

## **VI. Membership Projections Summary: 2002-03 to 2007-08**

**Forecasting Methodology and Assumptions:** The principal methodology used in forecasting is known as the cohort-survival technique. The basic technique involves calculating the ratio of the number of students in one grade during one year compared to the number of students who "survive" the year and enroll in the next grade in the following year. This survival rate calculation treats the student body in an aggregate fashion, using historical membership data. It is affected by such factors as school promotion, net migration and withdrawal rates. All of these factors are included in the term "survival" as it is used in this context.

Fluctuations in the data from year to year create a pattern from which an average survival rate can be calculated to project future student membership. For example, if over a period of several years, an average of 96 percent of the student membership in grade 3 goes on to grade 4, and if 300 children are now enrolled in grade 3, then next year's grade 4 membership may be estimated at 96 percent of 300 or 288 students. Twelve average rates of survival are calculated for a system with thirteen grades (kindergarten is considered to be a grade). These rates can then be applied to present student membership and used to project membership levels for each succeeding year. Thus, if the average survival rate from grade 4 (with its 288 students) to grade 5 is 1.10, then for the second projected year the estimate for grade 5 is 1.10 of 288 or 317 students.

Projecting future kindergarten membership is more complex. Grade to grade cohort survival cannot be used, since there is no preceding grade for kindergarten. Therefore, information such as estimates of the number of children in the 1-5 year old population cohorts, the number of live births five years previously, and recent trends in kindergarten are utilized. This year's forecast for kindergarten enrollment was derived from the State of Alaska age cohort population projections by the Alaska Department of Labor. Singular age population projections for Anchorage were then extrapolated from the state projections. These projections were used to determine kindergarten enrollment for the next six years. This was done by using a weighted index of the average ratio of ASD kindergarten enrollment to the 5-year-old Anchorage population and applying it to the singular age projections. Indicators of housing and

development trends were then incorporated into these projections. This method of projecting kindergarten membership is a departure from earlier methods, which computed kindergarten projections from multiple regression runs using residential birth data from five years earlier, in conjunction with several indicators of net migration.

Projections for individual schools are derived using the benchmark numbers realized through the cohort-survival and kindergarten projection methods. The allocation of students to each school is done by examining historical trends in individual school membership, as well as historical and projected housing and economic trends for that area.

A good population forecast should be driven by assumptions<sup>1</sup>. If the assumptions behind the forecast are considered reasonable and the methodology employed is professionally acceptable, the forecast will represent a credible attempt to estimate future School District membership levels for planning purposes. The assumptions, which were employed in developing the 2002-03 to 2007-08 membership forecasts, are described in the following paragraphs.

Large seasonal and long-range migration flows make forecasting the size of the future student population of the Anchorage School District very difficult. The construction of the natural gas pipeline, the opening of ANWR for oil exploration, and the closure of the military installations would markedly affect the size and growth rates of the student population. The ASD projections contained in this document do not assume that any of these major events will occur. It is assumed, however, that oil and mineral exploration will continue in Alaska throughout the decade. However, due to decreasing oil production and fluctuating oil prices in the state, this exploration is expected to continue at a slower rate. It is also assumed that the air cargo industry in Anchorage will continue to develop and that employment levels in these industries will affect the School District population.

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<sup>1</sup> Pittenger, Donald B. *Projecting State and Local Populations*, Ballinger Publishing Company, 1976.

Economic and housing data are utilized in the formulation of long-range student membership projections<sup>1</sup>. The Municipality of Anchorage's Population Estimate Surveys, as well as information supplied by the State Demographer has been utilized in formulating the six-year student membership projections.

The projection series presented in this document reflects stabilization in the Anchorage economy. However, demographic changes indicate a leveling off or reduction of ASD enrollment over the next six years. While a very young age structure sustained growth in the elementary grades during the late 80's and has resulted in growth through the 90's in the secondary grades, a maturing age composition will drive a decline in the elementary population over the next six years. This trend is already evident in recent kindergarten enrollments. Since 1997, kindergarten enrollment has steadily declined, with 2001-02 membership 400 less than in 1997-98. This decrease contrasts with the stability of enrollment from 1992-93 to 1997-98. The recent decline in kindergarten, combined with the stable kindergarten enrollment level of the last five years, has lowered the growth rate of the District's elementary population and will give rise to a decline in the elementary membership over the next six years.

The decline in kindergarten enrollment, as well as the low elementary growth rate, is a result of shifting demographics in the Anchorage area. During the period from 1990 until 1998, the population of the child-rearing age cohort (20-34 year olds) declined by 16 percent. Additionally, from 1990 until 1997, the military and dependent population decreased by 15 percent. It is also important to note that the median age in Anchorage has increased from 29.6 in 1990 to 31.9 in 1997.

Table 13 shows the Districtwide membership projections for the next six years by grade. This table reflects a very stable membership level over these years, with a slight decline projected for years starting in 2004. This decline comes entirely in the elementary grades, as discussed above. Table 14 shows the elementary projections for each geographic area.

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<sup>1</sup> Economic data were derived from reports from the State Department of Labor, Municipal Planning Department, and other sources. Housing data were collected from the Municipal Housing Stock Surveys, as well as the 1991 Military Housing Task Force Report.

Table 15 summarizes the projections for each elementary school, and includes the EED Capacity and actual enrollment for September 30, 2001. It should be noted that in Table 15, as well as other tables throughout this document, the September 30, 2001 membership for Chester Valley is shown as 276 and for Ptarmigan as 432. These totals assume that the 70 Ptarmigan kindergarten students that are currently housed at Chester Valley (due to crowding at Ptarmigan) should be counted as Ptarmigan students and not included in the Chester Valley membership.

Tables 16 and 17 provide the same information for middle school and high school memberships, respectively. Tables 18 and 19 summarize this information for the secondary district-wide schools, charter schools, alternative schools, and special services programs.

**Table 13****Projections to 2007-2008 by Grades**

	<b>9/30/2001 Actual</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
<b>Kindergarten</b>	3,525	3,536	3,523	3,509	3,508	3,508	3,534
<b>Grade One</b>	3,676	3,628	3,614	3,600	3,583	3,580	3,579
<b>Grade Two</b>	3,794	3,718	3,663	3,649	3,633	3,612	3,606
<b>Grade Three</b>	3,823	3,788	3,722	3,663	3,649	3,629	3,606
<b>Grade Four</b>	4,165	3,867	3,850	3,778	3,724	3,703	3,679
<b>Grade Five</b>	4,013	4,181	3,879	3,863	3,798	3,737	3,711
<b>Grade Six</b>	4,129	4,076	4,229	3,932	3,904	3,840	3,779
<b>Subtotal 1-6</b>	23,600	23,258	22,957	22,485	22,291	22,101	21,960
<b>Subtotal K-6</b>	27,125	26,794	26,480	25,994	25,799	25,609	25,494
<b>Grade Seven</b>	4,054	4,251	4,154	4,312	4,027	3,953	3,911
<b>Grade Eight</b>	3,984	3,899	4,076	3,980	4,125	3,860	3,779
<b>Grade Nine</b>	3,646	3,843	3,784	3,905	3,821	3,962	3,698
<b>Grade Ten</b>	3,643	3,620	3,806	3,747	3,866	3,783	3,920
<b>Grade Eleven</b>	3,359	3,463	3,428	3,600	3,546	3,657	3,579
<b>Grade Twelve</b>	3,122	3,323	3,414	3,382	3,539	3,490	3,591
<b>Subtotal 7-8</b>	8,038	8,150	8,230	8,292	8,152	7,813	7,690
<b>Subtotal 9-12</b>	13,770	14,249	14,432	14,634	14,772	14,892	14,788
<b>Subtotal 7-12</b>	21,808	22,399	22,662	22,926	22,924	22,705	22,478
<b>Special Services *</b>	743	757	756	753	750	744	738
<b>TOTAL</b>	<b>49,676</b>	<b>49,950</b>	<b>49,898</b>	<b>49,673</b>	<b>49,473</b>	<b>49,058</b>	<b>48,710</b>

\* Includes Special Programs plus Pre-elementary housed in schools







**Table 14**

**Elementary Projections Summary: 2002-2008**

**East Attendance Area**

	Actual	Projected Enrollment					
	2001-02 9/30/2001	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<b>Number of Classrooms</b>	254	254	254	254	254	254	254
<b>EED Capacity</b>	5,610	5,610	5,610	5,610	5,610	5,610	5,610
<b>Membership</b>							
Kindergarten	582	587	584	581	581	581	587
1st Grade	587	572	581	578	575	575	575
2nd Grade	680	614	606	614	611	608	608
3rd Grade	639	671	612	603	611	608	605
4th Grade	700	624	661	598	592	600	597
5th Grade	676	695	622	663	598	592	600
6th Grade	711	687	705	631	674	606	606
<b>Total</b>	4,575	4,450	4,371	4,268	4,242	4,170	4,178
<b>% Capacity</b>	82%	79%	78%	76%	76%	74%	74%
<b>Capacity</b>	1,035	1,160	1,239	1,342	1,368	1,440	1,432

**Includes:** Airport Heights                      Mt. View                      Tudor  
College Gate                      Rogers Park                      Tyson, William  
Kasuun                      Russian Jack                      Williwaw  
Lake Otis

**Table 14**

**Elementary Projections Summary: 2002-2008**  
**Service Attendance Area**

	Actual	Projected Enrollment					
	2001-02 9/30/2001	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<b>Number of Classrooms</b>	196	196	196	196	196	196	196
<b>EED Capacity</b>	4,053	4,053	4,053	4,053	4,053	4,053	4,053
<b>Membership</b>							
Kindergarten	403	396	394	392	392	392	396
1st Grade	451	427	420	418	416	416	416
2nd Grade	473	474	447	440	438	436	436
3rd Grade	502	478	478	450	444	442	440
4th Grade	524	516	492	493	463	456	454
5th Grade	576	541	532	506	508	477	469
6th Grade	583	605	567	558	533	534	499
<b>Total</b>	3,512	3,437	3,330	3,257	3,194	3,153	3,110
<b>% Capacity</b>	87%	85%	82%	80%	79%	78%	77%
<b>Capacity</b>	541	616	723	796	859	900	943

**Includes:**   Abbott Loop           (K-6)   Huffman           (K-6)   Spring Hill           (K-6)  
                   Bear Valley           (K-6)   O'Malley           (K-6)   Trailside           (K-6)  
                   Bowman, Willarc   (K-6)   Rabbit Creek       (K-6)





**Table 14**

**Elementary Projections Summary: 2002-2008  
Districtwide Attendance Area**

	<b>Actual</b>	<b>Projected Enrollment</b>					
	<b>2001-02 9/30/2001</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
<b>Membership</b>							
Kindergarten	191	230	230	229	229	229	230
1st Grade	231	238	243	244	243	243	243
2nd Grade	261	271	260	266	267	266	266
3rd Grade	259	258	255	244	250	251	250
4th Grade	272	282	281	279	268	274	275
5th Grade	249	272	274	274	272	261	267
6th Grade	252	268	267	270	270	268	258
7th Grade	59	74	74	74	74	74	74
8th Grade	72	72	72	72	72	72	72
<b>Total</b>	1,846	1,965	1,956	1,952	1,945	1,938	1,935

**Includes:** Aquarian Charter  
Chugach Opt.  
Family Part. Charter K-6  
Northern Lights ABC K-8  
Polaris K-6  
Village Charter K-8

**Table 15****Elementary Student Population Projections by Schools  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Abbott Loop	525	431	443	423	416	415	411	411
Airport Heights	341	286	276	267	259	255	237	239
Alpenglow	543	594	583	597	587	594	600	583
Aquarian Charter		231	240	240	240	240	240	240
Aurora	488	412	397	393	370	367	348	359
Baxter	561	451	439	436	422	422	410	381
Bayshore	528	559	551	550	529	505	502	493
Bear Valley	447	479	461	440	412	385	372	357
Birchwood ABC K-8	429	393	392	395	384	379	372	369
Bowman, Willard	601	494	472	445	425	403	401	401
Campbell	555	468	461	456	431	417	420	412
Chester Valley	343	346	265	246	238	239	240	238
Chinook	516	569	554	570	570	557	524	523
Chugach Opt. K-6	270	235	227	218	214	207	200	197
Chugiak Elem.	555	482	476	463	474	468	461	462
College Gate	541	445	419	406	407	399	382	387
Creeside Park	539	457	484	492	495	511	511	522
Denali	580	431	420	414	414	405	402	402
Eagle River	523	401	409	426	433	424	420	425
Fairview	581	455	470	472	481	483	495	501
Family Part. Charter		389	422	422	422	422	422	422
Fire Lake	447	287	278	281	288	286	296	293
Girdwood K-8	125	148	146	144	143	141	140	141
Government Hill	526	489	498	493	488	487	480	478
Homestead	465	388	358	328	297	274	270	273
Huffman	547	500	478	464	458	426	407	389
Inlet View	268	257	257	255	251	249	253	251
Kasuun	556	541	542	535	537	548	559	563
Kincaid	556	530	511	490	473	459	450	436
Klatt	447	419	404	407	415	412	418	404
Lake Hood	556	482	476	454	442	443	443	443
Lake Otis	521	439	408	388	365	361	356	356
Mount Spurr	362	262	255	251	254	252	246	248
Mt. View	524	420	411	402	390	372	368	373
Muldoon	556	493	505	515	516	521	527	540
North Star	687	497	494	473	432	414	414	416
Northern Lights ABC	556	610	626	626	626	626	626	626
Northwood	552	337	327	320	317	316	313	313
Nunaka Valley	388	334	320	305	288	284	272	267
Ocean View	539	558	535	536	532	542	554	571
O'Malley	448	367	329	319	304	310	314	316

**Table 15****Elementary Student Population Projections by Schools  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Orion	673	380	358	365	343	338	331	327
Polaris	74	227	230	230	230	230	230	230
Ptarmigan	314	432	433	444	438	442	444	446
Rabbit Creek	481	383	363	345	334	325	319	318
Ravenwood	447	372	359	351	347	342	358	341
Rogers Park	498	518	499	481	477	475	471	492
Russian Jack	556	372	359	354	348	344	342	323
Sand Lake	505	609	613	627	628	629	620	630
Scenic Park	455	540	534	537	521	512	517	501
Spring Hill	447	397	406	408	424	432	444	445
Susitna	494	563	563	556	549	547	550	542
Taku	477	448	473	485	486	511	526	525
Trailside	556	461	485	486	484	498	485	473
Tudor	511	540	534	531	514	500	498	483
Turnagain	484	339	322	305	302	300	303	300
Tyson, William	556	478	477	478	461	470	465	463
Ursa Major	536	438	453	460	455	461	455	450
Ursa Minor	367	278	297	315	327	330	329	333
Village Charter K-8		154	220	220	220	220	220	220
Williwaw	508	536	525	529	510	518	492	499
Willow Crest	487	469	439	425	406	399	392	398
Wonder Park	471	436	426	411	404	387	384	386
Wood, Gladys	424	487	475	455	439	445	449	439
<b>TOTAL</b>	<b>29,413</b>	<b>27,223</b>	<b>26,862</b>	<b>26,555</b>	<b>26,086</b>	<b>25,875</b>	<b>25,700</b>	<b>25,585</b>

**Table 16****Middle School Population Projections by Schools  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Central	599	779	785	806	851	866	872	848
Clark	849	900	948	968	1023	1007	982	966
Goldenview	1,013	891	964	994	954	954	914	874
Gruening	792	630	662	625	630	653	582	566
Hanshew	955	977	948	917	903	842	782	786
Mears	958	1041	1047	1085	1095	1116	1086	1063
Mirror Lake	1,010	635	609	573	534	524	505	507
Romig	797	829	836	874	904	847	760	741
Wendler	712	949	885	915	908	869	841	850
<b>TOTAL</b>	<b>7,685</b>	<b>7,631</b>	<b>7,684</b>	<b>7,757</b>	<b>7,802</b>	<b>7,678</b>	<b>7,324</b>	<b>7,201</b>

**Table 17****Senior High School Population Projections by Schools  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Bartlett	2,036	1993	2065	2072	2089	2134	2179	2191
Chugiak	1,775	2043	2031	2069	2062	2024	2025	1958
Dimond	1,937	2238	2360	2388	1604	1628	1638	1637
East	2,245	2144	2215	2259	2244	2266	2257	2222
Service	1,891	2398	2492	2551	1891	1925	1939	1934
West	2,171	1794	1862	1869	1916	1943	1992	1985
New South Anchorage	1,600	0	0	0	1604	1628	1638	1637
<b>TOTAL</b>	<b>13,655</b>	<b>12,610</b>	<b>13,025</b>	<b>13,208</b>	<b>13,410</b>	<b>13,548</b>	<b>13,668</b>	<b>13,564</b>

**Table 18****Secondary District-wide, Charter School Alternative School Projections  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Polaris (7-12)	148	227	234	234	234	234	234	234
Steller (7-12)	213	293	299	299	299	299	299	299
Family Partnership		210	228	228	228	228	228	228
Alternatives*		809	861	861	861	861	861	861
<b>TOTAL</b>	<b>361</b>	<b>1,539</b>	<b>1,622</b>	<b>1,622</b>	<b>1,622</b>	<b>1,622</b>	<b>1,622</b>	<b>1,622</b>

\*Includes AVAIL, Benson SAVE, Benson SEARCH, McLaughlin, SAVE I, High School Completion, and part-time students.

**Table 19**

**Special Services Population Projections  
2002-2007**

<b>School Name</b>	<b>EED Capacity</b>	<b>Actual 2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Mt. Iliamna Pre-Elem.	230	170	180	180	179	178	177	175
Whaley	158	204	203	203	202	201	200	198
Special Programs*		369	374	373	372	371	367	365
<b>TOTAL</b>	<b>388</b>	<b>743</b>	<b>757</b>	<b>756</b>	<b>753</b>	<b>750</b>	<b>744</b>	<b>738</b>

\* Includes ACE, ACT, Booth, Charter North, Jesse Lee, Maplewood Group Home, McKinley Heights, Outreach, Providence Heights, North Star Hospital, and Pre-Elementary housed in elementary schools.