Completed:
Kansans Aged 25 Years and Older, 1980

Years of School Completed	Number of Kansans	Percent of Total
Elementary		
0-4	18,553	1.3%
5-8	184,802	13.3%
High School		
1 to 3 yrs.	166,880	12.0%
4 yrs.	543,823	39.2%
College		
1 to 3 yrs.	237,617	17.1%
4 or more	236,427	17.0%
Total	1,388,102	100%

Source: U.S. Bureau of the Census, 1980, *Census of Population*, PC80-1-C-18.

- 30 percent of new jobs created between 1987 and 2000 will require a minimum of 4 years of college. In 1980 only 17 percent of Kansans had 4 or more years of college.
- 22 percent of new jobs will require some college training, but only 17.1 percent of Kansans had 1 to 3 years of college.
- 35 percent of new jobs will require only a high school diploma, but 39.2 percent of Kansans—the majority of the workforce—completed only high school. This is not good news for the state.
- Only 10 percent of new jobs will accept one to three years of high school, but 12 percent of Kansans fell into this category.
- Four percent of new jobs will accept employees with only an elementary education, but 13 percent of Kansans were in this category.

As mentioned above, grade level completed is a questionable method of determining the skill level, yet by this criterion Kansans may lack the skills that are needed by business. In particular, the bulk of the workforce has attained educational levels at or below high school level; however, the majority of new jobs created will demand higher levels of education. Other indicators, such as employer estimates of employee skill deficiencies (see Chapter 5), indicate a substantial need for adult basic skill training in Kansas.

2. *English Language Proficiency Survey.* Table 2.3 presents the results from ELPS regarding estimated illiteracy rates for all 50 states. Overall, Kansas has an estimated illiteracy rate of 9 percent, ranking it ninth nationally. When compared to its neighbors, Kansas is tied for second place with Nebraska. Colorado had the lowest rate (8%) among states surrounding Kansas, and Missouri had the highest (12%).

Dropouts in Kansas

One portion of the population lacking basic skills consists of those who dropped out of high school and have not returned to school or completed their GED. Although there are difficulties in linking years of school to skills acquired, most employers agree that current entry-level jobs require at least a high school education. For those students who drop out of high school, then, their ability to obtain and maintain employment may be difficult.

Overall, Kansas appears to be doing very well in maintaining a low dropout rate: the 1989-90 school year average rate equalled 4.2 percent. The two districts with the highest rates were Chase County (20.8%) and Coffeyville (11.3%). In defining dropouts, the Kansas Department of Education includes any "pupil who leaves school for any reason, except death, before graduation or completion of a program of studies and without transferring to another school." This means that any students who drop out more than once are counted each time they drop out.[35]

Table 2.4 shows dropouts by year across grade levels 9-12. The state average has increased over the 1985-1990 period from 4.02 percent to

Table 2.3
English Language Proficiency Survey: Estimated Illiteracy Rates for the 50 States

State	Illiteracy Rate (%)	Rank	State	Illiteracy Rate (%)	Rank
Alabama	13	31	Montana	8	3
Alaska	7	2	Nebraska	9	9
Arizona	12	25	Nevada	9	9
Arkansas	15	40	New Hampshire	9	9
California	14	33	New Jersey	14	33
Colorado	8	3	New Mexico	14	33
Connecticut	12	25	New York	16	47
Delaware	11	17	North Carolina	14	33
Dist. of Columbia	16	47	North Dakota	12	25
Florida	15	40	Ohio	11	17
Georgia	14	33	Oklahoma	11	17
Hawaii	15	40	Oregon	8	3
Idaho	8	3	Pennsylvania	12	25
Illinois	14	33	Rhode Island	15	40
Indiana	11	17	South Carolina	15	40
Iowa	10	14	South Dakota	11	17
Kansas	9	9	Tennessee	15	40
Kentucky	15	40	Texas	16	47
Louisiana	16	47	Utah	6	1
Maine	11	17	Vermont	10	14
Maryland	12	25	Virginia	13	31
Massachusetts	11	17	Washington	8	3
Michigan	11	17	West Virginia	14	33
Minnesota	9	9	Wisconsin	10	14
Mississippi	16	47	Wyoming	7	2
Missouri	12	25			

Source: English Language Proficiency Survey, 1982.

4.2 percent, and the five year rate (1985-1990) equalled 4.15 percent. Table 2.5 provides more information, showing statistics for dropouts, headcount, and dropout rate by grade and by year. Total dropout rates, when calculated on a yearly basis, range from 2.18 percent to 5.90 percent. As shown in Figure 2.1, the majority of those who drop out are male and white, but minorities represent a disproportionate percentage of dropouts.

While Kansas dropout rates appear to be low, the overall trends for the five-year period may signal the beginning of a growing problem. For example, headcount, or number enrolled, for grades 9 through 12 has been declining steadily (Figure 2.2), while the number of dropouts has generally been increasing over the same period (Figure 2.3). In 1985-86, the number of dropouts was 4,926, and in 1989-90 the number totaled 4,795, for a decrease of 2.66 percent. Headcount

Table 2.4
Kansas High School Dropouts, 1985-1990

	1985-86	1986-87	1987-88	1988-89	1989-90	Total Rate 1985-90
Grade 9	2.18%	2.38%	2.50%	2.36%	2.49%	2.38%
Grade 10	4.26%	4.2%	4.79%	4.93%	4.64%	4.55%
Grade 11	5.15%	4.87%	5.27%	5.90%	5.58%	5.35%
Grade 12	4.71%	3.99%	4.47%	4.75%	4.20%	4.43%
Total	4.02%	3.85%	4.26%	4.47%	4.20%	4.15%

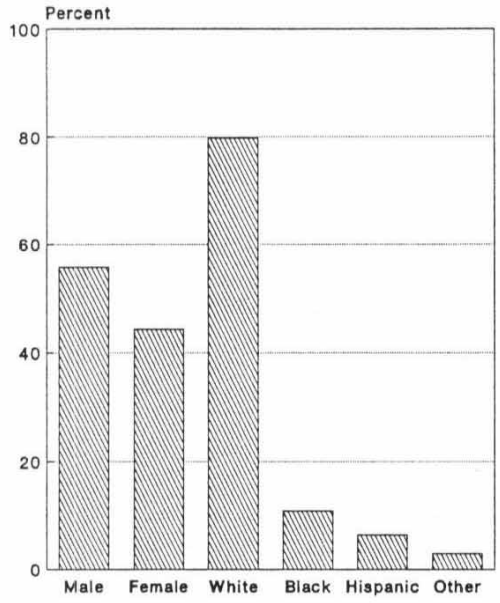
Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

Table 2.5
Kansas High School Dropouts, Dropout Rate, and Percent Change by Grade

	1985-86	1986-87	1987-88	1988-89	1989-90
Grade 9					
Dropouts	712	735	753	707	767
% Chg.	--	*3.23%*	*2.45%*	*-6.51%*	*8.5%*
Headcount	32,710	30,940	30,098	29,962	30,791
Drop Rate	2.18%	2.38%	2.50%	2.36%	2.49%
Grade 10					
Dropouts	1,392	1,359	1,460	1,447	1,349
% Chg.	--	*-2.37%*	*7.43%*	*-0.89%*	*-6.77%*
Headcount	32,710	32,346	30,489	29,328	29,065
Drop Rate	4.26%	4.20%	4.79%	4.93%	4.64%
Grade 11					
Dropouts	1,539	1,468	1,605	1,703	1,549
% Chg.	--	*-4.61%*	*9.33%*	*6.11%*	*-9.04%*
Headcount	29,867	30,163	30,448	28,887	27,741
Drop Rate	5.15%	4.87%	5.27%	5.90%	5.58%
Grade 12					
Dropouts	1,283	1,127	1,287	1,368	1,130
% Chg.	--	*-12.16%*	*14.20%*	*6.29%*	*-17.40%*
Headcount	27,215	28,218	28,792	28,783	26,918
Drop Rate	4.71%	3.99%	4.47%	4.75%	4.20%
Total					
Dropouts	4,926	4,689	5,105	5,225	4,795
% Chg.	--	*-4.81%*	*8.87%*	*2.35%*	*-8.23%*
Headcount	122,502	121,667	119,827	116,960	114,515
Drop Rate	4.02%	3.85%	4.26%	4.47%	4.20%

Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

Figure 2.1
Kansas High School Dropouts, 1988-89: Comparison by Gender and Race



Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

Figure 2.2
Kansas High School Headcount, School Years 1984-85 through 1989-90

Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

also declined by 6.52 percent for the same period. The result of these two trends was an increase in the overall dropout rate from 4.02 percent in 1985-86 to 4.2 percent in 1989-90 (Figure 2.4). Furthermore, the school years between 1985 and 1990 were marked by even higher dropout rates.[36]

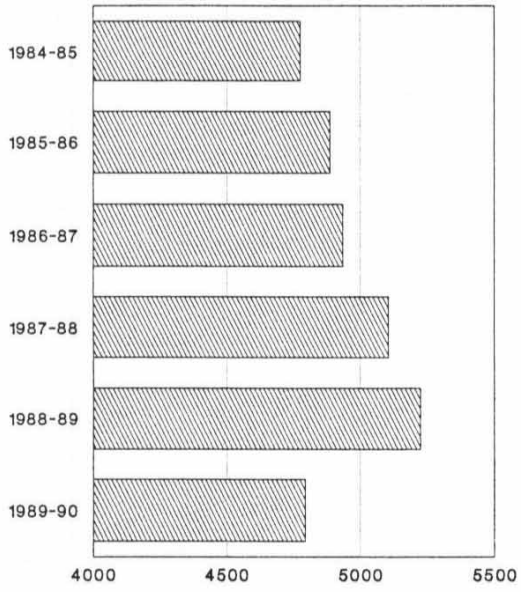
If the workforce is shrinking due to demographic changes, then the trend toward increasing dropouts is not a healthy sign. Even if these dropouts eventually return to high school before the age of 18, or return for their GED certificate after the age of 18, the Kansas economy still incurs some cost in terms of lost earnings potential. Additionally, when the dropout rate is calculated on a per-year, per-grade basis, it does not reflect the dropout rate in each graduating class. As the next section points out, the rate may be higher when calculated this way. Figure 2.5 shows the cumulative number of dropouts in each graduating class for the 1986-1989 school years.

Dropouts Calculated by Graduating Class

U.S. Department of Education

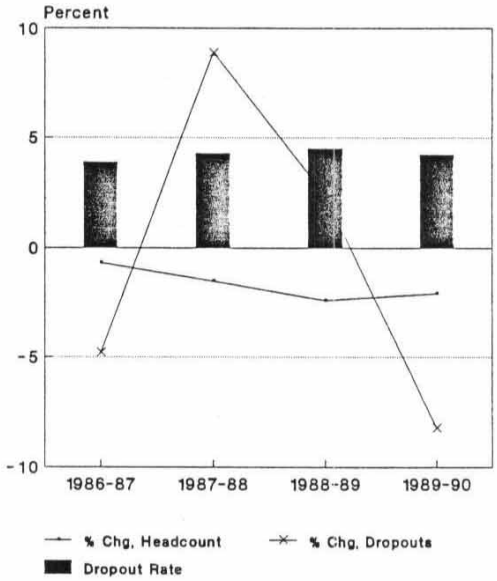
The U.S. Department of Education calculates dropout rates for states using a cumulative method. This procedure looks at the number of students who enrolled in the ninth grade, counts the number who graduated four years later, corrects for migration and unclassified students, and then calculates a graduation rate. According

Figure 2.3
Kansas High School Dropouts, School Years 1984-85 through 1989-90



Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

Figure 2.4
Percent Change in High School Headcount and Dropouts, School Years 1986-87 through 1989-90



Source: *High School Dropouts*, Kansas State Department of Education, February 1991.

to the U.S. Department of Education's data, Kansas ranks very well when compared to the United States (Table 2.6): ninth overall in terms of high school completion.[37] Still, the dropout rate, when calculated using this cumulative method, is much higher than rates calculated on a yearly basis as shown in Table 2.5. While a 17.9 percent dropout rate is low compared to other states, it is disturbingly high when placed in the context of the demographic information presented in Chapter 1.

Census Bureau

Others have challenged the U.S. Department of Education's figures.[38] The results are criticized as inflated because the procedures used did not "take into account students who have died, been left back a year, graduated early, transferred to a private school or out of state, or left school but later obtained their General Education Development diploma." The Census Bureau's Current Population Survey asks respondents whether they are "enrolled in school and, if not, what year of school they have completed." According to these results, Kansas has a 8.3 percent dropout rate. Data from the Department of Education and the Census Bureau are compared in Table 2.6.

Garden City Dropout Study

USD #457 in Garden City, Kansas, recognized that the present method for calculating drop-

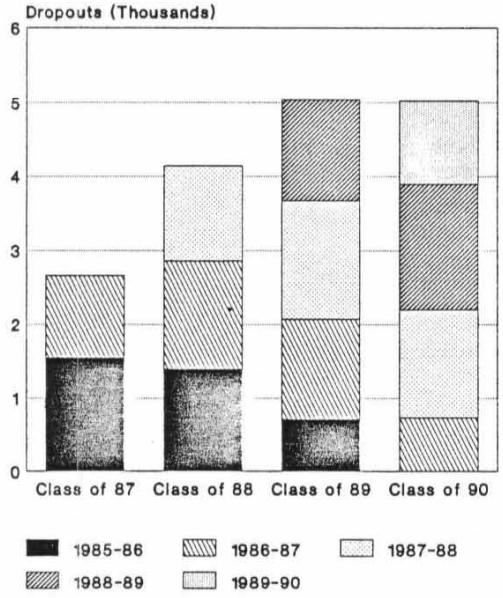
Table 2.6
Percentage of High School Completion by State with Rank: Comparison of Department of Education and Census Statistics, 1986-1987

State	USDE-Based Estimate		CPS-Based Estimate		State	USDE-Based Estimate		CPS-Based Estimate	
Alabama	29.8	(34)	18.5	(44)	Montana	13.8	(6)	8.1	(5)
Alaska	33.3	(41)	10.4	(17)	Nebraska	13.3	(4)	6.9	(2)
Arizona	35.6	(45)	19.7	(49)	Nevada	27.9	(31)	15.6	(34)
Arkansas	22.5	(18)	17.5	(41)	New Hampshire	27.3	(29)	12.5	(26)
California	33.9	(42)	17.8	(4)	New Jersey	22.8	(19)	8.8	(10)
Colorado	26.3	(26)	12.0	(23)	New Mexico	28.3	(32)	15.1	(33)
Connecticut	19.5	(11)	8.7	(9)	New York	37.1	(46)	12.6	(27)
Delaware	29.9	(35)	9.4	(15)	North Carolina	32.2	(37)	16.9	(40)
Dist. of Columbia	44.5	(51)	19.8	(50)	North Dakota	11.6	(3)	4.1	(1)
Florida	41.4	(50)	15.6	(34)	Ohio	17.2	(8)	11.5	(21)
Georgia	37.5	(47)	18.3	(43)	Oklahoma	27.4	(30)	12.7	(29)
Hawaii	29.2	(33)	8.9	(11)	Oregon	27.2	(28)	13.5	(30)
Idaho	21.2	(14)	16.8	(39)	Pennsylvania	21.3	(15)	8.9	(11)
Illinois	24.3	(22)	13.5	(30)	Rhode Island	30.6	(36)	16.1	(37)
Indiana	26.3	(26)	11.5	(21)	South Carolina	33.1	(40)	16.6	(38)
Iowa	13.6	(5)	7.2	(3)	South Dakota	20.3	(12)	7.2	(3)
Kansas	17.9	(9)	8.3	(6)	Tennessee	32.2	(37)	19.5	(47)
Kentucky	32.6	(39)	18.5	(44)	Texas	34.9	(43)	19.9	(51)
Louisiana	39.9	(49)	14.5	(32)	Utah	19.4	(10)	9.9	(16)
Maine	20.7	(13)	12.1	(25)	Vermont	22.0	(16)	8.4	(8)
Maryland	25.5	(23)	11.4	(20)	Virginia	26.0	(25)	15.6	(34)
Massachusetts	23.5	(20)	9.3	(14)	Washington	22.2	(17)	11.2	(18)
Michigan	37.6	(48)	12.0	(23)	West Virginia	23.8	(21)	18.6	(46)
Minnesota	9.4	(1)	9.2	(13)	Wisconsin	14.6	(7)	8.3	(6)
Mississippi	35.2	(44)	19.6	(48)	Wyoming	10.7	(2)	12.6	(27)
Missouri	25.6	(24)	11.3	(19)					

Source: *State Education Leader*, Fall 1990.

outs provides limited information because it: a) does not give a dropout rate by class or student body, and b) ignores students who complete a year of high school but fail to come back the next year yet remain in the community.[39] Therefore, the district initiated a study of the Class of 1990 by tracking students who started the ninth grade in Garden City in September 1986. Because its focus was on those students originally enrolled in Garden City, it was a study of stable, not transient, teenagers in the community. The results found that of the 396 students starting in the ninth grade in 1986, 215 (or 54.3%) of them graduated locally in 1990, 38 (or 9.6%) transferred out-of-district, and 143 (or 36.1%) dropped out (Table 2.7). A different picture results when calculated by the Kansas State Department of Education method (Table 2.8). In contrast, the average

Figure 2.5
Kansas High School Dropout Comparison: School Years 1985-86 through 1989-90



Source: *High School Dropouts,* Kansas State Department of Education, February 1991.

annual dropout rate over the four year period—for that class—is only 7.6 percent, using to the KSDOE method. Additionally, the total number of dropouts is also less—only 109—even though it includes a *greater* student base of those who enrolled in the district after September 1986.

The Garden City study demonstrates the validity and feasibility of calculating the dropout rate by class. It also illustrates that perhaps a cumulative dropout rate, by class, should be calculated in conjunction with the traditional dropout/headcount method. Both methods have their merits—and drawbacks—but together they provide a better depiction of dropout trends.

Table 2.7
Garden City Graduation Rate: Results From Tracking the Class of 1990

Students	Number	Percent
Starting in 1986	396	100%
Less: Transfers[1]	38	9.6%
Dropouts		
Simple Drops[2]	114	28.8%
GCAHS Drops[3]	29	7.3%
TOTAL DROPS	143	36.1%
Graduating in 1990	215	54.3%

[1]Includes students who transferred out-of-district and their records were requested or hand-carried.
[2]Includes students who dropped and two expulsions.
[3]Includes students enrolled in Garden City Alternative High School who have not graduated or are inactive.

Source: Gillaspy, *Class of 1990: A Longitudinal Study,* March 1991, p 2.

Table 2.8
Garden City Class of 1990 Dropout Rates: Traditional Calculation

Grade—Year	Head-count	Drop-outs	Dropout Rate
9th—1986-87	381	5	1.3%
10th—1987-88	353	27	7.6%
11th—1988-89	365	47	12.9%
12th—1989-90	311	30	9.6%
Total	1410	109	7.7%
Average	*353*	*27*	*7.6%*

Source: Kansas Department of Education, 1991.

Individuals With a High School Diploma or GED

It is reasonable to assume that someone who dropped out of school may not have obtained the basic skills needed to function in society and the workplace. Nevertheless, possession of a high school diploma or GED does not mean that an individual has mastered basic academic skills; therefore, s/he may be unemployed, underemployed, or unable to be productive and effective on the job. One concern is that educational attainment has not kept pace with the requirements of a more complex society and business environment. An individual who graduated from high school ten to twenty years ago may not have the *current* basic academic skills necessary for employment today. As the workplace becomes more complex and competitive, the levels of basic skills required also increase. One example is use the increasing use of Statistical Process Control (SPC) over the past decade. SPC methods are used to determine characteristics of materials and outputs, ultimately assuring that the end products meet the customer's demand for quality. When using SPC characteristics, workers must not only understand basic math, but how to calculate and understand a mean and variances.

We cannot adequately estimate the number of individuals with a high school diploma or GED who lack basic academic skills. Table 2.1 provided an approximate figure for ages 16-24 (3.8 million), but we still do not have a reliable figure that includes all adults across a comprehensive, universal basic set of skills including math, reading, communication, and problem solving skills. However, the number of persons, or percent of the population, who lack basic academic skills is considered irrelevant by many who feel the costs to society are far more important.

Consequences of Inadequate Basic Skills

Adults with inadequate basic skills create direct and indirect cost to society. In personal terms, individuals without basic skills have difficulty finding and keeping jobs and may suffer from low-self esteem and shame as a result. Business and society must pay for the consequences of this inadequate preparation.

Costs to the Individual

Financial and emotional costs are often borne by people without sufficient basic skills. There is a strong relationship between earnings and the number of years one spends in school: for example, although real earnings have decreased for young males, those with college degrees were much better off financially than high school graduates, and even better off in comparison with high school dropouts (Table 2.9). Young black males, especially those without high school diplomas, have suffered the greatest loss in real earnings in the thirteen year period shown in Table 2.9.

Other costs include not being informed about events taking place in the community, nation, and world,[40] not being able to read newspapers, magazines, and books, and several indirect costs. Things that many people take for granted are impossible tasks for those without basic skills. For example, they cannot 1) manage personal finances, such as checking accounts, investments, or monthly bills; 2) use the mail to pay bills; 3) select and choose between products in grocery stores and restaurants; 4) read product owner's manuals/instructions; 5) read the help-wanted advertisements; and 6) understand any business transaction, such as leases, loans, or wills.

Costs to Society

It has been estimated that individuals with inadequate basic skills cost society the following (in annual figures): $20 billion for prisons, welfare related to illiteracy, and industrial and military accidents; $100 billion for lost GNP and productivity; $224 billion for welfare payments, crime, job incompetence, lost taxes, and remedial education; and $237 billion for unrealized earnings, as illiterate adults make up 50-70 percent of the unemployed in the U.S.[41]

Table 2.9
Real Mean Annual Earnings of 20-24 Year Old Males,* 1973-1986

	All Males		% Change in Earnings			
	1973	1986	All	White	Black	Hispanic
All Males	$12,166	$ 9,027	-25.8%	-21.0%	-46.0%	-29.0%
Not High School Graduates	$11,815	$ 6,853	-42.0%	-42.3%	-60.6%	-27.3%
High School Graduates	$15,221	$10,924	-28.2%	-24.4%	-43.8%	-34.8%
Some College	$13,108	$10,960	-16.4%	-11.3%	-42.7%	-21.2%
College Graduates	$14,630	$13,759	-6.0%	-5.6%	+6.5%	NA

*Males who did not cite school as their major activity as of March 1974 and 1987.

Source: The William T. Grant Foundation Commission on Work, Family, and Citizenship, November 1988.

Kansas also faces similar costs. For example, Kansas correctional system inmates are functionally illiterate to a disproportionate degree. According to a study by the National Institute of Corrections, fifty percent of adults in state and federal prisons cannot read at all and two-thirds have not completed high school.[42] In comparison, the Kansas Department of Corrections reports that 53 percent of male inmates (2,598 persons) and 37 percent of female inmates (92 persons) tested within grade levels 0-11 upon their arrival in prison during FY 1990.[43] The education levels for Kansas inmates are presented in Table 2.10. The state cost of providing basic academic skills programs at Kansas Correctional Facilities is approximately $3 million per year. These programs are not run directly by the state but are contracted out to educational providers.

Costs to Business and Industry

A 1982 survey of businesses found that:

- 30 percent of employers stated that secretaries had difficulty reading at the level required by their job;
- 50 percent of employers reported that managers and supervisors were unable to write paragraphs which were free from grammatical errors;
- 50 percent of employers stated that skilled and semi-skilled employees were unable to use decimals and fractions; and
- 65 percent of employers asserted that a lack of basic skills limits the job advancement of their high school graduate employees, while 73 percent reported that it limited non-graduates.[44]

The costs of low basic skills have hit employers hard:

1. *Hiring new employees.* New York Telephone had to process 57,000 applications in order to find 2,000 workers qualified for entry level jobs (1987);

2. *Training new and current employees.* a) Motorola estimates that it will spend $35 million over the 1989-1991 period to bring the

Table 2.10
Education Levels of New Corrections Populations:
Kansas Male and Female Inmates, FY 1983–FY 1990

Education Level	Percent of Total Inmate Population							
	FY83	FY84	FY85	FY86	FY87	FY88	FY89	FY90
Grade 0-11	52	51	47	46	59	57	48	50
High School Grad.	17	21	17	19	22	22	25	25
GED	23	20	27	26	10	14	22	18
> High School	8	8	9	9	9	7	5	7

Source: Kansas Department of Corrections, FY 1990 Statistical Profile.

reading and math skills of its workforce up to 6th or 7th grade levels; and b) Eastman Kodak says that 10,000 of its employees do not have the basic skills necessary to implement the company's plans to become more competitive.[45]

3. *Lost productivity, mistakes, and accidents.* Hypothetical examples include: a) an insurance clerk paid a claimant $2,200 on a $22 settlement because the clerk did not understand decimals;[46] b) a young carpenter who cannot measure precisely cuts a quantity of lumber too short, wasting material, time, and money; and c) a young electrician does not understand the instructions for grounding an electric drill and gets an electric shock for using it—he must take sick leave.[47]

One would think that, facing these circumstances, businesses would attempt to alleviate the problem through investment in basic academic skills education; however, the data suggest otherwise. Each year U.S. employers spend approximately $30 billion on formal training for their employees; nevertheless, only one-third of this amount is spent on the non-college workforce, which constitutes 70 percent of the workforce. If employees are provided with training, it usually encompasses limited areas like company orientations, team building, or motivational training. There is one exception: some training is provided to skilled craftspeople.

Ninety percent of the funds invested in training ($27 of the $30 billion) was paid by approximately 15,000 employers. This represents one-half of one percent of all American employers. Of this tiny fraction of firms, only the largest (100-200 firms) spend more than two percent of their payroll on all formal training programs.[48]

The reason for this is simple: Americans have traditionally allowed the marketplace to set educational requirements for employment. On one hand, companies will only train their employees if it makes business sense, in terms of the benefits exceeding the costs. On the other hand, individuals will seek additional education if the result is a better job and financial gains. One can therefore see why the past lack of demand for higher skills has led to little training for the average worker.[49]

Summary

Basic skills are the key to a productive and adaptable workforce because without them employees are unable to benefit from higher-level skill training. In examining the concept of basic skills and applying them to the Kansas workforce, this chapter has shown that:

1. The traditional concept of literacy—or the ability to simply read and write—has evolved as the demands of society and the workplace have become more complex. New concepts, like basic workplace skills, include skills such as the ability to learn; reading, math, and writing competencies; communication; adaptability; personal management; group effectiveness; and organizational effectiveness.

2. There are no clear measures of the basic workplace skills of the Kansas workforce, but proxy measures of literacy may be used as an estimate. Based on these measures, Kansas appears to do relatively well compared to other states.

3. Kansas does appear to face a gap between the skill requirements of new jobs and the educational levels of its labor force. Sixty-four percent of Kansans have a high school diploma or less than three years of high school, but only 49 percent of new jobs will accept that level of education.

4. Overall, the high school dropout rate is relatively low for Kansas; however, the combined headcount and dropout trends over the past few years have led to a proportionate increase in the dropout rate. Over the period from 1985-86 to 1989-90, headcount declined 6.52 percent while the number of dropouts decreased by only 2.66 percent. This created an increase in the dropout rate from 4.02 percent to 4.2 percent for the same period.

5. Other measures of dropouts, including those of the Current Population Survey and U.S. Department of Education, suggest that on a cumulative, graduate rate basis, Kansas has a dropout rate of 8.3 percent or 17.9 percent, respectively. The USDE measure, however, has been criticized because it does not take into account those students who have died, graduated early, been held back a year, or later received a GED.

6. The cost of low basic skills is borne by society and individuals with inadequate skills. Adults with lower education levels—especially minorities—have seen their real annual earnings deteriorate over the 1973-1986 period. Additionally, society must bear the cost of prisons, welfare, industrial accidents, lost productivity, lost taxes, and unrealized earnings, which are partly a consequence of adults with low basic skills.

7. Businesses also face costs related to low basic skills, including accidents and low productivity. However, the response of U.S. businesses has not focused on providing basic skill training for their employees. □

NOTES

1. *Training Strategies: Preparing Non-college Youth for Employment in the U.S. and Foreign Countries,* Washington, D.C.: General Accounting Office, May 1990, p. 10.

2. Anthony P. Carnevale, Leila J. Gainer, and Ann S. Meltzer, *Workplace Basics: The Skills Employers Want,* The American Society for Training and Development and U.S. Department of Labor, October 1988, p. 6.

3. *Webster's II New Riverside University Dictionary,* Boston: Houghton Mifflin Company, 1984, p. 698.

4. E.Z. Rothkop (ed.), *Review of Research in Education, 15,* Washington, D.C.: American Educational Research Association, 1988, p. 6.

5. Rothkop, p. 7.

6. Irwin S. Kirsch and Ann Jungeblut, *Literacy: Profiles of America's Young Adults, Final Report,* Princeton, New Jersey: National Assessment of Educational Progress, 1986, p. 1.

7. Rothkop, p. 3.

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10. Paul M. Irwin, *Adult Literacy Issues Programs, and Options*, Washington, DC: Congressional Research Service, The Library of Congress, October 1990, p. 3.

11. Kirsch, p. 2.

12. Irwin, p. 3.

13. Kirsch, p. 2.

14. Kirsch, p. 4.

15. Kirsch, p. 3.

16. Carnevale, p. 9.

17. Carnevale, p. 10.

18. Carnevale, p. 11.

19. Carnevale, p. 12.

20. Carnevale, p. 13.

21. Carnevale, p. 14.

22. Carnevale, p. 15.

23. Carnevale, p. 16.

24. *Adult Illiteracy in the U.S.A.: A Little or A Lot?*, Clearinghouse on Adult Education and Literacy, Washington, D.C.: U.S. Department of Education, 1988, p. 1.

25. Irwin, p. 2.

26. *Training Strategies...*, p. 10.

27. *Adult Literacy...*, p. 1.

28. Irwin, p. 3.

29. Irwin, p. 3.

30. Irwin, p. 3.

31. *Adult Literacy...*, p. 1.

32. Irwin, p. 3.

33. The Kansas Alliance for Literacy has as its first priority to describe the size of the population in Kansas needing training in basic knowledge and basic skills (reading, writing, speaking, listening, computing, problem solving, and interacting with people).

34. Educational attainment data from the 1990 census are not yet available, so 1980 census data were used to generate these estimates and can only be regarded as a rough estimate.

35. Brad Addington, "Area Schools Tackle Issue of Dropouts," *Lawrence Journal World,* March 6, 1991, p. 8a.

36. *High School Dropouts*, Kansas State Department of Education, February 1991.

37. To derive a dropout rate, the graduation rate is subtracted from 100.

38. "Dropouts: Rates Lower, but Problem Deeper, New Study Reports," *State Education Leader*, Fall 1990.

39. Mary Gillaspy, *Class of 1990: A Longitudinal Study of the Graduation Rate*, Garden City, Kansas: USD #457 Student Services, March 1991, p. 1.

40. The Adult Performance Level Project, *Adult Functional Competency: A Report to the Office of Education Dissemination Review Panel*, Austin, Texas: University of Texas, 1975.

41. Irwin, p. 5.

42. Business Council for Effective Literacy, 1986.

43. *FY 1990 Statistical Profile of New Corrections Inmates*, Kansas Department of Corrections, 1991.

44. Judith K. Chynoweth, "Adult Literacy: A New Way of Thinking–A New Partnership," *Enhancing Literacy for Jobs and Productivity Academy Final Report*, Washington, D.C.: Council of State Policy and Planning Agencies, 1987, p. 17.

45. Edward E. Gordon, Judith Ponticell, and Ronald R. Morgan, "Back to Basics," *Training and Development Journal*, August 1989, p. 73.

46. "Workplace Literacy Affects the Bottom Line," a brochure by the Iowa Literacy Council, Iowa Department of Education.

47. "Construction and Basic Skills," *Business Council for Effective Literacy*, April 1991, p. 1.

48. Commission on the Skills of the American Workforce, *America's Choice: High Skills or Low Wages!*, Rochester, New York: National Center on Education and the Economy, 1990, p. 49.

49. Commission on the Skills of the American Workforce, p. 50.

3 | Background: The Adult Basic Education System

Introduction

The Adult Basic Education (ABE) system is a mix of basic skills education, English as a Second Language (ESL), and Adult Secondary Education (ASE) programs operated in conjunction with local education districts, community colleges, or state departments of education. Adults who dropped out of the K-12 system can turn to the ABE system to improve their basic skills or work towards a high school equivalency certificate. ABE programs are funded through a combination of federal, state, and local funds. Other local organizations, which are not part of the ABE system, such as volunteer literacy organizations, also provide basic academic skill instruction, especially for individuals needing help with very basic skills.

Critics praise the results of the system despite its lack of resources or attention from policy-makers. They contend that ABE programs have been the neglected "step-children" of the education system. Adults are considered responsible for their education after leaving the traditional K-12 system, especially if they need additional help in improving their basic academic skills. Because these individuals represent the "failure" of the education system, individuals lacking basic academic skills have difficulty returning for help. The system itself faces the stigma of being targeted toward those who have failed, and many individuals secretly hide the fear and shame that someone might find out that they are "illiterate."[1] Adults needing basic academic skills instruction are a silent minority.

This chapter provides an overview of the ABE system and other basic skills providers in Kansas. Kansas commitment to adult basic skills instruction in terms of its dedication of resources to the ABE system is compared to that of other states. The following conclusions are drawn from this review:

1. The Kansas ABE system relies heavily on local and federal funding and is underfunded in comparison to other states;

2. The backbone of the Kansas ABE system and volunteer organizations is a group of dedicated educators and volunteers who devote their time and energy—for little financial gain—to help others;

3. Workplace literacy has not been a high priority of the Kansas ABE system because its mission focuses on helping adults finish their high school education. However, the ABE system has the ability to play a crucial role in shaping the basic academic skills of the Kansas workforce;

4. A partnership between business and education needs to be forged in order to help adults acquire the basic academic skills necessary to become prepared for work; and

5. The Kansas ABE system has not been a high priority for the state.

Federal and State Support for Adult Basic Education

Federal Legislative History

The present adult education system was created under the Economic Opportunity Act of 1964. This Act represented the beginning of federal financial support for adult literacy education. Although it was originally intended for individuals 18 years of age or older who had eight or fewer grades of education, the program was expanded in 1969 to include all persons 16 years of age or older who needed to obtain education through the twelfth grade. The growth in Adult Basic Education and Adult Secondary Education has been impressive. Enrollment has increased six-fold from under 500,000 in 1968 to over 3 million in 1986, while funding from federal, state, and local sources has increased tenfold from $40 million in 1968 to over $400 million in 1986.[2]

Overall Objectives of the ABE System

The purpose of the federal ABE system is to: 1) improve adult educational opportunities; 2) enable adults to acquire basic academic skills necessary for literate functioning; 3) assist adults in completing secondary school; and 4) equip adults with skills to help them benefit from job training/retraining so that they may obtain and keep productive employment. Federal grants are given to designated state agencies, such as the Kansas State Department of Education, through a formula based on the number of adults who have not completed secondary school. The state, in turn, funds local programs based on need and other available resources. Local agencies which are eligible for subgrants include public or private non-profit educational agencies, organizations, and institutions.

ABE curricula emphasize instruction in computational skills and speaking, reading, and writing English for educationally disadvantaged adults. This includes adults who function at or below the fifth grade level, as well as those adults placed at the lowest or beginning level of a program. ABE targets adult groups such as the incarcerated, those with limited English skills, handicapped persons, immigrants, the chronically unemployed, the homeless, those institutionalized, and minorities.[3] According to the law, an adult is any person over 16 years of age.

Each state's Department of Education must assure the federal government that it provides for:

1. Consultation and coordination with various state and other agencies and programs;

2. Funding, not to exceed 20 percent, for high school equivalency programs;

3. Adult Basic Education programs where the need exists;

4. All student costs—adults in ABE programs cannot be charged tuition, fees, costs of books and materials, or any other charges;

5. At least 10 percent of the funding for ABE instruction for adults in correctional or institutionalized facilities;

6. Special assistance for those with limited English proficiency through bilingual adult instruction in English;

7. Continued funding and support from nonfederal sources; and

8. Monitoring and reporting of program activities.

State agencies distribute the funds, or subgrants, through an annual application process. This process should be competitive and take into account the best possible combination of agencies, organizations, and institutions to deliver instruction. Therefore, the State Department of Education must take into consideration the needs of the target population served by the applicant and the extent to which the applicant: 1) proposes to reach those least educated and in most need of help; 2) gives special emphasis to ABE projects; 3) provides outreach activities; 4) utilizes cooperative arrangements with other entities; 5) draws from nonfederal and non-state adult education resources; 6) addresses identified needs with the

Table 3.1
Federal Funding for ABE, ESL, and ASE Programs

Total Federal Support:	
FY 1987—$112.9 million	
FY 1988— 134.0 million	
FY 1989— 162.2 million	
FY 1990— 192.8 million	
Ratio of State/Local to Federal Support:	
4.2 to 1 (1987 data)	
Distribution of Federal and State/Local Expenditures (1987):	
State Administration	2%
Programs	
Grades 0-8	66%
Grades 9-12	29%
Training, R&D	3%
Institutional Programs	2%
Average Cost Per Student: $160	

Source: Program Services Branch, Division of Adult Education and Literacy, U.S. Department of Education, January 1990.

proposed activity; and 7) proposes to meet program objectives within the amount of the budget request.[4] Table 3.1 outlines the total federal funding for Adult Basic Education, English as a Second Language, and Adult Secondary Education programs, as well as data for 1987 expenditures. For the FY 1987-FY 1990 period, federal support increased, on average, approximately 20 percent per year. The vast majority of federal funds were directly spent on programs, especially in grade levels 0-8.

Kansas ABE System

State financial support for the Adult Basic Education system in Kansas was established in 1974 when the legislature responded to newly imposed federal matching requirements for adult education assistance funds. State assistance for ABE programs comes from the State General Fund and usually has been adequate to meet federal matching requirements. State categorical aid is available to qualifying institutions, including public or private non-profit educational agencies, organizations, and institutions, to assist in defraying program costs. In order to qualify for state and local support, a local board's ABE program must meet established criteria for the program, and the Board is asked to provide a 10 percent match to federal and state funding. The local boards receive state funding based on priorities established through the learning needs survey conducted in accordance with the State Plan for Adult Education and enrollment figures.[5]

Location of Kansas ABE Centers

There are currently 37 ABE centers in Kansas which are located at five different types of institutions: community colleges (19 are ABE centers); Unified School Districts (14); Area Vocational Technical Schools (1); private institutions (1); and institutional settings (2).[6] The programs offer courses in general education subjects taught at the grade school or high school level for adults, age 16 and up, who have not completed high school or an equivalent level of education and are not currently enrolled in school. Instruction focuses on basic skills, especially in the areas of reading, math, and some writing skills.[7] In the smaller centers, instruction is commonly individualized, but in larger centers individuals with similar education needs may be grouped together.

Centers may have become ABEs for different reasons, depending on their overall mission and objectives. For example, an ABE at a school district may represent a district's desire to address a local need, while community colleges may have an ABE as part of their overall approach to serving the community and surrounding area. As a result, all community colleges (19) in Kansas and only a few USDs (14) have an ABE center. Also, they may differ in their scope: while a community college may have a large service area, the USD will assist only those located in its district. The state has attempted, however, to ensure that every Kansan needing the services of an ABE program or GED testing service is no more than 30 minutes from the closest program; therefore, in addition to the 37 centers in Kansas, there are approximately 68 satellites to these centers, making a total of 105 sites. Figure 3.1 shows the location of the state's ABE centers and their satellites. The problem with this arrangement is that satellites often do not have the resources, in terms of staff and materials, to serve a large number of people. Hours of instruction may also be more limited at a satellite than at the actual ABE center. The result is limited program accessibility.

Budget and Enrollment Data

Table 3.2 compares the 1989-1990 enrollment figures and FY 1991 funding data for the 37 ABE centers in Kansas. The top four centers, in terms of enrollment, were the Dunbar Adult Center in Wichita (with 1,050 students), Kansas City Kansas Community College (784), the Adult Education Center in Coffeyville (679), and Johnson County Community College (659). Because enrollment

Figure 3.1
Adult Basic Education Programs and Satellites

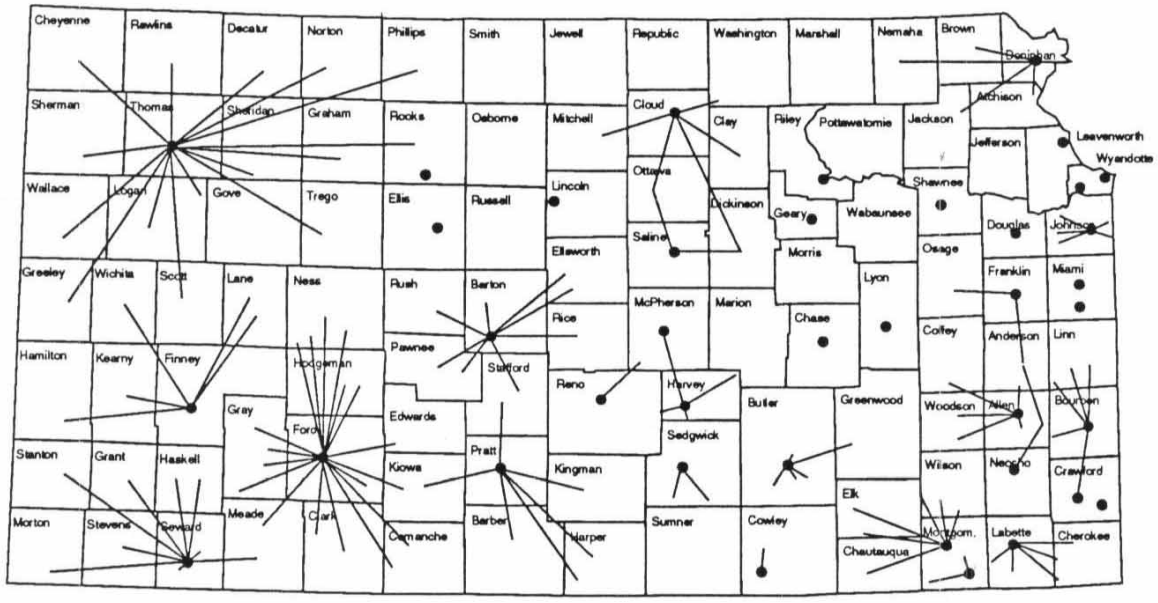


Table 3.2
Kansas Adult Basic Education Centers:
1989-1990 Enrollment and FY 1991 Funding Sources[1]

Location	1989-90 Enrollment	Total Funding Per Pupil[2]	Federal	State	Local
Wichita, Dunbar Adult Ctr.	1,050	$387.59	$ 99,642	$ 25,930	$ 281,400
Kansas City CC	784[3]	154.68	71,970	19,298	30,000
Coffeyville, Adult Ed. Ctr.	679	130.13	50,989	13,671	23,700
Johnson Co. CC	659	259.27	69,306	18,583	82,972
Topeka, USD 501 Admin. Ctr.	531	195.73	74,479	19,970	9,481
Cowley Co. CC	441	74.56	18,041	4,838	10,000
Garden City CC	402	226.57	48,166	12,915	30,000
Independence CC	376	149.76	31,787	8,523	16,000
Colby CC	300	232.18	49,407	13,248	7,000
Labette CC	286	170.29	30,713	8,235	9,755
Junction City, K.S. Hauge Ctr.	272	194.16	30,488	8,174	14,150
Newton, USD 373	265	300.55	28,548	7,655	43,444
El Dorado, Comm. Res. Ctr.	264	484.90	45,746	12,267	70,000
Dodge City Adult Res. Ctr.	256	278.80	34,990	9,382	27,000
Leavenworth, St. Mary College	237	202.34	34,365	9,215	4,375
Paola, Adult Ed. Ctr.	234	345.92	25,321	6,790	48,835
Salina, Little House	225	312.00	38,041	10,200	60,000
Highland CC	224	162.97	26,343	7,063	3,100
Seward Co. CC	215	222.01	26,600	7,132	14,000
Manhattan AVTS	202	615.86	48,321	12,956	63,126
Lawrence, USD 497	195	545.58	30,019	8,050	68,319
Hutchinson CC	192	235.29	32,374	8,680	4,121
Osawatomie State Hospital	184	136.71	25,155	-----	-----
Great Bend, Ctr. Adult Ed.	173[3]	788.39	22,264	5,970	108,159
Fort Scott CC	147[3]	290.46	16,795	4,503	21,400
Ottawa, Adult Ed. Ctr.	134	360.49	27,051	7,254	14,000
Allen Co. CC	118	211.34	17,874	4,793	2,271
Pittsburg, Adult Ed. Ctr.	112	267.23	20,966	5,622	3,342
Emporia High School	108	361.68	23,262	6,238	9,561
Cloud Co. CC	103	185.25	13,863	3,718	1,500
Leavenworth, KSP	88	181.82	16,000	-----	-----
Neosho Co. CC	82	375.99	14,116	3,785	12,930
Bonner Springs, Northwest School	56	81.71	9,136	2,449	1,162
Pratt CC	52	333.00	12,413	3,329	1,574
Hays, USD 489	21	683.19	5,805	1,556	6,986
Plainville, USD 270	13	152.08	1,559	418	-----
Russell High School	7	171.43	947	253	-----
Total	9,687	$260.78	$1,172,862	$302,663	$1,103,663

[1]Funding data is for programs only.
[2]Based on FY 1990 enrollment and FY 1991 funding.
[3]FY 1989 enrollment.

Source: Kansas State Department of Education, 1990.

figures do not take into account the number of instruction hours provided to each student, some centers may have fewer students enrolled but provide more hours of instruction.

In terms of financial support, the top four centers were:

1. *Federal*—Wichita ($99,642), Topeka ($74,479), Kansas City CC ($71,970), and Johnson County CC ($69,306);

2. *State*—Wichita ($25,930), Topeka ($19,970), Kansas City ($19,298), and Johnson County ($18,583);

3. *Local*—Wichita ($281,400), Great Bend ($108,159), Johnson County ($82,972), and El Dorado ($70,000);

4. *Total Funding Per Pupil*—For the top four centers, in terms of 1989-1990 enrollment, the FY 1991 funding per pupil varied significantly: Wichita ($387.59), Johnson County ($259.27), Topeka ($195.73), and Coffeyville ($130.13).

Although the enrollment and funding data are significant on their own, the funding per pupil data illustrate the wide disparity in funding among centers. This funding gap impacts the ability of the centers to meet the needs of their current students, in terms of resources such as staffing and materials, and their ability to serve more students.

Table 3.3 presents Kansas ABE enrollment and funding figures for FY 1987-FY 1991. Federal and state funds are also divided into a per student figure, and the state's contribution is calculated as a percent of the federal amount. The federal per student contribution increased from $45.12 in FY 1987 to $125.26 in FY 1990, while the state increased its funding from $5.19 to $18.10 per student for the same period. State increases over the period were due to changes in federal matching requirements. Prior to FY 1990 the state was required to meet a 10 percent match of federal funds; however, the match has increased to 25 percent over the FY 1990-FY 1992 period. While the state has diligently met its match, it has been careful not to exceed it. The state's total FY 1991 ABE contribution of $326,435 represents a 22.2 percent match of the federal contribution. Because state ABE funding is

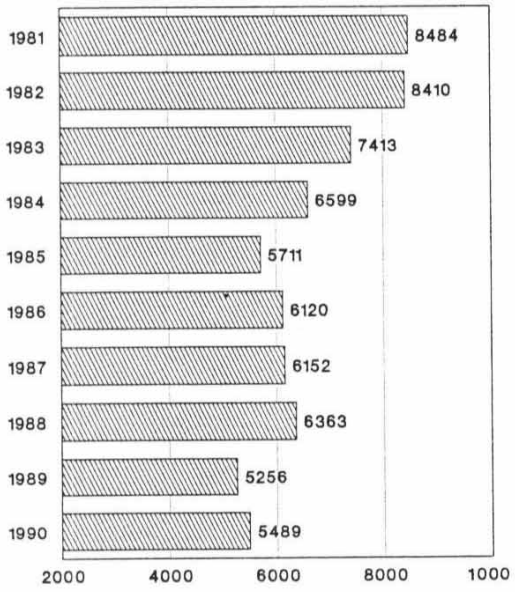
Table 3.3
Kansas Adult Basic Education:
Funding and Enrollment, FY 1987-FY 1991

	FY 1987	FY 1988	FY 1989	FY 1990	FY 1991
Enrollment*	7,797	8,353	10,697	10,274	N/A
Federal Funds	$351,823	$998,919	$1,107,142	$1,288,997	$1,470,428
per student	*45.12*	*119.59*	*103.50*	*125.46*	--
State Funds	40,457	126,500	126,500	186,000	326,435
per student	*5.19*	*15.14*	*11.83*	*18.10*	--
State Match, Percent of Federal	11.5%	12.7%	11.4%	14.4%	22.2%

*Enrollment includes students who attended 12 or more hours.

Source: Kansas State Department of Education.

Figure 3.2
Kansas Adult Basic Education Enrollment, 1981-1990



Source: *Kansas Adult Basic Education: Adults Learning Today,* Kansas State Department of Education, 1989.

Table 3.4
Sources and Uses of Kansas Adult Basic Education Funds: Total Program Budgets, FY 1990[1]

Sources of Funds:[2]		
Federal	$1,103,489	(44%)
State	177,743	(7%)
Institution Matching	414,918	(17%)
Mill Levy	481,433	(19%)
Other	324,256	(13%)
Total	$2,501,839	
Planned Use of Funds:		
Administration	$ 381,552	(18%)
Instruction	1,391,452	(65%)
Teacher Training	42,422	(2%)
Transportation/Child Care	18,846	(1%)
Maint./Op. Plant	128,145	(6%)
Fixed Charge	148,212	(7%)
Capital Outlay	29,128	(1%)
Total	$2,139,757	

[1]Budget data is for programs only. KDOE administrative costs are included in Table 3.3 data.

[2]Total sources do not add up to total uses because sources do not always represent a cash-based figure.

Source: Kansas State Department of Education.

driven mainly by matching requirements from the federal government instead of current fiscal year enrollment, any unanticipated increase in enrollment means that ABE centers have difficulty in providing instruction and may lack resources, such as staff and materials, to meet the additional demand. Figure 3.2 shows ABE enrollment from 1981 to 1990.

Sources and Uses of Funds

The sources and uses of Kansas ABE program funds for FY 1990 are described in Table 3.4. Of the overall total, the greatest proportion of program funds came from local sources (49 percent of the total), followed by federal sources (44 percent of the total). State financial support for ABEs in FY 1990 made up only 7 percent of the total, but the state's contribution of $177,743 matched the federal contribution by 16 percent. Furthermore, while federal law does not require a local match, local programs are expected to support state and federal funds with a 10 percent cash or in-kind match. Some sources of local funds include monies from the institution, local mill levies, or other sources, such as in-kind grants. The ABEs currently relying on a local mill levy include: a) community colleges in Independence and Dodge City; b) USDs in Wichita, Lawrence, Salina, and Ottawa; and c) the AVTS in Manhattan. USDs and community colleges can levy up to one-half and one-fourth mill, respectively, for their ABE programs for up to a three

year period. AVTSs can also levy up to a one-half mill levy.

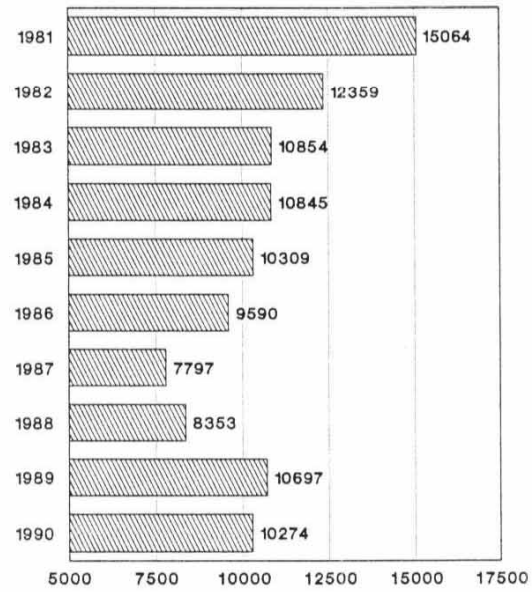
The uses and sources of funds are not equal because the sources include non-cash or in-kind support. When comparing the uses of funds, the vast majority were allocated for instruction (65 percent) and administration (18 percent). Other uses include child care and transportation costs, which are allowed under federal law, but few centers (or 1 percent of the total uses) utilize this. Finally, capital outlays, which are discouraged with ABE funds, represent an expenditure of mill levies and represent only 1 percent of the total outlays.

General Education Development (GED) Testing

Another component of the adult education system in Kansas is access to the General Education Development (GED) program. The GED program is for individuals who have not completed their high school education. The purpose of the GED is to provide a certificate or credential for employment opportunities, advanced training, or additional education in secondary and post-secondary levels. In order to take the GED in Kansas, one must: 1) be 18 years or older, and your high school class must have graduated (or one can apply to the Kansas State Department of Education for permission); 2) not have graduated from a U.S. or Canadian high school; 3) not have enrolled in any high school; and 4) be a Kansas resident. Although one can enroll in ABE courses free of charge, there is a $30 fee for taking the GED which covers testing and credentials costs.[8]

There are currently 39 GED testing centers in Kansas under state jurisdiction. Two other centers, including Fort Leavenworth and the VA hospital, have special arrangements directly through the GED testing service. The centers under state jurisdiction are located at the following institutions: 1) unified school districts (located at 10 centers); 2) community colleges (19); 3) four-year colleges (2); 4) private institutions (2); and 5) other public institutions (6). The format of the GED includes five multiple choice tests in the following areas: writing (including an essay test), social studies, science, interpreting literature and the arts, and mathematics. The test is not easy; research has shown that 30 percent of those students with a high school degree cannot pass the test.[9] Figure 3.3 shows the number of GEDs issued in Kansas from 1981 to 1990.

Figure 3.3
GED Diplomas Issued in Kansas, 1981-1990



Source: *Kansas Adult Basic Education: Adults Learning Today,* Kansas State Department of Education, 1989.

How the Program Works

Students entering one of the state's ABE programs generally go through a similar process. An intake session gathers personal information about the individual, including work experience, education, perceptions of skills, potential careers, and personal goals. Math and reading skills are assessed using various tests which may include

TABE (for reading and math), Nelson-Denney (for reading), WRAT (for math), or a Kansas Competency test, especially for SRS clients. During the assessment, the students may also be asked whether or not they have had a recent eye examination and whether they need eye glasses.

After the test results are assessed, students are shown their test scores and which basic skills need improvement. Based on these results, the students set an informal "contract" which outlines what skills they intend to work on and set up a specific work or instruction schedule. For some, this contract may be the first time they have considered career options or set personal goals.

Instruction usually starts using a one-on-one or individualized approach. As the student becomes more proficient, instruction may include working alone on a workbook or computer. If several students have similar basic skills needs, they may be encouraged to work together as a group. After several months or years of instruction, students may be prepared—in terms of skills and self-esteem—to take the GED. The success of the Kansas ABE system can be seen in the state's GED results: Kansas has a good success rate—of the 5,921 people who took it in 1989, 88.8 percent passed it.

Although there are no accurate statistics on completion data, it is not uncommon for students to simply stop showing up for instruction. The center may try to contact the student, but it can be difficult to persuade a dropout to return for a variety of reasons: a) unable to find someone to take care of children, b) unable to get a ride to the center; c) spouse is angry at the partner for seeking education; d) fear that someone may find out they lack basic skills, or e) a prior negative history with education. Some students are accustomed to failure and have had little personal successes in life. They are afraid of learning because it will force them to try to meet and conquer new challenges, such as getting a job. Because of a fragile self-esteem, however, they would rather not try than to try and possibly fail.

Key Players in Kansas Literacy Efforts

The state ABE system is not the sole source of basic skills instruction in Kansas. Other organizations, including the Kansas State Library, volunteer community-based organizations, and nonprofit entities all provide and/or coordinate adult basic skills instruction in Kansas. An example of a statewide coordinator is the Kansas Alliance for Literacy. The Alliance was founded in 1989 and seeks to bring Kansans representing service agencies, businesses, government, students, and elsewhere to serve as a common voice for those with literacy needs. The mission of the Alliance is to increase awareness of adult literacy and establish a state-wide consortium.

Each of the direct literacy providers has different capabilities and populations, or "customers":

1. *Community Colleges.* Of all the literacy providers in Kansas, community colleges presently have the best access to resources and adults. Part of the mission of the community colleges is to deal with the local adult community, and all community colleges are part of the state's ABE system. Some of the community colleges are familiar with working directly with employers. Community colleges are also fortunate in that they can rely on two sources of funding—mill levies and remedial education reimbursement—that many of the other providers cannot.

2. *Unified School Districts (USD).* Some USDs are part of the ABE system, but generally school districts are oriented toward their mission of providing K-12 instruction. If they were to take on the added responsibility of adult basic skills instruction, many USDs would have to pull already scarce resources away from K-12 instruction. Furthermore, their focus on K-12 means that USDs are not particularly accustomed to working with adults and developing curricula based on adult life situations.

3. *Area Vocational Technical Schools (AVTS).* AVTS do not play a key role in the state's ABE

system: only one of the state's 16 AVTSs is an ABE center. Nevertheless, Kansas AVTSs have a real need for assistance—especially financial assistance—in providing basic skills education. Some AVTSs are already providing their students with basic skills training because they are unable to function in the AVTS classroom. If an AVTS provides this type of instruction, it is not reimbursed by the state and must pull funding from other existing programs. AVTSs are capable of playing a much larger role in basic skills instruction.

4. *Volunteer Literacy Organizations.* Private community-based organizations represent a strong, grassroots commitment to raising adult literacy levels in Kansas. The heart of these organizations is dedicated volunteers who devote their time to working individually with people who cannot read or write. Because of their volunteer nature, they operate with very few resources. Instruction typically focuses on language skills, such as reading, for individuals functioning at very basic grade levels. Volunteer organizations usually do not work with businesses.

Comparison of Adult Basic Education Efforts

An Overview: U.S. and Kansas

Kansas ABE enrollment data is compared to the national averages in Table 3.5. The most current national data were from FY 1988, and are compared to Kansas FY 1990 data. Kansas ABE enrollment totalled 10,274, while the national total was approximately 3 million adults. Kansas ABE centers reached only 2.4 percent of the target population, which includes those over 16 years of age without high school diplomas or not enrolled in school. The national average is not much higher—only 6.8 percent—but it is almost 2.5 times greater than the Kansas average. The vast majority (90 percent) of Kansas ABE enrollment was in grades 0-8 and ESL instruction, compared to the national average of 65 percent. Shares of male and female students were similar for the U.S. and Kansas, while Kansas had a greater proportion of white students. Kansas ABE students tended to be younger than the U.S. average as well.

Total ABE Funding

The total FY 1987 budgets for all state ABE programs are listed in Table 3.6. Funding sources are also split into federal and local/state sources. Because groups' state and local sources are pooled, it is difficult to determine the impact of local sources of revenue. In terms of overall ABE spending, Kansas ranked 42nd, and all of its neighbors had similar rankings—Colorado (41st), Nebraska (45th), Oklahoma (37th)—except for Missouri, which ranked 29th.

Target Population Enrollment

ABE FY 1988 enrollments for each state's ABE programs were compared to the target populations, i.e., an individuals 16 or older without high school diplomas and who are not currently in school (Table 3.7). Kansas served 3.1 percent of its target population in FY 1988, ranking 40th. Kansas' neighbors served about the same percentage of their targets—Colorado, 3.7 percent (ranked 34th); Missouri, 2.7 percent (42nd); Nebraska, 3.7 percent (35th). Oklahoma served a greater proportion of its target population (6 percent), ranking it 16th overall.

K-12 and ABE Per Student Expenditures

Total ABE expenditures, including federal, state, and local revenues, are compared to total K-12 spending on a per-student basis for FY 1987 (Table 3.8). Two types of disparity are evident in the data: 1) the per-pupil spending for ABEs is a fraction of K-12 spending in every state; and 2) each state's total ABE commitment per student varies greatly. Kansas' commitment for ABE (ranked 26th) and K-12 (ranked 21st) appear respectable in comparison to other states. Missouri, Nebraska, and Colorado all ranked lower than Kansas, and Colorado ranked higher than Kansas only for K-12 per pupil funding. Still, the data clearly show that most states are

Table 3.5
Adult Education: U.S. and Kansas Enrollment Data

U.S. ABE Averages, 1988		Kansas ABE Averages, FY 1990	
Target Population[1]	51.8 million	Target Population[1]	424,092
Total Enrollment	3 million	Total Enrollment	10,274
% of target population	5.8%	% of target population	2.4%
Enrollment Breakdown:		Enrollment Breakdown:	
Grade 0-8, ESL	65%	Grade 0-8, ESL	90%
Grade 9-12	35%	Grade 9-12	10%
Male	46%	Male	45%
Female	54%	Female	55%
Native Americans	1%	Native Americans	2%
Asian	11%	Asian	8%
Black	17%	Black	13%
Hispanic	32%	Hispanic	14%
White	39%	White	63%
Ages 16-44	83%	Ages 16-44	89%
Over 60	6%	Over 60	2%

[1]1980 Census figures of those age 16 or over without a high school diploma and out of school.

Source: Division of Adult Education and Literacy, U.S. Department of Education, January 1990.

Source: Kansas State Department of Education, 1990.

reluctant to make adult basic education a high priority, committing fewer resources to their ABE system than to K-12. The data also hide the actual state per pupil allocation by comparing only total funding.

Attrition Rates

ABE attrition rates and rankings for FY 1988 are presented in Table 3.9. Attrition is defined as "separation prior to completion of objectives," and according to the U.S. Department of Education, 7,686 Kansas adults left an ABE program before completion in FY 1988. This was equivalent to an attrition rate of 35 percent, ranking Kansas 35th in the nation. These figures have been challenged because some argue that the definition of an "objective" was not clear and that it was difficult to calculate the rate. Of the states surrounding Kansas, Oklahoma had the lowest attrition (11 percent), ranking it 4th, while Missouri had the highest (57 percent), ranking it 44th. Colorado and Nebraska attrition rates were similar to Kansas—32 percent and 31 percent, respectively.

Kansas and Surrounding States: A More Detailed Comparison

Funding sources for Kansas ABE programs were compared to those of Colorado, Iowa, Missouri, Nebraska, and Oklahoma for FY 1990 (Table 3.10). Program funds were broken down

Table 3.6
Funding for State Adult Basic Education Programs, FY 1987

State	Federal Funding	State & Local Funding	Total Funding	Rank	State	Federal Funding	State & Local Funding	Total Funding	Rank
Alabama	$1,941,392	$ 2,266,520	$ 4,207,912	22	Montana	$ 460,453	$ 395,883	$ 856,336	43
Alaska	314,503	1,511,860	1,826,363	35	Nebraska	689,975	162,222	852,197	44
Arizona	1,070,120	928,900	1,999,020	33	Nevada	465,617	344,774	810,391	45
Arkansas	1,269,596	5,246,470	6,516,066	14	New Hampshire	516,172	213,393	729,565	46
California	7,781,451	121,943,496	129,724,947	1	New Jersey	2,740,718	15,687,979	18,428,697	5
Colorado	973,153	225,500	1,198,653	41	New Mexico	664,599	762,400	1,426,999	38
Connecticut	1,252,556	6,968,510	8,221,066	11	New York	6,875,200	12,240,395	19,115,595	4
Delaware	431,472	163,746	595,218	48	North Carolina	2,965,605	10,272,982	13,238,587	8
Dist. of Columbia	474,371	4,220,535	4,694,906	20	North Dakota	453,945	123,718	577,663	49
Florida	3,968,764	45,535,260	49,504,024	3	Ohio	4,113,867	4,883,876	8,997,743	10
Georgia	2,662,716	1,426,108	4,088,824	24	Oklahoma	1,308,908	168,700	1,477,608	37
Hawaii	473,856	841,851	1,315,707	39	Oregon	980,391	4,471,669	5,452,060	17
Idaho	503,720	193,454	697,174	47	Pennsylvania	4,787,517	660,669	5,448,186	18
Illinois	4,437,628	700,000	5,137,628	19	Rhode Island	620,696	587,964	1,208,660	40
Indiana	2,194,056	14,970,511	17,164,567	6	South Carolina	1653,767	3,959,805	5,613,572	16
Iowa	1,138,845	2,187,042	3,325,887	28	South Dakota	464,512	51,613	516,125	50
Kansas	936,408	172,544	1,108,952	42	Tennessee	2,306,294	673,649	2,979,943	30
Kentucky	1,948,134	277,187	2,225,321	32	Texas	5,961,720	7,485,249	13,446,969	7
Louisiana	1,983,633	5,969,673	7,953,306	12	Utah	554,145	3,342,000	3,896,145	25
Maine	615,998	2,730,548	3,346,546	27	Vermont	392,908	1,517,582	1,910,490	34
Maryland	1,726,299	2,365,597	4,091,896	23	Virginia	2,378,587	1,088,563	3,467,150	26
Massachusetts	1,974,246	9,047,754	11,022,000	9	Washington	1,335,826	3,290,408	4,626,234	21
Michigan	3,450,116	88,813,429	92,263,545	2	West Virginia	1,100,681	1,284,598	2,385,279	31
Minnesota	1,434,067	4,418,260	5,852,327	15	Wisconsin	1,763,444	5,054,862	6,818,306	13
Mississippi	1,350,654	155,500	1,506,154	36	Wyoming	351,939	143,848	495,787	51
Missouri	2,138,291	1,122,086	3,260,377	29					

Source: *State Profiles for Program Year 1988*, Washington D.C.: Clearinghouse on Adult Education and Literacy, U.S. Department of Education, July 1990.

Table 3.7
Adult Basic Education Enrollment as a Percent of the State's Target Population, FY 1988

State	ABE Enrollment as a % of Target Population	Rank	State	ABE Enrollment as a % of Target Population	Rank
Alabama	5.3	22	Montana	3.4	37
Alaska	19.7	2	Nebraska	3.7	35
Arizona	6.2	15	Nevada	4.9	25
Arkansas	0.2	47	New Hampshire	5.3	21
California	NA	NA	New Jersey	3.0	41
Colorado	3.7	34	New Mexico	8.4	8
Connecticut	5.6	19	New York	3.3	38
Delaware	3.6	36	North Carolina	NA	NA
District of Columbia	11.0	5	North Dakota	4.0	30
Florida	15.1	4	Ohio	4.8	26
Georgia	4.3	29	Oklahoma	6.0	16
Hawaii	25.8	1	Oregon	7.6	11
Idaho	17.0	3	Pennsylvania	2.3	43
Illinois	4.4	28	Rhode Island	3.7	32
Indiana	NA	NA	South Carolina	9.4	7
Iowa	9.9	6	South Dakota	5.9	17
Kansas	3.1	40	Tennessee	0.5	46
Kentucky	2.0	45	Texas	5.7	18
Louisiana	NA	NA	Utah	5.1	24
Maine	5.1	23	Vermont	7.7	10
Maryland	6.5	14	Virginia	2.2	44
Massachusetts	4.6	27	Washington	6.8	13
Michigan	3.7	33	West Virginia	3.2	39
Minnesota	5.5	20	Wisconsin	8.0	9
Mississippi	3.8	31	Wyoming	7.4	12
Missouri	2.7	42			

Source: *State Profiles for Program Year 1988*, Washington, DC: Clearinghouse on Adult Education and Literacy, U.S. Department of Education, July 1990.

by federal, state, and local sources of revenue. Iowa had the greatest amount of state support for ABE programs ($9,406,496), and Colorado had none because its match came entirely from local sources. Of the six states, Kansas ranked 4th in terms of state ABE support.

Total ABE funding was compared by state on a per student and per capita basis. Kansas had the greatest per student funding ($255.42), Iowa was second highest ($255.03), and Oklahoma had the lowest ($101.12). Iowa's ABE enrollment, however, was four times greater than that of Kansas. As Table 3.7 illustrated, Iowa reaches approximately 10 percent of its target population, compared to 3 percent in Kansas. On a per capita basis, Iowa again had the highest level ($3.81), followed by Kansas ($1.06). Colorado had the lowest per capita funding of the six states ($0.51). Finally, total ABE funding for each state was compared to its K-12 budget. All of the states had

Table 3.8
K-12 and Adult Basic Education Expenditures Per Pupil, FY 1987

State	Total ABE Spending Per Pupil	Rank	Total K-12 Spending Per Pupil	Rank	State	Total ABE Spending Per Pupil	Rank	Total K-12 Spending Per Pupil	Rank
Alabama	$102.08	39	$2,573	49	Montana	$155.22	22	$4,194	16
Alaska	378.76	4	8,010	1	Nebraska	133.43	29	3,756	29
Arizona	79.42	45	3,544	35	Nevada	88.66	42	3,573	32
Arkansas	253.34	9	2,733	46	New Hampshire	140.44	27	3,933	21
California	156.25	21	3,728	30	New Jersey	553.38	2	5,953	3
Colorado	127.60	32	4,147	18	New Mexico	64.85	48	3,558	33
Connecticut	229.41	12	5,435	3	New York	162.25	20	6,497	2
Delaware	260.15	8	4,825	9	North Carolina	129.06	30	3,129	41
Dist. of Columbia	280.56	7	5,742	4	North Dakota	182.46	18	3,437	37
Florida	124.24	33	3,794	25	Ohio	129.02	31	3,671	31
Georgia	97.21	40	3,374	39	Oklahoma	81.98	44	3,099	42
Hawaii	55.55	50	3,787	26	Oregon	191.17	16	4,337	15
Idaho	54.84	51	2,585	48	Pennsylvania	148.24	25	4,616	11
Illinois	58.65	49	4,106	19	Rhode Island	150.80	23	4,985	8
Indiana	355.26	5	3,556	34	South Carolina	82.05	43	3,237	40
Iowa	103.40	38	3,808	24	South Dakota	110.17	36	3,097	43
Kansas	142.23	26	3,933	21	Tennessee	123.14	34	2,827	45
Kentucky	77.35	46	2,733	46	Texas	65.66	47	3,409	38
Louisiana	178.67	19	3,069	44	Utah	188.28	17	2,415	50
Maine	252.51	10	3,850	23	Vermont	401.36	3	4,399	13
Maryland	137.33	28	4,777	10	Virginia	193.41	15	3,780	28
Massachusetts	338.87	6	5,145	7	Washington	231.31	11	3,964	20
Michigan	582.93	1	4,353	14	West Virginia	121.49	35	3,784	27
Minnesota	204.96	13	4,180	17	Wisconsin	198.07	14	4,523	12
Mississippi	97.02	41	2,350	51	Wyoming	149.06	24	5,201	6
Missouri	110.04	37	3,472	36					

Source: *State Profiles for Program Year 1988*, Washington, DC: Clearinghouse on Adult Education and Literacy, U.S. Department of Education, July 1990.

a total ABE commitment which was less than 1 percent of its total K-12 budget.

State support for ABE programs was also compared on a per student, per capita basis. Because Colorado did not allocate any state funds towards ABE programs, no analysis could be done at this level. Iowa had the greatest per student funding ($226.62), followed by Missouri ($55.28). Nebraska had the lowest per student funding ($3.09). When calculated on a per capita basis the pattern was similar: Iowa was the highest ($3.39), followed by Missouri ($0.34), and Nebraska was the lowest ($0.01). Lastly, when each state's ABE commitment was compared to its K-12 budget, all six states had an ABE commitment which was less than one percent of state aid to K-12, with the exception of Iowa.

The results indicate that none of the six states has an ABE commitment which compares to their K-12 programs. It is clear, however, that Kansas

Table 3.9
Attrition Rate and Rank of Adult Basic Education Programs, FY 1987

State	Attrition Rate (%)	Rank	State	Attrition Rate (%)	Rank
Alabama	28	24 (t)	Montana	51	43
Alaska	21	11 (t)	Nebraska	31	27
Arizona	33	30 (t)	Nevada	15	6 (t)
Arkansas	95	47	New Hampshire	23	16 (t)
California	NA	NA	New Jersey	32	29
Colorado	32	28	New Mexico	20	10
Connecticut	24	18 (t)	New York	33	30 (t)
Delaware	16	8	North Carolina	NA	NA
District of Columbia	26	21	North Dakota	22	14 (t)
Florida	21	11 (t)	Ohio	33	30 (t)
Georgia	34	34	Oklahoma	11	4
Hawaii	5	1	Oregon	37	37
Idaho	13	5	Pennsylvania	28	24 (t)
Illinois	23	16 (t)	Rhode Island	24	18 (t)
Indiana	NA	NA	South Carolina	21	11 (t)
Iowa	27	22 (t)	South Dakota	15	6 (t)
Kansas	35	35	Tennessee	89	46
Kentucky	69	45	Texas	36	36
Louisiana	NA	NA	Utah	30	26
Maine	7	2 (t)	Vermont	33	30 (t)
Maryland	7	2 (t)	Virginia	38	38
Massachusetts	22	14 (t)	Washington	27	22 (t)
Michigan	47	42	West Virginia	46	41
Minnesota	39	39	Wisconsin	42	40
Mississippi	24	18 (t)	Wyoming	19	9
Missouri	57	44			

Source: U. S. Department of Education, Division of Adult Education and Literacy, 1988.

lags behind three of the six states in its state funding, and because Kansas had the greatest local commitment for ABE programs, the total per capita and per student figures were better than four of the other states.

Summary

After comparing the Kansas ABE system to other states by several measures—funding, target enrollment, per pupil expenditures, and attrition rates—one clear conclusion emerges: Kansas must increase state support for adult basic education.

In sum, several important points can be made about the Kansas ABE system:

1. Per pupil program funding varies widely among the state's 37 centers; however, per pupil funding—ranging from $74.56 to $788.39—is much less than K-12 per pupil funding.

2. The state's ABE system relies on funding from federal and local sources to provide its services, and in FY 1990 these sources made up

Table 3.10
Adult Basic Education Funding in Kansas and Surrounding States, FY 1990

	Kansas	Colorado	Iowa	Missouri	Nebraska	Oklahoma
Source of ABE Funds:						
Federal	$1,288,997	$1,343,000	$1,179,130	$2,795,716	$792,158	$1,872,419
State	186,000	0[1]	9,406,496[2]	1,758,738	19,009	285,600
Local	1,149,207[3]	322,079	NA	NA[4]	116,679	300,000
Total Sources	$2,624,204	$1,665,079	$10,585,626	$4,554,454	$927,846	$2,458,019
Total ABE Funding:						
Per Student	$255.42	$136.39	$255.03	$143.15	$150.70	$101.12
Per Capita	1.06	0.51	3.81	0.89	0.59	0.78
% of K-12 Budget	*0.28%*	*0.16%*	*1.24%*	*0.42%*	*0.69%*	*0.30%*
State ABE Funding:						
Per Student	18.10	-----	226.62	55.28	3.09	11.75
Per Capita	0.08	-----	3.39	0.34	0.01	0.09
% of K-12 Budget	*0.02%*	-----	*1.10%*	*0.16%*	*0.01%*	*0.03%*
# ABE Students[5]	10,274	12,208	41,507	31,815	6,157	24,307
State Population[6]	2,477,574	3,294,394	2,776,755	5,117,073	1,578,385	3,145,385
State Aid—K-12	920,941,849	1,014,440,408	851,904,268	1,096,071,340	133,616,100	830,915,958

[1]The state match in Colorado comes entirely from local sources.
[2]State/local match are combined, but the majority are state funds. Also includes direct/indirect funding, direct funds total $7,036,040.
[3]The report of local funding in Kansas includes a rough estimate of in-kind contributions.
[4]The local funding in Missouri consists mostly of in-kind contributions.
[5]12 contact hours or more.
[6]U.S. Bureau of the Census, 1990.

Source: State Departments of Education.

93 percent of the total program funding sources. While the state has been diligent in meeting the federally required match, it has been careful not to exceed it.

3. ABE program funds, by and large, go directly to instruction. Few resources are allocated to teacher training or transportation/child care for students.

4. Kansas' ABE population tends to be female, white, between 16 and 44 years of age, and seeking instruction in grade levels 0-8 and ESL instruction. The national ABE population also fits these trends but appears to be less concentrated in grade levels 0-8 and ESL instruction and encompass more minority groups.

5. Kansas ranks in the lower thirty percent in terms of overall ABE funding, target population enrollment, and attrition rate. When compared to other states in terms of total per pupil funding, Kansas ranks in the upper half.

6. Compared to neighboring states—Colorado, Iowa, Missouri, Nebraska, and Oklahoma—Kansas placed third in overall funding and fourth in state funding. When state funding is compared on a per student and per capita basis, Kansas ranked third and fourth, respectively, among these neighboring states.

These key points indicate that the ABE system has not been a high priority for the state. Kansas must begin to dedicate more resources to adult basic skills education and encourage partnerships with business if it wants to remain competitive in the global economy and maintain its standard of living. □

NOTES

1. Judith K. Chynoweth, "Adult Literacy: A New Way of Thinking—A New Partnership," *Enhancing Literacy for Jobs and Productivity Academy Final Report,* Washington, D.C.: Council of State Policy and Planning Agencies, 1987, p. 18.

2. E.Z. Rothkop (ed.), *Review of Research in Education, 15,* Washington, D.C.: American Educational Research Association, 1988, p. 2.

3. Program Services Branch, Division of Adult Education and Literacy, Office of Vocational and Adult Education, Washington, D.C.: U.S. Department of Education, March 1990.

4. *Basic Education for Adults (Revised by Public Law 100-297),* Kansas State Department of Education.

5. *Adult Basic Education (K.S.A. Ch. 72, Art. 45),* Kansas State Department of Education.

6. *A Few Facts About Kansas Adult Basic Education,* Kansas State Department of Education, March 1, 1990.

7. *Kansas Adult Basic Education: Adults Learning Today,* Kansas State Department of Education, 1989, p. 3.

8. *Kansas Adult Basic Education...,* p 13.

9. *Facts About the GED Program in Kansas,* Kansas State Department of Education, March 1, 1990.

4 | Kansas Adult Basic Skill Training System: A Survey of Kansas Programs

Introduction

Adult basic skill training in Kansas is provided by a mix of state and community-based organizations. On the state level, the Adult Basic Education system is a group of centers with direct administrative ties to the Kansas Department of Education, and it consists of programs offered through 19 community colleges, 14 unified school districts, one Area Vocational and Technical School, one private university, and two state institutions. Other supportive state and community agencies also provide adult basic skill training, and this complimentary system includes community-based organizations, Kansas Public Library programs, the state prison, literacy programs, and AVTSs. Instruction offered by this mix of organizations includes:

1. *Adult Basic Academic Skill Training*—training that assists adults who seek to upgrade reading, writing, basic math, and other academic skills.

2. *General Education Development (GED) Testing*—a program for individuals who have not completed their high school education. The GED provides them with a certificate for employment and additional educational opportunities. Centers providing GED testing are designated by the Kansas State Department of Education.

3. *English as a Second Language (ESL)*—training that assists adults whose first language is not English to become fluent and literate in English.

In order to better understand adult basic skills training in Kansas, a survey of ABE and independent programs was conducted in conjunction with a review of an inventory of the basic academic skills programs. The purpose of this survey was to examine how the system works, which services are provided, and to determine how well the system meets the state's needs for a well-trained, adaptable workforce.

Procedures

A background review of the Adult Basic Education (ABE) training system was performed through personal interviews and by review of data/statistics of ABE centers within the public school system, state higher education system, and community agencies. Additionally, a telephone survey of all programs providing adult basic skills training obtained data from Area Vocational Technical Schools (AVTS), community-based organizations (CBOs), community colleges, public library programs, the state prison and hospital, unified school districts (USDs), and entities serving legalized aliens under the State Legalized Impact Grant Programs (SLIAG). Programs were selected at random across the various program areas.

The person directing each program was contacted to take part in the survey. Those who agreed to participate were sent a copy of the survey for their review. Approximately one week later, the participant was contacted for a telephone interview, which lasted about 30 minutes. Three programs, however, chose to fill out the copy of

the survey mailed to them instead of participating in the telephone survey. Follow-up interviews with participants were also undertaken in order to gather more complete information on several questions in the survey.

The survey consisted of four parts. Section A sought background information about each center's operations. Section B focused on program descriptions for instruction provided to adults who do not have a high school diploma or GED certificate and who function at various elementary and secondary educational levels, as well as instruction provided to those needing training in English as a Second Language (ESL). Section C probed for similar information for programs which provided training for those who already had a high school diploma or GED but needed to improve their basic academic skills. Section D was designed to collect information from programs which received direct requests from business and industry for instruction in basic academic skills for their employees.

Of the 77 programs contacted, 62 (or 81 percent) participated in the survey. Of those that were contacted and did not participate, three refused to take part, three entities were no longer functioning, three could not be reached by telephone, and five were part of programs which had been included in the survey. Additionally, one program which had agreed to participate in the mail survey did not return the questionnaire.

Results

Programs Participating in Survey

Breakdown by Type of Program

Sixty-two adult basic academic skills programs were included in the survey, including five Area Vocational Technical Schools, 26 community-based organizations, 18 community colleges, one state hospital and prison, three State Legalized Impact Grant Programs, and eight unified school districts (Table 4.1). All were asked to provide information regarding their programs as they related to the following student categories: 1) adults without a high school diploma; 2) adults with a high school diploma or GED; and 3) business/industry requests for instruction for their employees. The present mission of the ABE system includes students in the first group—those without a high school diploma or GED; ABE programs are not reimbursed for providing basic skills instruction to individuals with a high school diploma or GED or any business/industry seeking basic academic skills instruction. Of the 62 programs in our survey, 33 were ABE centers.

Centers Providing Instruction in Each Student Category

The number of centers providing adult basic academic skills instruction varied by student categories:

- ***Adults without diploma or GED***—56 programs (for grade level 0-5.9 instruction), 52 (level 6-8.9), 48 (level 9-12), and 45 (ESL) (Table 4.2).

Table 4.1
Basic Academic Skills Programs Participating in Survey

Category	Number of Participants	Percent of Total
AVTS	5	8.1
CBO[1]	26	41.9
CC[2]	18	29.0
Others[3]	2	3.2
SLIAG[4]	3	4.8
USD	8	12.9
Total	62	100.0

[1]Includes community based programs, library programs, and literacy organizations.
[2]Includes community colleges.
[3]Includes the state prison and state hospital.
[4]Includes entities funded under the State Legalized Impact Assistance Grant program.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.2
Basic Academic Skills Instruction Provided to Adults Without High School Diploma or GED: Number of Programs and Percent of Category

Category	Educational Functioning Level 0-5.9	6-8.9	9-12	ESL
AVTS	3 (60%)	3 (60%)	3 (60%)	1 (20%)
CBO	24 (92.3%)	20 (76.9%)	17 (65.4%)	17 (65.4%)
CC	18 (100%)	18 (100%)	18 (100%)	16 (88.9%)
Others	2 (100%)	2 (100%)	1 (50%)	1 (50%)
SLIAG	1 (33.3%)	1 (33.3%)	1 (33.3%)	3 (100%)
USD	8 (100%)	8 (100%)	8 (100%)	7 (87.5%)
Total	56 (90.3%)	52 (83.9%)	48 (77.4%)	45 (72.6%)

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

These grade levels correspond to the following skill levels:

1. *0-5.9 Grade* (Basic Skill Level)—*Math Skills:* a continuum including a) solving basic addition and subtraction, up to three columns; b) rounding whole numbers; c) solving problems of multiplication and division; d) understanding fractions and measurements; and e) solving one-step word problems. *Reading Skills:* a continuum of skills that includes recognition and understanding of enough written words to read and follow simple instructions.

2. *6-8.9 Grade* (Intermediate Skill Level)—*Math Skills:* a continuum including a) multiplying and dividing decimals and/or fractions; b) using graphs/charts/tables; and c) solving multi-step word problems. *Reading Skills:* a continuum of reading skills that includes recognition and understanding of enough written words to understand complex instructions.

3. *9-12 Grade* (Secondary Skill Level)—*Math Skills:* a continuum including a) solving algebraic equations; b) identifying necessary/unnecessary information in word problems; c) understanding basic geometry; d) writing ratios for given information; and e) solving simple problems involving probability. *Reading Skills:* a continuum including the ability to a) discriminate between fact and opinion, as well as cause and effect; b) summarize information and draw conclusions; and c) identify necessary information for problem solving.

4. *English as a Second Language (ESL)*—a continuum of reading, writing, and verbal/listening skills for those who are learning English as their second language.

- ***Adults with a diploma or GED***—44 programs provide basic academic skills instruction (Table 4.3).

- ***Business/industry requests***—15 programs, 11 of which were ABE centers, reported requests from business (Table 4.4).

Funding Sources

Survey participants were asked to indicate which of the following funding sources were utilized for their programs:

1. *State Department of Education.* The Department funds ABE programs, in conjunction with the federal government, to assist adults

Table 4.3
Basic Academic Skills Instruction Provided to Adults With High School Diploma or GED

Category	Number Providing Instruction	Portion of Total Category Surveyed	Portion of Total Providing Instruction
AVTS	4	80%	9%
CBO	16	61.5%	36.4%
CC	14	77.8%	31.8%
Others	1	50%	2.3%
SLIAG	2	66.7%	4.5%
USD	7	87.5%	15.9%
Total	44	71.0%	100%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.4
Programs Receiving Requests From Business/Industry for Basic Academic Skills Instruction

Category	Number Receiving Requests	Portion of Total Receiving Requests	Portion of Total Category Surveyed
AVTS	2	13.3%	40%
CBO	5	33.3%	31.3%
CC	7	46.7%	50%
USD	1	6.7%	14.3%
Total	15	100.0%	24.2%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

without a high school diploma or GED in learning basic and "living" skills.

2. *Federal Government.* Funding, as authorized by the Adult Education Act, for ABE centers.

3. *Local USDs.* Local school districts can levy up to a one-half mill levy to support adult basic education programs for a five year period.

4. *City/County Government.* Local governments may contribute to local adult education or literacy efforts.

5. *Student Fees.* Student fees may cover GED testing fees, materials, etc. ABE students cannot be charged fees, by law.

6. *Social and Rehabilitation Services (SRS).* SRS clients may be assessed to determine their

skill levels and then referred for additional education. SRS and JTPA both work through the existing Adult Basic Education system in upgrading the basic academic skills of their clients.

7. *Job Training Partnership Act (JTPA).* State and federal program for remedial education, on-the-job training, customized training, classroom training, and coordination of projects with other social, training, and educational services.

8. *Other.* Includes private donations, grants, and matching funds. Community colleges can also ask voters to approve up to a one-quarter mill levy for ABE centers.

Survey participants indicated that the total from funding sources for all of their basic academic skills programs was divided among the following: 1) federal—29 percent; 2) other sources, including private donations, grants, matching funds, and community college mill levies—22 percent; 3) Kansas Department of Education—21 percent; 4) local Unified School Districts—16 percent; and 5) SRS, JTPA, student fees, and city/county government—all less than 6 percent each (Table 4.5).

Furthermore, for instruction provided to individuals with a diploma or GED, respondents relied on the following funding sources: 1) federal—43.2 percent; 2) other sources, including private donations and matching funds—34.1 percent; 3) Kansas State Department of Education—31.8 percent; 4) local USD—29.5 percent; 5) student fees—11.4 percent; and 6) JTPA, city/county government, and SRS—all less than 7 percent each (Table 4.6).

These results demonstrate the impact that other funding sources—especially local ones—have on the budgets of basic academic skills programs. Also, community-based organizations which are not part of the ABE system do not receive much, if any state support. These results also show that the state does not make a significant contribution to adult basic education programs, compared to other funding. However, because these data represent a variety of programs—not just ABEs—and their funding sources, they tend to hide the fact that federal support for ABE programs is actually three times greater than Kansas' state support (see Chapter 3).

Table 4.5
Basic Academic Skills Programs: Funding Sources for FY 1990

Source	Percent of Total Funding
Federal	29
Other	22
State DOE	21
Local USD	16
SRS	6
JTPA	4
Student Fees	1
City/County Government	0.4

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.6
Funding Sources for Basic Academic Skills Instruction Provided to Adults With High School Diploma or GED

Source	Percent Receiving Funding
Federal	43.2
Other	34.1
State DOE	31.8
Local USD	29.5
Student fees	11.4
JTPA	6.8
City/County Government	2.3
SRS	2.3

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.7
Total Number of Persons Receiving
Basic Academic Skills Instruction During FY 1990

Program Type	In County	Out of County	Total	Percent of Total
AVTS	1,470	300	1,770	8.4
CBO	3,953	771	4,724	22.3
CC	6,946	1,298	8,244	38.9
Others	846	0	846	4.0
SLIAG	1,420	30	1,450	6.8
USD	3,865	273	4,138	19.4
Total	18,500	2,672	21,172	100

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.8
Number of Adults Without High School Diploma or GED
in Each Educational Functioning Level

Category	0-5.9	6-8.9	9-12	ESL
AVTS	50	200	100	--
CBO	812	712	430	1,031
CC	2,218	2,104	1,069	1,764
Others	313	232	78	23
SLIAG	--	--	--	1,070
USD	1,588	1,432	601	424
Total	4,981	4,680	2,278	4,312

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Number of Persons Receiving Instruction

The total number of adult basic academic skills students served in FY 1990 was approximately 21,172 (Table 4.7). The programs with the greatest share of students included: 1) community colleges—8,244 students (38.9% of the total); 2) CBO—4,724 (22.3%); and 3) USD—4,138 (19.4%). Furthermore, 2,672 students (or 13%) commuted to another county for instruction. Those programs serving the greatest number of out-of-county residents included: 1) community colleges—1,298 and 2) CBO—771 students.

Programs serving adults with and without a diploma or GED provided enrollment figures. The total of the two groups, however, exceeds the overall total because these figures include all students who enroll in a program more than once during the year. Therefore, a student may be counted every time he/she re-enrolls in a program. The programs serving the greatest proportion of

Table 4.9
Number of Adults With High School Diploma or GED Receiving Basic Academic Skills Instruction in FY 1990

Category	Total Number	Percent of Total
AVTS	4,653	56.4
CBO	1,844	22.3
CC	1,394	16.9
Others	0	0
SLIAG	250	3.0
USD	115	1.4
Total	8,256	100

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.10
Location of Adults Receiving Instruction During FY 1990

Location	Number of Individuals
Rural	8,963 (42%)
Urban	12,209 (58%)
Total	21,172

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.11
Location of Adults Without High School Diploma or GED

	Educational Functioning Level				
Category	0-5.9	6-8.9	9-12	ESL	Total
Rural	1,995 (40%)	1,869 (40%)	1,283 (56%)	2,024 (47%)	7,171 (44%)
Urban	2,986 (60%)	2,811 (60%)	995 (44%)	2,288 (53%)	9,080 (56%)
Total	4,981	4,680	2,278	4,312	16,251

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

students included, for *adults without a diploma or GED*, community colleges and USDs (Table 4.8); and for *adults with a diploma or GED*, the AVTSs (Table 4.9).

The fact that community colleges and USDs serve the greatest proportion of students without a high school diploma or GED demonstrates the relative strength of the ABE system in reaching adults. However, survey results indicated that most students were located in urban areas as compared to rural areas. For the purpose of our survey, any county with population greater than 50,000 was considered urban. Students in urban areas make up 58 percent of the total, 56 percent of students without a diploma or GED, and 81.2 percent of students with a diploma or GED (Tables 4.10-4.12). Students in rural areas make up 42 percent of the total, 44 percent of students without a diploma or GED; and 18.8 percent of students with a diploma or GED.

Table 4.12
Location of Adults With High School Diploma or GED Receiving Basic Academic Skills Instruction in FY 1990

Area	Number of Individuals
Rural	1,550 (18.8%)
Urban	6,706 (81.2%)
Total	8,256

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Because the majority of students are from urban areas, one might assume that adults in rural areas do not need or want basic academic skills instruction. As the next section illustrates, however, our survey also found that this rural/urban disparity in enrollment may be due, in part, to a lack of basic skills programs in rural areas.

Program Accessibility and Availability

Counties Served

Survey respondents were located in and directly served 39 counties. Fifty-one counties were served by programs located in adjacent counties, and 15 of the state's counties were not served by any of the programs participating in our survey (Tables 4.13A-C, Figure 4.1). All of the counties not served by our sample—Clark, Cloud, Elk, Greeley, Hamilton, Hodgeman, Jewell, Logan, Mitchell, Ottawa, Pawnee, Republic, Sheridan, Smith, and Wallace—are considered rural counties. As pointed out in Chapter 3, every county should be served by an ABE or its satellite. Although one of the counties not served in our sample (Cloud County) does have a community college, the data suggest that the other counties may be presently ignored by basic academic skills programs.

Table 4.13A
Counties Served by Survey Respondents: Program Located in County

County	CBO	CC	USD	AVTS	SLIAG
Allen		•			
Atchison				•	
Barton		•			
Bourbon		•			
Butler		•			
Clay	•				
Cowley		•			
Crawford	•		•		
Doniphan		•			
Douglas	•				
Ellis	•		•		
Finney		•			
Ford	•	•		•	•
Franklin	•				
Geary	•				
Harvey			•		
Jackson	•				
Johnson		•		•	
Kingman	•				
Labette		•			
Leavenworth	•	•			
Lyon			•		
Marshall	•				
Miami	•				
Montgomery		•			
Morris	•				
Neosho		•			
Osborne	•				
Pratt	•	•			
Reno	•	•			
Riley	•				
Rooks			•		
Russell	•				
Saline			•	•	
Sedgwick	•		•		•
Seward		•			
Shawnee	•		•		
Thomas		•			
Wyandotte	•	•		•	•

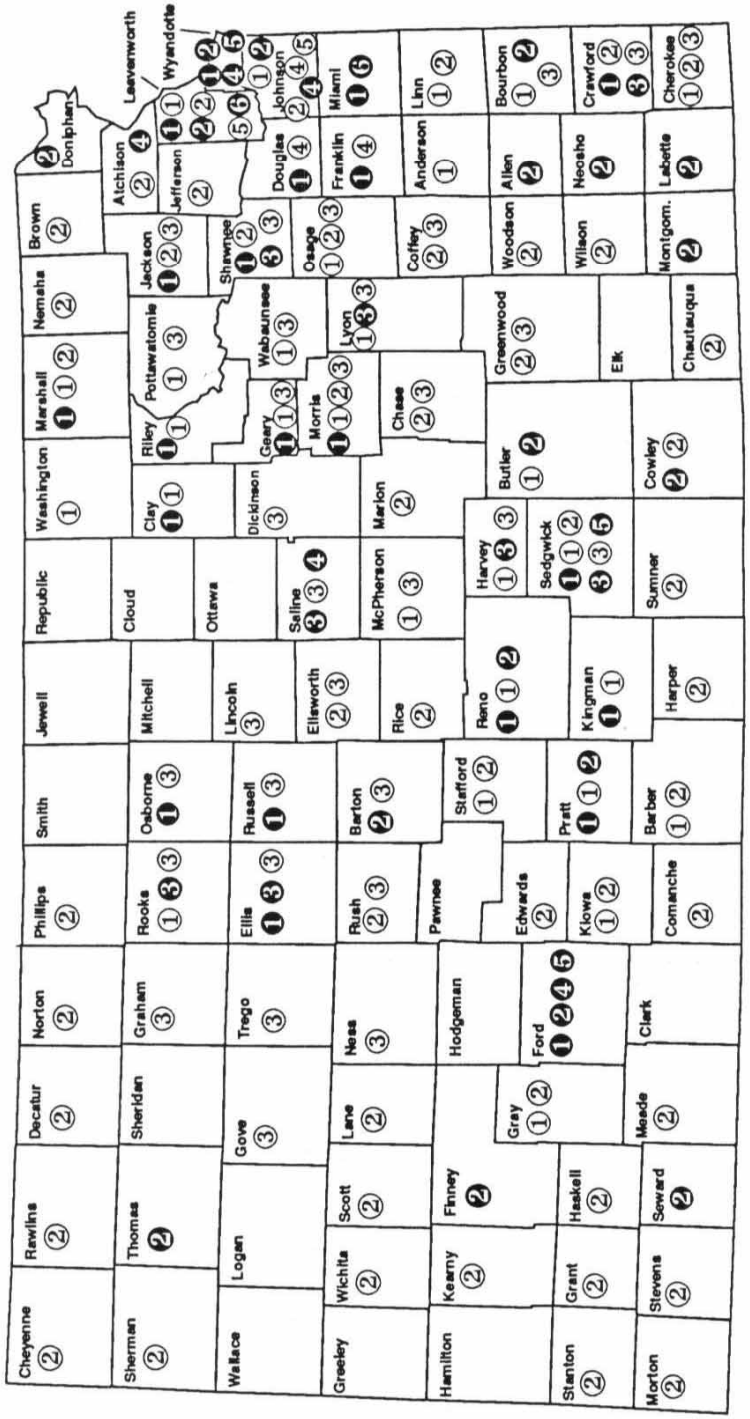
Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.13B
Counties Served by Survey Respondents:
Programs Located in Other Counties

County	CBO	CC	USD	AVTS	SLIAG	County	CBO	CC	USD	AVTS	SLIAG
Anderson	●					Lincoln			●		
Atchison		●				Linn	●	●			
Barber	●	●				Lyon	●		●		
Barton			●			Marion		●			
Bourbon	●		●			Marshall	●	●			
Brown		●				McPherson	●		●		
Butler	●					Meade		●			
Chase		●	●			Morris	●	●	●		
Chautauqua		●				Morton		●			
Cherokee	●	●	●			Nemaha		●			
Cheyenne		●				Ness			●		
Clay	●					Norton		●			
Coffey		●	●			Osage	●	●	●		
Comanche		●				Osborne			●		
Cowley		●				Phillips		●			
Crawford		●	●			Pottawatomie	●		●		
Decatur		●				Pratt	●				
Dickinson			●			Rawlins		●			
Douglas				●		Reno	●				
Edwards		●				Rice		●			
Ellis			●			Riley	●				
Ellsworth		●	●			Rooks	●		●		
Franklin				●		Rush		●	●		
Geary	●		●			Russell			●		
Gove			●			Saline			●		
Graham		●				Scott		●			
Grant		●				Sedgwick	●	●	●		
Gray	●	●				Shawnee		●	●		
Greenwood			●	●		Sherman		●			
Harper			●			Stafford	●	●			
Harvey	●		●			Stanton		●			
Haskell		●				Stevens		●			
Jackson		●	●			Sumner		●			
Jefferson		●				Trego			●		
Johnson	●	●		●	●	Wabaunsee	●		●		
Kearny		●				Washington	●				
Kingman	●					Wichita		●			
Kiowa	●	●				Wilson		●			
Lane		●				Woodson		●			
Leavenworth	●	●			●						

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Figure 4.1
Counties Served by Basic Skills Providers Surveyed



An unshaded number indicates the county is served by an organization from another county.

Table 4.13C
Counties Not Served by Survey Respondents

Clark	Mitchell
Cloud	Ottawa
Elk	Pawnee
Greeley	Republic
Hamilton	Sheridan
Hodgeman	Smith
Jewell	Wallace
Logan	

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Waiting Periods

Waiting periods for instruction were greatest in rural areas and were 2.5 to 4 times longer than those in urban portions of the state (Tables 4.14-4.15). Students seeking ESL instruction in rural areas faced the longest waiting periods; most programs surveyed, however, had *no* waiting period for instruction.

Hours of Instruction

Ninety-three percent of the programs had open entry and exit, which means that students can enroll and continue instruction for as long as they desire. Over 60 percent of the programs offered instruction during the morning and afternoon, Monday through Friday, and evenings (Table 4.16). Only 15 percent provided Saturday instruction.

Ability to Meet Business Requests for Instruction

Fifteen of the 62 programs surveyed received requests from business/industry to provide basic academic skills instruction for their employees. During FY 1990, the programs reported a total of 198 requests. Forty percent of those receiving requests (six programs) stated that they were able to meet all business/industry requests, and almost three-fourths of the programs met 80 percent or more of the requests (Table 4.17). Only one of the programs—a community based organization—did not serve any business/industry requests.

Table 4.14
Adult Basic Academic Skills Programs With Waiting List: Number of Weeks Spent on Waiting List

	Educational Functioning Level			
Category	0-5.9	6-8.9	9-12	ESL
AVTS	2 (1)*	2 (1)	2 (1)	--
CBO	2.3 (7)	2 (3)	2 (3)	4.6 (5)
CC	21 (2)	12 (1)	12 (1)	36 (1)
Others	4 (1)	4 (1)	4 (1)	2.1 (1)
SLIAG	--	--	--	--
USD	.3 (1)	.3 (1)	.3 (1)	4.2 (2)
Total	5.4 (12)	3.5 (7)	3.5 (7)	7.8 (9)

*Number in parentheses is the number of programs with a waiting list.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.15
Average Number of Weeks on Waiting List:
Urban vs. Rural

Category	Educational Functioning Level 0-5.9	6-8.9	9-12	ESL
Urban	1.9	2.3	2.3	4.7
Rural	8.2	6.5	6.5	11.8

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.16
Times that Basic Academic Skills Programs are Open

Program Type	Morning Only	Afternoon Only	Morning and Afternoon	Evenings	M-F	Saturday	Other*
AVTS	20%	--	60%	20%	60%	--	--
CBO	3.8%	--	69.2%	50%	53.8%	26.9%	38.5%
CC	5.6%	11.1%	88.9%	77.8%	66.7%	11.1%	27.8%
Others	--	--	100%	--	50%	--	--
SLIAG	--	--	66.7%	66.7%	100%	--	--
USD	--	--	75%	100%	75%	--	37.5%
Total	5%	3%	77%	62%	64%	15%	30%

*Includes hours by appointment, Monday-Thursday hours, and single evenings.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.17
Percentage of Business Requests for
Basic Academic Skill Instruction that Were Met

Requests Served	Programs Serving That Amount AVTS	CBO	CC	USD	Total
None Served	--	20%	--	--	6.7%
40%	--	--	14.3%	--	13.3%
50%	--	--	28.6%	--	6.7%
80%	--	--	14.3%	--	6.7%
90%	50%	--	--	100%	13.3%
95%	50%	--	14.3%	--	13.3%
100%	--	80%	28.6%	--	40.0%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Instruction Requested by Business/Industry

Business/industry most often requested instruction for employees that focused on the most basic skills: grade level 0-5.9 skills (Table 4.18). Secondary (grade level 9-12) instruction and other skills—including money management and job-specific skills—were also requested. Very few programs reported requests for ESL instruction, and no program indicated that it had provided training for grade levels 6-8.9 or post-secondary instruction.

Time and Place of Instruction

Business/industry instruction usually took place at the program center and during times which were most convenient for the student and instructor (Tables 4.19-4.20). However, one-third of the programs indicated that they had provided instruction at the business site, and one-fourth stated that instruction had taken place during work hours.

Completion of Instruction

Only 22 percent of the programs providing business/industry instruction stated that 80-95 percent of students continued instruction until they functioned at a level required by their employer (Table 4.21). In fact, 11 percent of the programs stated that none of their students completed instruction, and one-third of the programs stated that only half of their students were able to complete instruction.

Basic Academic Skills Taught to Students

Survey participants were asked to indicate which skills were taught at each educational/grade level to adults without a high school diploma or GED **(Table 4.22).** In addition, programs providing basic skills instruction to adults with a diploma or GED or as a result of business/industry requests were asked to indicate which skills were taught (Table 4.23). Survey respondents were asked to classify their instruction in each skill area in one of three ways: 1) *direct*—instruction occurs and skills are likely to be acquired; 2) *indirect*—explicit instruction may not occur but skills are likely to be acquired as a result of training in other skills; and 3) *none*—explicit instruction does not occur and the skills are not likely to be acquired. The results for the three student categories were as follows:

- ***Without diploma or GED.*** Language skills, including writing, simple and complex reading, and listening/verbal comprehension were taught more frequently than math or other skills (Table 4.24). CBOs especially tended to focus on language-oriented skills. Furthermore, as skills became more complex, they were more likely to be taught in the higher educational levels. (Appendix 3 presents additional information regarding skills taught by each program category.)

- ***With a diploma or GED.*** Language skills, including reading and listening/verbal comprehension, were most prevalent (Table 4.25). CBOs focused more heavily on language-oriented skills, while AVTSs tended to highlight math and other skills. (Appendix 7 presents additional skills data by program category.)

- ***Business/industry requests.*** Listening/verbal comprehension and teamwork were most frequently taught (Table 4.26). Once again, CBOs offered a less complete array of skills instruction when compared to the other categories, focusing instead on language skills.

Role of Business

Area businesses generally played no role—with the exception of AVTSs—in establishing curriculum, competency recommendations, or selecting instructional materials (Tables 4.27-4.29). This was especially true for instruction provided to individuals with and without a diploma or GED. AVTSs were the sole exception, and they reported relying on the input of businesses through advisory councils. Businesses did play a more influential role in establishing curriculum as a result of their requests for instruction for their employees. In that case, they most often offered business input through general advice or advisory councils.

Table 4.18
Instruction Level Requested Most Frequently by Businesses

Level	Portion of Total Requests AVTS	CBO	CC	USD	Total
Basic (0-5.9)	--	40%	57.1%	--	46.2%
Secondary (9-12)	--	20%	14.3%	--	23.1%
ESL	--	20%	--	--	7.7%
Other*	100%	20%	28.6%	--	23.1%

*Includes money management and job-specific skills.

Table 4.19
Requested Location for Basic Academic Skills Instruction Provided to Business/Industry

Location	Portion of Responses AVTS	CBO	CC	USD	Total
At center	--	60%	28.6%	--	40.0%
At business site	--	20%	28.6%	--	33.3%
Other*	100%	20%	42.9%	100%	26.7%

*Includes locations most convenient for student and instructor.

Table 4.20
Requested Instruction Time for Basic Academic Skills Instruction Provided to Business/Industry

Time	Portion of Responses AVTS	CBO	CC	USD	Total
Work hours	100%	40%	--	--	26.7%
Evenings	--	20%	42.9%	100%	33.3%
Other*	--	40%	57.1%	--	40.0%

*Includes periods between shift changes, a combination of employee/employer hours, or times convenient for the student and instructor.

Table 4.21
Percentage of Employees Who Continue Basic Academic Skills Instruction Until Functioning at Level Required by Employer

Students Continuing Instruction	Portion of Programs Reporting AVTS	CBO	CC	USD	Total
0%	--	50%	--	--	11.1%
50%	--	50%	50%	--	33.3%
65%	--	--	25%	--	11.1%
75%	50%	--	25%	--	22.2%
80%	--	--	--	100%	11.1%
95%	50%	--	--	--	11.1%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.22
Definitions of Skills Taught to Adults Without High School Diploma or GED

Computation (Math) Skills

Basic Calculations—basic calculations using addition, subtraction, multiplication, division, and measurements;

Probability and Statistics—percentages, ratios, and elementary probability and statistics;

Algebra and Geometry—elementary algebra and geometry;

Tables and Diagrams—ability to read and understand graphs, charts, tables, and diagrams.

Language Skills

Writing—writing standard English sentences correctly, and organizing and translating thoughts into coherent written form;

Simple Reading—recognition and understanding of enough written words to read simple instructions;

Complex Reading—recognition and understanding of enough written words to read complex instructions;

Listening and Verbal Comprehension—listening and verbal comprehension skills, such as following instructions or directions given verbally and asking questions when clarification is needed.

Other Skills

Teamwork—teamwork and interpersonal skills, such as engaging critically and constructively in the exchange of ideas and communicating effectively with others;

Problem Solving—problem solving/analytical skills, such as recognizing and defining problems and problem solving strategies;

Attitudes—personal attitudes and responsibilities, such as showing respect for others, pride in one's work and demonstrating honesty, integrity, punctuality, and attendance;

Adaptability and Flexibility—adaptability and flexibility, including a positive attitude toward learning and being open to change.

Table 4.23
Definitions of Skills Taught to Adults With High School Diploma or GED or as a Result of Business/Industry Requests

Computation (Math) Skills

Includes: a) solving problems with emphases on multiplication, division, measurements, percentages, ratios, elementary probability and statistics, basic algebra and geometry; and b) use of graphs, charts, tables, word problems, and calculators.

Language Skills

Writing—organizing and translating thoughts into coherent written form, writing a report based on information gathered from more than one source, and correctly filling out forms.

Reading—recognizing and understanding enough written words to comprehend complex instructions and use of a dictionary.

Listening/Verbal Comprehension—following directions given verbally and asking questions when clarification is needed.

Other Skills

Teamwork/Interpersonal—engaging critically and constructively in the exchange of ideas and communicating effectively with others.

Problem Solving/Analytical—recognizing and defining problems, utilizing problem solving strategies, and distinguishing between fact and opinion.

Personal Attitudes and Responsibilities—showing respect for others, having pride in one's work, demonstrating honesty and integrity, exhibiting punctuality and attendance, showing initiative, dressing appropriately for work, maintaining self-control, and having ability to work productively with minimum supervision.

Adaptability/Flexibility—having a positive attitude toward learning and being open to change.

Personal Computer Skills—care and use of disks, starting and rebooting, understanding applications, and printing.

Table 4.24
Basic Academic Skills Taught Directly/Indirectly to Adults Without High School Diploma or GED in Each Educational Functioning Level

Skill Area	Educational Functioning Level 0-5.9	6-8.9	9-12	ESL
Computation (Math) Skills				
Basic Calculation	78.6%	82.7%	85.4%	53.3%
Probability/Statistics	48.2%	78.8%	85.4%	42.2%
Algebra/Geometry	33.9%	57.7%	87.5%	37.8%
Tables/Diagrams	66.1%	82.7%	85.4%	66.7%
Language Skills				
Writing	82.1%	84.6%	85.4%	80.0%
Simple Reading	87.5%	84.6%	85.4%	84.4%
Complex Reading	66.1%	76.9%	85.4%	73.3%
Listening/Verbal Comp.	82.1%	82.7%	90.0%	82.2%
Other Skills				
Teamwork	64.3%	75.0%	79.2%	77.7%
Problem Solving	64.3%	75.0%	85.4%	66.7%
Attitudes	82.1%	82.7%	83.3%	82.2%
Adaptability/Flexibility	76.8%	78.8%	83.3%	77.7%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.25
Basic Academic Skills Taught Directly/Indirectly to Adults With High School Diploma or GED

Skill		Portion Taught Directly	Indirectly	Total
Computation/Math Skills		77.2%	2.3%	79.5%
Language Skills	Writing	75%	4.5%	79.5%
	Reading	70.5%	13.6%	84.1%
	Listening/Verbal Comp.	52.3%	31.8%	84.1%
Other Skills	Team/Interpersonal	27.3%	45.5%	72.8%
	Prob.Solving/Analytical	61.4%	20.5%	81.9%
	Attitudes	40.9%	43.2%	84.1%
	Adaptability/Flexibility	36.4%	43.2%	79.6%
	Computer	47.7%	4.5%	52.2%

Source: 1991 Survey of Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.26
Basic Academic Skills Taught Directly/Indirectly to Business/Industry

Skill		Portion Reporting That Skills are Taught Directly	Indirectly	Total
Computation/Math Skills		60.0%	20.0%	80.0%
Language Skills	Writing	73.3%	6.7%	80.0%
	Reading	60.0%	20.0%	80.0%
	Listening/Verbal Comp.	53.3%	33.3%	86.6%
Other Skills	Team/Interpersonal	20.0%	66.7%	86.7%
	Prob.Solving/Analytical	40.0%	40.0%	80.0%
	Attitudes	33.3%	46.7%	80.0%
	Adaptability/Flexibility	13.3%	66.7%	80.0%
	Computer	33.3%	20.0%	53.3%

Source: 1991 Survey of Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.27
Role of Area Businesses in Basic Academic Skills Curriculum Development for Adults Without High School Diploma or GED

Role	Portion Responding AVTS	CBO	CC	Others	SLIAG	USD	Total
General Input*	50%	9.1%	23.5%	--	--	57.1%	20.8%
No Role	--	81.8%	64.7%	100%	33.3%	42.9%	66%
Competency Rec.	50%	4.5%	5.9%	--	66.7%	--	9.4%
JR Curriculum	--	4.5%	5.9%	--	--	--	3.8%

*Includes input through advisory councils, as well as general advice from business.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.28
Role of Area Businesses in Basic Academic Skills Curriculum Development for Adults With High School Diploma or GED

Role	Portion Responding AVTS	CBO	CC	Others	SLIAG	USD	Total
General Input*	100%	6.7%	28.6%	--	--	33.3%	25%
No Role	--	86.7%	64.3%	100%	100%	66.7%	70%
Competency Rec.	--	6.7%	7.1%	--	--	--	5%

*Includes input through advisory councils, as well as general advice from business.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.29
Role of Business in Basic Academic Skills Curriculum Development for Business/Industry Instruction

Role	Portion Responding AVTS	CBO	CC	USD	Total
General Input*	100%	60%	14.3%	--	40.0%
No Role	--	--	57.1%	100%	33.3%
Competency rec.	--	20%	--	--	6.7%
Input-JR materials	--	20%	28.9%	--	20.0%

*Includes input through advisory councils, as well as general advice from businesses.
Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Instruction Methods

Survey participants indicated which teaching models, types of staff, and instruction materials were most commonly utilized in basic academic skills instruction. With few exceptions the majority of programs employed similar instruction methods for all three student categories.

Teaching Models

Overall, individualized one-on-one instruction was most commonly utilized in providing instruction to individuals with and without diplomas or GEDs. In those cases, individualized instruction was used for more basic grade levels and ESL instruction, decreasing slightly through grades 6-12 as use of academic instruction increased. For basic academic skills instruction provided as a result of requests from business/industry, both traditional classroom (or academic) and individualized instruction were equally utilized by programs (Tables 4.30-4.32). (Appendix 4 presents further data regarding teaching models used by each program category for instruction to adults without a high school diploma or GED.)

Types of Staff

Full/part-time paid teachers were most commonly employed in all areas of basic academic skills instruction (Tables 4.33-4.35); however, CBOs tended to rely on volunteer teachers more than other types of staff, especially for instruction to those with and without diplomas or GEDs. Community colleges and USDs supplemented their instruction to individuals with a diploma or GED by employing volunteer teachers. In fact, although volunteer teachers were not used as frequently as full/part-time teachers, they were often mentioned in lower grade levels and ESL instruction, although their use decreased as the grade levels increased. For instruction provided to individuals with diplomas or GEDs, the use of full/part-time teachers and volunteer teachers was fairly close, but in business/industry instruction volunteers were less frequently utilized. (Appendix 5 presents additional data regarding staff by program category for instruction to adults without a high school diploma or GED.)

Instruction Materials

For instruction provided to adults without high school diplomas or GEDs, the most commonly utilized teaching materials were textbooks combined with job-related material, which were also typically used for the other student categories and were supplemented by the use of traditional textbooks, audio-visual materials, and computers (Tables 4.36-4.37).

Table 4.30
Teaching Models Most Commonly Used to Deliver Basic Academic Skills Instruction to Adults Without High School Diploma or GED

	Educational Functioning Level			
Model	0-5.9	6-8.9	9-12	ESL
Academic	7.7%	12.8%	15.6%	19.5%
Individualized	90.4%	70.2%	62.2%	70.7%
Computer	--	10.6%	11.1%	--
Other*	1.9%	6.4%	11.1%	9.8%

*Includes independent study.

Table 4.31
Teaching Model Most Commonly Used for Basic Academic Skills Instruction for Adults With High School Diploma or GED

	Portion Reporting Use						
Model	AVTS	CBO	CC	Others	SLIAG	USD	Total
Academic	25%	18.8%	35.7%	100%	--	14.3%	25%
Individualized	50%	87.5%	71.4%	--	50%	85.7%	75%
Computer	25%	18.8%	42.9%	--	--	28.6%	27.3%
Other*	25%	--	7.1%	100%	--	--	6.8%

*Includes independent study.

Table 4.32
Teaching Models Used for Basic Academic Skills Instruction Provided to Business/Industry

	Portion Reporting Use				
Model	AVTS	CBO	CC	USD	Total
Academic	100%	60%	71.4%	100%	73.3%
Individualized	100%	80%	57.1%	100%	73.3%
Computer	100%	20%	14.3%	--	26.7%
Other*	--	--	14.3%	--	6.7%

*Includes independent study.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.33
Staff Most Commonly Used to Deliver Basic Academic Skills Instruction to Adults Without High School Diploma or GED

Staff	Educational Functioning Level 0-5.9	6-8.9	9-12	ESL
FT/PT Teachers	50.0%	69.6%	72.1%	61.0%
Volunteer Teachers	38.5%	23.9%	20.9%	29.3%
FT/PT Paraprof.	5.8%	6.5%	7.0%	4.9%
Volunteer Paraprof.	5.8%	--	--	4.9%

Table 4.34
Staff Most Commonly Used for Basic Academic Skills Instruction for Adults With High School Diploma or GED

Staff	Portion Reporting Use AVTS	CBO	CC	Others	SLIAG	USD	Total
FT/PT Teachers	75%	25%	100%	100%	100%	100%	70.5%
Volunteer Teachers	--	81.3%	57.1%	--	50%	71.4%	61.4%
FT/PT Paraprof.	25%	18.8%	50%	100%	--	14.3%	29.5%
Volunteer Paraprof.	--	6.3%	14.3%	--	--	14.3%	9.1%
Other*	--	--	7.1%	--	--	--	2.3%

*Includes individuals/volunteers trained by program.

Table 4.35
Staff Used for Basic Academic Skills Instruction Provided to Business/Industry

Type	Portion Reporting Use AVTS	CBO	CC	USD	Total
Paid Teachers	100%	80%	100%	100%	93.3%
Unpaid Volunteers	--	60%	28.6%	--	33.3%
Paid Paraprof.	50%	--	42.9%	--	26.7%
Unpaid Paraprof.	--	--	14.3%	--	6.7%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.36
Teaching Materials Used for Basic Academic Skills Instruction Provided to Adults With High School Diploma or GED

Staff	Portion Reporting Use AVTS	CBO	CC	Others	SLIAG	USD	Total
Textbooks	25%	37.5%	64.3%	100%	50%	57.1%	50%
Textbooks/JR Materials	75%	50%	71.4%	--	100%	57.1%	61.4%
JR Materials	25%	12.5%	28.6%	--	50%	--	18.2%
A/V	50%	18.8%	71.4%	100%	50%	42.9%	45.5%
Computers	50%	25%	57.1%	--	50%	71.4%	45.5%
Other*	25%	37.5%	7.1%	100%	--	--	20.5%

*Includes business/industry resources, teacher-supplied material, on the job training, language experience to learning, and student-chosen materials.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.37
Teaching Materials Used for Basic Academic Skills Instruction Provided to Business/Industry

Type	Portion Reporting Use AVTS	CBO	CC	USD	Total
Textbooks only	--	20%	14.3%	--	20.0%
Texts/JR materials	100%	60%	85.7%	100%	80.0%
JR materials	50%	20%	42.9%	--	33.3%
A/V	100%	20%	71.4%	--	53.3%
Computers	100%	20%	28.6%	--	33.3%
Other*	--	20%	--	--	6.7%

*Includes materials chosen by the student.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Support Services

Over 90 percent of all programs stated that they provided support services in conjunction with the basic academic skills instruction given to individuals without diplomas or GEDs or as a result of business/industry requests. Nevertheless, only 60 percent of programs providing instruction to individuals without a diploma or GED offered support services (Tables 4.38-4.39). Participants were also asked to indicate which of the following support services were provided: 1) teaching in homes; 2) on-site child care; 3) instruction organized around adult-life situations rather than traditional subjects; 4) instruction tailored to fit the requirements of a particular business or company; 5) basic academic skill instruction combined with job-specific training; 6) vocational assessment; 7) transportation; 8) counseling; and 9) other services.

Table 4.38
Number of Basic Academic Skills Programs Offering Support Services

Category	Number Providing	Percent of Category
AVTS	4	80
CBO	22	91.6
CC	18	100
Others	2	100
SLIAG	3	100
USD	7	87.5
Total	56	90.3

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.39
Programs Offering Support Services in Conjunction With Basic Academic Skills Instruction to Adults Without High School Diploma or GED

Category	Number Offering/ Percent of Category	Percent of Total Offering
AVTS	2 (50%)	7.4
CBO	7 (43.8%)	25.9
CC	12 (85.7%)	44.4
Others	1 (100%)	3.7
SLIAG	2 (100%)	7.4
USD	3 (42.9%)	11.1
Total	27 (61.4%)	

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Of those providing support services, counseling was commonly offered to all three student groups. Other prevalent support services differed within each group:

- ***Adults without a diploma or GED.*** Instruction tailored to adult life situations was generally offered, followed by counseling and instruction combined with job-related skills (Table 4.40);
- ***Adults with a diploma or GED.*** Counseling, followed by referrals, tutoring, and other specialized programs, were most commonly provided (Table 4.41);
- ***Business/industry requests.*** Counseling, vocational assessment, and instruction tailored to adult life situations were all offered by over 70 percent of the programs.

Programs which met business/industry requests for instruction were also asked to outline the types of support services that the businesses provided to their employees in conjunction with basic academic skills instruction. Sixty percent of businesses provided support in tailoring instruction to business requirements and offering work release, paid time off, reimbursing class fees, and providing teaching materials (Tables 4.42-4.43).

Program Evaluation

Eighty-nine percent of those programs offering instruction to adults without a diploma or GED stated that their programs were evaluated (Table 4.44). Programs were asked to list their evaluations sources, including: 1) self-evaluation; 2) local school districts (USD); 3) the Kansas State Department of Education; 4) an area coordinator; 5) the Kansas State Library; or 6) other sources. Respondents were also asked to report which measures were used by each evaluator: 1) enrollment; 2) attendance; 3) drop-out rates; 4) pre and post-test results; 5) student progress or demonstrated improvement in performance; 6) ability to perform job-related/competency based skills; 7) student fate or experience after leaving program; and 8) other measures. Over 70 percent of the programs offering instruction to the three student categories reported that they relied on self-evaluation of their programs. The second most prevalent source of evaluation, however, differed by student category: 1) *adults without diploma or*

Table 4.40
Support Services Provided by Programs Offering Basic Academic Skills Instruction to Adults Without High School Diploma or GED

Service	Portion of Programs Offering Support Services						
	AVTS	CBO	CC	Others	SLIAG	USD	Total
Teach in homes	--	22.7%	22.2%	--	33.3%	28.6%	21.4%
On-site child care	25%	13.6%	27.8%	--	33.3%	14.3%	19.6%
Transportation	50%	9.1%	27.8%	--	66.7%	--	19.6%
Counseling	100%	31.8%	77.8%	50%	66.7%	100%	62.5%
Vocational assess.	75%	31.8%	55.6%	50%	66.7%	42.9%	46.4%
Instr.-adult life sit.	50%	86.4%	83.3%	100%	100%	100%	85.7%
Instr.-bus. req.	50%	22.7%	50.0%	--	100%	42.9%	39.3%
Instr. combined w/JR training	75%	54.5%	72.2%	--	66.7%	71.4%	62.5%
Other*	100%	31.8%	55.6%	--	100%	42.9%	48.2%

*Includes referrals to outside agencies, tutoring, instruction directed to student's interests, citizenship classes, adjustment/survival skills, remote site testing, study skills classes, and job information/placement.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.41
Support Services Provided By Programs Offering Basic Academic Skills Instruction to Adults With High School Diploma or GED

Service	Portion of Programs Offering Support Services						
	AVTS	CBO	CC	Others	SLIAG	USD	Total
Teach in homes	--	--	8.3%	--	--	--	3.7%
On-site child care	--	28.6%	25%	--	50%	33.3%	25.9%
Transportation	--	14.3%	16.7%	--	--	--	11.1%
Counseling	50%	14.3%	83.3%	--	100%	100%	63.0%
Vocational assess.	50%	--	25%	--	--	66.7%	22.2%
Instr.-adult life sit.	--	--	16.7%	--	--	66.7%	14.8%
Instr.-bus.req.	--	--	16.7%	--	50%	33.3%	14.8%
Instr. combined w/JR train.	--	--	16.7%	--	--	66.7%	14.8%
Other*	100%	57.1%	33.3%	100%	50%	33.3%	48.1%

*Includes referrals, tutoring, mentoring programs, specialized materials, free lunch and allowing for student input.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.42
Support Services Provided by Programs in Conjunction With Business/Industry Basic Academic Skills Instruction

Type	Portion Reporting Services Provided AVTS	CBO	CC	USD	Total
Teaching in homes	--	20%	14.3%	--	13.3%
On-site child care	--	20%	8.6%	100%	26.7%
Transportation	--	--	28.6%	--	13.3%
Counseling	100%	60%	71.4%	100%	73.3%
Vocational assess.	100%	60%	71.4%	100%	73.3%
Instr.-adult life sit.	--	100%	71.4%	100%	73.3%
Instr.-bus. req.	50%	80%	57.1%	100%	66.7%
Instr.-JR training	50%	60%	71.4%	100%	66.7%
Other*	50%	60%	71.4%	100%	66.7%

*Includes mentoring programs and vocational resource/math testing.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.43
Support Services Provided by Employers in Conjunction With Business/Industry Basic Academic Skills Instruction

Type	Portion Reporting Services Provided by Employer AVTS	CBO	CC	USD	Total
Teaching in homes	--	--	14.3%	--	6.7%
On-site child care	--	--	--	100%	6.7%
Transportation	--	--	14.3%	--	6.7%
Counseling	--	20%	14.3%	100%	20%
Vocational assess.	50%	40%	28.6%	100%	40%
Instr.-adult life sit.	--	--	--	100%	6.7%
Instr.-bus. req.	50%	60%	57.1%	100%	60%
Instr.-JR training	50%	20%	42.9%	100%	33.3%
Other*	100%	60%	42.9%	100%	60%

*Includes work release, paid time off, reimbursing class fees, and providing teaching materials.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.44
Number of Basic Academic Skills Programs that are Evaluated

Category	Number Evaluated	Percent of Category
AVTS	3	100
CBO	17	70.8
CC	17	94.4
Others	2	100
SLIAG	3	100
USD	8	100
Total	50	89.3

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

GED—the Kansas State Department of Education (Table 4.45); 2) *adults with a diploma or GED*—other evaluators, such as United Way, Literary Volunteers of America, or students (Table 4.46); and 3) *business/industry requests*—employers (Table 4.47).

In evaluating basic academic skills programs, different criteria or measures were commonly utilized by evaluators:

- ***Self-Evaluation:*** For 1) *adults without diploma or GED*—enrollment and attendance (Table 4.48); 2) *adults with diploma or GED*—student progress (Table 4.49); and 3) *business/industry requests*—attendance (Table 4.50).
- ***USD:*** For 1) *adults without diploma or GED*—enrollment; 2) *adults with diploma or GED*—enrollment, attendance, and student progress; and 3) *business/industry requests*—enrollment, attendance, and student progress.

Table 4.45
Evaluation of Basic Academic Skills Instruction Provided to Adults Without High School Diploma or GED

	Portion of Programs Evaluated By					
Category	Self-Evaluation	Local USD	Department of Education	Area Coordinator	State Library	Other*
AVTS	66.7%	33.3%	100%	--	--	--
CBO	88.2%	5.9%	29.4%	29.4%	--	23.5%
CC	82.4%	5.9%	70.6%	70.6%	--	41.2%
Others	50%	--	50%	50%	--	50%
SLIAG	100%	--	66.7%	--	--	66.7%
USD	62.5%	50%	50%	87.5%	--	12.5%
Total	80%	14%	54%	50%	--	28%

*Includes general input/advice or advisory councils, Literacy Volunteers of America, community colleges, federal government, and United Way.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.46
Evaluation of Basic Academic Skills Instruction
Provided to Adults With High School Diploma or GED

	Portion of Programs Evaluated By					
Category	Self-Evaluation	Local USD	Department of Education	Area Coordinator	State Library	Other*
AVTS	25%	25%	25%	--	--	25%
CBO	75%	6.3%	--	6.3%	6.3%	37.5%
CC	92.9%	7.1%	21.4%	50%	--	42.9%
Others	--	--	--	--	--	100%
SLIAG	100%	--	100%	--	--	100%
USD	85.7%	28.6%	28.6%	57.1%	--	28.6%
Total	77.3%	11.4%	18.2%	27.3%	2.3%	40.9%

*Includes United Way, Continuing Education, JTPA, students, employers, SRS, advisory councils, and Literacy Volunteers of America.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.47
Evaluation of Basic Academic Skills Instruction
Provided to Business/Industry

	Number and Portion of Programs Evaluated By					
Category	Self-Evaluation	USD	Department of Education	Area Coordinator	Business Employer	Other*
AVTS	2 (100%)	--	--	--	1 (50%)	2 (100%)
CBO	2 (40%)	2 (40%)	--	--	3 (60%)	3 (60%)
CC	6 (85.7%)	1 (14.3%)	4 (57.1%)	4 (57.1%)	3 (42.9%)	2 (28.6%)
USD	1 (100%)	--	--	--	1 (100%)	--
Total	11 (73.3%)	3 (20.0%)	4 (26.7%)	4 (26.7%)	8 (53.3%)	6 (46.7%)

*Includes students, director of Adult Education Center, and United Way.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.48
Methods Used to Evaluate Basic Academic Skills Instruction Provided to Adults Without High School Diploma or GED

	Portion Reporting Use of Measures by Evaluator				
Method	Self-Evaluation	Local USD	Department of Education	Area Coordinator	Other
Enrollment	46.8%	9.7%	35.5%	32.3%	14.5%
Attendance	46.8%	8.1%	24.2%	27.4%	12.9%
Dropout rates	35.0%	6.5%	24.2%	24.4%	8.1%
Test results	39.7%	3.2%	22.6%	27.4%	12.9%
Student progress	48.4%	6.5%	24.4%	29.0%	14.5%
Ability to perform JR skills	24.2%	1.6%	11.3%	9.7%	14.5%
Student fate	17.7%	3.2%	6.5%	6.5%	14.5%
Other*	6.5%	--	3.2%	4.8%	32.3%

*Includes on-site evaluations by outside people and GED attainment rates.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.49
Methods Used to Evaluate Basic Academic Skills Instruction Provided to Adults With High School Diploma or GED

	Portion Reporting Use of Measures by Evaluator					
Method	Self-Evaluation	Local USD	Department of Education	Area Coordinator	State Library	Other
Enrollment	29.0%	4.8%	12.9%	17.7%	1.6%	14.5%
Attendance	32.3%	4.8%	11.3%	16.1%	1.6%	14.5%
Dropout rates	25.8%	3.2%	6.5%	12.9%	1.6%	9.7%
Test results	32.3%	1.6%	8.1%	14.5%	--	16.1%
Student progress	40.3%	4.8%	8.1%	14.5%	--	16.1%
Ability to perform JR skills	21.0%	1.6%	6.5%	6.5%	--	17.7%
Student fate	14.5%	--	4.8%	6.5%	--	11.3%
Other*	3.2%	--	3.2%	1.6%	--	--

*Includes a combination of results-based measures and internally-created criteria.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

Table 4.50
Methods Used to Evaluate Basic Academic Skills Instruction Provided to Business/Industry

Method	Portion Reporting Use of Measures by Evaluator: Self-Evaluation	Local USD	Department of Education	Area Coordinator	State Library	Other
Enrollment	33.3%	20.0%	26.7%	26.7%	20.0%	6.7%
Attendance	53.3%	20.0%	20.0%	26.7%	26.7%	6.7%
Dropout rates	46.7%	13.3%	20.0%	13.3%	20.0%	6.7%
Test results	46.7%	13.3%	20.0%	20.0%	13.3%	6.7%
Student progress	66.7%	20.0%	6.7%	20.0%	26.7%	6.7%
Ability to perform JR skills	33.3%	6.7%	--	--	20.0%	6.7%
Student fate	13.3%	6.7%	--	--	13.3%	6.7%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

- ***Kansas State Department of Education:*** Enrollment, for all three student categories.
- ***Area Coordinator:*** For 1) *adults without and with diploma or GED*—enrollment; and 2) *business/industry requests*—enrollment and attendance.
- ***State Library:*** For 1) *adults without diploma or GED and business/industry requests*—none; 2) *adults with diploma or GED*—enrollment, attendance, and dropout rates.
- ***Business/Employer:*** For *business/industry requests* only—attendance and student progress.
- ***Other:*** For 1) *adults without diploma or GED*—other measures, including internally-based criteria; 2) *adults with diploma or GED*—ability to perform job-related skills; and 3) *business/industry requests*—enrollment, attendance, dropout rates, test results, student progress, ability to perform job-related skills, and student fate.

Barriers to Providing Instruction

All 62 programs were asked to indicate the top barriers to providing basic academic skills instruction. Barriers to instruction included items which prevented students from seeking instruction and/or programs from offering basic skills training, such as: 1) lack of child care for students; 2) lack of transportation to site of instruction; 3) individual's prior negative experience with education; 4) employer not offering wage subsidy or work-release time to attend classes or tutoring sessions; 5) program lacking sufficient funds to hire additional staff; 6) program lacking funds to train staff in adult teaching techniques; 7) program lacking sufficient funds for individualized instruction; 8) inability to integrate basic academic skill instruction with job-specific training; 9) lack of computers/software; 10) lack of teacher materials (other than computers/software); 11) lack of student materials (other than computers/software); 12) location of program/classes; and 13) other barriers. Overall, the most frequently top ranked (or primary) barrier was a student's prior negative history or experience with education. The primary barriers for the three student categories, including those programs not receiving any requests from business/industry, were:

Table 4.51
Primary Barriers to Providing Basic Academic Skills Instruction to Individuals Without High School Diploma or GED

Barrier	Educational Functioning Level 0-5.9	6-8.9	9-12	ESL
Child care	13.0%	14.3%	17.4%	23.8%
Transportation	13.0%	12.2%	10.9%	26.4%
Negative history w/education	57.4%	55.1%	20.0%	21.4%
Wage subsidy/work release	1.9%	4.1%	6.5%	4.8%
Insufficient staff	5.6%	2.0%	4.3%	7.1%
Staff training	--	--	--	2.4%
Individualized instruction	--	--	--	2.4%
Instruction integration	--	--	--	2.4%
Computers/software	--	2.0%	2.2%	2.4%
Teaching materials	--	--	--	--
Student materials	--	--	--	--
Program location	1.9%	2.0%	2.2%	4.8%
Time instructor available	3.7%	2.0%	2.2%	--
Other*	--	4.1%	4.3%	2.4%

*"Other" includes insufficient facilities, student's financial difficulties, students cannot make time commitment (due to job), and lack of knowledge about programs.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

• ***Adults without a diploma or GED.*** Prior negative experience with education was commonly mentioned, especially for students functioning in the lower grade levels (Table 4.51). Child care was also an important barrier and was more frequently mentioned as the grade levels increased. Top ESL barriers differed from the traditional grade levels, focusing on transportation and child care. (Appendix 6 presents further data regarding primary barriers by program category.)

• ***Adults with a diploma or GED.*** Once again, prior negative history with education was the most prevalent primary instruction barrier (Table 4.52). However, lack of a wage subsidy or work release was the second most common primary barrier to instruction for this group of students. (Appendix 8 presents further primary and secondary barriers by program category.)

• ***Programs receiving basic skills instruction requests from business/industry.*** Negative history with education, followed by lack of wage subsidy/work release and students' fear of being dis-criminated against were most common (Table 4.53).

• ***Programs NOT receiving basic skills instruction requests from business/industry.*** Lack of wage subsidy or work release was the dominant primary barrier to instruction (Table 4.53).

Summary

This survey of basic academic skills providers in Kansas examined how the system works, the

Table 4.52
Barriers to Providing Basic Academic Skills Instruction to Individuals With High School Diploma or GED

Barrier	Items Ranked 1	2
Child care	9.5%	12.5%
Transportation	7.1%	22.5%
Negative history w/education	35.7%	27.5%
Wage subsidy/work release	21.4%	2.5%
Insufficient staff	7.1%	7.5%
Staff training	2.4%	2.5%
Individualized instruction	--	5.0%
Instruction integration	--	5.0%
Computers/software	4.8%	5.0%
Student materials	--	2.5%
Program location	2.4%	2.5%
Time instructor available	2.4%	--
Other*	7.1%	5.0%

*"Other" includes student's financial situation (lack of money), student's fear of seeking instruction, lack of handicapped-accessible facilities, and patient's schedule

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

array of skills taught, the format and materials used in instruction, how the system is evaluated, and any difficulties the providers face in offering instruction. Several key points emerge from an analysis of the data.

Rural/Urban Disparity—Coverage of State. A critical finding of our survey is that all Kansans may not have access to adult basic skills programs. Although the state's 35 Adult Basic Education centers theoretically cover all 105 counties through satellite centers, our results show that fifteen counties are not served by *any* basic skills program, public or private. All of those counties are located in rural parts of the state and have an average population of less than 5,000 persons. While some of those counties may have been served by two of the 35 ABE centers which did not participate in our survey, the majority of those counties are located in rural parts of the state and should be served by satellites of the present ABE system.

There is a demand for basic academic skills instruction in rural areas: rural students made up 44 percent of students served by programs participating in our survey. Over half of the students functioning in grade levels 9-12 and slightly less than half of ESL students were located in rural areas. However, rural Kansans also face a longer waiting period for instruction—2.5 to 4 times longer than those for persons located in urban areas—and the greatest waiting periods were for rural ESL students.

Available Instruction. Ninety percent of the programs targeted instruction to adults without a high school diploma or GED, and a greater number of programs served adults functioning in the very basic skills levels. Over 70 percent of programs offered instruction to individuals who already have a high school diploma or GED, but this figure is considerably lower than the percentage of programs offering instruction to adults without a diploma or GED. Furthermore, only 15 of the programs had requests from business/industry for basic academic skills instruction for their employees. These data illustrate that all adults, especially those with a high school diploma or GED, may not have the ability to enroll in basic academic skills programs if they need instruction. This may be due, in part, to the fact that the mission of the ABE system does not include providing instruction to adults with a diploma or GED or responding to businesses' requests for instruction.

Businesses' Role in Basic Skills Instruction. For the most part, businesses did not play any role in helping basic skills programs develop curriculum or select materials. However, AVTSs allow businesses to provide input through advisory councils, but this was not the norm. These results indicate that business and education are not working together to address the skills needs of adults.

Businesses also do not turn to these programs if they need basic academic skills training for their employees. Only 15 of the 62 programs had requests (a total of 198 requests) from business/industry for basic academic skills instruction for their employees.

Role of Volunteers. Volunteer teachers play an important part in basic academic skills instruction. The majority of CBOs surveyed relied on volunteers as their primary staff, and community colleges and USDs also reported (to a smaller degree) using volunteer teachers. Because a significant number of programs utilize volunteers for instruction, this suggests that many basic skills programs operate with few financial resources. Also, the ability of programs to meet the current demand for instruction hinges on the dedication of those volunteers.

Barriers to Instruction and Support Services. Another significant conclusion from the survey is that adults are hesitant to seek instruction because of a negative history with education and a fear that others will discover that they lack basic skills. Lack of transportation, child care, and time off from work also are significant barriers which prevent adults from seeking basic academic skills instruction.

A vast majority of programs offer support services to students including counseling, instruction tailored to adult life situations, vocational assessment, and instruction tailored to job-specific skills. All of these support services are important, but there is a gap between students and services offered by programs, particularly for students needing child care or transportation. For the current students this gap appears to be small, but to

Table 4.53
Barriers to Providing Basic Academic Skills Instruction to Business/Industry

Barrier	No Bus. Requests 1st	No Bus. Requests 2nd	Bus. Requests 1st	Bus. Requests 2nd
Child care	7.1%	--	6.7%	--
Transportation	--	25.0%	--	14.3%
Negative history w/education	14.3%	8.3%	40.0%	--
Wage subsidy/work release	28.6%	--	20.0%	21.4%
Insufficient staff	--	33.3%	--	35.7%
Indivualized instruction	7.1%	8.3%	--	7.1%
Instruction integration	7.1%	16.7%	--	--
Computers/software	--	--	--	7.1%
Teaching materials	--	--	--	--
Student materials	--	--	--	--
Program location	7.1%	--	6.7%	--
Time instructor available	14.3%	--	6.7%	7.1%
Other*	14.3%	8.3%	20.0%	--

*"Other" includes students' fear of bias, discrimination, language/cultural differences, as well as fear of being singled out, and business did not perceive a need or show interest.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

reach a greater percentage of those needing instruction, basic academic skills programs must be able to offer the support services that their students need.

Skills Taught to Adults. Language skills were taught most frequently to adults, including those with and without a diploma or GED. This group of language skills included writing, simple and complex reading, and listening/verbal comprehension. In conjunction with business/industry requests, listening/verbal comprehension and teamwork were most commonly taught. Basic academic skills programs in Kansas, then, appear to be providing the types of skills that Kansas employers report are currently lacking in their employees (see Chapter 5).

Ability to Meet Businesses' Needs. Almost 75 percent of those programs receiving business/industry requests for instruction were able to meet 80 percent or more of those requests. Only one of the programs did not serve any requests. Additionally, the programs stated that they were flexible in terms of time and place of instruction. Instruction most often took place at the program site, but one-third had provided training on the business site. Most programs also scheduled instruction when it was most convenient for the student, such as periods between shift changes.

Brought together, these results demonstrate that at the current level of requests, basic academic skills programs are able to meet the initial needs of businesses. However, only one-fifth of the programs providing business/industry instruction had completion rates of 80-95 percent. Eleven percent of the programs stated that none of the students continued instruction until they functioned at a level required by their employer, and one-third reported that only half of their students completed instruction. Therefore, programs may be able to meet the requests initially, but they may have difficulty in reaching businesses' training goals.

Program Evaluations. Most programs examine the effectiveness of their instruction through self-evaluations, relying on enrollment and attendance figures, as well as measures of student progress. The Kansas State Department of Education and employers are also a common source of evaluations and utilize attendance and student progress measures.

This suggests that perhaps basic skills programs are rating their success on the inputs—or what goes into the system—instead of the outcomes of instruction. Attendance and enrollment are important and should be monitored with the results of instruction. In other words, student progress should be tracked both in and out of the program to determine the short and long-run impact of basic skills education. □

5 | Adult Basic Education Activities of Kansas Businesses

Introduction

As part of its 1989 study, *Work Force Training: The Challenge for Kansas*, the Institute for Public Policy and Business Research (IPPBR) at the University of Kansas conducted a systematic telephone survey of over 600 Kansas businesses. One of the purposes of that survey was to determine skill areas in which the Kansas workforce needs improvement. These skill areas, identified by 60 percent or more of Kansas businesses, include goal setting and personal motivation skills (79%), proper attitudes toward work and work habits (77%), organizational effectiveness and leadership skills (75%), listening and oral communication skills (72%), teamwork skills (70%), problem solving skills (70%), adaptability/flexibility (66%), comprehension and understanding skills (60%), interpersonal relations skills (60%), and writing skills (60%). Reading skills were identified by 43 percent of the businesses as well.

The study on which this report is based is considerably smaller in scope than the 1989 business survey. The major purpose of the current business survey is to identify the extent to which Kansas businesses themselves conduct basic skills training for their employees, and to specify in some detail the content of this training.

Procedures

The survey was restricted to medium-sized (50 to 250 employees) and large (over 250 employees) Kansas businesses. Using a computer database furnished by the State Department of Human Resources, a stratified random sample of Kansas business was selected. Preliminary calls to firms in the sample explained the purpose of the survey and asked for their participation. Once the firm agreed to participate in the telephone survey, a letter was sent which outlined the types of information that would be requested in the survey. Some businesses could not be reached by telephone and instead completed the survey by mail. The survey consisted of several sections which focused on background information about the firm, a series of questions directed toward firms which did not have employees who were in basic skills training, and a separate series of questions directed toward firms which did have employees in a basic skills training program.

Results

Background Information

Table 5.1 shows the survey target sample of 100 large firms and 50 medium size firms, with the firms in each size category being divided equally between manufacturing and non-manufacturing firms. The characteristics of the sample of firms from which data were obtained are also shown in this table. Of the 184 firms surveyed, 52 are large manufacturing, 49 are large non-manufacturing, 32 are medium size manufacturing, and 51 are medium size non-manufacturing. The 1989 survey sample contained all for-profit firms. In the current survey, in contrast, 41 of the 184 firms are non-profit; all 41 are non-manufacturing firms.

Table 5.1
Sample Characteristics

Survey Target Sample

100 "Large" organizations (more than 250 employees)
- 50%—Manufacturing (oversampled)
- 50%—Non-Manufacturing

50 "Medium" organizations (50 to 250 employees)
- 50%—Manufacturing
- 50%—Non-Manufacturing

Obtained Survey Sample

184—Total

- 101—Large
  - 52—Large Manufacturing
  - 49—Large Non-Manufacturing
- 83—Medium
  - 32—Medium Manufacturing
  - 51—Medium Non-Manufacturing
- 143—For-Profit
  - 84—Manufacturing
  - 59—Non-Manufacturing
- 41—Not-For-Profit (All Non-Manufacturing)

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.2 presents information on the number of firms whose employees receive basic skills training, broken down by profit/non-profit, manufacturing/non-manufacturing, and size categories. Overall, 32 percent of medium and large Kansas firms report that their employees receive basic skills training, with 36 percent of for-profit and 17 percent of non-profit firms so reporting. Thirty-one percent of non-manufacturing and 33 percent of manufacturing firms report that their employees receive basic skills training, as do 30 percent of medium size and 34 percent of large firms. Thus, the data in Table 5.2 suggest that the variable firm size (medium versus large) and type (manufacturing versus non-manufacturing) do not have a differential impact on whether the employees of a firm are likely to receive basic skills training. However, employees of for-profit firms appear more likely to receive basic skills training than employees in non-profit firms.

Training Location

Table 5.3 shows that of the 59 firms reporting that their employees receive basic skills training, 52 (88%) indicate that this training is provided at the workplace. This percentage does not vary significantly by organization size, firm type, or profit status.

Only seven (12%) of the 59 firms whose employees receive basic skills training report that their employees receive this training from an outside agency. These outside agencies include vocational technical schools, community colleges, and an "adult basic education center in our town."

Skills Gap and Basic Skills Training

Table 5.4 presents information on the extent to which Kansas firms perceive a gap between the basic skills of their employees and the skills that are required by their jobs. Over one-third of the medium and large firms in Kansas report at least a moderate gap between their job skill requirements and the basic skill levels of their employees. Of the 60 organizations which specify at least a moderate gap, half report that their employees are currently receiving basic skills training, in comparison to 32 percent of all organizations reporting that their employees receive basic skills training. Thus, there is a positive relationship ($r = .3$) between the firms' perceived severity of the skills gap and the likelihood of the firms' employees receiving basic skills training.

Training Providers

The 52 employers who responded that their employees received basic skills training in the workplace were asked if this training was provided by the organization itself or by an outside consultant. Eighty-seven percent of the employers indicated that they conduct the training

Table 5.2
Number of Firms Whose Employees Receive Basic Skills Training

	Non-Profit Firms		For-Profit Firms		Total Sample	
	NO	YES	NO	YES	NO	YES
Total Sample	34	7	91	52	125	59
	83%	17%	64%	36%	68%	32%
Non-Manufacturing	34	7	35	24	69	31
	83%	17%	59%	41%	69%	31%
Manufacturing	0	0	56	28	56	28
	0%	0%	67%	33%	67%	33%
Medium	12	5	46	20	58	25
	71%	29%	70%	30%	70%	30%
Large	22	2	45	32	67	34
	92%	8%	58%	42%	66%	34%

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.3
Number of Firms Whose Employees Receive Basic Skills Training at the Workplace

	Non-Profit Firms		For-Profit Firms		Total Sample	
	NO	YES	NO	YES	NO	YES
Total Sample	0	7	7	45	7	52
	0%	100%	14%	86%	12%	88%
Non-Manufacturing	0	7	1	23	1	30
	0%	100%	4%	96%	3%	97%
Manufacturing	0	0	6	22	6	22
	0%	0%	21%	79%	21%	79%
Medium	0	5	4	16	4	21
	0%	100%	20%	80%	16%	84%
Large	0	2	3	29	3	31
	0%	100%	9%	91%	9%	91%

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.4
Relationship Between the "Basic Skills Possessed v. Skills Required" Gap and Whether or Not Employees Receive Basic Skills Training

Perceived Gap	Basic Skills Training Provided? NO	YES	Total
Severe	1	2	3
	33.3%*	66.7%*	1.7%
Moderate	29	28	57
	50.9%*	49.1%*	32.6%
Slight	72	26	98
	73.5%*	26.5%*	56.0%
None	16	1	17
	94.1%*	5.9%*	9.7%
Total	118	57	175
	67.4%	32.6%	100%

*Row Percentages. Unmarked percentages are percent of total sampled.

Chi-Square = 15.8, $p < .01$.

Correlation between perceived severity of gap and employees receiving basic skills training is $r = .30$, $p < .001$.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

themselves, while 13 percent have outside consultants provide the training (Table 5.5).

Forty percent of the 45 employers that conduct the training themselves indicated that a "Training Manager or Supervisor" has the responsibility for designing and administering the basic skills training. Thirty-four percent responded "Personnel" or "Human Resource Manager," 13 percent said "Department Heads," two percent indicated "President/CEO," and 11 percent indicated that someone other than these individuals has that responsibility (Table 5.6).

Table 5.5
Percent of Organizations' Basic Skills Training Provided by the Organization or an Outside Consultant (N = 52)

87% Provided by Organization
13% Provided by Outside Consultant

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Employees Receiving Basic Skills Training

All 52 employers whose employees receive basic skills training in the workplace were asked if employees in each of the following four groups receive training in basic skills: non-technical blue collar, technical, clerical, and sales/marketing. Seventy-five percent of the organizations indicated that clerical personnel receive training while 71 percent said that technical employees do. Sixty-five percent of the employers provide basic skills training for their non-technical blue collar employees, while 52 percent provide such training for their sales/marketing personnel (Table 5.7).

The employers were also asked to estimate how many employees in each of the above categories receive the training. For those employers who provide such training for non-technical blue collar personnel, an average of 287 such employees receive the training. Furthermore, responses ranged from just one non-technical blue collar employee receiving the training, to a high of 4000. For technical employees, the average number receiving basic skills training is 48, with one employee as the minimum and 550 as the maximum. For clerical employees, the average is 31, ranging from a low of one to a high of 125. Finally, within organizations that provide the training for sales/marketing personnel, the average number of such employees receiving the training is 105. Responses for this category range from a low of one to a high of 1250 (Table 5.8).

Table 5.6
Person Within the Organization Responsible for Designing and Administering Basic Skills Training (N = 45)

40%	Training Manager of Supervisor
34%	Personnel or Human Resources Manager
13%	Department Heads
11%	Other
2%	President/CEO

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.7
Number of Organizations Indicating Type of Employees Receiving Basic Skills Training

Training Received? NO	YES	Type of Employee
18 (35%)	34 (65%)	Non-technical blue collar
15 (29%)	37 (71%)	Technical
13 (25%)	39 (75%)	Clerical
25 (48%)	27 (52%)	Sales/Marketing

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Content of Basic Skills Training Provided by Employers

All 52 employers whose employees receive basic skills training in the workplace were asked if their employees received training in each of nine separate basic skills areas. These basic skills areas are: reading, writing, math, adaptability/flexibility, personal attitudes and responsibilities, problem solving/analytical, listening and verbal comprehension, teamwork and interpersonal, and basic personal computer. As can be seen in Table 5.9, responses ranged from 75 percent indicating that teamwork and interpersonal skills are included in their training program, to 17 percent indicating that reading skills training is provided. Of the nine basic skills areas, four are provided by at least half the employers. These areas are teamwork and interpersonal (75%), listening and verbal (60%), basic personal computer (52%), and problem solving/analytical (50%). Four more of the nine areas are provided by 31-39 percent of the employers. These areas are personal attitudes and responsibilities (39%), math (33%), writing (31%), and basic adaptability/flexibility (31%).

Table 5.8
Number of Employees in Each Group Receiving Basic Skills Training

	Mean	Median	Maximum	75 Centile	25 Centile	Minimum
Non-technical blue collar*	287	49	4,000	250	11	1
Technical*	48	15	550	40	7	1
Clerical	31	20	125	40	5	1
Sales/Marketing*	105	10	1,250	52	3	1

*These distributions are highly peaked (leuptokurtic) and very skewed (to the positive end of the distribution).

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.9
Number of Organizations Indicating Areas in Which Their Employees Receive Basic Skills Training

Training Received? NO	YES	Area of Training
13 (25%)	39 (75%)	Teamwork and interpersonal skills.
21 (40%)	31 (60%)	Listening and verbal comprehensive skills.
25 (48%)	27 (52%)	Basic personal computer skills.
26 (50%)	26 (50%)	Problem solving and analytical skills.
32 (61%)	20 (39%)	Personal attitudes and responsibilities.
35 (67%)	17 (33%)	Math skills.
36 (69%)	16 (31%)	Writing skills.
36 (16%)	16 (31%)	Basic adaptability/flexibility skills.
43 (83%)	9 (17%)	Reading skills.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Reading is provided by only 17 percent of the employers.

The 52 employers whose employees receive basic skills training in the workplace were also asked a series of questions concerning whether or not they perceived a gap between the skills of their employees and the skills that are required by their jobs. The employers were asked if they perceived such a gap in each of the nine areas mentioned above. In the data analysis, the answers to these questions were cross-tabulated with the answers in Table 5.9. The results of this cross-tabulation are presented in Table 5.10. As can be seen, each basic skill area is analyzed according to whether or not the employers perceive a "skills gap" in the area and whether or not they provide training in the area.

Teamwork and Interpersonal Skills

In the area of teamwork and interpersonal skills, 57.7 percent of the employers perceive a gap in the area and also provide the appropriate training; on the other hand, 9.3 percent of the employers perceive the gap, but do not provide the training. A gap in teamwork and interpersonal skills is not perceived—and training is not provided—by 11.5 percent of the employers, but 17.3 percent of the employers do not perceive the gap but do provide training in the area.

Listening and Verbal Comprehension Skills

A gap in the listening and verbal comprehension skills area is perceived by 42.3 percent of the employers and appropriate training is provided, while 15.4 percent perceive the gap but do not provide the training. Twenty-five percent of the employers do not perceive a gap in this area and do not conduct training. For 17.3 percent a gap is not perceived even though appropriate training is provided.

Personal Computer Skills

In the area of personal computer skills, 34.6 percent of the employers perceive a gap and provide training, while 23.1 percent perceive the gap and do not provide appropriate training.

Table 5.10
Comparison of Perceived Basic Skills Deficiencies With Areas of Actual Training in Organizations Providing Basic Skills Training for Employees

Basic Skills Area	Gap Not Perceived: Training Not Given	Gap Not Perceived: Training Given	Gap Perceived: Training Not Given	Gap Perceived: Training Given	Chi Square	Phi
Teamwork and Interpersonal Skills	6 (11.5%)	9 (17.3%)	7 (9.3%)	30 (57.7%)	2.52	.22
Listening & Verbal Comprehension Skills	13 (25.0%)	9 (17.3%)	8 (15.4%)	22 (42.3%)	5.5	.32*
Personal Computer Skills	13 (25.0%)	9 (17.3%)	12 (23.1%)	18 (34.6%)	1.85	.18
Problem Solving/ Analytical Skills	9 (17.3%)	1 (1.9%)	17 (32.7%)	25 (48.1%)	7.92	.39**
Personal Attitudes & Responsibilities Skills	16 (30.8%)	4 (7.7%)	16 (30.8%)	16 (30.8%)	4.68	.30*
Math Skills	22 (42.3%)	2 (3.8%)	13 (25.0%)	15 (28.8%)	12.0	.48**
Writing Skills	13 (25.0%)	4 (7.7%)	23 (44.2%)	12 (23.1%)	.62	.11
Adaptability/Flexibility Skills	23 (44.2%)	6 (11.5%)	13 (25.0%)	10 (19.2%)	3.12	.24
Reading Skills	19 (36.5%)	1 (1.9%)	24 (46.2%)	8 (15.4%)	3.43	.25

*p < .05 **p < .01

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Twenty-five percent of the employers do not perceive a gap in this area and consequently do not provide training, 17.3 percent do not perceive a gap but do provide personal computer training.

Problem Solving/Analytical Skills

Nearly half of the employers (48.1%) perceive a gap in this area and provide appropriate training, but 32.7 percent of the employers perceive such a gap, but do not provide training. Just over 17 percent of the employers do not perceive a gap in problem solving/analytical skills, and do not provide training, while 1.9 percent do not perceive the gap, but do conduct training in the area.

Personal Attitudes and Responsibilities

Employers who perceive a gap in personal attitudes and responsibilities skills are evenly split as to whether or not they provide appropriate training (30.8% in each category). On the other hand, 30.8 percent of the employers do not perceive a gap and do not provide training, whereas 7.7 percent do not perceive a gap, but do provide appropriate training.

Math Skills

Employers who perceive a gap in math skills and do provide training account for 28.8 percent of the total, whereas 25 percent of the employers perceive a gap, but do not provide appropriate training. Nearly half of the employers (42.3%) do not perceive a math skills gap and do not give training in math skills; 3.8 percent do not perceive a gap, but do provide math skills training.

Table 5.11
Comparison of Actual Areas of Training by Organization Type (Manufacturing and Non-Manufacturing)

Basic Skills Area	Manufacturing Training Not Given	Manufacturing Training Given	Non-Manufacturing Training Not Given	Non-Manufacturing Training Given	Chi Square	Phi
Teamwork and Interpersonal Skills	6 (11.5%)	16 (30.8%)	7 (13.5%)	23 (44.2%)	.105	.044
Listening & Verbal Comprehension Skills	9 (17.3%)	13 (25.0%)	12 (23.1%)	18 (34.6%)	.004	.009
Personal Computer Skills	12 (23.1%)	10 (19.2%)	13 (25.0%)	17 (32.7%)	.639	.110
Problem Solving/ Analytical Skills	8 (15.4%)	14 (26.9%)	18 (34.6%)	12 (23.1%)	2.83	.233
Personal Attitudes & Responsibilities Skills	14 (26.9%)	8 (15.4%)	18 (34.6%)	12 (23.1%)	.07	.03
Math Skills	10 (19.2%)	12 (23.1%)	25 (48.1%)	5 (9.6%)	8.27	.398*
Writing Skills	14 (26.9%)	8 (15.4%)	22 (42.3%)	8 (15.4%)	.560	.103
Adaptability/Flexibility Skills	16 (30.8%)	6 (11.5%)	20 (38.5%)	10 (19.2%)	.218	.064
Reading Skills	17 (32.7%)	5 (9.6%)	26 (50.0%)	4 (7.7%)	.782	.122

*p < .01

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Writing Skills

Almost a quarter of the employers (23.1%) perceive a writing skills gap and do provide training. Conversely, 44.2 percent of the employers perceive such a gap, but do not provide appropriate training. Twenty-five percent do not perceive a gap in writing skills and do not provide training, while 7.7 percent of the employers do not perceive a gap, but do provide appropriate training.

Adaptability/Flexibility Skills

In the area of adaptability/flexibility skills, 19.2 percent of the employers perceive a gap and provide appropriate training. Twenty-five percent perceive the gap, but do not provide training in adaptability/flexibility skills. A gap is not perceived, and training is not provided, by 44.2 percent of the employers, while 11.5 percent of the employers do not perceive the gap, but do provide adaptability/flexibility training.

Reading Skills

In the area of reading skills, 15.4 percent of the employers perceive a gap and provide training, while 46.2 percent perceive a gap, but do not provide training. A gap is not perceived, and training is not provided, by 36.5 percent of the employers. A gap is not perceived and training is provided by 1.9 percent of the employers.

Summary

When employers who perceive a skills gap are compared with those who do not perceive such a gap on the basis of whether or not they provide

training in a given area, statistically significant logical associations are found in four of the areas (listening and verbal comprehension, problem solving/analytical, personal attitudes and responsibilities, and math). For two of the top three areas in which training is provided (teamwork and interpersonal skills, personal computer skills) employers tend to provide training regardless of whether or not they perceive a skills gap. Further, it should be noted that gaps are perceived but training is not provided by over 24 percent of the employers in six of the basic skills areas (problem solving/analytical, personal attitudes and responsibilities, math, writing, adaptability/flexibility, and reading).

Comparison of Actual Areas of Training by Organization Type

A cross-tabulation was used to compare the actual areas of training provided by the 52 employers with the firm type (manufacturing or non-manufacturing). The results of this comparison can be seen in Table 5.11 and are summarized below.

Teamwork and Interpersonal Skills

Manufacturing firms that provide training in teamwork and interpersonal skills comprise 30.8 percent of the 52 organizations that provide basic skills training in the workplace. Manufacturing firms that do not provide training in this area account for 11.5 percent of the total.

Non-manufacturing firms that provide teamwork and interpersonal skills training account for 44.2 percent of the total, but 13.5 percent of the 52 organizations are non-manufacturing firms that do not provide training in the area.

Listening and Verbal Comprehension Skills

Twenty-five percent of the organizations are manufacturing firms that provide training in listening and verbal comprehension skills; manufacturing firms that do not provide training in the area account for 17.3 percent of the total.

Non-manufacturing firms that provide listening and verbal comprehension skills make up 34.6 percent of the total; non-manufacturing firms that do not provide training in this area comprise 23.1 percent of the total.

Personal Computer Skills

Slightly over 19 percent of the 52 organizations are manufacturing firms that provide personal computer training, while 23.1 percent are manufacturing firms that do not provide such training.

Non-manufacturing firms that provide training in personal computer skills account for 32.7 percent of the total, but 25 percent of the organizations are non-manufacturing firms that do not provide training in the area.

Problem Solving/Analytical Skills

Manufacturing firms that provide problem solving/analytical skills training account for 26.9 percent of the 52 firms; manufacturing firms that do not provide this training make up 15.4 percent of the total.

Just over 23 percent of the organizations are non-manufacturing firms that conduct training in the area; non-manufacturing firms that do not provide such training account for 34.6 percent of the total.

Personal Attitudes and Responsibilities Skills

Manufacturing firms that conduct training in personal attitudes and responsibilities account for 15.4 percent of the 52 firms, but just under 27 percent of the organizations are manufacturing firms that do not provide training in the area.

Slightly more than 23 percent of the firms are non-manufacturing firms that do conduct training in this area. Non-manufacturing firms that do not provide personal attitudes and responsibilities training account for 34.6 percent of the organizations.

Math Skills

Manufacturing firms that conduct math training account for 23.1 percent of the 52 organizations, but 19.2 percent of the organizations are manufacturing firms that do not provide training in the area.

Non-manufacturing firms that provide math training account for 9.6 percent of the total. Significantly, 48.1 percent of the organizations are non-manufacturing firms that do not conduct training in math skills.

Writing Skills

Manufacturing firms that provide training in writing skills comprise 15.4 percent of the 52 firms; just under 27 percent of the organizations are manufacturing firms that do not provide training in this area.

Of the 52 organizations, 15.4 percent are non-manufacturing firms that conduct writing training, while 42.3 percent of the organizations are non-manufacturing firms that do not provide training in the area.

Adaptability/Flexibility Skills

Manufacturing firms that conduct adaptability/flexibility skills training account for 11.5 percent of the 52 organizations. Nearly 31 percent are manufacturing firms that do not provide training in the area.

Non-manufacturing firms that provide adaptability/flexibility skills training comprise 19.2 percent of the total; on the other hand, 38.5 percent of the organizations are non-manufacturing firms that do not provide training in the area.

Reading Skills

Of the 52 organizations, 9.6 percent are manufacturing firms that provide training in reading. Just under 33 percent (32.7%) of the organizations are manufacturing firms that do not provide training in the area.

Non-manufacturing firms that conduct reading training comprise 7.7 percent of the total, but 50 percent of the organizations are non-manufacturing firms that do not conduct training in the area.

Summary

When manufacturing firms are compared with non-manufacturing firms on the basis of whether or not they provide training in each of the basic skills areas, a statistically significant relationship is found only in the math area—a relatively larger proportion of manufacturing firms give math skills training (23.1% versus 9.6%). For all other basic skills training there are no significant differences between manufacturing and non-manufacturing firms.

Descriptions of Basic Skills Training

The 52 employers who provide basic skills training in the workplace were asked to respond to questions pertaining to the details of each of the nine basic skills areas that are included in their organizations training program.

Teamwork and Interpersonal Skills

Teamwork and interpersonal skills training is provided by 39 of the 52 organizations, or 75 percent. Of these 39 employers, 97 percent indicated that the skills of "cooperating with others to get the job done" and "communicating effectively with all members of the work team" are included in their training. In addition, over 90 percent replied that the skills of "accepting decisions made by the work team" (92%), and "showing sensitivity to the thoughts and opinions of others in the work team" (90%) were part of their training program (Table 5.12).

Eighty-seven percent of the employers include "engaging critically and constructively in the exchange of ideas" as a component of their program, while 85 percent of them responded that "accepting constructive criticism of performance and ideas" is included. Finally, 80 percent said that "compromising to achieve work team results" is included, while 77 percent said that "showing sensitivity to the needs of women and ethnic or racial minorities" is an aspect of their training.

Listening and Verbal Comprehension

Of the 31 organizations that provide listening and verbal comprehension skills training, 97 percent indicated that "paying attention to the person who is speaking" and "asking questions to clarify understanding" were part of this training, 87

Table 5.12
Detailed Description of
Teamwork and Interpersonal Skills Training
(Provided by 39 Organizations)

Training Provided? NO	YES	Area of Training
3%	97%	Cooperating with others to get the job done.
3%	97%	Communicating effectively with all members of the work team.
8%	92%	Accepting decisions made by the work team.
10%	90%	Showing sensitivity to the thoughts and opinions of others in the work team.
13%	87%	Engaging critically and constructively in the exchange of ideas.
15%	85%	Accepting constructive criticism of performance and ideas.
20%	80%	Compromising to achieve work team results.
23%	77%	Showing sensitivity to the needs of women and ethnic or racial minorities.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

percent responded that "following instructions or directions given verbally in the performance of a specific task" was a component, and 81 percent replied that "recognizing specific company and business terminology" is included in their training (Table 5.13).

Basic Personal Computer Skills

Of the 27 employers who provide their employees with basic personal computer training, all replied that they instill in their employees an "understanding that the results given by the computer are only as good as the entries made by the operator." In addition, 93 percent of the

Table 5.13
Detailed Description of
Listening and Verbal Comprehension Training
(Provided by 31 Organizations)

Training Provided? NO	YES	Area of Training
3%	97%	Paying attention to the person who is speaking.
3%	97%	Asking questions to clarify understanding.
13%	87%	Following instructions or directions given verbally in the performance of a specific task.
19%	81%	Recognizing specific company and business terminology.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

organizations provide their employees with an "understanding [of] how to use floppy disks and/or hard drive." In contrast, we observe a large drop in the number of employers that provide additional personal computer training. Of the 27 organizations, 41 percent teach their employees "the capabilities of the printer that is being used" and "how to start and re-boot the computer." Only 37 percent of the employers indicated that they teach their employees "how to take care of [the] computer and disks" and "how to use various software packages" (Table 5.14).

Problem Solving and Analytical Skills

Of the 26 organizations that provide problem solving and analytical skills training, all indicated that they provide instruction in "selecting the best solution for a problem." Additionally, 96 percent of these employers replied that "recognizing and defining problems on the job" and "analyzing problems to determine their source and importance" are included in their training programs.

Table 5.14
Detailed Description of
Personal Computer Training
(Provided by 27 Organizations)

Training Provided? NO	YES	Area of Training
0%	100%	Understanding that the results given by the computer are only as good as the entries made by the operator (i.e. "garbage-in; garbage-out").
7%	93%	Understanding how to use floppy disks and/or hard drive (e.g. how to insert floppy disks into drives, how to tell how much new information can be stored).
59%	41%	How to start and re-boot the computer.
59%	41%	Knowing the capabilities of the printer that is being used.
63%	37%	How to take care of computer and disks.
63%	37%	How to use various software packages.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.15
Detailed Description of
Problem Solving/Analytical Training
(Provided by 26 Organizations)

Training Provided? NO	YES	Area of Training
0%	100%	Selecting the best solution for a problem.
4%	96%	Recognizing and defining problems on the job.
4%	96%	Analyzing problems to determine their source and importance.
23%	77%	Developing and evaluating new approaches to solve problems.
27%	73%	Describing problems that occur with equipment or processes in the workplace.
35%	65%	Distinguishing between fact and opinion.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

From this point a slight drop is observed in the number of employers that provide additional training in this area. Seventy-seven percent of the employers provide training in "developing and evaluating new approaches to solve problems," while 73 percent provide training in "describing problems that occur with equipment or processes in the workplace." In addition, 65 percent indicated that employees were trained in "distinguishing between fact and opinion" (Table 5.15).

Personal Attitudes and Responsibilities

Training in the area of personal attitudes and responsibilities is included in the training programs of 20 of the organizations. Of these organizations, all replied that "meeting [the] company's requirements for punctuality and attendance" was a component of their training. Ninety-five percent of the employers indicated that training was provided in the following four separate areas: "showing pride in one's work," "showing enthusiasm for the work to be done," "demonstrating honesty and integrity," and "dressing appropriately for work and practicing good personal hygiene."

Additionally, 90 percent of the respondents said that "showing respect for others" and having the "ability to work in a productive manner with minimum supervision" are aspects of their training. Eighty-five percent of the employers said that "showing initiative" and "demonstrating self-control" are included in their programs. Eighty percent of the organizations indicated that they

Table 5.16
Detailed Description of
Personal Attitudes and Responsibilities Training
(Provided by 20 Organizations)

Training Provided? NO	YES	Area of Training
0%	100%	Meeting company's requirements for punctuality and attendance.
5%	95%	Showing pride in one's work.
5%	95%	Showing enthusiasm for the work to be done.
5%	95%	Demonstrating honesty and integrity.
5%	95%	Dressing appropriately for work and practicing good personal hygiene.
10%	90%	Showing respect for others.
10%	90%	Ability to work in a productive manner with minimum supervision.
15%	85%	Showing initiative.
15%	85%	Demonstrating self-control.
20%	80%	Being free from dependence on alcohol or drugs.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.17
Detailed Description of Mathematics Training
(Provided by 17 Organizations)

Training Provided? NO	YES	Area of Training
0%	100%	Basic calculations using addition, subtraction, multiplication and division.
12%	88%	Basic calculations using fractions and decimals.
23%	77%	Understanding of percentages and ratios.
35%	65%	Measurements using the U.S. measurement system.
35%	65%	Use of a calculator.
41%	59%	Ability to read and understand graphs, charts, tables, diagrams.
53%	47%	Elementary probability and statistics.
59%	41%	Word problems involving time, weight, distance and volume.
59%	41%	Elementary algebra.
65%	35%	Basic geometry.
71%	29%	Measurements using the metric system.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

provide instruction in "being free from dependence on alcohol or drugs" (Table 5.16).

Math Skills

Training in math skills is provided by 17 of the organizations. All 17 provide training in "basic calculations using addition, subtraction, multiplication and division," while 88 percent train their employees in "basic calculations using fractions and decimals." Seventy-seven percent of the employers indicated that their employees received instruction in the "understanding of percentages and ratios." Sixty-five percent said that they include training in the "use of a calculator" and "measurements using the U.S. measurement system" in their programs.

Of the remaining six math skill areas that employers were asked about, all were provided by less than 60 percent of the organizations. Fifty-nine percent of the organizations provided instruction in the "ability to read and understand graphs, charts, tables and diagrams." Forty-seven percent, less than half the employers, teach their employees "elementary probability and statistics." Forty-one percent of the employers include "elementary algebra" and "word problems involving time, weight, distance and volume" in their math

Table 5.18
Detailed Description of Writing Training
(Provided by 16 Organizations)

Training Provided? NO	YES	Area of Training
12%	88%	Organize and translate thoughts into a coherent written form.
12%	88%	Correctly fill out forms that are normally used by the organization.
25%	75%	Write standard English sentences with correct punctuation, plural forms, and spelling.
25%	75%	Write standard English sentences with correct verb forms, sentence structure and word choice.
37%	63%	Write a report based on information gathered through other sources.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

training programs. Thirty-five percent of the organizations instruct their employees in the area of "basic geometry," while only 29 percent devote training time to teaching "measurements using the metric system" (Table 5.17).

Writing Skills

Training in writing is provided by 16 of the 52 organizations. Of these 16, 88 percent teach their employees how to "correctly fill out forms that are normally used by the organization" and "organize and translate thoughts into a coherent written form." In addition, 75 percent teach their employees how to write standard English sentences "with correct punctuation, plural forms, and spelling" and "with correct verb forms, sentence structure, and word choice." Lastly, 63 percent of the organizations provide instruction in how to "write a report based on information gathered through other sources" (Table 5.18).

Table 5.19
Detailed Description of
Adaptability/Flexibility Training
(Provided by 16 Organizations)

Training Provided? NO	YES	Area of Training
56%	44%	Demonstrating a positive attitude toward learning and growth.
56%	44%	Being open to change.
56%	44%	Coming up with new ideas for getting a job done.
62%	38%	Using creativity and imagination on the job.
69%	31%	Knowing when it is necessary to upgrade one's knowledge and skills.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Basic Adaptability/Flexibility Skills

Training in the area of basic adaptability/flexibility is provided by 16 of the 52 employers who conduct basic skills training in the workplace. Of these 16, less than half provide training in the specific sub-areas that they were asked about. Forty-four percent indicated that they train their employees in the following three sub-areas: "demonstrating a positive attitude toward learning and growth," "being open to change," and "coming up with new ideas for getting a job done." In addition, 38 percent of the employers include teaching their employees about "using creativity and imagination on the job" in their programs. Only 31 percent of the organizations indicated that "knowing when it is necessary to upgrade one's knowledge and skills" was an aspect of their training program (Table 5.19).

Reading Skills

Only nine of the 52 organizations provide reading training for their employees. Of these nine

Table 5.20
Detailed Description of Reading Training (Provided by 9 Organizations)

Training Provided? NO	YES	Area of Training
11%	89%	Recognition and understanding of signs and symbols that are used in the workplace.
22%	78%	Recognition and understanding of enough written words to read simple instructions.
22%	78%	Recognition and understanding of enough written words to understand complex instructions.
44%	56%	Use of a dictionary.
44%	56%	Use of the features of printed materials, such as table of contents, index, glossary, appendix and bibliography.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

employers, 89 percent provide instruction in the "recognition and understanding of signs and symbols that are used in the workplace." Additionally, 78 percent indicate that "recognition and understanding of enough written words to read simple instructions" and "recognition and understanding of enough written words to understand complex instructions" are components of their program. Lastly, 56 percent of the employers instruct their employees in the "use of a dictionary" and the "use of the features of printed materials, such as tables of contents, index, glossary, appendix, and bibliography" (Table 5.20).

Training Methods

All organizations whose employees receive basic skills training in the workplace were asked about the training methods used in their training programs. First, they were asked whether or not they used each of nine separate methods in their basic skills training programs. Then they were asked which *one* of the various training methods is the *primary* method used. The responses to these questions are summarized in Table 5.21. On-the-job training, discussion, audio-visual techniques, and lectures are the most frequently used training methods.

Training methods used and the indicated primary method were also cross-tabulated with the organization size (medium and large). Table 5.22 shows the results of the cross-tabulation between firm size and training methods used by each of the 52 organizations that provide basic skills training in the workplace. *On-the-job training* is used as a training method by 94 percent of large firms and 95 percent of medium firms. All large firms indicated that *discussion* is used as a training method in their basic skills training program, while discussion is used by 86 percent of medium firms. Ninety-four percent of the large firms indicated that *audio-visual* techniques are employed in their basic skills training programs. Seventy-six percent of the medium firms reported that they use this method. *Lectures* are used as a training method by 90 percent of large firms, while 62 percent of the medium firms responded that this method was used. *Role-playing* is used as a training technique by 65 percent of the large firms and 52 percent of the medium firms. Fifty-eight percent of the large firms reported that they use *experiential exercises* in their basic skills training programs, while 62 percent of the medium firms reported using this method. *Computer-assisted instruction* is used as a training method by 48 percent of the large firms and 43 percent of the medium firms. Forty-eight percent of the large employers indicated that *behavioral role-modeling* is used as a training method by their organization; on the other hand, 43 percent of the medium firms reported using this method. *Machine simulators* are used in the basic skills training programs of 13 percent of the large firms and 24 percent of the medium firms. Nineteen percent of the large firms and five percent of the medium firms reported using training methods other than those listed above.

Table 5.21
Training Methods Used by Organizations in Their Basic Skills Training Programs (N = 52)

Use Method? NO	Use Method? YES	Training Method	Primary Method? NO	Primary Method? YES
6%	94%	On-the-Job-Training	60%	40%
6%	94%	Discussion	92%	8%
13%	87%	Audio-Visual Techniques	88%	12%
21%	79%	Lectures	73%	27%
40%	60%	Role-Playing	100%	0%
40%	60%	Experiential Exercises	98%	2%
54%	46%	Computer-Assisted Instruction	100%	0%
54%	46%	Behavioral Role-Modeling	96%	4%
83%	17%	Machine Simulators	98%	2%
86%	14%	Other	94%	6%

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.22
Training Methods Used by Organizations in Their Basic Skills Training Programs By Size of Firm (N = 52)

Training Method	Large Firms YES	Large Firms NO	Medium Firms YES	Medium Firms NO	Chi Square	Phi
On-the-Job Training	94%	6%	95%	5%	.065	.035
Discussion	100%	0%	86%	14%	4.69	.300*
Audio-Visual Techniques	94%	6%	76%	24%	3.23	.249
Lectures	90%	10%	62%	38%	6.06	.341*
Role-Playing	65%	35%	52%	48%	.765	.121
Experiential Exercises	58%	42%	62%	38%	.076	.038
Computer-Assisted Instruction	48%	52%	43%	57%	.154	.054
Behavioral Role-Modeling	48%	52%	43%	57%	.154	.054
Machine Simulators	13%	87%	24%	76%	1.04	.141
Other	19%	81%	5%	95%	2.28	.209

*$p < .05$

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.23
Primary Training Method Used by Organizations in Their Basic Skills Training Programs By Size of Firm (N = 52)

Training Method	Large Firms YES	Large Firms NO	Medium Firms YES	Medium Firms NO	Chi Square	Phi
On-the-Job Training	32%	68%	52%	48%	2.10	.201
Discussion	10%	90%	5%	95%	.426	.090
Audio-Visual Techniques	10%	90%	14%	86%	.260	.070
Lectures	29%	71%	24%	76%	.173	.057
Role-Playing	0%	100%	0%	100%		
Experiential Exercises	3%	97%	0%	100%	.690	.115
Computer-Assisted Instruction	0%	100%	0%	100%		
Behavioral Role-Modeling	6%	94%	0%	100%	1.40	.164
Machine Simulators	0%	100%	5%	95%	1.50	.170
Other	10%	90%	0%	100%	2.15	.203

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

In summary, statistically significant differences between large and medium-sized firms were found only for the *lecture* and *discussion* methods of training, with a higher proportion of the larger organizations reporting using these two methods. Otherwise, there appear to be few differences between large and medium-sized organizations in terms of the use of various training methods.

Table 5.23 shows the results of the cross-tabulations between firm size and primary training method used by organizations in their basic skills training programs. *On-the-job training* is the primary training method used in the basic skills training programs of 32 percent of the large firms and 52 percent of the medium firms. Ten percent of the large firms and five percent of the medium firms indicated that *discussion* is the primary method that is used in their basic skills training programs. *Audio-visual techniques* are used as the primary basic skills training method by 10 percent of the large firms and 14 percent of the medium firms. Twenty-nine percent of the large firms reported using *lectures* as their primary training method, as compared with 24 percent of medium firms. No large or medium firms reported using *role-playing* as the primary training method in their basic skills training programs. *Experiential exercises* are the primary training method used by three percent of the large organizations. No medium firms reported using this as their primary method. No firms reported using *computer-assisted instruction* as the primary training method in their basic skills training programs. *Behavioral role-modeling* is used as the primary training method by six percent of the large firms, while no medium firms reported it as their primary method. *Machine simulators* are not used as the primary training method by any of the large firms; however, five percent of the medium firms reported its use as their primary training method. Ten percent of the large organizations reported using methods other than those listed above as their primary method. No medium size organizations reported using other methods as their primary method. Statistically, there are no significant differences between large and medium size firms

Table 5.24
Number of Hours of Basic Skills Training Per Employee (N = 52)

Mean	36
Median	24
Maximum	200
75 Centile	40
25 Centile	11
Minimum	2

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.25
Amount of Money Spent on Basic Skills Training (N = 52)

Mean	$94,176.89
Median	$50,000
Maximum	$600,000
75 Centile	$100,000
25 Centile	$5,000
Minimum	$500

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.26
Period of Time When Basic Skills Training Takes Place (N = 52)

58%	During both employee's normal working hours and outside normal working hours.
36%	During employee's normal working hours.
6%	Outside of employee's normal working hours.

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

in terms of primary training methods used in their basic skills training programs.

Miscellaneous Findings

Number of Hours Spent in Basic Skills Training

Each of the 52 employers who provide basic skills training in the workplace were asked to estimate the number of hours spent in training by the typical employee. As shown in Table 5.24, the maximum number of hours reported was 200 and the minimum was 2. The mean number of hours for the 52 organizations is 36 and the median is 24. Seventy-five percent of the employers reported that their employees receive up to 40 hours of training, while 25 percent said their employees received up to 11 hours.

Amount of Money Spent on Basic Skills Training

The 52 employers were asked to estimate how much their organizations spend annually on basic skills training efforts in the State of Kansas. As Table 5.25 indicates, the maximum amount reported was $600,000, while the minimum was $500. The mean number of dollars spent by the 52 employers is $94,176.89, and the median is $50,000. Seventy-five percent of the employers spent up to $100,000 on basic skills training, while 25 percent spent up to $5,000.

While the maximum amount may seem high, follow-up calls were made to the four companies which indicated spending the largest amounts of money, and the figures were verified. Reasons given for the high cost of training include the start-up costs for new programs and the fact that employees continue to earn their wages while they are receiving training.

Period of Time When Basic Skills Training Takes Place

As shown in Table 5.26, 58 percent of the employers reported that basic skills training takes place during both the employee's normal working hours and outside of normal working hours. Thirty-six percent of the employers indicated that the training occurred exclusively during the

Table 5.27
Are Employees Paid for Training Time?

70%	Yes
15%	Partially
6%	No

Source: 1991 Survey of Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

Table 5.28
Reasons Why Organizations Do Not Provide Basic Skills Training

34%	Do not have the time to do the training.
26%	Training is too expensive.
17%	Don't know how to provide training in the needed areas.
68%	Other*

*"Other" includes 45 different reasons, most of which focus on the resources of the firm and attitudes of management toward basic skills training. These are listed in Appendix 12.

Source: 1991 Survey of Adult Basic Skills Training Programs of Kansas Businesses, IPPBR/KU.

employee's normal working hours, while six percent reported training solely outside the employee's normal hours of work.

Payment of Employee During Training

Table 5.27 shows that 79 percent of the employers pay their employees their full wage for time spent in training. Fifteen percent of the employers pay their employees for part of the time spent in training, and six percent do not pay their employees for this time.

Reasons Why Organizations do not Provide Basic Skills Training

Of the 184 employers that were surveyed, 125 indicated that their employees do not receive basic skills training. Each of these organizations was asked to respond to a series of questions to determine why they are not providing basic skills training for their employees.

As shown in Table 5.28, 34 percent of the employers responded that they did not have the time to conduct the training. Twenty-six percent indicated that providing basic skills training is too expensive; 17 percent indicated that they did not know how to provide training in the needed areas; 68 percent of the employers provided other reasons for not providing basic skills training. These other reasons are detailed in Appendix 12.

Summary

1. Over one-third of medium-sized and large firms in Kansas perceive *at least a moderate gap* between the basic skills of their employees and the skills that are required by their jobs. Of these organizations, half report that their employees are currently receiving basic skills training, relative to 33 percent of all Kansas firms so reporting.

2. For those firms which report that their employees are receiving basic skills training, this training is provided by the firm in 87 percent of the cases.

3. Basic skills training is being provided to four broad categories of employees—primarily clerical, technical, non-technical blue collar, and to a lesser extent sales/marketing employees. In terms of sheer numbers of employees affected, clearly more non-technical blue collar employees receive this training than any other group.

4. The areas in which basic skills training is given reflect closely the skills identified in the 1989 survey as in greatest need of improvement. They include teamwork and interpersonal skills; listening and verbal comprehension skills; very basic personal computer skills; problem solving/

analytical skills; personal attitudes and responsibilities skills; math skills; writing skills; adaptability/flexibility skills; and, to a lesser extent, reading skills.

5. The majority of firms providing basic skills training to their employees offer this training both during the employees' normal working hours and outside of normal working hours. However, 36 percent of the firms report conducting all basic skills training during the employees' normal working hours.

6. Almost 80 percent of the firms providing basic skills training to their employees report that their employees are paid for the time they spend in training. □

6 | Policy Options for Consideration

As a result of the research, surveys, and interviews conducted in conjunction with this study, several policy options have been drafted for consideration by policy-makers, state agencies, the business community, basic skills providers, and interested Kansans. The policy options presented in this section encompass adult basic skills instruction and workplace literacy. Although the survey did not specifically address K-12 instruction, other states' efforts and related literature suggest that it is important to consider methods of reducing or eliminating the flow of future adults who lack basic workplace skills. Therefore, policy options for K-12 are also offered, based upon this information.

ADULT BASIC SKILLS INSTRUCTION

A. The Adult Basic Education System

GOAL: Expand the reach of Kansas' Adult Basic Education (ABE) system and improve accessibility to basic skills instruction.

Policy Options:

1. **Establish local ABE/business advisory councils on a local or regional basis to expand the focus of the programs' curriculum and materials to include workplace-oriented instruction.**

Rationale: The results of our survey of basic skills providers in Kansas indicated that over two-thirds of basic skills programs operate with no input from business regarding competency recommendations or materials. When training was a result of requests from business, however, only one-third received no business input. In order to increase business involvement in basic skills instruction, ABE/business advisory councils should be created to provide a formalized, systematic way for business to have input regarding the basic workplace skills curriculum of ABE programs, including such skills as learning to learn; reading, writing, and computation competence; listening and oral communication; creative thinking and problem solving; personal management; group effectiveness; and organizational effectiveness.

The key purpose of the advisory councils is to provide businesses with a mechanism for input into curriculum. Business' role will be strictly advisory. The councils would offer the ABE centers an understanding of the array and level of basic skills needed in the workplace. The councils may consist of a coalition of businesses, independent volunteer organizations, and the ABE centers and could either be established within each ABE center (for larger cities) or in clusters of ABE centers (for smaller communities). This is to be determined locally but should include as large an area as feasible. In the case of ABE centers located at community colleges, AVTSs, or other institutions with advisory boards, the ABE/business advisory partnership should be a subset or committee of the larger advisory board. The purpose of this structure is to coordinate the activities of the ABE center with the overall programs offered by the supporting institution.

2. **Establish effective, measurable outcomes for ABE programs through the Kansas State Department of Education.**

Rationale: Over three-fourths of surveyed programs stated that they evaluate their instruction through internal self-evaluation. Other evaluators, such as the State Department of Education, were also mentioned, but most of the evaluators relied on methods which examine the inputs—such as enrollment or attendance figures—instead of the outcomes of the system. Nonetheless, students who complete the ABE program and take their GED must have sufficient skills to enter the workforce or seek further skill training. ABE programs need to begin evaluating the outcome of their instruction on a systematic basis by assessing their students, in terms of basic skills, to ensure that they are ultimately ready to enter the workforce.

3. **Double total ABE enrollment by the year 2000.**

Rationale: In comparing the Kansas ABE program to those of other states, the results indicate that Kansas has, overall, a smaller program which is not as adequately funded as other states. ABE instruction, however, is a critical first step in upgrading and improving the skills of the workforce. Adults who have inadequate basic skills are unable to aquire more advanced technical skills. This is a problem for Kansas: the Kansas workforce faces an increasing skills gap. When comparing the number of jobs requiring less than a high school diploma and the number of adults with that level of education, the data show that future jobs will require more education and that Kansans may not have the education requirements to fill those jobs. If the state ignores this issue and chooses to embark on a low skills/low wage strategy, Kansas will compete with developing nations, such as Mexico, in attracting businesses requiring low skills. Subsequently, the state's standard of living will suffer.

Of the states neighboring Kansas, Iowa has the most impressive ABE enrollment, reaching approximately 41,500 persons annually, compared to 10,200 in Kansas. Kansas must begin to increase its ABE enrollment if it wishes to remain competitive with other states, like Iowa, or other countries in attracting and retaining businesses needing employees with technical skills to produce quality products.

4. **Increase access to ABE instruction through enhancement of satellites or creation of new ABE centers.**

Rationale: The Kansas State Department of Education should undertake an analysis to determine which areas of the state are presently underserved by the ABE system. The study should focus on the ability of the present satellites to be easily accessible—in terms of location, hours, array of instruction, and support services—and include specific recommendations based on the findings for improvements within the system.

The results of our study indicated that approximately 15 counties were not served by any of the survey participants. Although a few of those counties may be served by the ABE center located at Cloud County Community College, the majority of the counties were located in rural areas which are presently "satellite" locations of other ABE centers. All Kansans must be guaranteed easy access—in terms of location and hours of instruction—to ABE programs if they choose to seek basic workplace skills instruction.

5. **Ensure that basic skills instruction is available to all Area Vocational Technical School students through cooperative arrangements with other local education providers or an Academic Skills center.**

Rationale: Of the state's 17 Area Vocational Technical Schools, only one is an ABE center. If students attend one of the other AVTSs and need basic skills instruction before they can enter skill training, the school is not reimbursed for remedial or basic skills instruction. Some have established Academic Skills Centers for their students who

need help with basic skills, but those programs operate with few resources and may cut into other programs.

AVTSs should be encouraged to enter into cooperative agreements with other local basic skills providers, such as community colleges or other ABE centers, to provide basic skills instruction for AVTS students. For example, if an AVTS is located in the same county or city as a community college, then the college could provide basic skills instruction for AVTS students on-site or on the college campus. The community college, in turn, would be reimbursed for instruction through the state as it is for its own students. For those AVTSs which do not have nearby basic skills providers, the state should assist the AVTS in creating and funding basic skills instruction through an on-site Academic Skills Center.

6. Expand the support services of ABE centers.

Rationale: ABE centers should provide support services and financial support should come from local sources, such as the United Way and existing SRS programs. Centers that develop a strategy for offering support services to their students should be provided base level funding from the state to cover a portion of such services. By setting base level state funding, centers are encouraged to work with other local organizations who could provide them with financial or administrative assistance in developing and maintaining support services. However, reliance on SRS or any other single source may limit the student base. In the case of SRS, not all ABE students are SRS clients and are not eligible for those benefits.

The survey results indicated that there was a slight gap between the number of individuals needing support services (child care and transportation) and programs which offered those services. Even though the gap is slight at the present time, if basic skills programs expect to serve a greater proportion of the target population, they must provide the support services that their students need.

7. Increase state support for ABE programs to meet the average of other states' funding levels, adjusted for population.

Rationale: The bulk of non-federal support for Kansas ABE programs comes from local sources, and in FY 1990 total state ABE support totalled $186,000. Local ABE support for the same period was $1,149,207. The state has met federal match requirements but has been diligent not to exceed them. Other states—including those surrounding Kansas—have, for the most part, greater state contributions to ABE programs. In fact, the average state ABE expenditure for Kansas and its neighbors (Colorado, Iowa, Missouri, Nebraska, and Oklahoma) equalled $1,942,640 in FY 1990. Iowa had the greatest state contribution—$9,406,496—and the greatest enrollment. Greater funding for ABE programs would permit: a) doubling enrollment; b) expanding the accessibility of instruction; c) offering more support services; and d) improving equipment and hiring additional staff.

B. Volunteer Literacy Organizations

GOAL: Provide financial assistance to existing and newly created volunteer literacy efforts.

Policy Options:

1. Develop a pilot program within the Kansas State Department of Education to receive applications and provide base grants to volunteer organizations statewide—up to $7,500, with a required match of $7,500 shared by local business and governments—to cover start-up costs or acquire additional resources.

Rationale: Volunteer literacy organizations generally operate with few resources and are limited in the services which they can provide to the community. Very often the success of these organizations depends on the volunteers who staff them; over half of community based organizations

rely on volunteer teachers to provide instruction. In order to leverage the contribution of volunteers, the state should undertake a 3 year pilot project to provide grants to 40 independent literacy organizations annually for acquisition of essential resources, such as teacher/student materials, computers, or other operating materials. By requiring a local business and/or local government match, the organization is demonstrating that it has local support for its activities. Programs which receive funding in the first or second year of the project may reapply for additional funding in the following year(s). At the end of the program, the State Department of Education should evaluate the overall effectiveness of the project to determine its impact.

C. State Social Services and Correctional Facilities

GOAL: Reduce the state's future cost of providing social services and correctional facilities by improving access to basic workplace skills instruction for individuals receiving state social support or serving time in correctional facilities.

Policy Options:

1. **Continue current efforts within the Department of Corrections to provide basic skills education to inmates.**

Rationale: Over 50 percent of all entrants to the state's correctional facilities do not have a high school diploma or GED, a situation similar to other inmate populations around the country as well. The current correctional education system seeks to break the cycle of recidivism by giving inmates comprehensive education, including basic skills instruction. The state contracts its educational services out to private providers, but most follow the same pattern of: 1) immediate assessment of new inmates, 2) an educational "contract" for new inmates which requires them to attend school, and 3) periodic review and assessment of inmates' educational progress, especially during parole hearings. This system appears to be effective in encouraging inmates to learn basic skills.

2. **Conduct a feasibility study through the Department of Corrections to determine the potential and cost of providing basic skills instruction to inmates in county/local corrections facilities.**

Rationale: Because the current corrections education program affects inmates only in state facilities, the Department of Corrections should evaluate the feasibility of expanding the model to include county and local facilities. The study should examine the potential for establishing working relationships with volunteer organizations or local ABE centers in providing one-on-one tutoring or instruction in small groups. One critical point that the study may examine is the average length of time that inmates spend in local or county prisons, in order to determine the potential effectiveness of providing basic skills instruction in these facilities.

3. **Create a common assessment or student evaluation based on workforce competencies for all state workforce programs.**

Rationale: Just as all state workforce training programs should establish one common intake form, all participating agencies should develop and agree upon a common assessment tool for adults entering the system. One example of a common assessment tool could be the Kansas Competency Test, based on the Comprehensive Adult Student Assessment System (CASAS). This test evaluates reading and math skills, and the questions are structured in a workplace context. The purpose of the common assessment is to: 1) determine an adult's skills deficiencies when entering the system; 2) transfer the results to any other state workforce program; 3) eliminate student frustration; and 4) increase access to instruction and training.

4. **Create a common intake form for the Kansas Department of Education, Department of Human Resources, and Social Rehabilitation Services workforce programs.**

Rationale: Individuals entering any state workforce program should enter the system through one intake form. The Kansas Department of Education, Department of Human Resources, Social Rehabilitation Services, and other applicable agencies should work together to create a universal intake form which can be filled out the first time an adult enters the state's workforce training system. As the individual comes in contact with other state workforce programs, the other participating agencies should be able to simply refer to the already completed form. The purpose of this common form is to increase accessibility to training programs by acquiring all necessary information from the beginning, and spending less time on additional administrative responsibilities and more on providing assistance and instruction.

WORKPLACE LITERACY

Policy Options:

1. **Establish a workplace literacy program at each ABE center or AVTS and interested independent literacy organizations, with start-up funding from the state and oversight through the Kansas State Department of Education.**

Rationale: Adult Basic Education centers and independent literacy organizations are known for their expertise in providing instruction to adults needing to improve their basic workplace skills. Although the system is presently under funded, basic skills programs should be expanded to include meeting businesses' requests for workplace literacy programs.

ABE centers or community based organizations may not be accustomed to tailoring their programs to meet the specific needs of a customer—mainly businesses—and they may not be equipped or staffed to either market or provide their services. To assist programs which currently do not offer workplace literacy programs, the state should distribute small, one-time grants to establish such a program. Local governments and business should provide a match which is equal to the state's contribution. Centers can then develop programs, with assistance from the Workplace Literacy Partnership, in developing assessment tools and strategies for tailoring basic skills training programs for employees of firms.

Once the center has a basic workplace skills program in place, then it can actively seek businesses which need instruction for their employees. An important part of each center's program should be the ability to market its services to the business community, assess the needs of employees and tailor a program to them, and offer instruction on the business site and during times which are convenient to the employee. Businesses should support workplace literacy training for their employees by working with the center in providing on-site, on-the-clock basic skills training programs.

It is crucial that businesses endorse basic skills training programs for their employees by making them available at the business site and during hours which the employee is on-the-clock or in a partial employee/employer time arrangement. One of the primary barriers to providing basic skills instruction, especially when meeting business/industry requests, was the lack of a wage subsidy or time off from work for instruction. To ensure that their employees are receiving and completing basic skills instruction, employers should undertake these measures to support them.

2. **Create a pilot program to develop workplace basic skills training for clusters of firms within similar industry groups.**

Rationale: Kansas businesses are generally very small and have difficulty in providing training for their employees. Ironically, small businesses typically need better trained workers

because each employee must be able to perform several different tasks or functions within the firm. Just as businesses are entering a third wave in production, states are beginning to tailor their economic development strategies to take into account a third wave: development of clusters. A key cluster within the state would be groups of business and industry with similar products or processes, such as agricultural value-added businesses, the plastics industry, or aviation machine shops.

Therefore, by working with clusters of small business with similar products, skills needs, etc., the workplace literacy providers could offer basic workplace skills instruction to businesses which could normally not take part in training because they did not have the critical mass, on their own, to take part in such training. The state should encourage this new wave in training by sponsoring pilot programs around the state to work with business clusters in providing basic workplace skills instruction for their employees.

3. **Establish a statewide private/public Workplace Literacy Partnership to serve as a central clearinghouse for workplace literacy information, develop a strategic approach to creating workplace literacy programs in Kansas, and coordinate creation/development of workplace literacy providers.**

Rationale: The results of the survey of businesses indicated that of those businesses reporting a moderate to severe employee skills gap, fifty percent reported that their employees were currently receiving basic skills training. Eighty-seven percent of employers offering basic skills training provide it themselves. Additionally, very few businesses contacted the state's ABE system to request basic workplace skills instruction and only 33.3 percent of the state's ABE centers reported such requests. These two points, when brought together, do not suggest that businesses are not interested in training their employees. Instead, these results imply that businesses are taking on the responsibility of training because they may not be aware of other available training sources. The state has in place a training system—Kansas Industrial Training/Kansas Industrial Retraining (KIT/KIR)—to meet the needs of employers with workers functioning at higher skills levels, and it should expand its training base to take into account employers with workers who lack adequate basic workplace skills. The Workplace Literacy Partnership would bridge the gap between functionally illiterate adults and more advanced training programs.

In essence, the overall mission of the partnership could focus on: a) building a long-run state workplace literacy strategy by bringing various representatives of business and the public sector together, and b) providing hands-on assistance to workplace literacy providers. One option for the partnership could be to combine and retain the current efforts of other existing private and public organizations. The partnership could strive to meet the following objectives: 1) coordinating and/or providing regular training/workshops/conferences on workplace literacy for businesses, literacy programs, and public entities; 2) encouraging the financial support of businesses, state, and federal entities for specific workplace literacy programs or activities; 3) coordinating the efforts of ABE centers and independent community-based organizations in providing comprehensive workplace literacy programs throughout all areas of the state; 4) coordinating and/or supporting the efforts of other literacy organizations in promoting a general awareness, moral support, and encouragement for those who lack basic workplace skills; 5) assisting programs in establishing proactive marketing and business outreach mechanisms for their workplace literacy programs; and 6) assisting businesses in similar business sectors in working together (in clusters) to obtain training and financial incentives for upgrading the basic workplace skills of their current employees.

K-12 BASIC SKILLS EDUCATION

A. Basic Workplace Skills Competencies

GOAL: All Kansas students should acquire the basic workplace skills necessary to function in the workplace and society prior to leaving high school.

Policy Options:

1. **Establish statewide certified basic skills competencies for high school graduates and monitor, through periodic testing in grades K-12, the development of students' basic workplace skills.**

Rationale: It has been assumed for many years that if students have a high school diploma, they have acquired at least a basic set of skills necessary to function in the workplace and society. Because some students "slip through the system" without becoming adequately prepared for the current workplace, the State Department of Education should take the lead in establishing a specific set of skills which students should learn before graduation. Because a single test administered before graduation may not detect skills deficiencies during the first few years of school, the state should determine: 1) skills to be tested; and 2) in what grade(s) students should be tested.

One of the tests should be administered during a student's senior year in high school, although the test does not have to be a graduation requirement. The purpose of the testing will be: 1) show students where they need to improve their basic skills in order to become work ready; 2) pinpoint, for each district, what skills their students lack and need additional instruction in; and 3) compare, on statewide, district-by-district basis the results of the tests and the relative rank of each district.

In addition to administering the test, the State Department of Education and school districts should work together to set acceptable "passing" score levels for the test. By the year 2000, passing the competency test should become a requirement for graduation from high school in Kansas.

2. **Summarize and rank the basic skills competencies test results of high school seniors by school district and issue them in an annual report from the Kansas Department of Education.**

Rationale: School districts should be held accountable for the basic skills attainment of their students. By issuing the results in an annual report to the public, Kansans will be able to see the performance of their districts over time. There are presently very few measures of district performance other than dropout rates. This report would show the districts' customers—students, parents, and businesses—how effective the districts have been in educating their students. If the test results indicate that some districts have a relatively high proportion of students who are graduating with inadequate basic skills, then the district should have the ability to address the problem.

It must be recognized that all students do not enter the system from the same economic/social backgrounds and may not be prepared for school. School districts cannot be held accountable for these inequalities. However, base-line information would be helpful if it were available to demonstrate the progress of school districts in teaching basic skills to their graduating seniors. The results would not indicate scores for advanced skills, such as calculus, but an array of basic skills that all adults need to either further their education or seek employment.

3. **Establish a "warranty" for high school diplomas to guarantee high school graduates and employers that graduates possess basic workplace skills.**

Rationale: Students who are not able to find or retain employment because they do not have adequate basic workplace skills should have an opportunity to return to the school district and receive free instruction. Additionally, employers

who hire recent high school graduates who lack basic academic skills should be able to send their employees, free of charge, to the district to upgrade the employees' basic skills levels. The warranty ensures that students will have the chance to gain the skills necessary to find and keep a job, even if training takes place after high school. It also persuades the district to make sure that students leave school prepared for the workplace.

In conjunction with the results of the basic skills competencies test scores, students who lack basic workplace skills after graduation must have an opportunity to enter a post-graduate program to bring their skills to a level sufficient for the workplace. Students who go to a community college or four year school after graduation may have a chance to improve their basic skills, but both college and non-college youth must be guaranteed that their school district will back their diploma with additional instruction—at its expense—if necessary.

4. **Create an education/business advisory partnership in clusters of Unified School Districts to assist them in developing and identifying a specific inventory of basic skills curriculum—including abstract skills such as learning to learn and adapting to change—which are necessary for employment.**

Rationale: The purpose of the education/business partnership is to establish a formalized, systematic way for groups of businesses to provide input regarding the basic workplace skills curriculum of school districts. The role of business will be strictly advisory and serve to steer the development and evolution of skill requirements in the curriculum.

There are two underlying objectives for these education/business partnerships. The first objective is to gear education towards a customer-based focus. The educational needs of today's and tomorrow's students are continually changing and doing so at an increasing rate. Education cannot prepare young people for the workplace of tomorrow unless it understands the needs of its students and business. Just as Kansas businesses have begun to think about their products and services in customer-focused terms, education should also consider the needs and requirements of one of their customers: business. Second, Kansas businesses must have access to well trained workers if they are to remain competitive and productive. Kansas businesses are faced with a new array of competitors located in other states and other nations. Traditional business practices, processes, and products are no longer useful or competitive. One of the most difficult challenges facing Kansas businesses is competing with the well-trained workforces of other countries. While Kansas has historically had a well-educated workforce relative to the nation, outside forces require us to more fully examine our human capital.

5. **Develop a teacher/business internship program in every school district to expose teachers to the business world.**

Rationale: In addition to their academic preparation for the classroom, current and future teachers must understand the business environment. Businesses should help teachers realize the importance of certain skills to the workplace and how academic information is applied to the business environment. Teacher/business internships will provide educators with an opportunity to gain first-hand knowledge about the workplace so that they will 1) have a general understanding of the business environment; 2) be exposed to the types of technology and processes used in the workplace; 3) gain greater knowledge about the types of skills required to be productive; and 4) perceive the need to help their students prepare for the world of work. Teachers can then take this knowledge back with them into the classroom, utilizing it as examples in teaching and articulating the importance of education.

There are many creative ways in which the internship programs could be structured. One example of a teacher/business internship program is the teacher summer hire program through which

teachers are sponsored by businesses to work during the summer months for a particular firm. Teachers could also participate in one-day seminars or visits to business sites.

6. Establish a student workplace program in every school district to prepare students for work after high school.

Rationale: Historically, a college education was assumed to be the only way to develop the skills of tomorrow's leaders in business and society. For some students, however, there are many opportunities to develop skills outside of the traditional college classroom. Our education system is not geared towards preparing those students—the non-college students—for additional training in technical areas or an entry-level job. Education must convey to students, through a systematic basis, that there is life after high school and it involves the world of work. Some students may complete their high school education with no real work experience or exposure to the workplace. A few may have held jobs in retail or fast-food operations, but they may not be truly aware of the opportunities and requirements of life-long careers. A student workplace program should give students a brief glimpse of the business environment. One example of a workplace program is "shadow days," where students spend a day or afternoon following business people through their typical daily schedule and tasks. Another example of a potential program would be one which allows high school students to spend part of their school day in the business environment, actually working in an internship capacity. Students could work for a firm for a short period of time, such as four weeks, or they may receive more in-depth knowledge through an internship lasting one or two semesters. Finally, business persons could be invited into the classroom to give guest lectures or teach for a semester.

All high school students need to have a positive, clear vision about their lives after high school. For some, a college education will be the answer. But for those who will not go on to college, their high school education needs to prepare them for a career or additional technical training.

B. Retention of K-12 Students

GOAL: Reduce the flow of adults who lack basic workplace skills by addressing the state's high school dropout rates.

Policy Options:

1. Lower the state dropout rate by 50 percent by the year 2000.

Rationale: The state's dropout rate has been increasing over the last few years. While the total numbers of dropouts have been decreasing, they have done so at a rate which is less than the decrease in total enrollment. The state, in conjunction with school districts, should work to cut the dropout rate in half in a ten year period. This is not an overall goal just for the state. All school districts should cut their dropout rates in half for all students in all grades, including minority groups. The state's 1989-1990 school year dropout rate was 4.2 percent and equals the total number of dropouts divided by the total number enrolled. Other measures, including the Current Population Survey (CPS), calculate the dropout rate by graduating class. Both measures should be cut in half by the year 2000.

Cutting the dropout rate is an investment in our future. Dropouts usually have not acquired sufficient basic workplace skills to function in the workplace or society, and they represent a present and future cost to society, through lost earnings potential, cost of remedial instruction, and possible social costs, such as welfare or incarceration.

2. Develop innovative programs in clusters of school districts to address the unique needs of at-risk students.

Rationale: Students may drop out of school for several reasons, including economic, school related, or personal ones. If the state and school

districts are going to address the dropout problem successfully, strategies to eliminate dropouts will be more effective if they are tailored to combat the reasons for dropping out. One option may include creating alternative settings for instruction which are not located in the traditional school setting. Other options may include offering support services in conjunction with instruction, such as child care for young parents.

3. **Develop means of keeping in contact with students who drop out.**

Rationale: Districts should develop a plan or strategy to keep in contact with students who drop out of school, in order to encourage young people to return to school or pursue the GED. Schools should also give students leaving school information about local literacy programs or the closest ABE center.

4. **Calculate the state dropout rate from the seventh through the twelfth grade.**

Rationale: The current method of calculating dropouts includes students in the ninth through twelfth grades of high school. Although all students under the age of 16 must remain in school, it is important to begin calculating the dropout rate at the seventh grade in order to identify students who are at-risk of dropping out. By calculating the rate in earlier grades, school districts and the state can intervene earlier and provide assistance to those who have the potential of dropping out permanently when they turn 16 years old.

5. **Calculate the state dropout rate by two methods: a) a method which takes into account the number of dropouts per class or year of graduation and b) the traditional dropout/headcount method.**

Rationale: The current method of calculating dropouts, as used by the Kansas Department of Education, divides the total number of dropouts into the number enrolled for each grade. Another method would calculate the dropout rate by graduating class. In other words, a student who is in the 9th grade in the Fall of 1990 should graduate in the Spring of 1994. If that student were to leave school, the district would attempt to determine the reason—moved out of state, moved to another district/school, or dropped out—and count those that dropped out as dropouts from the Class of 1994. Students who could not be tracked would not be counted toward the dropout rate. The reason for calculating dropouts by this method is that it more accurately portrays dropout trends through a *cumulative* measure, rather than a simple grade-by-grade count. Results from the Garden City dropout study demonstrate that the cumulative method is feasible and offers an additional perspective on the dropout issue. □

Appendices

APPENDIX 1

Innovative Programs in Other States

INTRODUCTION

In conjunction with the analysis of the adult basic skills system in Kansas, a review of innovative programs in other states was undertaken. The purpose of this review was to gather information on state efforts to improve adult basic skills programs and serve as a basis for the policy recommendations in Chapter 6. This appendix does not comprehensively outline all states' programs. Instead, it attempts to provide a selective overview of examples of other adult basic skills programs. The review entailed an extensive literature search, as well as site visits to programs in Iowa, Missouri and Michigan. These states were chosen because of their geographic proximity to Kansas, as well as their program emphasis.

State governments have had the responsibility for upgrading the adult basic skills system since 1984. As a result, many states have recently appointed committees to analyze the state's adult basic skills education system and present recommendations for improving the system in a report to the state's legislative body. A number of the more innovative recommendations are presented. However, since most of the recommendations have not yet been adopted, or have been adopted only recently, it is difficult to evaluate the impact of the recommendations on each state's literacy efforts.

PROGRAMS IN OTHER STATES

Competency-Based Curriculum

ARIZONA. The Literacy Volunteers of Maricopa County (Phoenix, AZ) have established an adult basic skills program employing a series of competencies derived from skill levels developed by the Joint Council of Educational Priorities (JCEP). These skill levels were created in cooperation with the Rio Salado Adult Literacy Services Program and the Basic Skills Faculties of the Maricopa Community Colleges. The Literacy Volunteers moved to a competency-based program so that the progress of the participants in the volunteer program could be matched to the levels used in the ABE programs at the Maricopa County Community Colleges, which also use the competencies derived from the JCEP Basic Skills.

Once assigned to a certain skill level, a student starts a 4 to 20 week program, depending on the skill level and the subject. Subject areas include reading, mathematics, writing, and study skills. At the end of the program, one of several tests (ABLE, WRAT, TABE) is administered to determine if the competencies assigned to the student's skill level have been achieved, and if so, the student may move on to the next skill level. The Arizona competency-based approach is important because it: a) is applicable to both volunteer and ABE programs in Arizona; and b) focuses on developing and measuring the outcomes of instruction—skills acquired—rather than inputs, such as time spent in a classroom.

Innovative Approaches to Funding Adult Basic Skills Programs

Grants

ILLINOIS. Illinois has two initiatives which provide grants to literacy programs: 1) the Secretary of State Literacy Grant Program; and 2) the Workplace Literacy Grant Program. In fiscal year 1991, the Secretary of State Literacy Grant Program awarded $5,032,473 in grants and private sources donated another $1,200,00 in cash and in-kind contributions to 99 local literacy programs.

The Workplace Literacy Grant Program was expanded to assist 20 businesses, with total grant awards of $143,857. A Long-Range Planning team has been appointed to survey the existing adult education/literacy services delivery network to increase coordination between agencies, to further define the need, and to evaluate the measures used to judge adult student performance levels.

The Illinois Secretary of State Literacy Grant Program

The Illinois Secretary of State Literacy Grant Program was established in 1985 with a $2 million appropriation from the Illinois General Assembly. The Grant Program makes grants of up to $50,000 available to any Illinois literacy provider serving adults over the age of 16 who are unable to read, write or comprehend above the 5.9 grade level. The organization requesting the grant can be either public or private, or a coalition of several literacy providers. Each organization presenting an application for a grant must demonstrate the need for literacy services in the community it serves and must: 1) present a statement of the project's goals and objectives; 2) outline the methods that will be used to achieve the goals and objectives of the program; 3) propose evaluative methods and procedures which will produce quantifiable data regarding the progress of the program towards achieving its goals; and 4) demonstrate an ability to continue the program without future grants, although a program may apply for and receive grants in following years. Grants are approved by a Literacy Advisory Board, and the selected programs must make financial reports quarterly to the State Library outlining the amount of money expended in each line item of the approved budget; and make progress reports semi-annually summarizing the progress of the program towards its goals. Any equipment purchased with grant funds becomes the property of the State Library.

The Illinois Workplace Literacy Grant Program

The Workplace Literacy Grant Program is a part of the Literacy Grant Program established in 1990 and awards grant funds of up to $10,000 to 20 private businesses. Businesses contract with adult literacy providers to develop and implement a workplace literacy program, or to provide support services for a workplace literacy program. The grant applicant must provide a 100 percent match to the public funds, and the matching contribution may include in-kind contributions such as personnel, equipment, supplies and instructional materials. In all other respects, the features of the Workplace Literacy Program are identical to those of the rest of the Grant Program.

Tax Credits

MISSISSIPPI. The Mississippi legislature provides a tax credit towards the state income tax to employers provide their employees with basic skills training. The law allows 25 percent of the qualified expenses of a basic skills training and retraining program as a tax credit against the state income tax, including expenses related to instructors, instructional materials and equipment, and the construction and maintenance of facilities designated for the training purposes. Basic skills training focuses on reading, writing, or math skills—up to the twelfth grade level—of employees who are unable to function effectively on the job due to skill deficiencies in these areas or would be displaced because such skill deficiencies will inhibit their training for new technology. All training under this program is job-related and instruction utilizes job related material.

Per-Pupil Funding

MICHIGAN. Adult basic skills education in Michigan is administered by the state's school districts. Three different programs are available for adults: 1) an ABE program for adults who

have not completed the 8th grade level; 2) a High School Completion program for individuals who have completed the 8th grade, but have not completed the 12th grade; and 3) a Post-Graduate program for high school graduates who are under the age of 20 and who need basic skills or college preparatory classes). Each USD has a full-time community education director to administer the adult basic skills program. For the first two years after the position is established, the state pays two-thirds of the director's salary. In the following years, the state pays a lower, constant dollar amount per year.

One key to the success of the Michigan adult basic skills education program is that it is funded on a per-pupil basis, in the same manner as the K-12 program, although a different funding formula is used. For example, in Lansing, the USD receives $4,095 per student from the state for its adult basic skills students, the same amount that is allocated for a K-12 student. Moreover, the state pays the entire amount for the basic skills student, while it only contributes about $1,280 for the K-12 student, the rest must be raised locally. There is no limit on the amount of money a USD may receive for its basic skills programs, so that more students in the program means more dollars for the USD. The funding for the basic skills programs is not categorical, so that these programs can act as profit centers for the school districts. The school districts can use the excess funds generated by the basic skills programs to fund other programs. The end result is an incentive for basic skills programs to recruit heavily.

Because of the incentive to enroll adult basic skills students, the school districts take an active role in promoting workplace basic skill training. In Lansing, for example, the USD has four workplace training sites at General Motors plants. The USD supplies the teachers and teaching materials, while GM provides the facilities and equipment.

The total federal funding for adult basic skills education in Michigan in 1990 was $6 million. While the state is required to provide matching funds equal to 20% of the federal grant, the state supplied $91 million. The school districts use the federal funds mainly to provide support services such as computers, child care and transportation; and use the state funds to provide the teaching.

Coordination of Statewide Workplace Literacy Efforts

LIFT-MISSOURI. Literacy Investment For Tomorrow–Missouri (LIFT-Missouri) is a private, not-for-profit corporation created in 1988 in response to a recommendation by the Governor's Advisory Council on Literacy. The corporation was formed because there was a need for a centralized body to coordinate the workplace literacy resources available in the state. LIFT-Missouri serves as the principal, statewide advocate for literacy programs and services aimed at improving the effectiveness and competitiveness of Missouri businesses. Since LIFT-Missouri is not publicly funded, the organization relies on private support for its workplace literacy activities. The organization is not a direct service provider; it serves as a clearinghouse for literacy resources available for workplace literacy programs. LIFT maintains a database of all literacy activities in the state, and attempts to match businesses needing literacy services with the appropriate public or private literacy service provider. The organization has created several resource materials for businesses, teachers and students; and publishes a monthly newsletter. LIFT also applies for grants from federal agencies and private organizations on behalf of the workplace literacy programs it serves. All VISTA grants awarded in Missouri go to LIFT-Missouri, which distributes the funds to service providers on a first come, first served basis.

LIFT-Missouri sponsors an annual statewide conference focusing on workplace literacy. This conference affords the opportunity for businesses interested in workplace literacy programs to meet with workplace literacy service providers, and

provides a forum for assessing the current state of workplace literacy in Missouri. LIFT also supports research to form recommendations for state policy and is working to develop a strategic plan for workplace literacy in Missouri.

LIFT-Missouri is important because of its role in establishing workplace literacy as a priority for Missouri. Although LIFT-Missouri is not a direct service provider, it assists literacy programs in obtaining financial assistance and training to establish workplace literacy programs. The state has a highly fragmented system of basic skills providers, and few are accustomed to working with businesses and tailoring specific programs for them. LIFT-Missouri assists programs in developing an effective, proactive workplace training program.

Integration of Adult Basic Skills Delivery Systems into Customized Training

IOWA. Adult Basic Education programs in Iowa are integrated into the state's customized training system through the state's 15 community colleges. The comprehensive nature of this training delivery system makes the community colleges a "one-stop shop" for businesses needing any type of customized training program for their employees. Additionally, there are few recognized literacy organizations outside of this system. This structure was initially developed so that all adults would have easy access to basic skills instruction; all programs are within driving distance and some community colleges operate off-campus sites as well. Flexibility is the key to delivering basic skills training, and classes can held at other sites, including business sites, nursing homes, libraries, shelters, jails and hospitals, and occasionally in private homes.

Federal funding for the basic skills programs goes primarily through the state general aid fund to community colleges. These funds are distributed to the community colleges based on contact hours. The community colleges also receive local money from a mill levy assessment which can be added to the federal funds. Funds from businesses participating in the customized training program goes directly to the individual community college. State funds are not ear-marked for literacy or ABE programs.

This system reduces the competition for literacy resources, and reduces the effort literacy providers must expend to obtain funding for their programs. Overall, channeling resources for adult basic skills training through the community college system has worked very well. However, the system can be inflexible in reaching different customers or adapting to change because instruction and programs are tied to one institution.

Iowa ABE centers work with businesses in providing customized basic skills instruction to their employees, including Heinz and John Deere. However, at this time, most of the programs which have worked with businesses tend to be located in more populated regions of the state: around the Des Moines area or along the eastern border of the state.

PROPOSALS MADE IN OTHER STATES

Incentives to Keep Students in School

Several states have made recommendations aimed at reducing the future supply of people in need of basic skills training: 1) by ensuring that students stay in school; and 2) providing them with education which prepares them for work. An example of initiatives to keep students in school includes those in Missouri. The Governor's Advisory Council on Literacy has suggested a number of measures to inform teachers to recognize learning disabilities and basic skills deficiencies and employ alternative methods for reaching all at-risk students. It was further recommended that the school districts be required to report the names, mailing addresses, and telephone numbers of students who drop out of school to the Literacy Hotline or the local Adult

Basic Education center. In preparing young people for the world of work, the Utah State Board of Education and State Board of Regents recommended that "employability" skills be identified. A competency test based on these skills was also recommended for students in the twelfth grade. Students passing the test be awarded a special certificate as part of a "Guaranteed Graduate" program.

Increased Linkage to Employment

In several states, proposals were made to strengthen the correlation between the skills obtained in an adult basic skills program and the skills needed to maintain a job. Michigan replaced the more limited, traditional definition of literacy with a "workforce literacy" definition to drive the state's adult training and education programs. The new definition encompasses a wide continuum of skills, including language and communication skills, quantitative skills, problem-solving skills, interpersonal and attitudinal skills, and job-seeking and self-advancement skills. In several states, including Missouri, Connecticut and Colorado, it was recommended that the local business community form partnerships with schools and literacy providers to provide insight into the basic skills needed to gain and maintain employment.

Oversight/Coordination

A number of state literacy committees have recommended that a overseeing body be created to coordinate the activities of the various literacy providers in the state. Michigan's Adult Literacy Task Force of the Governor's Cabinet Council on Human Investment recommended that a professionally staffed public/private policy board be established to oversee the integrated adult basic skills system, and to foster joint public/private investments in evaluating and improving the basic skill levels of Michigan's workforce. In Arkansas, the Governor's Commission on Adult Literacy recommended that a Cabinet Council of department heads which are involved in literacy activities (e.g. Education, Corrections, Social Services, Labor, Commerce, etc.) be formed to oversee and coordinate the delivery of literacy services, while in Connecticut it was recommended that a working group be formed by representatives from the Departments of Education, Higher Education, Human Resources, Income Maintenance, and Labor to develop guidelines for a coordinated assessment and evaluation program. In Colorado, the Adult Literacy Commission recommended that a Colorado Adult Literacy Commission be established within the Colorado Department of Education to encourage cooperation among organizations that provide literacy services.

SUMMARY

This section offered an overview of innovative adult basic skills programs and proposals in other states. In sum, the review found that:

1. Some states employ a variety of innovative approaches to funding adult basic skills programs, including direct grants to businesses and programs, income tax credits for employers, and program funding on a per-pupil basis. Other state programs focus on consistent competency-based curriculum, privately supported workplace literacy initiatives, and models which channel resources directly through one entity.

2. Because most states have only recently begun to develop their own basic skills programs, the majority of programs are in the early stages of development. Some key proposals in other states have focused on incentives to keep K-12 students in school, increase education/employment linkages, and utilize innovative entities to coordinate programs. □

APPENDIX 2

INNOVATIVE PROGRAMS IN KANSAS

INTRODUCTION

In order to better understand the needs of basic skills providers, businesses, and the workforce of Kansas, several on-site visits were conducted. This section outlines several innovative programs in Kansas, including the Business/Education Success Team, Cessna Aircraft, and the Kansas School for Effective Learning. These programs are not the only innovative ones in Kansas. However, they illustrate the potential to establish similar programs in other areas of the state.

BUSINESS/EDUCATION SUCCESS TEAM

The Business/Education Success Team (BEST) is a public/private arm of the Wichita Area Chamber of Commerce and the Wichita/Sedgwick County Partnership for Growth (WI/SE). The mission of BEST is to contribute to the economic growth of the community by improving the quality of the workforce through a partnership of business and education. BEST focuses on improving workforce readiness and life skills through the enhancement of the educational systems in the community. The intent is to create a stronger integration of work-related skills with the academic preparation provided by the educational system.

In May 1990, BEST was a co-sponsor, along with Wichita USD 259 and the Wichita Eagle, of "Education Agenda for the 21st Century," a conference which addressed the educational issues facing the Wichita/Sedgwick County community. The conference attempted to bring together a balanced group of educators, business leaders and community representatives to see if some agreement could be reached on what priority issues need to be addressed over the next few years. The conference participants formed interaction groups, in which the strengths and weaknesses of the current system were recognized. The groups developed strategies for improving the educational system and identified the resources available for improvement, as well as the barriers to change. The result has been to bring together groups that usually do not interact with each other, such as business and education.

In 1988, BEST initiated its Teacher Summer Hire program, in which teachers are employed by participating businesses for six weeks to two months. Companies are afforded the chance to have a trained professional provide on-the-job training for the company staff, or perform any other tasks that utilize the teacher's expertise. On the other hand, teachers have the opportunity to gain insight into the needs of business and to recognize the employment skills that should be communicated to their students. Through this program, private businesses can have an influence on the educational curriculum and have an impact in molding educational standards, while gaining a better understanding of what the educational system needs from business in order to educate future workers.

BEST is also a co-sponsor of the Shadow Day program. This program allows high school sophomore, junior, and senior students to go to the place of employment and "shadow" for one day a person who occupies a career position which interests the student. Before Shadow Day, the business person prepares a comprehensive list outlining the job requirements, responsibilities, and duties, the education and work experience requirements, the opportunities for income, growth and advancement, and a description of the company and its history. The purpose of the Shadow Day program is strictly career

exploration; the employers are under no obligation to hire the students.

CESSNA AIRCRAFT

Cessna operates two workplace literacy programs: 1) the Academic Upgrade Program; and 2) the 21st Street Project. Both are currently operated by Jan Vredenburg, a certified public school teacher on leave during the current year. Ms. Vredenburg was originally hired under BEST's Teacher Summer Hire program. The purpose of the program is to address the concern that employees' current skill levels may be inadequate for their jobs. Ms. Vredenburg was hired to assist in the assessment of the work force and provide workplace-based literacy programs.

The Academic Upgrade Program

The Academic Upgrade Program was started in 1989 at Cessna's Pawnee and Wallace facilities. The title of the program deliberately avoids the word "literacy" because of people's fear of discrimination. The program is offered at no cost and after work hours to employees and their family members. Participation in the program is strictly voluntary for both students and tutors. There are currently about 60 students and 60 tutors, with a waiting list of students. The purpose of the program is to first train the tutors, and then to assess the employees and place them with an appropriate tutor in an appropriate curriculum.

The need for the program became apparent when employees could not read work materials. Some did not know the alphabet. Another concern was that as technology changed, employees needed higher skill levels. Cessna is committed to upgrading the math, reading, and technical writing skills of its employees. The decision was made to have the program offered at the workplace for several reasons. First, there was a need to have a higher success rate than could be obtained by sending employees off to another location. Second, there was great concern that the program be made as convenient as possible for the employees. Third, an on-site program allows coordination with work shifts so employees could begin a class immediately after or before their work shift. One key to Cessna's success is a permanent space devoted to the program, rather than assigning a temporary space in the conference room or part of the lunch room. The program has a very large room with tables, chairs, and appropriate instructional materials. It can be open 24 hours a day if necessary. It offers programs in reading, math, English, and GED preparation.

At the start of the program a questionnaire was sent to all employees concerning the level of the education. No employee was required to respond, but those who did were offered placement with a tutor for a minimum of two hours per week.

The cost of the Academic Upgrade Program to Cessna is the director's salary, program materials, and the dedicated space. The director is the only paid employee in the program.

The 21st Street Project

The 21st Street Project began December 3, 1990, in a new facility operated by Cessna. The purpose of the program is to take persons who are unemployed, unskilled, and who cannot get a job and train them to be future employees of Cessna. The president of Cessna, Russ Meyer, was concerned by the lack of skilled in the Wichita area. At a meeting of business leaders in Wichita there was much discussion about bringing workers in from outside the community to meet skill shortages. Mr. Meyer questioned this and asked why residents of Wichita could not be trained to fill job vacancies. As a result of this discussion, he looked at programs offered by such major companies as IBM, Motorola and the Polaroid Corporation.

The 21st Street Project involves cooperation between the Wichita school district, JTPA, and

SRS. The Dunbar Adult Center—the local ABE—pays for a teacher who is assigned full-time to the 21st Street location. JTPA provides reimbursement for half of the wages of an on-the-job contract and SRS pays for transportation and child care expenses. The program currently has 15 students, most of whom are female minorities. The participants are employees of Cessna and start at a wage of $5.15 per hour. The first three months are spent in academic training, learning about sheet metal work, and other job-related tasks. After this initial instruction, the participants move on to sheet metal work and their pay is increased to $6.00 per hour. After an additional three months of work at the 21st Street plant, the intent is to move them to one of Cessna's two plants in Wichita. Thus, after six months, the employee is to leave the 21st Street plant and be assigned to a permanent job at Cessna. All Cessna employees should be able to read at a ninth grade level and be capable of computing fractions and decimals.

There are four non-readers in the program. They are not employed by Cessna and they must come three hours a day in order to increase their reading level so they can enter the training program.

The intent is to have only 20 in training at the sheet metal tables at one time. There are only spaces for 20 at the assembly positions. The employees will make some parts that will be shipped to Cessna's other plants.

Another feature of the program is that there is a counselor assigned to the project to help with personal problems such as transportation, child care, or other personal problems.

KANSEL

The Kansas School for Effective Learning (KANSEL) was established in Wichita in September, 1989. It is a cooperative program of organized labor, the business community, and the United Way of Wichita. The purpose of the organization is to teach basic skills in the workplace. The program has its own Board of Directors. So far, KANSEL has served approximately 150 people, of whom 60% were employed at the time of instruction.

One priority of KANSEL is individuals who are already working, but who need to upgrade their basic skills. These individuals may have a high school diploma or a GED but do not have adequate skills to keep up with their jobs. The GED program offered in Wichita is a traditionally-based education program with approximately 25 students in one room with one teacher. The majority of the KANSEL instruction is one-on-one, so more individualized instruction is possible. The program also maintains flexible hours, opening at 7:30 a.m. and staying open until the last person leaves in the evening. The KANSEL staff believes that there is a large market for adult basic skills education in Wichita, which cannot be filled solely by the public agencies, so there is a role for private programs like KANSEL.

KANSEL also operates a basic literacy program for individuals who do not have a high school diploma. This program is based on the premise that reading requirements have increased in recent years. Employees need reading skills for written work orders, to understand written safety instructions, and to participate in training programs offered by their companies. Students in this program are usually referred from community agencies. KANSEL is willing to start with individuals who are reading below the third grade level, and approximately 20 to 25 of their students are currently reading at this level.

KANSEL is currently working on several projects, including ones with the Communication Workers of America, Learjet and Coleman. The Communications Workers of America project is partly funded by the Kansas Department of Education, and the program is intended to help workers who are employed increase their skills and retain employment. KANSEL also has a pre-employment preparation program at Learjet, in cooperation

with JTPA. Each participant receives 125 hours of basic skill training in math, blueprint reading, and reading skills for manufacturing. All instruction is workplace-based, using Learjet documents.

A new cooperative effort with the Coleman Company is about to begin, with Coleman underwriting the costs of the program. Coleman realizes that its employees need basic skills, and intends to do considerable workforce training in the near future. The company wants its employees to get into a developmental mode and accept responsibility for their own progress. Coleman recognizes that it must develop people from within rather than hiring needed skills in the labor market.

The first goal of the Coleman program is to assist employees in obtaining a GED. The program will be conducted at the Coleman plant after hours. The class schedule will be arranged so that workers will be able to attend either immediately before or after their shift at the Coleman plant. For those who are not ready for GED preparation there will be a basic skills class that will be organized somewhat differently. Those employees will attend class 30 minutes on their own time, and 30 minutes on the company's time, in order to prepare for GED instruction. This program was initiated entirely be the company.

KANSEL also offers assessment programs and will test employees of any Wichita company for reading, math, problem solving and linguistic skills. KANSEL can then advise the company as to its options in undertaking a basic skills program. Companies contemplating a basic skills program have several concerns which can be addressed by KANSEL. One issue concerns the legal liabilities involved with asking employees to attend a basic skills program, or basing compensation or employee perks on the employee's involvement in the program. Another concern of the companies which can be addressed by KANSEL is the cost of starting and maintaining an adult basic skills program. After the employees are tested, KANSEL offers to provide company classes on the employees' time or to refer employees to another basic skills program provider.

SUMMARY

Kansas has several innovative programs already in place, including the Business/Education Success Team (BEST), Cessna's workplace literacy program, and the Kansas School for Effective learning (KANSEL). BEST has been successful in establishing a working relationship between business and education in the Wichita area and has been instrumental in helping the partnership establish mutually agreed upon goals. Cessna operates two workplace literacy programs, one at its plant sites for current employees, as well as one which seeks to develop and improve the skills of new employees from economically disadvantaged backgrounds. Finally, KANSEL is a non-profit cooperative service provider which seeks to teach basic skills in the workplace, either through individual referrals of in company-sponsored training programs. □

APPENDIX 3

Basic Academic Skills Taught Directly/Indirectly

Skill Area	AVTS	CBO	CC	Others	SLIAG	USD
		LEVEL 0–5.9				
Computation (Math) Skills:						
Basic Calculation	66.7%	54.2%	100%	100%	100%	100%
Probability/Statistics	66.7%	33.3%	66.7%	50%	--	57.1%
Algebra/Geometry	66.7%	29.2%	33.3%	50%	--	42.9%
Tables/Diagrams	100%	50%	72.2%	50%	100%	87.5%
Language Skills:						
Writing	100%	62.5%	100%	100%	100%	87.5%
Simple Reading	100%	79.2%	100%	100%	100%	75%
Complex Reading	100%	50%	83.3%	--	100%	75%
Listening/Verbal Comprehension	100%	70.8%	94.4%	50%	100%	87.5%
Other Skills:						
Teamwork	66.7%	33.3%	88.9%	100%	100%	87.5%
Problem Solving	100%	37.5%	88.9%	--	100%	87.5%
Attitudes	100%	70.8%	100%	50%	100%	87.5%
Adaptability/Flexibility	100%	54.2%	100%	50%	100%	87.5%
		LEVEL 6–8.9				
Computation (Math) Skills:						
Basic Calculations	100%	55%	100%	100%	100%	100%
Probability/Statistics	100%	50%	100%	50%	100%	100%
Algebra/Geometry	66.7%	35%	66.7%	50%	100%	87.5%
Tables/Diagrams	100%	55%	100%	100%	100%	100%
Language Skills:						
Writing	100%	60%	100%	100%	100%	100%
Simple Reading	100%	65%	100%	100%	100%	87.5%
Complex Reading	100%	55%	100%	50%	100%	75%
Listening/Verbal Comprehension	100%	65%	100%	50%	100%	87.5%
Other Skills:						
Teamwork	66.7%	50%	94.4%	100%	100%	87.5%
Problem Solving	66.7%	50%	94.4%	50%	100%	87.5%
Attitudes	100%	60%	100%	50%	100%	100%
Adaptability/Flexibility	100%	55%	100%	50%	100%	87.5%

APPENDIX 3 (continued)

Skill Area	AVTS	CBO	CC	Others	SLIAG	USD
			LEVEL 9-12			
Computation (Math) Skills:						
Basic Calculations	100%	64.7%	100%	100%	100%	87.5%
Probability/Statistics	100%	47.1%	100%	100%	100%	87.5%
Algebra/Geometry	100%	64.7%	100%	100%	100%	100%
Tables/Diagrams	100%	64.7%	100%	100%	100%	87.5%
Language Skills:						
Writing	100%	64.7%	100%	100%	100%	87.5%
Simple Reading	100%	70.6%	100%	100%	100%	75%
Complex Reading	100%	70.6%	100%	100%	100%	75%
Listening/Verbal Comprehension	100%	70.6%	100%	100%	100%	100%
Other Skills:						
Teamwork	66.7%	52.9%	94.4%	100%	100%	100%
Problem Solving	100%	58.8%	100%	100%	100%	100%
Attitudes	100%	64.7%	100%	100%	100%	75%
Adaptability/Flexibility	100%	58.8%	100%	100%	100%	87.5%
			ESL			
Computation (Math) Skills:						
Basic Calculations	100%	41.2%	62.5%	--	100%	42.9%
Probability/Statistics	100%	29.4%	87.5%	--	66.7%	28.6%
Algebra/Geometry	100%	23.5%	56.3%	--	66.7%	14.3%
Tables/Diagrams	100%	47.1%	81.3%	--	100%	71.4%
Language Skills:						
Writing	100%	58.8%	100%	--	100%	85.7%
Simple Reading	100%	70.6%	100%	--	100%	85.7%
Complex Reading	100%	41.2%	100%	--	100%	85.7%
Listening/Verbal Comprehension	100%	64.7%	100%	--	100%	85.7%
Other Skills:						
Teamwork	100%	58.8%	93.8%	--	100%	85.7%
Problem Solving	100%	41.2%	93.8%	--	100%	57.1%
Attitudes	100%	64.7%	93.8%	--	100%	85.7%
Adaptability/Flexibility	100%	52.9%	100%	--	100%	85.7%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 4

Teaching Models Most Commonly Used to Deliver Basic Academic Skills Instruction

Model	AVTS	CBO	CC	Others	SLIAG	USD
			LEVEL 0–5.9			
Academic	66.7%	4.3%	100%	100%	--	--
Individualized	33.3%	95.7%	--	--	--	100%
Computer	--	--	--	--	--	--
Other	--	--	--	--	100%	--
			LEVEL 6-8.9			
Academic	66.7%	5.6%	11.8%	100%	--	--
Individualized	33.3%	83.3%	64.7%	--	--	87.5%
Computer	--	5.6%	23.5%	--	--	--
Other	--	5.6%	--	--	100%	12.5%
			LEVEL 9-12			
Academic	66.7%	12.5%	17.6%	--	--	--
Individualized	--	75%	52.9%	100%	--	87.5%
Computer	33.3%	6.3%	17.6%	--	--	--
Other	--	6.3%	11.8%	--	100%	12.5%
			ESL			
Academic	100%	6.3%	33.3%	--	33.3%	--
Individualized	--	87.5%	60.0%	--	33.3%	75%
Computer	--	--	--	--	--	--
Other	--	6.3%	11.8%	--	33.3%	25%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 5

Staff Most Commonly Used to Deliver Basic Academic Skills Instruction

Staff	Portion of Each Category Using					
	AVTS	CBO	CC	Others	SLIAG	USD
LEVEL 0–5.9						
Full/Part-time Teachers	100%	26.1%	52.9%	100%	100%	75%
Volunteer Teachers	--	65.2%	29.4%	--	--	12.5%
Full/Part-time Paraprofessionals	--	8.7%	5.9%	--	--	--
Volunteer Paraprofessionals	--	--	11.8%	--	--	12.5%
LEVEL 6-8.9						
Full/Part-time Teachers	100%	33.3%	88.2%	100%	100%	87.5%
Volunteer Teachers	--	55.6%	5.9%	--	--	12.5%
Full/Part-time Paraprofessionals	--	11.1%	5.9%	--	--	--
Volunteer Paraprofessionals	--	--	--	--	--	--
LEVEL 9-12						
Full/Part-time Teachers	100%	37.5%	88.2%	--	100%	87.5%
Volunteer Teachers	--	50.0%	5.9%	--	--	12.5%
Full/Part-time Paraprofessionals	--	12.5%	5.9%	--	--	--
Volunteer Paraprofessionals	--	--	--	--	--	--
ESL						
Full/Part-time Teachers	100%	25.0%	86.7%	--	100%	57.1%
Volunteer Teachers	--	62.5%	6.7%	--	--	28.6%
Full/Part-time Paraprofessionals	--	6.3%	6.7%	--	--	--
Volunteer Paraprofessionals	--	6.3%	--	--	--	14.3%

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 6

Primary Barriers to Providing Basic Academic Skills Instruction

Barrier	AVTS	CBO	CC	Others	SLIAG	USD
			LEVEL 0–5.9			
Child care	--	13.0%	11.1%	--	--	25%
Transportation	33.3%	21.7%	5.6%	100%	--	62.5%
Negative history w/education	33.3%	43.5%	72.2%	--	100%	--
Wage subsidy/work release	--	--	5.6%	--	--	--
Insufficient staff	--	8.7%	--	--	--	12.5%
Program location	--	8.7%	--	--	--	--
Time instructor available	33.3%	--	--	--	--	--
Other	--	4.3%	5.6%	--	--	--
			LEVEL 6-8.9			
Child care	--	5.6%	11.1%	--	--	25%
Transportation	33.3%	16.7%	5.6%	100%	--	12.5%
Negative history w/education	33.3%	16.7%	66.7%	--	--	50%
Wage subsidy/work release	--	--	5.6%	--	--	12.5%
Insufficient staff	--	--	--	--	100%	--
Computers/software	--	--	5.6%	--	--	--
Program location	--	5.6%	--	--	--	--
Time instructor available	33.3%	--	--	--	--	--
Other	--	5.6%	5.6%	--	--	--
			LEVEL 9-12			
Child care	--	6.3%	16.7%	--	--	50%
Transportation	33.3%	18.8%	5.6%	--	--	--
Negative history w/education	33.3%	50.0%	61.1%	--	--	37.5%
Wage subsidy/work release	--	6.3%	5.6%	--	--	12.5%
Insufficient staff	--	6.3%	--	--	100%	--
Computers/software	--	--	5.6%	--	--	--
Program location	--	6.3%	--	--	--	--
Time instructor available	33.3%	--	--	--	--	--
Other	--	6.3%	5.6%	--	--	--

APPENDIX 6 (continued)

Barrier	AVTS	CBO	CC	Others	SLIAG	USD
			ESL			
Child care	--	20%	18.8%	--	33.3%	42.9%
Transportation	--	33.3%	25.0%	--	--	28.6%
Negative history w/education	100%	26.7%	18.8%	--	--	14.3%
Wage subsidy/work release	--	6.7%	6.3%	--	--	--
Insufficient staff	--	6.7%	--	--	33.3%	14.3%
Staff training	--	--	6.3%	--	--	--
Individualized instruction	--	--	--	--	33.3%	--
Instructor integrity	--	--	6.3%	--	--	--
Computers	--	--	6.3%	--	--	--
Program location	--	--	12.5%	--	--	--
Other	--	6.7%	--	--	--	--

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 7

Basic Academic Skills Taught Directly/Indirectly to Adults with High School Diploma or GED

Skill	AVTS	CBO	CC	Others	SLIAG	USD
Computation/Math Skills	75%	50%	100%	100%	100%	100%
Language Skills:						
Writing	25%	62.5%	100%	100%	100%	100%
Reading	50%	68.8%	100%	100%	100%	100%
Listening/verbal comprehension	75%	68.8%	100%	100%	100%	85.7%
Other Skills:						
Teamwork/interpersonal	75%	43.8%	85.7%	100%	100%	100%
Problem solving/analytical	75%	56.3%	100%	100%	100%	100%
Attitudes	75%	75%	92.9%	100%	100%	85.7%
Adaptability/flexibility	75%	62.5%	85.7%	100%	100%	100%
Computer	50%	31.3%	64.3%	100%	100%	100%

Source: 1990 Survey of Adult Basic Skills Training Programs in Kansas, IPPBR/KU.

APPENDIX 8

Primary Barriers to Providing Basic Academic Skills Instruction to Adults with High School Diploma or GED

Barrier	AVTS	CBO	CC	Others	SLIAG	USD
Child care	--	7.1%	14.3%	--	50%	--
Transportation	33.3%	7.1%	7.1%	--	--	--
Negative history w/education	--	50%	35.7%	100%	--	25%
Wage subsidy/work release	--	--	35.7%	--	--	50%
Insufficient staff	33.3%	--	--	--	--	25%
Staff training	--	--	--	--	50%	--
Computers/software	--	7.1%	7.1%	--	--	--
Program location	--	7.1%	--	--	--	--
Time instructor available	--	7.1%	--	--	--	--
Other*	33.3%	14.3%	--	--	--	--

*Includes student's financial situation (lack of money), student's fear of seeking instruction, lack of handicapped-accessible facilities, and patient's schedule.

Secondary Barriers to Providing Basic Academic Skills Instruction to Adults With High School Diploma or GED

Barrier	AVTS	CBO	CC	Others	SLIAG	USD
Child care	--	--	21.4%	--	--	25%
Transportation	--	25%	5.7%	--	50%	--
Negative history w/ education	66.7%	25%	21.4%	--	--	37.5%
Wage subsidy/work release	33.3%	--	--	--	--	--
Insufficient staff	--	8.3%	7.1%	--	--	12.5%
Staff training	--	--	7.1%	--	--	--
Individualized instruction	--	8.3%	--	--	50%	--
Instructor integrity	--	8.3%	7.1%	--	--	--
Computers/software	--	--	--	--	--	25%
Student materials	--	8.3%	--	--	--	--
Program location	--	8.3%	--	--	--	--
Other*	--	8.3%	--	100%	--	--

*Includes student's financial situation (lack of money), student's fear of seeking instruction, lack of handicapped-accessible facilities, and patient's schedule.

Source: 1991 Survey of Adult Basic Skills Training Programs in Kansas, IPPBR/KU.

APPENDIX 9

Methods by Which Adults Learn About Basic Academic Skills Instruction

Methods	Portion Responding
Word of Mouth	85.5%
Referrals	43.5%
Media	35.5%
Other*	9.7%

*Includes fund raisers.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 10

Source of Referrals

Agency	Programs with Agency Referrals	Portion of Total Referrals
SRS	77.4%	36%
JTPA	48.4%	10%
Other USDs	41.9%	19%
AVTS/Comm. College	29.0%	4%
Other*	54.8%	31%

*Includes referrals from courts and correction agencies.

Source: 1991 Survey of Adult Basic Skills Training Programs in Kansas, IPPBR/KU.

APPENDIX 11

Methods Used to Market Basic Academic Skills Programs

Advertise Through	Portion Using
Media	80.6%
Local Organizations	14.5%
Business Executives	8.1%
Government Agencies	8.1%
Other*	19.4%

*Includes public speaking, word of mouth, personal contact/letters, and brochures.

Source: 1991 Survey of Adult Basic Skills Programs in Kansas, IPPBR/KU.

APPENDIX 12

"Other" Responses to Q. 142*

1. New company.
2. Insufficient staff.
3. Attitude of corporate management.
4. Never thought about starting training.
5. Problem is not that significant to warrant training.
6. They reorganized their company and only then did it become apparent that they needed BST. They are going to start BST in Jan.
7. Program doesn't lend itself to BST.
8. Management reluctance.
9. They take it for granted that workers have already learned the basic skills.
10. Expected to have training.
11. Logistics.
12. Teacher's in-service training course.
13. Just beginning to identify need.
14. Lack of evaluation of the workforce.
15. Don't have the staff for training.
16. Training not available.
17. Not really sure what kind of training they need.
18. Problem of teamwork was not considered a problem before; they are planning a program now.
19. Upper management doesn't see a need.
20. They eventually find the people who can do the job.
21. Already trained.
22. Small corp. Doesn't have the resources.
23. Not their responsibility, impractical.
24. Lack of staff.
25. Don't have the resources; need a trainer.
26. No organized form of training.
27. Staff goes back to college for self-improvement.
28. No training program currently; yes, in the future.
29. Informal manager-worker (1-4) passing of skills.
30. Longevity of employment-employment fluctuates rapidly.
31. Hire people that are already trained.
32. Some basic training included in training for the job; very small percentage because of time constraints.
33. Provide training at the job-site as needed by employees.
34. They have *heavy* supervision on their employees instead of training them.
35. Don't have a program because it happens in a few isolated incidents.
36. Employees are short term; so no investment made in training.
37. Don't have the staff available.
38. Don't know how to get it started.
39. Haven't seen a need. These people are blue-collar workers and they don't need to know how to read and write.
40. Expect schools to educate; their job is to give them a job.
41. Not part of their job; they do refer to community colleges.
42. Change in format expected in 1993.
43. Program beginning in January.
44. No need (answer given by 6 firms that answered "no gap" on Question 126).
45. No need (answer given by 27 firms that indicated at least a "slight gap" on Question 126).

*Ten organizations that answered "yes" on Question 142 did not provide a specific answer.

APPENDIX 13

ABE/Literacy Program Telephone Survey

Program Name: _____

Person Completing Survey: _____

Title: _____

Program Location: _____

Program Type: (Code)

(Use county code)

AVTS
Community College
USD
CBO
Public Library
Other

PRECALL SCREENING QUESTIONS

1. Does your program provide Adult Basic Education or instruction for those who do not have a high school diploma or GED?

   a. Yes
   b. No (Go to Q. 4)

2. If yes, are you the person who should answer questions regarding enrollment numbers, funding, curriculum, and evaluation?

   a. Yes (Go to Q. 4)
   b. No

3. If no, could you give me the name, address, and phone number of the person who would be most qualified to respond to our survey?

4. Does your program provide instruction for those who have a high school diploma or GED but needs further instruction in basic academic skills because they are functioning below their educational level?

   a. Yes
   b. No (Go to Q. 7)

5. If yes, are you the person who should answer questions regarding enrollment, curriculum, etc.?

   a. Yes (Go to Q. 7)
   b. No

6. If no, could you give me the name, address, and phone number of the person qualified to provide information regarding this aspect of your program?

7. Does your program provide instruction in basic academic skills to businesses and industries who come to you with requests for instruction for their employees?

   a. Yes
   b. No (Go to Q. 9)

8. If yes, are you the person most knowledgeable about this aspect of your program?

   a. Yes
   b. No

9. If no, could you give me the name, address, and phone number of the person qualified to provide information regarding this aspect of your program?

ID #_____

A. BACKGROUND

The first part of this survey is designed to collect background information that describes your center.

A1. Are you a satellite program?

a. Yes
b. No (Go to Q. A3)

A2. What is the name of the central program for which you are a satellite?

A3. How many persons served in fiscal year (FY) 1990 lived in the county in which your center is headquartered? (FY 1990 = July, 1989 through June, 1990)

Actual _____
(If actual number not known, please provide an estimate.)
Estimate _____

A4. What other counties does your center serve (please list)?

A5. How many persons served in FY 1990 lived in neighboring counties (please report the total number; we do not need a county by county breakdown).

Actual _____
(If actual number not known, please provide an estimate.)
Estimate _____

A6. What time is your center open?

a. Mornings only
b. Afternoons only
c. Morning and afternoons
d. Evenings
d. Mon. through Fri.
c. Saturdays
d. Other (describe) _____

A7. Do you have open entry and open exit?

a. Yes (Go to Q. A9)
b. No

A8. When can persons enroll?

a. Beginning of each semester (e.g., June, August, January)
b. Once a month
c. Other (describe)_____

A9. What assessment tool(s) do you use to evaluate those entering your program?

a. Project of the States/CASAS pre/post test (Kansas Competency System)
b. TABE
c. Other (describe) _____

A10. Do you advertise or market your program?

a. Yes
b. No (Go to Q. 12)

A11. How do you advertise or market your program?

a. Media (TV, radio, newspapers, fliers, etc.)
b. Direct contact with local organizations (Rotary, Chamber of Commerce, etc.)
c. Direct contact with business executives (visits to business and industry)
d. Direct contact with government agencies (SRS, health dept., etc.)
e. Other (describe) _____

A12. How do the majority of persons served learn about your program?

a. Word of mouth
b. Media (TV, radio, newspapers, fliers, etc.)
c. Referrals
d. Other (describe) _____

A13. What percentage of your referrals come from the following government agencies?

a. ____% SRS
b. ____% JTPA
c. ____% Other school districts
d. ____% AVTS or Community College
e. ____% Others (list) _____
f. ____% TOTAL
g. ____ No government agency referrals received

A14. How many of your staff fit into each of the following categories:

_____ a. Full time teachers
_____ b. Part time teachers
_____ c. Unpaid volunteer teachers
_____ d. Full time counselors
_____ e. Part time counselors
_____ f. Unpaid volunteer counselors
_____ g. Full time paraprofessionals
_____ h. Part time paraprofessionals
_____ i. Unpaid volunteer paraprofessionals

A15. How much money did your program receive from the following funding sources during FY 1990:

a.	State Department of Education	_____
b.	Federal	_____
c.	Local USD	_____
d.	City or County Government	_____
e.	Student Fees	_____
f.	Dept. of Social & Rehabilitative Services	_____
g.	JTPA	_____
h.	Other	_____
i.	TOTAL	_____

A16. Do you provide school-to-work transition services?

a. Yes
b. No

B. INSTRUCTION

This section of the survey is designed to provide a description of instruction provided by your center.

B1-4. Do you provide instruction for persons who function within the following grade levels or skill levels?

Y N B1. 0-5.9 Grade—a continuum of math skills that includes basic addition and subtraction up to three columns, rounding whole numbers, multiplication and division, fractions, measurements, solving one-step word problems; and a continuum of reading skills that includes recognition and understanding of enough written words to read and follow simple instructions.

Y N B2. 6-8.9 Grade—a continuum of math skills that includes multiplying and dividing decimals and/or fractions, using graphs/charts/tables, solve multi-step word problems; and a continuum of reading skills that includes recognition and understanding of enough written words to understand complex instructions.

Y N B3. 9-12 Grade—a continuum of math skills that includes solving algebraic equations, identifying necessary/unnecessary information in word problems, basic geometry (e.g., find area of simple geometric figure), write ratio for given information, solve simple problems involving probability; and a continuum of reading skills that includes the ability to discriminate between fact and opinion, cause and effect, the ability to summarize information and draw conclusions, and the ability to identify what information is needed to solve a problem.

Y N B4. English as a Second Language (ESL)—a continuum of reading, writing, and verbal/listening skills for those who are learning English as their second language.

If B1-4 were answered NO, go to Q. B78.

B5-8. How many persons received instruction during FY 1990 (July, 1989 through June, 1990) in each of the grade or function ing levels:

B5. 0-5.9
B6. 6-8.9
B7. 9-12
B8. ESL

B9-12 What is the length of time in days, weeks, or months, that someone who cannot read, write, or do basic calculations usually spends on a list waiting to receive instruction?

B9. _____ 0-5.9 Grade
B10. _____ 6-8.9 Grade
B11. _____ 9-12 Grade
B12. _____ ESL

B13-24. For the following set of questions, please indicate what occurs at each educational functioning level.

Code #: 1. Instruction occurs and therefore the skills are likely to be acquired.
2. Explicit instruction may not occur but the skills are likely to be acquired as a result of training in other skills (e.g., listening and verbal comprehension skills are developed during instruction in reading).
3. Explicit instruction does not occur and the skills are not likely to be acquired.

Enter Code # in blank:

1a	1b	4		
0-5.9	6-8.9	9-12	ESL	
_____	_____	_____	_____	B13. Computation (math) skills such as basic calculations using addition, subtraction, multiplication, division, measurements, etc.
_____	_____	_____	_____	B14. Computation (math) skills such as percentages and ratios, elementary probability and statistics.
_____	_____	_____	_____	B15. Computation (math) skills such as elementary algebra and geometry.
_____	_____	_____	_____	B16. Ability to read and understand graphs, charts, tables, and diagrams.
_____	_____	_____	_____	B17. Writing skills such as write standard English sentences correctly, organize and translate thoughts into coherent written form, etc.

_____ _____ _____ _____ B18. Reading skills such as recognition and understanding of enough written words to read simple instructions, etc.

_____ _____ _____ _____ B19. Reading skills such as recognition and understanding of enough written words to read complex instructions, etc.

_____ _____ _____ _____ B20. Listening and verbal comprehension skills (following instructions or directions given verbally and asking questions when clarification is needed, etc.)

_____ _____ _____ _____ B21. Teamwork and interpersonal skills (engaging critically and constructively in the exchange of ideas, communicating effectively with others, etc.)

_____ _____ _____ _____ B22. Problem solving/analytical skills (recognizing and defining problems, problem solving strategies, etc.)

_____ _____ _____ _____ B23. Personal attitudes and responsibilities (showing respect for others, showing pride in one's work, demonstrating honesty and integrity, punctuality and attendance, etc.)

_____ _____ _____ _____ B24. Adaptability/flexibility (positive attitude toward learning, being open to change, etc.)

B25-28. What is the average time in months or years that it takes to progress to the next level of training for persons receiving instruction at the various educational functioning levels?

B25. _____ Grade 0-5.9
B26. _____ Grade 6-8.9
B27. _____ Grade 9-12
B28. _____ ESL

B29-53.** For each educational functioning level, how many started, how many completed, how many were progressing at the same level, how many dropped out, and how many moved to a higher level in FY 1990? If you do not have exact numbers for these categories, please estimate. If you have no estimates, record DK (Don't Know).

	No. Started	No. Started That Complete That Level	No. Progressing in Same Level	No. Drop Out	No. Moved to Higher Level
B29-33. Beginning Adult Ed. (0-5.9)					
B34-38. Intermediate Adult Ed. (6-8.9)					
B39-43. Advanced Adult Ed. (9-12)					
B44-48. ESL					
B49-53. TOTAL					

B54-57. What teaching model is most commonly used to deliver instruction at each level?

Enter Code#	Code #
B54. _____ 0-5.9 Grade	1. Academic (traditional classroom lecture/test model)
B55. _____ 6-8.9 Grade	2. Individual one-to-one tutoring
B56. _____ 9-12 Grade	3. Computer based instruction
B57. _____ ESL	4. Other (describe) _____

B58-61. What type of teaching staff are most commonly used at each level?

Enter Code#	Code #
B58. _____ 0-5.9 Grade	1. Full or part time salaried certified teachers
B59. _____ 6-8.9 Grade	2. Unpaid volunteers
B60. _____ 9-12 Grade	3. Full or part time paraprofessionals
B61. _____ ESL	4. Unpaid volunteer paraprofessionals
	5. Other (describe) _____

B62-65. What type of teaching material is used at each level?

Enter Code#	Code #
B62. _____ 0-5.9 Grade	1. Textbooks only
B63. _____ 6-8.9 Grade	2. Textbooks with job related material added occasionally
B64. _____ 9-12 Grade	3. Primarily job related material
B65. _____ ESL	5. Other (describe) _____

B66. What role do area businesses have in assisting with curriculum development?

a. No role
b. Recommendations on competencies
c. Input for job-related materials
d. Other_____

B67. Do you offer any special support services for those receiving instruction?

a. Yes
b. No (Go to Q. B69)

B68. What special services do you provide?

a. Teaching in homes
b. On-site child care
c. Instruction organized around adult life situations rather than traditional subjects
d. Instruction tailored to fit a particular business's or company's requirements
e. Basic academic skill instruction combined with job-specific training
f. Vocational assessment
g. Transportation
h. Counseling
i. Other (describe) _____

B69. Is your program evaluated?

a. Yes
b. No (Go to Q. B78)

B70. Who evaluates your program?

a. Self evaluation
b. Local school district (USD)
c. Kansas Department of Education
d. Area Coordinator
e. State Library
f. Other (describe) _____

B71-76. What measures are used to evaluate your program? If more than one entity evaluates your program, please indicate measures used by each entity.

Enter Code #s:
B71. _____ Self Evaluation
B72. _____ School District
B73. _____ Kansas Department of Education
B74. _____ Area Coordinator
B75. _____ State Library
B76. _____ Other (Describe) _____

Code #: 1. Enrollment
2. Attendance
3. Drop out rates
4. Pre- and post-test
5. Student progress (demonstrated improvement in performance)
6. Ability to perform job-related skills (competency based)
7. Fate or experience after leaving program
8. Other (describe) _____

B77. From which entity or evaluator(s) do you receive feedback based upon the evaluation?

a. None
b. Self-evaluation
c. School District
d. Kansas Department of Education
e. Area Coordinator
f. State Library
g. Other (describe) _____

B78-81. Rank order the following in terms of which is the biggest barrier to providing instruction at each educational functioning level. Choose only the top four items and rank them from one to four (1 = biggest barrier).

B78. Grade 0-5.9: Enter Code #:
Rank
1. _____
2. _____
3. _____
4. _____

B79. Grade 6-8.9:
1. _____
2. _____
3. _____
4. _____

B80. Grade 9-12:
1. _____
2. _____
3. _____
4. _____

B81. ESL:
1. _____
2. _____
3. _____
4. _____

Code #:
1. Child care
2. Transportation to site of instruction
3. Individual's prior negative experiences with education
4. Wage subsidy or work-release time to attend classes or tutoring sessions
5. Lack of funds to hire sufficient staff
6. Lack of funds to train staff in adult teaching techniques
7. Lack of funds to individualize instruction
8. Inability to integrate basic academic skill instruction with job-specific training
9. Lack of computers and/or software
10. Lack of materials for teachers (other than computers and software)
11. Lack of materials for students (other than computers and software)
12. Location of program/classes
13. Time the instruction was scheduled
14. Other (describe) _____

C. POST-SECONDARY INSTRUCTION

This part of the survey is designed to collect information about instruction that you provide for those who already have a high school diploma or GED but want or need to improve their level of reading or functioning in academic areas such as math or written and verbal communication because they are functioning below their educational level.

C1. Do you provide instruction for those who already have a high school diploma or GED?

a. Yes
b. No (Go to Q. C36)

C2. Can anyone with a high school diploma or GED but needing to improve their basic academic skills enroll?

a. Yes (Go to Q. C4)
b. No

C3. If no, is enrollment restricted to those who need instruction in basic academic skills AND are seeking a degree from your institution?

a. Yes
b. No

C4. What are your funding sources for this type of instruction?

a. State Department of Education
b. Federal
c. Local USD
d. City or County Government
e. Student Fees
f. Dept. of Social and Rehabilitative Services (SRS)
g. JTPA
h. Other (describe) _____

C5. Do you have a limit on the number of instructions hours that you can provide each person?

a. Yes
b. No (Go to Q. C9)

C6. If yes, what is the limit?

a. 18 credit hours
b. other (describe) _____

C7. Should that limit be changed?

a. Yes
b. No (Go to Q. C9)
c. Don't know (Go to Q. C9)

C8. If yes, how?

a. More time allowed
b. Less time allowed
c. Other (describe) _____

C9. How many persons received instruction at this level during FY 1990 (July, 1989 through June, 1990)?

C10-18. For the following questions, please indicate what occurs at this level of instruction:

Code #: 1. Instruction occurs and therefore the skills are likely to be acquired.
2. Explicit instruction may not occur but the skills are likely to be acquired as a result of training in other skills (e.g., listening and verbal comprehension skills are developed during instruction in reading).
3. Explicit instruction does not occur and the skills are not likely to be acquired.

Enter Code #:

____ C10. Computation (math) skills such as multiplication, division, measurements, percentages and ratios, elementary probability and statistics, basic algebra and geometry, using graphs, charts, tables, using calculator, word problems.

____ C11. Writing skills such as organize and translate thoughts into coherent written form, writing a report based on information gathered from more than one source, correctly filling out forms, etc.

____ C12. Reading skills such as recognition and understanding of enough written words to understand complex instructions, use of dictionary, etc.

____ C13. Listening and verbal comprehension skills (following instructions or directions given verbally and asking questions when clarification is needed, etc.)

____ C14. Teamwork and interpersonal skills (engaging critically and constructively in the exchange of ideas, communicating effectively with others, etc.)

____ C15. Problem solving/analytical skills (recognizing and defining problems, problem solving strategies, distinguishing between fact and opinion, etc.)

____ C16. Personal attitudes and responsibilities (showing respect for others, showing pride in one's work, demonstrating honesty and integrity, punctuality and attendance, showing initiative, dressing appropriately for work, self control, ability to work productively with minimum supervision, etc.)

____ C17. Adaptability/flexibility (positive attitude toward learning, being open to change, etc.)

____ C18. Personal computer skills (care and use of disks, starting and rebooting, printing, etc.)

C19. Do you currently have a list of persons waiting to receive instruction at this level?

a. Yes
b. No (Go to Q. C21)

C20. What is the average length of time a person spends on the waiting list?

C21. What is the average duration of instruction in weeks, months, or years?

C22. What teaching model is used to deliver instruction?

a. Academic (traditional classroom lecture/test model)
b. Individual one-on-one tutoring
c. Computer based instruction
d. Other (describe) _____

C23. What type of staff are used?

a. Full or part time salaried teachers
b. Unpaid volunteers
c. Full or part time paraprofessionals
d. Unpaid volunteer paraprofessionals
e. Other (describe) _____

C24. What type of teaching materials are used?

a. Textbooks
b. Textbooks with job related material added occasionally
c. Primarily job-related materials
d. Audio visual (video, TV, etc.)
e. Computerized instruction
f. Other (describe) _____

C25. What role do area businesses have in assisting with curriculum development?

a. No role
b. Recommendations on competencies
c. Input for job-related materials
d. Other (describe) _____

C26. Do you offer any special support services for those receiving instruction?

a. Yes
b. No (Go to Q. C30)

C27. What support services do you provide?

a. Teaching in homes
b. On-site child care
c. Instruction organized around adult life situations rather than traditional subjects
d. Instruction tailored to fit a particular business's or company's requirements
e. Basic skill instruction combined with job-specific training
f. Vocational assessment
g. Transportation
h. Counseling
i. Other (describe) _____

C28. Who evaluates instruction?

a. Self evaluation
b. Local school district (USD)
c. Kansas Department of Education
d. Area Coordinator
e. State Library
f. Other (describe) _____

C29-34. What measures are used to evaluate this type of instruction? If more than one entity evaluates your program, please indicate measures used by each entity.

Enter Code #s:

C29. _____ Self Evaluation
C30. _____ School District
C31. _____ Kansas Department of Education
C32. _____ Area Coordinator
C33. _____ State Library
C34. _____ Other (Describe) _____

Code #:
1. Enrollment
2. Attendance
3. Drop out rates
4. Pre- and post-test
5. Student progress (demonstrated improvement in performance)
6. Ability to perform job-related skills (competency based)
7. Fate or experience after leaving program
8. Other (describe) _____

C35. From which entity or evaluator do you receive feedback based upon the evaluation?

a. None
b. Self-evluation
c. School District
d. Kansas Department of Education
e. Area Coordinator
f. State Library
g. Other (describe) _____

C36. Rank order the following in terms of which is the biggest barrier to serving **those who already have a high school diploma or GED but want or need to improve their skills.** Choose only the top four items and rank them from one to four (1 = biggest barrier).

a. _____ Child care
b. _____ Transportation to site of instruction
c. _____ Individual's prior negative experiences with education
d. _____ Wage subsidy or work-release time to attend classes or tutoring sessions
e. _____ Lack of funds to hire sufficient staff
f. _____ Lack of funds to train staff in adult teaching techniques
g. _____ Lack of funds to individualize instruction
h. _____ Inability to integrate basic academic skill instruction with job-specific training
i. _____ Lack of computers and/or software
j. _____ Lack of materials for teachers (other than computers and software)
k. _____ Lack of materials for students (other than computers and software)
l. _____ Location of program/classes
m. _____ Time the instruction was scheduled
n. _____ Other (describe) _____

D. BUSINESS/INDUSTRY INSTRUCTION

This part of the survey is designed to collect information that describes services you provide as a result of direct requests from business and industry for instruction in basic academic skills for their employees.

D1. Do you receive requests from business and industry to provide instruction for their employees in basic academic skills?

a. Yes
b. No (Go to Q. D35)

D2. In FY 1990, how frequently were you contacted by businesses to provide employee training?

_____

D3. What level of instruction (e.g., basic skills or grade 0-5.9 level) was requested most frequently?

a. Basic skills/literacy (grade equivalent - 0-5.6)
b. Intermediate (6-8.9 grade equivalent)
c. Secondary (8th-12th grade)
d. Post-secondary (above 12th grade level)
e. ESL
f. Other (describe) _____

D4-12. For the following questions, please indicate what instruction occurs?

Code #: 1. Instruction occurs and therefore the skills are likely to be acquired.
2. Explicit instruction may not occur but the skills are likely to be acquired as a result of training in other skills (e.g., listening and verbal comprehension skills are developed during instruction in reading).
3. Explicit instruction does not occur and the skills are not likely to be acquired.

Enter Code #:

____ D4. Computation (math) skills such as addition, subtraction, multiplication, division, measurements, percentages and rations, elementary probability and statistics, basic algebra and geometry, using graphs, charts, tables, using calculator, word problems.

____ D5. Writing skills such as organize and translate thoughts into coherent written form, writing a report based on information gathered from more than one source, correctly filling out forms, etc.

____ D6. Reading skills such as recognition and understanding of enough written words to understand complex instructions, use of dictionary, etc.

____ D7. Listening and verbal comprehension skills (following instructions or directions given verbally and asking questions when clarification is needed, etc.)

____ D8. Teamwork and interpersonal skills (engaging critically and constructively in the exchange of ideas, communicating effectively with others, etc.)

____ D9. Problem solving/analytical skills (recognizing and defining problems, problem solving strategies, distinguishing between fact and opinion, etc.)

____ D10. Personal attitudes and responsibilities (showing respect for others, showing pride in one's work, demonstrating honesty and integrity, punctuality and attendance, showing initiative, dressing appropriately for work, self control, ability to work productively with minimum supervision, etc.)
____ D11. Adaptability/flexibility (positive attitude toward learning, being open to change, etc.)
____ D12. Personal computer skills (care and use of disks, starting and rebooting, printing, etc.)

D13. What was the most frequently requested location for the instruction?

a. At your site
b. At the business's site
c. Other (describe) _____

D14. What was the most frequently requested time for the instruction?

a. During normal work hours
b. Evenings
c. Other (describe) _____

D15. What percentage of the requests for instruction did you service?

_____

D16. What is the average duration in days, weeks, or months for this instruction?

_____

D17. What percentage of those who receive instruction continue until they can function at the level required by the employer?

_____%

D18. What teaching model is used to deliver instruction?

a. Academic (traditional classroom lecture/test model)
b. Individual one-on-one tutoring
c. Computer based instruction
d. Other (describe) _____

D19. What type of staff are used?

a. Full or part time salaried teachers
b. Unpaid volunteers
c. Full or part time paraprofessionals
d. Unpaid volunteer paraprofessionals
e. Other (describe) _____

D20. What type of teaching materials are used?

a. Textbooks only
b. Textbooks with job related material added occasionally
c. Primarily job related material
d. Audio visual (Video, TV, etc.)
e. Computerized instruction
f. Other (describe) _____

D21. What role does the business have in assisting with curriculum development?

a. No role
b. Recommendations on competencies
c. Input for job-related materials
d. Other (describe) _____

D22. Do you offer any special support services for those receiving instruction?

a. Yes
b. No (Go to Q. D24)

D23. What support services do you provide?

a. Teaching in homes
b. On-site child care
c. Instruction organized around adult life situations rather than traditional subjects
d. Instruction tailored to fit a particular business's or company's requirements
e. Basic academic skill instruction combined with job-specific training
f. Vocational assessment
g. Transportation
h. Counseling
i. Other (describe) _____

D24. Does the employer offer any special support services for those needing instruction?

a. Yes
b. No (Go to Q. D26)

D25. What support services are provided (paid for) by the employer?

a. Teaching in homes
b. On-site child care
c. Instruction organized around adult life situations rather than traditional subjects
d. Instruction tailored to fit a particular business's or company's requirements
e. Basic academic skill instruction combined with job-specific training
f. Vocational assessment
g. Transportation
h. Counseling
i. Other (describe) _____

D26. Who evaluates the instruction?

a. No one
b. Self evaluation
c. Local school district (USD)
d. Kansas Department of Education
e. Area coordinator
f. Employer
g. State Library
h. Other (describe) _____

D27-33. What measures are used to evaluate this type of instruction? If more than one entity evaluates your program, please indicate measures used by each entity.

Enter Code #s:

D27. _____ Self Evaluation
D28. _____ School District
D29. _____ Kansas Department of Education
D30. _____ Area Coordinator
D31. _____ Employer
D32. _____ State Library
D33. _____ Other (describe) _____

Code #:
1. Enrollment
2. Attendance
3. Drop out rates
4. Pre- and post-test
5. Student progress (demonstrated improvement in performance)
6. Ability to perform job-related skills (competency based)
7. Fate or experience after leaving program
8. Other (describe) _____

D34. From which entity or evaluator(s) do you receive feedback based upon the evaluation?

a. None
b. Self-evaluation
c. School District
d. Kansas Department of Education
e. Area Coordinator
f. Employer
g. State Library
h. Other (describe) _____

D35. Rank order the following in terms of which is the biggest barrier to serving area business and industry. Choose only the top four items and rank them from one to four (1 = biggest barrier).

a. _____ Child care
b. _____ Transportation to site of instruction
c. _____ Individual's prior negative experiences with education
d. _____ Wage subsidy or work-release time to attend classes or tutoring sessions
e. _____ Lack of funds to hire sufficient staff
f. _____ Lack of funds to train staff in adult teaching techniques
g. _____ Lack of funds to individualize instruction
h. _____ Inability to integrate basic academic skill instruction with job-specific training
i. _____ Lack of computers and/or software
j. _____ Lack of materials for teachers (other than computers and software)
k. _____ Lack of materials for students (other than computers and software)
l. _____ Location of program/classes
m. _____ Time the instruction was scheduled
n. _____ Other (describe) _____

APPENDIX 14

Kansas Business Telephone Survey Portion of the Adult Basic Skills Training Study

1. Approximately how many workers does your organization employ in the state of Kansas?

_____

2-6. Using the total just recorded, what percentage of your employees would fall in each of the following categories?

___ 2. Non-technical blue collar.
___ 3. Technical.
___ 4. Clerical.
___ 5. Sales/Marketing.
___ 6. Other.

7. Do any employees of your organization receive basic skills training?

Yes No (If "yes," go to 8. If "no," go to 126).

8. How would you describe the gap between the skills of your employees and the skills that are required by their jobs?

_____	_____	_____	_____	_____
4	3	2	1	9
No Gap	Slight Gap	Moderate Gap	Severe Gap	Don't Know

9-18. In what areas do you perceive such a gap?

Yes	No		
1	0	9.	Computation (Math) skills.
1	0	10.	Writing Skills.
1	0	11.	Reading & Reading Comprehension Skills.
1	0	12.	Listening & Verbal Comprehension Skills.
1	0	13.	Teamwork/Interpersonal Skills.
1	0	14.	Adaptability/Flexibility Skills.
1	0	15.	Problem Solving/Analytical Skills.
1	0	16.	Microcomputer (Personal Computer) Skills.
1	0	17.	Personal attitudes and responsibilities.
1	0	18.	Other (Please Specify _____).

19. How do you think these gaps affect productivity and quality in your firm? (Answers should be expressed in percentage loss terms, e.g. productivity is reduced by approximately 15% because of the gaps)

_____ <10% _____ 11-20% _____ 21-30% _____ 31-40% _____ 41-50% _____ 51-60% _____ 61-70% _____ 71-80%

_____ 81-90% _____ 91-100% _____ >100%

20. How do you think these gaps affect the profitability of your firm? (Answer should be expressed in percentage loss terms, e.g. profits are reduced by 15% because of these gaps).

_____ <10% _____ 11-20% _____ 21-30% _____ 31-40% _____ 41-50% _____ 51-60% _____ 61-70% _____ 71-80%

_____ 81-90% _____ 91-100% _____ >100%

321. Does this basic skills training take place at the workplace?

Yes No (If "yes," go to 22. If "no," go to 143).

22. Is the training provided by your organization or by an outside consultant?

__ Organization
__ Consultant (If "organization," go to 23. If "consultant", go to 24-27).

23. Who, within your organization is responsible for designing and administering the basic skills training? (Check one of the following).

__ President/CEO.
__ Personnel or Human Resources Manager.
__ Training Manager or Supervisor.
__ Department heads.
__ Other (please specify _____).

24-27. Which of the following groups of employees receive training in basic skills?

Yes	No	
1	0	24. Non-technical blue collar.
1	0	25. Technical.
1	0	26. Clerical.
1	0	27. Sales/Marketing.

28-31. Approximately how many employees in each of these groups are receiving this training?

___ 28. Non-technical blue collar.
___ 29. Technical.
___ 30. Clerical.
___ 31. Sales/Marketing.

32. Do your employees receive training in computation (math) skills?

Yes No (If "yes," go to 41-51. If "no," go to 33).

33. Do your employees receive training in writing skills?

Yes No (If "yes," go to 52-56. If "no," go to 34).

34. Do your employees receive training in reading skills?

Yes No (If "yes," go to 57-61. If "no," go to 35).

35. Do your employees receive training in listening & verbal comprehension skills?

Yes No (If "yes," go to 62-65. If "no," go to 36).

36. Do your employees receive training in teamwork and interpersonal skills?

Yes No (If "yes," go to 66-73. If "no," go to 37).

37. Do your employees receive training in problem solving and analytical skills?

Yes No (If "yes," go to 74-79. If "no," go to 38).

38. Do your employees receive training in personal attitudes and responsibilities.

Yes No (If "yes," go to 80-89. If "no," go to 39).

39. Do your employees receive training in basic adaptability/flexibility skills?

Yes No (If "yes," go to 90-94. If "no," go to 40).

40. Do your employees receive training in basic personal computer skills?

Yes No (If "yes," go to 95-100. If "no," go to 101-110).

41-51. Which of the following areas of mathematics are included in your training program?

Yes	No		
1	0	41.	Basic calculations using addition, subtraction, multiplication and division.
1	0	42.	Basic calculations using fractions and decimals.
1	0	43.	Understanding of percentages and ratios.
1	0	44.	Measurements using the U.S. measurement system.
1	0	45.	Measurements using the metric system.
1	0	46.	Elementary probability and statistics.
1	0	47.	Word problems involving time, weight, distance and volume.
1	0	48.	Elementary algebra.
1	0	49.	Basic geometry.
1	0	50.	Ability to read and understand graphs, charts, tables and diagrams.
1	0	51.	Use of a calculator.

Go to question 33.

52-56. Which of the following areas of writing skills are included in your training program?

Yes	No		
1	0	52.	Write standard English sentences with correct punctuation, plural forms, and spelling.
1	0	53.	Write standard English sentences with correct verb forms, sentence structure and word choice.
1	0	54.	Organize and translate thoughts into a coherent written form.
1	0	55.	Write a report based on information gathered through other sources.
1	0	56.	Correctly fill out forms that are normally used by the organization.

Go to question 34.

57-61. Which of the following areas of reading skills are included in your training program?

Yes	No		
1	0	57.	Recognition and understanding of signs and symbols that are used in the work place.
1	0	58.	Recognition and understanding of enough written words to read simple instructions.
1	0	59.	Recognition and understanding of enough written words to understand complex instructions.
1	0	60.	Use of a dictionary.
1	0	61.	Use of the features of printed materials, such as table of contents, index, glossary, appendix and bibliography.

Go to question 35.

62-65. Which of the following areas of listening and verbal comprehension skills are included in your training program?

Yes	No		
1	0	62.	Paying attention to the person who is speaking.
1	0	63.	Asking questions to clarify understanding.
1	0	64.	Recognizing specific company and business terminology.
1	0	65.	Following instructions or directions given verbally in the performance of a specific task.

Go to question 36.

66-73. Which of the following areas of teamwork and interpersonal skills are included in your training program?

Yes	No		
1	0	66.	Engaging critically and constructively in the exchange of ideas.
1	0	67.	Accepting constructive criticism of performance and ideas.
1	0	68.	Cooperating with others to get the job done.
1	0	69.	Accepting decisions made by the work team.
1	0	70.	Showing sensitivity to the thoughts and opinions of others in the work team.
1	0	71.	Compromising to achieve work team results.
1	0	72.	Communicating effectively with all members of the work team.
1	0	73.	Showing sensitivity to the needs of women and ethnic or racial minorities.

Go to question 37.

74-79. Which of the following areas of problem solving/analytical skills are included in your training program?

Yes	No		
1	0	74.	Recognizing and defining problems on the job.
1	0	75.	Analyzing problems to determine their source and importance.
1	0	76.	Developing and evaluating new approaches to solve problems.
1	0	77.	Selecting the best solution for a problem.
1	0	78.	Describing problems that occur with equipment or processes in the workplace.
1	0	79.	Distinguishing between fact and opinion.

Go to question 38.

80-89. Which of the following areas of personal attitudes and responsibilities are included in your training program?

Yes	No		
1	0	80.	Showing respect for others.
1	0	81.	Showing pride in one's work.
1	0	82.	Showing enthusiasm for the work to be done.
1	0	83.	Demonstrating honesty and integrity.
1	0	84.	Meeting company's requirements for punctuality and attendance.
1	0	85.	Showing initiative.
1	0	86.	Demonstrating self-control.
1	0	87.	Dressing appropriately for work and practicing good personal hygiene.
1	0	88.	Being free from dependence on alcohol or drugs.
1	0	89.	Ability to work in a productive manner with minimum supervision.

Go to question 39.

90-94. Which of the following areas of adaptability/flexibility skills are included in your training program?

Yes	No		
1	0	90.	Knowing when it is necessary to upgrade one's knowledge and skills.
1	0	91.	Demonstrating a positive attitude toward learning and growth.
1	0	92.	Being open to change.
1	0	93.	Coming up with new ideas for getting a job done.
1	0	94.	Using creativity and imagination on the job.

Go to question 40.

95-100. Which of the following basic personal computer skills are included in your training program?

Yes	No		
1	0	95.	How to take care of computer and discs.
1	0	96.	How to start and re-boot the computer.
1	0	97.	How to use various software packages.
1	0	98.	Knowing the capabilities of the printer that is being used.
1	0	99.	Understanding how to use floppy discs and/or hard drive. (e.g. how to insert floppy discs into drives, how to tell how much new information can be stored).
1	0	100.	Understanding that the results given by the computer are only as good as the entries made by the operator. (i.e. "garbage-in; garbage-out")

Go to question 101-110.

101-110. Which of the following training methods are used in your basic skills training program?

Yes	No	
1	0	101. Lectures
1	0	102. On-the-job-training
1	0	103. Computer-assisted instruction
1	0	104. Audiovisual techniques
1	0	105. Machine simulators
1	0	106. Role-playing
1	0	107. Behavioral role-modeling
1	0	108. Discussion
1	0	109. Experiential exercises
1	0	110. Other (please specify _____).

111-120. Which of the following is the *primary* method of instruction used in your basic skills training program? (one and only one yes should be recorded for 111-120).

Yes	No	
1	0	111. Lectures
1	0	112. On-the-job-training
1	0	113. Computer-assisted instruction
1	0	114. Audiovisual techniques
1	0	115. Machine simulators
1	0	116. Role-playing
1	0	117. Behavioral role-modeling
1	0	118. Discussion
1	0	119. Experiential exercises
1	0	120. Other (please specify _____).

121. How many hours of basic skills training does the typical employee in the program receive?

_____

122. How would you describe the nature and structure of the basic skills training program of your organization?

123. Please estimate the amount of money that your organization spends on basic skills training.

$_____

124. When do employees receive basic skills training?

__ During employee's normal working hours.
3

__ Outside of employee's normal working hours.
2

__ Both
1

125. Are employees paid for the time they spend in training?

Yes	Partially	No
2	1	0

End of Survey (IF YOU ANSWER QUESTION 125 THE SURVEY IS COMPLETE AND YOU NEED NOT GO TO QUESTION 126).

126. How would you describe the gap between the skills of your employees and the skills that are required by their jobs?

4	3	2	1	9
No Gap	Slight Gap	Moderate Gap	Severe Gap	Don't Know

127-136. In what areas do you perceive such a gap?

Yes	No		
1	0	127.	Computation (Math) skills.
1	0	128.	Writing Skills.
1	0	129.	Reading & Reading Comprehension Skills.
1	0	130.	Listening & Verbal Comprehension Skills.
1	0	131.	Teamwork/ Interpersonal Skills.
1	0	132.	Adaptability/ Flexibility Skills.
1	0	133.	Problem Solving/ Analytical Skills.
1	0	134.	Microcomputer (Personal Computer) Skills.
1	0	135.	Personal attitudes and responsibilities.
1	0	136.	Other (Please Specify _____).

137. How do you think these gaps affect productivity and quality in your firm? (Express your answer in percentage loss terms, e.g. productivity is reduced by approximately 15% because of the gaps)

_____ <10% _____ 11-20% _____ 21-30% _____ 31-40% _____ 41-50% _____ 51-60% _____ 61-70% _____ 71-80%

_____ 81-90% _____ 91-100% _____ >100%

138. How do you think these gaps affect the profitability of your firm? (Express your answer in percentage loss terms, e.g. profits are reduced by 15% because of these gaps).

_____ <10% _____ 11-20% _____ 21-30% _____ 31-40% _____ 41-50% _____ 51-60% _____ 61-70% _____ 71-80%

_____ 81-90% _____ 91-100% _____ >100%

139-142. Why isn't your organization currently providing training in this (these) area(s)?

Yes	No	
1	0	139. Training is too expensive.
1	0	140. Don't have the time to do the training.
1	0	141. Don't know how to provide training in the needed areas.
1	0	142. Other (please specify _____).

(If you answer questions 139-142 you have completed the survey and need not continue to question 143).

143. Are your employees receiving this training from an outside agency?

Yes No (If "yes," go to 144-150. If "no," go to 22).

144-150. Where do your employees receive this training?

Yes	No	
1	0	144. Adult Basic Education (ABE) Center in our town.
1	0	145. Adult Basic Education Center in another town.
1	0	146. Community based organizations (includes volunteer organizations).
1	0	147. Vocational-Technical (Vo-Tech) schools
1	0	148. Community College
1	0	149. Don't know
1	0	150. Other (please specify_____).

151. Who assumes the responsibility for paying for this training?

__ 5 Employer only.

__ 4 Employee only.

__ 3 Public funds (e.g. JTPA or KIT).

__ 2 Both employer and employee.

__ 1 Don't know.

__ 0 Other (Please specify _____).

END OF SURVEY.