# ESTIMATES AND PROJECTIONS OF EDUCATIONAL ATTAINMENT IN THE USSR TO THE YEAR 2000

by

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#### SUMMARY

This study examines postwar trends in educational attainment in the USSR, and projects the distribution of educational attainment to the year 2000. The analysis makes use of an education model to estimate age detail not provided by available Soviet data, as well as to project future trends in educational attainment. The principal finding is that educational attainment in the USSR has increased significantly since 1959, as shown in table A.

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Table A. Educational Attainment for the Population 10 Years and Over: 1959 to 2000

(Cumulative percent at or above given level of education)

Level of education	1959	1970	*1979	*1986	**2000
Complete higher education	2.3	4.2	6.8	8.7	10.0
Incomplete higher education	3.4	5.5	8.3	10.3	11.2
Specialized secondary education.	8.2	12.4	19.0	23.3	26.3
Complete secondary education	14.4	24.3	39.7	50.9	61.7
Incomplete secondary education	36.1	48.4	63.8	70.1	78.6
Elementary education	67.1	77.7	88.7	93.6	98.2
Below elementary education	100.0	100.0	100.0	100.0	100.0

<sup>\*</sup> Estimate.

These major increases in educational attainment are due in part to:

- -- the achievement of nearly universal secondary education for the postwar generations;
- -- the expansion of a network of post-secondary schools; and
- -- the mortality of the older, poorly-educated cohorts.

<sup>\*\*</sup> Projection.

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The disparity in educational attainment between the older age groups in the two countries (not shown) is considerable. In 1986, of those 60 years of age and older in the USSR, the estimates indicate that 33.8 percent had only an elementary education, while only 3.3 percent had a complete secondary education and 2.1 percent had completed higher education. In contrast, for the United States in 1986, of those 55 years and older, 9.0 percent had only an elementary education, 34.2 percent had completed high school, and 11.7 percent had 4 years of college or more. The dwindling of the elderly Soviet population is another factor contributing to convergence in the overall educational attainment profiles of the two countries.

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# PREFACE

The Center for International Research (CIR) conducts economic and demographic studies on foreign nations and issues its results as CIR Staff Papers. A complete listing of these papers is included at the end of this report. The use of data not generated by the U.S. Bureau of the Census precludes performing the same statistical reviews the Bureau makes on its own data.

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#### I. INTRODUCTION

Education is a primary determinant of the quality of available manpower resources and is commonly regarded as one of the main sources of increases in labor productivity. It is the basis of the specialization of skills essential to the functioning of any modern, diversified economy. More broadly, education is a major factor underlying people's attitudes and behavior in every sphere of life. In modern society the educational system has become the fundamental socialization agency after the family, holding an essential position in any community. The USSR is no exception.

This paper reports the Center for International Research's (CIR) estimates and projections of educational attainment in the USSR. The projections run from 1986 to 2000 and are provided in age detail. Section II describes the current structure of the Soviet educational system, including the education reform now being introduced. Postwar trends in educational attainment distributions as well as attrition, graduation, and admission rates are examined in section III. The projection assumptions and principal results are presented in section IV, while the detailed methodology is explained in the appendices.

# II. STRUCTURE OF THE SOVIET EDUCATIONAL SYSTEM

The USSR possesses a complex and extensive educational system which has undergone numerous reforms during the postwar period. An education reform adopted in 1984 is currently being phased in, so that at present the Soviet educational system is again in a state of transition. This section describes the organization of the system with respect to educational attainment, covering both the pre-reform structure and the present reformulation.

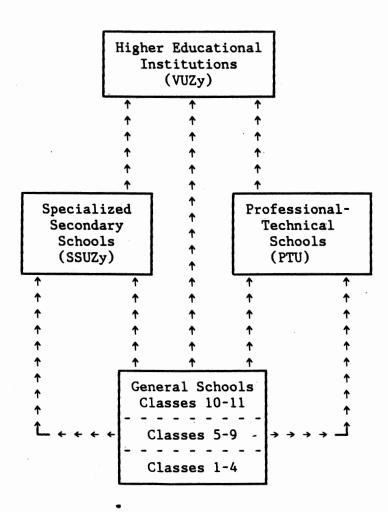
The structure of the Soviet educational system as it relates to educational attainment is illustrated in figure 1. Four institutional subsystems are distinguished: general schools, professional-technical schools, specialized secondary schools, and higher educational institutions. General schools are institutions which offer basic education in academic subjects, including primary schools, incomplete middle schools (roughly equivalent to United States junior high schools), and general secondary schools. Enrollment in general schools is nearly universal at the elementary level. Until recently, students entered the first grade at 7 years of age; under the current legislation (passed in 1984) the age of admission into primary school has been lowered to 6 years. The first 4 (formerly 3) grades comprise the primary level, while grades 5-9 (previously 4-8) correspond to incomplete secondary school. Attendance in general school is mandatory through the incomplete secondary level.

Graduates of the 9th (formerly 8th) grade receive the credential termed "incomplete middle education" (nepolnoye srednyeye obrazovaniye), and may continue their education in several educational subsystems. The majority still prefer to proceed to the upper classes of general school, which constitute an academic track preparatory to higher education (see below). Alternatively, graduates of incomplete middle school may opt for specialized secondary education to receive semiprofessional training or enter the professional-technical education subsystem to pursue vocational training. In 1985, according to official statistics [Goskomstat SSSR, 1986], 97.5 percent of the graduating class of Soviet incomplete secondary schools continued their education through one of these routes.

Specialized secondary schools offer training for semiprofessional occupations, including elementary schoolteachers, veterinary lab technicians, and such health personnel as <u>fel'dshery</u> (paramedics) and

<sup>1</sup> Depending on local conditions, two or all three types of general school may be housed on the same premises.

Figure 1. Soviet Educational System



VUZy Vysshiye uchebnyye zavedeniya
SSUZy Sredniye spetsial'nyye uchebnyye zavedeniya
PTU Professional'no-tekhnicheskiye uchilishcha

Source: See text.

akushery (midwives). These institutions are similar to junior colleges in the United States. Their graduates are referred to as "specialists" in the official literature and are considered to possess a higher level of education than persons with completed general secondary education. Although specialized secondary schools admit applicants with incomplete general secondary education, the majority of their admissions consist of persons with completed general education.<sup>2</sup>

Professional-technical educational institutions provide vocational training in traditional blue-collar occupations, such as lathe operator, bricklayer, or tractor driver. The limited prestige of these institutions, together with their uneven quality of training, has rendered them unattractive to many young people. Partly in an effort to combat this perception, beginning in the late 1960's the Soviet Government began to establish "secondary professional-technical schools" in which graduates of incomplete middle schools received academic instruction culminating in a completed secondary diploma in addition to their vocational training. As of the 1984 reform, all professional-technical educational institutions are to be organized under a single rubric as secondary professional-technical schools. Recipients of professional technical education are not distinguished in official statistics on the distribution of population by level of educational attainment.

Higher educational institutions include universities, as well as specialized institutes. Although the traditional avenue of entry has been through general secondary school, the top ranking graduates of specialized secondary and secondary professional-technical schools are also eligible for admission. The time required to graduate from these higher educational institutions is typically 5 years for daytime students. Official statistics on educational attainment distinguish the level of "incomplete higher education" (vyshyeye nezakonchennoye obrazovaniye), which comprises all persons who completed at least half but less than the entire training course in a higher educational institution.

In 1986, of the 1,520,000 admissions to specialized secondary schools, 971,000, or 63.9 percent, had completed general secondary education [Narkhoz 87, p. 550].

#### III. POSTWAR TRENDS IN EDUCATIONAL ATTAINMENT

## A. Trends in Admission Rates

The population's distribution by level of educational attainment is determined primarily by the flow of students through the education system. The structure of this flow in the Soviet case is governed mainly by the distribution of graduates of the general school system, where every student begins. Table 1 summarizes available information on the destinations of graduates of general secondary school at both the incomplete and completed levels since 1970. According to the figures, the proportion of incomplete secondary graduates entering the labor force has declined dramatically, from 12 percent in 1970 to only 1 to 2 percent in the 1980's. This was undoubtedly due to the expansion of vocational education, which registered a sizeable gain, from 17 to 25 percent. There has been little change in the proportion going to specialized secondary school. The upper classes of general school continue to attract the majority (about 60 percent) of graduates of incomplete secondary school.

As table 1 reveals, only a small minority of graduates of completed secondary school proceed to higher educational institutions. About the same proportion enter specialized secondary schools. The majority have traditionally entered the labor force with few vocational skills. During the 1970's, effort was directed to training graduates of completed secondary school in the professional-technical education system, resulting in the substantial rise in the proportion matriculating to vocational schools and the concomitant decline in the proportion of graduates of completed secondary school entering the labor force directly.

# B. Census Attainment Distributions

Changes in the distribution of population by level of educational attainment between successive postwar censuses are examined in table 2. For 1979 official Soviet sources have reported only the aggregate distribution of the population age 10 years and over by educational attainment; the 1979 age detail was estimated by the procedures described in appendix A. Over the period between the 1959 and 1979 censuses the proportion of the population age 10 years and over with elementary or less than elementary education has fallen sharply. In 1959 nearly two-thirds of the population age 10 years and over had no more than elementary education; by 1979 this share had fallen to one-third. The trend is especially striking in the population having less than elementary education, which is the only education category whose

absolute size declined over the intercensal period. As the age detail reveals, almost three-quarters of this group were age 40 years or older in 1959, comprising persons who were young when the USSR was a predominantly rural society subject to the upheavals of the Civil and First World Wars. With the passage of time, these cohorts diminish and are replaced by better-educated, younger generations.

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Table 1. Annual Rates of Transition out of General Education: 1970 to 1986

	· 	Destination								
Origin/Year	Total	Complete secondary	Vocational	Specialized secondary	Higher	Labor force				
Incomplete										
secondary 1970	100	60	17	11	(X)	12				
1975	100	64	20	10	(X)	6				
1980	100	62	28	9	(X)	1				
1986	100	60	25	13	(x)	2				
Complete secondary										
1970	100	(X)	8	13	15	64				
1975	100	(x)	20	14	13	53				
1980	100	(X)	29	15	16	40				

X Not applicable.

Source: Goskomstat SSSR, 1988, p. 13; and Zhil'tsov, 1985, p. 188.

The population with no more than elementary school education grew between the 1959 and 1970 censuses but declined thereafter, reflecting the expansion of secondary education. As a result, the age pattern of proportional shares comprised by this education category shifted dramatically over the 20-year period (see table 3). In 1959, elementary education was the modal level in all age groups below 40 years, accounting for over one-third of each. As of the 1970 census, incomplete secondary education became the modal level in the ages 20 to 29 years and 30 to 39 years. Elementary education remained the mode among the population 10 to 19 years, because most members of this category are too young to have graduated elementary school. In 1970, elementary education was also the modal level of education for the population age 40 to 49 years, who were of age to graduate elementary school around the time of World War II. By 1979, this pattern is estimated to have become more pronounced, with elementary education the

Table 2. Distribution of Population, by Level of Educational Attainment in Postuar Soviet Communes (Absolute Figures)

(In thousands)

Census/Age	Total	Complete higher	Incomplete higher	Specialized secondary	Complete secondary	Incomplete secondary	Elementary	Below elementary
1979 Census		,						
Total 10+	218,388	14,845	3,239	23,469	45,157	52,556	54,443	24,678
10-19	45,923		631	900	10,939	11,743	21,365	345
20-29	45,225	6,614	1,492	9,852	18,271	7,516	1,464	16
30-39	30,310	3,660	482	5,711	7,270	8,974	3,954	258
40-49	35,668	3,288	457	5,360	6,496	10,545	8,388	1,133
50-59	29,139	918	127	1,181	1,579	9,666	13,547	2,122
60+	32,124	366	51	466	602	4,111	5,725	20,804
1970 Census								
Total 10+	196,466	8,257	2,604	13,413	23,377	47,344	57,620	43,850
10-19	46,988	, 	111	352	5,262	12,194	21,257	7,811
20-29	30,876	1,548	1,499	3,896	9,308	11,058	3,013	554
30-39	37,739	3,319	482	4,380	4,371	11,776	10,541	2,871
40-49	31,259	1,944	250	2,869	2,440	8,872	11,104	3,779
50-59	21,091	821	144	1,313	1,024	2,560	6,167	9,062
60+	28,514	626	117	602	972	885	5,538	19,774
1959 Consus								•
Total 10+	162,464	3,778	1,738	7,870	9,936	35,386	50,308	53,450
10-19	31,810		33	234	2,550	9,751	11,935	7,306
20-29	38,535	1,054	872	3,096	3,690	12,390	14,136	3,297
30-39	30,591	1,301	467	2,520	1,793	9,295	11,249	3,965
40-49	22,673	718	200	1,268	794	2,729	6,358	10,600
50-59	19,147	483	110	500	676	906	4,037	12,43
60+	19,709	222	56	252	433	315	2,591	15,840

-- Zero.

Note: In deriving the 1959 and 1970 distributions, persons with ages unknown have been allocated pro rata for males and females, respectively. The results for the two sexes were then combined to form the figures given above. For an explanation of the methodology underlying the 1979 estimates, see appendix A.

### Source:

1979: CIR estimates.

1970: TaSU SSSR, 1972, pp. 6-7.

1959: TaSU SSSR, 1962, pp. 74-75.

Table 3. Distribution of Population, by Level of Educational Attainment in Postser Soviet Consumes (Percent)

Census/Age	Total	Complete higher	Incomplete higher	Specialized secondary	Complete secondary	Incomplete secondary	Elementary	Below elementary
1979 Census								
Total 10+	100.00	6.80	1.48	10.75	20.68	24.07	24.93	11.30
10-19	100.00		1.37	1.96	23.82	25.57	46.52	0.75
20-29	100.00	14.62	3.30	21.78	40.40	16.62	3.24	0.04
30-39	100.00	12.08	1.59	18.84	23.99	29.61	13.05	0.85
40-49	100.00	9.22	1.28	15.03	18.21	29.57	23.52	3.18
50-59	100.00	3.15	0.44	4.05	5.42	33.17	46.49	7.28
60+	100.00	1.14	0.16	1.45	1.87	12.80	17.82	64.76
1970 Census								
Total 10+	100.00	4.20	1.33	6.83	11.90	24.10	29.33	22.32
10-19	100.00		0.24	0.75	11.20	25.95	45.24	16.62
20-29	100.00	5.01	4.86	12.62	30.15	35.81	9.76	1.79
30-39	100.00	8.79	1.28	11.61	11.58	31.20	27.93	7.61
40-49	100.00	6.22	0.80	9.18	7.81	28.38	35.52	12.09
50-59	100.00	3.89	0.68	6.23	4.85	12.14	29.24	42.97
60+	100.00	2.19	0.41	2.11	3.41	3.10	19.42	69.35
1.95 <b>9 Canaus</b>								
Total 10+	100.00	2.33	1.07	4.84	6.12	21.78	30.97	32.90
10-19	100.00		0.10	0.74	8.02	30.66	37.52	22.97
20-29	100.00	2.74	2.26	8.03	9.58	32.15	36.68	8.56
30-39	100.00	4.25	1.53	8.24	5.86	30.38	36.77	12.90
40-49	100.00	3.17	0.88	5.59	3.50	12.03	28.04	46.78
50-59	100.00	2.52	0.57	2.61	3.53	4.73	21.09	64.99
60+	100.00	1.13	0.28	1.28	2.20	1.60	13.15	80.3

<sup>--</sup> Zero.

Source: Table 2.

mode for the population 10 to 19 years and 50 to 59 years, accounting for roughly half of either age group. In the 20 to 29 years category, whose members are of age to have graduated elementary school, the proportion with this level of educational attainment is estimated to have fallen from 37 percent in 1959 to only 3 percent as of the 1979 census.

The population with incomplete secondary education grew throughout the 20-year period. Between the 1959 and 1970 censuses this growth was more rapid than average for the population age 10 years and over, so that the share of the total comprised by persons with incomplete secondary education grew to 24 percent. By 1970 incomplete secondary education had become the modal level of attainment in the population age 20 to 39 years. During the 1970's, in connection with the drive towards universal secondary education, incomplete secondary schooling ceased to be the terminal level of education for many young people. This is reflected most graphically in the 20 to 29 year age group, whose members in 1979 had been of age to graduate in the 1970's. The proportion of this age group with incomplete secondary education is estimated to have fallen from 36 percent to 17 percent during the 9-year period 1970 to 1979.

The proportion of the population age 10 years and over with completed secondary education has risen steadily between the successive censuses. Completed secondary education is estimated to have become the mode for the age group 20 to 29 years as of the 1979 census, accounting for 40 percent of this contingent. Measures connected with the policy commitment to universal secondary education, such as the establishment of secondary professional-technical schools, have undoubtedly contributed to this development.

Specialized secondary education has evolved over the postwar period from a negligible status in 1959 into a significant component of the Soviet population's educational attainment profile at present, according to the estimates. The full scope of this development is concealed in the percentage share for the population age 10 years and over, which includes sizeable contingents who were educated prior to World War II. The estimated age detail provides a more appropriate indication of the role of specialized secondary education in the postwar USSR. Persons with specialized secondary education are estimated to have made up roughly 20 percent of the population age 20 to 39 years in 1979, which comprises the population old enough to have graduated specialized secondary school by 1979 but young enough to have received its education during the postwar period.

The population with higher education exhibits much the same tendencies as the population with specialized secondary education. By 1979, roughly 15 percent of the population age 20 to 39 years is estimated to have consisted of persons with at least incomplete higher education. Most of the postwar increases are registered in the population with completed higher education.

Because the education categories considered in this report follow a rank order which may be thought of as measuring the generalized skill level (or stock of "human capital") of the population, it is convenient to examine the cumulative proportions of the population at or above the various education levels. Table 4 presents the cumulative distributions corresponding to the 10-year age groups distinguished for each postwar census. In 1959, the median (50th percentile) level for the total population age 10 years and over lay between elementary and incomplete secondary education. By 1979, the median had moved to between incomplete and complete secondary education, according to the estimates. The progress of the population in the young adult ages is impressive: whereas in 1959 roughly half of the population ages 20 to 39 years had no more than incomplete secondary education, by 1979 half of 30- to 39-year olds had completed secondary education, as did the overwhelming majority (80 percent) of the population ages 20 to 29 years. In 1979, approximately one member of these age groups in three is estimated to have attained a specialized secondary or higher education.

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Table 4. Distribution of Population, by Level of Educational Attainment in Postuar Soviet Censuses (Cumulative Percentages)

(Percentages at or above given level)

Census/Age	Complete higher	Incomplete higher	Specialized secondary	Complete secondary	Incomplete secondary	Elementary	Below elementary
1979 Census			·				
Total 10+	6.80	8.28	19.03	39.70	63.77	88.70	100.00
10-19		1.37	3.33	27.15	52.73	99.25	100.00
20-29	14.62	17.92	39.71	80.11	96.73	99.96	100.00
30-39	12.08	13.67	32.51	56.50	86.10	99.15	100.00
40-49	9.22	10.50	25.53	43.74	73.30	96.82	100.00
50-59	3.15	3.59	7.64	13.06	46.23	92.72	100.00
60+	1.14	1.30	2.75	4.62	17.42	35.24	100.00
1970 Census							
Total 10+	4.20	. 5.53	12.36	24.25	48.35	77.68	100.00
10-19		0.24	0.99	12.19	38.14	83.38	100.00
20-29	5.01	9.87	. 22.49	52.64	88.45	98.21	100.00
30-39	8.79	10.07	21.67	33.26	64.46	92.39	100.00
40-49	6.22	7.02	16.20	24.01	52.39	87.91	100.00
50-59	3.89	4.57	10.80	15.66	27.79	57.03	100.00
60+	2.19	2.61	4.72	8.13	11.23	30.65	100.00
1959 Census				_			
Total 10+	2.33	3.39	8.24	14.35	36.14	67.10	100.00
10-19		0.10	0.84	' 8.86	39.51	77.03	100.00
20-29	2.74	5.00.	13.03	22.61	54.76	91.44	100.00
30-39	4.25	5.78	14.02	19.88	50.26	87.04	100.00
40-49	3.17	4.05	9.64	13.14	25.18	53.22	100.00
50-59	2.52	3.09	5.70	9.23	13.97	35.05	100.00
60+	1.13	1.41	2.69	4.89	6.49	19.63	100.00

-- Zero.

Source: Table 3.

# IV. PROJECTIONS OF THE POPULATION BY LEVEL OF EDUCATIONAL ATTAINMENT: 1986 TO 2000

# A. Projection Scenarios

The distribution of the Soviet population by level of educational attainment has been projected to the year 2000 using the cohort education model described in appendix B. The projections begin from a benchmark distribution of the population by detailed level of educational attainment and single years of age in 1986, making assumptions about subsequent trends in rates of graduation, failure, and transfer among the education subsystems discussed in section II. Three scenarios representing potential future education policies have been considered. These scenarios vary the rates at which graduates of the various education subsystems proceed on to the respective higher subsystems. In particular, the following sets of rates have been varied:

- for graduates of incomplete secondary school, of entering
  - a) the upper classes of general school,
  - b) specialized secondary school, or
  - c) secondary professional-technical school;
- 2) for graduates of completed general secondary school, of entering
  - a) specialized secondary school, or
  - b) higher educational institutions;
- for graduates of specialized secondary schools, of entering higher educational institutions;
- 4) for graduates of secondary professionaltechnical schools, of proceeding to higher educational institutions.

Unless otherwise specified, all remaining rates of graduation, failure, promotion, or attrition have been held constant at their 1986 levels.

The first scenario represents the hypothesis that increases in educational attainment have a "ratchet effect" inhibiting any decline in the rates of advancement to higher educational levels. One rationale for this scenario is in terms of the requirements of technological modernization, which call for a more highly-educated labor force. What may be a stronger foundation for the ratchet hypothesis is that the Soviet population (like any other) views education as a means to attain occupational and social status. In this connection it is instructive

that in 1986, 60 percent of incomplete secondary graduates proceeded to the upper classes of general school, even though only 15 percent of completed general secondary graduates gained admission into higher educational institutions. Either argument fits together well with the Soviet development of the secondary professional-technical education subsystem, in any case.

The ratchet scenario represents what can be regarded as the most reasonable prognosis of the three alternatives considered in the present report, and is accordingly designated as Scenario P (Preferred). In it the rates of entering the upper classes of general school or secondary professional-technical school for incomplete secondary graduates are all held constant, while the rate of entry into specialized secondary school rises slightly from 13 percent in 1986 to 15 percent in 2000 (see table 5). The rates of entry into higher and specialized secondary schools for graduates of completed secondary schools rise from 15 percent in 1986 to 20 percent in 2000. Among graduates of specialized secondary and secondary professional-technical schools, the rates of entry into higher education rise from 4 and 2 percent, respectively, to 10 percent over the same period.

The remaining scenarios assume decline in rates of entry into the upper classes of general school as well as higher education, which is consistent with the emphasis given to occupational training in most of the Soviet literature on education. Scenario A assumes that the proportion of incomplete secondary graduates who proceed to the higher classes will decline from 60 to 50 percent over the period 1986-2000, and that the difference will accrue to secondary professional-technical education, whose rate rises from 25 to 35 percent. As in the preferred scenario, the proportion of incomplete secondary graduates who enter specialized secondary schools is assumed to rise to 15 percent in 2000. With regard to incomplete secondary graduates, Scenario A assumes that the proportion who proceed to specialized secondary education will grow from 15 percent in 1986 to 20 percent in 2000 while the proportion who enter higher educational institutions will fall from 15 to 10 percent. The proportions who enter higher education among specialized secondary and secondary professional-technical graduates are held at their 1986 levels of 4 and 2 percent, respectively.

Scenario B represents a more drastic cutback in academic education, reducing the proportion of incomplete secondary graduates who proceed to the upper classes to 45 percent in 2000 while holding constant the proportion who enter secondary professional-technical schools. A modest rise in the proportion of incomplete secondary graduates who enter specialized secondary schools, from 13 percent in 1986 to 20 percent in 2000, is entertained. This leaves a growing residual, which reaches 10 percent in 2000, comprising incomplete secondary graduates who enter none of the three types of secondary school. They are regarded as entering the labor force with incomplete secondary education. In Scenario B the proportion of graduates of completed secondary school who enter the higher education subsystem is assumed to decline from

Table 5. Projection Scenario Parameters: 1986 to 2000

				Des	stination		
Origin/Year	Scenario	Total	Complete secondary	Secondary vocational	Specialized secondary	Higher	Labor force
Incomplete							
secondary							
1986	(X)	100	60	25	13	(X)	2
2000	P	100	60	25	15	(X)	
2000	· A	100	50	35	15	(X)	
2000	В	100	45	25	20	(X)	10
Complete					•		
secondary	4				4		
1980	(X)	100	(X)	(X)	15	16	69
2000	P	100	(X)	(X)	20	20	60
2000	A	100	(X)	(X)	20	10	70
2000	В	100	<b>(X)</b>	(X)	10	10	80
Specialized							
secondary							
1986	(X)	100	(X)	(X)	(X)	4	96
2000	P	100	(X)	(X)	(X)	10	90
2000	A	100	(X)	(X)	(X)	4	96
2000	В	100	(X)	(X)	(X)	4	96
Secondary							
vocational	•		=				
1986	(X)	100	(X)	(X)	(X)	2	98
2000	P	100	(X)	(X)	(X)	10	90
2000	. <b>A</b>	100	(X)	(X)	(X)	2	98
2000	В	100	(X)	(X)	(X)	2	98

X Not applicable.

Source: See text.

<sup>--</sup> Zero.

15 percent in 1986 to 10 percent in 2000, as is the proportion who proceed to specialized secondary school. The proportions of graduates of specialized secondary and secondary professional-technical schools who go on to higher education are held constant at their 1986 levels as in Scenario A.

In formulating projection assumptions, it has been necessary to take account of the 1984 education reform currently being phased into effect in the USSR. The reform increases the length of general schooling by 1 year, but reduces the age of initial enrollment from 7 years to 6 years, so that graduation ages should remain unchanged (other things being equal). This is equivalent to introducing a null grade before the first grade of general school. The Soviets plan that all general schools are to have changed over to the new schedule by 1992. Meanwhile, one fraction of children will be educated under the new system while the remainder continue under the old schedule. A major advantage of the projection model employed in the present analysis is its ability to handle circumstances of this kind, which are awkward to accommodate in conventional approaches. In the analysis, an additional grade has been introduced into the Soviet educational structure as of 1986. Beginning in 1986, a fraction of 6-year olds enter this (first) grade while the remainder enter the second grade in the following year, at age 7 years.<sup>3</sup>

The pace at which the education reform is put into effect has been varied in the projections. For each of the three principal scenarios described above (P, A, and B) high, median, and low variants in terms of the proportion of 6-year olds who enter primary school at that age have been constructed. The high variant accepts the timetable envisioned in current Soviet plans, which intend that all 6-year olds will be enrolled by 1992. In contrast, the median and low variants assume that complete coverage will not be achieved until 2000. In the low variant the proportion of 6-year olds who enroll at age 6 years rises linearly from zero in 1986 to unity in 2000. The median variant assumes that three quarters of 6-year olds will be enrolled as of 1992, but that coverage will subsequently expand at a slower pace, not attaining the 100 percent level until 2000.

<sup>3</sup> Some may wonder whether this makes any difference in the projection results, since it sounds as though everyone should graduate at the same age anyway. Actually, the principal impact of the variable age of primary school enrollment is registered in the population at ages around 6 years which has attained some schooling at the elementary level. In addition, the introduction of an extra grade has the paradoxical effect of reducing eventual educational attainment at higher levels by increasing the duration of exposure to attrition risks.

# B. Projection Results

The projected distributions of the population age 10 years and over by level of educational attainment under the various scenarios are presented in table 6. In every scenario and variant the population with completed higher education grows by 4-5 million from 1986 to 2000, experiencing an increase of about 25 percent. This occurs in Scenarios A and B, which assume declining rates of entry into the higher education system, due to the expansion of secondary education as well as the effect of mortality on the less-educated elderly cohorts. The assumption of increasing admission rates in Scenario P results in a projected population with completed higher education in the year 2000 that is larger by 1.7 million than that in Scenario A. In Scenario P the proportion of the population age 10 years and over with completed higher education grows to just over 10 percent by 2000 (see table 7).

Over the projection period the population with completed secondary education grows by 30 million persons, making for a 50 percent increase. Impressive growth is also registered by the population with specialized secondary education, which rises by one-third in the 14-year period. As table 7 indicates, by the year 2000 these two education categories together will account for half of the Soviet population age 10 years and over, according to the projections. The gains in these categories are greatest in the scenarios (A and B) which assume declining rates of admission into higher education, since the population with higher education grows at the expense of the population whose highest level of attainment is secondary education. There is little change in the population with incomplete secondary education in any scenario. In Scenario B, which assumes an increasing share of incomplete secondary graduates terminating their education at that level, the population in this education category is projected to rise by some 3 million, or under 10 percent.

The population with elementary education or less declines in every projection scenario in table 6. In keeping with historical trends, the decline is most pronounced at the below elementary level. This category is expected to account for no more than 2 percent of the Soviet population age 10 years and over in the year 2000 (table 7).

In terms of the cumulative proportions at or above the various education levels (see table 8), there is relatively little variation between projection scenarios. As of 1986, the median level of educational attainment for the Soviet population age 10 years and over is estimated to have been slightly better than completed secondary education, with almost one-quarter of the population possessing specialized secondary or higher education. By the year 2000 the proportion of the population with at least completed secondary education is projected to rise above the 60 percent level. The proportion with specialized secondary or higher education will be slightly above one-quarter, according to the projections.

(In thousands)

Table 6. Projected Population Age 10+, by Level of Educational Attainment: Absolute Figures, 1986 to 2000

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario P								
High 6-Year Olds	•			•				
1986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
1987	232,029	14,119	53,797	43,626	65,554	30,803	3,200	20,930
1988	233,886	13,391	53,553	43,173	67,662	31,519	3,011	21,578
1989	235,767	12,672	53,310	43,935	68,630	32,206	2,941	22,073
1990	237,690	11,947	53,054	44,744	69,652	32,866	2,907	22,518
1991	239,673	11,159	52,849	44,755	71,793	33,448	2,735	22,934
1992	241,769	9,992	52,858	44,810	74,053	34,081	2,626	23,348
1993	244,051	7,917	53,469	45,198	76,364	34,751	2,720	23,632
1994	246,531	5,236	54,516	45,773	78,756	35,479	2,794	23,976
1995	249,103	5,104	54,349	45,386	81,051	36,110	2,822	24,281
1996	251,705	4,997	54,168	44,973	83,367	36,755	2,844	24,602
1997	254,307	4,803	53,937	44,651	85,615	37,429	2,942	24,930
1998	256,839	4,822	53,387	44,365	87,864	38,100	3,039	25,261
1999	259,262	4,837	52,624	44,099	90,164	38,804	3,067	25,668
2000	263,771	4,885	51,625	44,505	93,436	39,850	3,129	26,347
Scenario P								
tedian 6-Year Olds			÷					
L9 <b>86</b>	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
L987	232,029	14,119	53,797	43,626	65,554	30,803	3,200	20,930
19 <b>88</b>	233,886	13,391	53,553	43,173	67,662	31,519	3,011	21,578
L9 <b>89</b>	235,767	12,672	53,310	43,935	68,630	32,206	2,941	22,07
L990	237,690	11,947	53,054	44,744	69,652	32,866	2, <del>9</del> 07	22,51
1991	239,673	11,154	52,854	44,755	71,793	33,448	2,735	22,93
1992	241,769	9,985	52,866	44,810	74,053	34,081	2,626	23,34
.993	244,051	7,907	53,479	45,198	76,364	34,751	2,720	23,63
.994	246,531	5,211	54,542	45,773	78,756	35,479	2,794	23,97
995	249,103	5,071	54,382	45,386	81,051	36,110	2,822	24,28
.996	251,705	4,955	. 54,205	44,978	83,367	36,755	2,844	24,60
997	254,307	4,754	53,979	44,657	85,615	37,429	2,942	24,93
.998	256,839	4,765	53,435	44,372	87,867	38,100	3,039	25,26
999	259,262	4,785	52,653	44,118	90,167	38,804	3,067	25,66
	263,771	4,831	51,647	44,530	93,441	39,851	3,130	26,34

Table 6. Projected Population Age 10+, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued
(In thousands)

'ear	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete
Scenario P								
Low 6-Year Olds			•					
1986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
1987	232,029	14,119	53,797	43,626	65,554	30,803	3,200	20,93
988	233,886	13,391	53,553	43,173	67,662	31,519	3,011	21,57
.989	235,767	12,672	53,310	43,935	68,630	32,206	2,941	22,07
.990	237,690	11,947	53,054	44,744	69,652	32,866	2,907	22,51
.991	239,673	11,147	52,862	44,755	71,793	33,448	2,735	22,93
992	241,769	9,974	52,876	44,810	74,053	34,081	2,626	23,34
.993	244,051	7,894	53,493	45,198	76,364	34,751	2,720	23,63
.994	246,531	5,180	54,572	45,773	78,756	35,479	2,794	23,97
.995	249,103	5,031	54,422	45,386	81,051	36,110	2,822	24,28
996	251,705	4,906	54,248	44,984	83,367	36,755	2,844	24,60
997	254,307	4,696	54,027	44,667	85,615	37,429	2,942	24,93
998	256,839	4,699	53,489	44,381	87,870	38,100	3,039	25,26
.999	259,262	4,725	52,686	44,140	90,173	38,804	3,067	25,66
2000	263,771	4,768	51,672	44,559	93,449	39,852	3,131	26,34
Scenario A High 6-Year Olds								
							2 504	20.1
.986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,13
.987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,9
.988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,5
.989	235,767	12,672	53,310	43,998	68,608	32,225	2,880	22,0
.990	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,5
991	239.673	11,159	52,849	44,899	71,779	33,493	2,616	22,8
992	241,769	9,992	52,858	45,092	74,032	34,138	2,424	23,2
993	244,051	7,917	53,469	45,620	76,360	34,821	2,397	23,4
994	246,531	5,236	54,516	46,232	78,916	35,545	2,407	23,6
995	249,103	5,104	54,349	45,86 <del>9</del>	81,386	36,178	2,399	23,8
996	251,705	4,997	54,168	45,476	83,885	36,825	2,403	23,9
997	254,307	4,803	• 53,937	45,312	86,285	37,510	2,373	24,0
998	256,839	4,822	53,387	45,187	88,691	38,193	2,336	24,2
999	259,262	4,837	52,624	44,973	91,298	38,886	2,318	24,3
2000	263,771	4,885	51,625	45,454	94,895	39,921		24,6

Table 6. Projected Population Age 10+, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued

(In thousands)

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario A								
Median 6-Year Olds							•	
1986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
1987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,930
1988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,578
1989	235,767	12,672	53,310	43,998	68,608	32,225	2,880	22,073
1990	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,518
1991	239,673	11,154	52,854	44,899	71,779	33,493	2,616	22,878
L992	241,769	9,985	52,866	45,092	74,032	34,138	2,424	23,233
1993	244,051	7,907	53,479	45,620	76,360	34,821	2,397	23,466
1994	246,531	5,211	54,542	46,232	78,916	35,545	2,407	23,678
1995	249,103	5,071	54,382	45,869	81,386	36,178	2,399	23,819
996	251,705	4,955	54,205	45,481	83,885	36,825	2,403	23,952
.997	254,307	4,754	53,979	45,318	86,285	37,510	2,373	24,087
.998	256,839	4,765	53,435	45,194	88,693	38,193	2,336	24,223
1999	259,262	4,785	52,653	44,992	91,301	38,886	2,318	24,326
2000	263,771	4,831	51,647	45,480	94,900	39,922	2,333	24,660
Scenario A								
Low 6-Year Olds								
.986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
.987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,930
988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,578
.9 <b>89</b>	235,767	12,672	53,310	43,998	68,608	32,225	2,880	22,073
990	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,518
991	239,673	11,147	52,862	44,899	71,779	33,493	2,616	22,878
992	241,769	9,974	52,876	45,092	74,032	34,138	2,424	23,23
993	244,051	7,894	53,493	45,620	76,360	34,821	2,397	23,460
994	246,531	5,180	54,572	46,232	78,916	35,545	2,407	23,678
995	249,103	5,031	54,422	45,869	81,386	36,178	2,399	23,819
996	251,705	4,906	54,248	45,487	83,885	36,825	2,403	23,95
997	254,307	4,696	- 54,027	45,328	86,285	37,510	2,373	24,08
998	256,839	4,699	53,489	45,204	88,696	38,193	2,336	24,22
999	259,262	4,725	52,686	45,015	91,306	38,886	2,318	24,32
000	263,771	4,768	51,672	45,508	94,907	39,923	2,333	24,66

Table 6. Projected Population Age 10+, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued
(In thousands)

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B								
High 6-Year Olds								
1986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
1987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,930
1988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,578
L989	235,767	12,672	53,310	44,028	68,625	32,178	2,880	22,073
.990	237,690	11,947	53,054	44,935	69,641	32,809	2,785	22,518
1991	239,673	11,159	52,849	45,015	71,773	33,389	2,610	22,878
.992	241,769	9,992	52,858	45,326	73,982	33,965	2,413	23,23
993	244,051	7,917	53,469	45,971	76,272	34,575	2,385	23,46
1994	246,531	5,236	54,516	46,753	78,696	35,276	2,386	23,667
.995	249,103	5,104	54,349	46,551	81,038	35,892	2,366	23,803
.996	251,705	4,997	54,168	46,312	83,418	36,520	2,369	23,92
997	254,307	4,803	53,937	46,369	85,693	37,124	2,340	24,04
998	256,839	4,822	53,387	46,466	87,978	37,721	2,303	24,16
999	259,262	4,837	52,624	46,533	90,354	38,387	2,276	24,25
.000	263,771	4,885	51,625	47,327	93,694	39,393	2,278	24,57
Scenario B		. •						
ledian 6-Year Olds								
.986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,93
988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,57
989	235,767	12,672	53,310	44,028	68,625	32,178	2,880	22,07
990	237,690	11,947	53,054	44,935	69,641	32,809	2,785	22,51
991	239,673	11,154	52,854	45,015	71,773	33,389	2,610	22,87
992	241,769	9,985	52,866	45,326	73,982	33,965	2,413	23,23
993	244,051	7,907	53,479	45,971	76,272	34,575	2,385	23,46
994	246,531	5,211	54,542	46,753	78,696	35,276	2,386	23,66
995	249,103	5,071	54,382	46,551	81,038	35,892	2,366	23,80
996	251,705	4,955	54,205	46,317	83,418	36,520	2,369	23,97
997	254,307	4,754	53,979	46,375	85,693	37,124	2,340	24,04
998	256,839	4,765	53,435	46,473	87,980	37,721	2,303	24,16
999	259,262	4,785	52,653	46,553	90,358	38,387	2,276	24,25
000	263,771	4,831	51,647	47,353	93,699	39,394	2,278	24,5

Table 6. Projected Population Age 10+, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued

(In thousands)

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B								
Low 6-Year Olds								
1986	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
1987	232,029	14,119	53,797	43,626	65,548	30,808	3,200	20,930
1988	233,886	13,391	53,553	43,173	67,652	31,529	3,011	21,578
1989	235,767	12,672	53,310	44,028	68,625	32,178	2,880	22,073
1990	237,690	11,947	53,054	44,935	69,641	32,809	2,785	22,518
1991	239,673	11,147	52,862	45,015	71,773	33,389	2,610	22,878
1992	241,769	9,974	52,876	45,326	73,982	33,965	2,413	23,233
1993	244,051	7,894	53,493	45,971	76,272	34,575	2,385	23,461
1994	246,531	5,180	54,572	46,753	78,696	35,276	2,386	23,667
1995	249,103	5,031	54,422	46,551	81,038	35,892	2,366	23,803
1996	251,705	4,906	54,248	46,323	83,418	36,520	2,369	23,922
1997	254,307	4,696	54,027	46,385	85,693	37,124	2,340	24,042
1998	256,839	4,699	53,489	46,483	87,983	37,721	2,303	24,161
1999	259,262	4,725	52,686	46,577	90,362	38,387	2,276	24,25
2000	263,771	4,768	51,672	47,383	93,705	39,395	2,279	24,570

Source: Center for International Research, unpublished projections.

Table 7. Projected Population Age 10+, by Level of Educational Attainment: In Percent, 1986 to 2000

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario P								
High 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
1989	100.00	5.37	22.61	18.63	29.11	13.66	1.25	9.36
1990	100.00	5.03	22.32	18.82	29.30	13.83	1.22	9.47
1991	100.00	4.66	22.05	18.67	29.95	13.96	1.14	9.57
1992	100.00	4.13	21.86	18.53	30.63	14.10	1.09	9.66
1993	100.00	3.24	21.91	18.52	31.29	14.24	1.11	9.68
1994	100.00	2.12	22.11	18.57	31.95	14.39	1.13	9.73
L995	100.00	2.05	21.82	18.22	32.54	14.50	1.13	9.75
1996	100.00	1.99	21.52	17.87	33.12	14.60	1.13	9.77
1997	100.00	1.89	21.21	17.56	33.67	14.72	1.16	9.80
.998	100.00	1.88	20.79	17.27	34.21	14.83	1.18	9.84
1999	100.00	1.87	20.30	17.01	34.78	14.97	1.18	9.90
2000	100.00	1.85	19.57	16.87	35.42	15.11	1.19	9.99
Scenario P	,						- A	
tedian 6-Year Olds								``
.986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
.987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
989	100.00	5.37	22.61	18.63	29.11	13.66	1.25	9.36
990	100.00	5.03	22.32	18.82	29.30	13.83	1.22	9.47
.991	100.00	4.65	22.05	18.67	29.95	13.96	1.14	9.57
992	100.00	4.13	21.87	18.53	30.63	14.10	1.09	9.66
993	100.00	3.24	21.91	18.52	- 31.29	14.24	1.11	9.68
.994	100.00	2.11	22.12	18.57	31.95	14.39	1.13	9.73
995	100.00	2.04	21.83	18.22	32.54	14.50	1.13	9.7
.996	100.00	1.97	21.54	17.87	33.12	14.60	1.13	9.7
997	100.00	1.87	21.23	17.56	33.67	14.72	1.16	9.80
998	100.00	1.86	20.81	17.28	34.21	14.83	1.18	9.8
999	100.00	1.85	20.31	17.02	34.78	14.97	1.18	9.9
000	100.00	1.83	19.58	16.88	35.43	15.11	1.19	9.9

Table 7. Projected Population Age 10+, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario P								
Low 6-Year Olds							•	
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
L989	100.00	5.37	22.61	18.63	29.11	13.66	1.25	9.36
1990	100.00	5.03	22.32	18.82	29.30	13.83	1.22	9.47
.991	100.00	4.65	22.06	18.67	29.95	13.96	1.14	9.57
1992	100.00	4.13	21.87	18.53	30.63	14.10	1.09	9.66
1993	100.00	3.23	. 21.92	18.52	31.29	14.24	1.11	9.68
.994	100.00	2.10	22.14	18.57	31.95	14.39	1.13	9.73
1995	100.00	2.02	21.85	18.22	32.54	14.50	1.13	9.75
.996	100.00	1.95	21.55	17.87	33.12	14.60	1.13	9.77
997	100.00	1.85	21.24	17.56	33.67	14.72	1.16	9.80
998	100.00	1.83	20.83	17.28	34.21	14.83	1.18	9.84
999	100.00	1.82	20.32	17.03	34.78	14.97	1.18	9.90
.000	100.00	1.81	19.59	16.89	35.43	15.11	1.19	9.99
Scenario A			•					
High 6-Year Olds					,			
.986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.7
.987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.0
988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.2
989	100.00	5.37	22.61	18.66	29.10	13.67	1.22	9.3
990	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.4
991	100.00	4.66	22.05	18.73	29.95	13.97	1.09	9.5
992	100.00	4.13	21.86	18.65	30.62	14.12	1.00	9.6
993	100.00	3.24	21.91	18.69	31.29	14.27	0.98	9.6
994	100.00	2.12	22.11	18.75	32.01	14.42	0.98	9.6
995	100.00	2.05	21.82	18.41	32.67	14.52	0.96	9.5
996	100.00	1.99	21.52	18.07	33.33	14.63	0.95	9.5
997	100.00	1.89	21.21	17.82	33.93	14.75	0.93	9.4
998	100.00	1.88	20.79	17.59	34.53	14.87	0.91	9.4
999	100.00	1.87	20.30	17.35	35.21	15.00	0.89	9.3
000	100.00	1.85	19.57	17.23	35.98	15.13	0.88	9.3

Table 7. Projected Population Age 10+, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

		Below		Incomplete	Complete	Specialized	Incomplete	Complete
Year	Total	elementary	Elementary	secondary	secondary	secondary	higher	higher
Scenario A								
Median 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
1989	100.00	5.37	22.61	18.66	29.10	13.67	1.22	9.36
1990	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.47
1991	100.00	4.65	22.05	18.73	29.95	13.97	1.09	9.55
1992	100.00	4.13	21.87	18.65	30.62	14.12	1.00	9.61
1993	100.00	3.24	21.91	18.69	31.29	14.27	0.98	9.62
1994	100.00	2.11	22.12	18.75	32.01	14.42	0.98	9.60
1995	100.00	2.04	21.83	18.41	32.67	14.52	0.96	9.56
1996	100.00	1.97	21.54	18.07	33.33	14.63	0.95	9.52
1997	100.00	1.87	21.23	17.82	33.93	14.75	0.93	9.47
1998	100.00	1.86	20.81	17.60	34.53	14.87	0.91	9.43
1999	100.00	1.85	20.31	17.35	35.22	15.00	0.89	9.38
2000	100.00	1.83	19.58	17.24	35.98	15.13	0.88	9.35
Scenario A								
Low 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	. 18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
L98 <b>9</b>	100.00	5.37	22.61	18.66	29.10	. 13.67	1.22	9.30
1990	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.4
1991	100.00	4.65	22.06	18.73	29.95	13.97	1.09	9.5
1992	100.00	4.13	21.87	18.65	30.62	14.12	1.00	9.6
993	100.00	3.23	21.92	18.69	31.29	14.27	0.98	9.6
.994	100.00	2.10	22.14	18.75	32.01	14.42	0.98	9.6
.995	100.00	2.02	21.85	18.41	32.67	14.52	0.96	9.5
.996	100.00	1.95	21.55	18.07	33.33	14.63	0.95	9.5
.997	100.00	1.85	21.24	17.82	33.93	14.75	0.93	9.4
.998	100.00	1.83	20.83	17.60	34.53	14.87	0.91	9.4
999	100.00	1.82	20.32	17.36	35.22	15.00	0.89	9.3
.000	100.00	1.81	19.59	17.25	35.98	15.14	0.88	9.3

Table 7. Projected Population Age 10+, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B								
High 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
1989	100.00	5.37	22.61	18.67	29.11	13.65	1.22	9.36
1990	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
1991	100.00	4.66	22.05	18.78	29.95	13.93	1.09	9.55
1992	100.00	4.13	21.86	18.75	30.60	14.05	1.00	9.61
1993	100.00	3.24	21.91	18.84	31.25	14.17	0.98	9.61
1994	100.00	2.12	22.11	18.96	31.92	14.31	0.97	9.60
1995	100.00	2.05	21.82	18.69	32.53	14.41	0.95	9.56
1996	100.00	1.99	21.52	18.40	33.14	14.51	0.94	9.50
1997	100.00	1.89	21.21	18.23	33.70	14.60	0.92	9.45
1998	100.00	1.88	20.79	18.09	34.25	14.69	0.90	9.41
1999	100.00	1.87	20.30	17.95	34.85	14.81	0.88	9.35
2000	100.00	1.85	19.57	17.94	35.52	14.93	0.86	9.31
Scenario B					. •			
Median 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
1989	100.00	5.37	22.61	18.67	29.11	13.65	1.22	9.36
1990	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
1991	100.00	4.65	22.05	18.78	29.95	13.93	1.09	9.55
1992	100.00	4.13	21.87	18.75	30.60	14.05	1.00	9.61
1993	100.00	3.24	21.91	18.84	31.25	14.17	0.98	9.61
1994	100.00	2.11	22.12	18.96	31.92	14.31	0.97	9.60
1995	100.00	2.04	21.83	18.69	32.53	14.41	0.95	9.56
996	100.00	1.97	21.54	18.40	33.14	14.51	0.94	9.50
.997	100.00	1.87	21.23	18.24	33.70	14.60	0.92	9.4
998	100.00	1.86	-20.81	18.09	34.26	14.69	0.90	9.4
.999	100.00	1.85	20.31	17.96	34.85	14.81	0.88	9.3
.000	100.00	1.83	19.58	17.95	35.52	14.93	0.86	9.3

Table 7. Projected Population Age 10+, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

Year	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B								
Low 6-Year Olds								
1986	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
1987	100.00	6.08	23.19	18.80	28.25	13.28	1.38	9.02
1988	100.00	5.73	22.90	18.46	28.93	13.48	1.29	9.23
1989	100.00	5.37	22.61	18.67	29.11	13.65	1.22	9.36
1990	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
1991	100.00	4.65	22.06	18.78	29.95	13.93	1.09	9.5
1992	100.00	4.13	21.87	18.75	30.60	14.05	1.00	9.6
1993	100.00	3.23	21.92	18.84	31.25	14.17	0.98	9.6
1994	100.00	2.10	22.14	18.96	31.92	14.31	0.97	9.60
1995	100.00	2.02	21.85	18.69	32.53	14.41	0.95	9.50
1996	100.00	1.95	21.55	18.40	33.14	14.51	0.94	9.50
1997	100.00	1.85	21.24	18.24	33.70	14.60	0.92	9.4
1998	100.00	1.83	20.83	18.10	34.26	14.69	0.90	9.4
1999	100.00	1.82	20.32	17.97	34.85	14.81	0.88	9.3
2000	100.00	1.81	19.59	17.96	35.53	14.94	0.86	9.3

Source: Table 6.

Table 8. Projected Population Age 10+, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000

Year	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario P							
High 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	53.38	24.27	10.61	9.36
1990	100.00	94.97	72.65	53.83	24.52	10.70	9.47
1991	100.00	95.34	73.29	54.62	24.67	10.71	9.57
1992	100.00	95.87	74.00	55.47	24.84	10.74	9.66
1993	100.00	96.76	74.85	56.33	25.04	10.80	9.68
1994	100.00	97.88	75.76	57.20	25.25	10.86	9.73
1995	100.00	97.95	76.13	57.91	25.38	10.88	9.75
1996	100.00	98.01	76.49	58.63	25.51	10.90	9.77
1997	100.00	98.11	76.90	59.34	25.68	10.96	9.80
1998	100.00	98.12	77.34	60.06	25 <b>.85</b>	11.02	9.84
1999	100.00	98.13	77.84	60.83	26.05	11.08	9.90
2000	100.00	98.15	78.58	61.70	26.28	11.17	9.99
Scenario P							
Median 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
L988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
L989	100.00	94.63	72.01	53.38	24.27	10.61	9.36
1990	100.00	94.97	72.65	53.83	24.52	10.70	9.47
1991	100.00	95.35	73.29	54.62	24.67	10.71	9.57
1992	100.00	95.87	74.00	55.47	24.84	10.74	9.66
993	100.00	96.76	74.85	56.33	25.04	10.80	9.68
.994	100.00	97.89	75.76	57.20	25.25	10.86	9.73
.995	100.00	97.96	76.13	57.91	25.38	10.88	9.75
.996	100.00	98.03	76.50	58.63	25.51	10.90	9.77
.997	100.00	98.13	76.90	59.34	25.68	10.96	9.80
.998	100.00	98.14	77.34	60.06	25.85	11.02	9.84
.999	100.00	98.15	77.85	60.83	26.05	11.08	9.90
.000	100.00	98.17	78.59	61.71	26.28	11.17	9.99

Table 8. Projected Population Age 10+, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

Year	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario P							
Low 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988,	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	53.38	24.27	10.61	9.36
1990	100.00	94.97	72.65	53.83	24.52	10.70	9.47
1991	100.00	95.35	73.29	54.62	24.67	10.71	9.57
1992	100.00	95.87	74.00	55.47	24.84	10.74	9.66
1993	100.00	96.77	74.85	56.33	25.04	10.80	9.68
L994	100.00	97.90	75.76	57.20	25.25	10.86	9.73
L995	100.00	97.98	76.13	57.91	25.38	10.88	9.75
996	100.00	98.05	76.50	58.63	25.51	10.90	9.77
997	100.00	98.15	76.91	59.34	25.68	10.96	9.80
.998	100.00	98.17	77.34	60.07	25.85	11.02	9.84
.999	100.00	98.18	77.86	60.83	26.05	11.08	9.90
2000	100.00	98.19	78.60	61.71	. 26.28	11.17	9.99
Scenario A							
High 6-Year Olds							
.986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
.987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
.988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
.989	100.00	94.63	72.01	53.35	24.25	10.58	9.36
.990	100.00	94.97	72.65	53.77	24.49	10.65	9.47
991	100.00	95.34	73.29	54.56	24.61	10.64	9.55
992	100.00	95.87	74.00	55.35	24.73	10.61	9.61
993	100.00	96.76	74.85	56.15	24.87	10.60	9.62
994	100.00	97.88	75.76	57.01	25.00	10.58	9.60
995	100.00	97.95	76.13	57.72	25.05	10.52	9.56
996	100.00	98.01	76.49	58.43	25.10	10.47	9.57
997	100.00	98.11	76.90	59.08	25.16	10.40	9.47
998	100.00	98.12	77.34	59.74	25.21	10.34	9.43
999	100.00	98.13	77.84	60.49	25.28	10.28	9.38
000	100.00	98.15	78.58	61.34	25.37	10.23	9.3

Table 8. Projected Population Age 10+, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

Year	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario A							
Median 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	53.35	24.25	10.58	9.36
1990	100.00	94.97	72.65	53.77	24.49	10.65	9.47
1991	100.00	95.35	73.29	54.56	24.61	10.64	9.55
1992	100.00	95.87	74.00	55.35	24.73	10.61	9.61
1993	100.00	96.76	74.85	56.15	24.87	10.60	9.62
1994	100.00	97.89	75.76	57.01	25.00	10.58	9.60
1995	100.00	97.96	76.13	57.72	25.05	10.52	9.56
1996	100.00	98.03	76.50	58.43	25.10	10.47	9.52
1997	100.00	98.13	76.90	59.08	25.16	10.40	9.47
1998	100.00	98.14	77.34	59.74	25.21	10.34	9.43
L999	100.00	98.15	77.85	60.49	25.28	10.28	9.38
2000	100.00	98.17	78.59	61.35	25.37	10.23	9.35
Scenario A							
Low 6-Year Olds							
.986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
.987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
.988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
.989	100.00	94.63	72.01	53.35	24.25	10.58	9.36
.990	100.00	94.97	72.65	53.77	24.49	10.65	9.47
.991	100.00	95.35	73.29	54.56	24.61	10.64	9.55
.992	100.00	95.87	74.00	55.35	24.73	10.61	9.61
.993	100.00	96.77	74.85	56.15	24.87	10.60	9.62
.994	100.00	97.90	75.76	57.01	25.00	10.58	9.60
995	100.00	97.98	76.13	57.72	25.05	10.52	9.56
996	100.00	98:05	76.50	58.43	25.10	10.47	9.52
997	100.00	98.15	76.91	59.08	25.16	10.40	9.47
998	100.00	98.17	77.34	59.74	25.21	10.34	9.43
999	100.00	98.18	77.86	60.49	25.28	10.28	9.38
000	100.00	98.19	78.60	61.35	25.37	10.23	9.39

Table 8. Projected Population Age 10+, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

Year	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B			<del> </del>				-
High 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	53.34	24.23	10.58	9.36
1990	100.00	94.97	72.65	53.75	24.45	10.65	9.47
1991	100.00	95.34	73.29	54.51	24.57	10.63	9.55
1992	100.00	95.87	74.00	55.26	24.66	10.61	9.61
1993	100.00	96.76	74.85	56.01.	24.76	10.59	9.61
1994	100.00	97.88	75.76	56.80	24.88	10.57	9.60
1995	100.00	97.95	76.13	57.45	24.91	10.51	9.56
1996	100.00	98.01	76.49	58.10	24.95	10.44	9.50
1997	100.00	98.11	76.90	58.67	24.97	10.37	9.45
1998	100.00	98.12	77.34	59.24	24.99	10.30	9.41
1999	100.00	98.13	77.84	59.89	25.04	10.23	9.35
2000	100.00	98.15	78.58	60.63	25.11	10.18	9.31
Scenario B							
Median 6-Year Olds				•			
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	∘53.34	24.23	10.58	9.36
1990	100.00	94.97	72.65	53.75	24.45	10.65	9.47
1991	100.00	95.35	73.29	54.51	24.57	10.63	9.55
1992	100.00	95.87	74.00	55.26	24.66	10.61	9.61
L993	100.00	96.76	74.85	56.01	24.76	10.59	9.61
1994	100.00	97.89	75.76	56.80 ،	24.88	10.57	9.60
L995	100.00	97.96	76.13	57.45	24.91	10.51	9.56
1996	100.00	98.703	76.50	58.10	24.95	10.44	9.50
1997	100.00	98.13	76.90	58.67	24.97	10.37	9.49
1998	100.00	98.14	77.34	59.25	24.99	10.30	9.4
1999	100.00	98.15	77.85	59 <b>.89</b>	25.04	10.23	9.3
2000	100.00	98.17	78.59	60.64	25.11	10.18	9.3

Table 8. Projected Population Age 10+, by Lavel of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

Year	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
Scenario B							
Low 6-Year Olds							
1986	100.00	93.55	70.10	50.88	23.31	10.26	8.74
1987	100.00	93.92	70.73	51.93	23.68	10.40	9.02
1988	100.00	94.27	71.38	52.92	23.99	10.51	9.23
1989	100.00	94.63	72.01	53.34	24.23	10.58	9.36
1990	100.00	94.97	72.65	53.75	24.45	10.65	9.47
1991	100.00	95.35	73.29	54.51	24.57	10.63	9.55
1992	100.00	95.87	74.00	55.26	24.66	10.61	9.61
1993	100.00	96.77	74.85	56.01	24.76	10.59	9.61
1994	100.00	97.90	75.76	56.80	24.88	10.57	9.60
1995	100.00	97.98	76.13	57.45	24.91	10.51	9.56
1996	100.00	98.05	76.50	58.10	24.95	10.44	9.50
1997	100.00	98.15	76.91	58.67	24.97	10.37	9.45
1998	100.00	98.17	77.34	59.25	24.99	10.30	9.41
1999	100.00	98.18	77.86	59.89	25.04	10.23	9.35
2000	100.00	98.19	78.60	60.64	25.11	10.18	9.31

Source: Table 7.

The projected distributions of the population by age and level of educational attainment are presented for selected dates in appendix C. These results indicate that the distributions reported in postwar Soviet censuses are not fully consistent with the available data on admission, graduation, and attrition rates in the Soviet educational system. In particular, the self-reported census data may contain greater proportions in higher education categories and lesser shares at the lower levels than what is implied by the administrative education statistics. Thus, the proportion of 20- to 24-year olds with completed higher education declines over the projection period in every scenario, including the scenario (P) with rising admission rates. Situations of this kind are by no means unique to the USSR, but typify many other countries as well.

### C. Concluding Remarks

In summary, the Soviet population has become progressively better educated during the postwar period. This trend dates back at least to the beginning of the 20th century, and is projected to continue into the near future. The major emphasis of the Soviet educational system has moved beyond the elimination of illiteracy to the provision of universal secondary education. To the extent that education raises labor productivity, further gains are to be expected, although this is by no means assured. In current Soviet discussions of education policy, stress is placed on measures to improve the development of vocational skills and practical work experience. How successful these measures will be remains to be seen.

Perhaps the most far reaching effects of education are less immediately tied to production efficiency. Literacy can be regarded as one of the basic prerequisites for participation in a modern, mobilized society, which the Soviet government has carefully cultivated. The achievement of universal primary schooling coincided with the transformation of the USSR from a predominantly agrarian country into an urban, industrial society. Universal secondary education can be expected to influence the outlook of the generations who will shape the Soviet Union's future.

\*Tops ٠ ι •

#### Appendix A

#### DATA ON KDUCATIONAL ATTAINMENT

Data on educational attainment in official Soviet statistical publications are not presented in the detail necessary for serious economic or demographic analysis. Although annual estimates for the population over age 10 years are published, these refer to a limited set of education categories with no disaggregation by age. The 1959 and 1970 censuses are the only postwar sources for the distribution of educational attainment by age, and even there data are given only for highly aggregated categories. Information for subsequent years, including the benchmark distribution needed to begin the projections, had to be estimated from limited data. This was accomplished through repeated application of the cohort education model (described below), which generates joint distributions of the population by single year of age and grade of school.

In the first step of this process, joint distributions for 1970 were estimated in single-year detail based on an estimated series of annual births from 1894 onwards, historical data on mortality, and available information on educational admission, graduation, and failure rates. The estimated joint distributions were grouped into the categories reported in the 1970 census and compared to the census distributions. On the basis of these comparisons, the assumed historical trends in the various educational rates were modified so as to reduce discrepancies between the estimated and reported distributions, leading to a revised estimate of the detailed joint distribution. This procedure was repeated until the potential for further improvement became minor, at which point the estimated detailed joint distribution was employed to subdivide the reported census distribution into single-year detail.

The second phase of the estimation process used the estimate of the detailed 1970 joint age-education distribution as a benchmark for projections to 1979. Because the 1979 census data on the joint age-education distribution were not published, the only figures available for comparison with the estimated distributions for 1979 were the univariate distribution of the population over age 10 years by level of attainment (in aggregated categories). Once an estimate acceptably consistent with the univariate distribution had been obtained, it was modified to agree simultaneously with both the census attainment distribution and with CIR's estimate of the 1979 age distribution (Kingkade, 1985, pp. 30-31) by iterative proportional adjustment.

The final step in estimating the benchmark age-education distribution proceeded from 1979 to 1986 using the same approach involved in the 1979 estimation. For 1986, an official Soviet estimate

of the univariate educational attainment distribution was combined with CIR's median series projection of the 1986 age distribution (Kingkade, 1987, pp. 36-83) to adjust the final estimates. The resultant adjusted detailed joint age-education distribution became the benchmark distribution for the projections.

## 1. Attrition in Higher and Specialized Secondary Education

In contrast to the general education subsystem, for which direct data on attrition by grade are available for certain dates in the postwar period, no such data were found for higher or specialized secondary education. Fortunately, it was possible to estimate the missing attrition rates indirectly from time series of annual admissions and graduations, which are available for the past 20 years or so for both higher and specialized secondary education. In the case of higher education, a simple decay relationship between the number of graduates and the number of admissions 5 years earlier was posited. Ordinary least squares regression was applied to the time series of admissions and graduations to estimate an equation of the form

$$G_{t} = \alpha A_{t-5} + u_{t} ,$$

where G refers to graduates;

A refers to admissions;

u is a stochastic error; and

t indexes the year.

If the estimated regression coefficient,  $\hat{\mathbf{a}}$ , is interpreted as the proportion of admissions who graduate, the complement of its fifth root becomes an estimate of the annual attrition rate. It has been employed in this capacity in the present study.

Specialized secondary schools admit students with complete as well as incomplete general secondary education, and both streams are measured in the official statistical series. This enabled identification of separate attrition rates for specialized secondary students with incomplete general education and for those with completed general secondary education. The period of training is ordinarily 4 years for students with incomplete general education and 2 years for students with completed general secondary education. On this basis the following relationship was estimated:

$$S_t = \beta_1 C_{t-2} + \beta_2 I_{t-4} + u_t$$
,

where S are specialized secondary graduates;

C are admissions with completed general education;

I are admissions with incomplete general education;

u is a stochastic error; and

t is the time index.

The complement of the square root of  $\hat{\beta}_1$  and that of the fourth root of  $\hat{\beta}_2$  have been adopted as estimates of the respective attrition rates in the present study.

#### Appendix B

#### EDUCATIONAL ATTAINMENT MODEL

The principal analytical instrument used in the present study is a model of the process of educational attainment at the population level. All estimates and projections of attainment in this report are based on this model, which was developed especially for this project. The model is precise enough to distinguish individual ages and classes within various educational subsystems, yet sufficiently flexible to accommodate structural change of the kind witnessed in postwar Soviet experience. The model depicts the educational attainment process as it actually occurs, in terms of rates of admission, graduation, and failure within the education system. As a realistic portrayal of the process which generates the distribution of the population by level of educational attainment, the model becomes a straightforward vehicle for simulating the effects of alternative policies. In this capacity, the model lends itself easily to projection, and represents an improvement over the methodology of previous projections of Soviet educational attainment. The latter, based on extrapolation of trends in aggregate attainment distributions, were unsuited to exploring alternative education scenarios and included no age breakdowns (Goodman and Feshbach, 1967; National Technical Information Service, 1977).

The model may be best understood in relation to the cohort-survival model used in ordinary population projections. The central element of the model is the "birth cohort," which refers to the group comprising all persons born in a particular year. At any given date, the members of a given birth cohort have the same age, so that the distribution of the population by age is a collection of the survivors of succeeding birth cohorts. In the standard survival model, every cohort is subject to attrition from mortality, which varies by age and over time. Each cohort is projected to the given date using survival rates constructed from mortality data. In this fashion, a time series of births is used to generate the population, distributed by age, for a given date. The projection process can be viewed as partitioning the members of a birth cohort into two states, living and deceased, although attention usually focuses exclusively on the living.

The cohort survival model provides a convenient framework for conceptualizing school attrition, which may be thought of as "mortality" applying to classes of students admitted at succeeding dates. However, it is necessary to extend the model in several obvious aspects in order to adequately represent the processes involved in educational advancement. In contrast to the simple two-state mortality model, there are clearly several forms of failure or survival in the case of education: students may drop out, be left back, transfer, and so forth. The reversibility (however potential) of most forms of school attrition

entails an equally fundamental departure from the mortality model. Both of these features are accommodated in the model of educational attainment, whose formal description follows.

A cohort's distribution by level of education can be represented as a row vector

$$P = \begin{bmatrix} p_1 & p_2 & p_3 & \dots & p_n \end{bmatrix}$$

where  $\mathbf{p_i}$  denotes the proportion of the cohort in the  $\mathbf{i^{th}}$  education category. The evolution of this distribution over time is governed by transition probabilities, which include rates of graduation, failure, and transfers between education subsystems. These rates are arranged in the Transition Matrix.  $\mathbf{0}$ :

$$Q = \begin{bmatrix} q_{11} & q_{12} & \cdots & q_{1n} \\ q_{21} & & & & & \\ \vdots & & & & \vdots \\ q_{n1} & & \cdots & q_{nn} \end{bmatrix}$$

where  $\mathbf{q_{ij}}$  is the probability of moving from category  $\mathbf{i}$  to category  $\mathbf{j}$  in a year. In practice, many of the  $\mathbf{q_{ij}}$  will be assumed to equal zero (no grade skips, demotions, etc.). The rows of  $\mathbf{Q}$  must sum to unity.

Given Q and the cohort's education distribution at a given time, P(t), the distribution 1 year later can be projected by

$$P(t+1) = P(t)Q,$$

and more generally

$$P(t+s) = P(t)Q ,$$

as long a Q remains fixed over the time interval (t, t+s). For every cohort one may assume universal enrollment in the first grade upon attaining school age, which translates into the initial condition

$$P(0) = \begin{bmatrix} 1 & 0 & 0 & \dots & 0 \end{bmatrix}$$

The projection model also permits transition rates to differ over time. If  $t_0$  is the birth date of the earliest cohort and  $t_N$  is the projection target year, the projection period may be composed of N segments

$$t_0 < t_1 < t_2 < \dots < t_N$$
,

each having its own transition matrix,  $\mathbf{Q_i}$ . Not every cohort will be subject to all the  $\mathbf{Q_i}$ . Obviously a cohort born after  $\mathbf{t_i}$  never existed while  $\mathbf{Q_i}$  was in effect. The condition is actually a little more restricted:  $\mathbf{Q_i}$  applies only to cohorts which had reached school age by  $\mathbf{t_i}$ . In general, the projection algorithm for the cohort which reached school age in year  $\mathbf{s}$ ,  $\mathbf{t_{i-1}} < \mathbf{s} \leq \mathbf{t_i}$ , is

$$P(t_i-s) \leftarrow P(0)Q_i^{t_i-s}$$
,

$$P(t_{k}-s) \leftarrow P(t_{k-1}-s)Q_{k}^{t_{k}-t_{k-1}}, \qquad k = i+1, ..., N.$$

The first step moves the cohort to the end of the time segment in which it entered the educational system. The second expression refers to subsequent time segments.  $P(t_N-s)$  is the cohort's education distribution at the target year.

In the analysis, the P(t<sub>N</sub>-s) are collected as rows of a matrix corresponding to single-year ages. The columns of this matrix refer to education categories. Each row of the matrix contains the distribution by level of educational attainment of a single-year age group. In the present study these proportions have been applied to CIR's median series of projections of the population of the USSR by single year of age to obtain the results presented above. To distribute the terminal age group, comprising the population age 75 years and over, the proportions estimated for 74-year olds have been employed. A total of 49 education states were involved in the present analysis. The states included classes within the various educational subsystems along specific paths, waiting states, and terminal categories.

The model permits the age of entry into the educational system to vary over time. It is also possible to provide for a distribution of ages at entry within each cohort by defining the first category to be the state of never having entered school, with a nonzero probability of remaining. This option has been employed to take account of the reduction in age of elementary school enrollment which the Soviets are

currently phasing in gradually, such that some children are enrolled at age 6 years while the remainder enroll at age 7 years.<sup>4</sup>

Although the presentation thus far has followed a single cohort to a given date, the model can be used to project the population's distribution by age and level of educational attainment to any date desired. In the present study the model has been employed both to subdivide the highly aggregated distributions reported in official Soviet sources into detailed distributions for individual cohorts and to project the future age-attainment distribution.

<sup>&</sup>lt;sup>4</sup> This actually required two waiting states, the first containing all 5-year olds and the second consisting of unenrolled 6-year olds. The latter were assigned a unit probability of enrolling in the subsequent year.

# Appendix C

## SUPPLEMENTARY TABLES

Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000
(As of January 1)

			Scenario	P, High 6-Y	ear Olds	•	
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete highe
1986							
1766							
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.7
10-19	100.00	98.21	44.80	23.48	2.89	1.24	-
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.7
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.5
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.5
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.6
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.0
1990							
Total 10+	100.00	94.97	72.65	53.83	24.52	10.70	9.47
10-19	100.00	97.84	44.22	17.50	2.50	0.96	
20-29	100.00	99.22	96.49	95.55	37.75	15.41	13.2
30-39	100.00	99.93	96.72	91.92	42.88	19.73	18.8
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.9
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.5
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.5
1995							
Total 10+	100.00	97.95	76.13	57.91	25.38	10.88	9.7
10-19	100.00	97.49	43.64	16.84	2.17	0.70	
20-29	100.00	98.63	94.84	90.77	33.07	12.92	10.79
30-39	100.00	99.62	97.38	97.07	39.43	16.46	15.7
40-49	100.00	99.91	94.70	79.06	43.59	21.11	19.7
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.4
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.6
2000							
Total 10+	100.00	98.15	78.58	61.70	26.28	11.17	9.9
10-19	100.00	97.25	45.44	17.36	2.35	0.77	-
20-29	100.00	98.15	94.11	87.89	31.42	12.07	9.6
30-39	100.00	99.22	96.47	95.72	37.85	15.55	14.9
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.7
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.29
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.6

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Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

		•	Scenario	P, Median 6	-Year Olds		
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
			· · · · · · · · · · · · · · · · · · ·				
1986			•				
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89	1.24	
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990					•		•
Total 10+	100.00	94.97	72.65	53.83	24.52	10.70	9.47
10-19	100.00	97.84	44.22	17.50	2.50	0.96	
20-29	100.00	99.22	96.49	95.55	37.75	15.41	13.24
30-39	100.00	99.93	96.72	91.92	42.88	19.73	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58
1995				•			
Total 10+	100.00	97.96	76.13	57.91	25.38	10.88	9.75
10-19	100.00	97.56	43.64	16.84	2.17	0.70	
20-29	100.00	98, 63	94.84	90.77	33.07	12.92	10.79
30-39	100.00	99.62	97.38	97.07	39.43	16.46	15.76
40-49	100.00	99.91	94.70	79.06	43.59	21.11	19.75
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69
2000				•			
Total 10+	100.00	98.17	78.59	61.71	26.28	11.17	9.99
10-19	100.00	97.35	45.50	17.37	2.35	0.77	
20-29	100.00	98.15	94.11	87.89	31.42	12.07	9.63
30-39	100.00	99.22	96.47	95.72	37.85	15.55	14.93
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.29
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.62

Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

			Scenario	P, Low 6-Ye	ar Olds		
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986							
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89	1.24	•
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990				•			
Total 10+	100.00	94.97	72.65	53.83	24.52	10.70	9.47
10-19	100.00	97.84	44.22	17.50	2.50	0.96	
20-29	100.00	99.22	96.49	95.55	37.75	15.41	13.24
30-39	100.00	99.93	96.72	91.92	42.88	19.73	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58
1995				-			•
Total 10+	100.00	97.98	76.13	57.91	25.38	10.88	9.75
10-19	100.00	97.64	43.64	16.84	2.17	0.70	
20-29	100.00	98.63	94.84	90.77	33.07	12.92	10.79
30-39	100.00	99.62	97.38	97.07	39.43	16.46	15.76
40-49	100.00	99.91	94.70	79.06	43.59	21.11	19.75
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69
2000							
Total 10+	100.00	98.19	78.60	61.71	26.,28	11.17	9.99
10-19	100.00	97.47	45.57	17.39	2.35	0.77	
20-29	100.00	98.15	94.11	87.89	31.42	12.07	9.63
30-39	100.00	99.22	96.47	95.72	37.85	15.55	14.93
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.29
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.62

**TEST** 

Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

	Scenario A, High 6-Year Olds										
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher				
1986											
2,00											
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74				
10-19	100.00	98.21	44.80	23.48	2.89	1.24					
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76				
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50				
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54				
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63				
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07				
1990											
Total 10+	100.00	94.97	72.65	53.77	24.49	10.65	9.47				
10-19	100.00	97.84	44.22	17.21	2.43	0.86	••				
20-29	100.00	99.22	96.49	95.55	37.63	15.24	13.24				
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80				
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97				
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56				
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58				
1995				-			-				
Total 10+	100.00	97.95	76.13	57.72	25.05	10.52	9.56				
10-19	100.00	97.49	43.64	15.93	1.91	0.46					
20-29	100.00	98.63	94.84	90.68	31.43	11.10	9.69				
30-39	100.00	<b>9</b> 9.62	97.38	97.07	39.43	16.45	15.76				
40-49	100.00	99.91	94.70	79.06	43.59	21.10	19.75				
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41				
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69				
2000											
Total 10+	100.00	98.15	78.58	61.34	25.37	10.23	9.35				
10-19	100.00	97.25	45.44	15.79	1.89	0.38					
20-29	100.00	98.15	94.11	87.60	26.77	7.26	6.12				
30-39	100.00	99.22	94.11 96.47	95.72	37.70	15.33	14.71				
40-49	100.00	99.93	96.72	93.72	42.78	19.67	18.78				
50-59	100.00	99.39	96.72 88.49	62.10	35.34	15.96	14.28				
60+	100.00	96.05	63.32	30.10	35.34 17.75	13.70	6.62				

Table C-3. Projected Population, by Lavel of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued (As of January 1)

			Scenario	A, Median 6	-Year Olds		
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986			-	١			
Total 10+	100.00	93.55	70.10	50 <b>.88</b>	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89	1.24	
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990					•		
Total 10+	100.00	94.97	72.65	53.77	24.49	10.65	9.47
10-19	100.00	97.84	44.22	17.21	2.43	0.86	
20-29	100.00	99.22	96.49	95.55	37.63	15.24	13.24
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58
1995							÷
Total 10+	100.00	97.96	76.13	57.72	25.05	10.52	9.56
10-19	100.00	97.56	43.64	15.93	1.91	0.46	٠
20-29	100.00	98.63	94.84	90.68	31.43	11.10	9.69
30-39	100.00	99.62	97.38	97.07	39.43	16.45	15.76
40-49	100.00	99.91	94.70	79.06	43.59	21.10	19.75
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69
2000				,			
Total 10+	100.00	98.17	78.59	61.35	25.37	10.23	9.35
10-19	100.00	97.35	45.50	15.80	1.89	0.38	
20-29	100.00	98.15	94.11	87.60	26.77	7.26	6.12
30-39	100.00	99.22	96.47	95.72	37.70	15.33	14.71
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.28
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.62

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Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued (As of January 1)

			Scenario	A, Low 6-Ye	ar Olds		
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986							
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89		
20-29	100.00	99.55	97.44	23.46 96.91	39.06	1.24	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	
40-49	100.00	98.59	81.66	49.80	29.03	12.13	18.50 10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990	,						
Total 10+	100.00	94.97	72.65	53.77	24.49	10.65	9.47
10-19	100.00	97.84	44.22	17.21	2.43	0.86	
20-29	100.00	99.22	96.49	95.55	37.63	15.24	13.24
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97
50-59	100.00	97.21		44.64	26.35	10.98	9.56
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58
1995				-			-
Total 10+	100.00	97.98	76.13	57.72	25.05	10.52	9.56
10-19	100.00	97.64	43.64	15.93			
20-29	100.00	98.63			1.91	0.46	
30-39	100.00	98.63 9 <b>9.</b> 62	94.84 97.38	90.68	31.43	11.10	9.69
40-49	100.00	99.91	97.38 94.70	97.07	39.43	16.45	15.76
50-59	100.00	98.42		79.06	43.59	21.10	19.75
60+	100.00	96.42 94.25	81.27 53.84	48.85 20.61	28.64 12.16	11.94 5.38	10.41 4.69
2000							
Total 10+	100.00	98.19	78.60	61.35	25.37	10.23	9.35
10-19	100.00	97.47	45.57	15.82	1,90	0.38	
20-29	100.00	98.15	94.11	87.60	26.77	7.26	6.12
30-39	100.00	99.22	96.47	95.72	26.77 37.70	15.33	14.71
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.28
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.62

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Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

			Scenario	B, High 6-Y	ear Olds		
	Below		Incomplete	Complete	Specialized	Incomplete	Complete
Year and age	elementary	Elementary	secondary	secondary	secondary	higher	higher
1986		:			*		
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89	1.24	
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50
40-49	. 100.00	98.59	81.66	49.80	29.03	12.13	10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990							
Total 10+	100.00	94.97	72.65	53.75	24.45	10.65	9.47
10-19	100.00	97.84	44.22	17.08	2.34	0.86	
20-29	100.00	99.22	96.49	95.55	37.51	15.24	13.24
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58
1995				-			
Total 10+	100.00	97.95	76.13	57.45	24.91	10.51	9.56
10-19	100.00	97.49	43.64	15.18	1.85	0.44	
20-29	100.00	98.63	94.84	89.92	30.70	11.01	9.66
30-39	100.00	99.62	97.38	97.07	39.42	16.45	15.76
40-49	100.00	99.91	94.70	79.06	43.58	21.10	19.75
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69
2000							
Total 10+	100.00	98.15	78.58	60.63	25.11	10.18	9.31
10-19	100.00	97.25	45.44	14.50	1.83	0.34	
20-29	100.00	98.15	94.11	84.94	25.50	6.98	5.92
30-39	100.00	99.22	96.47	95.72	37.56	15.32	14.71
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.28
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.62

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Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

	Scenario B, Median 6-Year Olds									
Year and age	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher			
. 1986										
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74			
	,		70.10	30.66			0.74			
10-19	100 00	98.21	44.80	23.48	2.89	1.24				
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76			
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50			
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54			
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63			
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07			
1990				٠						
Total 10+	100.00	94.97	72.65	53.75	24.45	10.65	9.47			
10-19	100.00	97.84	44.22	17.08	2.34	0.86				
20-29	100.00	99.22	96.49	95.55	37.51	15.24	13.24			
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80			
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.97			
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.56			
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.58			
1995				-			,			
Total 10+	100.00	97.96	76.13	57.45	24.91	10.51	9.56			
10-19	100.00	97.56	43.64	15.18	1.85	0.44				
20-29	100.00	98.63	94.84	89.92	30.70	11.01	9.66			
30-39	100.00	99.62	97.38	97.07	39.42	16.45	15.76			
40-49	100.00	99.91	94.70	79.06	43.58	21.10	19.75			
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.41			
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.69			
2000										
Total 10+	100.00	98.17	78.59	60.64	25.11	10.18	9.3			
10-19	100.00	97.35	45.50	14.51	1.83	0.35				
20-29	100.00	98.15	94.11	84.94	25.50	6.98	5.97			
30-39	100.00	99.22	96.47	95.72	37.56	15.32	14.7			
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.78			
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.28			
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.63			

Table C-3. Projected Population, by Level of Educational Attainment: Cumulative Percentages, 1986 to 2000--Continued

(As of January 1)

			Scenario	B, Low 6-Yes	er Olds	1	
Year and age	Below	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete
1986					•		
Total 10+	100.00	93.55	70.10	50.88	23.31	10.26	8.74
10-19	100.00	98.21	44.80	23.48	2.89	1.24	
20-29	100.00	99.55	97.44	96.91	39.06	16.29	13.76
30-39	100.00	99.95	95.35	81.74	43.13	20.62	18.50
40-49	100.00	98.59	81.66	49.80	29.03	12.13	10.54
50-59	100.00	95.53	62.10	30.33	17.80	7.61	6.63
60+	100.00	67.54	33.72	8.26	4.96	2.38	2.07
1990							
Total 10+	100.00	94.97	72.65	53.75	24.45	10.65	9.47
10-19	100.00	97.84	44.22	17.08	2.34	0.86	
20-29	100.00	99.22	96.49	95.55	37.51	15.24	13.2
30-39	100.00	99.93	96.72	91.92	42.88	19.72	18.80
40-49	100.00	99.32	87.89	60.88	34.77	15.64	13.9
50-59	100.00	97.21	76.28	44.64	26.35	10.98	9.5
60+	100.00	77.52	39.23	10.61	6.26	2.96	2.50
1995				-			
Total 10+	100.00	97.98	76.13	57.45	24.91	10.51	9.5
10-19	100.00	97.64	43.64	15.18	1.85	0.44	٠-
20-29	100.00	98.63	94.84	89.92	30.70	11.01	9.6
30-39	100.00	99.62	97.38	97.07	39.42	16.45	15.7
40-49	100.00	99.91	94.70	79.06	43.58	21.10	19.7
50-59	100.00	98.42	81.27	48.85	28.64	11.94	10.4
60+	100.00	94.25	53.84	20.61	12.16	5.38	4.6
2000							
Total 10+	100.00	98.19	78.60	60.64	25.11	10.18	9.3
10-19	100.00	97.47	45.57	14.52	1.83	0.35	-
20-29	100.00	98.15	94.11	84.94	25.50	6.98	5.9
30-39	100.00	99.22	96.47	95.72	37.56	15.32	14.7
40-49	100.00	99.93	96.72	91.99	42.78	19.67	18.7
50-59	100.00	99.39	88.49	62.10	35.34	15.96	14.2
60+	100.00	96.05	63.32	30.10	17.75	7.60	6.6

<sup>--</sup> Zero

Source: Table C-2.

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Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000

(As of January 1)

			1	Scenario P,	High 6-Year	D1ds		
Year and age	Total	Below	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.76
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.82	29.30	13.83	1.22	9.47
10-19	100.00	2.16	53.62	26.72	15.00	1.54	0.96	
20-29	100.00	0.78	2.73	0.95	57.80	22.33	2.17	13.24
30-39	100.00	0.07	3.21	4.81	49.03	23.16	0.93	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995					-			
Total 10+	100.00	2.05	21.82	18.22	32.54	14.50	1.13	9.75
10-19	100.00	2.51	53.86	26.80	14.67	1.47	0.70	
20-29	100.00	1.37	3.79	4.06	57.70	20.15	2.13	10.79
30-39	100.00	0.38	3.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	. 1.53	10.41
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.85	19.57	16.87	35.42	15.11	1.19	9.99
10-19	100.00	2.75	51.81	28.08	15.01	1.58	0.77	
20-29	100.00	1.85	4.04	6.22	56.46	19.36	2.44	9.63
30-39	100.00	0.78	2.75	0.75	57.87	22.30	0.62	14.9
40-49	100.00	0.07	3.21	4.73	49.20	23.11	0.89	18.7
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.29
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.6

(As of January 1)

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

Scenario P, Median 6-Year Olds Complete Below Incomplete Complete Specialized Incomplete higher higher elementary Elementary secondary secondary secondary Year and age Total 1986 8.74 13.05 1.52 Total 10+..... 100.00 6.45 23.45 19.22 27.57 1.24 1.79 21.31 20.60 1.64 10-19..... 100.00 53.41 13.76 22.77 2.53 20-29..... 100.00 0.45 2.11 0.52 57.85 22.51 2.12 18.50 38.61 100.00 0.05 4.60 30-39..... 13.60 10.54 20.77 16.89 1.59 100.00 1.41 16.94 31.86 40-49..... 12.53 10.18 0.98 6.63 50-59..... 100.00 4.47 33.43 31.76 0.31 2.07 32.46 33.83 25.45 3.30 2.58 100.00 60+.... 1990 29.30 13.83 1.22 . 9.47 Total 10+..... 100.00 5.03 22.32 18.82 0.96 10-19..... 100.00 2.16 53.62 26.72 15.00 1.54 13.24 2.17 0.78 2.73 0.95 57.80 22.33 20-29..... 100.00 0.93 18.80 0.07 3.21 4.81 49.03 23.16 30-39..... 100.00 19.13 1.67 13.97 100.00 0.68 11.43 27.00 26.11 40-49..... 1.41 9.56 15.37 50-59..... 100.00 2.79 20.92 31.65 18.29 3.29 0.38 2.58 60+.... 100.00 22.48 38.30 28.61 4.35 1995 1.13 9.75 32.54 14.50 Total 10+..... 100.00 2.04 21.83 18.22 14.67 1.47 0.70 10-19..... 100.00 2.44 53.92 26.80 10.79 20.15 2.13 4.06 57.70 100.00 1.37 3.79 20-29..... 0.38 2,24 22.97 0.70 15.76 30-39..... 100.00 0.31 57.64 19.75 40-49..... 100.00 0.09 5.21 15.64 35.47 22.48 1.35 10.41 50-59..... 100.00 1.58 17.15 32.42 20.21 16.70 1.53 4.69 6.77 0.69 60+.... 100.00 5.75 40.41 33.23 8.46 2000 9.99 15.11 1.19 Total 10+..... 100.00 1.83 19.58 16.88 35.43 0.77 1.58 10-19..... 100.00 2.65 51.85 28.13 15.02 2.44 9.63 19.36 20-29..... 100.00 1.85 4.04 6.22 56.46 14.93 22.30 0.62 57.87 30-39..... 100.00 0.78 2.75 0.75 0.89 18.78 23.11 49.20 40-49...... 100.00 0.07 3.21 4.73 1.67 14.29 19.38 50-59..... 100.00 0.61 10.90 26.39 26.76 0.98 6.62 10.15 12.35 60+..... 100.00 3.95 32.73 33.22

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Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

Year and age  Total elementary Elementary secondary secondary bigher high  Total 10+ 100.00 6.45 23.45 19.22 27.57 13.05 1.52 8.  10-19 100.00 1.79 53.41 21.31 20.60 1.64 1.24 20-29. 100.00 0.45 2.11 0.52 57.85 22.77 2.53 13.  30-39 100.00 0.05 4.60 13.60 38.61 22.51 2.12 18.  40-49 100.00 1.41 16.94 33.86 20.77 16.89 1.59 10.  50-59 100.00 32.46 33.83 25.45 3.30 2.58 0.31 2.  1990  Total 10+ 100.00 5.03 22.32 18.82 29.30 13.83 1.22 9.  10-19 100.00 2.16 53.62 26.72 15.00 1.54 0.96 20-29. 100.00 0.078 2.73 0.95 57.80 22.33 2.17 13.  30-39 100.00 0.078 2.73 0.95 57.80 22.33 2.17 13.  30-39 100.00 0.078 2.73 0.95 57.80 22.33 2.17 13.  30-39 100.00 0.07 3.21 4.81 49.03 23.16 0.93 18.  40-49 100.00 2.79 20.92 33.65 18.29 15.37 1.41 9.  60+ 100.00 22.48 38.30 28.61 4.35 3.29 0.38 2.  1995  Total 10+ 100.00 2.02 21.85 18.22 32.54 14.50 1.13 9.  10-19 100.00 2.36 54.01 26.80 14.67 1.47 0.70 20-29. 100.00 1.57 40-49. 100.00 1.58 17.15 15.64 22.97 0.01 5.13 10.00 20-29. 100.00 1.58 17.15 15.64 22.97 0.70 15.  40-49 100.00 1.58 17.15 15.64 22.97 0.70 15.  40-49 100.00 1.58 17.15 15.64 35.47 22.48 1.35 19.  50-59 100.00 1.58 17.15 15.64 35.47 22.48 1.35 19.  50-59 100.00 1.58 17.15 15.64 35.47 22.48 1.35 19.  50-59 100.00 1.58 17.15 33.42 20.21 16.70 1.53 10.  60+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9.  10-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20.99 100.00 1.58 17.15 56.40 2.07 100.00 1.58 17.15 56.40 2.07 100.00 1.58 17.15 56.40 2.07 100.00 1.58 17.15 56.40 2.07 100.00 1.59 17.15 15.64 20.97 0.70 15.  40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.01 1.81 10.90 26.29 26.61 19.38 1.87 18.					Scenario P,	Low 6-Year	01 <b>ds</b>		
Total 10+	Year and age	Total		Elementary	•	•	•	•	Complete higher
Total 10+								-	
10-19 100.00 1.79 53.41 21.31 20.60 1.64 1.24 20-29 100.00 0.45 2.11 0.52 57.85 22.77 2.53 13. 30-39 100.00 0.05 4.60 13.60 38.61 22.51 2.12 18. 40-49 100.00 1.41 16.94 31.86 20.77 16.89 1.59 10. 50-59 100.00 4.47 33.43 31.76 12.53 10.18 0.98 6. 60+ 100.00 32.46 33.83 25.45 3.30 2.58 0.31 2. 1990  Total 10+ 100.00 5.03 22.32 18.82 29.30 13.83 1.22 9. 10-19 100.00 0.78 2.73 0.95 57.80 22.33 2.17 13. 30-39 100.00 0.07 3.21 4.81 49.03 23.16 0.93 18. 40-49 100.00 0.68 11.43 27.00 26.11 19.13 1.67 13. 50-59 100.00 2.48 38.30 28.61 4.35 3.29 0.38 2. 1995  Total 10+ 100.00 2.36 54.01 26.80 14.67 1.47 0.70 20-29 100.00 0.38 22.48 38.30 28.61 4.35 3.29 0.38 2. 1995  Total 10+ 100.00 2.36 54.01 26.80 14.67 1.47 0.70 20-29 100.00 0.38 27.3 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 27.4 3.39 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 27.4 3.39 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 0.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4. 2000  Total 10+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9. 10-19 100.00 1.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4. 2000	1986								
20-29	Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
30-39 100.00 0.05 4.60 13.60 38.61 22.51 2.12 18. 40-49 100.00 1.41 16.94 31.86 20.77 16.89 1.59 10. 50-59 100.00 32.46 33.83 25.45 3.30 2.58 0.31 2.  1990  Total 10+ 100.00 5.03 22.32 18.82 29.30 13.83 1.22 9.  10-19 100.00 0.78 2.73 0.95 57.80 22.33 2.17 13. 30-39 100.00 0.07 3.21 4.81 49.03 23.16 0.93 18. 40-49 100.00 2.79 20.92 31.65 18.29 15.37 1.41 9. 60+ 100.00 22.48 38.30 28.61 4.35 3.29 0.38 2.  1995  Total 10+ 100.00 2.02 21.85 18.22 32.54 14.50 1.13 9.  10-19 100.00 0.38 27.24 0.31 57.64 22.97 0.70 15. 40-49 100.00 1.37 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 27.24 0.31 57.64 22.97 0.70 15. 40-49 100.00 1.37 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 1.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 19. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20.29 100.00 1.85 4.04 6.22 56.46 19.36 2.44 9. 30-39 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.07 3.21 4.73 49.20 23.11 0.89 18. 50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
40-49	20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.76
50-59	30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
60+	40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
Total 10+ 100.00	50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
Total 10+ 100.00 5.03 22.32 18.82 29.30 13.83 1.22 9.  10-19 100.00 2.16 53.62 26.72 15.00 1.54 0.96 20-29 100.00 0.78 2.73 0.95 57.80 22.33 2.17 13. 30-39 100.00 0.07 3.21 4.81 49.03 23.16 0.93 18. 40-49 100.00 0.68 11.43 27.00 26.11 19.13 1.67 13. 50-59 100.00 2.79 20.92 31.65 18.29 15.37 1.41 9. 60+ 100.00 22.48 38.30 28.61 4.35 3.29 0.38 2.  1995  Total 10+ 100.00 2.02 21.85 18.22 32.54 14.50 1.13 9. 10-19 100.00 1.37 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 2724 0.31 57.64 22.97 0.70 15. 40-49 100.00 0.38 2724 0.31 57.64 22.97 0.70 15. 40-49 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 50-59 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4.  2000  Total 10+ 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20-29 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9. 10-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20-29 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.07 3.21 4.73 49.20 23.11 0.89 18. 50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
Total 10+ 100.00 5.03 22.32 18.82 29.30 13.83 1.22 9.  10-19 100.00 2.16 53.62 26.72 15.00 1.54 0.96 20-29 100.00 0.78 2.73 0.95 57.80 22.33 2.17 13. 30-39 100.00 0.07 3.21 4.81 49.03 23.16 0.93 18. 40-49 100.00 2.79 20.92 31.65 18.29 15.37 1.41 9. 60+ 100.00 22.48 38.30 28.61 4.35 3.29 0.38 2.  1995  Total 10+ 100.00 2.36 54.01 26.80 14.67 1.47 0.70 20-29 100.00 1.37 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 2724 0.31 57.64 22.97 0.70 15. 40-49 100.00 0.38 2724 0.31 57.64 22.97 0.70 15. 40-49 100.00 0.09 5.21 15.64 35.47 22.48 1.35 19. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 60+ 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4.  2000  Total 10+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9.	1990								•
20-29	Total 10+	100.00		22.32	18.82	29.30	13.83	1.22	9.47
30-39	10-19	100.00	2.16	53.62	26.72	15.00	1.54	0.96	
40-49	20-29	100.00	0.78	2.73	0.95	57.80	22.33	2.17	13.24
40-49	30-39	100.00	0.07	3.21				0.93	18.80
60+	40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
Total 10+ 100.00 2.02 21.85 18.22 32.54 14.50 1.13 9.  10-19 100.00 2.36 54.01 26.80 14.67 1.47 0.70 20-29 100.00 1.37 3.79 4.06 57.70 20.15 2.13 10. 30-39 100.00 0.38 27.24 0.31 57.64 22.97 0.70 15. 40-49 100.00 0.09 5.21 15.64 35.47 22.48 1.35 19. 50-59 100.00 1.58 17.15 32.42 20.21 16.70 1.53 10. 60+ 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4.  2000  Total 10+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9. 10-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20-29 100.00 1.85 4.04 6.22 56.46 19.36 2.44 9. 30-39 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14. 40-49 100.00 0.07 3.21 4.73 49.20 23.11 0.89 18. 50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
Total 10+	60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
10-19	1995					-			-
20-29	Total 10+	100.00	2.02	21.85	18.22	32.54	14.50	1.13	9.75
30-39	10-19	100.00	2.36	54.01	26.80	. 14.67	1.47	.0.70	
40-49	20-29	100.00	1.37	3.79	4.06	57.70	20.15	2.13	10.79
40-49	30-39	100.00	0.38	2724	0.31	57.64	22.97	0.70	15.76
60+ 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4.  2000  Total 10+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9.  10-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77 20-29 100.00 1.85 4.04 6.22 56.46 19.36 2.44 9.  30-39 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.07 3.21 4.73 49.20 23.11 0.89 18.  50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	40-49	100.00	0.09	5.21			22.48	1.35	19.75
60+ 100.00 5.75 40.41 33.23 8.46 6.77 0.69 4.  2000  Total 10+ 100.00 1.81 19.59 16.89 35.43 15.11 1.19 9.  10-19 100.00 2.53 51.90 28.18 15.03 1.58 0.77  20-29 100.00 1.85 4.04 6.22 56.46 19.36 2.44 9.  30-39 100.00 0.78 2.75 0.75 57.87 22.30 0.62 14.  40-49 100.00 0.07 3.21 4.73 49.20 23.11 0.89 18.  50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.41
Total 10+       100.00       1.81       19.59       16.89       35.43       15.11       1.19       9.         10-19       100.00       2.53       51.90       28.18       15.03       1.58       0.77         20-29       100.00       1.85       4.04       6.22       56.46       19.36       2.44       9.         30-39       100.00       0.78       2.75       0.75       57.87       22.30       0.62       14.         40-49       100.00       0.07       3.21       4.73       49.20       23.11       0.89       18.         50-59       100.00       0.61       10.90       26.39       26.76       19.38       1.67       14.	60+	100.00	5.75						4.69
10-19     100.00     2.53     51.90     28.18     15.03     1.58     0.77       20-29     100.00     1.85     4.04     6.22     56.46     19.36     2.44     9.       30-39     100.00     0.78     2.75     0.75     57.87     22.30     0.62     14.       40-49     100.00     0.07     3.21     4.73     49.20     23.11     0.89     18.       50-59     100.00     0.61     10.90     26.39     26.76     19.38     1.67     14.	2000								
20-29     100.00     1.85     4.04     6.22     56.46     19.36     2.44     9.       30-39     100.00     0.78     2.75     0.75     57.87     22.30     0.62     14.       40-49     100.00     0.07     3.21     4.73     49.20     23.11     0.89     18.       50-59     100.00     0.61     10.90     26.39     26.76     19.38     1.67     14.	Total 10+	100.00	1.81	19.59	16.89	35.43	15.11	1.19	9.99
20-29     100.00     1.85     4.04     6.22     56.46     19.36     2.44     9.       30-39     100.00     0.78     2.75     0.75     57.87     22.30     0.62     14.       40-49     100.00     0.07     3.21     4.73     49.20     23.11     0.89     18.       50-59     100.00     0.61     10.90     26.39     26.76     19.38     1.67     14.	10-19	100.00	2.53	51.90	28.18	15.03	1.58	0.77	
30-39     100.00     0.78     2.75     0.75     57.87     22.30     0.62     14.       40-49     100.00     0.07     3.21     4.73     49.20     23.11     0.89     18.       50-59     100.00     0.61     10.90     26.39     26.76     19.38     1.67     14.	20-29	100.00	1.85	4.04		56.46	19.36	2.44	9.63
40-49       100.00       0.07       3.21       4.73       49.20       23.11       0.89       18.         50-59       100.00       0.61       10.90       26.39       26.76       19.38       1.67       14.	30-39	100.00	0.78			· · · -	22.30	0.62	14.93
50-59 100.00 0.61 10.90 26.39 26.76 19.38 1.67 14.	40-49	100.00	0.07				23.11	0.89	18.78
	50-59								14.29
	60+	100.00	3.95				= '	0.98	6.62

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

				Scenario A,	High 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.70
30-39	100.00	0.05	4.60	13.60		22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.47
10-19	100.00	2.16	53.62	27.01	14.78	1.57	0.86	
20-29	100.00	0.78	2.73	0.95	57.92	22.39	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.03	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995					-			
Total 10+	100.00	2.05	21.82	18.41	32.67	14.52	0.96	9.56
10-19	100.00	2.51	53.86	27.71	14.02	1.45	0.46	
20-29	100.00	1.37	3.79	4.16	59.25	20.33	1.40	9.69
30-39	100.00	0.38	2.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.4
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.85	19.57	17.23	35.98	15.13	0.88	9.3
10-19	100.00	2.75	51.81	29.65	13.90	1.52	0.38	
20-29	100.00	1.85	4.04	6.51	60.83	19.51	1.14	6.13
30-39	100.00	0.78	2.75	0.75	58.02	22.37	0.61	14.7
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.7
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.2
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.6

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Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

•				Sc <b>enari</b> o A, M	edian 6-Year	Olds	•	
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986			•					
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.76
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.47
10-19	100.00	2.16	53.62	27.01	14.78	1.57	0.86	
20-29	100.00	0.78	2.73	0.95	57.92	22.39	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.03	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995					: -			-
Total 10+	100.00	2.04	21.83	18.41	32.67	14.52	0.96	9.56
10-19	100.00	2.44	53.92	27.71	14.02	1.45	0.46	
20-29	100.00	1.37	3.79	4.16	59.25	20.33	1.40	9.69
30-39	100.00	0.38	*2.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.41
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.83	19.58	17.24	35.98	15.13	0.88	9.35
10-19	100.00	2.65	51.85	29.70	13.91	1.52	0.38	
20-29	100.00	1.85	4.04	6.51	60.83	19.51	1.14	6.12
30-39	100.00	0.78	2.75	0.75	58.02	22.37	0.61	14.71
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.78
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.28
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.62

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

				Scenario A,	Low 6-Year	Olds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
	•							
1986			i					
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.76
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990						44	}	
Total 10+	100.00	5.03	22.32	18.88	29.28	13.84	1.17	9.47
10-19	100.00	2.16	53.62	27.01	14.78	1.57	0.86	
20-29	100.00	0.78	2.73	0.95	57.92	22.39	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.03	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995								-
Total 10+	100.00	2.02	21.85	18.41	32.67	14.52	0.96	9.56
10-19	100.00	2.36	54.01	27.71	14.02	1.45	0.46	
20-29	100.00	1.37	3.79	4.16	59.25	20.33	1.40	9.69
30-39	100.00	0.38	2.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.41
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.81	19.59	17.25	35.98	15.14	0.88	9.3
10-19	100.00	2.53	51.90	29.75	13.92	1.52	0.38	
20-29	100.00	1.85	4.04	6.51	60.83	19.51	1.14	6.17
30-39	100.00	0.78	2.75	0.75	58.02	22.37	0.61	14.7
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.78
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.28
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.62

USSR

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

	· ·			Scenario B,	High 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	. 2.11	0.52	57.85	22.77	2.53	13.76
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
10-19	100.00	2.16	53.62	27.14	14.74	1.48	0.86	
20-29	100.00	0.78	2.73	0.95	58.04	22.27	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.04	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995								
Total 10+	100.00	2.05	21.82	18.69	. 32.53	14.41	0.95	9.56
10-19	100.00	2.51	53.86	28.46	13.33	1.41	0.44	
20-29	100.00	1.37	<b>→3.79</b>	4.92	59.22	19.69	1.35	9.66
30-39	100.00	0.38	2.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.4
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.85	19.57	17.94	35.52	14,93	0.86	9.3
10-19	100.00	2.75	51.81	30.94	12.67	1.48	0.34	
20-29	100.00	1.85	4.04	9.17	59.45	18.51	1.06	5.9
30-39	100.00	0.78	2.75	0.75	58.16	22.24	0.61	14.7
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.78
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.2
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.6

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued (As of January 1)

			:	Scenario B, M	edian 6-Year	Olds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	_
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.70
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
10-19	100.00	2.16	53.62	27.14	14.74	1.48	0.86	
20-29	100.00	0.78	2.73	0.95	58.04	22.27	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.04	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995					-			-
Total 10+	100.00	2.04	21.83	18.69	32.53	14.41	0.95	9.50
10-19	100.00	2.44	53.92	28.46	. 13.33	1.41	0.44	
20-29	100.00	1.37	3.79	4.92	59.22	19.69	1.35	9.60
30-39	100.00	0.38	2.24	0.31	57.64	22.97	0.70	15.70
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.7
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.4
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.83	19.58	17.95	35.52	14.93	0.86	9.3
10-19	100.00	2.65	51.85	30.99	12.68	1.48	0.35	
20-29	100.00	1.85	4.04	9.17	59.45	18.51	1.06	5.9
30-39	100.00	0.78	2.75	0.75	58.16	22.24	0.61	14.7
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.7
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.2
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.6

ISSR

Table C-2. Projected Population, by Level of Educational Attainment: In Percent, 1986 to 2000--Continued

(As of January 1)

				Scenario B,	Low 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986				•				
Total 10+	100.00	6.45	23.45	19.22	27.57	13.05	1.52	8.74
10-19	100.00	1.79	53.41	21.31	20.60	1.64	1.24	
20-29	100.00	0.45	2.11	0.52	57.85	22.77	2.53	13.76
30-39	100.00	0.05	4.60	13.60	38.61	22.51	2.12	18.50
40-49	100.00	1.41	16.94	31.86	20.77	16.89	1.59	10.54
50-59	100.00	4.47	33.43	31.76	12.53	10.18	0.98	6.63
60+	100.00	32.46	33.83	25.45	3.30	2.58	0.31	2.07
1990								
Total 10+	100.00	5.03	22.32	18.90	29.30	13.80	1.17	9.47
10-19	100.00	2.16	53.62	27.14	14.74	1.48	0.86	
20-29	100.00	0.78	2.73	0.95	58.04	22.27	1.99	13.24
30-39	100.00	0.07	3.21	4.81	49.04	23.16	0.92	18.80
40-49	100.00	0.68	11.43	27.00	26.11	19.13	1.67	13.97
50-59	100.00	2.79	20.92	31.65	18.29	15.37	1.41	9.56
60+	100.00	22.48	38.30	28.61	4.35	3.29	0.38	2.58
1995								
Total 10+	100.00	2.02	21.85	18.69	32.53	14.41	0.95	9.56
10-19	100.00	2.36	54.01	28.46	· 13.33	1.41	0.44	
20-29	100.00	1.37	3.79	4.92	59.22	19.69	1.35	9.66
30-39	100.00	0.38	*2.24	0.31	57.64	22.97	0.70	15.76
40-49	100.00	0.09	5.21	15.64	35.47	22.48	1.35	19.75
50-59	100.00	1.58	17.15	32.42	20.21	16.70	1.53	10.41
60+	100.00	5.75	40.41	33.23	8.46	6.77	0.69	4.69
2000								
Total 10+	100.00	1.81	19.59	17.96	35.53	14.94	0.86	9.31
10-19	100.00	2.53	51.90	31.05	12.69	1:48	0.35	
20-29	100.00	1.85	4.04	9.17	59.45	18.51	1.06	5.92
30-39	100.00	0.78	2.75	0.75	58.16	22.24	0.61	14.71
40-49	100.00	0.07	3.21	4.73	49.21	23.11	0.89	18.78
50-59	100.00	0.61	10.90	26.39	26.76	19.38	1.67	14.28
60+	100.00	3.95	32.73	33.22	12.35	10.15	0.98	6.62

-- Zero.

Source: Table C-1.

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000

(As of January 1, in thousands)

				Scenario P,	High 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986					•,			
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9.073	8.770	699	530	•
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,55
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,37
40-49	31,692	. 446	5,367	10,097	6,582	5,354	503	3,34
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2.08
60+	36,984	12,004	12,511	9,414	1,222	954	113	760
1990						•		
Total 10+	237,690	11,947	53,054	44,744	69,652	32,866	2,907	22,510
10-19	44,989	971	24,125	12,021	6,749	692	431	
20-29	44,328	345	1,210	419	25,622	9,900	960	5,87
30-39	44,853	30	1,440	2,157	21,992	10,386	415	8,43
40-49	28,677	196	3,278	7,744	7,488	5,487	479	4,00
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,11
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,09
1995					-			
Total 10+	249,103	5,104	54,349	45,386	81,051	36,110	2,822	24,28
10-19	48,808	1,223	26,286	13,081	· 7,159	716	342	
20-29	41,824	574	1,585	1,700	24,132	8,427	892	4,51
30-39	47,016	180	1,052	147	27,101	10,800	328	7,40
40-49	36,031	33	1,876	5,637	12,779	8,101	488	7,118
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,10
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,14
2000								
Total 10+	263,771	4,885	51,625	44,505	93,436	39,850	3,129	26,34
10-19	52,045	1,434	26,963	14,615	7,812	·821	401	· <b>-</b> -
20-29	45,253	836	1,829	2,816	25,552	8,760	1,104	4,35
30-39	42,578	332	1,171	319	24,641	9,493	265	6,35
40-49	44,115	29	1,417	2,089	21,706	10,195	392	8,28
50-59	26,873	164	2,929	7,093	7,190	5,208	450	3,83
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,50

TSSP

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued

(As of January 1, in thousands)

				Scenario P, M	edian 6-Year	Olds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371
40-49	31,692	446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2,087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990								
Total 10+	237,690	11,947	53,054	44,744	69,652	32,866	2,907	22,518
10-19	44,989	971	24,125	12,021	6,749	692	431	•
20-29	44,328	345	1,210	419	25,622	9,900	960	5,871
30-39	44,853	30	1,440	2.157	21,992	10,386	415	8,433
40-49	28,677	196	3,278	7.744	7,488	5,487	479	4,005
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					-			
Total 10+	249,103	5,071	54,382	45,386	.81,051	36,110	2,822	24,281
10-19	48,808	1,190	26,319	13,081	7,159	716	342	
20-29	41,824	574	1,585	1,700	24,132	8,427	892	4,514
30-39	47,016	180	1,052	147	27,101	10,800	328	7,409
40-49	36,031	33	1,876	5,637	12,779	8,101	488	7,118
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000						•		
Total 10+	263,771	4,831	51,647	44,530	93,441	39,851	3,130	26,342
10-19	52,045	1,380	26,986	14,640	7,817	822	401	
20-29	45,253	836	1,829	2,816	25,552	8,760	1,104	4,356
30-39	42,578	332	1,171	319	24,641	9,493	265	6,357
40-49	44,115	29	1,417	2,089	21,706	10,195	392	8,286
50-59	26,873	164	2,929	7,093	7,190	5,208	450	3,839
60+	52,907	2.090	17,316	17,574	6,535	5,372	. 517	3,503

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued
(As of January 1, in thousands)

				Scenario P,	Low 6-Year	Olds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9.073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555
30-39	39,836	21	1,832	5.420	15,381	8,969	843	7,371
40-49	31,692	446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2,087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990								
Total 10+	237,690	11,947	53,054	44,744	69,652	32,866	2,907	22,518
10-19	44,989	971	24,125	12,021	6,749	692	431	
20-29	44,328	345	1,210	419	25,622	9,900	960	5,871
30-39	44,853	30	1,440	2,157	21,992	10,386	415	8,433
40-49	28,677	196	3,278	7,744	7,488	5,487	479	4,005
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					-			
Total 10+	249,103	5,031	54,422	45,386	81,051	36,110	2,822	24,281
10-19	48,808	1,150	26,359	13,081	7,159	716	342	
20-29	41,824	574	1,585	1,700	24,132	8,427	892	4,514
30-39	47,016	180	1,052	147	27,101	10,800	328	7,409
40-49	36,031	33	1,876	5,637	12,779	8,101	488	7,118
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000								
Total 10+	263,771	4,768	51,672	44,559	93,449	39,852	3,131	26,34
10-19	52,045	1,317	27,011	14,668	7,825	824	402	-
20-29	45,253	836	1,829	2,816	25,552	8,760	1,104	4,35
30-39	42,578	332	1,171	319	24,641	9,493	265	6,35
40-49	44,115	29	1,417	2,089	21,706	10,195	392	8,28
50-59	26,873	164	2,929	7,093	7,190	5,208	450	3,839
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,50

TICCE

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued

(As of January 1, in thousands)

•				Scenario A,	High 6-Year	01 <b>ds</b>	•	
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								,
						**		
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371
40-49	31,692	446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2,087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990							•	
Total 10+	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,518
10-19	44,989	971	24,125	12.150	6,651	705	387	
20-29	44,328	345	1,210	420	25,672	9,926	884	5,871
30-39	44,853	30	1,440	2,157	21,993	10,387	414	8,433
40-49	28,677	196	3,278	7,744	7,489	5,487	479	4,005
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					•			
Total 10+	249,103	5,104	54,349	45,869	81,386	36,178	2,399	23,819
10-19	48,808	1,223	26,286	13.525	6,843	· 707	224	•
20-29	41,824	574	1,585	1,739	24,781	8,503	586	4,054
30-39	47,016	180	1,052	147	27,101	10,800	328	7,408
40-49	36,031	33	1,876	5,637	12,780	8,101	488	7,116
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000	٠							
Total 10+	263,771	4,885	51,625	45,454	94,895	39,921	2,332	24,660
10-19	52,045	1,434	26,963	15,431	7,232	790	195	
20-29	45,253	836	1,829	2,948	27,525	8,829	516	2,769
30-39	42,578	332	1,171	319	24,704	9,526	261	6,265
40-49	44,115	29	1,417	2,089	21,707	10,196	392	8,284
50-59	26,873	164	2,929	7,093	7,191	5,208	450	3,838
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,503

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued

(As of January 1, in thousands)

				Scenario A, M	edian 6-Year	Olds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371
40-49	31,692	446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2,087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990								
Total 10+	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,518
10-19	44,989	971	24,125	12,150	6,651	705	387	
20-29	44,328	345	1,210	420	25,672	9,926	884	5,871
30-39	44,853	30	1,440	2,157	21,993	10,387	414	8,433
40-49	28,677	196	3,278	7,744	7,489	5,487	479	4,005
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					•			-
Total 10+	249,103	5,071	54,382	45,869	81,386	36,178	2,399	23,819
10-19	48,808	1,190	26,319	13,525	6,843	707	224	
20-29	41,824	574	1,585	1,739	24,781	8,503	586	4,054
30-39	47,016	180	1,852	147	27,101	10,800	328	7,408
40-49	36,031	33	1,876	5,637	12,780	8,101	488	7,116
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000								
Total 10+	263,771	4,831	51,647	45,480	94,900	39,922	2,333	24,660
10-19	52,045	1,380	26,986	15,457	7,237	. 791	196	
20-29	45,253	836	1,829	2,948	27,525	8,829	516	2,769
30-39	42,578	332	1,171	319	24,704	9,526	261	6,265
40-49	44,115	29	1,417	2,089	21,707	10,196	392	8,284
50-59	26,873	164	2,929	7,093	7,191	5,208	450	3,838
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,503

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Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued (AS of January 1, in thousands)

				Scenario A,	Low 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371
40-49	31,692	. 446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2.087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990								
Total 10+	237,690	11,947	53,054	44,874	69,606	32,905	2,785	22,518
10-19	44,989	971	24.125	12.150	6,651	705	387	
20-29	44.328	345	1.210	420	25,672	9,926	884	5.871
30-39	44,853	30	1,440	2,157	21,993	10,387	414	8,433
40-49	28,677	196	3,278	7,744	7.489	5,487	479	4,005
50-59	32,594	911	6.820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					-			
Total 10+	249,103	5,031	54,422	45 <b>,869</b>	81,386	36,178	2,399	23,819
10-19	48,808	1,150	26,359	13,525	· 6,843	707	224	
20-29	41,824	574	1,585	1,739	24,781	8,503	586	4,054
30-39	47,016	180	1,052	147	27,101	10,800	328	7,408
40-49	36,031	33	1,876	5,637	12,780	8,101	488	7,116
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000								
Total 10+	263,771	4,768	51,672	45,508	94,907	. 39,923	2,333	24,660
10-19	52,045	1,317	27,011	15,486	7.244	792	196	
20-29	45,253	836	1,829	2,948	27,525	8,829	516	2,769
30-39	42,578	332	1,171	319	24,704	9,526	261	6,26
40-49	44,115	29	1,417	2,089	21,707	10,196	392	8,284
50-59	26,873	164	2,929	7,093	7,191	5,208	450	3,836
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,50

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued (As of January 1, in thousands)

				Scenario B,	High 6-Year	01 <b>ds</b>		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete	Specialized secondary	Incomplete higher	Complete higher
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	
20-29	47,649	217	1,004	250	27,566	10,851	1.207	6.555
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371
40-49	31,692	446	5,367	10,097	6,582	5,354	503	3,342
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2.087
60+	36,984	12,004	12,511	9,414	1,222	954	113	766
1990				٠			•	
Total 10+	237,690	11,947	53,054	44,935	69,641	32,809	2,785	22,518
10-19	44,989	971	24,125	12,210	6,630	665	387	
20-29	44,328	345	1,210	420	25,727	9,871	884	5,871
30-39	44,853	30	1,440	2,157	21,994	10,386	414	8,433
40-49	28,677	196	3,278	7,744	7,489	5,487	479	4,005
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091
1995					-			
Total 10+	249,103	5,104	54,349	46,551	81,038	35,892	2,366	23,803
10-19	48,808	1.223	26.286	13.890	6,505	691	214	
20-29	41,824	574	1,585	2,057	24,770	8,235	564	4,039
30-39	47.016	180	17052	147	27,102	10,799	328	7,406
40-49	36,031	33	1,876	5,637	12.782	8,100	488	7,116
50-59	29,789	471	5,109	9.656	6,020	4,976	457	3,100
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140
2000								
Total 10+	263,771	4,885	51,625	47,327	93,694	39,393	2,278	24,570
10-19	52.045	1,434	26,963	16.103	6,596	770	179	
20-29	45,253	836	1,829	4,149	26,901	8,378	478	2,681
30-39	42,578	332	1,171	319	24,763	9,469	261	6,263
40-49	44,115	29	1,417	2.089	21,709	10,195	392	8,284
50-59	26,873	164	2,929	7,089	7,191	5,208	450	3,838
60+	52,907	2,090	-	•	•	•	517	3,503
••••••	36,701	2,090	17,316	17,574	6,535	5,372	21/	3,303

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Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued (As of January 1, in thousands)

	Scenario B, Median 6-Year Olds											
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete secondary	Specialized secondary	Incomplete higher	Complete				
1986												
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120				
10-19	42,573	764	22,738	9,073	8,770	699	530					
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,555				
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,371				
40-49	31.692	446	5,367	10,097	6,582	5,354	503	3,342				
50-59	31.455	1,407	10,516	9,991	3,943	3,203	308	2,087				
60+	36,894	12,004	12,511	9,414	1,222	954	113	760				
1990					. •	•						
Total 10+	237,690	11,947	53,054	44,935	69,641	32,809	2,785	22,518				
10-19	44,989	971	24,125	12,210	6,630	665	387	<u>.</u>				
20-29	44,328	345	1,210	420	25,727	9,871	884	5.871				
30-39	44,853	30	1,440	2,157	21,994	10,386	414	8,433				
40-49	28,677	196	3,278	7,744	7,489	5,487	479	4,005				
50-59	32,594	911	6,820	10,315	5,962	5,010	460	3,117				
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,091				
1995					•							
Total 10+	249,103	5,071	54,382	46,551	81,038	35,892	2,366	23,803				
10-19	48,808	1.190	26,319	13,890	6.505	691	214					
20-29	41,824	574	1,585	2,057	24,770	8,235	564	4.039				
30-39	47,016	180	1,952	147	27,102	10,799	328	7,408				
40-49	36,031	33	1,876	5,637	12,782	8,100	488	7,116				
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,100				
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,140				
000				•								
Total 10+	263,771	4,831	51,647	47,353	93,699	39,394	2,278	24,570				
10-19	52,045	1,380	26,986	16.129	6,600	771	, 180					
20-29	45,253	836	1,829	4,149	26,901	8,378	478	2,681				
30-39	42,578	332	1,171	319	24,763	9,469	261	6,263				
40-49	44,115	29	1,417	2,089	21,709	10,195	392	8,284				
50-59	26,873	164	2,929	7,093	7,191	5,208	450	3,838				
60+	52,907	2,090	17,316	17,574	6,535	5,372	517	3,503				

Table C-1. Projected Population, by Level of Educational Attainment: Absolute Figures, 1986 to 2000--Continued (As of January 1, in thousands)

				Scenario B,	Low 6-Year	01ds		
Year and age	Total	Below elementary	Elementary	Incomplete secondary	Complete	Specialized secondary	Incomplete higher	Complete
_								
1986								
Total 10+	230,189	14,858	53,968	44,244	63,464	30,030	3,504	20,120
10-19	42,573	764	22,738	9,073	8,770	699	530	٠
20-29	47,649	217	1,004	250	27,566	10,851	1,207	6,55
30-39	39,836	21	1,832	5,420	15,381	8,969	843	7,37
40-49	31,672	446	5,367	10,097	6,582	5,354	503	3.34
50-59	31,455	1,407	10,516	9,991	3,943	3,203	308	2,08
60+	36,984	12,004	12,511	9,414	1,222	954	113	76
1990								
Total 10+	237,690	11,947	. 53,054	44,935	69,641	32,809	2,785	22,51
10-19	44,989	971	24,125	12.210	6,630	665	387	_
20-29	44,328	345	1,210	420	25,727	9,871	884	5,87
30-39	44,853	30	1,440	2.157	21,994	10,386	414	8,43
40-49	28,677	196	3,278	7,744	7,489	5,487	479	4,00
50-59	32.594	911	6,820	10,315	5,962	5,010	460	3,11
60+	42,250	9,496	16,181	12,089	1,840	1,391	161	1,09
1995					•			
Total 10+	249,103	5,031	54,422	46,551	81,038	35,892	2,366	23,80
10-19	48,808	1,150	26,359	13,890	· 6,505	691	214	-
20-29	41,824	574	1,585	2,057	24,770	8,235	564	4,03
30-39	47,016	180	1.052	147	27,102	10.799	328	7,40
40-49	36.031	33	1.876	5,637	12,782	8,100	488	7,11
50-59	29,789	471	5,109	9,656	6,020	4,976	457	3,10
60+	45,635	2,623	18,441	15,164	3,860	3,091	316	2,14
2000								
Total 10+	263,771	4,768	51,672	47,383	93,705	39,395	2,279	24,57
10-19	52,045	1,317	27,011	16,159	6,607	772	, 180	-
20-29	42,578	836	1,829	4,149	26,901	8,378	478	2,68
30-39	44,115	332	1,171	319	24,763	9,469	261	6,26
40-49	26,873	29	1,417	2.089	21,709	10,195	392	8,28
50-59	52,907	164	2,929	7,093	7,191	5,208	450	•
60+	,	2,090	17,316	17,574	6,535	5,372	517	3,50

<sup>--</sup> Zero.

Source: Center for International Research, unpublished projections.

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