

The major question is if there will be sufficient leadership and support from educators and policymakers to ensure the survival of public education as a social institution.

## Impact of social and demographic factors on public education

by Weldon Beckner and William Sparkman

The changing characteristics of the population of the United States together with other social forces hold some interesting challenges and possibilities for public schools. It has become increasingly clear in recent years that educators must look beyond estimates of birth rates and enrollment projections and toward a variety of other social and economic indicators for a more comprehensive view of public education in the waning years of the 20th century. While birth rates and enrollment estimates will continue to be vital statistics for school people, there are other data of interest emerging from demographic and social predictions which will have an important impact on schools, their programs, personnel and, perhaps, even governance.

### Population and Enrollment Trends

As indicated above, the focus of educators' interest typically has been on birth rates and subsequent enrollment projections. This is not surprising since enrollment figures drive state school finance formulas and since the number of teachers generally is determined by student enrollment. According to the National Center for Educational Statistics, enrollments in public elementary and secondary schools have been declining since 1971 and will continue to do so until bottoming out in 1984 before beginning a gradual increase to 1988, the final year of the projection.

Nonpublic school enrollments have tended to fluctuate around five million since 1973 and should begin a

slight increase in 1983, two years before any predicted increase in public school enrollments. It is predicted that the increases in nonpublic school enrollments will be greater than those in the public schools.

Total high school graduates have decreased in 1977-78 and are expected to continue decreasing in most years until reaching 2.7 million in 1988-89, a decrease of 15.8 percent in the previous ten years. A more ominous estimate is that the total pool of school-age children (ages 5-17) is expected to decrease by 7.5 percent during the decade from 1978-79 to 1988-89. The largest component of this decrease will be among those 14-17 years old with a decline of 19 percent. With the prime pool of children decreasing and the enrollments in nonpublic schools expected to increase, the public schools will find themselves in an enrollment bind.

The number of full-time equivalent teachers in all public and private elementary and secondary schools is expected to increase gradually through 1988.<sup>1</sup> This estimate appears to go against the projected enrollment declines. However, several additional factors will influence the number of teachers in classrooms. One is the projected increase in enrollments in the nonpublic schools. Another factor is the push toward smaller pupil-teacher ratios and smaller classes in special education and vocational education programs. These projected increases could be mitigated by the economic and educational policies of federal and state governments during the remainder of the 1980s.

### Population Shifts

While national population and enrollment patterns illustrate general trends, they hardly provide a basis for education decision-making in the various states. The shift of population from the older, industrial states of the Northeast and North Central regions of the United States to the states of the Sunbelt has important implications for public schools. The twin problems of declining enrollments and closing schools will plague some states while other states will be confronted with growing enrollments and increasing needs for new facilities.

It is projected that the South and West will experience a positive net migration while a negative net migration will occur in the North East and North Central states. The greatest gain in population as a result of migration has occurred in Florida, Texas, California and Arizona. The greatest loss has occurred in New York, Pennsylvania, Ohio and Illinois.<sup>2</sup> Even though some regions will continue to grow, the rate of growth will slow. This will be the case of the South Atlantic states (including Florida) and the Pacific region. It is projected that the number of retirees will spread out among the states in several regions rather than converging on just a few. Increasing wages in the regions suggest that the heretofore low wage labor market has changed, thereby restricting the need for cheap unskilled labor. In addition, the fertility rate in the South Atlantic states is dropping sharply. Factors particular to the Pacific area include such things as excess labor supply, high housing prices and limited water supply. But it is predicted that the population as a whole might tend to increase in the Pacific area since the region has a large, Hispanics population which could keep natural increases high.<sup>3</sup>

Along with the migration of Americans, the immigration of people seeking political freedom and economic opportunity has swelled the population of sev-

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eral states and will have an impact on the public schools. By 1981, it was reported that there were 600,000 Indochinese refugees. There were 67,173 Indochinese refugee children enrolled in elementary and secondary schools by January, 1980, who entered the country after January 1, 1977. California and Texas enrolled one-third of the total number.<sup>4</sup> The children of Cuban refugees flooded the public schools in Dade and Broward Counties of Florida in 1979-80.

One outcome of this shift in population in the United States will be the realignment of Congressional districts for the 1982 elections. Sandra M. Long reports that census data show the Northeast and the Great Lakes losing to the South a total of 17 seats in the House of Representatives.<sup>5</sup> Chances are the new members of Congress will be more conservative than those they replace. They may be less interested in education and other social issues as opposed to tax reductions and budget balancing.

A more fundamental issue will be the composition and nature of the new populations in the Sunbelt states. Will it be composed primarily of retirees seeking a warmer climate and lower taxes? Will it be economic refugees from the unemployment lines in the great industrial states seeking jobs and opportunities in the growing cities of Houston, Dallas or Phoenix? These populations clearly provide important implications for public schools. Will new demands be placed on the schools for new programs to serve older persons? Can schools adapt to fluctuations in enrollments? Can schools meet the programmatic needs of newly arrived foreign students who speak little, if any, English? What will be the impact on the schools' tax base of declining areas and the growing areas? Will states modify their school finance formulas to take into consideration declining enrollments or rapidly increasing enrollments?

### **Aging of the Population**

The aging of the American population has become a reality. The Post World War II baby boom has passed through the educational system and a secondary baby boom never appeared. The median age of the population was 27.9 years in 1970, 28.8 years in 1975 and is projected to be 32.8 years by 1990. The fertility rate declined to 1.8 in 1978, well below the zero-population level of 2.1. In 1965, those under 18 years comprised 36 percent of the population, but it is estimated that this group will represent only 24 percent by 1990.<sup>6</sup> As the population gets older, the fertility rate drops and couples choose to have fewer children. Thus the percent of families with children in public schools is projected to decrease. These factors will impact on the schools in terms of support. How can schools get couples without children or couples whose children have already left home involved with the schools in a supportive fashion? Will there be growing support for a voucher system and/or tuition tax credits to finance alternative educational arrangements?

The age of the work force also is increasing. This includes the teaching force as well. This will put strains on teacher retirement systems and could restrict the number of new entrants into the field. In addition, the use of training and experience factors in most teacher salary schedules will place severe strains on school budgets as more and more teachers reach the top of their respective salary schedules. Education is very labor intensive. Total costs for all employees, certified and noncertified, represent from 75-80 percent of a school district's budget.

### **Other Social Factors**

There are a number of other social forces developing in the United States which have important implications for public schools. Several will be mentioned here. The changing composition of the minority population has been reported. This factor, particularly in states like Florida, Texas and California with the influx of Indochinese refugees and the growing Hispanic populations will have a direct impact on public schools. Will there be increased demands for bilingual and bicultural programs? Where will the financial support come for these programs if the federal government is withdrawing its support? How will the educational system bring minorities into leadership positions both in the schools and on the policymaking bodies such as local school boards and state boards of education? Will the growing number of minorities begin to exercise political power commensurate with their numbers?

The growing divorce rate and the concomitant increase in the percentage of single parent families is a new phenomenon. Click reported that over the 30 year period from 1960 to 1990, the proportion of children under 18 in the United States living with one parent at a given point in time is expected to come close to tripling, from nine percent in 1960 to 25 percent in 1990. The percentage of children living with a divorced parent on a regular basis is not as large, but, it is expected to have similar increases, from two percent in 1960 to four percent in 1970 and eight percent in 1978 until it reaches 11 percent by 1990.<sup>7</sup>

Another important factor is the number of working mothers in the United States. Because of economic necessity, divorce and many other factors, the number of working mothers is increasing. Grossman reported that in March, 1981, 53 percent of all children under age 18—a total of 30.7 million—had mothers who were either employed or looking for work. By early 1980, more than 17 million mothers of children under age 18 were in the work force, 44 percent more than in 1970. It was also reported that black children are more likely than white children to have a mother in the labor force—57 percent as compared to 52 percent.<sup>8</sup> The implications for public schools are striking. Will there be a greater demand for preschool and early childhood programs to be offered in the public schools? Will private agencies fill the need for these types of programs if public schools cannot? How can schools involve parents when they are working during school hours? Will there be an increasing need for nutritional programs and other health care programs in the schools? How will these new needs be met when budgets are being cut?

Another factor may be the changing nature of political leaders in state legislatures. Rosenthal and Fuhram have completed an intensive study of state legislative education leaders.<sup>9</sup> Their findings are important for educators to consider. They conclude that in the opinion of today's leaders, fewer of the new breed of legislator have much of an interest in education. Therefore, education simply does not have the broad-based support or interest it did just a few years ago. As one legislator was quoted as saying, "Education probably is a dangerous place to be right now." Also the impact of special interest or one-interest legislators will continue to fragment education's position in state government. It was suggested that concern for education by the next generation of legislative leaders will not be as consuming as it has been in the past:

"These new legislators will not have the patience to sustain their efforts in education for very long. They will want to achieve their specific objectives and move on, or else realize they cannot achieve them and also move on."

It appears that public education will continue to have a fragmented presence in state government and will be a lower priority among the new legislative leaders.

There are, of course, many other social, economic and political factors having an impact on public education. Space limitations prohibit a detailed analysis. The fact is, public education will be influenced by external factors for the remaining years of the 20th century.

### An Example of State Demographic and Social Changes and Educational Implications

At this point we will move from the national picture to an example of how demographic and social developments in individual states may affect education. Probably no state is typical, and the state we have chosen to discuss, Texas, may be less typical than most, but it does provide several obvious examples of the demographic effect on the school system of the state and on lives of educators—both now and into the future.

Looking first at the general population trends in Texas, it may be noted that the state has grown from the sixth most populous state in 1960 to the third most populous state in 1978, exceeded only by California and New York. From 1970 to 1978 the total population increased by 1,817,000 and by the year 2,000 is expected to exceed 21 million. This population growth is increasingly a matter of in-migration which more than compensates for the fact that the number of births is now lower and the number of deaths higher than previously.

The proportionate share that net in-migration makes up of the total population growth jumped from six percent for 1950-60 to 13 percent for 1960-70, 32 percent for 1970-73, and 55 percent for 1973-77. The number of people moving to Texas exceeded those leaving the state by 11,400 in 1950-60. This had grown to 142,000 per year for 1973-77 and is now considerably higher.

The number of students has grown also. Total student population in the state was 1,554,671 in 1949-50. This increased to 2,009,277 during the 1977-78 school year and is now well over 3 million.

Total statewide population growth is not the only important aspect of population demographics. In Texas, for example, population growth has spread to more areas of the state, and more small towns and rural counties are growing. Three-fourths of all Texas towns between 100 and 500 inhabitants in 1970 recorded population increases between 1970 and 1975, with the biggest increases occurring in counties near big cities.

Texas has also experienced a trend from male to female predominance in population numbers, mainly because of life expectancy and migration differences between the sexes. The margin by which men outnumbered women fell from 155,000 in 1920 to 15,000 by 1950. Ten years later females outnumbered males by 90,000. By 1970 that dominance had increased to 234,000 and to 350,000 by 1976. Current estimates place the female dominance in population at well over 300,000.<sup>10</sup>

Perhaps the most important aspect of population change in Texas is in the area of ethnic distributions. In 1976 Anglos (white except Spanish language or surname)

comprised 67 percent of the state's population, Spanish surname or language groups made up about 21 percent of the total, and Blacks made up about 12 percent of the total. In the relatively short time span of about four years this changed considerably, as indicated by 1980 census figures. It showed the following ethnic makeup of the Texas population:

Anglo (white except Spanish language or surname)	58%
Spanish language or surname	21%
Black	12%
Other	9%

Surprisingly, the proportions did not change so much in the relative percentage of Blacks and Hispanics but in the "other" category, a group comprising less than .5 percent in 1976. About .8 percent of these were Asian and .2 percent American Indian. Who were the rest of these "others?" Where did they come from, and what do they need from our schools? Such questions are largely unanswered at this point. Most of them evidently did not have children in school, because the Texas enrollments in 1979-80 were as follows:

Anglo	57%
Hispanic	27%
Black	15%
Asian	.8%
American Indian	.1%

Contrasting with the school enrollments above are those projected for 1985:

Anglo	30-35%
Hispanic	50-53%
Black	15-16%
Other	2%

Such a projection is evidence of birth rate predictions which have significance for later enrollment probabilities. The following average age and birthrate tendencies give some indication of what we may expect during the latter 1980s.

	Average Age	Percent change in birthrates during the past 10 years
Anglo	34	unchanged
Black	28	1% increase
Hispanic	19	3.5% increase

Largely due to birthrate predictions, the largest population growth in Texas during the next ten years is expected to be in Central Texas (Austin-San Antonio area), where the growth will be largely due to increases in the Hispanic population.<sup>11</sup>

The general Texas population also is becoming older, mainly because of lower birth rates and longer life expectancies. The number under 5 years of age declined by 91,000 between 1950 and 1978, while those 65 and over increased by 519,000. Persons 65 years of age and older comprised 1 out of every 10.5 Texans in 1978 as compared with 1 out of 68 in 1970.<sup>12</sup>

What are some of the implications for educators of the kinds of population and social change indicated above? It doesn't take a crystal ball to see that changes and adjustments of many kinds will become necessary. Some of the more obvious ones would appear to be as follows.

1. The supply of teachers will be inadequate, especially in academic areas typically in short supply and in teachers skilled in bilingual edu-

cation. In the next ten years Texas will need 50 percent more teachers than at present. This is an additional 14,000 teachers per year. Colleges and universities presently are producing about 9700 certified teachers per year. Retirement and attrition remove about 9600 teachers from the classroom each year. The resulting net gain of 100 teachers per year may be supplemented to some extent by teachers coming into the state from other parts of the country, but the history of this teacher supply source does not indicate that it will adequately fill the gap between supply and demand for new teachers.<sup>13</sup>

2. Teacher education programs must be adjusted to better train teachers in the knowledge, skills and attitudes required to meet the needs of minorities—especially Hispanics. In-migration and growth in minority populations will cause a much less homogeneous student body for teachers to work with. Concern for competence in the “basics” will also put increased pressure on teachers to solve the various problems encountered in school by minority students.
3. Related to number two above is the need for in-service educational opportunities for teachers. This need will be compounded by the large number of less well prepared and less capable people who will be pressed into teaching through emergency certificates in an attempt to meet the developing teacher shortage.
4. The school curriculum will be subject to severe criticism—by those desiring a higher level of competence in graduates, those pressing for compensatory treatment of minorities and other students who may have special educational needs, those objecting to the lack of appropriate vocational preparation and other critics.
5. Control of the school will be a source of controversy and conflict. Smaller and suburban school districts will object to increased influence of urban school districts as legislatures are reapportioned to meet population changes. With a changing ethnic make-up in many communities will come demands for a better representation of ethnic groups on school boards and other governing authorities. The larger percentage of older adults in the state will be concerned with conserving more traditional concepts of education, while younger parents will want more “modern” opportunities for their children. Increased reliance on state sources of money for schools will cause more concern for loss of local control.
6. School finance, with its implications for school control, will become an even larger and more controversial area of concern. The aging gen-

eral population, without children in school, will be less concerned with improving educational opportunities and more concerned with avoiding additional expenditures. Urban school districts, with their own kinds of expensive problems, will demand a larger share of the financial package, while growing suburban and rural school districts will maintain the importance of their own financial needs.

These are but examples of the many kinds of concerns and problems related to changing social and demographic factors. They give an indication of the serious effort which will be required to adjust our educational efforts according to these facts of life at both national and state levels.

Given the complexity of the social and demographic changes impacting on public education now and in the future, the major question is whether or not there will be sufficient leadership and support from educators and policymakers to ensure the survival of public education as a social institution. If we fail to learn from the lessons of the past and from the social trends today, public education will be condemned to a hopeless future. It is clear that the future of public education will not be a linear extrapolation of the recent past. While we do have much information about the future, what we may lack is the vision and commitment to find the possibilities for public education. The challenges are many and there is too much at stake to avoid planning for the future of public education in the United States.

#### Footnotes

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