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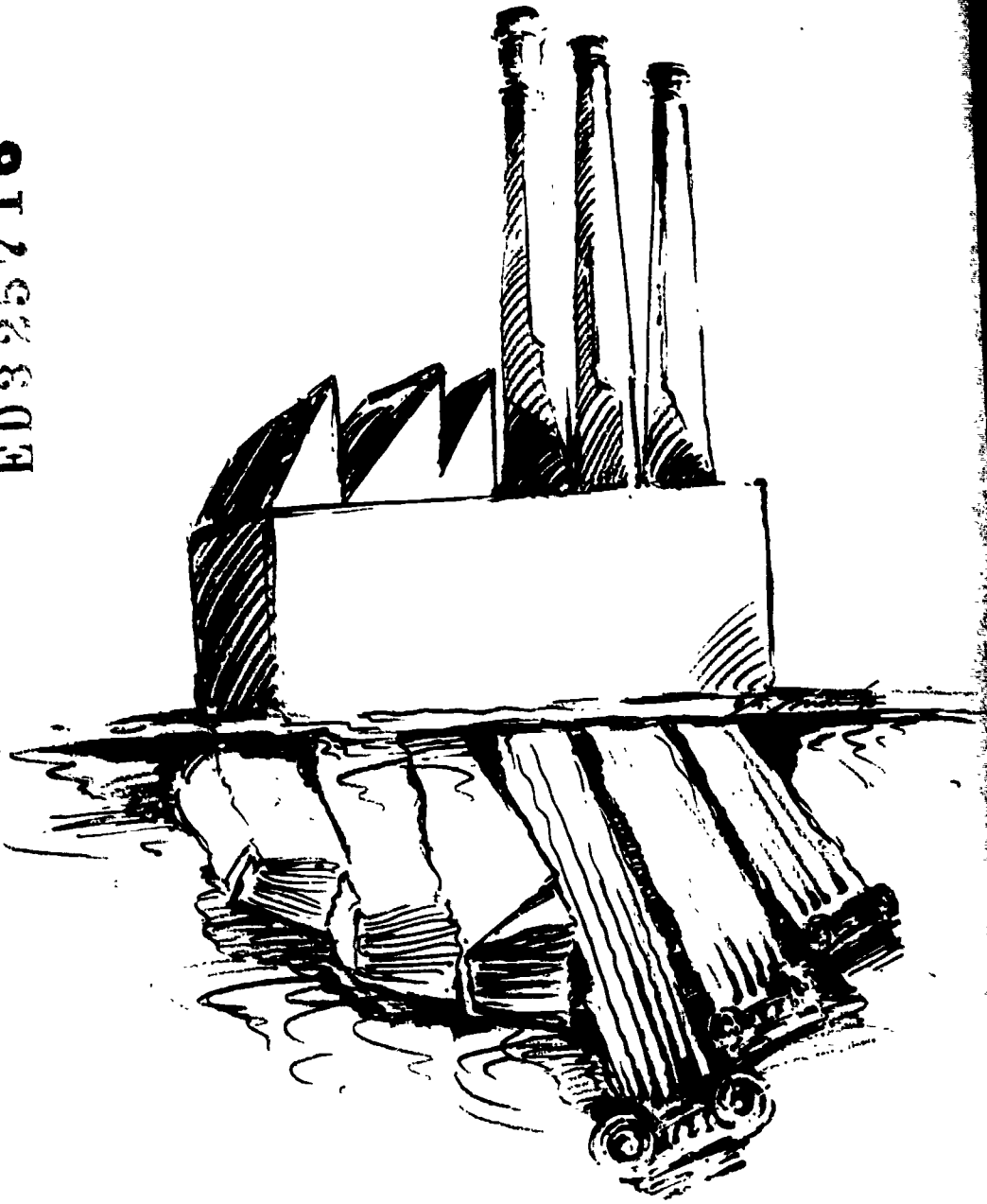
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ABSTRACT

This report discusses the problem of inadequate assistance for work-bound youth. The employment outlook for the typical work-bound high school graduate is gloomy due to a shrinking labor force and poorly prepared workers. Employer complaints of poorly trained youth, weaknesses of secondary vocational education programs, the increasing need for improved continuing education, and concerns of legislators are addressed. Suggesting that the solution must be multifaceted, the report considers an approach that includes developing and making available appropriate tools to determine abilities of the U.S. work force, updating curriculum and methods in the public education system to develop these skills, integrating student part-time work into the student's studies, and providing programs and support services that train for the work force or smooth the transition into a career-track job. The report concludes that new ways of looking at the old problems should be created and that increased funding as well as a more positive attitude concerning the career goals of work-bound students are needed. Four vignettes describe the Job Training Partnership Act, Worklink, Jobs for America's Graduates, and Educational Testing Service research on workplace literacy training. Eleven references are listed. (YLB)

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## **Beyond High School: The Transition to Work**



The American dream has changed during the country's two-hundred-year history. Immigrants are no longer told that the streets are paved with gold, or that wealth and happiness are guaranteed merely by passing the Statue of Liberty or flying into California.

But one aspect of the dream has remained strong — the dream of a better life for one's children, with upward mobility based on education, culmination of which is college.

That American dream is reflected in legislation mandating school attendance, which was specifically designed to discourage parents from sending their children to work and "to protect youth from the abuses of the workplace," says former Secretary of Labor Willard Wirtz in his book, *The Boundless Resource*.

Many parents, Wirtz writes, "who had worked hard from an early age to attain a measure of success and security saw education as a more fruitful and pleasant path for their children to the same goals."

The concentration on college has many ramifications. It has meant, for example, a perceived higher status for students who choose precollege programs in high school. It also has led to creation of a wealth of support mechanisms to aid those students with their passage into college.

As a result, a higher percentage of students in the United States enters college than in other countries, and college is perceived as an option for almost all students.

In most respects, this concentration on the ideal of a college education for all has been a positive force in the nation's success.

In recent decades, however, as American demographics and industry have been rapidly changing, it is increasingly clear that the concentration on a college degree has also created barriers in the path of those who choose to enter the workforce after high school, despite the fact that about half of America's young people end their academic careers with a high school degree or less.

"We seem to fear that any special help we might give them may be perceived as tracking them away from college or as limiting their futures in a society that excels in offering a pluralistic system of postsecondary education," writes Paul Barton, director of the Policy Information Center at Educational Testing Service. In a report titled *From School to Work*, published last spring, Barton warns, "This legitimate concern for keeping options open, however, must not result in paralysis."

Because the needs of non-college-bound students are ignored, the group is called "the forgotten half" by the William T. Grant Foundation Commission on Work, Family and Citizenship. In a 1988 report, titled *The Forgotten Half*, the foundation defines the group as those 16-24-year-olds "who are unlikely to attend college and so will miss out on the special privileges our society accords to the college-educated."

The report states that many educators are "ambivalent about the need to prepare better-educated future workers, especially when local businesses demand that students be trained for specific, low-level jobs."

Statistics on funding reveal the extent to which the nation neglects students who enter the workforce immediately after high school.

"Even by the most liberal calculations, the combined state-local and federal education and training investment on behalf of civilian post-high school-age, non-college youth does not reach \$7 billion annually. . . . This is approximately one-seventh of society's combined investments for college-bound youth," states the Grant report.

An increase in programs and funding for work-bound youth is one of the central recommendations of a report published in June 1990 by the Commission on the Skills of the American Workforce, which was formed through the National Center on Education and the Economy of Rochester, N.Y.

The commission, comprised of politicians, academic officials, and corporate executives, proposed establishing "youth centers" to assist high school dropouts or those having difficulty meeting basic skills standards. Based on current dropout rates, the funding for that program would be about \$8 billion annually.

A number of innovative programs have been established in the past several years by the federal government and by private agencies to assist work-bound youths with literacy or job-search skills. However, since there is no organized system in either the schools or in the workforce to inform students about the programs that exist, many never receive the help they need.



"More and more of the non-college-bound now fall between the cracks when they are in school, drop out, or graduate inadequately prepared for the requirements of the society and the workplace," said the Grant Commission.

Although the American Workforce Commission prepared its report two years after the Grant Commission report, it found that the outlook for work-bound youth had not improved — the needs of work-bound youth are still neglected, and they become caught in dead-end, low-paying jobs. "The ranks of the working poor are swelling," the report said.

### **F**acing the Consequences

These problems are made even more urgent, according to *The Forgotten Half*, by "the demographic facts of life . . . the decline in the size of the 16-24-year age group from nearly 23 percent of the nation's population (civilian and

non-institutional) in 1978 to a projected 15-16 percent in 1995, and the steady growth of an educationally at-risk, substantially minority youth population during that same period."

Opportunities for workers with only a high school education or less, the report states, "are far more constrained than were those of their peers of 15 years ago."

In fact, the typical work-bound high school graduate can find entry-level employment only in service-oriented jobs, offering poverty-level wages, the report says. This marks a dramatic change from the time when the country's manufacturing industries offered satisfying careers and high wages for workers without college degrees

Unemployment for young workers has been extraordinarily high in the last decade. In 1986, the report points out, the unemployment rate for non-college workers was 6.8 percent for Whites, 11 percent for Hispanics, and 20.3 percent for

Blacks. The unemployment rate was even higher for teenage workers — 15.8 percent in August 1988 for all teenagers and 32.4 percent for Black teens.

Even when they can find employment, these young workers are at a disadvantage, and their chances of finding “a job with a future” are shrinking. Often, a part-time job can hold a hidden trap for young workers, creating false expectations, according to Stephen F. Hamilton, associate professor of human development and family studies at Cornell University, in an article in the June 6, 1990, issue of *Education Week*.

While students can often find part-time jobs with what may be enticing entry-level salaries, if they do not have the advantage of guidance provided by the school or the workplace, these jobs may trap them into thinking that entry-level skills are all it takes to survive in the workforce and may encourage them to drop out of school.

“But strong evidence suggests that American young people who do not enroll in college do not choose careers . . . ; they find jobs,” Hamilton says. The problem with such jobs is that they offer little chance for advancement or increasing salary.

The salaries of young workers have suffered a steep decline during the past decade. For men aged 20-24, real mean earnings in 1986 were \$9,027, or one-quarter less than the \$12,166 in 1986 dollars that the same age group earned 13 years earlier.

“The median income of households headed by persons under age 25 declined 26.3 percent between 1973 and 1986 (in 1986 constant dollars) from \$20,229 to \$14,900. If we recall that the drop in personal income during the Great Depression from 1929 to 1933 was 27 percent, we can better grasp the extent of the ‘New Depression’ being experienced by America’s young families today,” states the Grant report.

The combination of a shrinking labor force and poorly prepared workers has dangerous consequences, since chronic unemployment has, as its concomitant, social ills such as crime and drug abuse.

The Vera Institute of Justice in New York, quoted in the Grant report, emphasizes that “the best

deterrent to crime, especially for 18-24-year-olds, is legitimate employment.”

### **Business Feels the Effects**

In addition to creating social problems, the mix of a shrinking labor force and unprepared workers has provoked an outcry from the business community.

During the last 20 years, “productivity has slowed to a crawl,” according to the American Workforce Commission. U.S. businesses now spend \$30 billion a year to train workers, but two-thirds is spent on training higher level management or higher ranking employees.

Business leaders have one central complaint — they say that young workers are too often unprepared to perform even the most basic jobs, lacking both elementary academic skills and a sense of the behaviors and attitudes needed in the workplace.

This lack of preparation, business representatives say, makes workers just out of high school a poor hiring investment. Instead, many large businesses prefer to avoid hiring these workers until they gain a few years of age and experience.

In a recent poll by *Fortune* magazine, 400 chief executive officers of major firms were asked to rate American public education. Of those responding, 77 percent rated it fair or poor — the worst two ratings on a five-point scale.

An untrained and unprepared workforce is an unacceptable waste of human potential for the country as it faces the 21st century, the experts point out.

“At a time when the demographics of our nation’s work force are changing — our declining birth rate is expected to lead to a serious shortage of qualified workers by the year 2000 — it is vital that all of our potential workers have the tools they need to find jobs,” said John Ashcroft, governor of Missouri, in a 1987 report of the National Governor’s Association.

The jobs available in the next century, however, will be significantly different from the jobs that were open even at the close of this century, notes Lewis J. Perelman in his report, *The Learning Enterprise: Adult Learning, Human Capital, and Economic Development*, written in 1984 for the Council of State Planning Agencies.

"As the baby-boom generation ages and the numbers of young people entering the work force decline, there may even be a numerical surplus of several million jobs in the next few years. But many of the available jobs will be unattainable for the adults who lack the right skills and knowledge," he writes.

The Committee for Economic Development, a private, research and education organization, agrees with this assessment in its discussion of the problem in a report titled *Investing in our Children: Business and the Public Schools*, published in 1985.

"Employers in both large and small businesses decry the lack of preparation for work among the nation's high school graduates," the report states. "Too many students lack reading, writing, and mathematical skills, positive attitudes toward work, and appropriate behavior on the job. Nor have they learned how to learn, how to solve problems, make decisions, or set priorities. Many high school gradu-

ates are virtually unemployable, even at today's minimum wage."

### Vocational Education

Vocational education programs, which provide probably the best-known work-oriented training available in public high schools, have "some serious weaknesses," according to a March 1990 report of the Progressive Policy Institute. The report criticizes the programs for their lack of academic content, as well as for not preparing the students with marketable skills.

These criticisms have some validity, according to Barton. As he writes in his report, "Those in the vocational track may get some occupational education but are not likely to get the mathematics, science, and communication skills they will need to progress beyond entry-level employment (and their options for postsecondary education are often — but not necessarily — curtailed)."

Despite its flaws, however, vocational education can provide solid training to those students who





seriously pursue vocational goals. Many programs are also now being revised to make them even more relevant to the workforce. An article in the June 19, 1989, issue of *Fortune* magazine, titled "The New Vocational Schools," points out that "Quality vocational programs can motivate students to stay in school — and maybe go to college — by making academics more palatable and by providing highly marketable skills."

The students who are truly "forgotten" are not the 24 percent in the vocational track, nor, certainly, the 25 percent in the college-prep track of the nation's high schools. The most neglected students are those who follow the general track in high school, which does not require either a strong academic or vocational focus.

While this track has existed for many years in public high schools, it has been largely neglected, a fact that created no major problems back in 1968, when only 12 percent of the high school population was enrolled in general track courses.

Today, however, with some 50 percent of the high school population enrolled in the general track, the inadequacies of that curriculum are becoming increasingly visible in the form of high school graduates who are prepared neither for college nor a career.

The general track provides "thin education and no occupational skills," according to Barton. Studies indicate that two out of three high school drop-outs had been enrolled in that track.

"The general education track is a cop-out," states Madeleine B. Hemmings, executive director of the National Association of State Directors of Vocational Education Consortium.

The program has grown, she contends, mainly because "it's easier to put students in general education than to work with them" to find out their interests and skills, and direct them to the proper vocational programs.

### Continuing Education

In addition to recognizing the necessity to train young people just entering the workforce, there is also an increasing need to improve methods of delivering continuing education to adults.

The nation's changing demographics are creating this need, since 80 percent of the people who will comprise the American work-

force at the beginning of the 21st century are adults today.

Only about one American worker in 100 is with his or her initial employer 10 years later, according to a 1984 report by the Panel on Secondary Education for the Changing Workplace of the National Academy of Sciences, National Academy of Engineering, and Institute of Medicine.

One in five American workers, the report says, leaves his or her occupation every year, with young workers changing positions more often than average, and mature workers less frequently.

"A job, in other words, is not a career," says the report. "A career is a series of jobs, each often involving new responsibilities, new knowledge, and new skills. The ability to learn a new job is vital both to the employer — who cannot employ a person unable to master the requisite skills — and to the employee — who cannot expect to hold a job without that mastery."

In *The Learning Enterprise*, Perelman, too, recognizes that the ability to change and learn as one's career develops is vital in the current workplace. "The problem is not simply a shortage of jobs but a high rate of obsolescence of working skills and knowledge," he says. "Economic security in the postindustrial economy depends less on expertise and more on *flexpertise* — the ability to continually adapt individual knowledge and skill."

"What American business so desperately needs and wants," says David T. Kearns of Xerox Corporation, an active advocate of school reform, is "workers who not only are proficient in the basic skills, but who know how to think and can communicate what they're thinking. We need workers who can adjust to change, who can absorb new ideas and share them easily with others. In short, we need people who have learned how to learn."

The nation faces an "enormous shortage of people who are well educated, autonomous, and able to add value on their own," according to Frank Doyle, senior vice president of General Electric Company.

"That condition," he says, "is what's going to create enormous pressures on the education systems, both inside a company and in the formal education system. The partnership will have to satisfy a need for educated, verbally and



technically literate graduates who must have the ability to learn, because the one thing we know is that what people know and understand today is going to be obsolete in about half the time it used to be. That's why business has a sense of urgency on the issue of educational reform and educational performance."

#### **Government Recognition**

The proliferation of reports on the weaknesses of the American education system, along with the complaints of the business community, have begun to attract the attention of reformers in education as well as legislators.

One indication of this growing awareness was a national conference titled "The Quality Connection: Linking Education and Work," sponsored jointly by the federal Labor and Education Departments and held in Washington, D.C. in May, 1990.

The conference was designed to discuss programs and methods that would smooth the transition from

high school into the workforce, but conference participants went far beyond that limited concept. Speeches and workshops delved into perceived weaknesses in the public education system, the need for business to participate in training, and the need for a systematic approach to preparing young people for work.

During the conference, Secretary of Labor Elizabeth Dole said the nation faces "a workforce crisis." "For half of America's youth, college serves as a bridge between secondary school and a career path," she said. "However, for the non-college-bound youth, the 'forgotten youth' — the bridge between secondary school and a career is frequently unemployment. And the problem is not that there aren't jobs available," Dole pointed out.

As part of an effort to address the "workforce crisis," Dole established, at the start of this year, an Office of Work-Based Learning within the Department of Labor. The office will be responsible for working with businesses to "assist and encourage

effective work-based training programs.”

National recognition of the problem, and national leadership to provide answers, are two very important steps toward correcting the situation, many conference participants felt. In addition, participants agreed that the conference helped demonstrate the need for cooperation among business and labor representatives and educators.

Participants at the conference agreed that although programs can be created to deal with today's unprepared workforce, those efforts will be wasted unless changes are made at the very roots of the problem.

Marc Tucker, president of the National Center on Education and the Economy, points out that the nation's attitude toward the workforce must change.

“Our competitors invest in their blue-collar workers,” Tucker says, while Americans tend to concentrate training and funding on those with college degrees.

Vocational education suffers from the same negative attitude, Hemmings points out. “Vocational education has not been fashionable with the academic community,” she says, despite studies that show that applied learning methods help people learn even academic subjects. This attitude stymies those involved in training programs.

Change also requires the input of all the groups that are affected. “You can't just make these policies in Washington,” warned Roberts T. Jones, assistant secretary for employment and training, Department of Labor, who spoke at the conference.

“If change is to take place, it's only going to take place if it's perceived as an important issue. . . we can communicate the information, but the really important thing is whether it begins to take on meaning in the local community, and they begin to act on it, and they make it theirs,” Jones said.

## **A**ssessment Tools

Since the dilemmas of the national workforce are deeply rooted in the diversity inherent in American society, the search for solutions must be equally multifaceted, and must involve reviews

and reforms in areas such as curricula and teaching methods in public education, transition programs to ease young workers into the workforce, and cooperative arrangements with business.

While these reforms are being instituted, quality education must also remain an important goal. “As the nation deals with the transition of students who are not college bound, it must do so without resorting to a second class educational track that closes off more opportunities than it opens,” Barton states.

In order to begin achieving these objectives, educators and researchers must assess education and workplace competencies today.

“As a nation, we are now far beyond the quest for a single number of ‘illiterates’,” according to a recent report written by Barton and Irwin Kirsch, senior research scientist at Educational Testing Service and an expert in literacy.

In their report, titled *Workplace Competencies*, the authors state: “It is time to move on to the harder tasks of describing what school leavers and adults know and can do, in the daily tasks they confront, and then doing a better job of understanding what they need to know — for the workplace, and for a full life in which they have an opportunity to develop their potential.”

The problem with defining literacy is that the term is only relative, writes Kirsch in his 1986 report, *Literacy: Profiles of America's Young Adults*. The report was based on a survey of some 3,600 young adults.

A hundred years ago, the workplace demanded only that the employees be able to sign their name, a skill that was seen as a measure of literacy in its day. Virtually all Americans can do that in 1990, but the skills demanded now have changed drastically. From name-signing at the turn of the century, the standard of literacy grew to a demand for a fourth-grade reading level in the World War II era and then to the demand for an eighth-grade reading level 25 years ago. The increasingly technical, service-oriented work world of today requires a workforce with even more capability.

Kirsch's survey found, however, that in today's workforce, while “the overwhelming majority (of young

adults) are able to perform *routine* or *uncomplicated* tasks, relatively *small* proportions can do moderately complex tasks. *A great many of these young adults will not be prepared for the workplaces of the present economy irrespective of what these workplaces may be like in the future.*"

As for the abilities of high school dropouts, the report confirms the logical assumption that their skills are even lower than those of graduates. Differences among racial or ethnic groups are evidenced as well: "Black young adults, on average, perform significantly below White young adults, with Hispanic young adults performing mid-way between," the report states.

Since literacy is hard to define, it would be helpful, the report points out, to be able to describe the levels of literacy specifically required for different occupations. Researchers at Educational Testing Service are now working on a Job Literacy Project in which they are devising a process or methodology that can be used to determine the literacy requirements of jobs or job families.

As part of the project, researchers Judith Norback and Michael Rosenfeld have analyzed the literacy tasks and materials needed

in five occupations: secretary, word processor, food service worker, nurse assistant, and data-processing equipment repairer.

"We actually asked hundreds of job incumbents what materials they used," Norback says. "This is the most complete and systematic way that anyone has undertaken to assess the literacy requirements of jobs." The process will be expanded in the near future and will be used as the basis for developing job-related tests and training for the skills required to perform the literacy tasks of different occupations.

Demand by business for employee evaluation of all types is "huge," according to an article in the June 13, 1990, issue of the *Wall Street Journal*. "About half of all companies conduct some form of competency testing, mostly among job applicants, according to a recent American Management Association survey. And the number is expected to grow, as companies step up their efforts to find the best workers they can in a shrinking pool of young people."

Because the focus of the tests, once developed, will be so specific, the *Wall Street Journal* article said, they "may mark an improvement

## Job Training Partnership Act

The most active federal youth employment program at present, according to the Grant report, is the federal Job Training Partnership Act (JTPA), which the report says "has great promise."

Established in 1982, the JTPA has become the major source of training funds for the economically disadvantaged. It was designed "to establish programs to prepare youth and unskilled adults for entry into the labor force and to afford job training to those economically disadvantaged individuals and other individuals facing serious barriers to employment, who are in special need of such training to obtain productive employment," according to a report by the National Governors' Association.

The law was designed by Congress to strengthen the ties between training and employment, particularly permanent employment in the private sector. The system was founded on the idea that permanent employment was the primary goal, and that training and related services, rather than income maintenance or wage subsidy, would lead to better long-term results for clients.

The program relies on a structure of Service Delivery Areas (SDAs) governed by Private Industry Councils (PICs), designed to ensure that training would reflect the needs of local employers.

Through its basic design, JTPA creates a context for connecting literacy training to jobs and productivity. "It offers motive, means, and method," the Governors' report states.

The drawback to the JTPA program, however, is its severely limited scope. It funds only 5 percent of those eligible for training, according to the Grant report. Even when JTPA (including the Job Corps and Summer Youth Employment and Training Program) is considered along with other training programs, such as the Carl D. Perkins Vocational Education Act, the Grant report states, "We estimate that the combined annual federal appropriations for these programs does not exceed \$3.5 billion. This is less than one-third of the annual federal investment in postsecondary education students."

over many broad-based employment exams currently available.”

Assessments of the skills needed in the workplace would be useful in a wide variety of different areas, and the need for such assessments is already evident. The state of Oregon, recognizing the need to improve its competitiveness in the marketplace, has contracted Educational Testing Service to assist in conducting a statewide assessment that will gauge the current skills of the state's workforce in order to set targets for the future. ETS will work with the state's new Progress Board, which was created to plan long-term economic development. A similar effort has also been started for the state of Mississippi.

At the federal level, the Department of Labor has contracted Educational Testing Service to develop assessments of literacy skills that can be used by program providers to assist with more appropriate placement of individuals in “second-chance” programs.

These assessments will involve tasks that have been field-tested with some 3,000 adults. Participants in the field tests will be selected from among those enrolling in the Job Training Partnership Act, applying to the Employment Service system, or filing claims for Unemployment Insurance. Other participants will be selected from among adults in prisons, state Adult Basic Education programs, and community colleges.

Secretary of Labor Dole recently created a Secretary's Commission on Achieving Necessary Skills (SCANS), as part of a complex plan to improve the quality of the American workforce.

Headed by former Secretary of Labor William E. Brock, the commission is charged with recom-

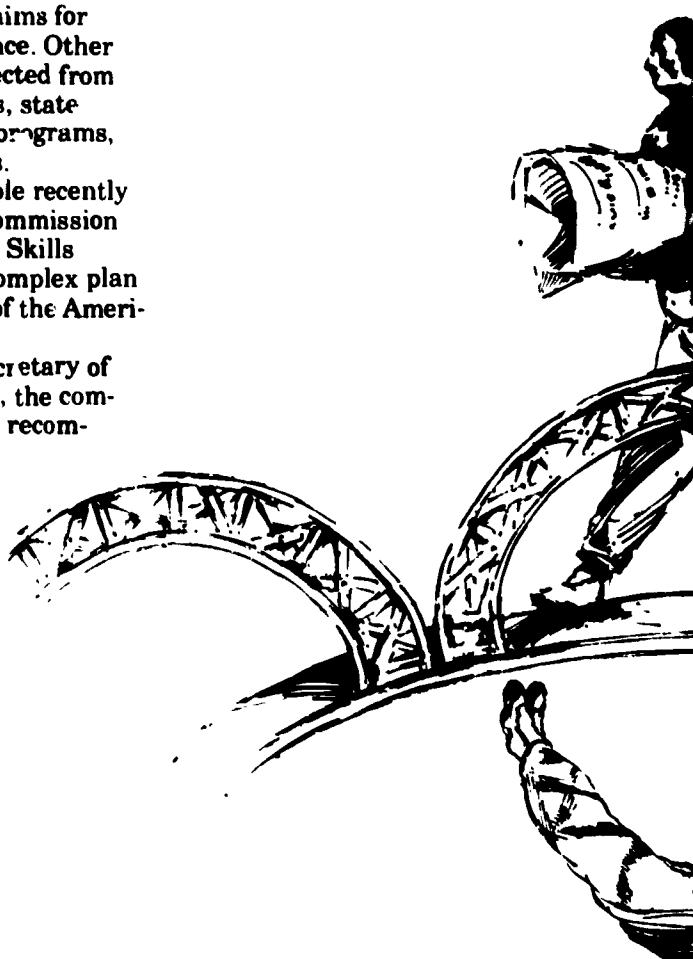
mending the basic skills required by high school graduates for workplace readiness; proposing acceptable levels of proficiency for each skill; suggesting the most effective ways to measure the basic skills of individuals; and proposing options for disseminating basic skills guidelines and measurement techniques.

“Through guidelines that define the skills needed to get and keep entry-level jobs, SCANS will help public education work with youngsters to ensure they have the basic skills they need to enter the workforce.” Dole says.

## **R**evise Curriculum and Access

Once appropriate tools are available to determine what abilities the American workforce has, the next challenge will be to update curricula and methods in the public education system to develop these skills.

Albert Shanker, president of the American Federation of Teachers, suggests that school programs would be more effective if they provided sufficient incentives for students to do well.



Students going on to college, he says, can see very clearly that good grades in high school can lead to the opportunity to attend a better college. For the work-bound student, however, no similar direct rewards are given for satisfactory work.

"We pay a price for not providing immediate incentives for good grades," Shanker says. "American businesses, by their hiring practices of not looking at grades, are saying it doesn't make any difference whether you work hard."

Realistic objectives are also necessary to reform the schools, Shanker says. When the goal is to "send every kid to college," he says, schools are pressured into "making every kid a winner," or at least saying that every kid is a winner.

"The objectives we're setting now are not very realistic. When you have most of your kids graduating school who can't solve a two-step mathematics problem, to have a goal that says that by the year 2000 we're going to be first in math and science, is about the equivalent of George Washington saying, 'during my administration we'll have a man on the moon,'" Shanker says.

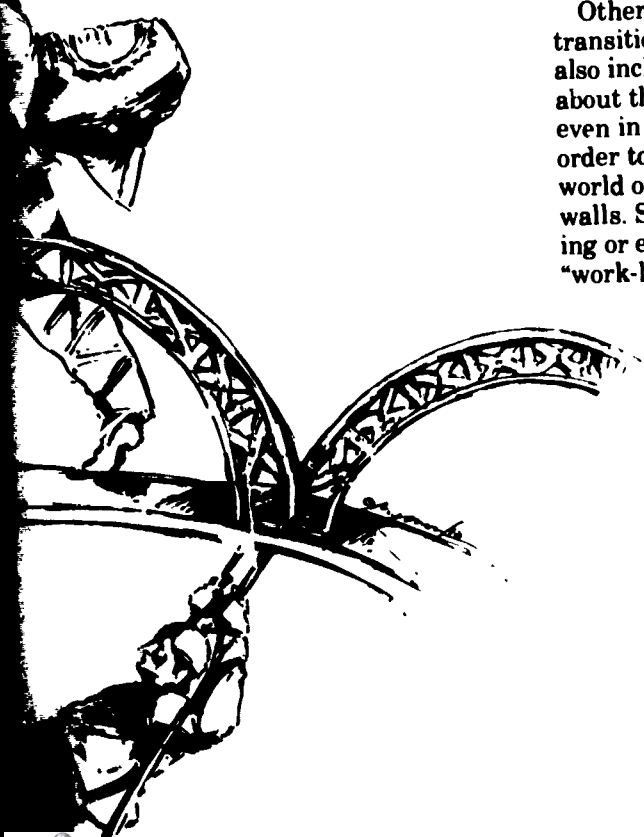
The system of access to schools must also change, said Carroll A. Campbell Jr., governor of South Carolina, at the May conference. "I believe that this country must view education as a lifelong, community enterprise. The system itself hasn't been set up to give access to opportunity for working Americans to change their skills easily."

A more accessible education system was also what Larry Brown, president of the 70001 Training & Employment Institute, discussed in his talk at the Washington, D.C. conference. "The issue our teachers confront in the classroom nowadays is that kids don't have a relationship to the outside world that gives them perspective," he said.

"My recommendation for a successful school transition program is this: let's create an open entry and open exit school system. You're halfway there," Brown said. "You already have an open exit school system . . . but we don't have an open entry system—kids are not welcome back in."

Brown suggests that the school system should be revised to allow students to drop out if they want to, and then have the chance to confront the realities of making a living without a high school degree. Then, he recommends that schools welcome those students back to finish school when they are ready. "Let's forget a little bit about our classroom structure," Brown said.

Other methods for improving the transition from school to work could also include providing information about the workforce to children even in the elementary grades, in order to begin a dialogue about the world of work outside the school walls. Some experts suggest requiring or enabling teachers to take "work-leaves" at frequent intervals.



so they could work in business for short periods. The "work-leave" would help teachers broaden their own experience outside of the educational world, so they could then bring their experiences back into the classroom to discuss with their students. Teachers now have their strongest grounding in their own experiences of college and education, but are probably not familiar with other businesses or disciplines.

## **I**ntegrate Student Work

Students themselves often become involved in what can be the best introduction to the demands of work — a part-time job.

While this experience may offer an enticement to drop out of school and enter the workforce too early and unprepared, as mentioned earlier, part-time work can also offer many benefits to students, by offering real-life experience in the workforce.

"Fifty-four percent of all 11th graders reported that they were working in 1986 . . . as did 66 percent of 12th graders in 1988," reports Barton in *From School to Work*.

Although some educators have complained that paid work has interfered with students' school work, "several national studies . . . found no differences in school performance for students who worked up to 20 hours per week," Barton reports.

While these part-time positions can't help but teach young people about the skills required for work, they generally do not provide as much training as they could, says Barton. "The school and work lives of students are entirely separate, and although the school and employer interact with the same student, little advantage is taken of this connection. Education and employment . . . are in two separate worlds — taking little or no advantage of this shared involvement with students in this critical period in their growth and development," Barton says.

Students' part-time work could be put to better use, Barton says, if schools would use the students' experience on the job to find out what students or businesses feel that the students lack in job training, and to solicit their suggestions for improving preparation for work.

## Programs, Supports to Ease the Transition

A number of programs have recently been developed to provide training for the workforce, or to smooth the transition into a career-track job.

While many young people benefit from these programs, and while the programs have many positive aspects, none provides the type of all-encompassing system needed to ease the school-to-work transition — the type of system available to college-bound students.

There is a conspicuous difference between the support systems available to high school students who plan to go on to college and those who choose to go directly to work.

One of the most significant of these differences is financial support. "While the society bankrolls students who enroll in college at \$5,000 per academic year in combined public and private assistance, we provide few subsidies to help young workers over the comparable four years after they leave high school," states the report *First Jobs*, published by the Education Writers Association this year.

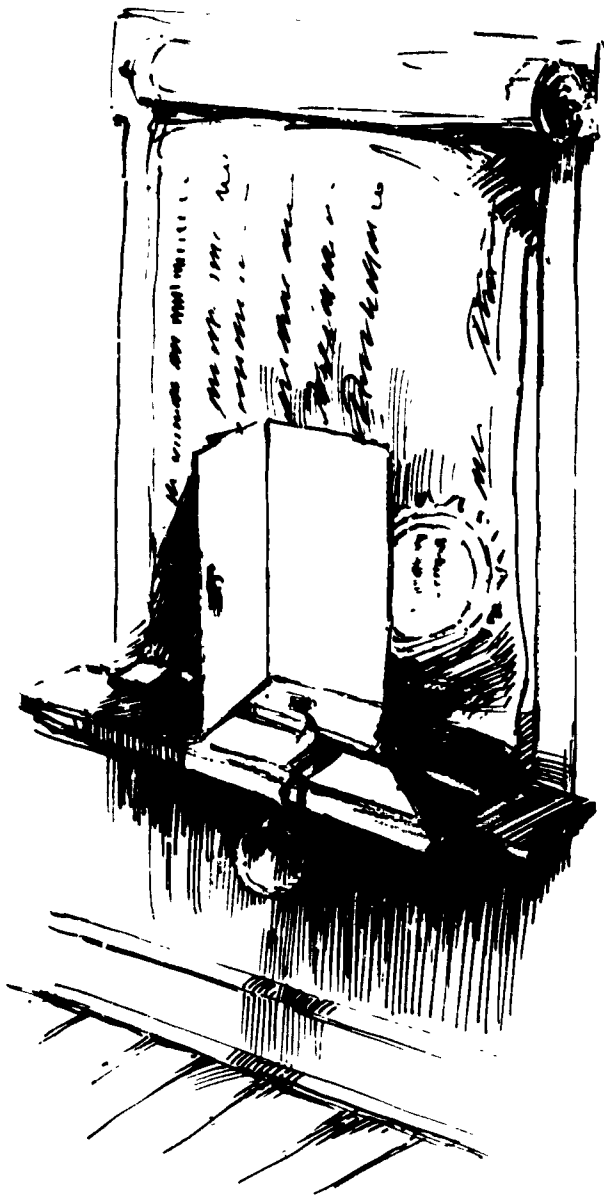
The report, which draws much of its statistical information from *The Forgotten Half*, points out that federal job training programs funded under the Job Training Partnership Act (including Job Corps and the Summer Training and Education Program) serve only 5 percent of those eligible. "Community job preparation programs suffer from unstable funding and reach few of those in need," the report states.

(For more details on the Job Training Partnership Act, see the article on page 9.)

"Networks to find jobs, once available, do not exist for young workers today. Except for youth from traditional blue-collar families, the old ways of getting hired, through family connections, no longer work," the report goes on.

Young workers, then, are on their own, more often than not, in finding their early jobs. As Barton puts it, "young people are cast loose to fend for themselves. . . ."

That may be the reason, says Jones of the Labor Department, that "the data continue to show that



we lose a significant percentage of our people from about 16 or 17 until they're about 21 years old, floating in and out of this system on an episodic basis, until . . . they settle into some place, [for reasons] having nothing to do with their education experience or their skill background, but having more to do with where they've landed at the moment. That's an unacceptable waste both to them and to the society."

In contrast, college-bound students are provided with a wealth of systems to smooth their transition. As stated before, the teachers themselves provide both obvious and hidden messages about the college track, since they are products of college themselves. Representatives from the business world rarely visit the schools, and if they do, it is generally for a one-time appearance.

In addition, colleges provide the high schools with specific requirements that the students must fulfill in order to attend. In contrast, as previously discussed, studies are only now beginning to tell students what skills they need to enter the workforce.

Colleges also provide high schools with slick, carefully presented guidebooks describing all phases of the college experience — from pictures of the dormitories, to a listing of available courses, to the degrees held by members of the faculty and administration. While some of the country's largest corporations provide some of that information to the public in the form of their annual reports, that is not the primary purpose of the report, and most potential questions are left unanswered.



## Worklink.

Development and piloting of an innovative information system that could provide a crucial link between education and the workplace is now being planned by Educational Testing Service.

The system called WORKLINK, is expected to combine a database of information on individual students with a skills assessment—a combination that could provide a means for educational institutions and business to share information about work-bound students and job or training opportunities.

"We hope this program will give a structure and incentive to students who are going straight into the job market," explains George Elford of ETS, who initiated the project. "They don't have anything to shoot for now. If students know that a successful school record could help them get a better job, they might have more incentive to learn.

"And when they enter the job market," Elford says, "WORKLINK may be able to help make what you know more important than whom you know. So WORKLINK would provide both an incentive to learn in school, and a more effective way for these students to enter the workforce."

Researchers envision that to use the WORKLINK system, students will establish a file that can contain such information as: a simplified school record summary; the results of a workplace-based assessment of such skills as reading, using manuals, and simple calculations; and ratings of work-related performance, such as attendance and work-completion.

One possible assessment that might be used in the WORKLINK system is an instrument developed by ETS known as JOBTAP, which assesses work-related skills.

One planned feature is for the students to have control of the database, since they select the fields in which they would be assessed, and they also determine what to record into their files.

The students could also compile their records at their own pace throughout their high school years and beyond, possibly by using computers that could be located at employment and social service agencies as well as in schools.

The hope is that businesses interested in identifying pools of qualified employees could tap into the computer files in a number of ways, such as by using a modem, or by merely calling for more information.

Employers could benefit from the system because once it is established in a community, they could tap into the WORKLINK database to find potential employees with the specific skills they require. In addition to facilitating employee searches, WORKLINK could also provide employers with a wealth of information about the workforce in general.

Pilot development work on WORKLINK is now under way in Tampa, Fla., and efforts may be expanded to other locations. In each of the pilot locations, it is expected that a team of educators, business leaders, and ETS staff members will work together to encourage participation by the business and education communities. The first evaluations of the pilot projects are expected in 1991.

Information about individual industries and businesses and what they offer to the employees, then, is severely limited. And information available to the businesses about potential employees is even more limited.

The standards in the nation's high schools are so variable, many point out, that the mere possession of a degree does not guarantee either academic or work skills.

For college-bound students, the variability of the high school degree is offset by standardized tests, which provide a common measure by which the colleges can examine the students' abilities. Tests such as the well-known Scholastic Aptitude Test of the College Board and Educational Testing Service serve to counteract some of the variables among schools.

No such standardized tests for workplace skills are now available for work-bound students. However,

once assessment tests for workplace skills are operational, such as those discussed earlier, they could also be used as a standardized measure of skills.

College-bound students also receive the attention of guidance counselors in the high schools, while work-bound students are largely left on their own. Even research studies that would detail the counseling services that are available have been neglected. "There has been no regular reporting of what is going on in the nation's school system regarding the availability of employment counseling, the provision of occupational information, and the effectiveness of job placement," Barton points out.

While new studies on the high school guidance system are currently underway, the most recent

information is from a 1980 survey, reported in 1981 by Educational Testing Service. That survey found, Barton reports, that in the area of available counseling for work-bound students, one in 17 schools had no counselors at all, "almost four in 10 had one or less, and over six in 10 had two or less. . . .

"Helping students choose their high school courses gets the most attention from counselors," Barton reports, "followed by college selection and admission, followed by attendance and discipline problems. Next comes assistance in occupational choice and career planning. Dead last is job placement."

Computer programs containing databases of occupational descriptions do exist for high school students, but most of these cannot be localized to tell students exactly where they might find the jobs that interest them. Also, most are limited because they provide information only, and do not attempt to help students with the broader problem of learning how to make a career decision.

#### **U.S. Programs Incomplete**

The United States policy on the transition from school to work "is

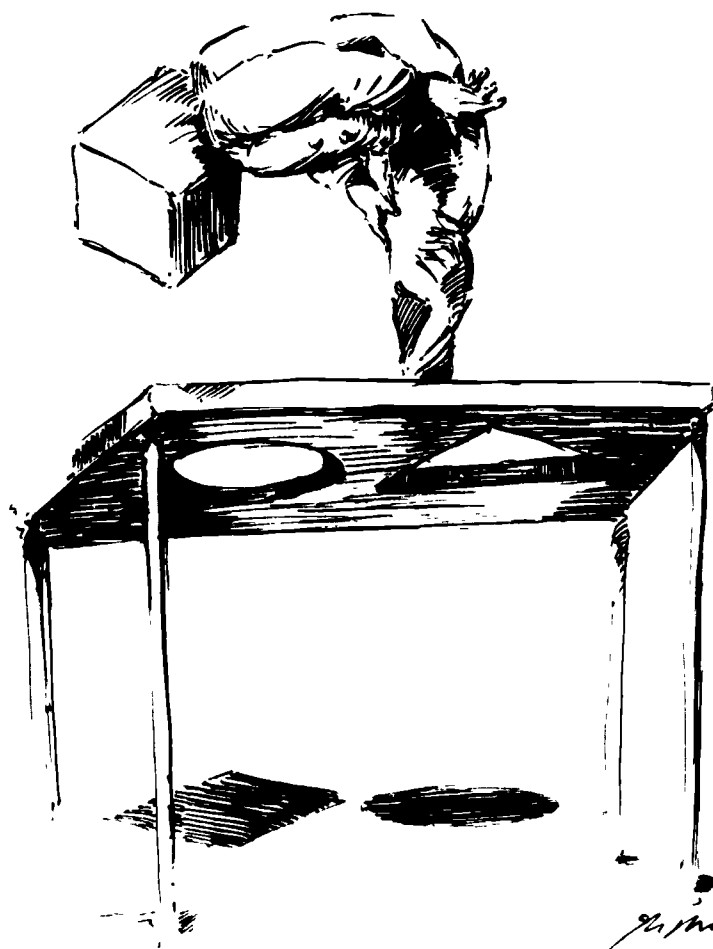
the worst in the civilized world," says Tucker of the National Center on Education and the Economy. While there are programs available to work-bound students, he says, "there is no system for the school-to-work transition."

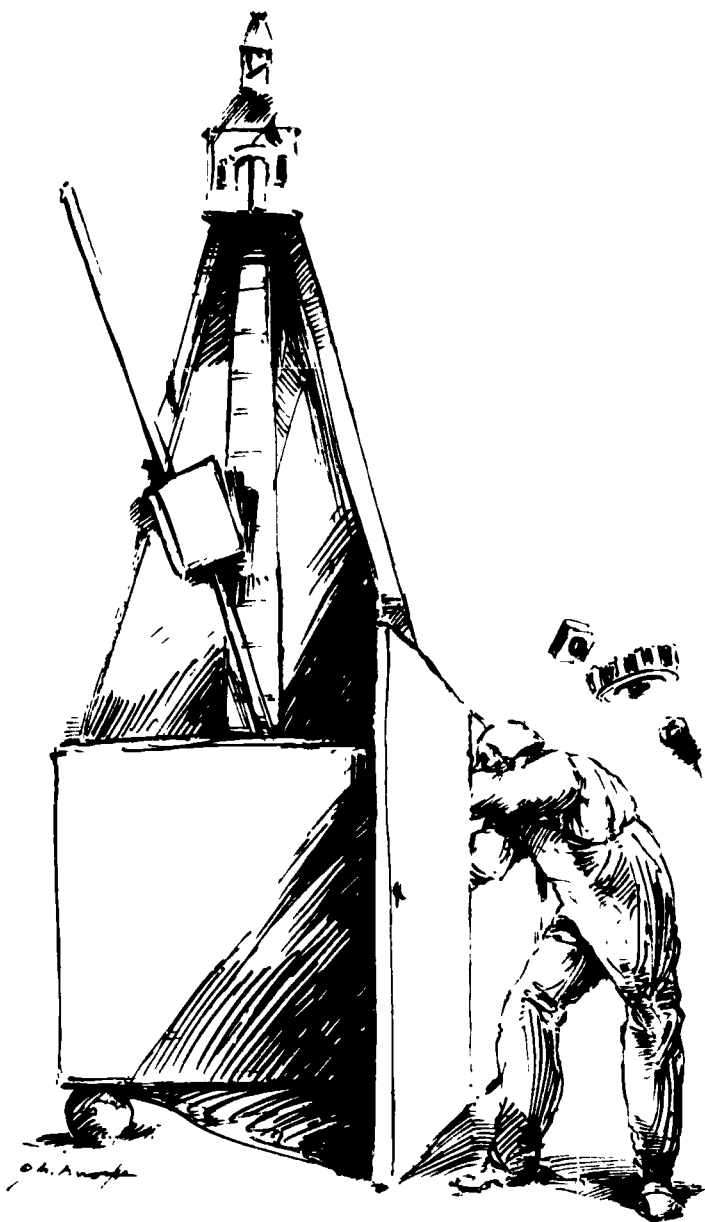
In contrast, West Germany provides apprenticeship programs during secondary school for over 60 percent of the 16-18-year-olds, according to Hamilton of Cornell University in his *Education Week* article.

West Germany has also recognized the need for continuing education, so "leading firms increasingly view apprenticeship as a foundation for lifelong learning rather than terminal training. They expect their apprentices to acquire academic and job skills fundamental to a range of tasks," Hamilton writes.

In the United States, however, Barton says, "our high school graduates receive little help or direction from the schools, because we want to keep their option to attend college open as long as possible."

Despite the need for improved systems for the school-to-work





transition, experts are careful to stipulate that they do not want the federal government to step in and institutionalize the process. While the experts recognize the need for structure, they also recognize that an effective system must also be flexible in order to be accepted in the United States.

"It has to be a community-based system, and it has to be ours," explains Jones, of the Labor Department. "No one is going to import the Swedish system or the German system or some other model and make it work here."

Among the resources designed to help work-bound students are two activities now under way at Educational Testing Service — a program under development called

WORKLINK and a research project currently developing a prototype adult literacy program.

WORKLINK is expected to be a multi-faceted information system designed to help businesses and high school graduates seeking jobs to share and match information. The first facet of WORKLINK is a portfolio that students compile themselves with personal information such as school records, teacher recommendations, and recommendations from previous employers.

The second facet of the system is an assessment component that will enable students to demonstrate proficiencies in job-related skill areas and help them to focus their career interests.

WORKLINK will also provide a way for employers to search for job candidates with specific skills, and to gain a wide bank of information about the current workforce.

(See more about WORKLINK in the article on page 14.)

Another activity at ETS is the research and prototype development of an interactive, multi-media instructional program. It is hoped that the work by a team of researchers at ETS will lead to ways for teachers to train small classes of adults in basic literacy skills. Work is under way on computer-based lessons that include graphics, sound and video, a workbook, and teacher's manual.

(For more details about this research effort, see the article on page 19.)

In addition to the ETS programs, which are still being developed, a number of other programs already exist — among them, the federal Job Training Partnership Act and Jobs for America's Graduates (which is discussed more fully in the article on page 19).

### **C**reate New Paradigms

The solutions to the problems facing America's workforce can only be developed by creating new paradigms, or new ways of looking at the old problems, said James Kadamus, assistant commissioner of the Office of Higher & Continuing Education of New York State's Education Department in his speech to the Washington, D.C. conference on school-to-work transitions.

A paradigm, Kadamus explained, "is a set of assumptions to explain the world," and a new paradigm, he explained, "gives rise to new possibilities."

Quoting Einstein, Kadamus said, "the significant problems cannot be solved at the same level of thinking with which we created them."

Since the traditional concepts of school and work come from the same paradigm, the factory model, Kadamus said, both were traditionally highly structured and individually competitive. But while the work model is changing and becoming more open to worker interaction and group effort, Kadamus pointed out, schools have stayed with the "old model." The result is a more obvious gap between the school and work experiences.

What is needed to blur this distinction, Kadamus said, is "a new paradigm to look at this relationship between school and work."

### **W**hat Now?

What, therefore, is needed? A review of the reports and comments of the experts reveals that while it is important to provide solid academic skills in order to maintain the option of college for all, the nation must also be more realistic in preparing students for the world of work, given the fact that at least half of the nation's high school students will either not attend college or will not complete their BA studies.

What is lacking at this point is funding, as well as a more positive attitude concerning the career goals of these students. In addition, schools do not introduce students to required behaviors and attitudes that are basic to the workplace.

A greater concentration on improving systems already established and working, such as vocational education and work-study programs, would also help the work-bound student.

Students could also benefit from increased guidance and tutoring to steer them away from the unfocused general track and toward more positive courses of study that would enhance their employability.

Changing demographics, the shrinking numbers of young people, and the growing population of older workers have necessitated more accessible and improved adult education for the lifelong learning that today's market requires.

National recognition of the problem, and national programs and leadership toward finding solutions, will also alleviate the complex problems facing the nation's workforce.

Improved and more accessible assessment systems can also be a solid first step toward finding solutions, as can revisions in school curricula and access systems, a greater introduction of students to the workforce, provided by the schools, and an improved integration between schools and the part-time jobs that students hold while still in school. Local and national businesses would be serving their own needs for the future, as well as helping to provide a public service,

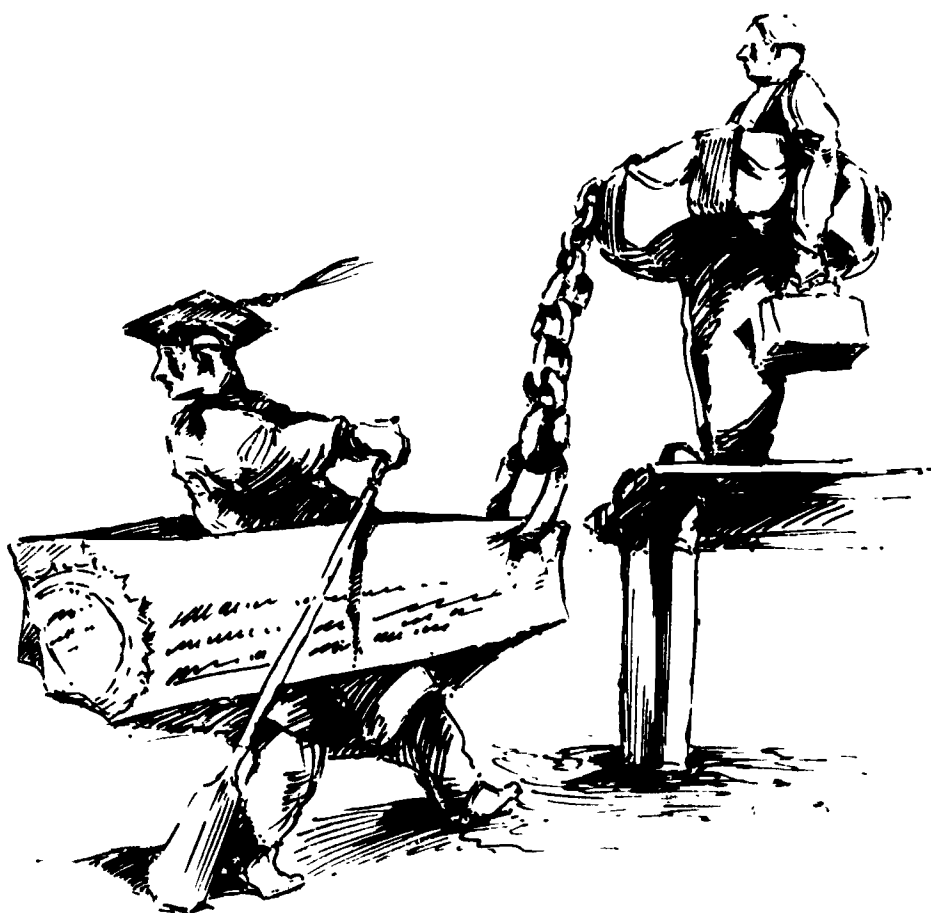
if they could offer their resources to the schools in meeting these goals.

Finally, a close examination of the types of support systems already in place for college-bound students could provide a guideline for the types of systems that could also benefit work-bound students.

"As the economic position of high school graduates deteriorates, the United States may give more attention to constructing bridges from the school room to the work-

place, with each side building toward the other," says Barton in *From School to Work*.

"If interest in the half of the nation's high school graduates who do not go to college is not enough of a driving force to do so, schools and employers may be increasingly pressed together in common cause by the compelling forces of economic competition."



## Jobs for America's Graduates

Jobs for America's Graduates is a private, non-profit corporation created to assist high school seniors in their transition into the workforce. The organization was founded to provide a comprehensive state-level approach to help at-risk youth stay in school and get a job.

Central to the program is a corps of job specialists — professionals who take personal responsibility for 35-50 young people in their senior year of high school who are at risk of becoming unemployed or not graduating.

The program also works through a youth organization, created on the model of Future Farmers of America or Junior Achievement. The group design encourages personal motivation crucial to developing self-confidence in the workplace.

Based on activities designed to enhance job-related competencies, JAG provides training, remediation, and intensive job-related activities to improve job skills. JAG personnel also provide support for participants for nine months after high school graduation.

JAG, which will be in operation in 18 states and 300 high schools by fall 1990, served 21,000 young people in 1989. At the end of the nine-month follow-up period for the class of 1988, 91 percent of JAG's students had secured a high school diploma or General Equivalency Degree.

The success of the program, according to Kenneth Smith, president of JAG, shows "you can intervene very late with students, even as late as 12th grade, and still make a difference in their lives." The key to the program's success, he says, is the professional counselors. "We hire carefully and train well and make sure our people care about the kids. If you find the right people, the program will succeed."

## Research on Workplace Literacy Training

ETS is developing and studying an interactive, multi-media instructional program designed to improve adult literacy. The program is expected to include lessons designed to improve the skills needed to understand and use three types of written materials: documents, such as schedules, forms, and graphs; prose, such as newspaper articles, directions, and recipes; and materials requiring numerical operations, such as a restaurant bill, a checkbook, or an order form.

Designed at present for use by a teacher with a small class of students, the approach is based on assessment methods developed by ETS for the National Assessment of Educational Progress for its 1986 report "Literacy: Profiles of America's Young Adults," written by Irwin Kirsch and Ann Jungeblut.

Colorful graphics and attention-grabbing sound effects make the lessons appealing and memorable. The program is also flexible, so teachers or class members can enter additional material to tailor the information to their needs. In addition to the computer-based lessons the system will also include workbooks and a teacher's manual.

"We wanted this training to help people understand the properties of these materials," says Sandra Young, an instructional designer in the team now working on the project, "so they could then apply this understanding to other written materials they encounter. If they understand, for instance, how to read a list or a train schedule, they can later apply these skills to other tasks."

The first section, presently under development, concentrates on improving the skills used in understanding documents and is expected to be ready for initial field testing in the fall of 1991.

The ETS staff members working on the project are Irwin Kirsch, director; Sandra Young and Marylou Lennon, instructional designers; Debbie Pisacreta, multi-media designer; Janet Stumper, graphic artist; and Randy Kaplan, computer programming assistant.

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