

Issue Paper

RAND
EDUCATION

Education and the New Economy Views from a Policy Planning Exercise

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THE CHALLENGE

Education is asked to help society meet a number of economic challenges, such as the perceived need for a workforce with varied skills and for equalizing the distribution of talent and wages across the population. During the 1990s, policymakers have become increasingly attentive to the relationship between education and economic health and how best to ensure that the United States maintains its economic position relative to other nations. Analyzing this relationship in a manner helpful to policy formulation is a difficult and often controversial task. The fragmented and decentralized nature of our education and training system only adds to the difficulty.

Policymakers and scholars argue over the extent to which the education and training system fails to prepare individuals to participate fully in the new economy, but few disagree that improvements are needed. Meanwhile, the locus of responsibility for effecting these improvements is shifting. In particular, the current political climate favors reducing the federal role and placing more responsibility and fiscal control in the hands of state governments or the private sector. It is thus safe to say that America's education and training policy is in flux. The continuing debates present an opportunity, however, to explore ways in which education might meet the challenge of a new economy.

THE EXERCISE

To take advantage of that opportunity, the National Center for Research in Vocational Education (NCRVE) sponsored a policy exercise at Aspen, Colorado, on June 23–25, 1997. For assistance in designing the exercise, NCRVE turned to RAND, one of its host sites, which had conducted several such exercises. The RAND policy exercises had their origin in “war games” conducted for the Department of Defense—games in which military officers played both sides in computer-simulated battles to gain insight into enemy thinking and successful strategy and tactics. RAND's first post-cold war exercise brought together government officials and academics in a one-sided “game”—an exercise without opposing teams—to devise drug control strategies and examine their potential consequences in a hypothetical city. Subsequent exercises focused on strategies to reduce violence in high-crime neighborhoods.

The Policy Planning Exercise on Education and the New Economy assembled vocational-education researchers, federal and state vocational-education officials, leaders of nonprofit organizations with an interest in this area, and representatives of the business community. Participants were divided into four panels, each constituted to encompass a mix of perspectives. The exercise started off with a dialogue in which participants got to

know one another and the experiences and views they brought to the table. The dialogue was loosely structured around a set of questions addressing the relationships among education, work, and the economy and the objectives of education and the challenges facing it today.

On the second day of the exercise, panelists participated in a two-move “seminar game” in which they took on the roles of advisors to the governor of a hypothetical state. Panelists were briefed on the demographics, economy, and educational systems within their “states.” In move 1, participants were given a January 1998 scenario in which federal funds for various education and training programs had been combined (and augmented) into a block grant that their state would now have to allocate. As advisors to the governor, they would have to recommend an allocation. At the end of this move (and of the next two sessions), participants gathered in plenary session to give each panel an opportunity to present its recommendations to the others and to allow the entire group a chance to react.

Move 2 was set in 2002. Panelists were given some updated information on educational attainment, employment levels, and earnings within their state and asked to suggest a redesign of the state’s education and training system. Specifically, they were asked to prioritize a list of reforms (e.g., inclusion of work-based education or applied pedagogy in the K–12 curriculum, adoption of standards and certifications) and, if they wished, to extend the list.

On the final day, panelists were brought back to the present to apply what they had said and heard in previous sessions to federal policy in the very near term. Participants were requested to draw up their recommendations in the form of a presentation to the U.S. Secretaries of Education and Labor. The exercise concluded with a plenary session in which participants drew overall inferences from what had been discussed over the previous two days and commented on aspects of exercise design.

A SYNTHESIS OF PERSPECTIVES

Exercise participants came from a variety of backgrounds and perspectives, and panel sessions were characterized by a lively give and take. Still, many of the views expressed by individual participants struck a responsive chord in others or were adopted by one of the panels. In the following pages, the various viewpoints are aired. They are grouped by topic, and, within topics, ordered and integrated for ease of reading. This organiza-

tion is not, however, intended to suggest that these views are what they are not:

- They are not those of NCRVE, RAND, or the U.S. Department of Education. (For ease of reading, we omit phrases like “some panelists thought that” or “it was suggested that,” although every paragraph could be so conditional.)
- They do not represent a consensus position to which the participants have subscribed.
- In particular, it would not be appropriate to associate any of the views stated with any given participant.
- The views are not based on new data or analyses but on the varied experiences of the participants.
- Finally, the views are influenced by the design of the exercise, in particular by the scenario the participants were given to work from.

What follows is intended to be synthetic rather than attributive, provocative rather than definitive. We hope it helps in framing issues and in drawing out some of the implications of options currently being debated.

FIRST CHANCE VERSUS SECOND CHANCE

There are really two education systems in the United States today (to the extent they can be called “systems” at all): the “first-chance” K–12 system and the “second-chance” system of adult education and training and welfare-to-work programs. The most effective way to create a better-skilled workforce might not be to enhance the adult-level programs that are more explicitly oriented toward it. America’s young people will always be struggling to catch up through the second-chance system if the first isn’t good enough, and if the first is good enough, the second might not be needed as much.

A substantial portion of any additional education and training funds should be directed to the K–12 system.

Therefore, if additional education and training funds become available, a substantial portion should be directed toward the K–12 system. At the same time, simply pouring more money into the K–12 system, which is failing in a number of cities, will not solve its problems. Below, some further strategies for improvement are discussed.

The second-chance system should not be forgotten, however. Abandoning it would mean abandoning many persons who, having been failed by the first-chance system, need a second chance to succeed. Typically, these individuals are economically disadvantaged. And, as welfare limits take effect, welfare-to-work programs will become more important. There should also be a benefit to children in the first-chance system from helping their parents with literacy and basic skills.

Unfortunately, the results of second-chance programs like those under the Job Training Partnership Act have not always been positive—not surprising, since these programs are sometimes schoolhouse- or book-oriented and not sufficiently related to job skills. Training provided by employers to similar populations has had a somewhat better, though hardly unmixed, record of success.

Better-designed second-chance programs might result from a competition among providers. Competitive grants might initially be awarded on the basis of creativity and likelihood to succeed at improving participants' employment or earnings and then renewed on the basis of outcomes. Emphasis should be placed on getting institutions to work together as partners in the grant applications. One might expect richer institutions serving better-qualified students to be more creative in coming up with new solutions than those serving the disadvantaged, so some compensatory program (perhaps like Pell grants to college students and trainees) would have to be maintained.

In awarding grants, an effort should be made to serve the needy while avoiding the failures of previous programs with a broad "at risk" clientele. There needs to be a way to target individuals who are more likely or more willing to succeed. And a premium should be placed on capacity-building by institutions willing to hire and attempt to retain previous welfare recipients.

To the extent both first- and second-chance systems are to remain in existence, they need integration. This is further discussed below.

Standards, Certification, and Institutional Accountability

It is widely recognized that there is inequality in the schools—some have good teachers and good programs, others, inadequate ones. Various reasons have been advanced for this inequality, e.g., decentralization of funding and governance. Causes aside, schools' and teachers' expectations for many students are often low.

In too many states, for example, there are high-school graduates who can't read at the high-school level. Furthermore, if students don't meet expectations, there isn't a bottom-line consequence for the schools or teachers. The result is that colleges and businesses don't necessarily believe the grades students get in many high schools. Parents in disadvantaged districts are particularly shortchanged, because an A in their district may not represent the same level of achievement as an A in a suburban district. However, they may not realize that until their child encounters the expectations of colleges or employers, in Scholastic Aptitude Tests, for example.

Regardless of what indicators are chosen, there must be a consequence for failing to meet performance goals.

One answer to these problems is to hold schools (and possibly students) accountable for meeting certain performance measures, for showing progress from year to year. What should the performance indicators be? Obviously, current input measures such as dollars expended per student are not good proxies for performance. More meaningful measures include attendance rate, dropout rate, and number of students taking a rigorous curriculum. Even more valid could be scores on statewide assessments and how they compare to clearly established academic standards. The validity of such scores as indicators of achievement would depend on how carefully the assessments are designed; those based on task performance are generally thought to be the most valid. If the primary concern, however, is to achieve favorable economic outcomes, school performance might also include measures of skill-standard achievement or job market success (or college placement). Such measures are particularly applicable to high-school vocational education programs, the funding and quality of which could be bolstered if measures of success attached to them affected the reputation of schools and school districts.

Regardless of what indicators are chosen, there must be a consequence for failing to meet performance goals. In systems where parents are allowed to choose among schools, an underperforming school could, at least theoretically, lose its clientele and go out of business. Where choice is not permitted or where there are no alternatives at acceptable cost to parents, the state should be empowered to take corrective measures, which might include assuming control over the school. This is not to say that

the state should micromanage a school's attempt to meet performance expectations—only that there should be a consequence if the plan devised by the school does not pay off.

It may also be possible to set up incentives in addition to disincentives. If some districts or schools can be shown to have better-than-average job placement records (normalized for differences in inputs), they might be allowed a greater share of the increased income tax revenues generated from those placements.

Among its other advantages, the adoption of academic standards and assessment would counter inflated high-school grades. The latter are not likely to change unless many people within the system rebel against them. And what parent (or teacher) is going to volunteer his or her children (or students) as the first to be graded more rigorously? Attaining a widely recognized academic standard would also give a new worker a bargaining chip to take into the job market—something equivalent to the endorsement from teachers or schools required for job placement in some foreign countries.

High-school standards need not be restricted to some body of knowledge everyone must know when they graduate. There could be a progression of academic-skill levels to be attained, and everyone could be required to graduate with competency in some discipline (for those going on to college) or some job-relevant topic or skill. But whether it is the last credential earned in high school or the only one, the high-school diploma should be regarded as an initial certification in a system of recurrent training and lifelong learning (see discussion below).

The United States is already moving toward workplace skill standards and certification of standards attainment. Voluntary skill standards are being developed within various industries and may become widespread over the next five years. It is unclear, however, whether these developing standards will evolve into a coherent system, even within industries; firms that now have the ability to rank prospective employees may not want to share that ability with others. This may be an instance in which states or the federal government could take a leadership role while not imposing an outcome. Some means for institutionalizing the development of standards is needed, because this is not a one-shot effort. Standards development would have to be ongoing to keep abreast of changes in technologies and in skills required. There needs to be continuous input to the development of vocational and academic standards from employers who see the needs for various skills evolving before their eyes.

Standards are not a panacea, of course. They cannot provide an incentive to students who still do not see a connection between school and the “outside” world. In such cases, various alternative pedagogies may be of help (see “Teacher Training and Development,” below).

And, in any system, there is the potential for abuse. Here it may come in the form of falsified certificates. This suggests the need for some authorizing entity working on a statewide or higher basis with whom an employer could check. It also suggests some sort of system for tracking individual progress, e.g., a system in which an individual builds a portfolio spanning his or her education and work experience over the course of a career.

Lifelong Learning

Career portfolios, of course, are one facet of lifelong learning. In a lifelong-learning system, persons might get a progression of certifications along a career ladder in a given discipline or skill area. At a minimum, people's skill levels would be judged throughout their lifetimes on the basis of their having trained to certain standards at various points in their careers. Such standards could then form the basis of a pay-for-skills system. Persons would reenter and exit the education and training system as they felt it advantageous to do so.

Just as education would infiltrate the working years, so career considerations would play more of a role than they do now in the years of compulsory education. One objective of the K–6 years might be to make children aware of the variety of career options they have, so that they might undertake more directed learning in what are now the high-school years. In recognition that education and training needs of different individuals can diverge before students finish high school, the core curriculum might end short of 12th grade by as much as two years.

There are two ways of looking at K–12's place in lifelong learning, with quite different implications for the resources to be devoted to the K–12 system. In one, K–12 is the foundation and becomes the focus for most of the near-term funding. In the other, the extension of learning to cover a lifetime results in a relative decrease in K–12's importance.

Lifelong learning would require that individuals invest in updating their skills from time to time. But they might get help in doing so if the funds the state decided to invest in postsecondary education could be more flexibly applied—and if postsecondary education could be more broadly understood to include training in workplace

skills. The amount the state is projected to spend on an individual's lifetime education could be put into an account and perhaps augmented to match contributions from business and from the individual. He or she could draw from the account to support progress along some sequence of certifications (each of which would require continuing education to keep it current). The recipient would have to complete some compulsory curriculum that it is agreed all should take, but, generally speaking, he or she would be funded to meet a job qualification standard, not to get a degree. (A step toward the accounts described here has been taken with the lifelong-learning tax credit in the Taxpayer Relief Act of 1997.)

Any lifelong-learning system would have to be phased in slowly, if only because the state must continue to serve those who have gone through high school in the current system. Some kind of post-high-school voucher system might be implemented as a first step in the direction of individual training accounts. More emphasis might also be placed on funding training to upgrade the skill of incumbent workers instead of only that which attempts to provide skills to the unskilled.

Teacher Training and Development

Neither a standards-based system nor lifelong learning will be achieved successfully without reorienting teachers to these new system designs and, in particular, preparing them to teach so that students will attain standards. Alternative pedagogies may help improve teacher capacity as well as student achievement. Teachers might be required, for example, to master skills they need to promote contextualized learning if they want to be recertified. Of course, a characteristic shared by pedagogies characterized as "alternative" is that their effectiveness may not have been proven yet. Teacher education curriculums must thus temper enthusiasm for new, promising approaches with caution and must be responsive to the latest research findings. It may also be that teachers themselves should spend time in the workplace so they can better understand what will be expected of their students. And, naturally, this all applies to those who teach teachers as well. More broadly, state agencies distributing education and training funds should perhaps require that all receiving agencies spend some percentage on professional development (not development of the old kind, but of the kind just indicated).

To be consistent with student achievement standards and certifications, there should be a certification system for teachers, through which they would have to become

periodically recertified to receive pay increases. That is, teachers would have to be certified to teach, and teachers in vocational programs would also need the certificate toward which their students were working. Such certification should have the benefit of reducing the incidence of out-of-field teaching. Recertification could also be a means for removing underqualified or incompetent teachers from the profession.

Such a certification system might require that all teachers get a graduate education degree. With such a requirement, it might make more sense for prospective teachers to spend their undergraduate years becoming experts in the topics they intend to teach. There might then not be a further need for undergraduate teaching programs.

Coordination

Clearly, a truly integrated academic-and-vocational education-and-training system could have manifold advantages:

- It would promote vocational education and training from the "second-chance" system to the first-chance system, according workforce development the priority it deserves in the new economy.
- It could lend more "real world" purpose to academic education and possibly motivate more high-school students to realize their potential.
- It could motivate employers to shift the qualifications they desire to more meaningful job-specific certifications from the generic college degree that many of them now rely on. (In so doing, it could arrest the ratcheting up of academic qualifications and schooling attained that is occurring in sectors with a labor surplus. Some see this escalation as wasting society's resources procuring a college education for people who do not need it.)

Reforms of the type suggested above would require coordination at the state level and among organizations involved in education and training that are used to acting separately, even defending turf against others. Coordination is needed from level to level within academic and within vocational education, so some assurance can be given that individuals are making progress. It is needed between academic and vocational educators. And it is needed between educators and the workplace. At the same time, coordination will become even more challenging to achieve as responsibilities decentralize, competition

for provision of educational services increases, and funding is tied more to individuals than institutions.

One possible means of coordination is the establishment of regional workforce development boards responsible for linking labor information, workforce skills, educational reform, and economic development. Such boards would have to go beyond establishing weak connections among independent actors or creating a plethora of partnerships. There would have to be a multistakeholder, high-priority, collaborative effort to bring about a seamless transition from school to work and vice versa—to promote, in other words, lifelong learning.

A multistakeholder effort must not, of course, neglect the biggest and ultimately most powerful stakeholder of all—the public, including the parents of those who would most benefit. The public must “sign on,” must understand what schools are trying to achieve as they evolve.

As already mentioned, because the workplace will continue to change, it will be a good idea to have the business community collaborating in the design and oversight of education and training programs. In fact, community college systems that have good relations with employers already do lots of training for those employers. Too often, though, businesses feel that they are brought in after the educators are finished to rubber stamp what has already been done.

Finally, integration should not be viewed as a one-way street. It would not be sufficient for institutions now devoted to providing a liberal education to think more about careers. Vocational education and training could benefit from being “liberalized” to encourage critical thinking and inquiry on the job. It is that kind of thinking that could lead to greater productivity, not just the acquisition of various certificates.

A truly coordinated workforce development effort may turn out to be too much to expect of regional boards. It may require leadership at the state level, e.g., by an independent state board in charge of all education and training under a lifelong-learning rubric. Such a board might promulgate models for career guidance, define clear career ladders with identification of points at which training is needed, and provide information as to where skills are needed. In practicing this kind of coordination, states would be following in the footsteps of nations like Britain and Australia that already consolidate education and training.

The Federal Role

The preceding pages have paid little attention to the role of the federal government. Clearly, there are many places the federal government can help out. It could help fund system-building at the state level or capacity-building among employers willing to hire disadvantaged trainees, to name just two. But it seems unlikely that major new federal funding will be forthcoming outside of tax deductions or credits to be allowed for college expenses and lifelong learning. And there are some constituencies that would prefer no federal role at all. Indeed, the impetus seems to be to merge the funding for federal programs in block grants that the states would decide how to spend. What of those who believe that a nationwide commitment is required to ensure a competitive American workforce in the new economy and that such an effort may require federal leadership? In a block-grant-oriented era, the most that it seems reasonable that they hope for is some federal coordinative role and high-profile use of the “bully pulpit.”

Federal monies can exert great leverage through research.

To take the latter first, federal officials might educate the public about a number of things: the greater challenge now faced by education because of the changing economy, the long-term nature of this challenge, the need for standards, the difficulty of teaching to new standards, and the need for new pedagogies. At a minimum, they could promote a national discourse on education—e.g., what the purpose should be, which level of government should do what—that could help raise the profile of the issue.

A federal coordinative role might include recruiting key stakeholders to the cause, setting up forums for dialogue and collaboration among players, and joining with those states wishing to participate in a national standards-setting effort. This last would require some funding to match that committed by states, and the federal government may also have the wherewithal for small, strategic investments to support various of the other initiatives suggested in the preceding sections.

One way limited federal monies can exert great leverage is through research, particularly that addressing the problem of getting change to happen. The nation could benefit from reviewing what has become of various past

initiatives—which have been successful and which not. For example, the School-to-Work Opportunities Act of 1994 spawned a proliferation of programs merging education and labor interests, but it is too early to assess the benefits of these programs, and the law is due to expire this year. Should the law be reauthorized, or should something else be tried? If so, what and why? Federal funds might also support the evaluation of various state-level initiatives.

The federal government should also pay some attention to coordination among its component agencies. A joint policy for the Departments of Education and Labor with respect to every area discussed above is essential.

Policies must support cooperation among stakeholders; the aim should be to avoid competition for resources and encourage all parties to seek ways to gain the widest leverage possible off funds that are committed to anyone. Finally, if business is to play a central role in education and training reform in the states, the Department of Commerce should have a role to play at the federal level. Through a joint strategy among its own departments for coordination of state-level initiatives, the federal government might be able to build confidence within the private sector that things can be changed—and that may be as valuable a contribution as any large pot of money can make.



RAND is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. The National Center for Research in Vocational Education operates under the authority of the U.S. Department of Education and consists of a consortium of institutions (including RAND) headquartered at the University of California, Berkeley. This issue paper summarizes work done within RAND Education and NCRVE; the work is fully documented in *Education and the New Economy: A Policy Planning Exercise*, by Cathleen Stasz, James Chiesa, and William Schwabe, MR-946-NCRVE/UCB, 1998, 94 pp., \$9.00, ISBN: 0-8330-2589-9, available from National Book Network (Telephone: 800-462-6420; FAX: 301-459-2118) or from RAND Distribution Services

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