The focus of prekindergarten-grade 12 education has changed from maintaining a democracy to producing people who will enter college to become the scientists and engineers required to maintain the U.S. economy. Students who do not "fit" that curriculum are to be ignored. Despite the widening gap between the numbers of individuals preparing for professional jobs and job demand, many parents still have unrealistic expectations regarding the return on investment in a college education, and huge numbers of students still attend college with no career goal in mind. Like many other educational initiatives before it, school-to-work has been designed for the best students preparing for the best jobs and it does not consider labor market realities adequately. The following factors have made it difficult for students to formulate realistic career goals: lack of career guidance, up-to-date information on careers/jobs, and information about themselves; rapid changes in job demand; emphasis on more education for entering the next level of education; and unrealistic expectations. The situation is not hopeless, however. New technology and information sources, such as the Internet, contain information that educators can use to provide a curriculum that is more relevant to real-life expectations. (Contains 57 references including articles, books, curriculum sources, evaluation systems, ERIC sources, internet sources, newspapers, and school-to-work-sources.) (MN)
Good evening! Thank you for supporting Phi Delta Kappa. Also thank you for allowing me to share some of my thoughts about children and adults we must educate. My remarks are designed to initiate discussion and learning which is why we are participating in this honor society.

I had great difficulty in preparing this presentation because of the issue of general education and the constant controversy of what, if anything, should exist in school curriculum concerning work readiness. The United States Federal legislation acts have been used for the last 25 years to initiate general education revision, which has resulted in the chaotic restructuring or eliminating of secondary vocational education and incomplete restructuring of general education curriculum. In addition to this there is almost complete ignorance of the purpose of vocational education, which is a part of general education, and the many definitions of educational initiatives such as career education and school to work. Added to this chaos is that in education there is no ultimate victory, there is only one battle after another. The U. S. Congress is constantly waging war on educators, in which Congress launches one battle after another on the education system to structure curriculum on a realistic basis. School-to-Work is one more battle in which Congress is trying to change the education system in order to solve or prevent some social or economic ill. This war has continued in the United States for a long time.

In what I will present I want you to know that I advocate a balanced curriculum. I am not a fanatic for applied curricula. I want children to have time to be children and not to be viewed as economic inputs for business and industry. I am in agreement with the statement in the October 1996 article in Phi Delta Kappan by Gerald W. Bracy:
The government sometimes appears to have forgotten that education should accomplish something other than the agenda of the National Alliance for Business, the Business Roundtable, etc. To borrow the words of a now-infamous report, "If an unfriendly foreign power had attempted to impose" such a narrow agenda on our schools, "we might well have viewed it as an act of war." (p. 138)

Public School Goals and National Survival

This summer I was discussing education with several persons who have created huge industries, yet had personal low economic backgrounds such as a man whose father died when he was 6 weeks old, who began working in a drug store when he was 7 years old to help his family survive. You might recognize one of these industries, Clearasil or Grecian Formula 44 for Men and Women. One of the statements in that discussion was, "The curriculum in this country is based upon the assumption that everyone is going to be rich. Everyone is not going to be rich! Schools should be teaching people life skills and how to work for a living!"

Concerning making a living, I, as well as some of you, have lived through Congress providing seed money to initiate or change programs in: guidance (around 1950), life adjustment education, math, science, early childhood education, vocational guidance, vocational education, career education, jobs creation (i.e., schools should create jobs, a crazy idea in my opinion), math education again, science education again, vocational education again, guidance again via the National Occupational Information Coordinating Committee National Standards for Guidance, Tech-Prep, now School to Work.

If we had lived longer we could have observed the change process going back to 1914. For those who wish to read every issue of today discussed more intellectually than is being done today you may want to read the essay on education in the 1914 Lectures on the Harvard Classics by H. W. Holmes. In this essay Professor Holmes is very relevant for today. For example, "Education has thus to struggle,..., beneath the burdens imposed by the injustice of our economic order" (p. 297). Also, "It is the persistent need for general education that complicates the issue. Economic demand may justify child labor, but educational theory does not. A theory of education which finds no place for vocational education [and vocational guidance] is antiquated and meager; but a theory which considers only the requirements of work is meager and inhuman" (p. 296). I pose this question, is the present curriculum in public schools grades prekindergarten through the 12th really designed for just one purpose, i.e., work, but work in the sense of exclusively producing scientists and engineers who may, in theory, ensure the economic survival of this Nation?
Holmes also wrote, "Educators can only emphasize the value of liberal studies and strive to include in every curriculum as many as possible, .... They [educators] can also resist the tendency to [have students] specialize too soon" (p. 297). I have, incidentally, had some of my peers argue seriously that a person should only be serious about a career when reaching the doctoral or post doctorate levels of education. (I have been told that some persons want children in New Jersey to make their career decisions by the 10th grade. This in my opinion is insanity. These people have forgotten what a child is.)

I might add, my observation, is that the focus of education prekindergarten-12th grades has been changed from maintaining a democracy to maintaining an economy. The purpose for prekindergarten-12th grades now is to produce people who will enter college to become scientists and engineers to maintain the American economy. Students who do not "fit" this curriculum are to be ignored. Those who have read General Education in a Free Society, the report of the Harvard Committee in 1962, may recall the discussion of democracy and economy, in which the authors state:

we have in mind the powerful, widespread, and very unhappy distinction between academic and vocational courses. The latter tend to be simply the dumping ground for those who do not succeed in the former. ...for the same reason [parental desire for their children's success] the academic courses tends to be crowded with students who do not belong in it, and hence is often diluted. ...it is a strange state of affairs in an industrial democracy that those very subjects [dumped in general education and vocational education courses] by implication are held in disrepute which are at the heart of the national economy and those students by implication condemned who will become its operators. (p. 27)

The authors also wrote, "Virtually as high an intelligence is demanded for success in a good technical high school as in a good college preparatory course" (p. 28), and "About 10 percent of the jobs in the United States are professional or managerial,... another 25 or 30 percent demand some technical training..., but that for the great remaining mass of more than half of the jobs no previous training is necessary" (p. 28).

In 1990 I had asked several questions concerning national survival:

Can an economy be self-sustaining based on a labor force having little or no early education in the psychomotor domain?

Can an economy be self-sustaining based on a labor force that provides basic services, that only has
persons who are educationally, economically, and/or mentally and physically handicapped?

Can a nation survive that makes using one’s hands socially unacceptable? (Doty, 1993, p. 85)

Norman Harris and John Grede in Career Education in Colleges (1977), and I might add hated by liberal arts faculty in colleges and universities, explained the situation of college going trends with job demand in professional occupations. Harris and Grede explained that by 1990 professional jobs might expand to 24%, yet 90% of college graduates would aspire to these jobs. In effect, 66% of college graduates aspiring to these jobs would not be able to obtain these professional level jobs. This fact was very astutely stated by one of my former neighbors who made over $150,000 per year as a computer programmer. I quote, "There will be tremendous competition for the 15% high paying, technical jobs and a lot of college graduates who will be very unhappy for the rest of their lives." I used the past tense "made" because this person mentally cracked under the strain of competition and has now deserted his family and is unemployed.

Harris and Grede were very correct in their projections. There is a widening gap in reality between those preparing for professional jobs and job demand. In the last 3 years I have had at least 50 college students say, "I know there are no jobs in this area but something [wonderful] will happen." That is, I will find a job when no one else will. Perhaps this thinking occurs due to student background. Most college students are still first in the family to attend college. The parents are assuming that if their children earn any type of college degree they will not have to work as hard as they are. This is a common myth among in families without members who have completed college.

Colleges and universities still have huge numbers of students who have no career goal in mind. Perhaps this lack of goal is the reason for huge dropouts from college. Incidentally there is little accurate data on the number of high school graduates who actually go to college. What data exists is based on juniors or seniors completing a form in which they indicate whether they are going or are not going to college. There is usually no follow up to determine whether they do go to college. Yet in every report to the public by secondary officials, even community college presidents, the first sentence is a statement on how many have gone to college or transferred to a four year college/university. The success of schools is measured not in terms of students’ success in life and work but in how many go to college or transfer to 4 year colleges and universities.

Harris and Grede also explained the diminishing rate of return on investment in a college degree. How many of you remember the New Jersey program to extend loans to outstanding students to go into teaching with the provision that they each 3 years for the loan to be paid. Not many of these persons found
jobs in the professional level, a great embarrassment for the sponsoring political party and a disaster for the students. This is a perfect example of the Harris and Grede prediction. Harris and Grede summarized by saying that because of the decreasing lack of return on college investment, millions of students may be more careful in career and education choices and educators may rethink goals and purposes of higher education. Their summary is more like hopeful dreaming because this decision making does not seem to be happening. There is more and more pressure and propaganda to have everyone go to college. I personally know of cases in which young adults who probably could not score 80 on an I.Q. test are in college and have received college degrees. As someone stated years ago, "If you have money you can get a college degree somewhere." Colleges and universities, of course, are encouraging everyone to go to college for selfish reasons, i.e., survival.

Those of you who have read the latest publicity reports on college graduates making so much more money than non college graduates should recall their research courses in which the comparison of apples and oranges is made. That is, the research is skewed because you cannot ethically compare different populations and ignore such factors as the amount of money paid for an education as well, years spent, etc. The General Accounting Office report (1990), concerning drop out rates for college students is completely ignored, i.e., only 15% of all those entering college achieve a baccalaureate 6 years after beginning college, an 85% drop out rate.

In an attempt to read something noncontroversial about education I began reading the October 16, 1996 issue of Education Week. The first 2 articles I found were Project Seeks to Link Academics and the Real World by Jeff Archer and Applied Academics: Myths and Realities by Susan Forman and Lynn Steen. In the first article there was a description of a $2 million project to show schools how to link academic studies to real world experience by a non profit organization. I am always suspicious of non profit organizations where, most times, inexperienced people are telling someone else what to do. The second article contained a description of a high school student's meaningful experience in an apprenticeship program. The authors stated, "Many of these programs [Tech-Prep and apprenticeship] also meet challenging academic standards, thus preparing students both for higher education and for technologically intensive work. But most remain deeply entrenched in the old form of vocational education-training for specific jobs-that leaves student ill-prepared for postsecondary education" (p. 33). I doubt if either of the authors was doing more than parroting the same old theme that education is failing children and vocational education in particular. Actually the majority of students enrolled in vocational education in secondary schools in the past were college prep students (Wirt, Muraskin, Goodwin, & Meyer, 1989, p. 47-48), a fact that most educators seem to have ignored.
I also ask, who cares if the students are prepared for postsecondary education. Over 50% of all jobs do not require more than a secondary school education. Do we really want to overeducate the population? What about some discussion on this point?

Forman and Steen did have information that was supportive of the U. S. General Accounting Office in one section:

Myth: A bachelor’s degree is the best route to a good job. For a few—primarily the 15 percent who go on to earn graduate or professional degrees—a B.A. does provide access to the upper tier of American Society. But the majority of good middle class jobs with career-growth potential require only a year or two of postsecondary education. In fact, only one in four workers holds a bachelor’s degree. (1996, p. 33)

Unfortunately, in further reading, I only found more authors attacking vocational education and other applied arts curricula. I wonder if these authors have ever been in vocational classes and talked to the students and instructors to experience the enthusiasm and pride expressed respectively. I kept thinking of the idea that if you keep telling a lie long enough the lie becomes the truth. Certainly vocational educators may have failed in some cases but no more than other educators. Have you ever asked yourself why don’t more people vote? Not many people vote therefore social studies and American Government studies should be eliminated. I am sure that point makes some educators uncomfortable.

Now what about the latest Congressional initiative?

School to Work

In 1994 Congress passed the School-to-Work Opportunities Act that has the purpose to:

Provide states and local communities with seed money to build school-to-work systems that prepare young people for high-skill, high-wage jobs or further education. (Ryan & Imel, 1996, p. 3)

Feightner (1989, p. ix) wrote that the purpose of school-to-work/life transition programs is to provide persons with experiences that will help them develop skills and attitudes needed to secure and keep employment to secure and maintain a meaningful adult life style, and to develop positive social interactions. Transition is an ongoing process that focuses on personal characteristics, training needs, and options of an individual that result in the development of realistic long-range goals and in the selection of appropriate programs and services to achieve those goals.
In these 2 statements of purpose, for school-to-work programs, is the crucial point of difference. The Congressional legislation is designed for the best students for the best jobs and Feightner's purpose is for education for all students for all types of jobs and life style. I should point out that Federal legislation for vocational education as well as the recent acts for Tech-Prep and School-to-Work were all focused upon the need to educate the more intelligent students to produce citizens capable of maintaining the economy. The problem is that educators kept sending the less able into the programs, such as vocational education. Of course vocational education failed. Just as in sports you cannot have a winning team without the best players.

Again unfortunately, after examining statistics, the "forgotten half" are still forgotten by Congress. When reviewing National Center for Education Statistics (1996, September) the problem of unprepared students becomes one of dire consequence. Some highlights of that report are:

Five percent of students enrolled in grades 10 to 12 in October 1993 left school before October 1994 without completing a high school program. This amounts to nearly one-half million students.

Overall, in October 1994, there were 3.7 million (11.5 percent) young adults ages 16 through 24 without a high school credential and not enrolled in school.

Analysis of the outcomes experienced by students who dropped out of the 1988 8th-grade cohort, shows that students who drop out are more likely than their peers to be unemployed or out of the labor force. And those dropouts who did work had lower incomes than their peers with high school credentials. (Announcement)

So Congress seeing such statistics continues to fund programs such as School-to-Work. And schools and non profit organizations accept the money and spend lavishly to implement such innovations. I was particularly unimpressed in New Jersey's 1996 conference on School-to-Work in which Miss America gave a talk. I wonder how much that cost. And of the many speakers who had no experience as teachers or in business and industry. I should report the latest appropriations now total $200 million for seed money for this program (Lewis, 1996, November, p. 4). [The enrollment in vocational education from 1982 to 1992 decreased from 26.9% to 11.7% of secondary students though Congress increased funding for vocational education by $51.8 million (Lewis, 1996, November, p. 4).]

In 1994 I had thoroughly examined the many initiatives for transition of students into life and work and produced a chapter titled Improving Transition Experiences. In that chapter I wrote:
The possibility of fully integrating quality school-to-work transition programs and services into the nation’s public schools is very poor, in my opinion. To my knowledge, college and university teacher/administrator/educator faculty have the preparation of students for the world of work as the last thought on their minds, if they think of it at all. Faculty discussions concentrate on theory, philosophy, state certification requirements, administrative details and preparation of students to fulfill education requirements for graduation or further education. In 25 [now 27] years as a university faculty member, I have never observed discussion of the preparation of youth for work at a school of education faculty meeting. Perhaps a reason for this lack of concern is that most faculty have never had a full-time job [profit-loss] outside education, and many have never taught or administered in the schools for which they are preparing teachers and administrators, who will be educating the youth of the nation. Another reason may be that the single criterion of success of schools is the number of high school graduates going to college. Consider the Doty and Hirsch study (1991) in which no data on non-college bound youth was available from 12 "comprehensive" high schools in one of the richest schools districts in the nation. As long as those teaching and administering the schools of this nation (who have little or no experience in business and industry) control the curriculum, school-to-work programs and services will only exist when the U. S. Congress funds such programs. With federal level funding removed, the curriculum returns to academic business as usual. ...Therefore, the author recommends that all future teachers, guidance counselors, administrators, and college/university educators have at least three years full time work experience outside any educational institution before being allowed to enter public education. (p. 221)

Gary Walker (cited by Lewis, 1996, October, p. 5) in an assessment of School-to-Work concluded that as flawed as it is, this program gives teenagers what they need most, connections to adults.

The Students

To answer, partially, why students don’t know what they want to do. There are at least 6 reasons:

1. Career guidance does not seem to exist. What does exist is college guidance. In the Doty and Hirsch (1990) study, high school graduates and parents reported that as soon as the students reported they
were not going to college the guidance counselors had no interest in them.

2. There is a lack of up to date information on careers and jobs. [Perhaps the internet will be used to solve this problem.]

3. There are sometimes rapid changes in job demand, e.g. a few years back there was a demand for mining engineers, yet 4 years later when several thousand persons graduated from college there were no jobs because the oil market was reopened after international agreements. In fact job demand seems to change every 4 to 5 years as information is obtained by students they prepare for these jobs in large numbers. Another example is teachers of special needs students. Five years ago there was a great need for such teachers, now there are too many such teachers.

4. Lack of information on themselves. There are few established programs for testing interest, ability and aptitude; giving this information to students for their use in decision making. Most testing programs are composed of those tests required for college entrance.

5. An emphasis on more education for entering the next level of education, than education being based upon what is needed for life and work.

6. There are still too many parents, and students, with unrealistic expectations.

But there is hope--because there is new technology and information:

I have found on the internet many sources that may be used by teachers and students on job demand, job descriptions, state and national job listings. In fact, the internet may at present be used for significant instruction in career education using such sources as America's Job Bank at http://www.ajb.dni.us. Projects such as the Alfred P. Sloan $5 million effort to fill the void on science and engineering will soon be available. Data from the National Occupational Information Coordinating Committee is on the internet along with the Dictionary of Occupational Titles which can be updated monthly rather than being published after years of delay. Educational Testing Service, Princeton, N. J., Net's Careers and Jobs, http://www.ets.org in which among other information is the "Occupation in the Spotlight."

There are publications such as the Brown, McDaniel, and Couch (1994) Vocational Evaluation Systems and Software: A

There are sources where you can obtain functional job analyses of up to 200 jobs, i.e., a detailed description of job descriptions, with duties, tasks, and elements given for each job as well as analyses of those duties which are common to occupational clusters. Good sources are Vocational-Technical Education Consortium of States, Oklahoma State University Curriculum Center, Michigan State University Curriculum Center, Missouri State University, University of Wisconsin-Stout Rehabilitation Resource, Center on Education and Training for Employment in Ohio, and the American Association for Vocational Instructional Materials.

There is hope though only if the educators controlling the public schools of this nation commit themselves to providing a curriculum that is more related to real life expectations.

Thank you for listening and please take the listing of references and resources as well as the catalogs and information provided on the table in the room!

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SCHOOL TO WORK
REFERENCES AND RESOURCES

Charles R. Doty, Ph. D.
Graduate School of Education
Rutgers, State University of New Jersey

Articles:


Books:


Chapters:


Cooperative Education:

Individualized cooperative education: Year 1 and Individualized cooperative education: Year 2. (Available from the Oklahoma Department of Vocational and Technical Education, 1500 West Seventh Avenue, Stillwater, OK 74074-4364, Telephone 1-800-654-4502 Claire Zevnic-Hart ext. 513.) [Modules on reading, writing, math, science, oral communications, interpersonal, creative
thinking, problem solving, employability and social study skills. All of these have been teacher tested over a 10 year period.)

Curriculum Sources:

American Association for Vocational Instructional Materials, 220 Smithonia Road, Winterville, GA 30683, 706-742-5355 or URL: http://soltice.crest.org/social/eerg/avim.html

Center on Education and Training for Employment, CETE Publications Office, 1900 Kenny Road, Columbus, Ohio 43210-1090, telephone 1-800-848-4815 or 614-292-4353. (A wealth of material for School to Work including a 1500 page guide for career exploration.)

CORD Communications, 324 Kelly Drive, PO Box 21206, Waco, TX 76702-1206, telephone 1-800231-3015. For the CORD applied academics curricula contact International Thomson Publishing, Customer Support (Product information and sample requests), telephone 1-800-824-5179, FAX 1-800-453-7882, Internet- http://www.cord.org) (Excellent results from use of modules.)

Instructional Materials Laboratory, University of Missouri-Columbia, 2316 Industrial Drive, Columbia, Missouri 65202, telephone 1-800-669-2465, Internet: iml.coe.missouri.edu (Many teacher tested materials for school to work, guidance, etc.)

Michigan Center for Career and Technical Education, 230 Erickson, Michigan State University, East Lansing, MI 48824-1034, 1-800-292-1606, web site: http://mccte.educ.msu.edu

Multistate Academic and Vocational Curriculum Consortium, 1500 West Seventh Avenue, Stillwater, OK 74074-4364, 1-800-654-3988.


V-TECS. 75 occupational areas (competency based) currently available on disks. Over 200 available in print. Vocational-Technical Education Consortium of States, 1866 Southern Lane, Decatur, GA 30033, telephone 1-800-248-7701 ext. 543, E-mail: vtecs@mindspring.com
Drop Out Data:


Education:


Evaluation Systems:


ERIC Sources:


Internet Sources:

(see ACCESS ERIC publication under School to Work)

A data base of approximately 100,000 job listings.

Center on Education and Work, http://www.cef.wisc.edu/ or telephone 1-800-446-0399


Michigan Center for Career and Technical Education--http://mccte.edu.msu.edu/

New Jersey Employment Opportunities (NJ Jobs)--http://www.njjobs.com/

Workforce New Jersey Public Information Network--http://www.wnjpin.state.nj.us
New Jersey:


Newspaper:


Phi Delta Kappan:


School-to-Work:

ACCESS ERIC. (1996, Spring). *The ERIC Review: School to Work Transition, 4*(2). (Available from ACCESS ERIC, 1600 Research Boulevard, Rockville, MD 20850; telephone 1-800-LET-ERIC, or E-mail: acceric@inet.ed.gov, or web site: (http://www.aspensys.com/eric). [Do not use the parentheses.]

Michigan School-to-Work Initiative. For information contact: Michigan School-to-Work Office at 517-373-6432 and Michigan School-to-Work Clearinghouse at 1-800-292-1606.

National School-to-Work Learning & Information Center--http://www.stw.ed.gov/


SWITP (California's School to Work Interagency Transition Partnership Home Page--http://www.sna.com/switp/

Transition Research Institute at Illinois, Headquarters of the National Transition Alliance for Youth with Disabilities Consortium, web site: http://www.ed.uiuc.edu/coe/sped/tri/institute.html
Technology:
Partnerships-Education Reform. (1996, October). T.H.E Journal, 24(3). (Free subscriptions to educators: T.H.E. Journal, PO Box 5524, Pittsfield, MA 01203-9260) [This is an excellent resource for all fields of education to learn the latest technological developments, both hardware and software.]

International Technology Educational Association. (1996). Technology for all Americans: A rationale and structure for the study of technology. Reston, VA: ITEA. (Copies available from ITEA, 1914 Association Drive, Reston, VA 20191, telephone 703-860-2100 or E-mail itea@tmn.com)

Tech Prep:
Doty, C. R. (1985). Vertical articulation of occupational education from secondary schools to community colleges. Journal of Studies in Technical Careers, 7(2), 98-112. (Tech-Prep is not new. In this article over 200 references are given on articulating between different levels of education.)

Grubb, W. N., Badway, N., Bell, D., & Kraskouskas, E. (1996). Community college innovations in workforce preparation: Curriculum integration and Tech-Prep. Columbus, Ohio: National Council for Occupational Education. (NCOE, 1161 Francisco Road, Columbus, Ohio 43220-2654, listserv--ncoe@listserv.umd.edu)

Vocational Education:

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