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AUTHOR Dede, Christopher  
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ABSTRACT

Recent resistance to government spending and federal interference has reduced the federal role in education to less than the minimum appropriate level. Opportunities to change this situation presently exist, but will disappear with time. Trends in economics, technology, demographics, the philosophy of government, and changing cultural values and beliefs indicate that the 1980s will be a period of substantial uncertainty in America, necessitating social flexibility and high productivity. Changes in education are vital to encourage this productivity and flexibility. A revision of current federal educational goals is necessary, but will be insufficient without the creation of a new role for the federal government in education. Defining this new role as the coordination of the production and distribution of knowledge will provide the necessary overarching scope to federal efforts. These efforts can then be readily coordinated through a central agency such as the new Department of Education. (Author/PGD)

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THE NEED FOR A NEW FEDERAL ROLE  
IN THE 1980s

Christopher Dede  
National Institute of Education  
Washington, D. C.  
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## THE NEED FOR A NEW FEDERAL ROLE IN THE 1980s

In the past decade, the federal role in education has been defined in increasingly narrow ways. The 1960s were a time of broad federal expansion into new sectors of educational policy-setting, curriculum design, regulation, and funding. However, the high cost and unclear benefits of these increased responsibilities coupled with perceived meddling into state and local perspectives have gradually created widespread resistance to extensive federal involvement. As a result, especially in the last few years, continual pressure toward reducing federal activity has led decisionmakers—both inside and outside the national government—to picture the federal role in as constrained a manner as possible:

Much can be said for the importance of balancing the educational roles of the local, state, and federal governments and for the need to leave decision-making to the citizen, except for the minimum essential societal involvement. By limiting the federal role, individual, community, and states rights are preserved; the need for increased federal taxes is diminished; and the constitutional legitimacy of federal actions is not brought into question. Given this combination of factors, a federal policymaker finds it increasingly attractive to avoid bureaucratic tangles, higher budgetary needs; and increased responsibilities by refusing to deal with emerging educational issues under the guise of preserving a limited federal role.

The fashionability of abdicating federal responsibility has reached such a height in Washington that I recently heard a high level federal decisionmaker at a public meeting state that, "long-range planning must be the sole responsibility of state and local governments, since the Constitution does not specifically mandate federal involvement in this area." No one in the room voiced an

objection; perhaps they felt that the massive difficulties posed by such a stance were better, on balance, than the spectre of nationally mandated, district-specific, comprehensive ten year plans for improving educational practice. However, I sensed the baby sliding down the drain along with the bathwater and found myself wondering if some intermediate position on long-range planning was not possible. Somehow, if the federal role is constrained without careful consideration of what each level of government is best equipped to do, the problems which are passed on to the states and localities may well be those which are the most difficult, expensive, and controversial, rather than those most appropriate.

In the next decade, what should be the relative roles of the citizen; community; and local, state, and federal governments in educational decision-making? Asking a normative question such as this may seem hopelessly naive when, in reality, roles are most frequently defined by political clout, expediency, or historical precedent. However, with the emergence of a Department of Education, opportunities for changing the status quo arise which are usually not possible. A new organizational structure offers a chance to make discontinuous changes in purpose and process. Further, critics of the Department may question why cabinet status for education is necessary if federal decisionmakers are intent on dumping every responsibility that can reasonably be jettisoned. Therefore, for reasons of both substance and legitimacy, an examination of the optimum minimum federal role in education seems indicated.

At present, the generally accepted definition of the federal educational role is:

MAJOR GOALS

- (1) promotion of equal access

- (2) enhancement of equal achievement .

#### MINOR GOALS

- (1) research toward new directions
- (2) assessment
- (3) dissemination

Few would question the need for some federal involvement in these areas, given the complexity of the issues involved, the enormous costs of change, and the social benefits to be gained by progress toward these goals. Is this a sufficient federal role for the next decade?

One method for determining whether these present roles constitute the minimum necessary future federal involvement in education is to examine likely coming challenges and opportunities for our society. A case can be made that purely internal problems in education can often best be handled by a combination of individual, local, and state initiatives; but external problems arising from changes in education's context usually are so systemically interlinked to national and international issues that federal help is needed to resolve them.. (One historical example is the launching of Sputnik by the USSR and the passage of the National Defense Education Act in response). Are similar crises likely to occur in the 1980s that will need national level guidance and funding, and what new federal role in education might these involve?

#### The Future Context for Education

In the next ten years, what major social developments are likely to occur, and how may these affect human services such as education? The forecasts following are speculative (as is any statement about the future), but constitute a reasonable spectrum of probable predictions for the decade.

## ECONOMICS

The 1980s will be a time of major economic instability and uncertainty, as chaotic a period as has existed since the 1930s. The first portion of the decade will likely cycle among periods of low growth with very high inflation, stagnation with high inflation, and recession with moderate inflation. This period will probably be succeeded by:

either

massive capital investment, with emerging successes in technology and technocracy beginning to lay the foundations of new prosperity,

or

the relative impotence of technology and technocracy to solve current crises, followed by fiscal collapse to some type of economic catastrophe (such as a Second Depression or a "Weimar Germany" scenario brought on by hyperinflation).

On the domestic level, pressure will increase for protection of American jobs by limiting foreign imports, even at the cost of forcing consumers to buy higher priced goods. Long-term, this may strengthen the eroding American industrial base and provide needed capital for investment. Short-term, protectionism will contribute to the inflationary spiral and may have serious international repercussions as other countries take similar steps in response.

Globally, economic interdependence has become so profound that small scale disruptions in a minor country may culminate in grave worldwide economic difficulties. Oil supplying nations are one obvious example; less well known is the potential impact of defaults on indebtedness by countries such as Brazil, Ecuador, or Turkey. (Brazil has accumulated such a large debt—primarily to U.S. banks—that two-thirds of its total export profits go to pay interest costs). A national or even global economic depression could be triggered should any of these countries suddenly repudiate their obligations.

No obvious short-term solutions are available to control these potential sources of economic instability or to limit the negative consequences should a crisis develop. Thus, the spectrum of potential economic futures for the U.S. in the 1980s is relatively broad, ranging from a slow reemergence into the prosperity of the 1960s to a sudden collapse into economic catastrophe. How may such a variable and hazardous economic outlook affect the human service areas?

Education, health, government, and the other labor-intensive service industries are likely to experience grave financial difficulties in the next decade. Certainly, a severe downturn in the national economy would adversely affect budgets in these areas; less obvious are the negative effects that a long period of high inflation would have. Considering the impact of inflation on education in some detail can illustrate how a number of quantitative fiscal changes may interact to cause a profound qualitative change.

Part of inflation's potential for grave damage occurs because citizens seem to be approaching the maximum percentage of their income that they are willing to spend for education (currently a little less than 9% of GNP). The aging of the population; the dwindling proportion of taxpayers with children in the schools; and competition from the recreation, transportation, housing, food, and health sectors for the consumer dollar all are eroding potential funding for education. Developments such as serious consideration of Jarvis Proposition 2 in California (which would slash human service expenditures by one-third) indicate that the trend toward more funds for education may be starting to reverse.

One of the reasons why the price of educational services has continuously risen is that in periods of inflation, costs in labor-intensive industries rise faster than costs in capital-intensive industries. For example, from 1965-75,

the Consumer Price Index rose 69%, but educational costs rose 155%. Much of this can be attributed to salaries rising faster than capital costs. The continuous improvement of machines in efficiency stands in sharp contrast to recent low rates of increase in human productivity and is a key factor in this disparity.

At some point, the rapidly rising costs of labor-intensive industries such as education will bump up against revenue ceilings. Since education is a public sector activity, extra costs cannot easily be passed on to consumers, but must be met from tax revenues (or deficit financing). Thus, the result of prolonged inflation is to create increasingly bloody competition among the human service industries for ever scarcer resources. Sooner or later, taxpayers are likely to rebel (as indicated above, this point may be fast approaching). The result will be that education will become progressively less able to keep pace with inflation, and losses will mount each year.

For any sector of the economy, even small yearly reductions in budget cumulate to a major drain in fiscal resources fairly quickly. At present, inflationary losses for many educational agents are running at least 14% per year, but revenues are growing at only around 7% per year: about a 7% net debit. In ten years, an average 7% loss per year will leave education with one-half the revenues (in real terms) it now has.

Further, given the general economic woes society will experience from high inflation, education will not have a strong claim on social priorities in terms of extra funding. Creating a favorable business climate, reducing stress on the poor, minimizing government spending, and coping with international tensions will take priority. Thus, even a high employment economic climate may well pose severe problems for education if inflation stays high; recession or depression would create even more severe difficulties.

## TECHNOLOGY

The availability of inexpensive, powerful miniature computers will cause a massive shift in occupational roles over the next ten years. Since capital-intensive industries have a competitive advantage over labor-intensive sectors during inflationary periods, rote tasks will gradually become automated (especially in areas--such as information processing--in which no manipulative functions are required). Occupational demand will center on skills of flexibility, creativity, and decision-making given incomplete information (all of which machines are not well adapted to do).

New developments in instructional technology will offer, for certain subjects, cost-effective alternatives to traditional teaching methods. Microcomputer and videodisk hardware will be readily affordable; limited availability of quality software will become the major restriction on use. Corporations will increasingly utilize these instructional systems to reduce industrial training costs; middle and upper income families will use these technologies for enrichment of personal time and enhancement of learning.

Resistance by the human service industries to the substitution of technology for human workers is likely to be profound. Faced with a difficult economic situation, educators will lobby strongly against replacing teachers with machines. The major impact on learning may come in non-school settings such as the home and workplace.

A non-formal, geographically dispersed, capital-intensive system of education may conceivably emerge, as industries retrain their work force for job roles redefined by microprocessors. Corporations are already on the forefront of using technology for teaching purposes because its efficiency and reduced staffing expenses create very high economic incentives. While the difficulties in evolving a whole new model of instruction, evaluation,

and certification are substantial, the motivation for such innovation is now present. (Books did not suddenly become central when the printing press was developed; they were first widely used when an economic incentive appeared.)

Such a non-formal instructional technology system, once established for adult retraining, might quickly expand its influence because of easy add-on capabilities. For example, parents who could afford to do so would supplement their children's schooling using system software packages, and eventually might lobby to substitute these cheaper methods for the training portion of K-12 education. Such a shift might focus primarily on the "Three R" skills taught in the elementary grades or, perhaps more likely, might be directed toward vocational training and computer expertise for secondary level students. Within fifteen years, through such expansions, a capital-intensive system might rival the labor-intensive system in importance. The unanswered equity and practice questions of such a new educational model are numerous and troubling.

#### DEMOGRAPHICS

The "baby bust" generation will pose sequential problems of enrollment decline for elementary, secondary, and college level education through the 1980s. However, an upturn in student population will begin in the lower elementary grades in the middle of the decade.

The increasing presence of women in the work force, as well as greater demands for occupational education, will create needs for extra-family socialization and supervision of children.

Many immigrants will settle in metropolitan areas, including significant numbers of non-English speaking students. Spanish will become the dominant language in some regions of the United States.

High rates of mobility will cause regional flux in student populations. The Southern, Southwestern, and Rocky Mountain portions of the country will experience net population in-migration from the rest of the United States. Out-migration of middle and upper class families to suburbs and rural areas will continue (despite gentrification). Minority and lower income students will increasingly become concentrated in urban school districts. The demographic structure of the large cities may eventually resemble a "bullseye", with wealthy families without school age children at the heart of the city, surrounded by a ring of poor families and a second concentric ring of middle class suburban households.

The proportion of elderly persons in the population will continue to rise, placing stress on income redistribution programs (such as social security and Medicare). Educational demand among adults and the elderly will grow as these age cohorts increase in size.

In general, all the human service professions will be stressed by these demographic shifts. Despite the high predictability of these developments, few decisionmakers have given any thought to how best to respond to major variations in the size and needs of their clientele. The concept of accepting responsibility for adult education in extra-school, non-formal settings (the likely major area of new demand) has been particularly resisted by educators.

One emerging challenge is that the roles which formal education plays in different types of communities may become quite disparate by the 1990s. Communities with a large percentage of two-wage families will expect schools to provide much higher levels of supervision and socialization than areas with a predominance of one-income households. In urban areas, demographic concentration of minority groups and immigrants (many non-English speaking) will create a set of educational needs quite different from those of suburban,

upper-income areas. Schools (mostly private) that convert quickly to capital-intensive instructional approaches will have a very different classroom environment than the traditional, as will schools which respond to pressures for a meritocratic, high-powered system of gifted/talented education to train an elite capable of reversing America's problems.

High population mobility will increase the need to ensure smooth transitions among the diverse environments. Moreover, the uniformly high degree of socialization requisite for functioning in a high technology society will require some amount of national standardization and coordination. Substantial innovation will be necessary to meet these emerging, diverging educational needs.

#### GOVERNANCE

Financial pressures on citizens will intensify the existing "anti-taxes" movement, and some business and education groups will attempt to link anti-regulatory arguments to this cause. The result will be a pervasive "reduce governance" stance. Conflicting pressures will come from those who push for "strong leadership" that can ride roughshod over inconvenient regulatory restrictions and safeguards. Representative democracy may thus be eroded by pressures both for localism and for unitary authority.

Public response to emerging resources crises (e.g., water) will continue to be directed toward programs for crash priority replenishment. These will tend to be oriented toward high technological sophistication rather than conservation measures involving lifestyle changes. Competition among federal priorities will become extremely intense, to the relative detriment of long-range investment strategies.

Demands for accountability and evidence of competence will force conservative decisionmaking and the proliferation of paperwork to document

performance. These tendencies will create further problems in institutional ability to respond to change. Gains made toward increased citizen input into decisionmaking may be reversed as efficiency and effectiveness decline and public antipathy to red tape and slow review procedures grows.

Concern will increase about the relative economic and military status of the United States in the world. National defense will reemerge as a top priority area, and the performance of different social sectors will be adversely compared to that of their counterparts in other countries. A tendency toward forceful action to ensure availability of key resources will be coupled with a belief that U.S. affluence is more important than global egalitarianism. Some conventional "police actions" may occur as a new, multiple country Cold War evolves. As global and military tensions increase, the educational pendulum is likely to swing farther toward a reemphasis on high quality schooling for the intellectual elite.

CULTURAL BELIEFS AND VALUES

Social instability and change and a growing sense of lack of control will create difficulties in coping for many people, as the technological and bureaucratic complexity of society increases. Reliance on the advice of "experts" for most choices will become increasingly necessary, but simultaneously resented. Universal socialization of the population to the multiple, higher-order cognitive and affective skills required for participation in society will require major expenditures of scarce resources, yet will be essential to the proper functioning of a high technology society.

Heightened values conflicts will occur, as multiple special interest groups do battle on individual ethnical issues such as abortion, individual rights and responsibilities, and biomedical manipulation. Perceived incapacities of technology and technocracy to deal with current crises will



cause a major struggle between those who continue to espouse a narrowly rational, high technology-based, materialistic "American Dream" and those who proselytize for a shift to a more adaptive, ecological, spiritual, life-style. Planning, leadership, and self-renewal will become increasingly problematic for institutions, as responding to crises in the "here and now" consumes ever greater amounts of time and energy. One risk of this cultural anomie at a time of economic distress and fear of other countries is the emergence of a charismatic dictator, who will use "rally around America" ideology as a basis for limiting diversity and pluralism.

Leadership will become very difficult in education, as multiple, continual crises drain resources. The strains which students experience in their lives will make maintenance of traditional academic standards almost impossible. A pervasive sense of lack of control will cause disillusionment, apathy, and cynicism about the possibilities of preserving the current schooling system. Voucher systems and the franchises which develop in response will further complicate this situation.

National priorities and local mandates will continually be in conflict, posing grave problems for educational decisionmakers. The current dissensus on what the basic content of education should be will widened. In short, the existing model for formal education could be conceivably become almost unworkable.

The above group of forecasts presents a range of changes in education's context, each one reasonably probable. That all of these predictions would occur is unlikely; a given event might potentiate some developments while repressing others. (For example, an economic depression would make the rise of militarism in the U.S. more likely, while reducing the chances of emergence of a non-formal, capital-intensive instructional system).

That few of these predictions would occur is equally unlikely. These forecasts all stem from powerful forces and trends in the present and--radical as they may seem today--will retrospectively be viewed as a cautious and conservative assessment of likely directions. One major lesson from past attempts to predict education's future has been that the "surprise-free" extrapolation is the least likely outcome. The essence of good strategic planning is to be prepared for the full range of eventualities, while allocating resources preferentially by relative probability.

Which of these potential developments, then, are most likely? Early in the 1980's, the seeds of all these trends will be present, but as the decade matures one of two clusters will probably emerge as dominant. One cluster of probable futures centers around the optimistic outcome depicted in the economic section and includes:

- successes in technology and technocracy leading to prosperity
- rising investment in domestic industries.
- inflation slowly falling to the single digit level by the end of the decade
- lower levels of government spending and influence
- multiple international economic tensions
- progress in reducing dependence on overseas energy supplies
- massive job retraining
- major use of instructional technology in workplace and home settings
- widening gap between rich and poor
- reliance on extremely complex technologies for the necessities of life

The other cluster assumes a pessimistic economic progression, which will potentiate:

- fiscal collapse to a simultaneous high inflation and recession
- extreme fluctuations in the world monetary situation

- less disparity between rich and poor
- high levels of government influence and spending
- major emphasis on national defense
- heightened value conflict in society

Thus, alternative likely future scenarios can be visualized within the general group of forecasts listed earlier. Of course, elements of both clusters will be evident in any plausible future, and some factors (such as demographic change) will occur largely independent of other trends.

### Shifts in the Federal Role

In light of the challenges and opportunities discussed above, what is the optimum minimum federal role in education in the 1980s? Certainly, some strategies for achieving current federal goals will need to be altered. A brief examination of such changes may help to determine if this type of "fine tuning" will be a sufficient federal response to likely societal development.

Work toward achieving the goals of promotion of equal access and enhancement of equal achievement may be affected by:

- (1) loss of educational revenues (caused by inflation and/or recession)

Further cuts in school budgets are likely heavily to affect supplemental programs for poor and minority students. These groups have few extra-school resources to use in compensating for such losses.

- (2) emergence of a non-formal, capital intensive instructional system

Access to hardware will be more difficult for lower income students. Further, software design is likely to be biased toward the cultural background of advantaged students (who represent the largest single market for manufacturers).

- (3) growing disparity among educational needs in different communities

Areas with the largest financial needs may have the smallest fiscal base. Moreover, teachers will tend to gravitate toward communities

with greater resources and fewer problems.

(4) erosion of decisionmakers' capability to act

Maintaining the status quo discriminates against poor and minority populations. As leadership becomes increasingly difficult, the momentum for equity-enhancing innovation will diminish. Further, a shrinking resource base (with concomitant entrenchment by special interest groups and bureaucracies) will diminish the level of marginal discretionary funds available for innovation.

The goal of promoting quality through research toward new directions, assessment, and dissemination may become more difficult to attain because of:

(1) losses of educational revenues

In theory, innovation might be stimulated by financial hardship, as decisionmakers realize that traditional models cannot function at emerging resource levels and seek alternative approaches. In practice, however, retrenchment tends to take highly conservative directions which suppress new ideas even as old models become increasingly ineffective under fiscal stress.

(2) extensive occupational retraining in extra-school settings

The indifference of educators to worker retraining outside of formal certification programs is prompting industry to undertake its own design of a new, capital-intensive instructional model. Unless bridges are built so that such innovation reflects the knowledge of both educators and industry trainers, the resultant system is likely to be overly narrow and of questionable effectiveness (thus duplicating the mistakes educators historically made with instructional technology); as well as diminishing healthy societal pressures for reform within the traditional schooling system.

(3) new and idiosyncratic needs in individual communities

Major increases in the disparity of student populations will further stress the ability of teacher training institutions to certify graduates capable of meeting the full spectrum of educational needs. Research results will be less generalizable, dissemination strategies will of necessity become individually tailored, and the overall complexity of assessment will greatly increase.

(4) the rise of international tensions

Concerns about United States stature as a world power will increase lobbying to orient the curriculum toward scientific training for the gifted/talented. With a limited amount of both time and resources, schools will be forced direct innovative activities in narrow, highly focused directions of benefit only to a small percentage of the student population.

An overarching problem in achieving all federal educational goals will be intensified pressure to reduce government spending, with correspondingly high levels of competition among social service programs. The temptation for federal policymakers will be to fund only immediate-impact, targeted programs as a method of building constituent support for educational funding by Congress. Such a strategy can only backfire eventually, as educational problems worsen for lack of attention to their root causes.

Farsighted policies to address these obstacles to achieving federal goals can be envisioned. For example, an assertive research, improvement, modeling, and dissemination program in educational technology could demonstrate to industry the value of educators' expertise, promote adult education in the workplace as a priority, and help to ensure that software

development reflects the cultural diversity of users and the needs of special populations. Would a series of comparable strategies for each of the areas above be a sufficient minimum federal response to likely developments of the 1980s?

While essential, such a far reaching set of strategic changes is unlikely to be successful if perceived solely as "fine tuning" of existing priorities. Needed is an overarching new goal for federal involvement which integrates these diverse strategies into a consistent whole and affirms the need for a transformation of the existing educational model. This transformation would be so broad as to require for its achievement a major national effort reconceptualization and reprioritization. Only the federal government is large enough to initiate such a shift. (In systems theory terms, the boundaries of the problem are so large and its influence so sweeping that only intervention by the largest component of the social system is likely to bring about a change).

What would be this new federal role in education? One way of stating its purpose is to say that the federal education establishment would become responsible for coordinating knowledge production and distribution systems in society. That is, the national government, as the institution best equipped to accomplish these vital purposes, would:

- coordinate the process of anticipating societal needs for knowledge
- develop in educational institutions the capacity for training appropriate levels of human resources
- assess the ability of current institutional mechanisms for generating needed knowledge, and augment this capability where necessary
- organize the dissemination to citizens of vital knowledge so that it is fully utilized

Such a mandate would include expanding formal education to all age groups through schools, families, communities, workplace, and media. Intrinsic would be activities as diverse as helping develop TV programming to respond to a gasoline crisis and initiating long-range studies of "the basics" needed by youth in the next ten years.

Some of these activities now take place at varying levels of quality within different Departments of the government. Others have been left to the "invisible hand" of self-interest. A lack of overall coordination and integration, however, has resulted in many of the emergent problems of the 1980s. To place such coordination responsibilities within the new Department of Education, rather than scattered in Labor, NSF, NIH, and other agencies, seems the best strategy. Education is the logical choice to oversee this area because the production of knowledge and human resources is its intrinsic function, and the new role is intertwined with its current goals and responsibilities.

Such a new goal transcends "fine tuning" to give a simultaneous mandate for educational transformation and a carefully limited set of objectively measurable priorities which the federal government is best equipped to execute. Conceivably, the costs of implementing these additional responsibilities could be defrayed by the increased efficiency of coordinated efforts and by the benefits in societal productivity that ensue. In fact, when compared to the results of a laissez faire approach for past decade, this strategy provides such a potential strengthening of America's world economic position as to be justified on that basis alone. Thus, this proposed change represents a discriminate augmentation of the minimum federal role in education based on cost/benefit considerations and arguments for efficiency and effectiveness.

Immediate Steps for the Department of Education

Of course, if handled with what cynics would term "typical government efficiency", such a new federal role would be ill-designed, bogged down with red tape, wasteful of resources, fought over by special interest groups, and hopelessly confused within six months of inception. Certainly, the credibility of the Department of Education in immediately announcing and undertaking such a program would be very low, and political retaliation for encroaching on the prerogatives of other federal Departments would surely follow. What then could the new Department do to build both a reputation for competence in this area and a public mandate for such an augmentation of responsibility?

First, a series of studies needs to be undertaken to determine and document the cost to America of not now coordinating:

- (1) the anticipation of societal needs for knowledge,
- (2) the development of human resources,
- (3) the generation of needed knowledge, and
- (4) the dissemination of knowledge to citizens.

Such studies could serve as the basis of a rationale for organizing the work now taking place in these individual areas.

Second, the relative roles of individuals; corporations; educational institutions; local, state, and federal governments; and other social agencies in knowledge production and dissemination need to be delineated. In particular, the essentiality of a federal coordinating role must be evident if public support is to be obtained.

Third, current federal efforts to improve portions of the knowledge production and distribution process need to be assessed. The competence of government programs in this area must be documented and their cost-effectiveness shown.

Fourth, the utility of locating the federal coordination effort in the Department of Education must be evident. This will require both an historical examination of the effectiveness of other Departments and a careful plan for action should this new goal be assigned to Education.

Finally, a national crisis must occur to generate the necessary political leverage for change. Given the likely developments for the 1980s discussed earlier, the probability of such a crisis is overwhelmingly high.

Given all these steps, the assumption of a new limited role by the Department of Education could take place within three years. Such a delay is dangerous—given the peril of our present national situation—but probably unavoidable.

This shift would not detract from the primacy of current federal goals in education. On the contrary, improving educational equity and quality would be absolutely essential to the success of this new role. Only if all human resources in the populace achieve their full potential can knowledge production and distribution be maximized, and the enhancement of equity and quality would be necessary for such maximization.

#### Conclusion

All of education is predicted on images of the future. Educational research is tailored to the future contexts in which it is to be used, instruction is based on a vision of the world in which today's students will be decisionmakers, and school budgets assume that economic and demographic projections will be accurate. What does it mean for our daily work if the future seems ever more indeterminate and negative developments increasingly likely?

When people aren't certain about what's going to happen, or the future seems threatening to them, the natural response is to retreat into a psychological framework in which we say, "I don't know what's really going

to happen, but the safest thing is to assume that at least some things will stay the same. These perennial issues are the areas in which I'm going to work; it's too risky to respond to a mere probability". So, almost all federal effort is spent wrestling with "eternal" educational issues and problems. Perennial concerns are crucial and should absorb perhaps 70% of our resources, but the other 30% needs to be oriented toward resolving the uncertain future issues outlined above. The least speculative stance to adopt is to acknowledge and prepare for legitimate indeterminacy.

This paper has argued that:

- the federal educational role has been narrowed beyond its minimum appropriate level
- opportunities to change this situation presently exist, but will disappear with time
- the peril of America's future is great, and our need for societal flexibility and productivity is very high
- educational transformation is essential to creating this productivity and flexibility
- revision of current federal educational goals is necessary, but insufficient without adding a new role
- giving the limited goal of coordinating production and distribution of knowledge to the Department of Education will help to resolve this situation

The 1980s will be a grim period in part because America believed that a "context-free" education was sufficient for most citizens, that a high technology society could be run by a small group of experts and staffed by a large group of people with rudimentary knowledge in "the basics":

This assumption is obviously wrong; a complex society requires that every citizen be as intelligent and creative as possible. The costs to our society of not educating one person—in terms of crime, welfare expenditures, and foregone productivity—are far higher than the expenses of a good education from birth throughout life. For this reason, it is vital that the national government become active in reshaping education's relationship to society, thus laying the foundation for a bright future.

Footnotes

1. Changing Images of Man, O.W. Markley, Stanford Research Institute, 1974.