

Approved: 2-17-93  
Date

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT.

The meeting was called to order by Vice-Chair Bob Mead at 3:30 p.m. on February 15, 1993 in Room 423-S of the Capitol.

All members were present except:

Representative Les Donovan, excused  
Representative Wanda Fuller, excused  
Representative Greg Packer, excused

Committee staff present: Lynne Holt, Legislative Research Department  
Bob Nugent, Revisor of Statutes  
Ellie Luthye, Committee Secretary

Conferees appearing before the committee:

Lee Drogemueller, Commissioner, Board of Education

Others attending: See attached list

The Vice-Chair called on Lee Drogemueller to discuss school-to-work transition. He presented a vision for this transition and stated to make this vision a reality, the Board of Education recommends and promotes new approaches to education and the management of human resources that emphasize learning, flexibility and productive participation in work and society throughout the entire life of a Kansan. (Attachment 1)

Mr. Drogemueller then stood for questions from the committee.

The Vice-Chair informed the committee that school-to-work transition would be the agenda for the entire week and the committee would hear different conferees addressing this topic.

The meeting was adjourned at 4:45 p.m.

The next meeting is scheduled for February 16, 1993.

GUEST LIST

COMMITTEE: Economic Development DATE: 2-15-93

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# *Kansas State Board of Education*

120 S.E. 10th Avenue, Topeka, Kansas 66612-1182

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February 15, 1993

TO: House Education Development Committee

FROM: Lee Droegemueller, Commissioner

I appreciate the opportunity to appear before you and discuss school-to-work transition. The attached document is a summary of our **Training and Retraining Plan**.

Please feel free to ask questions.

IT

Lee Droegemueller  
Commissioner  
(913) 296-3201

February 15, 1993  
Economic Development  
Attachment 1

# EXECUTIVE SUMMARY OF TRAINING AND RETRAINING PLAN ASSUMPTIONS

In the document entitled *Training and Retraining Plan*, there are fundamental assumptions arrived at after three years of study of the literature, the research, and discussion by the Kansas State Board of Education with Anthony Carnevale and Robert Carkhuff. **In the transition from school to work and from work to school, it has been concluded that today learning is work and work is learning.** The following assumptions must be understood in order to develop the strategies that will place Kansas as world leader in human capital, quality of life, and economic development. The assumptions are as follows:

- The wealth of capital of a nation or a state has changed from natural resources, land, buildings, equipment, and tax incentives to that of human capital, information, and technologies.
- Economic development and education can no longer have two separate agendas or strategies, but must form new partnerships that create high skilled workers, and high wage jobs through human capital development which utilizes information and technologies to increase productivity.
- Through education (training and retraining) a high skilled workforce can be developed to produce new information and new products (manufacturing and services). It is the strategy that when both are developed simultaneously high skilled workers and high skilled jobs are created.
- The changes called for are that business operations must become highly productive thinking centers, educational operations must become highly productive thinking skills centers, and marketing operations must become competitive global thinking marketing enterprise (new workforce skills).
- It is the work of labor, management, and education all working together to create new ideas, new products, and new high wage jobs. No longer do economic development centers or management alone create new jobs. In the past management created jobs and education produced the skilled workers. Today it is a new team effort.
- Business and education partnerships must not only training and retrain workers/students on the latest cutting edge technologies, but they must prepare workers for future technologies that will create high wage jobs through new products and increased productivity.

Emphasis on quality team work, thinking skills, information, technology, and increased productivity are replacing organizational structures that focuses on size, efficiency, effectiveness, and short term profits.

- Productivity, education, and economic development are all along term of lifelong activities. Today getting a basic education by the age of 18 and job specific skills at a vocational school only increases the probability of facing a low wage job in the future.
- Of primary importance to the quality of life and the well being of the community are the roles of children and families in the economic development strategies. The place of children, low wage jobs and youth, and of working mothers and fathers when extended families have diminished must be addressed if a successful economic development plan is to develop.
- Successful economic development strategies today demand that business, education, and labor form new partnerships which creates a new seamless restructured education system which allows all citizens to become lifelong thinking learners and workers which focuses upon creating new information, new ideas, new products, new markets and increased productivity.

The executive summary and the State Board of Education's *Training and Retraining Plan* were developed from these assumptions, and developed many of our directions and strategies to accomplish the restructured system. These and other documents call for a total examination of education and the workforce in the transition **from learning to work and from work to learning. However, none of this can be undertaken without rethinking of the role of the family and the community.**

# **SUMMARY**

## **THE VISION**

In 2000, every Kansan is a learner and a worker. Learning is working and working is learning and both are high priorities in everyone's life. When exiting from formal education, all Kansans have future basic skills which allow them to pursue additional schooling or training or to work at a high performance job. In fact for Kansans, postsecondary education or training is a right rather than a privilege.

In 2000, all Kansas businesses employ high quality workers. To maintain a quality workforce and to ensure high productive work, all employers are committed to investments in the education and training of their workers. Lifetime education and training are supported at the state and local level as well as by the private sector.

In 2000, there are no barriers to labor force participation in Kansas. Minorities, single parents, women, older workers, and disabled persons participate in the workforce through a supportive work environment. Workers have no outside pressures from child care, elder care, or family illness, because programs are available to help employees solve work/family problems. The employers promote a supportive work environment to retain valued employees and to attract new ones.

In 2000, a job information system matches qualified workers with jobs so that skills already available in the labor market are used more effectively. This information system also provides counseling services and data which align job seekers with education programs and skills.

## **THE PLAN**

**GOAL: TO MAKE THIS VISION A REALITY, THE KANSAS BOARD OF EDUCATION RECOMMENDS AND PROMOTES NEW APPROACHES TO EDUCATION AND THE MANAGEMENT OF HUMAN RESOURCES THAT EMPHASIZE LEARNING, FLEXIBILITY, AND PRODUCTIVE PARTICIPATION IN WORK AND SOCIETY THROUGHOUT THE ENTIRE LIFE OF A KANSAN.**

### **Problem**

Achieving this goal in Kansas will require a restructuring in delivering education that emphasizes outcomes learning, flexibility, and productive participation in work and society throughout the entire life of the individual Kansan. A network of learning communities comprised of educational institutions, public and private agencies, and community groups, should be developed and implemented that will help children reach school healthy and ready to learn, prepare people for rewarding work, and enable adults to be self-sufficient. Rather than our current piecemeal approach of fragmented and unconnected policies in developing a workforce, Kansas needs a comprehensive network of education that links work to education and takes into account the interrelated needs and problems of the student. In this network, secondary and postsecondary education would connect and articulate the levels, programs, support services, and institutions of education.

Time is of utmost importance in restructuring the current system of preparing a workforce into a network of delivering education/training to Kansas. The state is moving toward an economy in which information and knowledge are critical, basic and advanced skills in reading comprehension and mathematics are vital, and social and interpersonal abilities are necessary. Yet, there is already a gap between what is needed and what is available in these areas. The gap will widen under business-as-usual practices. Failure to act now could add up to a major competitive handicap for Kansas business and economy, resulting in low wages for low skills and a waste of human resources.

## SKILLS REQUIRED OF THE WORKFORCE

School-based skills are not always the same thing as workplace skills. When employers criticize the educational preparation of the high school graduates they hire, they are assessing them in terms of the kinds of things they want their employees to be able to do in the workplace. When educators assess these same students to determine their educational capabilities, they are looking at the kinds of tasks completed in the classroom. There is today considerable misunderstanding between employers and employees as to what they mean when they say "prepared for work."

There is even less understanding about the preparation future workers will need. Better preparation of workers for today's jobs will not meet the skills and productivity needed in tomorrow's jobs, if America is going to compete in a global economy. It should be noted that more is needed than just reforming education to make changes for educating future workers with high skills. **BUSINESS ALSO HAS TO CHANGE IF PRODUCTIVITY GROWTH IS TO IMPROVE.** However, the vast majority of businesses do not recognize the need for reorganization of the way work is done. Few employers expect skill requirements of their workers to change, despite the national warning that America must improve its productivity to stay competitive in the world economy.

The Commission on the Skills of the American Workforce summed up the challenge of maintaining an equilibrium between the education and skill levels of its workers and the demands of their jobs:

### Is There a Skills Shortage?

#### No

- No, if we stay with the Low Wage Model
- Because employers only want:
  - Good attitude
  - Good work ethic
  - Reliability
  - Good personality
  - Pleasant appearance

### Is There a Skills Shortage?

#### Yes

- Yes, if we want high living standards
- Yes, if we want to increase productivity and to compete worldwide
- Yes, if we need workers who can learn and be flexible

National reports\* studied the future workplace of America and identified the following skills and behavior needed for employment in the future: (1) learning to learn; (2) reading, writing, and computation; (3) listening and oral communication; (4) creative thinking and problem solving; (5) self-esteem, goal setting, motivation, and personal career development; (6) interpersonal skills, negotiations, and teamwork; and (7) organizational effectiveness and leadership.

### **Integration of Learning and Working**

As Kansas' workforce matures, outdated job skills reduce flexibility in the labor market. Added to the outdated skill problem is the smaller cohort of new workers who need to be educated and trained in workplace skills. The challenge is to help the larger group of existing workers adjust to changing work demands and to make the smaller group of new workers high performing and technically skilled.

Educating the new workers will require the restructuring of education. IMPLEMENTING REFORM IN EDUCATION IS NO LONGER ENOUGH. As numerous critics claim,\*\* only a major paradigm shift in education will suffice in salvaging America's, and Kansas', place in the world economy.

Paramount to the restructuring of education is the concept of lifelong learning. To create a stronger, more competitive workforce, Kansans must become lifelong learners. Lifelong learning can do the following:

- Prepare children for learning in formal education
- Prepare youth for high wages, rewarding work lives, and for participation in community life
- Help adults to be self-sufficient and socially responsible through high productive work and skill renewal and to make some provision for their own retirement needs
- Keep older citizens active and independent.\*\*\*

As a natural complement to restructuring the education system, learning in the workplace must increase. The success of America, and Kansas, to adapt to the demands of the international marketplace hinges on the ability of employees to become productive, high performance workers. The work skills required in the future will have to be learned and often relearned by experienced workers in the labor force. As change continues to accelerate in the workplace, more training and retraining will be required. Workers increasingly will need more advanced skills

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\* National Alliance of Business, *Forty R., Workforce Readiness* (1987); A Committee for Economic Development, *Investing in our Children: Business and the Public Schools*, 1985; National Academy of Science, *High Schools and the Changing Workplace: The Employers' Views*; American Society for Training and Development and the U.S. Department of Labor, *Workplace Basics: The Skills Employers Want.*, 1988; Office of Educational Research and Improvement, U.S. Department of Labor, *Workplace Competencies: Improving Literacy and Employment Readiness*, 1990.

\*\* J. Murphy and C. Everson, *Restructuring School: Capturing the Phenomena* (NY.: Teachers College Press, 1991); J.E. Chubb, "Why the Current Wave of School Reform will Fail," *The Public Interest*, 1990; C. Flinn, "Biggest Reform of All," *Phi Delta Kappan*, 1990.

\*\*\* Research and Policy Committee of the Committee for Economic Development, *An America That Works: The Life-Cycle Approach to a Competitive Work Force*, 1990.



just to qualify for the kinds of training that will be needed. For some this may require remedial instruction in new workplace skills.

As noted in the following section on "High Skills and High Wages Jobs," it may have been possible in the past to pay high wages to low skilled workers, but it will be difficult to do so in the service-oriented global economy that places a premium on information, problem solving skills, and creation of new products and services. Preparing the new and old workforce for these jobs will be critical to keeping productivity and real wage levels rising.

### **High Skills and High Wages Jobs**

There is a shift from a manufacturing to a service economy, from an economy based on the organization and manipulation of physical resources to one founded on collecting, processing, and distributing information. Knowledge and information have become the key raw materials of today's economy. The workers whose skills are required to create products and services of higher value today need to be educated, trained, motivated, and rewarded differently from their industrial predecessors who turned out large volumes of standardized physical items.

The old organization of work around a strict division of labor derived from the demands of machine-based production processes, with rank and file workers tightly controlled by supervisors, is giving way to new models based on different organizing principles. The advance of automation and the application of microchip-based technologies transform the workplace and create a demand for workers who can work with other people, make decisions and innovations on the job, and create new products. In this type of workplace, the ability to gain new knowledge becomes crucial. Thus, there is a need for continuing education training throughout the working life.

Technological change is not the only factor increasing the skills required to perform many jobs. The move toward greater decentralization of decision making causes similar demands. In these less hierarchical organizational structures, workers gain more authority to make decisions affecting the company's products and customers. At the same time that organizations are leveling by removing layers of management, employers are "downsizing," or "rightsizing," their permanent workforces, using part time and outside contracted employees.\*

The state cannot produce a highly trained technical workforce needed in the previously described high skills workplace without providing its workers with a strong education. Today's children represent the workers who will have to be prepared for tomorrow's workforce. Children who began grade school in 1988 will be the high school graduates in the year 2000. The restructuring of education and the support of these children and the existing workforce are critical measures of the state's future.

Crucial to the workforce of tomorrow is the projection that 40 percent of the workers will be minorities and immigrants, groups with disproportionately low income levels. The birth rate of these groups is the highest of all segments of the population. The factors responsible for these young learners' later success in their

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\* Research and Policy Committee of the Committee for Economic Development, *An America That Works: The Life-Cycle Approach to a Competitive Work Force*, 1990.

working life are multidimensional and interrelated: prenatal care, health care, nurturing, nutrition, preschool, and adult support. Not educating these children will incur welfare, unemployment, and incarceration costs for the state.

By many indicators Kansas children face a life that is healthier and more promising than at any time in the past. Unfortunately a substantial number of children in Kansas (1990 Census show 59,370 of our 5–17 year olds live in poverty) remain at risk of being hungry, living in poverty, and consequently dropping out of school. Because birth rates have dropped dramatically since the 1960s and remain at fairly low levels, there are fewer children than in years past. This makes the investment in the well-being of each child all the more critical.

## **ACCESS FOR INDIVIDUALS TO INFORMATION AND EDUCATION**

Across the 80,000 square miles of Kansas is a public postsecondary system of sixteen vocational schools, nineteen community colleges, one technical school, one municipal university, and seven Regents' universities. Although these postsecondary institutions are irregularly situated around the state, with the western part of the state having the least number of institutions, most Kansans are within fifty miles of a postsecondary institution or its outreach program. Access to the institution usually means physical attendance at the site of the school or one of its programs.

This postsecondary school system has served the majority of Kansans well in the past, because many of the citizens attended Kansas schools long enough to acquire appropriate degrees or hours of training and never needed to return. Education was a one-time requirement, usually endured early in life.

Today the system is no longer fitting for a state whose economy depends on the high qualifications of its workforce. The foundation of today's economy is people — the human capital represented by their knowledge, skills, organizations, and motivations. Employers need workers with the new basic workplace skills. The workforce has to know how to learn, think creatively and critically, communicate effectively, solve problems, and analyze information. The job requirements demand that employees be highly numerate, literate, and innovative.

To provide this needed workforce, postsecondary institutions should be prepared to enter-exit at various times in the people's work life. Because the approximately 60 percent of Kansas workers who had no need for lifelong learning in past years now must know how to learn and relearn job skills for a changing workplace, the various institutions of postsecondary education should consider the redrawing of service area boundaries. Areas of the state that are now served by only a university should be provided the opportunity to acquire lifelong learning and workplace skills that are not available from the four-year school. The provision of the workplace skills is extremely important to Kansans in cities.

Access to postsecondary institutions can no longer be through the state's highway and road infrastructure. Instead, the information highways of communications can be made available to all Kansans through the acquisition and use of fiber optics, microwave, cable television, and satellite linkages across the state. Three major areas — community training and retraining, business and economic development, and learning community — would be emphasized.

Kansas' current telecommunication system consists of a myriad of technologies: satellite, microwave, radio, copper wire, fiber-optic cable. Some are leased from telephone companies; others are customer-owned. However, fiber-optic cable is the mature technology with the most capacity and flexibility.

A fiber-optic communication system permits cost-effective two-way communication, whereas other technologies such as broadcasting and satellites are used predominately for one-way communication. Fiber-optic cable is used for interoffice trunking, and now video is driving fiber to the local loop. Fiber is cost effective because it is buried underground, has low maintenance, and permits consolidation of all information delivery into one transmission medium. Dollar for dollar, fiber yields 1,000 times the bandwidth of ordinary copper wires. One pair of fiber will yield as much bandwidth as exists in all of common carrier radio frequencies available for microwave. As the electronics improve on each end, the channel capacity increases.

The state's dependence on information, global communication, and human resource development calls for fiber to transmit all signals including telephone calls, data transmission, fax (facsimile), graphics, animation, compressed television, full motion television, and high definition television.

Local communities, using fiber-optic cable two-way interactive video, could cluster together to share teachers for K-12 education, connect to community colleges and vocational schools for training and retraining, and receive undergraduate and graduate courses from Kansas universities. The same communication system through clustering could be used to expand the business community, to provide access to health care, and to deliver social services.\* With these accomplishments, economic development for the state would be a reality.

### **Information Required for Guidance, Training, and Placement**

Most developed countries have a highly structured process to help learners make the transition from school to work or from work to retraining. In countries such as Germany and Japan there is a strong, conscious connection between school and work. In Germany, counseling about jobs and the world of work starts early and concludes with an apprenticeship practice which combines school work and on the job instruction. In Japan, the schools themselves select students for referrals to employers. In other countries, there is either a strong employment counseling and job placement function within the school system; or this function is carried out for the learners by a labor market authority of some type, working cooperatively with the schools.

In America, and Kansas, there are some schools that have developed good linkage to the work world, often found in the guidance office of vocational schools or the natural operation of cooperative education programs. However, the general pattern of counseling learners has been one of doing a whole lot more to link high school learners to college than to work. Employment assistance to departing learners never has been developed as a regular responsibility of the schools.

It should be noted that counselors, in some schools, are helping the non-college-bound learner, but their counseling services are clearly weighted to other

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\* Educational Interactive Video Task Force, *A Plan for Telecommunications in Kansas*, 1991.

functions. An ETS study of the 1980s showed that counselors across the nation spent only 4 percent of their time on job placement and 25 percent on occupational choice or career planning. The rest of their time had to be spent with learners on "choice of high school courses," 34 percent; "college admissions and selection," 30 percent; and "attendance and discipline problems," 27 percent. \*

There is a dire need for a state process to assist learners progress from school to work. Nationally, the U.S. Department of Labor assigned a high priority to improving the school-to-work process. Its Employment and Training Administration established a new Office of Work-Based Learning as a focal point for the department's job and training partnerships with the private sector. One of its principal tasks was to "assist young people with their school-to-work transition so they can move into productive careers and upgrade their job skills." The director of the office made a principal recommendation: the expansion of "structured work-based training programs through the development and implementation of new training program models based on features of apprenticeship."\*\*

### **Individualization of Services and Programs**

Learners are individuals, possessing unique needs, attitudes, goals, motivations, and self-concepts. This individuality of learners has complicated the process of our industrial model of education in which all learning styles are forced to respond to one teaching style. Often times those learners who can not adapt to teacher-centered learning drop out of school or fall behind the other learners. Furthermore, those students who do remain in school do not acquire the new work skills, as identified in the "Integration of Learning and Working" section, because the emphasis of the outdated model is on the schooling process and not on the student outcomes of the process, i.e., accreditation is by "seat time" vs performance and competency achievement.

No longer can Kansas allow such a loss of potential wage earning power in its economy. Education can be restructured to provide for individualized treatment of learners with learner-centered instruction and to develop new learners with skills in problem solving, problem identifying, and strategic brokering which links problem solvers and problem identifiers.\*\*\* A major delivery system of individualized instruction is distance education through new technologies, which offer instruction even though educator and learner are at a distance from each other.

Distance education started with, and still includes, correspondence study. However, distance education has expanded to include media, such as audio and videocassettes, teleconferencing, television, and computers. As previously mentioned, Kansas' investment in a telecommunication system, especially the

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\* Education Testing Service, *Survey of Career Information Systems in Secondary Schools*, 1981

\*\* James D. Van Erden, *Work-Based Learning: Training America's Workers*, Employment and Training Administration, U.S. Department of Labor, 1990.

\*\*\* Robert B. Reich, *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*, 1991.

fiber-optic cable technology, will bring education and economic development to all communities and homes.

The advantages to the state in providing education to Kansas learners through a fiber-optic telecommunication system outweigh the disadvantage of start-up cost and maintenance. As the gap between the education of workers and the new work skills required for jobs continues to grow, Kansas has little choice but to invest in a postsecondary delivery system which offers every citizen access to information, education, and government services. Distance education can fit into every Kansan's busy schedule and provide knowledge, skill, and attitudes so vital for making the choice between high skills or low wages.

### **COORDINATION AMONG PROGRAM PROVIDERS AND FUNDING AGENCIES**

Fundamentally, this plan is calling for a new way of thinking about and acting on a wide variety of economic and education issues that will determine the quality of the Kansas workforce. The goal of the plan is to identify strategies and promote new approaches in helping Kansans develop and fully utilize the skills and talents that will keep the state and national economy strong and productive.

The policies concerning postsecondary institutions and the funding of the programs and services those institutions provide are segmented artificially by age, level, and subject matter. For example, a single parent returning on a JTPA grant to a community college for skill training could be the responsibility of three state agencies: education, human resources, and social rehabilitation services. Instead of meeting this student's education, welfare, child care needs at one place, the state, through fragmented and unconnected policies, shifts the cost and service from one agency to another. Often times the process is redundant, although all three agencies have the same goal: prepare the client for the workforce.

Another example of the need to integrate program services and support is that of child development and education. The agencies that serve children and young people are frequently isolated from one another. Early childhood development used to be considered more or less the exclusive province of the family. Today, development in the earliest years of life involves a more variable set of agency responsibilities, including less exclusive involvement of families and involvement of child care, education, health, and social service agencies. The pattern of agency responsibility is in a state of flux.

Policies that affect the workforce need to be integrated. Rigid delineation of each agency's or program's responsibilities puts the state's effort on the process and not on the client. The mutual interests, obligations, and relationships of state agencies and programs need to be redefined to ensure the client receives appropriate intervention services.

## **Articulation of Programs and Schools**

There is no human resource development system in Kansas. There is a two-pronged system of skill development programs. (1) The network of unrelated skill development programs, most of which came from educational, social, and economic goals, is designed to help the special needs and disadvantaged population. The largest of these programs is Job Training Partnership Act (JTPA). (2) In addition, there is an economic development program which is to attract new and to expand old business and industry located in the state. The skill training provided is short duration, intended to train workers for new jobs and to upgrade the skills of those already in the workforce. Some of this training helps fill specific skill shortages in the state, and some helps companies upgrade skills of selected groups of line workers.

This fragmented system of overlapping skill development programs is further complicated by an incoherent system of standardization or information exchange services on which various providers and users of skills can rely. The language which employers and workers use to discuss expected skills in the labor market is skills based on classifications. There is not one classification for communicating the description and standards of occupations, but seven different classification systems used by various federal agencies and three additional systems used by the armed services. The United States Department of Labor's Dictionary of Occupational Titles lists 12,000 classifications. Standards for jobs are set by over 500 national and regional groups. For example, to set standards for 384 occupations, the U.S. Department of Labor's apprenticeship program uses 97 separate industry committees.

The lack of standardization across this disorganized system of staff development programs makes it difficult for learners and skill providers to combine courses into a logical sequence of advancement toward higher skilled work. Although many workers receive little or no education or training beyond high school, those who do receive training take occasional courses which are not tied to any certification that has been laid out by industry or business. As a consequence, articulation of programs occurs between postsecondary schools that have written agreements, but not for all institutions that provide postsecondary education.

## **Funding Sources and Processes**

Community colleges' vocational programs are funded at a rate that is 1.5 times higher, and 2.0 higher at three postsecondary institutions, than that of academic programs in recognition of the higher cost of offering vocational programs. Since highly technical programs (e.g., nursing, biomedical equipment technology) cost much more per credit hour than other programs (e.g., paralegal, accounting, business administration), colleges gain more financially by offering lower cost programs. This practice creates a disincentive for colleges to offer expensive programs even though such programs might contribute significantly to the economic development of the region and state.

Because programs are not funded on a continuum defined by relative cost, community colleges have little incentive to offer or implement more costly, highly technical programs that could have a significant impact upon regional economies. For example, at one community college the cost per credit hour for interior merchandising is approximately \$40.00, while the cost for biomedical equipment

technology is approximately \$373.00. State aid to community colleges for vocational enrollment is \$39.375 per credit hour; thus the cost of the interior decorating program is almost totally covered by state aid, yet state aid covers only 10.5 percent of the biomedical equipment program. The cost of equipment and perhaps of instructors accounts for the difference in program cost.

The current state funding system encourages area vocational schools to keep students in a program for the maximum number of hours, rather than individualizing training to enable students to develop competency regardless of the amount of time required. These schools are currently reimbursed at 85 percent of the local cost per instructional hour (i.e., time spent by student in class).

To provide business and industry with employees who are job ready, the training needs to change from one that is paid for accumulation of hours to one that is paid for results — demonstrated competency in technical and academic skills. An open-entry, open-exit competency-based system is so important to an effective vocational education system.

### **Accountability for Results and Use of Financial Resources**

Accountability of postsecondary education expenditures is a long standing concern. The concern is best stated in a twofold question: What is the investment in postsecondary education expected to buy and how can the outcomes of the investment be measured? There are several factors surrounding postsecondary education that hamper the answering of this question.

First, as previously noted in the section on "Articulation of Programs and Schools," economic, social, and education programs that incorporate work training as part of their mission have nothing to bind them all together. The result is a complex and fragmented network of training efforts. Thus, evaluation has been focused on hours required in programs, services available for program participants, and employment in any kind of job rather than technical and academic skills in related work.

Second, the lack of common classification for skills makes it impossible to compare programs. Lack of agreement on how to define levels of skill attainment or competency makes it difficult to establish workable outcome standards. In Kansas, 35–50 percent of the vocational-technical programs are competency-based. Only one area vocational school is 100 percent competency-based.

Third, most program efforts have been narrowly focused on training programs for the academic and economically disadvantaged rather than building a single comprehensible system to meet the training needs of employers.

Fourth, the training efforts have not been market-driven. The assumption has been that learners will do better economically through public investment in their training. People think in terms of federal funding categories, thus ignoring the need for employers to contribute to the development of the non-college educated workforce. Data show that nationally, companies spend only one-third of the \$30 billion that goes to formal training on the non-college educated workforce.\* This amount affects no more than 8 percent of the frontline workers.

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\* The Commission on the Skills of American Workforce, *American's Choice: High Skills or Low Wages*, 1990.

## COMMUNITY COLLEGES AS REGIONAL CENTERS

During the coming decade, economists and futurists predict the fate of businesses and employees will be determined by how well they compete in the New Global Commerce System. This new paradigm for business is based on global markets and invisible national borders.\* Robert Reich describes the phenomenon in which business must now operate as a "Global Web." The "Web" allows business to choose any country where it will design, engineer, fabricate, and assemble products. The "Web" is not limited to manufactured goods: to a growing degree service-based companies are moving labor-intensive activities to areas of the world where the ratio of labor costs and workforce skills meet most effectively.\*\*

This change in business operations has been made possible by satellites, low-cost shipping, worldwide availability of capital, technology development, and low-cost and highly trained labor pools. Although only the largest corporations are currently taking advantage of this flexibility, as development, transportation, and other costs continue to decline around the world, smaller businesses will be able to compete in the world market but operate in their own community. Even now the smallest businesses use such technological assistance as the facsimile (fax) copier and the computer-aided design (CAD) to improve their products and sales.

The prime example of this phenomenon is the PC industry where small companies can enter the market practically overnight and succeed spectacularly. Compaq computer is the best known of the companies that accomplished this—it entered the market in 1983 and by 1990 it had revenues of \$3 billion. Compaq, like most companies in the PC industry, does very little manufacturing. It purchases most of its components and has final units assembled overseas; it sells through a dealer network.+ Microtech, in Lawrence, Kansas, employs seven technicians who assemble the components built in Taiwan into a PC to be sold and used in the Midwest.

The New Global Commerce System is one in which possession of natural resources, capital, location, and technology has given way to worker knowledge and training, especially those skills recommended by the Secretary's Commission on Achieving Necessary Skills (SCANS).++ To the extent that goods and services can be financed, designed, fabricated, and assembled anywhere, worker productivity will be a deciding factor on where businesses choose to do their work. Success in the global system will fall on the businesses that employ high performance workers with the new workplace skills.

Those businesses that do not have well trained, productive workers can either search for low-cost workers to lower production costs or simplify work to

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\* William H. Kolberg and Foster C. Smith, *Rebuilding America's Workforce: Business Strategies to Close the Competitive Gap*. National Alliance of Business, 1992, pp. 8, 17, 27.

\*\* Robert Reich, *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*. New York: Alfred A. Knopf, 1991, p. 114.

+ Reich, p. 93.

++ See Appendix for SCANS competencies and skills.



accommodate worker level skills. Either choice will result in the companies going out of business or taking their production offshore—both strategies negatively impact the economy because workers lose their job or receive lower wages.

Regardless of some critics' skepticism about the effect of the New Global Commerce System or the Global Web on the state and local workplace, to ensure Kansas a first place economy, both business and education communities in Kansas must combine forces to rethink the future of business and training. First, businesses must convince themselves and workers that (1) new work systems will increase productivity and profitability, resulting in higher paying jobs and (2) large numbers of workers employed to produce products and services in old-fashioned, mass production systems are noncompetitive and thus nonprofitable. Second, education must be prepared to close the gap in the training and retraining of workers and to help business upgrade work and services.

The key to the new work systems is a lifelong school-to-work approach that prepares new workers and offers continuous education and training for workers already on the job. In looking across the range of education delivery systems in Kansas, the institution best suited to provide training and retraining is the community college. To a large extent community colleges are already an important facet of the state's training system. Since 1970 enrollment in community colleges has increased by 350 percent both in the nation and state. Only one-fifth of the students in community colleges plan to transfer to four-year colleges and to receive a baccalaureate degree. More than half of the students in two-year institutions are over the age of 25, and the average age is 31 years. The statistics suggest that community colleges are principally serving people who have decided to prepare for a vocation or to advance their career possibilities by returning to school.

### **New Worker**

For the preparation of the new worker, many community colleges are already providing a school-to-work program. The tech-prep or "two plus two" model of academic and vocational integration merges into the ideal seamless system for lifelong learners whose progress is measured by demonstrating competencies and achieving outcomes. Essentially, the tech-prep program is skills training, which includes the final two years of high school and an additional two years of training in a local community or technical college, thus connecting high school, advanced skills training, and work. Some versions have students working during some or all of this period with specified employers in a quasi-apprenticeship system; the specifics of a classroom-workplace mix would probably depend on a particular occupational career and the nature of the local collaborative that establishes the program.

The strength of this program is that it is managed by a community collaborative with focus on the needs of local employers. Students and workers do not undertake training in a vacuum in hopes that an employer has need for their skills—they are offered training for jobs that exist. Students and workers with a particular affinity for careers that are not available in their home towns should have the opportunity to study in other communities where the community college offers their preference.

## **Current Worker**

In addition to establishing workforce preparation programs, community colleges must also help to upgrade the current workforce. Business leaders competing internationally need help now with worker retraining. All community colleges in Kansas already provide customized training to their local businesses. Companies are enlisting the aid of community colleges to teach their employees everything from basic workplace literacy to calculus to computer-aided manufacturing. Community colleges often work with company management and then develop special courses to meet the needs of that particular company.

A recommended system for community colleges to deliver programs and courses for local businesses is similar to the tech-prep model with its emphasis on competencies and outcomes. Community colleges would offer a "smorgasbord" of skills and competencies from which local businesses could choose, depending on the needs of their employees. The community colleges would then schedule the time for delivering the training in the employer-selected skills and competencies at the business site. The selection method eliminates the redundancy and irrelevancy of courses and materials and promotes the attainment of outcomes.

## **Leadership**

In addition to the training and retraining functions, community colleges must take a leadership role as a resource to businesses in the state in developing new work systems and markets. Workplace specialist staff of the community colleges can support (1) businesses in adopting new technology and identifying new markets and (2) individuals in starting up and maintaining entrepreneurial ventures. The paradigm shift from junior college, established to provide the first two years of college, to community colleges, committed to meet the educational needs of the community and to assist business and industry within the community and region adapt to the rapid change in technology, must be made in Kansas.

Paramount to this leadership role would be the community colleges' relationship with the research and development (R & D) taking place in Kansas universities and K-TECH. Community colleges would be the link between the R & D of new products and practices in the state's universities and colleges and the production and marketing in business and industry. Somewhat similar to the strategy that Kansas State University uses to get its R & D for the state's agricultural system to the farming industry through the Agriculture Extension Service, the community college would work with the universities and K-TECH to transfer basic product research to the incubation phase and eventually to marketing by business and industry. There is little difference between a state-operated agricultural college in a university helping farmers and the farm industry and local community colleges helping manufacturers and businesses in the state; both are strategies designed for economic development in Kansas.

There are serious obstacles to overcome before all Kansans can use community colleges for training and retraining and business resources.

1. The 19 community colleges are located in only 18 of the 105 counties of Kansas. The 18 counties with access to a community college represent 921,174 of the approximately 2.5 million population in Kansas, or 36 percent. Thus, two-thirds of the Kansans who need or want training and retraining have limited access to institutions providing such programs and courses. Especially left out are the Kansans who live in communities in which four-year schools reside. For example, the workforce in Lawrence and Wichita is especially limited in job choice and potential for earning.
2. The state currently funds the community colleges on credit hour enrollment. Accordingly, the community colleges do not receive funds for the short courses that many employers need because they do not meet the credit hour format, e.g., course lasts so many hours and uses a standard curriculum. For this reason, when helping businesses with its training problems, community colleges must seek self-funded classes through contracts; inevitably only larger employers can afford to use the community college classes.

The community colleges are clearly a source for developing employees both now and in the future. Partnered with business and high schools, they can provide a smooth transition from school to work. They can also provide employee retraining and management consulting for companies and individuals. The state must move forcefully to galvanize this resource.