

A CRITICAL REVIEW OF STATE AND NATIONAL
STUDIES OF THE NEEDS AND INTERESTS OF ADULT LEARNERS

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Within the past five years, more than 30 major studies have been issued concerning the participation and interests of adults in further education. Most of the studies survey a sample of adults in a defined area, asking via field or telephone interviews, about interests, plans, perceived barriers, past learning experiences and the like. The sponsors of the studies are frequently state agencies with some responsibility for long-range planning in education, and the reports are expected to serve as planning documents.

The reports provide an unusual opportunity for researchers and policy makers to assess the state of knowledge with respect to what is known about the educational needs of adults. But they also provide an excellent opportunity to evaluate our progress in designing studies that will provide useful information. The existing studies are similar enough to permit some generalizations across studies, yet different enough to provide some breadth of perspective.

The purpose of this paper is to present findings from a synthesis of state and national studies and to point to some of the questions and issues raised by the nature of the reports themselves.

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Addressing the Demand for Adult Learning Opportunities

Although many people assume that it should be possible to arrive at some kind of "demand" figure purporting to show how many adults would continue their education if the conditions and price were right, it is virtually impossible to offer such a figure with any confidence. Not only do we not know what the future "demand" will be, we do not even have very reliable figures as to what present use is. If participation is defined as learning through an "organized learning activity," or "the receipt of instruction," surveys show that somewhere between 12 and 30 percent of the adults who are not full-time students in high school or college may be adult part-time learners (NCES, 1975; Carp, Peterson and Roelfs, 1974). If, however, participation is defined as "A sustained, highly deliberate effort to learn," then one study concludes that 98 percent of the adults are participants in adult learning activities (Tough, 1971). Obviously, a participation rate varying between 12 percent and 98 percent is not very useful for planning purposes.

Predicting the demand is even more difficult and precarious. To a general question such as, "Is there anything in particular you would like to know more about or would like to know how to do better," affirmative responses run as high as 77 percent (Carp, Peterson, and Roelfs, 1974). To a more specific question such as, "Within the next two years would you like to engage in some form of further

learning beyond high school," affirmative responses vary from 36 percent in Iowa to 59 percent in California.

For the nation as a whole, a reasonable estimate is that somewhere around one-third of the adults are probably participating in some form of organized learning activity and that somewhere between one-third and two-thirds say that they are seriously interested in further learning of some kind.

Actually, we know a lot more about patterns of participation and interest than we do about numbers. There is remarkable consistency across the 31 major recent studies listed in Appendix A as to who is interested in further education and reasonably good agreement on what kinds of programs and services they say they want. Some of the problems in being too literal about using survey responses for planning purposes, however, are discussed on pages 21-26.

Almost everyone agrees that the demand for part-time learning opportunities has increased dramatically in recent years, but there are some who warn that the rate of adult participation is slowing down now and that future rates of increase will be even slower as the World War II baby bulge passes through their early adult years (O'Keefe, 1977). The best figures available on trends in adult participation are those from the NCES Triennial Surveys which are as follows:

	Eligible Adult Population (Thousands)	Participants in Adult Education (Thousands)	Participation Rate (per cent)
1957 ¹	108,363	8,270	7.6
1969	130,251	13,041	10.0
1972	138,865	15,734	11.3
1975	146,602	17,059	11.6

The numbers of participants represented by the above figures are generally conceded to underestimate the extent of adult learning activity, but the general trend has not been questioned--perhaps because there are no competing data. Between 1969 and 1972, there was a 20.7 percent increase in adult learners with a 6.6 percent increase of their numbers in the population. Between 1972 and 1975, however, the adult population grew by 5.4 percent while their participation in organized learning activities increased by only 8.4 percent. While these data have led some analysts (O'Keefe, 1977) to conclude that the boom in adult education may already have peaked, it is also true that the opportunities for adult learners are increasing at an unprecedented rate--at least in the offerings of colleges and universities which supply about 40 percent of the "organized learning opportunities" for adult part-time learners. In 1967-68, 1,233 colleges and universities reported offering adult and continuing education; by 1975-76, the figure had almost doubled, rising to 2,225 institutions (NCES data). Since

¹The 1957 figure is from Wann and Woodward, 1959 and is not completely comparable to the Triennial Survey data of 1969, 1972, and 1975, but it is the best figure we can provide for data prior to the Triennial Surveys.

there is plenty of research to show that increased opportunity spirals into increased demand, any solid predictions about the probable future of adult education seem risky.

Despite the many areas of uncertainty, especially with respect to "demand" figures, there is much to be learned from the available data. This paper attempts to present some highly distilled descriptions of various subpopulations of adult learners. Supporting data and documentation may be found, along with qualifications and exceptions to the generalizations made here, in Cross and Zussman (1977) and in Cross (1978). The purpose here is to paint the broad picture that is emerging from the vast amount of activity that is represented in the descriptive studies of the past five years.

Participation Rates by Subgroups

Table 1 shows the participation rate in "organized instruction" for adults 17 and older who are not full-time students in high school or college. Data are from the 1975 NCES Triennial Survey which showed that 11.6 percent of the adults were participants in organized learning activities. To highlight groups that are underrepresented in adult education, those with a participation rate of 11.0 or less are underlined.

TABLE 1

Participation Rate in Adult Learning in 1975

	<u>Participation Rate</u> ¹
Age	
17-24	11.5
25-34	20.6
35-44	15.0
45-54	10.5
55-64	5.8
65 and older	2.3
Race	
Black	6.9
White	12.1
Other ²	13.4
Sex	
Male	11.7
Female	11.6
Educational attainment	
Elementary (0-8 years)	2.0
High school (1-3 years)	4.6
High school (4 years)	11.9
College (1-3 years)	17.6
College (4 years)	27.0
College (5 or more years)	30.4
Income (dollars per year)	
Under 3000	4.4
3000-4999	5.5
5000-5999	7.5
6000-7499	9.1
7500-9999	11.5
10,000-14,999	12.9
15,000-24,999	15.8
25,000 and over	17.7
Hours worked May 11-17, 1975	
Less than 10	7.2
10-14 hours	8.6
15-34 hours	11.6
35 or more	15.3

TABLE 1 (con't)

	<u>Participation Rate</u>
Region	
<u>Northeast</u>	<u>10.0</u>
North Central	11.2
<u>South</u>	<u>10.4</u>
West	16.6
Metropolitan status	
In SMSA ³	12.7
<u>Central City</u>	<u>11.0</u>
Outside central city	14.0
<u>Not SMSA</u>	<u>9.4</u>
<u>Non-farm</u>	<u>9.8</u>
<u>Farm</u>	<u>6.7</u>

¹Participation rate is computed from a total population base of 146,602,000 non-institutionalized adults 17 years of age and over. In 1975, the overall participation rate was 11.6 percent. Groups with an 11 percent participation rate or less are underlined.

²The Census Bureau classifies Hispanics as either black or white.

³Standard Metropolitan Statistical Area (SMSA) is a complex category of population density used in Census Bureau analyses.

Source: Compiled from NCES data, 1975.

The message is quite clear that adult education is serving the privileged classes out of proportion to their numbers in the population. The underlined categories in Table 1 reveal that blacks, the elderly, those with part-time jobs, low incomes, and low educational attainment are underrepresented as far as participation is concerned. There are also some interesting regional and population density variations shown in Table 1 which will be discussed later.

In a reanalysis of 1972 NCES data, Froomkin and Wolfson (1977) showed that although the less privileged were underrepresented in the participation statistics, they were not necessarily underserved as far as resources go. Froomkin and Wolfson contend that when education is measured in terms of "total contracted hours," the lower classes sign up for as much education as the upper classes do. Thus, whereas the privileged classes account for a larger number of registrations, they spend fewer hours in organized learning than disadvantaged learners who engage in learning requiring larger chunks of time.

Age

Participation and interest in organized educational activities are clearly related to age. Interest, as well as participation, starts to decline in the 30s and drops off sharply after age 55. Summarizing data across a variety of state and national studies, we can conclude that no more than 5 to 10 percent of those over the age of 55 are currently participating in organized learning activities, and less than one-fourth express any interest in further learning. The reasons given for their disinterest are primarily feelings of being too old, lack of energy, and the difficulties of transporting themselves to the places of learning.

The interests of those older citizens who are interested in further learning, however, are sharply differentiated from those of

the majority of adult learners. As a group, older learners are not interested in credit or formal recognition of any kind. They are participating in educational activities primarily for pleasure, for their own satisfaction, and to meet and be with other people. In the California study, almost half of the potential learners over the age of 60 said that a primary motivation for their participation in learning activities was to meet new people. Yet NCES data show that older learners are overrepresented in most forms of "lonely" learning. They, more than other age groups, use television, radio, and private lessons. These forms of home-delivered education are consistent with the strong priority given convenience of location by older people, but there would appear to be a need for more socially-interactive modes of learning. If there were to be a public policy of encouraging the learning activities of older citizens, it should provide opportunities for socially interactive learning, stressing handicrafts, health, nutrition and other subjects useful to older citizens, offered at convenient locations or through good transportation to adult learning centers.

Ethnic Minorities

It is increasingly doubtful that there is an ethnic minority profile of educational needs and interests, either as a group of "minorities" or separately as blacks, Hispanics, Asians, and so forth. All data show that individual interests span the full range of offerings

from basic literacy education to postgraduate research, and that for all demographic groups, the range of interests is inevitably greater within groups than between them.

Despite the interest of federal and state agencies in equal educational opportunities for ethnic minorities, the data on their participation in adult education are not wholly adequate--possibly because the state samples do not contain sufficient numbers of ethnic minorities to be able to draw reliable conclusions. The best data available on the participation of blacks in adult education activities are found in the NCES Triennial Surveys.² In 1975, 12.1 percent of whites participated in some form of adult education compared to 6.9 percent of blacks. Moreover, the participation of blacks has been declining in recent years, from 7.8 percent in 1969 to 7.4 percent in 1972 to 6.9 percent in 1975. Participation for whites, on the other hand, increased from 10.2 to 11.7 to 12.1 for the three years of the Triennial Surveys. The greatest decrease in part-time learning occurred among blacks between the ages of 35 and 54, where the drop from 1969 to 1975 was from 8.8 to 6.4; rates for whites in that age group rose from 11.3 to 13.4 percent.³ There is no readily apparent explanation for the trend data of black participation, and it is obviously a topic for further analysis.

²Printed reports for NCES offer data only for white, black, and others. "Other," however contains such diverse ethnic groups that lumping them together seems fruitless for analysis.

³A change in the assignment of full-time students in 1975 may have had some effect on these statistics, but it does not appear to alter the conclusions that part-time study among adult blacks is decreasing.

If blacks and whites are equated for educational background, there is not much difference in participation rates, especially at the high and low ends of the educational attainment continuum. In 1972 both blacks and whites with less than a high school diploma showed a 4 percent participation rate, and both blacks and whites with a college degree or more, had participation rates of 29 percent. In the middle ranges i.e., high school graduates and those with some college, whites participated at a slightly higher rate than blacks.

It is a consistent finding across studies that blacks are using education for upward job mobility. They express more interest in job-related education than whites, and they rarely show any interest in so-called luxury education, such as hobbies, recreation, education for personal development, and so forth. Given this orientation, it is not surprising that blacks express more interest than whites in formal recognition for their learning (degrees or certificates of learning), and that they are attracted to familiar and credible forms of learning, tending to do their learning in regular school buildings and through classroom formats.

Although public policy concentrates largely on reducing the cost of education to ethnic minorities, the data are mixed with respect to financial need. For example, while cost is cited as a barrier to continued education more frequently by blacks and Hispanics than by whites in New York, the differences are not very significant in California. And while cost is a problem for Hispanics in New York, Native

Americans find it less problem than home responsibilities and finding appropriate classes to take. Cost data are hard to interpret because they are confounded with age, sources of reimbursement, type of education desired, and so forth. It would appear, however, that providing financial assistance for education to ethnic minorities and other low income groups is not an adequate answer to their needs. The need is to provide education and credentials that are respected by employers and potential employers and to offer education that has an obvious practical utility for improving living conditions and career satisfaction.

While many have interpreted upwardly striving groups to be conservative with respect to their educational preferences and to be leery of non-traditional forms of education, the data indicate that it is not the non-traditional forms that are in question, but the credibility and prestige of education which, in the case of upwardly striving groups, is desired primarily for extrinsic, as opposed to intrinsic, rewards.

Sex

Nationally, the rate of participation in organized learning activities is about the same for women as for men.⁴ That equality, however, is a recent phenomenon. In 1969, 9 percent of adult women

⁴There is some variation among state studies on this finding ranging from substantially more female participants in Iowa to no difference in Kansas to slightly more men in California. The national figures of NCES cited here, while conservative in terms of numbers, appear to reflect reasonably representative patterns of male/female participation.

were participants in adult learning compared with 11.2 percent of the men. By 1975, the figures were 11.6 for women and 11.7 for men, with the greatest closing of the gap taking place among young learners in the 17 to 34 year old age group. From 1969 to 1975, women learners in that age group increased from 12.3 percent to 16.0 percent while male participants dropped from 16.8 percent to 16.0 percent. White women (but not black) in all age groups have shown gains in educational participation over the last six years.

Men are usually designated the appropriate comparison group when describing the needs and interests of women learners and potential learners. This inevitably leads to talking about "sex" differences in needs and interests when what we probably should be talking about is lifestyle differences. There is some evidence, for example, that the needs and interests of employed women differ more from those of full-time housewives than the educational needs and interests of women, as a group, differ from those of men. For the purposes of this description, we will follow the convention of contrasting the characteristics of men and women because that is the way the data are presented in the studies reviewed. This is a good time to make the point, however, that the form in which data are presented has a critical, and frequently unrecognized, impact on conclusions and on eventual policy making. Since clusters of potential learners with common and sometimes critical learning needs cannot be served unless they are identified by those who set up the tables, it is frequently the individual running the "cross tabs" who unintentionally becomes the determiner of policy.

There is not much in the data on adult women learners and potential learners to reflect what most of us perceive to be rather significant changes in the educational needs and interests of women in recent years. But comprehensive trend data is very rare, and what there is, is difficult to interpret. Presumably the NCES Triennial Surveys could provide trend data for at least the last six years, but the particular presentation format used in the 1975 preliminary tables precludes making observations about trends on any except a few variables such as age and rate of participation. The studies of the national Commission on Non-Traditional Study (Carp, Peterson, and Roelfs, 1974) does indicate an apparent shortage of job-oriented courses for women. Whereas 40 percent of the potential women learners expressed an interest in vocational subjects, only 24 percent of the actual learners were taking vocational courses. There was no gap between the expressed interests and actual participation of men in job-related subjects.

The results of most studies, however, quite consistently reflect traditional stereotypes of male and female roles. Men are more interested in job-related education; women are more interested in cultural enrichment, home and family, and education as an opportunity to meet new people and to get away from daily routine. The barriers for women are typically cost and home responsibilities; for men it is likely to be lack of time, with job responsibilities and home responsibilities both contributing to the time problem. Perhaps the most

surprising thing about the data on sex differences is that there were rarely any significant departures from traditional thinking about male/female roles.

The documentation of trend data is an urgent priority in planning for the education of women in these rapidly changing times, but it is equally important to give some attention to the analysis of data in educationally relevant, as opposed to demographic, groupings. Women entering the job market, career women, women fully occupied with home and family are groups that should not be lumped together under the statistically convenient, but educationally irrelevant, category of "women" if we hope to plan sensitive educational responses for a diversity of needs and interests.

Educational Attainment

Of all the descriptors of learners, educational attainment is more closely related to the interests, motivations, and participation of adult learners than any other single characteristic. This observation is incredibly consistent across a wide variety of studies. It is demonstrably true that the more education people have, the more interested they will be in further education, the more they will participate, and probably the more they will demand from state and federal planners.

Shown below are some participation rates of adult part-time learners by educational attainment.

TABLE 2

Participation Rates by Highest
Level of Prior Education

<u>Highest level of prior education</u>	<u>Percent participating</u>	
	<u>CNS 1972</u>	<u>NCES 1975</u>
Elementary school (0-8 years)	10	2.0
High school (1-3 years)	20	4.6
High school graduate (4 years)	31	11.9
College (1-3 years)	48	17.6
College graduate (4 years)	{ 57	27.0
Advanced study		<u>30.4</u>
Average	31	11.6

Sources: CNS (Carp, Peterson, and Roelfs, 1974); NCES, 1975.

Although the CNS survey found a higher overall rate of participation than NCES, the patterns are similar and show a clear increase in participation rates with increasing educational attainment. The interest expressed by would-be or potential learners follows the same pattern. Furthermore, the hierarchy of participating learners, potential learners, and non-learners (those who express no interest in further education) is highly related to educational attainment, with participating learners being well educated already and non-learners generally having poor educational backgrounds.

An understanding of the relationship of participation in continued learning to level of educational attainment is fundamental to policy makers. In this egalitarian age, society is not eager to create policy that will increase the gap between the haves and the have nots. Yet broadening the opportunities for "voluntary" education permits those with high motivation, high past success, good information networks, and adequate funds to get more and more education, while those already dragging in the educational race fall farther and farther behind.

Broadly speaking there are three hypotheses for the consistent and positive relationship between educational attainment and educational interest. One is that education has done such a good job that the more people experience it the more they like it--either for its intrinsic or extrinsic rewards. A second hypothesis is that those who have been successful in the fairly narrow demands of the educational system stay in it longer and also wish to return to the scene of their earlier success. A third hypothesis is that human beings are basically curious and enjoy learning, but that the haves possess the information and the wherewithal to pursue learning that interests them, whereas the have nots are handicapped and thwarted in attaining what all people basically desire.

Policy emphasizing financial entitlements and community walk-in counseling and information services is predicated on Hypothesis Three. The assumption is that providing the disadvantaged with the money and information to make use of educational opportunities will help to narrow the gap between the haves and the have nots. Attention to

new forms of education, orientation, confidence-building, and non-competitive and competency-based measures of success implies an acceptance of Hypothesis Two, through helping disadvantaged groups obtain the kinds of education they desire and to see themselves as successful learners. Job qualifications that stress educational credentials, and program evaluations that place a high value on student retention seem more in line with Hypothesis One since such practices would tend to reward the attainment of education and credentials.

Acceptance of the various hypotheses is presently more accidental than conscious and appears based more on belief than on research knowledge. Obviously, the role of educational attainment in stimulating interest and motivation in further learning is a critical area for research, and there are already fragments of data in the literature that could be marshalled in support of the various hypotheses.

Regional Variations

National and state studies of participation and interest in learning show considerable variation by geographical region. Table 1, for example, shows that the rate of participation in the western states is significantly above the national average--16.6 percent compared with 11.6 percent nationally. Furthermore, the West is the only Census Bureau region to show above-average participation rates in all categories of population density--cities, suburbs, towns, and rural areas.

The state needs assessments of California and Iowa provide further evidence of real regional differences because these two studies used

essentially the same design and interview questions. In California, 59 percent of the respondents said they were interested in further learning beyond high school within the next two years, whereas in Iowa, only 36 percent indicated similar interest.

Disparities in participation and interest are even greater when indices of population density are used. Sparsely populated areas show low participation rates, especially in farm areas where learning participants constitute only 6.7 percent of the eligible population: the comparable figure for the suburbs is 14 percent (See Table 1).

Comparative studies of regional variations are exceptionally rich in their potential for contributing to our understanding of the role of factors such as the educational attainment of the populace, the availability of free-access colleges, and the climate of social acceptance for educational activities in stimulating participation and interest in lifelong learning. Support of comparative regional studies which are designed so as to make comparisons justified, would help to isolate some of the factors leading to favorable climates for learning.

Knowing what we know about the importance of the role of past educational experiences in stimulating interest in future educational activities, it would appear that in the absence of federal intervention, states and regions with high educational opportunity will increase their lead over states with less educational emphasis. Indeed it is perhaps more than coincidence that the states taking the leadership

in studying the issues of increased opportunity for adult learners are the states in which the level of educational attainment (and therefore educational demand?) is highest. To my knowledge, there are no adult educational needs assessments commissioned by southern states, where the educational attainment of the populace is relatively low. Given its natural head, educational opportunity will increase in the "have" states, adding to growing regional gaps in educational attainment.

These capsule summaries describing the needs and interests of various subpopulations show that the recent rash of needs assessments have raised more policy questions than they have answered. The primary policy issues emerging from demographic groupings of potential learners are related to equal opportunity and to eradicating some of the blatant gaps between educational opportunities for the haves and the have nots.

To summarize quickly, the following observations have been made about the needs of particular subgroups.

- Education for older citizens faces a challenge in providing more opportunities for socially-interactive learning at convenient locations.
- It will probably be more useful to target educational opportunities to groups having common educational goals rather than common demographic characteristics such as race or sex. For minorities striving for upward socioeconomic mobility, there is a need for education with high prestige and credibility in the eyes of potential employers. For women, more useful needs profiles could be developed through goal-oriented groupings such as career women, women entering the labor market, and full-time housewives.

- The strong relationship between past educational attainment and participation in adult learning activities operates to increase the educational gap between the well educated and the poorly educated. In the absence of public intervention, the haves will increase their educational lead because they have the motivation, the information networks, and the financial wherewithal to participate in learning opportunities of interest to them. Given its natural head, learning opportunities and participation will increase most rapidly in the suburbs and in states with a well-educated citizenry.

Some challenging issues for both policy and further research can be raised by looking at various subgroups of potential learners with the intention of narrowing some of the gaps between the haves and the have nots. But equal opportunity is not the only goal of the lifelong learning movement. There is also a desire to improve the quality of life for all citizens through education. To examine some of the issues in that goal, we shall turn to the data on the barriers to participation in adult learning activities.

Barriers

The obstacles that deter adults from participating in organized learning activities can be classified under three headings--situational, dispositional, and institutional. Situational barriers are those arising from one's situation in life at a given time. Lack of time due to job and home responsibilities, for example, deters large numbers of potential learners in the 25 to 45 year old age group. Lack of money is a problem for young people and others of low income. Lack of child care is a

problem for young parents; transportation is a situational barrier for isolated and physically handicapped learners.

Dispositional barriers are related to attitudes and self-perceptions about oneself as a learner. Large numbers of older citizens, for example, feel that they are too old to learn. Adults with poor educational backgrounds frequently lack interest in further learning or feel that they do not have the ability to learn. Institutional barriers include practices and procedures which exclude or discourage working adults from participating in educational activities--inconvenient schedules or locations, full-time fees for part-time study, inappropriate courses of study, etc.

At the present time, situational barriers are mentioned more frequently by survey respondents than either dispositional or institutional barriers. Taken together the cost of education and lack of time lead all other barriers by substantial margins. It is difficult to give the percentages of people affected by these two situational barriers because of the variety of reporting formats across state studies. As a rough figure, however, we can probably assume that the median percentage of people who find cost an obstacle to further education is around one-third, and it is approximately the same for the barrier of time, with a broad range of 20 to 50 percent.

Lack of time and lack of money, however, are both socially acceptable reasons for not participating in learning activities. Thus

in one sense it is not surprising that they should rank as the leading barriers, far more common than more personally demeaning barriers such as lack of interest, lack of confidence, lack of ability, etc. One of the more interesting findings to emerge from the studies of barriers to learning comes from the Central New York study (1975) in which respondents were asked to speculate on why other adults of their acquaintance did not participate in educational activities. Lack of interest was a leading barrier attributed to others (26 percent), but less than 2 percent of the respondents were willing to admit that lack of interest deterred their own participation. Cost, on the other hand, was felt to be a problem for respondents (18 percent) more often than for their friends (11 percent).

Findings such as these highlight the problems of social desirability responses in some of the survey data. One study that would bring a little more reality to the major policy question of how serious the cost barrier is would be to ask people if they know how much various learning options cost. There is every reason to suspect that many adults who cite cost as a barrier have never investigated the cost of adult education. This suspicion is strengthened by the usually large number of respondents (20 to 40 percent) who fail to provide information about what they would be willing to pay for a course of instruction.

Another problem with taking survey responses with respect to cost at face value is that ability to pay is not necessarily the same as willingness to pay. It looks as though past educational attainment, for example, bears a closer and more consistent relationship to

participation in educational activities than does income per se. Moreover, it is a common survey finding that women are more likely than men to perceive cost as a barrier to their continued education, despite the fact that there is not much difference in the family incomes of male and female learners or potential learners. This finding may have its roots in societal mores that make many women feel guilty about spending "family" money for their own educations. Or it may be related to the type of courses taken. There is some evidence, for example, that people are willing to pay more money for courses that will advance their careers than they are to pay for courses taken for personal satisfaction or to get away from daily routine (Central New York, 1975).

In short, the policy issue of funding for participants in adult education will not be resolved by statistical manipulations of indices of income, participation rates, and perceived barriers. It is far more complicated than that and is further confounded by the data on dispositional barriers.

Dispositional barriers i.e., feelings of inadequacy as learners are typically mentioned by less than 10 percent of survey respondents. These barriers, however, fall at the opposite end of the social desirability scale from the situational barriers just discussed. Few people like to say that they are not interested in learning or that they lack confidence in their ability. Thus the "real" importance of dispositional barriers is probably underestimated in the survey data. Aside from the social desirability issue, there is the methodo-

logical problem that respondents who say they are not interested in further learning are frequently dropped from further analysis. Logically, it makes sense to ask only those who express a desire to participate in education what obstacles deter them, but such a practice obscures the true role of the dispositional barriers that are critical to debates about public policy. No doubt the large counts for dispositional barriers are to be found among those who say they are not interested in further education. And there is ample evidence that the so-called disadvantaged, precisely the group policy makers are most interested in reaching, are overrepresented among those expressing no interest in further education. Taking survey results at face value is quite likely to overestimate the participation that would result from financial grants to learners and to underestimate the amount of effort that would be required to overcome dispositional barriers.

Institutional barriers occupy a middle ground between the high counts for situational barriers and the low counts for dispositional barriers. Each state survey seems to have devised its own list of possible institutional barriers, but they can generally be grouped into five areas related to scheduling problems; problems with location/transportation; lack of courses that are interesting, practical, relevant; procedural problems related to attendance, red tape, time requirements, etc.; and lack of information about programs and procedures. These are all barriers that the sponsors of educational programs could presumably do something about.

Of these institutional barriers, potential learners complain most about inconvenient locations and schedules and about the lack of interesting or relevant courses. Relatively fewer respondents cite lack of information as an obstacle to learning--although there is good evidence that adults do lack information about the opportunities available. In one study, for example, 35 percent of those interested in further learning said that they were deterred from participation because they did not want to go to school full-time, yet only 16 percent complained about a lack of information (Carp, Peterson, Roelfs, 1974). Surely had those respondents had accurate information, they would have been aware that there are probably opportunities for part-time adult study in their communities. One wonders if many perceived problems with schedules, locations, and courses and are not ultimately due to a lack of information about the options that do exist.

If we are going to interpret accurately the demand for adult education, we are going to have to obtain better data about how much adults know about present opportunities and which barriers are real and which are simply convenient rationalizations. The barrier of cost and the barriers classified here as institutional are prime candidates for some good investigations into the extent of knowledge about them. Good data on the reality of these barriers will not eradicate obstacles that people think are barriers, but at least we would know a little more about whether we need to provide more scheduling options, for example, or more information.

In conclusion, the state and national needs assessments of the past few years have laid a good groundwork for further thought, study, and research. Because of the replication across studies, we can be quite confident of the pattern of learning preferences of adults, at least insofar as these are revealed through survey techniques. As to our ability to construct "demand curves" and to predict the probable impact of various entitlement proposals on participation rates, I doubt that much accuracy can be achieved, given the rudimentary development of research on "voluntary" education. We need a great deal more understanding of the extent of slippage between market surveys and actual participation; and we need much more study of the motivational factors affecting adult participation in learning activities. Our inability to deal in precise predictions, however, should not preclude serious attention to some of the policy questions raised and to the need for further research of a more intensive nature than that used in the "needs assessments" reviewed here.

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