This paper discusses the manner in which our traditional approaches to education have become inadequate to the challenges and needs of today and tomorrow. Public policy must support new approaches to education that depart from the traditional Core -- the sequential ladder of organized educational activities K-16 -- and provide alternatives for learning and personal development. As a result of this departure from tradition, many values and practices that have characterized education in industrialized society will be questioned. The challenge for policy in the new age will be to place fewer restrictions on the place and time of learning and to encourage a loosening of the structured time sequence of the school system. (Author/JP)
TOWARDS A NEW CONCEPTUAL FRAMEWORK FOR EDUCATIONAL POLICY

by

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Educational Planning in an Industrial Society

Information is a vital source for public decision making. The gathering of information is one of the oldest and most heavily subsidized activities of government. The quality and quantity of the information we possess is a factor in enabling policy-makers to lessen the division and contradiction between "the world outside and the pictures in our heads." To the extent that information is both obtainable and usable, it is a source of power in affecting decisions and guiding the directions of public policies.

The nature of our information is of a vast and uneven quality. In some areas, where there has been historically a greater governmental concern and involvement, we possess comprehensive series of indicators over time. But the nature of our changing social reality often compels the realization that the indicators which suffice for the needs of one time may become outmoded for the reality of another. Our data, regardless of their impressive technical array, cannot transcend the limitations of the conceptual framework which guides its collection. It is the contention of this paper that the information which we are accustomed to receiving on the "educational system" is inadequate for describing organized educational activity in modern America.

The traditional concerns of educational planning--emerging out of the problems confronted by a developing industrial society--have been with the development of large systems of public instruction which would meet both the "demand for places" and the manpower skill requirements of the economy. As this demand was met at one level, say, the grade schools, concern shifted to the next "crisis,"--how to provide spaces at the next level for those larger numbers preparing to enter. Education was structured as a sequential ladder of educational achievement, with initial access made available to all, and terminal points determined by a combination of factors such as individual choice and interest; economic means; and the creation
of opportunity through the provision of sufficient places to absorb demand.

Educational planning has focused solely upon the inputs required for the building of the system. This has resulted in an emphasis on

...those statistics which are required to project or to plan in the medium and the long term, the main magnitudes in the educational system—pupils, graduates, teachers, buildings, costs, expenditures. It is also concerned with the main quantifiable attributes of these basic magnitudes which are relevant for long and medium term decision making. These include numbers of pupils in each of the broad areas of specialization, certain social economic characteristics of pupils, sex, age, qualifications and other attributes of teachers, and the analysis of expenditures according to branch of education, purpose and source of finance.

The focus of educational planning has been upon the "Core"—that sequential ladder of educational activities represented in the organized, mostly publicly subsidized, educational establishment ranging from kindergarten through graduate and professional schools. These are the activities which provide the major certifying processes for the larger society—serving as a transmission belt and "social sieve"; as the "watchman at the gate" fulfilling the societal mandate of sorting out and stamping attainment ratings prior to transmitting finished products to the labor market. It is in these activities that the resources of society are committed to the greatest extent, rivaled only by the defense expenditures of the Federal Government and amounting to forty per cent of the direct expenditures of state and local governments.

We have amassed voluminous data about the Core to satisfy the requirements of traditional educational planning. Hordes of trained personnel ply their trades turning out vast quantities of information at various governmental and private information agencies. But the question remains undressed: Are Core activities necessarily, or by inference from dimensions of participation and expenditures, the only places where people learn? Our data reveals much about "educational attainment"—i.e., years spent in the
Core. But it does not allude to the fact that perhaps the most significant learning experiences in society occur outside of the "schooling system" of the Core--both in informal learning situations in the home, through the media, through travel, cultural enrichment, and just life experience, in addition to other more formal learning activities. These "other" activities have been ignored by our information system. They take place in the "Educational Periphery"--in the military, governmental and private organizations, private proprietary schools, correspondence education, educational television, man-power training programs, and the vast potpourri of adult educational activities which take place in both Core institutions and the various public and private associations of our society. Let us examine both these areas, out of curiosity as to the truer dimensions of the "educating system" and also guided by the dictum that "any form of training which is in any way a substitute for education provided by the public authorities should come within the purview of statistical knowledge of these authorities."²
The Growth of the Core

The Office of Education, established in 1867, has since 1870 issued regular statistical reports on the "educational system"; that is, participation in elementary, secondary and higher education. *The Digest of Educational Statistics* has been published annually since 1962 by the National Center for Educational Statistics of the Office of Education in Washington. It posits that "its primary purpose is to provide an abstract of statistical information covering the entire field of American education from kindergarten through the graduate school... The Digest should prove useful to persons interested in the nature and scope of education in the United States and in particular to those individuals who are concerned with the formulation and conduct of public policy."

The following descriptions of education in America emerge from this portrayal.³

As the nation has developed economically and grown more complex socially, the educational system has continually expanded. The history of the nation is a chronicle of a lengthening educational span with earlier admissions and later exits and a longer school year with elementary and secondary students spending more than twice as many days in school as they did a century ago. Tens of millions of children now attend institutions where attendance is compulsory for all while additional millions continue on to levels which had previously been restricted to the select few.

Table 1 portrays the large absolute growth of the educational system during the past century.⁴
TABLE 1
THE EDUCATIONAL CORE (1870 to 1970)

<table>
<thead>
<tr>
<th></th>
<th>1870</th>
<th>1900</th>
<th>1940</th>
<th>1965</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>6.8</td>
<td>.2</td>
<td>.7</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Elementary</td>
<td>16.0</td>
<td>20.5</td>
<td>33.3</td>
<td>34.3</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>.08</td>
<td>.7</td>
<td>7.1</td>
<td>13.0</td>
<td>15.0</td>
</tr>
<tr>
<td>Higher Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under Graduate</td>
<td>NA</td>
<td>.2</td>
<td>1.4</td>
<td>4.9</td>
<td>6.5</td>
</tr>
<tr>
<td>Graduate</td>
<td>NA</td>
<td>.006</td>
<td>.1</td>
<td>.6</td>
<td>.8</td>
</tr>
<tr>
<td>Total</td>
<td>6.9</td>
<td>17.1</td>
<td>29.8</td>
<td>54.3</td>
<td>59.6</td>
</tr>
</tbody>
</table>

The different parts of the system have not grown together, but rather have experienced their greatest growth at different times. There has occurred a process of sequential expansion of different parts of the system. First, at the turn of the century, large growth at the elementary level was universalized through the nation. Then, secondary enrollments grew as the push for education extended to "high schools." And finally, the latest phenomenon occurring since the end of World War II, has been a great rise in "higher" education.

The figures by themselves reflect the large absolute growth of the system, but do not present a picture of the internal processes at work. The American population has grown greatly during the past century, ensuring a larger supply of potential participants in the Core, but that alone is an insufficient explanation of what has been happening. Not only are millions more participating in the Core, but a far greater proportion of each age group is doing so. In broad strokes, Table 2 portrays the changing rates of participation among various age groups in the population.
TABLE 2
PARTICIPATION IN THE CORE, BY AGE GROUP (per cent)

<table>
<thead>
<tr>
<th></th>
<th>1870</th>
<th>1900</th>
<th>1940</th>
<th>1950</th>
<th>1964</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-17</td>
<td>57.0</td>
<td>71.9</td>
<td>84.4</td>
<td>83.2</td>
<td>85.5</td>
</tr>
<tr>
<td>14-17</td>
<td>NA</td>
<td>11.4</td>
<td>73.3</td>
<td>76.8</td>
<td>91.8</td>
</tr>
<tr>
<td>18-21</td>
<td>1.7</td>
<td>4.0</td>
<td>15.6</td>
<td>29.6</td>
<td>38.1</td>
</tr>
<tr>
<td>18-24</td>
<td>1.1</td>
<td>2.3</td>
<td>9.1</td>
<td>16.5</td>
<td>23.3</td>
</tr>
</tbody>
</table>

While rates of participation have been rising for all age groups, they have been rising at different points in time; and for some groups, the rate has risen to the point where it can go no higher, the point of universal participation. This leaves only five year olds, and the 18-24 age group (representing the greatest number of eligible participants in higher education) as the areas of greatest future growth in the Core—not considering other areas of possible expansion, such as pre-primary and infant education.

Not only has there been a cumulative growth in absolute numbers participating in the Core, but there has simultaneously occurred a significant increase in the percentage completing each particular level of the ladder. Table 3 demonstrates the increase in the percentage of successive generations receiving a diploma or degree alongside the increase in absolute enrollments which has occurred.

TABLE 3
EMPLOYMENT AND DEGREES IN THE CORE 1870-1968

<table>
<thead>
<tr>
<th></th>
<th>Enrollment (Number of Students)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1870-71</td>
</tr>
<tr>
<td>Secondary</td>
<td>80,000</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>52,000</td>
</tr>
<tr>
<td>Graduate</td>
<td>1,000</td>
</tr>
</tbody>
</table>
Within the general picture of growth which has been depicted, there emerge a number of regularities which pervade the system. The relationship between high school completion and college entrance has remained fairly stable over the past century, and so has the relationship between college entrance and college completion—the major variations occurring during periods of war and depression. The figures for both of these have been about 54%, resulting in a college completion rate for high school graduates of 29%.

The fact that a fairly stable percentage of high school graduates complete college undermines many general perceptions regarding educational growth. It has always been taken for granted and stated as an obvious fact that the percentage of those attending and completing college is continually rising. This is in fact true! But this "obvious" observation and assertion has neglected the source of demand for higher education—the population of high school graduates. It is not that a larger percentage of high school graduates are attending and completing college. Simply stated, it is, rather, that there are just more of them! It is the large increase in the stock of high school graduates which has provided the greatest impetus to the growth of higher education. But there is a limit to any future growth which may be expected from this source. The percentage of each generation receiving a high school diploma rose from 1.8% in 1870 to 79% in 1968. Although participation in high school is now almost universal, the rate of
completion still allows for some amount of growth, although it is doubtful that it will go very much higher. The increase in this rate has been considerable during the decade of the sixties with the increased attention of public policy to the problem of the high school dropout and the various efforts directed at encouraging youth to stay in school and obtain a diploma. But it is questionable whether traditional strategies of encouraging high school completion will succeed with the remaining 21% of the eligible population which still does not obtain the diploma. It seems likely that intensive and specialized attention would have to be given to this group and that this group would be least likely to serve as a source of additional possible future demand for college entrance.

The foregoing indicates that the sources of past growth in higher education have dried up and that growth in the future will be a factor of encouraging either a higher rate of participation on the part of high school graduates and/or a higher rate of completion on the part of college entrants. This suggests that the American educational system may have reached a point of maturation in its process of growth and development, inasmuch as high school completion has nearly reached its higher limits, population growth is not expected to be an important factor (in fact, it is anticipated that during the coming decade the recent decline in elementary enrollments will be reflected in a decrease in high school enrollments), and there are certain regularities in the growth of the system which tie college entrance and completion directly to the stock of available high school graduates.

In opposition to this viewpoint is one that has traditionally dominated the American ideology of education—that is, that education is a good, the more one has of it the "gooder" it is, and that given the social status and economic advantages associated with higher education, it must be anticipated that the prevailing tendency will be in the direction of universalization of higher education opportunities for all, which will result in significant increases in rates of college entrance and completion. Allied
to this view are various notions regarding the shifting relationships between education, work and career, which presume decreasing employment opportunities for those with lesser skills and education (the two often being assumed as being coincidental) and a consequent increased demand for higher education.

These alternative views provide stimulating points of departure for conjuring up consideration of future developments in the Core. But each view, when stated in prescriptive rather than analytic terms, presents contrasting ideologies as to the role of the educational system, the worth of formal education, the amount of "good" represented in higher education, and prescriptions for public policy regarding the future subsidization of education. The analysis of past growth raises a number of questions along these lines—regarding policies for the remaining twenty per cent who have not attained a high school diploma, the future of development of "higher" education as regards both the different components of the existing system and the larger question of what might be the character of alternative forms of post-secondary educational activity. Related to this are questions regarding the participants, or perhaps beneficiaries, in the system, pertaining to the allocation and distribution of social benefits—who will participate in what form of education, at which time in life, and in what sort of institution? Now that that system has "matured" (if we accept even partially the import of that argument), in what direction will future growth or developments most likely take place? Is educational policy solely to be concerned with extending further the educational ladder of sequential progression, or are there other alternatives for choice outside the traditional system that might provide a larger framework of choice for policy makers and individuals?
The Challenge to the Core

I have pointed out the dominant focus of educational planning as it has developed in our industrial society and suggested that some of the major goals of this orientation have been attained. The creation of facilities, the "supplying of places," the provision of access and opportunity to increasingly large numbers of the population--these are some of the undisputable achievements created in our industrial society. But to say that these enormous problems of supply and support have been dealt with--ignoring for the moment the great progress which still must be made in many areas, such as the poor, various minority groups and the regional disparities existing in the nation--is not to suggest that there are no problems left for educational planning. Solutions to problems often only lay the basis for the emergence of even bigger problems. While the challenges to planning in an industrial society centered around the building of the system, the challenges emerging present the even more vexing demand for providing substance for those no longer satisfied by the mere provision of places.

The American ideology regarding education has enjoyed a phenomenal success--never so proclaimed and heralded as when two former school teachers occupied the highest offices of the nation, presiding over the greatest outpouring of legislative enactments supporting education ever recorded. This ideology has equated schooling with education and learning, and has measured progress in terms of "educational attainment," i.e., years spent in the schooling system. This ideology has drawn sustenance from the well-springs of democratic thought regarding the relationship between an educated citizenry, a democratic polity and the responsibility of government to provide access to education for all citizens. This ideology has justified itself by using the supreme arbiter of American values and purposes--the economic marketplace--to substantiate alleged causative relationships between schooling and earning power.
There is no doubt that the myth and mystique of education is a central feature of the American political ideology. In a society which has continually proclaimed the existence of equal opportunity for all and disclaimed against hereditary barriers of class or family, the educational system has been seen as the chief vehicle for allowing mobility to all. V. O. Key has described the process in the following manner:

The ideal of equality of opportunity vests in the American educational system another function of deep significance for the political order. In a rigidly structured society vertical mobility is apt to be slight: the sons and daughters of each social class "inherit" a status. The offspring of favored classes enjoy special opportunity, including access to education, and are apt to constitute most of the favored classes of the next generation. The sons and daughters of the less-favored classes, even though potential geniuses, are likely to remain in the status to which they were born. The philosophy of American education proclaims that each young person shall have an educational opportunity to develop fully his abilities—a doctrine that is part and parcel of democratic theory. Jefferson, hence, was not out of character as a democratic theorist when he proposed an educational system to skim off at various educational levels persons of genius and provide further training for them at public expense. "The object," he said, "is to bring into action that mass of talents which lies buried in poverty in every country, for want of the means of development, and thus give activity to a mass of mind, which, in proportion to our population, shall be the double or treble of what it is in most countries."

Such a doctrine, revolutionary in its day, provides a basis for an educational system that serves as something of an escalator for the social system. Even though upward mobility is in substantial degree an article of faith rather than a fact, the faith has a real political significance.

But the success of the ideology brings within its wake even greater challenges to the viability of the system. For where all have access, access alone can no longer be treasured. When diplomas and degrees are not the distinguishing characteristics of an elite, they can no longer be pursued for that purpose. When all conceive of schooling as a right, there is less pride solely in having gained some. The challenge to educational planning in an advanced industrial society is no longer the construction of
the system. Now that the great institutional structure of education has been created, talk of growth alone is no longer a sufficient justification of planning.

Evidence of dissatisfaction with the system is all about us—from the administrators, teachers and students who populate it, to the general populace, to the highest offices in the land. The "system" has become the whipping boy for all—both on the left and the right; from both the schooled and the unschooled. Now that the fruits of the traditional ideology have been attained, there seems to be a growing, or at least more audible, dissatisfaction with their taste. There is the sense that altogether too much importance and power has been ascribed to education, resulting in too great a control over the lives of people; too much taken for granted about the relationships between schooling and learning; too much power granted to those who possess the certificates of schooling; too much power and credibility ascribed to educational credentials as requirements for admission to desirable occupations and professions; too much thwarting and waste of energy and talent during periods of increasingly extended adolescence which are spent in school, while cut off from productive roles; too much emphasis on schooling as the preparatory and shifting device of the larger society. This dissatisfaction will become perhaps even more intense as the development of society affords fewer and fewer socially meaningful roles for younger people to experience, resulting in an increasing emphasis upon schooling as the prerequisite for admission to a useful life.

By focusing upon the challenges and criticisms of the Core, I do not mean to deny the great positive contributions the educational system has made to American society. I believe that the system has afforded greater opportunity and mobility to more people than has been available in any other large industrialized nation. It has been a major unifier of the American nation, providing not only the usual facilities for acculturation but also the major social mechanism for building a pluralistic society. It
has provided a common meeting place for all the diverse immigrant groups who otherwise would have had no contact with one another. Accepting these virtues as a given, however, I proceed to the question as to whether past glories and accomplishments are sufficient to the needs and demands of a rapidly changing and far different society. Does the type of society which now exists, and the perceptions we have as to likely futures, create a basis for a different approach to education and the "educational system" on the part of social policy and educational planning?
Education in the Future

There has been much discussion and writing of late as to the fact that the United States is currently entering (or perhaps has already arrived at?) a stage in its historical development which is different from anything which has preceded it or which has occurred elsewhere in the history of man. Numerous appellations have been used to describe the process--such as "post-industrial society," "knowledge society," "service economy," "organized society." Large increases in per capita wealth, an increase in the rate of technological innovation and diffusion, exponential growth in the stock of knowledge, a decrease in the proportions of unskilled workers accompanied by large increases in professional, technical, and managerial personnel, a growth in leisure time with the opportunity for either earlier retirement or successive participation in a number of careers during the span of a single lifetime, the increasing importance of service industries, a more rapid rate of occupational obsolescence--these are some of the oft-cited characteristics of the emerging social order. My interest here is in speculating whether factors of economic and social change have produced a social structure which opens up new challenges and possibilities for educational planning.

Daniel Bell has described three dimensions to the post-industrial society, in his opinion, the third being the most important:

1 - a shift from goods to services
2 - the emergence of a large scale professional and technical class
3 - the centrality of theoretical analysis as the source of innovation and policy analysis in society.9

The creation of a large professional class and the rapid creation and diffusion of new knowledge results in a more rapid rate of obsolescence of existing knowledge and skills. In an environment of dynamic change, knowledge and skill become more important than ever before to individual
success and achievement. Bell's contention is that while property was once the major indicator of status, with access to it determined primarily by inheritance, skill has now replaced property as the critical indicator and education has replaced inheritance as the mode of access. The traditional approach to education is no longer adequate to deal with the needs of society where knowledge and skills change so rapidly as to make continuing education neither a luxury nor indulgence—but a necessity. In addition, changes in the occupational structure, the amount of leisure and, most important, the level of education of the general populace, all serve to indicate a rising demand for education at different periods of life, both for work and more general cultural and leisure purposes.

All of this seems to indicate that for the first time in history, society will be confronted with the question of how to plan for—or at least to develop the possibility for—educative uses of time by the general population of adults. This relates to needs brought about by the changing relationships between education, work and career. It also relates to creating opportunities for a large mass of society which will have more time away from work than ever before and which will present a potential audience for education larger than the population catered to by the traditional educational system. The challenge to social policy will be to devise new alternatives for the education of adults both within and outside the regular system. The realities of new developments in knowledge creation and dissemination indicate that people will be learning in a variety of places—in the home, the school room, the work place, different groups and associations; through a number of different means—radio, television, correspondence, video tapes, computer-assisted instruction. Some of this will involve classrooms and more formal programs of instruction. Others will be no less structured, but will involve learning experiences of a more individualized nature, such as computer-assisted instruction or video tapes.
Before approaching the task of devising new alternatives to the Core, one must confront the question of whether our conception of the Core as "the educational system" has in fact been an accurate perception of the real dimensions of the "educating system." In a previous paper, I dealt with the concept of the "Learning Force" as a more comprehensive approach to the dimensions of the educational system. This concept, first developed by Professor Bertram Gross, defined educational participation in a far broader manner than the confines of the Core, focusing upon the "total number of people developing their capacities through systematic education; that is, where learning is aided by teaching and there are formal, organized efforts to impart knowledge through instruction. The Learning Force included not only participating in the Core but also extends the concept of educational participation to include the Periphery.

The Learning Force should in no way be equated with all those learning. As to how much and what sort of learning takes place inside or outside of schools, we know very little. The learning force simply extends our traditional framework for recording educational participation. In doing so, it lays a basis for understanding more realistically the dimensions of the American educating system in terms of not only educational enrollments, but also educational expenditures and employment. It also provides a broader framework for the examination of where and when education takes place and what sorts of alternatives to the Core already exist which might be considered as alternatives for both individuals and policy choices. These activities have traditionally been ignored both by public information agencies and also by educational policy makers. The non-recognition of the Periphery by public information agencies has abetted their non-consideration as alternatives for educational policy. This is but another example of the way in which our understanding and conceptual framework guide our collection of data, which in turn restrict us to the formulation of policy oriented only to the set of activities represented in the data.
The complexity and variety of the Periphery and the lack of attention by public information agencies results in a great gap between the accuracy of our knowledge about the Core and the Periphery. There exists no detailed accounting of the Periphery, although numerous efforts have been made to approximate the dimensions of specific activities. This difficulty is exacerbated by the fact that these activities vary greatly as to both the variety of institutional sponsorships and the nature of the time commitment involved—from short courses involving a few days of attendance to more lengthy programs involving even more hours of instruction than do Core programs. There also exists a good deal of double counting in that people may participate in more than one program.

While our information on the Periphery remains scant, unreliable and contradictory, lacking any centralized, systematized and regularized reporting, a number of attempts have, nevertheless been made to gauge the extent of this activity. The following represents my own attempts to develop estimates for the size of the Periphery.11

<table>
<thead>
<tr>
<th>TABLE 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE EDUCATIONAL PERIPHERY: ENROLLMENTS</td>
</tr>
<tr>
<td>(millions)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Organizational</td>
<td>8.2</td>
<td>10.2</td>
<td>10.9</td>
<td>13.0</td>
<td>14.5</td>
<td>21.7</td>
<td>27.4</td>
</tr>
<tr>
<td>2. Proprietary</td>
<td>2.5</td>
<td>3.5</td>
<td>3.5</td>
<td>4.0</td>
<td>7.8</td>
<td>9.6</td>
<td>18.1</td>
</tr>
<tr>
<td>3. Anti-poverty</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>2.8</td>
<td>5.1</td>
<td>7.0</td>
</tr>
<tr>
<td>4. Correspondence</td>
<td>2.7</td>
<td>3.4</td>
<td>3.5</td>
<td>4.5</td>
<td>5.0</td>
<td>5.7</td>
<td>6.7</td>
</tr>
<tr>
<td>5. TV</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.01</td>
<td>5.0</td>
<td>7.5</td>
<td>10.0</td>
</tr>
<tr>
<td>6. Other adult</td>
<td>3.9</td>
<td>4.8</td>
<td>5.1</td>
<td>6.6</td>
<td>9.1</td>
<td>10.7</td>
<td>13.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>17.3</td>
<td>21.9</td>
<td>23.0</td>
<td>28.3</td>
<td>44.2</td>
<td>60.3</td>
<td>82.4</td>
</tr>
</tbody>
</table>
A consideration of the total Learning Force enhances the variety of alternatives to the Core by bringing into consideration educational participation existing outside that system. Attention must be given to the relationships between the Core and the Periphery—to the manner in which they compete with or might complement one another; to the manner in which some activities in the Periphery might be substitutive for activities in the Core. This would involve the consideration of new approaches to the accreditation of educational participation and the legitimization of alternative routes to credentialization in the Periphery.

But to define educational participation in terms of the Learning Force alone is to also restrict and limit our conception of educational participation. Consideration of the Periphery is an advancement over restriction to solely the Core. But the parameters of the learning force—"systematic education; that is, where learning is aided by teaching and there are formal organized efforts to impart knowledge through instruction"—are also restrictive, excluding many other varieties of learning and self development. To assume that education takes place only where teachers are involved in formal organized efforts is to exclude some of the most significant learning experiences which people have. As John Gardner points out, education involves far more than the classroom—in either the Core or the Periphery.

The ultimate goal of the educational system is to shift to the individual the burden of pursuing his own education. This will not be a widely shared pursuit until we get over our odd conviction that education is what goes on in school buildings and nowhere else. Not only does education continue when schooling ends, but it is not confined to what may be studied in adult education courses. The world is an incomparable classroom, and life is a memorable teacher for those who aren't afraid of her.

The limitations of the Learning Force are pointed to by Michael Marien in his work on the "education complex," which he defines as "all organizations and parts of organizations involved with the provision of formal..."
educational services.  Marien develops an overview of the ways in which people are educated in the larger society, focusing upon both the Core and the Periphery (which he extends to include other forms of childhood education outside the Core) and the suppliers and beneficiaries of various educational services to both the Core and the Periphery. The main thrust of his argument is that participation in structured learning situations where teaching is involved should not be the main criterion distinguishing education, but that attention should instead be focused upon "who learns what, where, and how?"

The attempt to develop a comprehensive learning environment, which will combine the advantages of formal instruction with all kinds of other learning experiences, is a central element in many current proposals of innovation to reform the Core. An example of this approach is found in "A Design for A New and Relevant System of Education For Fort Lincoln New Town." This proposal to restructure the school system of the Fort Lincoln area in Washington, D.C. is conceived out of the conviction that the present system of education was designed for a purpose other than the one it is meeting today and needs to meet in the future. The planners see the challenge as being that of developing a "new system based on new goals and new concepts which will bring together all the best components and programs operating in the present system." The essential differentiating characteristics of the proposed system are presented in the following manner:

**PRESENT SYSTEM**

<table>
<thead>
<tr>
<th>Screen for college and ministry</th>
<th>Educate all students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmit knowledge to passive students</td>
<td>Involve students in active learning</td>
</tr>
<tr>
<td>Learning in groups following preplanned sequence</td>
<td>Individual personal plan</td>
</tr>
<tr>
<td>Closed-ended factual knowledge</td>
<td>Knowledge as process and inquiry</td>
</tr>
<tr>
<td>Direction and limits known</td>
<td>Search for meaning</td>
</tr>
<tr>
<td>Training in Three-R's</td>
<td>Three-R's plus social and career skills, sensitivity, independence, action, talent</td>
</tr>
</tbody>
</table>
Samuel Baskin's proposal for the creation of a "university without walls" is conceived with similar aims in mind.

The time is ripe for the development of fresh designs for college education--more relevant, more flexible in meeting individual needs, more economical, which serve more kinds of students, which utilize a broader range of educative resources, and which foster continuous life-long creative learning.

This proposal outlines an alternative plan for undergraduate work which can lead to a college degree. It is called a University Without Walls because it abandons the tradition of a sharply circumscribed campus and provides education for students in their homes, at work, within areas of special social problems, at more than one college, and in travel and service abroad. It abandons the tradition of a fixed age group (18-22) and recognizes that persons as young as 16 and as old as 60 may benefit from its program. It abandons the traditional classroom as the principal instrument of instruction, as well as the prescribed curriculum, the grades and credit points which, however they are added or averaged, do not yield a satisfactory measure of real education. It enlarges the faculty to include knowledgeable people from many walks of life and makes use of various new techniques for storage, retrieval and communication of knowledge. It combines the powerful influence of self-direction with the impact of genuine dialogue. It aims to produce not "finished"
graduates but life-long learners. Moreover, this program is so organized that, without impairing educational standards, it promises to cost students less and to pay faculty more.15

As an example that such thinking is by no means restricted to the United States, I cite a statement from the prospectus of "The Open University," an experimental university which opened this past year in the new city of Milton Keynes in North Buckinghamshire, England, quoted from an inaugural address by its first Chancellor, Lord Crowther:

We are open, first, as to people. Not for us the carefully regulated escalation from one educational level to the next by which the traditional universities establish their criteria for admission. "We took it as axiomatic," said the Planning Committee, "that no formal academic qualifications would be required for registration as a student. Anyone could try his or her hand, and only failure to progress adequately would be a bar to continuation of studies."

The first, and most urgent, task before us is to cater for the many thousands of people, fully capable of a higher education, who, for one reason or another, do not get it, or do not get as much of it as they can turn to advantage, or as they discover, sometimes too late, that they need. Only in recent years have we come to realise how many such people there are, and how large are the gaps in educational provision through which they can fall. The existing system, for all its expansion, misses and leaves aside a great unused reservoir of human talent and potential. Men and women drop out through failures in the system, through disadvantages of their environment, through mistakes of their own judgment, through sheer bad luck. These are our primary material. To them we offer a further opportunity.

But if this were all, we could hardly call ourselves a University. This is not simply an educational rescue mission--though that is our first task, and we do not decry it. But we also aim wider and higher. Wherever there is an unprovided need for higher education, supplementing the existing provision, there is our constituency...

The Open University is not the rival of the existing universities. It is designed to take over where they are compelled to leave off...
We are open as to places. This University has no cloisters—a word meaning closed. Hardly even shall we have a campus. By a very happy chance, our only local habitation will be in the new city that is to bear two of the widest-ranging names in the history of English thought, Milton Keynes. But this is only where the tip of our toe touches ground.

The rest of the University will be disembodied and airborne. From the start, it will flow all over the United Kingdom...

We are open as to methods. We start, in dependence on, and in grateful partnership with, the BBC. But already the development of technology is marching on, and I predict that before long actual broadcasting will form only a small part of the University's output. The world is caught up in a Communications Revolution... Every new form of human communication will be examined to see how it can be used to raise and broaden the level of human understanding...

We are open, finally, to ideas. It has been said that there are two aspects of education, both necessary. One regards the individual human mind as a vessel, of varying capacity, into which is to be poured as much as it will hold of the knowledge and experience by which human society lives and moves. This is the Martha of education—and we shall have plenty of these tasks to perform. But the Mary regards the human mind more as a fire that has to be set alight and blown with the divine effluence. That also we take as our ambition...

These are but a few of many attempts of educational innovation aimed at reducing the gaps between formal and informal modes of learning and also at challenging many of the traditional approaches of the Core system regarding time sequences, accreditation and credentials. While I do not claim that this will be a dominant thrust of education in the future, the consideration of these alternatives opens up many and different ways in which education might be restructured in the future, enlarging our sense of possibilities for the formulation of a "better" educational policy.
Towards a New Conceptual Framework for Educational Policy

Educational policy in an industrial society has been concerned essentially with the institution and maintenance of the Core. This task has been by itself sufficient to monopolize the energies and concerns of both educational manpower and societal resources. But the previous discussion indicates that such an emphasis on the Core will no longer be adequate. What is needed is a rethinking of the ways in which people learn and develop, with greater governmental concern and support for many of these neglected areas. To be sure, such a venture invites a host of new and more complex difficulties regarding the legitimacy of governmental intervention in areas which have traditionally been considered outside the purview of governmental concern and public policy. Advocacy of a broader approach is easily open to charges of stimulating the behemoth of government power and control. But to eschew such a venture due to trepidation about possible outcomes is to deny the very great power that the state currently does have in terms of the "authoritative allocation of values" represented in the creation, subsidization, and rewarding of the existing educational system. Not to look elsewhere for new alternatives to educational policy, out of fear of the unintended consequences that such pursuits would engender, is to avoid responsibility for the existing impacts of policy, albeit they are restricted to somewhat more neutral and numerical concerns regarding the "supply of places" and the manpower needs of the economy.

The existing system has been created through public policy. There are many unintended consequences of that policy which should be reexamined in the light of new developments in the ways in which knowledge is created and disseminated in modern society. Our traditional approach to education has focused upon schooling as a required preparation for life, with its attendant diplomas and degrees a mark of required distinction for entrance to desirable occupations or professions. Education as identified with schooling has been considered to be good, and "the more one has the 'gooder'
it is." But a "knowledge society" means that the new knowledge is con-
stantly being created at a more rapid rate than ever before and that 
eexisting skills must be developed and relearned at various times during 
a person's life. The concept of education as a terminal activity is in-
adequate to the demands placed upon individuals in modern society. The idea 
that the formal schooling system is the major depository of education and 
learning, while never really true, is now more fallacious than ever.

The notion that the credentials of the school system are an adequate 
indicator of talent and ability and a sufficient guideline for occupational 
and status demarcation is increasingly being challenged. Whether one agrees 
that students are caught in a "credentials trap" or that a consequence of 
our educational policy is to create a "diploma curtain" which divides and 
discriminates among those who possess or lack the official schooling cre-
dentials, there is no denying the great power which these credentials give 
their possessors and the disadvantages accruing to those who lack them.
As Peter Drucker points out:

We are in danger of confining opportunity to those--still 
less than half of our young people--who have stayed in school 
beyond high school, and particularly to those who have finished 
college... We are thus denying full citizenship in the know-
ledge society to the large group--15 to 20 per cent, perhaps,--
who stopped before they could get a high school diploma. And we 
are sharply curtailing access to opportunities for half 
the population--the ones who don't attend college... By denying 
opportunity to those without higher education, we are denying 
access to contribution and performance to a large number of 
people of superior ability, intelligence and capacity to achieve. 
There is not much correlation between ability to do well in 
school and ability to perform in life and work (except perhaps 
in purely academic work). There is no reason to believe that 
the diploma certifies too much more than that the holder has 
sat a long time.... Limiting access to opportunity to those 
with a diploma is a crass denial of fundamental American 
beliefs.... But in the United States, where class has never 
controlled, the substitution of the diploma for experience as 
the key to opportunity and advancement, restricts, oppresses, 
and injures individual and society alike.17

24
Or as S.M. Miller points out in describing the "credentials trap,"

We are increasingly judging people in terms of their educational credentials rather than in terms of their performance and potential performance. As we become increasingly unsure of how to judge the performance output, we emphasize the educational input of the performers as the criterion for achievement. Education has become the major route of economic advance in our society.... We have reduced the roads of social mobility to one main highway—that of education.... We are establishing principles for excluding people from the economic mainstream rather than constructing procedures which will bring more people into decent employment.... The credentials system is irrational. It places too much confidence in the schools as an adequate sifter of talent and potential. It excludes rather than includes. It maintains and probably accentuates existing patterns of discrimination. It does not even appear to have a high payoff for employers.18

The challenge to public policy and educational planning is to support education and learning within the schooling system and elsewhere, wherever and however policy can aid in encouraging learning, realizing all the while the limitations and harm rendered by conceiving of education as coterminous with and coincidental to schooling.

A new conceptual framework for the formulation of policy must include not only those programs in the Core but also the variety of alternatives presented in programs in the Periphery and in other more informal types of learning activities. The focus of policy must shift away from viewing education as coterminous with the end of adolescence and instead see education as a life long process which will take place in all areas of society, both inside and outside schooling situations. The first result of such an approach would be to increase and extend the governmental involvement in education. The growth of the Core took place because of a gradual extension of the levels of education which are supported by public funds. Without this assumption of support, a mass system of elementary and high schools could never have been developed. Lately, concern has been directed towards extending the numbers of years people must spend in formal schooling by
implementing universal access to "higher" education. None of these developments would have been possible without the involvement and commitment of public resources. Now it seems that in considering a future governmental role for supporting higher education, the challenge to policy is to conceive of the question as not just one of appropriate degrees of aid to enable all high school graduates to proceed to college, but the broader question of the educational needs of the American population—of adults as well as of children.¹⁹

The monopoly over credentialization currently enjoyed by institutions in the Core would have to be reduced through the recognition and subsidization of other alternatives as legitimate avenues to personal development. At the same time, in order for this approach to succeed, action would be required to affect the processes of the labor market and the occupational structure which interacts with and supports the controls and power of the educational system. Public policy would then focus on a set of interrelated factors—reducing the credentials requirement for obtaining desirable employment; restructuring jobs so that employees could have greater access to occupational mobility through the course of their activities and continued education while on the job; and also the recognition and support of many different educational alternatives outside the regular system.

In the great variety of the Periphery lies its potential for providing alternatives to the regular educational system. Being less subject to institutional rigidities and practices of the past, the Periphery offers the possibility for various new and innovative forms of learning and development. Since the activities are not structured as part of an integrated sequence of activities, access is open to many who would ordinarily be excluded from participating in the Core due to the requirements of most of the regular educational institutions. Programs in organizations, anti-poverty programs, correspondence, television, proprietary schools, and general adult education, present a variety of learning situations from
which individuals can pick and choose during the course of a lifetime while engaged in "continuing education." These activities provide choices for continued learning both in areas directly related to job skills and also in more general cultural and leisure time interests.

Due to the emphasis which has been placed upon the regular "educational system," little attention has been given to the contributions which the Periphery has to make to educational planning. Recognition, prestige, status and power have been monopolized by the institutions of the Core. One contribution of the Learning Force—as part of a different conceptual framework for educational policy—would be to enlarge the areas for innovation and choice. This could then be the basis of an educational system more consonant to the needs and realities of the ways in which people will have to learn in a post-industrial society where knowledge has become the key resource of people and the major mode of access to desirable occupation and status.

A new approach to education would challenge many of the traditional political relationships of our social order. Educational policy would focus upon the basic questions of how learning takes place best, at what time in life, and in what sort of environment. Who should have accepted what kind of education, when and where? The distinctions between work and education, between public and private, would be greatly lessened as people would become educated in all sorts of places, wherever it was felt the opportunities existed, regardless of whether the site was the schoolhouse, the factory, the large organization, or direct involvement in various community or work experiences. Recognition would be given to these experiences as being as legitimate as time spend in the school room. Public support for education would be extended into places of work, and places of work would also be expected to support education for their employees—thereby upsetting the present pattern of the school system serving at public cost as the supplier of manpower for business and industry. There would then be greater articulation between education, jobs, work and
This paper focuses upon the manner in which our traditional approaches to education have become inadequate to the challenges and needs of today and tomorrow. Public policy must concern itself with a variety of new approaches to education. This involves shifting away from the traditional focuses of education upon the Core and providing other alternatives for learning and personal development, in different forms and places, at different periods in life. This involves looking at both the Periphery and the education complex as a source of new and legitimate considerations for public policy. To do so is to bring into question many of the values and practices that have characterized education in our industrialized society—the equation of schooling, education and learning; the focus of planning upon the supply of places for the Core and the manpower requirements of the economy; the monopoly of accreditation, status and power by the Core as reflected in the educational ladder of sequential achievement; the relationships between jobs and credentials requirements; the relationships between public and private governments regarding the provision and recognition of educational services.

Changes in the economic and social structure of society indicate the possibility, if not the capacity, of readjusting our approaches to education and supporting an educational system which will enhance the variety of alternatives and possibilities for human development. The so-called "crisis" of the educational system opens the possibility for innovative approaches to educational planning.

The challenge to policy in the new age will be to place less restrictions on the place and time of learning—as it currently does, by awarding monopolistic control over resources and prestige to institutions of the
Core—and to encourage other alternative paths to education and a loosening of the structured time sequence of the regular school system. It seems that both the needs of a knowledge society and the political pressures of protests against many of the harmful effects of the current system provide a basis for developing a new conceptual framework for educational policy which looks at education in a broader sense than the traditional "educational system."
NOTES


2. Ibid., p. 231.


6. I am grateful to Jim Byrnes of the Educational Policy Research Center at Syracuse for educating me regarding some of the dynamic relationships of growth which have prevailed in the Core over the past century. For further clarification of these points see, James C. Byrnes with the assistance of Michael Folk, The Quantity of Formal Instruction in the United States: A Report on Phase I of the Post-Secondary Education Project, Educational Policy Research Center at Syracuse, January 1970.

7. Table 3 is derived from the work of James Byrnes and Michael Folk on enrollment and degrees in the Core 1870-1968. See, Ibid.


10. For the distinctions between the "educational system" and the "educating system," I am indebted to the illuminating insights provided by Thomas F. Green. Especially, see his "The Educational Policy Center at Syracuse: An Unusual Venture," Educational Policy Research Center at Syracuse, September 1969, and also his recent presentation before the Committee on Science and Astronautics of the House of Representatives, "Education and Schooling in Post-Industrial America: Some Direction for Policy," January 1970.
11. The estimates which I present on the Learning Force were gathered during research conducted both at the Educational Policy Research Center at Syracuse and at the Department of Health, Education, and Welfare in Washington. Estimates of the Core are derived essentially from Government publications, primarily the Digest of Educational Statistics and Projections of Educational Statistics. Material for the Periphery is derived from a various number of different sources both in and out of government, through many contacts with various private organizations engaged in the organization of educational activities in proprietary schools, correspondence schools, television, general adult education, and business and industry. For a fuller description of sources and the difficulties involved in the use of this data, see Stanley Moses, "The Learning Force: An Approach to the Politics of Education," paper presented to the American Political Science Association, September 1969. Also, "The Learning Force: Notes on a New Concept for Education," Educational Policy Research Center at Syracuse, December 1969.


19. The Educational Policy Research Center at Syracuse has embarked on such a venture, focusing upon the "educating system" in terms of the needs of all citizens for education at various periods in life past high school, rather than just the question of conceiving of post-secondary as involving solely the demands of high school graduates for entrance into college at a specific time in life. A number of different papers have been written regarding this matter to which I am indebted in the development of some of these ideas. See the work of Byrnes, Green, and Marien.