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AUTHOR	Anderson, Gordon; And Others
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ABSTRACT

This booklet is intended both to upgrade the image of the skilled nonprofessional worker and to furnish a guide to vocational education opportunities in Spokane, Washington. An extensive rationale for career education and vocational education is presented, citing the problems of unemployment, poverty, and the failure of our educational systems to instill good attitudes toward the established way of life. Significant trends in business and education at the local, state, and federal levels are discussed, noting the responsibility of American education for effecting institutional changes. Vocational education programs at the community level are described in detail. Descriptions of the future of American society are presented, highlighting the role of vocational education and career development. General and specific objectives and a content outline precede these descriptions. (AG)

LEARNING TO EARN

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There is nothing second class about a first-class technician.

COMMUNITY RESOURCE CLASS

Education 505

Summer - 1971

LEARNING TO EARN

Dr. Jasper Johnson

Director

Whitworth College
Spokane, Washington 99218

Prepared by:

Anderson, Gordon (Science & Math.) Sacajawea Jr. High
Blood, William (Auto Mechanics) Spokane Community College
Boedcher, Ernest (Industrial Arts) Libby Jr. High
Evans, Joan (6th Grade) Balboa Elementary
Patrick, Ruth (Employment Orientation - MDT Program)
Spokane Community College

Price $5.00

PREFACE

In modern industrial America the right to earn and learn must be treated as basic human rights. Only a productive society can be a free society. We can be leaders in social progress only if we lead in production, employment, worker income, and corporate profit. There can be no progress without profit. Profit depends on trained workers, and there will not be an adequate supply of trained workers without adequate education.

The pendulum is now beginning to swing ever so slightly toward the more realistic approach of "education for the world of work."

It is hoped that the information in this pamphlet will add impetus to the movement by upgrading the "image" of the skilled worker and by furnishing a guide to the types of vocational education available in our community.

We ask the reader to be aware that we have not covered the many vocational opportunities available exclusively for the "underprivileged." This area has been covered by another team in the Community Resource Workshop and we urge that you make this report a part of your reference material also.

As educators, we are searching for answers to problems both old and new. We must supply new leadership and enthusiasm, time and effort. We hope each of you makes the decision to become personally involved.

BASIC OBJECTIVES

1. TO ENCOURAGE our educators to recognize the importance of "preparation for the world of work."

2. TO DEMONSTRATE that this preparation must be in relation to "rapidly changing technology" in order to meet the needs of industry.

3. TO SHOW that through being responsive to changing technology and unmet needs of the employer that jobs will become available which meet the basic desire of the individual to be a "socially acceptable and productive member of society."

4. TO DEG educators to realize that this "basic desire of the individual" is the inherent right of all our people and not reserved for the 20 percent who complete college. (13:28)

5. TO SUGGEST that as vocational emphasis in education helps to eliminate the problem of unemployment, it will also alleviate the individual suffering and national decay caused by poverty and crime.

6. TO CHALLENGE educators and all society to participate in making occupational orientation and vocational education a positive and continuing force from childhood through adult life.

7. TO RECONCILE conflicting images between Liberal Arts and Applied Arts.

8. TO ACCOMPLISH a joining-of-hands of all society in preparing all people for the future within the framework of our capitalistic economy and in our democratic form of government.

SPECIFIC OBJECTIVES

1. TO PROVIDE information about vocational educational opportunities for children, youth, and adults in our community.

2. TO SHOW that vocational education has many levels and that it is not reserved for those who are only capable of "working with their hands", thus upgrading the "image" of the skilled worker.

3. TO SHOW that vocational education will help save the "drop-out" which will in turn, help win "the war on poverty."

4. TO REPORT on significant trends and developments in the business world which bear directly on the educational process.

5. TO REPORT on current vocational trends in regard to education on Local, State, and Federal levels.

6. TO SHOW that education is the concern of all Americans -- not just the concern of professional educators alone.

7. TO EMPHASIZE the immediate need for sweeping, visionary ideas in regard to our super-industrial economy of tomorrow.

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INTRODUCTION TO THE PROBLEM

1. The introduction of technology into so many jobs that had for years remained basically unchanged found many workers ill-prepared. Many new jobs were created that required new skills and competence.
2. Unprecedented numbers of youth have entered the job market.
3. These changes in labor needs consequently raise a question concerning who or what agencies will provide the necessary basic and additional training or education.
4. In order to meet the demands of technological progress and manpower change, society has turned to the educational establishments for help with training and education. To date this has not been a solution.
5. Two major reasons are indicated for the resistance to educational change by the education establishment:
   A. The social status habitually associated with an academic education and college degrees functioning in the home and community.
   B. The subsequent inherent bias of many teachers, elementary through university. This bias reflects the attitude that success is achieved by the acquisition of academic content which is not occupationally relevant.

   The two complementary factors tend to stigmatize both individuals and programs having goals related to the "world of work" with the exception of those occupations classified as "The Professions."
6. More than fifty years ago many communities planned and built technical high schools, but after a few years their programs became similar to those of the general high schools. The Educational Policies Commission recommended "Economic Efficiency" as one of the primary curriculum goals of a high school, yet the majority of students continued to pursue a totally academic program.
7. In recent years projects such as those sponsored by the Office of Economic Opportunity have attempted to provide training. At best these have had mixed degrees of success and only with a limited number of people.
8. The most success probably has been achieved by business and industry through in-service and up-grading of people already employed in the larger organizations but this does not help the young or those employed by small establishments.
9. Following an extensive study of the 1963 Vocational Education Act, the council reported to Congress that vocational education is still concentrated on training in such traditional fields as farming and home economics while the real need is for training in technical urban skills.
10. What is formal education's contribution and responsibility to these problems?

    (4:1 & 2)

SUBSEQUENT PROBLEMS

UNEMPLOYMENT AND POVERTY:

Since the Manpower Development and Training Act (MDTA) passed Congress in 1962, billions of dollars have been spent by the Federal Government to make vocational education and training available to the poor. Our economy was characterized by severe unemployment yet at the same time employers were posting thousands of unfilled jobs. The MDTA was designed to help these unemployed workers qualify for jobs and to provide the trained workers needed by the nation's employers. Since the MDTA was enacted there have been many ammendments and other related legislation such as The Vocational Education Act of 1963 and The Economic Opportunity Act of 1964. Despite the investment of billions of dollars, resulting programs, at best, have had mixed degrees of success and only with a limited number of people. High unemployment and unmet employer needs continue. Clearly the intent of the Federal Government to make vocational education a reality has not been accomplished.

Excluded from many benefits of education are the American poor, both black and white as well as those from other minority groups. The public has heard about the six out of ten high school graduates who go on to some form of post high school education but until recently the public has heard little about the waste of our human resources -- the three out of ten American young people who fail to complete high school, and the 5 percent who do not even complete the 8th grade. Approximately 19.5 million Americans eighteen years of age or older have completed fewer than five years of schooling. (10:23)

Studies in 1962 by Project Talent, financed by the Office of Education, demonstrated that youths from low income families, regardless of academic ability have a far poorer chance of remaining in school than their classmates from upper income families. There are about 10 million adults and older youths who are "functional illiterates." They are out of work, on welfare or in dead-end-jobs. They cannot comprehend the help-wanted ads, they cannot read street signs to get to work, they cannot fill out a job application. The 1960 census reports that 23 million or 23 percent of our adult population has had fewer than 8 years of school. This means that nearly one-fourth of our adult population are very poorly fitted occupationally for our changing technological society. Statistics show unequivically that the majority of people incolved in crime and delinquency are also uneducated and in poverty.

Economic-wise it is estimated that delinquency and crime cost the people of the United States from fifteen to twenty-five billions of dollars annually. (19:152)

UNEMPLOYMENT AND POVERTY: (Continued)

In addition to the dollars, antisocial behavior rends the heartstrings of thousands of parents and loved ones. A single act of delinquency or crime may change the whole existence of a particular family; and as families are weakened, society is injured and threatened. Everybody benefits when a man holds down a meaningful job, supports his family and has a stake in society. To make headway toward putting this ideal within the grasp of all, is not education challenged to participate?

Society must come to realize the special irony in the fact that when a man is out of a job for a year because he has not learned a skill, the cost to the nation in lost production is greater than the cost of sending him to school for twelve years. (10:54) The cost of crime, the drug addiction and delinquency, and the broken and dependent homes of uneducated persons is far greater than the cost of good education. (10:55)

Statistics alone cannot reveal how perpetuation of poverty and of ignorance breeds in any part of the population a rotting of the mind and spirit. Surely those who participate in violence and in mob demonstrations, not only in the ghettos, but on our campuses across the nation are trying to tell us something in regard to education.

In the past few years rocketing relief costs have strained the level of tolerance for those contributing in many cases. Ironically, the level of tolerance has also been strained for the recipient too as money amounts in many instances are too small to provide a decent standard of living. Furthermore, it is a demonstrated fact that most would prefer employment to public assistance.

An occupation provides a means by which one may satisfy many of his psychological needs, all of which have a direct bearing on his feeling of significance in the environment of which he is a member. Each individual has a desire for social acceptance, which varies in each case, but it is one of the basic desires of the human being.

WHETHER IT IS JUST OR NOT, A MAN IS KNOWN BY HIS WORK, AND A FEELING OF PERSONAL WORTH OFTEN IS IN GENERAL PROPORTION TO THE PRESTIGE LEVEL OF HIS OCCUPATION!

Concerned as we all are with the industrial and technological progress of this nation we must give some thought to how our educational system can raise the status of vocational work and the self-esteem of those employed in it. (9:18) Because most teachers a child encounters in his early learning years have no knowledge of vocational work and little interest in it, there is a tendency to threaten a child with "having to work with his hands" if he doesn't improve in his school work. The child gets the point. The point that the teacher should be making is

"THERE IS NOTHING SECOND CLASS ABOUT A FIRST-RATE TECHNICIAN."

Many members of our educational community clearly view vocational training as a catch-all for would-be droupouts. There is a clear indication that our revolution must involve the training and re-training of teachers to erase this stigma. Certainly it is the duty of our educational system to encourage and develop the youngsters who will go into the professions and the "mental" occupations. Our country needs them too, but we should not attempt to point a boy toward an ivy league college if he would be much happier in vocational training. In the long run he would contribute more to society and earn more of its rewards as an expert mechanic than he would in some "higher calling" for which he never fully qualified. (5:19)

There must also be a renewed effort in our educational system to "Sell The American Way of Life." A clearer perspective of the individuals responsibility for his own economic situation is necessary. The U.S. economy provides the world's highest standard of living. This is made possible by the workers in America, and our free enterprise system yet in the schools of our country there are far too many students who do not know the difference between Capitalism and Communism. From the Education Department of the Chamber of Commerce of the U.S comes the following excerpts:

"The American economy is the eighth wonder of the world: the ninth wonder is the economic ignorance of the American people."

"Study Group Urges Teaching of Economics be Improved in Elementary and High Schools."

"At present the evidence is clear; people in this country do not understand the economic system under which we have prospered. Nor do the teachers."

"Economic illiteracy may well be the greatest single threat the United States must face....." (4:14 - Reading Bibliography)

Along with the change in attitude toward vocational education and "The American Way of Life" must also come a change in attitude toward the nation"s poor. A mythology has spread in past decades that slum children were somehow of a lower order of capacity than other children. A correlate of the myth was that the children of poverty were not merely difficult to teach, but that they were virtually unteachable. It was true that they came from families of low educational attainment and that their homes lacked books and other incentives to learning. But this dreary recital was also used as an excuse for poor schools, poor teachers, and

A FAILURE OF ATTITUDE

(Continued)

ineffective education. (10:41) Such a mythology becomes self-fullfilling in schools of poverty. Faith in children's ability to learn is a greater factor in their eventual success than is the condition of the plaster on the walls, or even the quality of the textbooks. (10:45)

Across the nation, The National Alliance of Business Men with the aid of Federal funds have been training and putting to work these school drop-outs dubbed "unteachable." In 1968 Chrysler Corp. embarked upon a pilot program with a group of 125 "tough dudes" many of whom could not read the "in and out" signs on a door, men with too little intelligence to sign his name, to find his way to the factory gate, and even to know that it was time to go to work -- in short, the true victim of the system -- the man without hope. "Sure" remarked Boyd, an executive of the Chrysler Corp, "It took a great deal of 'hand-holding' but with the aid of classroom work with computers and a class ratio of 12 students to one teacher, and a 'commitment', it was discovered that the majority of these 'dudes' could learn, were intelligent, and that they made worthwhile employees." "It is time," he said, "that some of our established competent people began to revise their thinking about those things that they know to be true."

The ramifications of business assuming the responsibility for education are of a serious nature. Can business assume this responsibility in a free enterprise system?

Recently, Milton Friedman, the University of Chicago economist and staunch defender of free enterprise, in an article published in the Tribune ridiculed businessmen who "speak eloquently about the social responsibility of business." He accused them of merely echoing "the catch-words of the contemporary crop of social reformers" and "preaching pure and unadulterated Socialism." It would appear that American education is obsolete in its approach to meeting the needs of modern technology and the needs of her people both economically and psychologically.

We have partially passed through a revolution in quantity education, we are now engaged in a revolution of equality in education, but now we need a revolution in quality education -- the quality that will meet the needs of modern technology where 85 percent of our workers do not need a four year college education -- the quality that will answer the needs of 100 percent of our students, not just the 15 percent who wish to enter the "professions."

When the educational system of a nation fails, the heart of the community decays -- and that is the concern of businessmen, of clergymen, of politicians, and of parents -- not just the concern of professional educators alone. We must get rid of the notion that education is different and seperate from life, something that happens only in school. Everything that happens to us educates us,

A FAILURE OF ATTITUDE
(Continued)

for good or for bad. To answer, "What makes a good education?" we must ask, "What makes a good life?" Certainly a job - an adequate income - self esteem - and a sense of belonging should be given equal status with passing on the culture.

When all is said and done, the main problem of our schools and our society is a psychological problem: a failure of attitude. Ways must be found to sacrifice neither equality nor quality in education. We have yet to find a system comparable to our own and any problems we have can be solved within the framework of this system. The point of beginning is a new attitude -- an attitude where all Americans accept the responsibility for the success of our schools; where our society accepts the fact that all our people are our greatest national resource; where the goals of education are in keeping with the needs of our modern technological society as well as the individual; where we have faith in all people in our society; where we renew our faith in our capitalistic economy and in our democratic for of Government.

CURRENT TRENDS AND DEVELOPMENTS ON LOCAL LEVEL

TECHNOLOGICAL EDUCATION BEGINS WITH KINDERGARTEN

"Public Schools can better prepare young persons to realize their potential through use of technology in educational curriculums beginning with kindergarten," states Elizabeth Hunt, a consultant in elementary education and career development from Marion, North Carolina speaking to Eastern Washington State College students. Miss Hunt has introduced "technology for children" a program she pioneered in New Jersey schools. "Schools must help children grow and prepare to enter the world of work, and this kind of career development provides that experience." (21)

COMMUNITY RESOURCES CLASSES

A very significant trend in making education more relevant to teachers was first initiated in 1952 by the American Iron and Steel Institute and its member companies-namely the Community Resources Workshops. More than forty workshops are offered throughout the nation. In the Spokane area Dr. Jasper H. Johnson is currently conducting his ninth session through Whitworth College.

These workshops are concentrated four-six week college classes offered during the summer with the purpose of bringing teachers closer to the resources of their communities through field trips and speakers from business and industry.

Working individually or within committees, teachers produce projects in their fields of interest which can be incorporated into classroom use. (1:3)

Funding for the workshop are raised locally from industry, business, labor groups and school boards.

WHAT ARE THE RESULTS OF THESE WORKSHOPS? Teachers who have participated in community resources workshops indicate, after returning to their classrooms, that they have gained an increased feeling of pride and interest in their community and the ability to relate their students' goals to the community's needs. For example, they have acquired a greater awareness of business, industry, and other aspects of the community's economic and social life. Many indicate renewed challenge in their work, and a better understanding of the basic purposes of education. (20:114-115)

In addition, experience has shown that workshops provide a valuable forum for the exchange of information and ideas among educators and business and industry, while promoting and encouraging communication between schools and community leaders. They serve as a first step for representatives of education and industry in developing cooperative programs by bridging the communication gap that has developed from too little understanding among teachers, students, and members of the business community. (20:115)

SPOKANE COMMUNITY COLLEGE

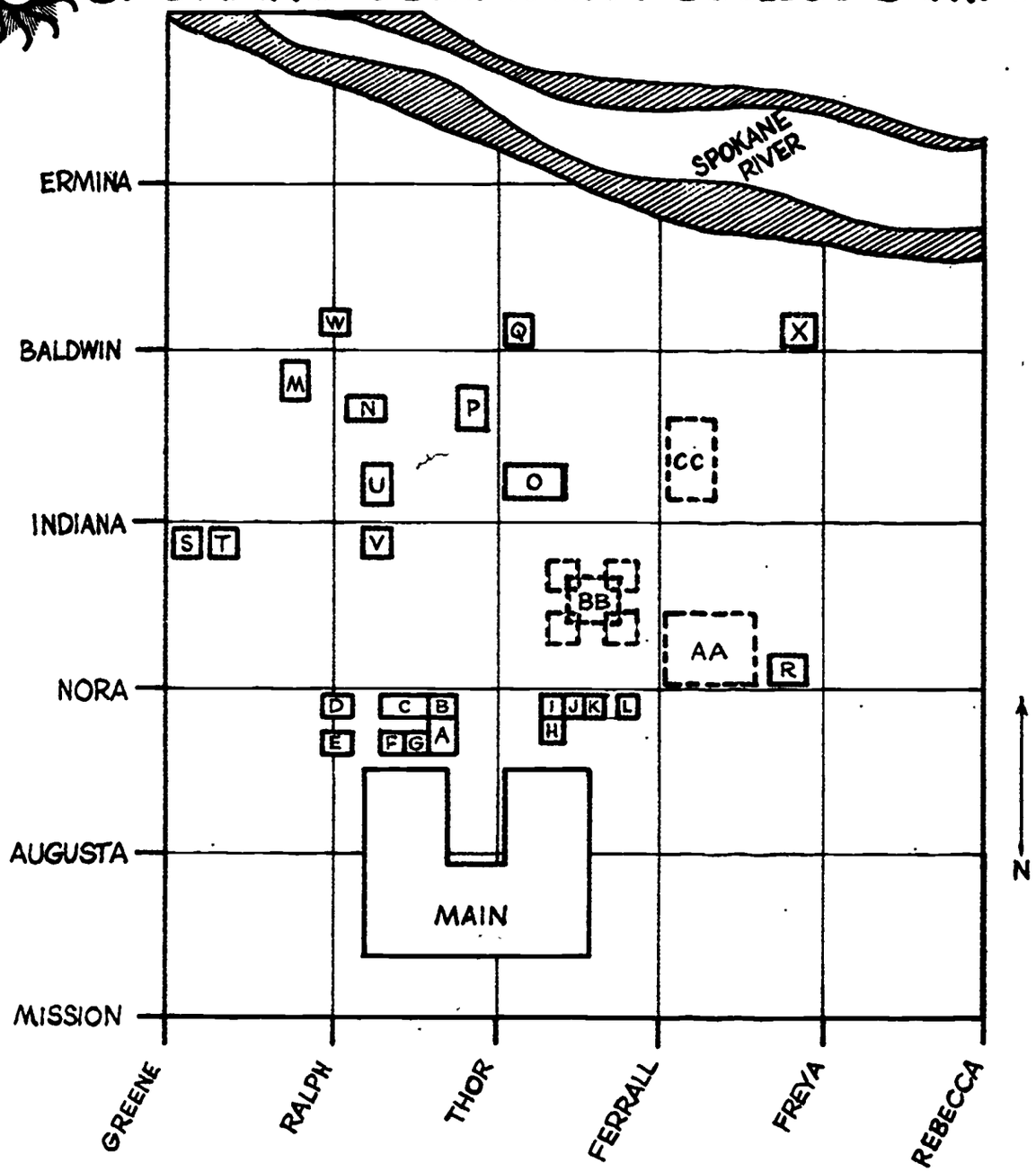
On the community college level, our local board has completed the acquisition of land at the Mission Avenue location to enlarge the campus to 87 acres. Ground has already been broken for a physical education building while a science building and student center is in the offing for later this year. It is hoped that a new district administration office and data processing center can also be started soon.

Though this new c onstruction will do much to enhance the image of the college, it will do little to alleviate the extremely over-crowded conditions prevelant in the present physical plant nor will it augment the goals of vocational education to any great degree.

Decisions of this nature point out rather dramatically why funds should not be specifically "ear marked" at the State level for local construction.

The following plot plan supports the statement of "over-crowding". Old houses are being used for class rooms. Twelve rather disreputable portables flank the back of the main building, yet the school is literally bulging at the seams. Students in many areas face long waiting periods. Shop areas have been divided by partial walls, resulting in crowded noisy quarters.

SPOKANE COMMUNITY COLLEGE CAMPUS



A. POWER SEWING	J. CONSTRUCTION ELECTRICIAN	S. YELLOW HOUSE
B. DRAFTING	K. CONSTRUCTION ELECTRICIAN	T. STUCCO HOUSE
C. ADV. ELECTRONICS	L. STUDENT WORK CENTER	U. CARPENTER APPRENTICE
D. OIL BURNER APPRENTICE	M. DIESEL	V. GREY HOUSE
E. BRICKMASON APPRENTICE	N. BASIC AUTO	W. WHITE HOUSE
F. ADULT BASIC ED.	O. FARM EQUIPMENT	X. DAY CARE CENTER
G CLASSROOM	P. CIVIL ENGINEERING TECH.	AA. PHYSICAL ED. BLDG.
H. LAW ENFORCEMENT	Q. CIVIL ENGINEERING TECH.	BB. STUDENT CENTER
I. LAW ENFORCEMENT	R. DISTRICT ADMINISTRATION	CC. SCIENCE BLDG.

CURRENT TRENDS AND DEVELOPMENTS ON STATE LEVEL

PHILOSOPHY AND MEANING OF VOCATIONAL EDUCATION ON STATE LEVEL

A new State Advisory Committee on Vocational Education met for the first time in Olympia last November 6. The committee members and consultants were appointed by State Superintendent of Public Instruction Louis Bruno to give attention to specific problem areas and to advise the state office on the future course of vocational education in the public school system.

Bruno explained to the committee that educators "probably know less about vocational education than any other subject," and admitted that "we just haven't done enough."

He suggested that the committee might develop guidelines and materials with specific emphasis on attitudinal changes among teachers and students to increase respect and awareness for vocational programs and occupational opportunities that exist.

Bruno then quoted from the first report of the National Advisory Council which reads in part that "at the heart of our problem is a national attitude that says that vocational education is for somebody else's children. This attitude is shared by businessmen, labor leaders, administrators, teachers, parents and students alike... promoting the idea that the only good education is an education capped by four years of college. This idea...is snobbish, undemocratic, and a revelation of why schools fail so many students." The report concludes, said Bruno, by recommending that the federal government allocate more funds "to cure our country of our...intellectual snobbery."

Bruno asked State Director for Vocational Education Ernest Kramer to explain the philosophy and meaning of vocational education. Kramer, named to serve as consultant to the committee, described the whole purpose of education as preparing the individual for "making a living and making a life" and said that vocational education addresses itself to "the part about making a living."

He explained that our society is built on what he called a "work ethic" that provides a basic element in this country's culture. Vocational education is centered on this idea and is carried on in close liaison with business and industry.

Kramer reminded the committee that only 15 percent of today's jobs require a college degree. "Education," he said, "has done well for that 15 percent but," he asked, "what about the other 85 percent?" He said the educational program must be for 100 percent of society. "The present emphasis pushes too many toward college," he said.

He concluded by suggesting that "the ability to use academic competence is in itself a saleable skill," and said that all education might concentrate more on how young people gain their first entry into the world of work. He said it is a "problem of relevancy" and said it's possible to "use the force of vocational education to make all education more relevant." (25:9)

CURRENT TRENDS AND DEVELOPMENTS ON FEDERAL LEVEL

FACT SHEET: VOCATIONAL EDUCATION AMENDMENTS OF 1968

Background and Need

The Vocational Education Amendments of 1968 authorize programs which will deal with the dilemmas facing the United States today and its changing world of work. Old jobs have disappeared or have been altered; new ones are emerging. Relocations of industry and shifts in market demands have further complicated the labor market. In addition, jobs for which physical strength and untrained minds were sufficient have declined, while jobs requiring perfected skills and advanced education have increased.

The 1917 Smith-Hughes Vocational Education Act was enacted to meet the demands of an economy just reaching industrial maturity. Dominant allotments went to vocational agriculture and home economics; provisions were also included for training in trades and industry.

The 1946 George-Barden Act was introduced to meet changes in labor force demands over the nearly 30-year period.

The American economy continued to change over the next few years and manpower needs shifted considerably. A changing industrial and occupational mix and a more sophisticated technology led to a shift from a primarily blue-collar and agricultural labor force toward the white-collar employment.

In response to this shift in manpower needs, the Congress reviewed the operation of existing laws and enacted the Vocational Education Act of 1963. The new funds were for State and local vocational education programs designed to fit individuals for gainful employment, including business and office occupations not covered by the previous laws.

In the next few years, employment opportunities in the professional, semi-professional, and technical fields increased. Demands in the public

service field alone exceeded labor supply by 5 to 1. The technological breakthroughs that have been witnessed in the past five years have led to greater and greater demands for trained personnel in scientific research, development, production and services in all fields of applied science. At present, it is estimated that there should be 2 technicians to every engineer or professional physical scientist; there should be 6-10 technicians for every medical doctor or professional researcher in the health fields, and 4-5 for each professional biological scientist.

The job of our schools is particularly critical in view of these new and emerging occupations and the resultant demands to be faced by the labor force. Broader training must be offered to high school students in vocational education; students must be encouraged to stay in school and to undertake technical training or other occupational work at the postsecondary level. Adults must be retrained to assume the duties of three to four new careers in their lifetimes.

Educational programs need to be made relevant. Emphasis should be on how students perform, not just their mastery of subject matter. Program development must become more closely attuned to individual interests, aptitudes, needs, and subsequent occupation and educational requirements.

The Vocational Education Amendments of 1968 provide a way to bring about necessary changes to adapt vocational education to new manpower needs. This program in operation would affect over 25 million people a year. The Act is also designed to help the hard-to-reach and hard-to-teach. It places resources and programs flexibility at the discretion of State and local school agencies and is designed to focus on the major deficiencies of the past.

THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

TITLE I - AMENDMENTS TO THE VOCATIONAL EDUCATION ACT OF 1963

A--GENERAL PROVISIONS AND AUTHORIZATIONS

B--STATE GRANT PROGRAMS

C--RESEARCH AND TRAINING

D--EXEMPLARY PROGRAMS

E--RESIDENTIAL VOCATIONAL SCHOOLS

F--CONSUMER AND HOMEMAKING EDUCATION

G--COOPERATIVE VOCATIONAL EDUCATION

H--WORK-STUDY PROGRAMS

I--CURRICULUM DEVELOPMENT

TITLE II - TRAINING OF VOCATIONAL EDUCATION PERSONNEL

TITLE III - MISCELLANEOUS PROVISIONS

TOTAL AUTHORIZATIONS--ALL TITLES
(Includes both regular and special programs)

Fiscal Year 1969	$ 542,100,000
1970	857,650,000
1971	870,150,000
1972	910,150,000
TOTAL (1969-72)	$3,180,050,000

Plus such sums "as may be necessary" for certain administrative costs and dissemination activities. (Authorization for regular vocational education programs is made permanent at the level of $565,000,000 for Fiscal Year 1973 and each year thereafter.)

Current Funding of United States Office of Education and their Allocations to Vocational Education Programs.

The USOE appropriations bill for the fiscal year that starts July 1, 1971, had $89,130,000 over the budget request for vocational education. This is $63,846,000 more than the 1971 appropriations. The total amount is over $558,000 000 for fiscal year 1972. The bill contained $377 million for grants to states for basic support to vocational education, the amount the President proposed. But the Flood Subcommittee added $20 million for programs for students of special needs, $6 million for work-study programs, $19.5 million for cooperative education and $2.4 million for state advisory councils-none of which was requested by the White House. The Subcommittee also added to the bill $16 million for grants to states for innovative projects and $4 million for curriculum development, neither proposed by the President.

"States have been increasing expenditures for vocational education by about $250 million each year and are maintaining an overall matching ratio of about $5 of state and local expenditures to each $1 of federal money," so stated Rep. Garner E. Shriver (R-Kan.). "In adding these funds for vocational and adult programs," Rep. Shriver continued, "we are recognizing the fact that the present school curriculum does not meet the needs of the large proportion of our population who do not go on to higher education.

"We must find ways to combine work experience with classroom training at the secondary school level," he said. "In this way we

can help our high schools take a more active role in preparing students for actual employment and helping them get jobs."

Even though the appropriations were over those proposed by the White House there were those who felt that this was not adequate. The Hathaway Amendment would have added $728.6 million to the bill, of which $50 million would have gone to vocational education. Rep. Hathaway had friends who spoke in his behalf. "I am calling for this increase because the federal government is still not adequately supporting vocational education," said Rep. Roman L. Pucinski (D-Ill.). "The federal government spends $4 on remedial manpower programs for every $1 we spend for preventive vocational education. And furthermore, the federal government spends $14 in our universities for every $1 it spends in vocational schools, even though only 20 percent of our youngsters will ever receive a college degree."

Rep. Pucinski, a member of the House Education and Labor Committee, was backed up by the Committee's chairman, Rep. Carl D. Perkins, (D-Ky.). "Now under the Vocational Education Act the state plans filed with the Office of Education show a need of $779.6 million for vocational-education programs of fiscal year 1972," Rep. Perkins disclosed. "Even with that increase we will fall short of that amount by $150 million."

The Hathaway Amendment was defeated by a 191 to 187 vote, but it shows a need in vocational education that was not met. (18:56-46)

TOO MANY TEACHERS

In the United States we have trained too many teachers. Shocking statistics show that in September, 1971, there will be 19,000 more elementary and secondary school teachers than there are positions. There is a prediction of 600,000 unemployed teachers by 1975. This is considered due to declined birthrate, difficulty in getting local funding for education, and many unemployed professionals (engineers, architects, writers) returning to teaching due to loss of jobs because of our economic recession. (22)

THE PLACE OF VOCATIONAL EDUCATION AT FEDERAL LEVEL

Since the advent of the Smith-Hughes Act of 1917 there has been an increasing awareness by educators-both public school and vocational-that more needs to be done in this area. The George Barden Act and subsequent Vocational Education Act of 1963 and the amendments of 1968 have provided additional funds to many programs; but, as Sidney P. Marland, Jr., U.S. Commissioner of Education, indicates in the May 1971 issue of School Shop the federal government and particularly the Office of Education are in whole-hearted agreement that vocational education is in serious need of reform and it is his intention that it will be one of the very few major emphases of the U.S. Office. He states, "A priority area in which we intend to place the maximum weight of our concentrated resources to effect a thorough and permanent improvement." (13:27)

He also suggests that we look at career education from the point of view of you and me and anyone who has committed his lifes' work to the proposition that education's prime task is to seek and free the individual's precious potential. After 30 years in school life he asks the question, What are we educating our children for? Educators have too often answered: we simply are not sure. Uncertainty as to how the student's need can be met on the one hand and to satisfy the country's infinite social and economic appetites on the other. Most secondary school administrators have been preoccupied with college-entrance expectations. Vocational technical education has been a second level concern. The vocational education teachers

and administrators have been either scorned or condemned and we have been silent. Mr. Marland wonders how we can blame vocational educators for the hundreds of thousands of pitifully incapable students who leave our high schools each year when the truth is that the vast majority of these youngsters have never seen the inside of a vocational classroom. They are the unfortunate inmates of a curriculum that is neither fish nor fowl, neither truly vocational nor truly academic. We call it general education. He suggests we get rid of it.

Whatever interest we represent-federal, state, or local-whether we teach or administer, we must deny ourselves the sweet solace of knowing the other fellow is in the wrong. We all share the guilt for the generalized failure of our public system of education to equip our people to get and hold decent jobs.

Mr. Marland suggests a name change from "vocational education" to "career education" as every student belongs in that category at some point, whether engaged in preparing to be a surgeon, a brick layer, a mother, or a secretary.

It is absurd to think that knowledge for its own sake is superior to useful knowledge. Mr. Marland proposes that a universal goal of American education, starting now, be this: that every young person completing our school program at grade 12 be ready to enter higher education or to enter useful and rewarding employment. There is a grave need to reshape our system of education to meet career demands of our complex technological society.

The question arises as to whether we should stay with our traditional system or change to some type of reform. Continued

indecision and preservation of the status quo can only result in additional millions of students leaving our high schools being unable or unwilling to go on to college and carrying away little more than a distaste for education in any form.

Of those students currently in high school, only 30% will go on to academic college-level work. One third of those will drop out before earning a baccalaureate degree. That means that 80% of the present high-school students should be getting occupational training of some sort. Consequently, half of our high school students, a total of approximately 1,500,000 a year are being offered what amounts to irrelevant general education bap. For millions of our school children such knowledge as is required for college-bound students is neither useful nor joyful, small wonder so many drop out, not because they have failed, but because we have failed them.

A properly effective career education requires a new educational unity. It requires breaking down barriers that divide our educational system into parochial enclaves. We must blend our curriculums and our students into a single strong secondary system. Life and how to live is the primary vocation of all of us, and the ultimate test of our educational process, on any level, is how close it comes to preparing our people to be alive and active with their hearts, and their minds, and for many, their hands as well. (13:27-43)

The ultimate goal of the USOE is that general education at the high school level is completely done away with in favor of contemporary career development in a comprehensive secondary-education environment.

To meet this goal, which involves approximately 30 million students and billions of dollars in public funds, the USOE is recommending a totally new system that entails four major actions.

First, they are planning major improvements in the vocational education program of the Office of Education. This program involves the expenditure at nearly $500,000,000 annually to provide for the needs of students that are relevant to their needs...

Second, in all agencies of education and government, we must provide for more flexible options for high school graduates to continue on to higher education or to enter the world of work...

Third, an effort will be made to bring people from business, industry, and organized labor into closer collaboration with the schools... Youngsters should be given the opportunity to explore as many occupations as they wish before choosing the one pursued in depth...

Fourth, we must build new leadership and a new commitment to the concept of a career-education system at all levels-but general educators, long dedicated to old ways, must become new champions of the career programs.

The USOE'S role in developing the above is stated thusly:

1. Seek and train a cadre of leaders for the vocational-technical career education field.
2. To help states attract and train teachers and administrators in vocational-technical education.
3. Presently providing funds to state plans.

The actions in vocational education and teacher education outlined here are but the first in a series of reforms intended to be initiated and carried out within the Office of Education.

SIGNIFICANT TRENDS IN THE BUSINESS WORLD WHICH BEAR DIRECTLY ON EDUCATION

SIGNIFICANT TRENDS IN THE BUSINESS WORLD WHICH BEAR DIRECTLY ON EDUCATION

The American people today are faced with a grave problem: Great poverty and great wealth existing side by side and large numbers of people without jobs at the same time that employers are looking for workers. Manpower programs -- ways of bringing together the job seeker and the jobs -- are therefore a first concern of the nation.

To be successful these programs must:
1. Reach the person who needs work.
2. Prepare, through counseling, education and training, those people who are not yet ready for worthwhile jobs.
3. Place workers in steady jobs which offer decent wages and a chance for advancement.

In order to accomplish these objectives we must first familiarize ourselves with the types of employment offered in our community.

Spokane area's economy was originally built upon a combination of mineral wealth, forest products, agriculture, and the advantages of a huge water power potential and a topography that determined the routes of all transcontinental railroads serving the Pacific Northwest.

With the depletion of the forests, Spokane's lumber industry has receded to secondary importance. Since World War II, primary metals has become the predominant manufacturing industry. Agriculture, employment wise, is of minor importance but it is still the largest income producing industry in the community and has a vital impact upon the Spokane economy.

A sizable portion of the management of the north Idaho mines is in Spokane and this area serves as their supply center.

Average employment in the Spokane area reached a record height of 103,700 in 1969 -- an increase of 14,000 jobs during a five year period, with gains concentrated in trade, finance, insurance, real estate, service, and government. Contract construction is above average despite a decline in dollar volume of building permits.

In terms of percentage distribution of the labor force, industry employment has changed considerably; the economic forces are not unlike those regionally and nationally.

Annual average employment in agriculture has remained stable for the past three years at approximately 2500. Because the labor force has increased since 1963, that figure represents a continued decline to 2.2 percent of the total.

Non-agricultural wage and salary employment has gained by 15,700 from 1963 to 1969 -- Manufacturing increased 1300 and non-manufacturing 14,400.

Food processing and kindred products has deminished moderately in employment.

Lumber and wood products employment has remained stable at about 1000 for the past three years.

Primary metals employment has had the most severe down turn employing only 4400 in 1969.

Fabricated metal products and machinery has increasd to 1400 in 1969. This reflects the increased demand for specialized machinery, heating and air conditioning equipment, highway culverts and related products.

Other small manufacturing industries have shown substantial growth during recent years with a 1969 employment of 4500.

The proportion of the labor force employed in non-manufacturing has increased 4.9 percent in the last six years to 75,600.

The average employment in contract construction remains stable at 4900 during 1969.

Transportation, communications, and utilities have remained relatively stable however with the merger of the rail lines, employment is expected to decline through attrition over the next few years.

Wholesale and Retail Trade has maintained its relative position with an increase of 3200 since 1963 to a total of 23,100.

The Service industries have increased to 17,700 with medical and health services showing a 41.7 percent increase.

The expansion of Government employment has been second only to service industries. Educational institutions have accounted for more than 60 percent of the net gain of 3700. Government hospitals has added nearly 500 while local and State governments have also expanded.

Table I of the U.S. Bureau of Labor and Statistics and Manpower Administration indicates the employment profile of our community together with the increase or decline in each area.

TABLE 1

LABOR FORCE AND EMPLOYMENT IN SPOKANE COUNTY 1/

	March 1971 2/	Feb. 1971	March 1970	Change Feb. '71- Mar. '71	Change Mar. '70- Mar. '71
CIVILIAN LABOR FORCE	113,900	113,200	110,000	+ 700	+ 3,900
WORKERS IN LABOR-MANAGEMENT DISPUTES	0	0	0	0	0
UNEMPLOYMENT	10,700	10,500	6,800	+ 200	+ 3,900
Percent of labor force	9.4	9.3	6.2	xxx	xxx
Seasonally adjusted rate	8.4	7.5	5.5	xxx	xxx
TOTAL EMPLOYMENT	103,200	102,700	103,200	+ 500	0
Agricultural	2,200	2,000	2,300	+ 200	- 100
Nonagricultural	101,000	100,700	100,900	+ 300	+ 100
Employer, own account, unpaid, and domestic	12,000	12,000	11,800	0	+ 200
WAGE AND SALARY WORKERS, NONAGRICULTURAL	89,000	88,700	89,100	+ 300	- 100
TOTAL MANUFACTURING	12,100	11,800	12,600	+ 300	- 500
Food and kindred products	2,000	2,000	2,000	0	0
Lumber and wood products	800	800	900	0	- 100
Primary metals	3,700	3,600	3,900	+ 100	- 200
Fabricated metals and machinery (exc. electrical)	1,400	1,300	1,300	+ 100	+ 100
All other manufacturing	4,200	4,100	4,500	+ 100	- 300
CONTRACT CONSTRUCTION	4,900	4,700	4,200	+ 200	+ 700
TRANSPORTATION, COMMUNICATIONS, AND UTILITIES	7,300	7,300	7,300	0	0
WHOLESALE AND RETAIL TRADE	21,800	22,100	22,800	- 300	- 1,000
FINANCE, INSURANCE, AND REAL ESTATE	5,400	5,400	5,200	0	+ 200
SERVICE INDUSTRIES	18,700	18,600	18,500	+ 100	+ 200
GOVERNMENT	18,500	18,500	18,200	0	+ 300
MISCELLANEOUS	300	300	300	0	0

1/ Prepared in cooperation with the U. S. Bureau of Labor Statistics and the Manpower Administration. Excludes proprietors, self-employed, members of the armed forces, and workers in private households. Includes full- and part-time wage and salary workers receiving pay during pay period including the 12th of the month.

2/ Preliminary.

VOCATIONAL EDUCATIONAL OPPORTUNITIES IN OUR COMMUNITY

I. Elementary

II. Secondary

III. Adult

- A. Spokane Community College
- B. Private Schools
- C. Apprenticeship Programs
- D. Private Business

ELEMENTARY SCHOOLS

VOCATIONALLY ORIENTED PROGRAMS IN SPOKANE ELEMENTARY SCHOOLS

The staff and parents of Whitman School, in cooperation with the business community, will develop pilot projects within the individual classrooms to meet the need of disadvantaged children in developing positive attitudes toward work and in expanding knowledge of vocational opportunities. The program will center on "learning by doing" and will emphasize successful experiences for all disadvantaged children particularly those who may not be successful in the academic program.

This course will involve students from grades 1-6 and Special Education. There will be approximately 790 children and 34 staff members involved in the program as well as a parent-teacher advisory committee, a business advisory committee and volunteer parent aides.

Whitman School teachers and parents have commented about the need for pre-vocational programs early in the educational experiences of children in order to build wholesome attitudes toward the world of work and to give keener insights into job possibilities... In an academically oriented class, units on vocational education are frequently not included and children have a hazy concept of what jobs are all about. School work has been too theoretical... and they have been very traditional in adhering to acquisition of specific skills instead of broader conceptual outlooks.

It is incumbent upon those with responsibilities in education to develop and promote programs of vocational education which will enable students to make satisfactory choices for their active participation in the world of work.

It is our feeling that while the project World of Work at the Whitman School for the disad antaged is extremely valuable, it should not stop with those schools who qualify as disadvantaged, but should be all inclusive, extending to all schools where students might choose to work in these capacities. This program is being placed in only Title I schools; therefore, other students wishing to learn vocational skills are deprived of the opportunity. (15)

PRE-OCCUPATION OPPORTUNITIES FOR ELEMENTARY PUPILS

It is the intent of this project to involve pupils and their parents in a pre-vocational, success-oriented, activity-centered program designed to not only give vocational awareness, but also actual involvement in learning activities. Beyond involvement, it is the intent to demonstrate worthwhile use of free time, to model competent adult behavior for elementary school children, and to help children learn the pride that goes with accomplishment. Pupils, and where possible, their parents will be involved in making projects which they determine are needed by their families in the home setting.

The objectives of the course briefly stated are:

1. The pupil will complete a selected project.
2. The pupil will use tools in a safe manner.
3. The pupil will show pride in workmanship by displaying his project.
4. Parent, guardians or other adults will be in attendance at the unit 20% of the time the pupils attend.
5. The pupil will be able to group jobs into broad occupational areas.
6. The pupil will show a 20% change in attitude toward school.
7. The pupil will show a 20% change in perception toward the world of work...
8. Parents to evaluate the program and show 75% endorsement.
9. The classroom teacher will be in attendance at the Mobile Unit 50% of the time.

Through the use of Mobile Laboratories, fifth and sixth grade pupils will be given the opportunity to work with tools and materials which have occupational implications.

Three mobile units are to be equiped as follows: Mobile Unit No. 1-Woodworking and Plastics; Mobile Unit No. 2-Art Metal; and Mobile Unit 3-Ceramics. These units are to be scheduled throughout the school year at public and private elementary schools in the disadvantaged areas of the city.

Manipulative or "doing" experiences would be emphasized. Skills in working with tools and processes would be developed to provide a broad experimental base of vocations. Pride in personal achievements should not only affect vocational attitudes but also the students' concept of self-image as he identifies himself with a successful project. Other vocations will be "sampled" through viewing of short occupational films which have been produced by the District through a Title II Special Purpose Grant. (17)

The students involved in this program will consist of 1588 Spokane fifth and sixth graders from Title 1 schools. An approximate total of 1267 would be from 12 public schools and 321 from four parochial schools. These figures are subject to re-evaluation as Title 1 schools qualify for assistance.

Each of the nine behaviorial objectives have a strict evaluative procedure that will be administered at the end of each Unit's stay at a school. Over a period of two years each mobile unit will have been scheduled to all of the schools in the program.

SECONDARY SCHOOLS

VOCATIONAL EDUCATION IN THE JUNIOR HIGH SCHOOL

Vocational education at the junior high school level in the Spokane Public Schools is not offered in a course as such. Many times it is taught by social studies teachers as a unit of instruction. At times student interest dictates the length of the unit. Field trips and films, as well as library materials make these studies more meaningful. When resource people in the field of study are utilized a more realistic picture can be presented. Other classes such as home economics and industrial arts constantly refer to the vocational aspects as these areas are highly oriented along these lines. Again the teacher has much freedom in teaching occupational orientation or vocational "career" education.

When one thinks of industrial arts as being that part of the student's general education program that studies materials, tools and processes of industry and how this relates to man in our highly industrial and technological society it is possible to see the vocational aspects of this area of teaching.

Guidelines for Junior High School Education in the State of Washington of 1967 defines Industrial Arts as a program in which boys and girls are helped through manipulative work to locate and develop attitudes, abilities, and interests. Students should be guided through a variety of experiences. Included in a recommended program are industrial crafts, technical drawing, free hand sketching, graphic arts, eletricity-electronics, metal working, woodworking, plastics and power mechanics. In Spokane Junior High

Schools the main areas are: metal working, woodworking, drawing and electricity. There is a Spokane Public School course of study and a Washington State Guide that tend to regulate industrial arts in Spokane, but the teacher still has freedom as to how these areas of instruction will be taught.

"This important phase of general education provides opportunities for students to understand the interrelationships and functions of the manufacturing, construction, power and transportation segments of our industries. It also acquaints them with the changing nature of industrial occupations and provides a basis for intelligent self-guidance..." (2:11)

As was mentioned earlier, Spokane Industrial Arts courses are now involved in vocational education at the high school eleventh and twelfth grades and in the first through sixth grades at the elementary level. It is only natural to assume that vocational education will become a continuous and progressive area of instruction so the junior high schools should see definite programs in the near future.

VOCATIONAL EDUCATION IN THE HIGH SCHOOL

Vocational education courses in the Spokane Public schools came about as a result of studies made by an advisory committee over a period of several years. The committee served in each of the service areas of vocational education and was made up of 130 individuals exclusive of teachers or administrators.

In most cases students completing these programs become payroll employable. These classes taught in the schools are designed to prepare students for successful entry into and to make progress in their chosen occupation. The purpose briefly stated is:

1. To provide entry level skills.
2. To provide a basis for further study.
3. To provide an orientation to work and serve as a guidance function for the student.

One of the major concerns of present day education is the provision of relevant education for all students. One of the important facets of relevant education is vocational education, education for the world of work. The Spokane Public schools are making definite progress toward the goal of providing vocational education for all students who can benefit from this kind of education. At the present time, vocational education courses are available in all six high schools in Spokane, though not every vocational course is available in every high school.

One or more courses is available in each of the service areas of vocational education. The inclusion of vocational education courses in the high schools tends to make them truly comprehensive high schools. Thus, each high school is able to offer a broad program of study to each student living within the attendance area of that school.

172 SIGN UP FOR VOCATIONAL FALL CLASSES

Another program that involves high school students is one that is to be initiated this fall (1971) at Spokane Community College. Four districts will take part in a cooperative district program which will receive state reimbursement. They are Central Valley, West Valley, East Valley and Mead. As planned, the program will involve high school students attending vocational classes taught by instructors at Spokane Community College. The students will spend three hours per day at the special classes which are designed to give them a start toward employment upon graduation.

The credits received while in this program will be accepted by Spokane Community College if the student decides to pursue his education further along these lines. In one program the student will have completed the course to the extent that he will receive a certificate along with his high school diploma. These courses are made up of the following areas: auto mechanics, and nurses aids. These classes will be limited to 20-22 students.

Charles Stocker, the program coordinator, stated that classes designed for young ladies filled rapidly which gives some direction as to what is needed for high school girls. (24)

ADULT VOCATIONAL EDUCATION

I. Spokane Community College

II. Private Schools

III. Apprenticeship Programs

VI. Private Business

SPOKANE COMMUNITY COLLEGE

NEED FOR ADULT VOCATIONAL EDUCATION

Due to the high cost of doing business today, brought on by our minimum wage laws, social security, unemployment insurance, business and occupation taxes and record keeping for various government agencies (estimated as approximately 20 percent of a company's accounting expense) (2:Interview), there are very few opportunities for "on-the-job training" unless it is subsidized by government funds. Supervision by an experienced employee is still another expense.

In order for business to remain on the profit side of the ledger, entree level employment qualifications have been increased to those of an experienced worker lacking only the knowledge of an individual company's procedures which points to the need for adult vocational education.

Who is better qualified to teach these marketable skills than one who already has mastered them, proven by a successful career in industry, and who has the ability to teach these techniques to others? Stringent requirements are placed upon prospective vocational teachers regarding the number of years of successful employment and the portion of this experience gained in a supervisory capacity. Proven teaching methods must be studied by the vocational instructor before and during his entire teaching career in addition to maintaining his proficiency in the discipline for which he is responsible by either returning to industry or attending industry sponsored training programs.

With this brief explanation of the "why" and "who" of vocational education, we present the following alphabetical listing of available courses of study in our community.

Extensive evening programs are conducted at Community College level but these have not been included in this resume as they are primarily for upgrading of persons already employed and are offered on a demand basis.

Reader is referred to Spokane Community College -- Spokane Falls Community College Catalog, 1971-73.

HISTORY

Washington State Community College District 17 is composed of two separate colleges, each with its own president, administration and instructional staff. The District administration offices handle the functions of business affairs, purchasing, administrative services, data processing, personnel, physical plant management, research and long-range planning, extension services and public information.

Spokane Community College, East 3403 Mission Avenue, was formed in 1963 with the addition of a college transfer program to the curriculum of the 47 year-old Spokane Technical and Vocational School. A second 118-acre campus opened in the fall of 1967 at the historic Fort Wright site above the Spokane River. On July 1, 1970, a 15-point reorganization plan went into effect creating the District's multi-colored concept. The Mission Ave. Campus retained the original name while the Fort Wright campus at West 3410 Fort George Wright Drive, was named Spokane Falls Community College.

District 17, created as one of 22 Washington State Community College Districts by the 1967 Legislature, encompasses the counties of Ferry, Pend Oreille, Spokane, Stevens, Whitman and a portion of Lincoln.

In addition to the two college facilities and their District office, there are nearly 40 extension centers located throughout the six counties of northeastern Washington.

OBJECTIVES AND PHILOSOPHY

Community College District 17 is aware of its responsibility to keep pace with the constantly changing needs of the community and, in keeping with the role, believes the following should be provided in its two institutions:

1. The first two years of university-parallel courses for students who plan to transfer to a four-year college or university.

2. Technical and vocational courses for students who wish to complete their formal schooling in one, two or three years.

3. Elective courses to satisfy individual, personal and cultural interests.

4. Community service designed to give supplemental training to improve occupational skills; retraining to meet new job opportunities; and other educational services, including adult education, as dictated by community needs.

5. Faculty advising to assist students in attaining their vocational and educational objectives.

6. Guidance and testing services.

SPOKANE COMMUNITY COLLEGE
DIVISION OF APPLIED ARTS

Advertising Art
Agri-Business
Aircraft Mechanics
Air Transportation Technology
Auto Mechanics
Auto Parts Merchandising
Business and Office Occupations
Body and Fender
Cardio-Pulmonary Technology
Carpentry, Cabinetry and Detail Millwork
Civil Engineering Technology
Commercial Baking
Cosmetology
Culinary Arts
Data Processing
Day Care
Dental Assisting
Diesel Heavy Equipment
Drafting and Design (Architectural)
Drafting (Industrial)
Electronics
Farm Machinery and Repair
Industrial Electricity
Industrial Instrumentation
Industrial Mechanics
Inhalation Therapy
Keypunch
Law Enforcement
LPN Nursing
Machine Shop
Medical Records
Medical Secretary
Mid-Management
Nurse Aide
Photography
Pilot Training
Printing
Sheet Metal
Technical Writing
Watch and Jewelry Repair
Welding

SPOKANE COMMUNITY COLLEGE
DIVISION OF LIBERAL ARTS

Art
Agriculture
Accounting
General Business
Mid-Management
Agri-Business
Motel-Motel Management
Secretarial Science
Economics
Education
Engineering
English
Literature
Journalism
Foreign Languages
Mathematics
Vocal Music
Instrumental Music
Physical Education
Health
Nursing
Recreation
Biological Sciences
Chemistry
Physics
Anthropology
History
Philosophy
Political Science
Psychology
Sociology
Speech
Drama
Radio-Television

SPOKANE FALLS COMMUNITY COLLEGE
DIVISION OF APPLIED ARTS

Advertising Art
Agricultural Technology and Natural Resource Management:
- Agribusiness
- Agricultural Economics
- Natural Resource Management
- Plant Science
- Soils

Business and Office Education Occupations:
- Accounting and Office Management
- Clerk Typist
- Executive Secretary
- General Business
- Mid-Management
- Real Estate
- Secretarial Science
- Service Representative

Human Services
Supplementary Applied Arts Courses

PRIVATE SCHOOLS

VOCATIONAL ORIENTED SCHOOLS IN SPOKANE

Advance Trades School

Electrical, Auto Mechanics, Drafting, Bookkeeping, Refrigeration/Air Conditioning, Secretarial Courses
North 4 Lee
KE 5-6726

Allied Dive Center

North 6821 Division
HU 3-8400

Ann Charlene School of Ballet

West 1118 Northwest Blvd.
FA 7-3518

Arthur Murray School of Dancing

West 610 Sprague
RI 7-2136

B & B Driving School

South 1422 Seehorn
KE 4-7567

Cady School of Beauty

North 10 University Road
MA 4-4171

Career Academy

Medical & Dental Assistants
Medical Office Assistants
Dental & Medical Technicians
Radio & T.V. Broadcasters
Classroom & Home Study
Accredited Member NHSC & NATTS
West 1303 1st
MA 4-1295

Career Training Center

North 120 Wall
MA 4-2135

Commercial Trades Institute

Refrigeration, Auto Mech.,Comp. Prog., Drafting, Colored T.V.
Veterans approved.
West 2010 Longfellow
FA 5-0591

Computer Programming Center of Spokane
Bon Marche Bldg.
MA 4-9900

Dale Carnegie Courses

West 921 Sprague
MA 4-3871

Deaconess Hospital

School of Nursing
South 422 Hall
MA 4-0171

Dreeden Charm Modeling School & Agency

Zukor Bldg.
MA 4-8822

Elliott Therese Weiscopf Dance Studio

West 924 Shannon
FA 8-5867

Esther's School of Beauty Culture Inc.

North 223 Post
RI 7-3088

Excel Training Institute

Heavy Equipment Training, Construction Trades
North 10 Post
RI 7-2229

Intercollegiate Nursing Center

South 10 Cedar
TE 8-2071

International Correspondence Sch. Rep.

North 1001 Madison
FA 8-0677

KHQ School of Radio Broadcasting

South 55 Lines Road
MA 4-2400

Lewis - Baird Secretarial School

West 413 Sprague
MA 4-0037

Kinman Business University

Don Morche Bldg.
North 214 Wall Street
TE 8-3321

Moler Barber School of Spokane

West 418 Main
RI 7-9260

[illegible] School - Experiential Learning Community

East 1906 - 35th
TE 8-5876

Northwest Select Beauty School

West 15 Wabash
RI 7-9097

Professional Assistants School of Spokane

Medical, Dental Receptionist, Clerk typist
Sixth Avenue Medical and Dental Bldg.
TE 8-4[illegible]

[illegible] Barber College

West 1113 - 1st
RI 7-9519

[illegible]les Training Inc.

[illegible] 327 - 6th
TE 8-[illegible]

Spokane Pre-Vocational Training Center

North 2520 Division
TE 8-3357

Victor Business Schools

IBM Keypunch - Computometer Training
North 9311 Monroe
TE 8-2350

KELSEY BAIRD SECRETARIAL SCHOOL

Kelsey-Baird Secretarial School has been noted for its quality business training since 1919. The objectives of the School are:

To recognize the individual above all other considerations and to plan a course of study for her accordingly.

To develop for each student the individual abilities, aptitudes, and attitudes that will help her most in her business career.

To offer thorough training in a reasonable length of time at a cost that is not prohibitive.

To provide instruction of the highest quality.

To offer specific vocational training on the college level and to avoid distractions which could divert a student's attention from preparing for a career and thus prolong her period of training.

To maintain an effective placement service and close working relations with personnel managers, employment agencies, and business firms in order to be of greater service in helping our students find suitable positions.

Kelsey Baird Secretarial School offers the following:

Secretarial Course

Stenographic Course

General Office Course

Refresher Course

Typing

Shorthand

Dictation

Accounting

Business English

Office Machines

KINMAN BUSINESS UNIVERSITY

The philosophy of this School, which is part of the Education Division of Lear Siegler, Inc., is centered around the vocational education of the student. Our objective is to help the student prepare himself for a productive career so that he is qualified for a beginning position, and for later advancement in that position either through job performance or because of additional education he has acquired while on the job.

The ultimate aim of the program is to educate the student in an employable occupation.

Kinman Business University offers the following courses.

Fashion Merchandising

Automation Secretarial

Business Administration

Computer Operations and Management

Dental Assistant

Executive Secretarial

General Accounting

Computer Programming

Legal Secretarial

Medical Assistant

Medical Secretarial

Mr. Executive

Nancy Taylor European Seminar

Nu Tau Sigma

Office Specialist

PAK Reading Improvement

Professional Accounting

Speedwriting

Stenographic

REID BARBER COLLEGE

Reid Barber College offers a complete course designed to educate young men and women in the art of barbering. The course includes units in haircutting, shaving, shampooing, treatment of skin and scalp diseases, hair coloring, etc. Students enrolled in Reid Barber School must attend not less than eight months, nor more than sixteen months, averaging 1248 hours. Tuition and fees amount to $476.00, which includes purchase of individual tools. Enrollees must be 18 years old and must have a minimum of 2 years of High School.

APPRENTICESHIP PROGRAMS

APPRENTICESHIP, OUR PRECIOUS INHERITANCE

The present generations are no longer dependent on the crafts and trades that their parents and grandparents depended upon. The age of the machine has replaced the need for hand skills. No more do we find the devotion for family trades that used to perpetuate itself. Mass education has resulted in mass production, which has produced the industrial robot.

We find the conglomerate corporations taking hold. Will this also result in conglomerate education? No longer do we find nature having the control or effect it once did. If we prefer, we can spend our whole lives controlled by the clock, artificial lights and even artificial sun. Our days no longer depend on the spinning of the earth on its axis. Production is no longer measured in daylight hours. Old crafts once so badly needed are no longer desirable and have ceased to be part of our present.

What is an apprenticeship anyway? The definition of apprenticeship is simply the learning of any particular skill or craft covering a wide background of related knowledge to qualify for a particular job or occupation. Not only instruction, but also experience is an important aspect of apprenticeship. The instruction includes the theoretical and practical aspects of the particular trade.

One of the most desirable aspects of apprenticeship is earning a salary while learning a trade. Instruction in a vocational school or a community college is available to registered apprentices, at their personal expense, and on their own time.

What is called an apprenticeship program is a joint committee composed of representatives of labor and management, varying in number from six to eight members. The qualifications for the selection of apprentices is in theory the sole consideration. It should be noted that in practice this is questionable. Obviously the applicant must be physically and intellectually qualified to perform the duties of a certain job. To clarify this we should point out that these qualifications are more selective than they sound, which prohibits many people from ever getting into the program.

The apprentices' time varies according to craft from 2 to 5 years. The minimum time for apprenticeship, for example for the carpenter, would be 3 years. The maximum time for the laborer would be 5 years. The apprentice must also spend a certain amount of time in class during this period.

INFORMATION FOR APPRENTICE APPLICATIONS (6/71)

Note: People interested in making application for apprenticeship training should check with the contact person listed for each training program.

SPOKANE AREA

Laborers Training Program

Lee Gooding
Construction Council Building
E. 102 Boone
Spokane, Wash. 99202

Spokane Area Bakers

John Heinbigner
W. 120 Mission
Spokane, Wash. 99201

Spokane Area Boilermakers

Marlan Pere
W. 120 Mission
Spokane, Wash. 99201

Spokane Carpet, Linoleum, & Resilient Tile

Karl Fair
W. 120 Mission
Spokane, Wash. 99201

Spokane Area Carpenters

Joe Anderson
102 E. Boone
Spokane, Wash. 99201

Coyles Publishing Co. Drawing Program
Coyles Publishing Co. Printing Crafts

Personnel Dept. or Superintendent
W. 221 Sprague
Spokane, Wash. 99204

Spokane Area Cement Masons

Joe Krey
W. 120 Mission
Spokane, Wash. 99201

Spokane Glass Workers

Karl Fair
W. 120 Mission
Spokane, Wash. 99201

International Harvester Co.

Richard Fogle
E. 715 Sprague
Spokane, Wash. 99202

Spokane Ironworkers

Don Anderson
123 Indiana
Spokane, Wash. 99201

Kaiser Aluminum & Chemical Corp.

Pat McGinn
Industrial Relations Dept.
Mead Plant (P.O. Box 5217)
Spokane, Wash. 99207

Drywall Trainee Program

Don Trainer
W. 120 Mission
Spokane, Wash. 99201

Spokane Area Lathers

John Vander Geag
E. 414 Hoffman
Spokane, Wash. 99207

Spokane Area Machinists

Bob T. Cheramy
E 102 Boone
Spokane, Wash. 99202

Spokane Area Electricians

Calvin Winkel
W. 4 Mission
Spokane, Wash. 99201

Eastern Washington Meatcutters

Andy Bottell
S. 107 Howard
Spokane, Wash. 99204

Spokane Area Molders

Carl Evans
W. 3152 Garland Ave.
Spokane, Wash. 99205

NW Line Constructors (Sub Comm.)

Elwood Amesbury
N. 1508 Washington
Spokane, Wash. 99201

E. Wash.-N. Idaho Operation Engineers

George E. Samms
E. 123 Indiana
Spokane, Wash. 99207

Spokane Painters, Decorators, & Drywall

Karl C. Fair
W. 120 Mission
Spokane, Wash. 99201

E. Wash.-N Idaho Piledrivers (Trainee)

Robert Evans
W. 120 Mission
Spokane, Wash. 99201

Spokane Area Plasterers

Joe Kropp
W. 120 Mission
Spokane, Wash. 99201

A.E. Plumbers & Pipefitters

Frank Forest
W. 10 2nd Avenue
Spokane, Wash. 99204

Spokane Area Masonry

Stan Llewellyn
W. 120 Mission
Spokane, Wash. 99201

N.E. Wash.-N Idaho Sheet Metal

George Hollomon
W. 120 Mission
Spokane, Wash. 99201

Spokane Sign & Pictorial Painters

Karl C. Fair
W. 120 Mission
Spokane, Wash. 99201

Stationary Engineers

James Taggart
W. 120 Mission
Spokane, Wash. 99201

Washington Water Power Co.

Norman F. Dorpat
E. 1411 Mission
Spokane, Wash. 99202

Spokane Area Roofers

R. L. Dixon
1723 E. Rockwell
Spokane, Wash. 99207

PROJECT OUTREACH E. 217 2nd Spokane, Wa. RL-7-3005	BOILER-MAKERS	BRICK MASONRY	CARPENTERS & MILLWRIGHTS	CARPET-TILE LINOLEUM	CEMENT FIN-ISHERS & PLASTERERS	ELECTRICIANS	GLAZIERS	IRONWORKERS	LATHERS	OPERATING ENGINEERS	
AGE	18-25 Vets.30	16-21	17-27 Vets 32	18-25 Vets31	18-25	18-26	18-26 Vets 31	18-30	16-27	18-27 Vets 32	
EDUCATION	High School or GED	High School or GED	High School or GED	High School or GED	High School or GED	H.S. or GED	H. S. GED	H. S. GED	H. S. GED	H. S. GED	
CITIZEN-SHIP	U.S.	None	U. S.	U. S.	None	U.S.	U. S.	U. S.	None	U. S.	
RESIDENCE	1 yr.	None	1 yr.	1 yr.	None	1yr.	1 yr.	1 yr.	None	1 yr.	
APTITUDE TESTS	State	JAC	State & JAC	State	None	State S-72 Bt.	State	JAC	None	State & JAC	
WHEN TO APPLY	Anytime Yearly	Anytime yearly	Anytime yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	
WHERE TO APPLY	W. 120 Mission FA-54429	W.120 Mission FA-60575	E. 123 Indiana FA-87245	W. 120 Mission FA77711	W. 120 Mission FA60575	W. 48 Mission FA88765	W. 120 Mission FA77711	E. 123 Indiana FA82520	E. 414 Hoffman HU76863	E. 123 Indiana FA87358	
WAGE RATE % JRNYMN.	75%	45%	70%	50%	70% CF 35% Plastrs.	50%	55%	80%	45%	65%	
RELATED TRNG. HRS. PER YEAR	144 hrs per yr	144 hrs per yr.	144 hrs per yr.	144 hrs per yr.	144 hrs when avlb.	165 hrs per yr.	144 hrs per yr.	144 hrs per yr.	144 hrs per yr.	144 hrs. per yr.	
TERRITORY	NE Wa.	NE Wa.	NE Wa. N. Ida.	NE. Wa. N. Ida.	NE Wa.	NE WA N. Ida	NE Wa. N. Ida.	NE Wa. N. Ida.	NE Wa.	E. Wa. N. Ida.	
PROBATION PERIOD	6 mos.	90 days	90 days	360 hrs	90 days	1000 hrs.	3 mos.	3 mos.	90 days	90 Days	
TERM OF APPRENTICE-SHIP	4 yrs.	4 yrs.	4 yrs.	3 yrs.	3 yrs. CF 4 yrs. Plastrs	8000 hrs.	4 yrs.	3 yrs.	3 yrs.	3½ yrs.	

CEMENT FTN-ISHERS & PLASTERERS	ELECTRICIANS	GLAZIERS	IRONWORKERS	LATHERS	OPERATING ENGINEERS	PAINTERS DECORATORS DRYWALL TAPS	PILEDRIVERS	PLUMBERS & PIPEFITTERS	ROOFERS	SHEET METAL
18-25	18-26	18-26 Vets 31	18-30	16-27	18-27 Vets 32	18-25 Vets 31	17-27 Vets 32	18-24 Vets 28	18-30 Vets 4 yrs	18 - 25 Military to 30 yrs
High School or GED	H.S. or GED	H. S. GED	H. S. GED	H. S. GED	H. S. GED	10th Grade	H. S. GED	H. S. or GED	enough to lrn. trade	High School or G. E. D.
None	U.S.	U. S.	U. S.	None	U. S.	U. S.	U. S.	U. S.	U. S.	U. S.
None	1yr.	1 yr.	1 yr.	None	1 yr.	1 yr.	None	1 yr.	None	1 yr.
None	State S-72 Bt.	State	JAC	None	State & JAC	State	State & JAC	State	None	Math Test
Anytime Yaarly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly	Anytime Yearly
W. 120 Mission FA60575	W. 48 Mission FA8876 S	W. 120 Mission FA77711	E. 123 Indiana FA82520	E. 414 Hoffman HU76863	E. 123 Indiana FA87358	W. 120 Mission FA77711	W. 120 Mission FA60880	W. 10 2nd Ave. MA45101	E. 1723 Rockwell HU32520	W. 120 Mission FA-7-2096
70% CF 35% Plastrs.	50%	55%	80%	45%	65%	50%	70%	50%	80%	50%
144 hrs when avlb.	165 hrs yr.yr.	144 hrs per yr.	144 hrs per yr.	144 hrs per yr.	144 hrs. per yr.	144 hrs. per yr.	144 hrs per yr.	Set by JAC	144 hrs per yr.	165 yrs. per year
NE Wa.	NE WA N. Ida	NE Wa. N. Ida.	NE Wa. N. Ida.	NE Wa.	E. Wa. N. Ida.	NE Wa. N. Ida.	E. Wa. N. Ida.	NE Wa. N. Ida.	NE. Wa. N. Ida.	NE Wa. - N. Ida
90 days	1000 hrs.	3 mos.	3 mos.	90 days	90 Days	90 days	60 days	6 mos.	3 mos.	6 mos.
3 yrs. CF 4 yrs. Plastrs	8000 hrs.	4 yrs.	3 yrs.	3 yrs.	3½ yrs.	3 yrs. 2 yrs.for Drywall	2 yrs. or 4000 hrs	5 yrs.	2 yrs.	4 yrs.

SUMMARY - apprenticeships

Over the past three weeks I have interviewed approximately fifteen people actively involved in the trade union apprenticeship programs. The direction toward which apprenticeship programs in the U. S. appears to be moving is indicated in the summary which follows:

During the last open hiring period in Spokane, ten carpenter apprenticeships were available, and only 49 people applied. Approximately the same number of positions were available with the Iron Worker and Operating Engineer programs, and each received 100 applicants.

There is a great need at the present time for more responsible people to fill apprenticeships, especially in the carpenter's trade, as half of the 800,000 journeymen carpenters now working in the United States are age 58 or over, and in four years will retire, leaving only 400,000 carpenters to handle the nations's work load.

Persons selected for apprenticeship programs age 22 years and upper to make the best, most responsible apprentices. If a man is a veteran, he can apply for an apprenticeship until the age of 32. Most older apprentices who have had previous experience in the trade tend to be the best people, as younger members have to be prodded into staying with a program, and minority group apprentices have difficulty in maintaining an interest in programs.

It should be realized that there is a difference between the tradesman and the craftsman. A true craftsman can handle all of the ins and outs of his trade, while a tradesman usually

specialties in certain aspects of a trade, and cannot complete a project by himself. At the present time, there is a great shortage of the craftsman. The above statistics therefore indicate the need today for highly trained and highly skilled personnel. The shortage felt in the Spokane area by the carpenter's trade, reflects the general condition of all trades throughout the United States.

Contributing to the problems of apprenticeship programs are such things as non-union shops. The majority of homes built in the United States today are built by non-union people, thereby limiting the experience available to the apprentice. Too many apprentices get their experience in large building construction, such as banks, grocery and department stores, etc. This partially explains the shortage of the craftsman.

One of the advantages of working in an apprenticeship program is the close supervision given to the young trainee. If the company to which he has been apprenticed misuses his talents, or does not give him the necessary opportunity to develope into a good journeyman, the union can transfer him to a more cooperative company. The committee can also work closely with the apprentice, giving him guidance and encouragement as needed, thereby knowing who should be dropped from the program and who should be advanced and worked with.

PRIVATE BUSINESS

ON-THE-JOB TRAINING

Nearly all business and industry in the Spokane area is forced at times to conduct on-the-job training of some form or other. In some cases it is because a certain process has variations that differ from what is common in another application. At times trained personnel are not available on the labor market, so industry is forced into a situation it does not really care about. Certain companies use the "promotion from within" plan, whereby practically no trained personnel are hired; and all the workers are trained on the job.

Because the variation of the on-the-job training in this area is so numerous no attempt will be made here to define this media.

HOSPITAL ON-THE-JOB TRAINING

Pre-professional (assistant) on-the-job training is available at various hospitals in the Spokane area. The program at the Deaconess Hospital follows:

1. Business and Administrative Offices:
   a. Secretary
   b. Receptionist
   c. File Clerk
   d. Insurance Clerk
   e. Cashier
   f. Admission Clerk
   g. PBX

2. Cardio-Respiratory Center
   a. Inhalation Therapy Aide
   b. E.C.G. Electro-cardiogram technician
   c. E.E.G. Electro-encephlogram technician

3. Dietary
   a. tray-line
   b. dishwasher
   c. aide
   d. cook's assistant

4. Housekeeping
   a. Ward Aide
   b. Maids
   c. Custodians

5. Laboratory
   a. Aides

6. Laundry Services Worker

7. Plant Services
   a. Grounds and Parking Attendant
   b. Painters
   c. Apprenticeship through Local Operators Unions-5yr.

8. Nursing Service
   a. Nursing Assistants - SCC-12 Week
   b. Orderlies
   c. Ward Clerks

9. Pharmacy Aide

10. Physical Therapy Aide

11. Storeroom
    a. Receiving and delivery
    b. Automatic Replenishment
    c. Central Supply Technician

12. X-ray
    a. Assistants

SIGNIFICANT IMPLICATIONS FOR THE FUTURE

CONCLUSION

It was felt that no serious thinker could discuss education without giving thought to implications of the future as never before has change taken place at such an unprecedented pace. Indeed, a growing body of reputable opinion states that "the present moment represents nothing less than the second great divide in human history, comparable in magnitude only with that first great break in historic continuity, the shift from barbarism to civilization."

We have previously shown the shift from the blue collar occupations to the so-called white-collar occupation -- in retail trade, administration, communications, research, education, and other service categories. This shift to the world's first service economy has left in its wake the tragic problems of every segment of our society. Since education has long been known as a major socializing force, the finger has been pointed, and probably justly so, directly at education. To avoid making the same mistake again educators must realize that the past no longer illuminates the future.

No serious futurist deals in "predictions" as no one even faintly familiar with the complexities of forecasting lays claim to absolute knowledge of tomorrow. However, the inability to speak with precision and certainty about the future is no excuse for silence. In dealing with the future, at least for the purposes at hand, it is more important to be imaginative and insightful than to be one hundred percent right. Theories do not have to be "right" to be useful. Even error has it uses. The maps of the world drawn by the medieval cartographers were hopelessly inaccurate and filled with factual error, yet the great explorers could never have discovered the New World without them. Nor

CONCLUSION - continued

could the better, more accurate maps of today been drawn until men, working with the limited evidence available to them, set down on paper their bold conceptions of worlds they had never seen.

Educators must adapt the bold ingenuity of the map makers. Where "hard data" are available, of course, they should use it. But where they are lacking, the responsible educator has both a right and an obligation to rely on other kinds of evidence, including impressionistic and the opinions of well-informed people.

With this thought in mind, we are closing our report by including a few excerpts in regard to education from well-informed futurists.

"Future Shock" by Alvin Toffler

Future Shock explodes countless cliches about tomorrow: The cliche that bureaucracy will imprison us in the nightmare of 1984; the cliche that standardization will rob us of choice and reduce us to robots; the cliche that man is infinitely adaptable; and the most dangerous cliche of all -- THAT TODAY'S EDUCATION PREPARES YOUNG PEOPLE FOR THE FUTURE.

As for curriculum, the Councils of the Future, instead of assuming that every subject taught today is taught for a reason, should begin from the reverse premise: Nothing should be included in a required curriculum unless it can be strongly justified in terms of the future. If this means scrapping a substantial part of the formal curriculum, so be it.

This is not intended as an "anti-cultural" statement or a plea for total destruction of the past. Nor does it suggest that we can ignore such basics as reading, writing and math. What it does mean is that tens of millions of children today are forced by law to spend precious hours of their lives grinding away at material whose future utility is highly questionable. Should they spend as much time as they do learning French, or Spanish or German? Are the hours spent on English maximally useful? Should all children be required to study algebra? Might they not benefit more from studying probability? Logic? Computer programming? Philosophy? Aesthetics? Mass Communications? The present curriculum is a mindless holdover from the past.

The present curriculum and its division into air-tight compartments is not based on any well thought out conception of contemporary human needs. Still less is it based on any grasp of the future, any understanding of what skills will be required to live in the hurricane's eye of change. It is based on inertia -- and a bloody clash of academic guilds, each bent on aggrandizing its budget, pay scales and status.

This obsolete curriculum, furthermore, imposes standardization on the elementary and secondary schools. Youngsters are given little choice in determining what they wish to learn. Variations from school to school are minimal. The curriculum is nailed into place by the rigid entrance requirements of the colleges, which, in turn, reflect the vocational and social requirements of a vanishing society.

Even now we should be training cadres of young people for life in submarine communities. Part of the next generation may well find itself living under the oceans. We should be doing this not merely with graduate students, but with children drawn from elementary schools, even the nurseries.

Simultaneously, other young people should be introduced to the wonders of outer space, living with or near the astronauts, learning about planetary environments, becoming as familiar with space technology as most teen-agers today are with that of the family car. Still others should be encouraged, not discouraged, from experimenting with communal and other family forms of the future. Such experimentation, under responsible supervision and constructively channeled, should be seen as part of an appropriate education, not as an interruption or negation of the learning process.

We can conclude that knowledge will grow increasingly perishable. Today's "fact" becomes tomorrow's "misinformation." This is no argument against learning facts or data -- far from it. But a society in which the individual constantly changes his job, his place of residence, his social ties and so forth, places an enormous premium on learning efficiency. Tomorrow's schools must therefore teach not merely data, but ways to manipulate it. Students must learn how to discard old ideas, how and when to replace them. They must, in short, learn how to learn.

In pre-industrial societies, where values are relatively stable, there is little question about the right of the older generation to impose its values on the young. Education concerns itself as much with the inculcation of moral values as with the transmission of skills. Even during early industrialism, Herbert Spencer maintained that "Education has for its object the formation of character," which, freely translated, means the seduction or terrorization of the young into the value systems of the old.

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Long before the year 2000, the entire antiquated structure of degrees, majors and credits will be a shambles .

Failure to diversify education within the system will simply lead to the growth of alternative educational opportunities outside the system.

A good deal of education will take place in the student's own room at home or in a dorm, at hours of his own choosing. With vast libraries of data available to him via computerized information retrieval systems, with his own tapes and video units, his own language laboratory and his own electronically equipped study carrel, he will be freed, for much of the time, of the restrictions and unpleasantness that dogged him in the lockstep classroom.

We may witness a limited dialectical swing back toward education in the home.

"Mobile education" that takes the student out of the classroom not merely to observe but to participate in significant community activity will take place.

Perhaps the reversal will take place and the community will come into the school.

Accountants, doctors, engineers, businessmen, carpenters, builders and planners might all become part of an "outside faculty" in another dialectical swing, this time toward a new kind of apprenticeship.

Experiential programming methods, drawn from recreation, entertainment and industry, developed by the psych-corps of tomorrow, will supplant the familiar, frequently brain-draining lecture.

Learning may be maximized through the use of controlled nutrition or drugs to raise IQ.

Schools of the future, if they wish to facilitate adaptation later in life, will have to experiment with far more varied arrangements. Classes with several teachers and a single student; classes with several teachers and a group of students; students organized into temporary task forces and project teams; students shifting from group work to individual or independent work and back -- all these and their permutations will need to be employed to give the student some advance taste of the experience he will face later on when he begins to move through the impermanent organizational geography of super-industrialism. (23)

FUTURE TRENDS

"There is a revolution coming. It will not be like revolutions of the past. It will originate with the individual and with culture, and it will change the political structure only as its final act. It will not require violence to succeed, and it cannot be successfully resisted by violence...it promises a higher reason, a more human community, and a new and liberated individual. Its ultimate creation will be a new and enduring wholeness and beauty--a renewed relationship of man to himself, to other men, to society, to nature, and to the land." (16:13-14)

Charles A. Reich in The Greening of America tells us that we are in the midst of a cultural revolution where people suffer from a lack of community and a loss-of-self. He points out the artificiality of work and culture and states, "One of the most striking things about America is its total failure to afford any means of recognition to work at any but the 'highest' level...To be a manual laborer, a technician, a secretary, means to live wholly without the recognition that the higher statuses deem so essential to the health of their egos. 'Lower' people simply do not exist, and their work does not exist....A new consciousness could seek to restore all people to a level of equality as human beings." (16:257-258)

"The revolution must be cultural. For culture controls the economic and political machine, not vice versa." The only plan that will succeed in healing America is "revolution by consciousness". (16:268) The young people propose that each individual must transform his own personal life NOW!

INDUSTRIAL ED 1988: THE FUTURE IN RETROSPECT

A BACKWARD-FORWARD LOOK AT THE INDUSTRIAL EDUCATION THAT WAS 17 YEARS HENCE

It seems safe to assume that more changes have taken place in the past 17 years than in the first 70 years of the 1900's. Most of the things that have happened are good, especially the changes in education.

It started in 1971 with federal commitment to full employment, compulsory vocational training for welfare recipients, and broad-scope federal assistance for vocational education. The compulsory vocational training for welfare families finally interrupted the second and third generation welfare family cycle and played a significant part in the vocational education explosion that followed. The force of this explosion eventually blew down traditional classroom walls and with them the artificial divisions between subject matter disciplines. The educational research and development movement gener ted from the increased federal funds, came up with some startling developments concerning the psychology of individual differences, cognitive learning patterns and solid research which made our system of grouping by chronological age as extinct as the Dodo.

During the reorganization of local school systems (in response to society's demands for vocational training for all, individualized instruction based on mental readiness, and the humanizing of teaching methods) the old pupil-teacher ratio went out with the concept that 30 students, all age 15, in one room with one teacher was an efficient way to teach. It was cheap but not effective.

DOUBLE WORK FORCE

The flood of trained and educated workmen, technicians and technical specialists threatened for awhile to create disaster in the labor market, which was automating people out of jobs; then the universities, corporations, unions and government simultaneously discovered the double work force concept.

The Double Work Force Act of 1975 set the standard work week at three 8-hour days and further provided that no one was to hold two jobs except for the operation of a personally owned small business. As a result of the federal statute, the big corporations and manufacturing plants went on a six-day production week and had separate production or office forces for Monday through Wednesday and Thursday through Saturday.

The shorter work week concept provided almost double the number of job openings and full employment for every person who was able to work including the physically handicapped.

Increased leisure time for all Americans created the world's biggest boom in travel, outdoor sports, spectator sports and adult education.

The modern housewife delights in the availability of custom furniture, quick appliance service, and a nearby autocopter service center which will pick-up and deliver. The new Lear Steam/Butane Autocopters are the only way to fly. "Yours for only 6,000 monetary credits."

Automation appeared to be a problem prior to 1975, but the Double Work Force and the consumer demand for leisure time goods and services seems to have solved the problem.

SCHOOLS IN GREEN BELTS

The modern schools of today do not resemble the schools of the 1960's in either physical plant or in curriculum. Today's schools are set in green belts or parks and are seen as clusters of small hexagons in groves of trees and shrubs. Each learning center consists of a large open center area with study carrels, group work sections, faculty offices and a number of IIT's (Instant Information Terminals).

Students have immediate access to the central curricular information portion of the school district cognitron. As you recall, the cognitron is a new generation of the electronic computer with the addition of the creative log c and cognitive units to enable the generation of creative output in some technical and social science areas. The production of designs for weapons, explosive compounds, drugs and some behavior modification techniques are blocked off from student access.

Vocational education became the central theme of education in 1980 and was required of all students. Each student prior to graduation must prepare both for a skilled job and to start in the curriculum for one of the professions.

Some of the newer offerings in vocational training below the master of technology level include laser forming technology, holography systems and holographic reproduction, re-entry systems technicians and the newly emergent antigravity engineering technology.

The vocational labs have changed a great deal with the advent of the replacement module system and the development of the multi-purpose manufacturing machines. For instance, if a student needed to repair a machine part or create some object he could analyze his data, using the cognitron in connection with a three-dimensional plotter to determine the overall matrix of the object. Once the aprameters have been determined the cognitron is instructed to program the proper multi-purpose machine to fabricate the desired object. The student must check his data with the educational technologist prior to sequencing to eliminate obvious errors and control cost of production.

Our society has never been stronger, more democratic, more affluent or more creative. The typical student develops into a productive, independent, rational person who is productively employed, and uses his leisure time not only for fun, but for public works and self-actualization. (11:14 & 15)

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INTERVIEWS

1. Anderson, Donald. Business Agent, Carpenter's Union.
2. Coombs, James M. Treasurer, Washington Water Power Company.
3. Mattson, Homer A. Supervisor Vocational Education, Spokane Public Schools.
4. Miller, Mark, Dr. Industrial Arts Consultant.
5. Morse, David. Business Agent, Ironworkers Union.
6. Smith, Tony. Personnel Director, American Sign and Indicator, Inc.
7. Spokane Chamber of Commerce.
8. Washington State Employment Security.
9. Webster, Kenneth. Executive Secretary of Building Trades Union.