



K-12 Enrollments Projected to Rise

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- Minnesota K-12 school enrollment, including both public and nonpublic, is projected to rise about 7 percent between 2008-2009 and 2018-2019.
- K-6 enrollment is projected to increase each year, with a total gain of 11 to 12 percent over 10 years.
- Enrollment in grades 7 to 12 is projected to fall until 2012-2013, and then rise slightly.
- Two alternative projections give similar results for total and public enrollments.

This report presents projections for Minnesota public and nonpublic K-12 enrollments going out to the 2018-2019 school year. There are two alternative projections based on different methodologies. The results are broadly similar, showing a substantial increase in K-6 enrollments and modest changes for grades 7 to 12.

Methodologies

In both Method 1 and Method 2, enrollment is projected using a combination of grade progression ratios and birth to kindergarten ratios. For grades that are already in the system, enrollments are projected using grade progression ratios. The grade progression ratio is the ratio of students in a grade to the number in the preceding grade in the preceding school year. For example, the grade progression ratio from fourth to fifth grade in 2008-2009 is the ratio of the number of fifth-graders in 2008-2009 to the number of fourth-graders in 2007-2008. To project the number of fifth-graders 2009-2010, multiply the number of fourth-graders in 2007-2008 times this ratio. The projections shown here use an average of the past five years of grade progression ratios.

The grade progression ratio cannot be used for kindergarteners because there is no previous grade. Kindergarten enrollments are projected using a 5-year average of the ratio of births to kindergarten enrollment five years later. Actual births were used to project kindergarten enrollments through 2012-2013. For years after that, birth projections from the State Demographic Center were used. The birth projections show annual increases in births throughout this period.

Method 1 uses these ratios in a “top down” approach. Total enrollment is projected first and then divided into public and nonpublic components. A five-year average of private enrollment as a proportion of total enrollment in each grade is calculated. This average ratio is multiplied times projected total enrollment to obtain the private school number in each grade. The private school value is subtracted from the total to obtain the public school enrollment.

Method 2 uses a “bottom up” technique. Public and nonpublic enrollments are projected separately and then added together to obtain the combined total.

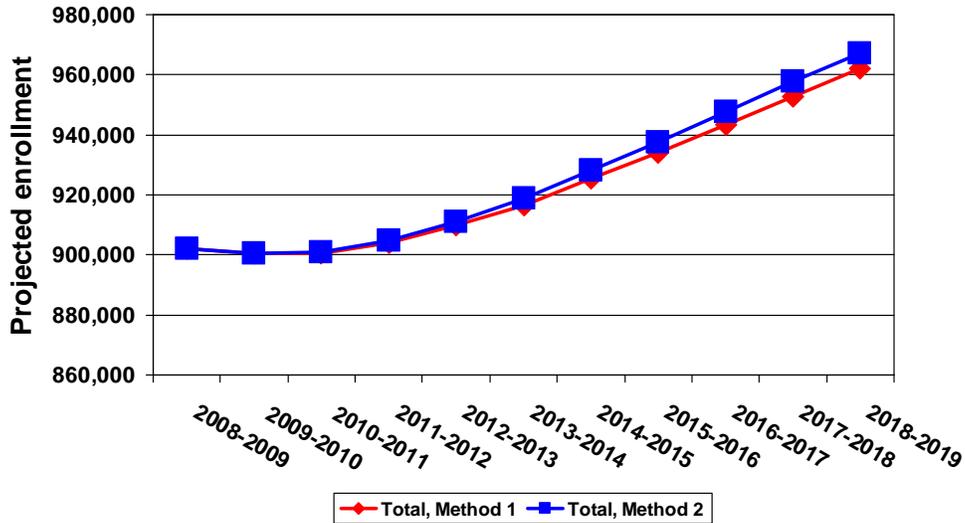
Combined Public and Private Enrollment Projections

Projections of total enrollment are slightly higher using Method 2, but the differences are small. Both Method 1 and Method 2 show that total K-12 enrollment in public and nonpublic schools combined will increase by about 7 percent, thanks mainly to growing enrollment in lower grades. Enrollment in kindergarten through grade six will increase each year.

Enrollment in upper grades will show a mixed pattern. Enrollment in grades 7 through 12 will decline slightly until 2012-2013 and then show a slight gain. Results for individual grades sometimes vary from this pattern.

Total K-12 school enrollments projected to rise between now and 2018-2019

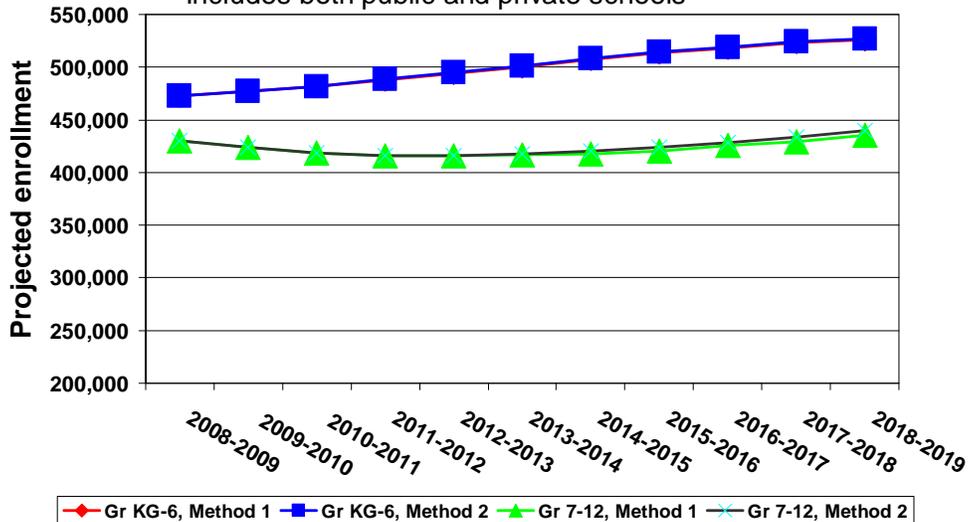
Includes both public and private schools



Minnesota Department of Education; State Demographic Center 2009 projections. 2008-2009 values represent actual enrollments.

K-6 total enrollments projected to rise; secondary enrollments projected to fall, then rise slightly

Includes both public and private schools

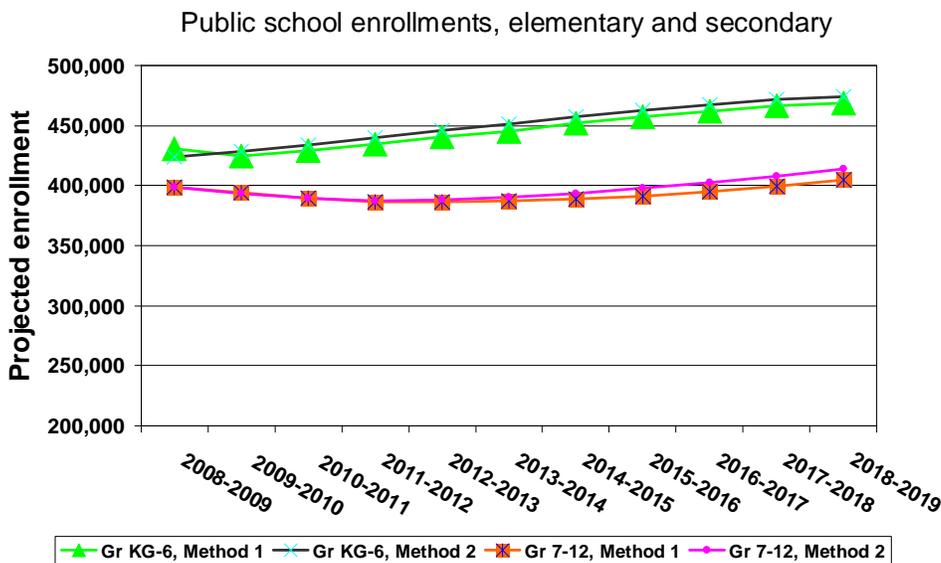


Minnesota Department of Education; State Demographic Center 2009 projections. 2008-2009 values represent actual enrollments.

Public School K-12 Enrollment Projections

Projected trends for public school enrollment are similar to those for total enrollments. This is not surprising: Almost 90 percent of K-12 students attend public schools. Alternative 2 results are slightly higher than those for Alternative 1 at both the elementary and secondary levels.

Public school K-6 enrollments projected to rise between now and 2018-2019



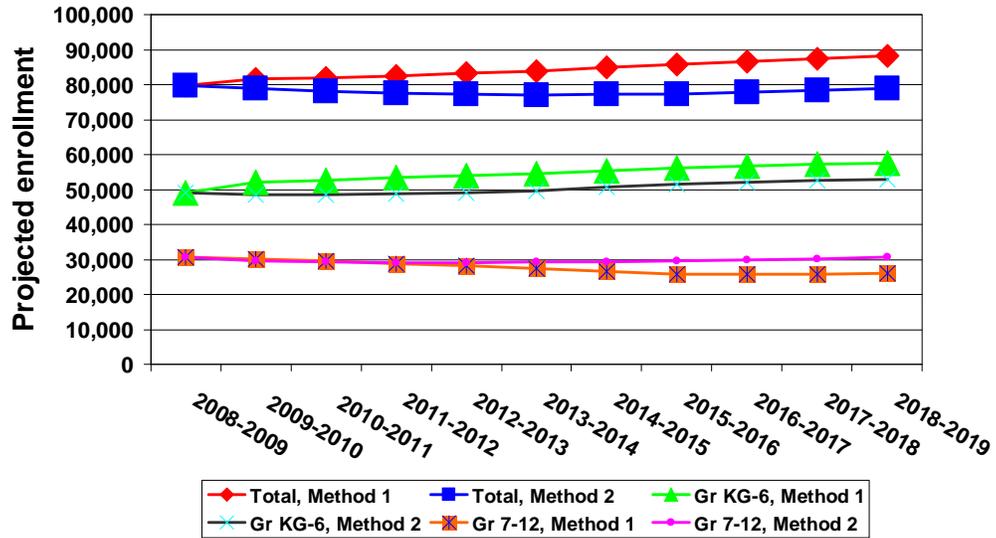
Minnesota Department of Education; State Demographic Center 2009 projections.
2008-2009 values represent actual enrollments.

Nonpublic K-12 Enrollment Projections

For nonpublic enrollments, the differences between the two methods are more noteworthy. Method 1 shows increasing enrollments, with a 17 percent gain in elementary enrollment and stable secondary enrollment. Method 2 projects stagnant overall enrollments and a sharp decline for secondary enrollments.

Two methods show different results for K-12 private school enrollments

Private school enrollments



Minnesota Department of Education; State Demographic Center 2009 projections.
2008-2009 values represent actual enrollments.

Alternative 1 Projections of Minnesota Total K-12 Enrollments

Top down method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016- 2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	69,497	71,107	71,415	74,029	74,190	74,366	74,966	75,566	76,038	76,509	76,981
Grade 1	67,033	69,057	70,657	70,964	73,560	73,720	73,896	74,492	75,088	75,557	76,025
Grade 2	68,128	66,759	68,775	70,368	70,673	73,259	73,419	73,594	74,187	74,780	75,247
Grade 3	67,400	68,284	66,912	68,932	70,530	70,835	73,427	73,587	73,762	74,357	74,952
Grade 4	66,908	67,583	68,470	67,094	69,120	70,722	71,028	73,627	73,787	73,963	74,559
Grade 5	66,549	67,158	67,835	68,725	67,344	69,378	70,985	71,293	73,902	74,062	74,239
Grade 6	67,045	66,841	67,452	68,133	69,027	67,640	69,682	71,297	71,606	74,226	74,387
Grade 7	66,921	67,506	67,301	67,916	68,601	69,502	68,105	70,161	71,787	72,098	74,736
Grade 8	68,315	67,051	67,637	67,432	68,048	68,735	69,637	68,237	70,298	71,927	72,238
Grade 9	70,553	69,724	68,434	69,032	68,822	69,451	70,152	71,073	69,644	71,747	73,410
Grade 10	72,378	70,632	69,801	68,510	69,109	68,899	69,529	70,231	71,152	69,722	71,828
Grade 11	72,714	71,563	69,836	69,015	67,738	68,331	68,123	68,746	69,440	70,351	68,936
Grade 12	78,764	77,077	75,857	74,026	73,156	71,803	72,430	72,210	72,871	73,606	74,572
Total	902,205	900,342	900,383	904,177	909,919	916,640	925,379	934,113	943,560	952,906	962,112
Grades KG-6	472,560	476,790	481,517	488,245	494,444	499,920	507,404	513,455	518,369	523,455	526,392
Grades 7-12	429,645	423,552	418,866	415,931	415,475	416,720	417,976	420,658	425,191	429,451	435,720

Boldface values are based on births recorded through 2007. Boldface values in italics are based on projected births from 2008 on.

Minnesota State Demographic Center, May 2009

Alternative 1 Projections of Minnesota Public K-12 Enrollments

Top down method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016- 2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	61,957	62,905	63,177	65,489	65,632	65,788	66,319	66,849	67,266	67,684	68,101
Grade 1	60,216	61,509	62,934	63,207	65,520	65,662	65,819	66,349	66,880	67,298	67,715
Grade 2	61,081	59,400	61,194	62,611	62,883	65,184	65,326	65,481	66,009	66,537	66,953
Grade 3	60,395	60,772	59,550	61,349	62,770	63,042	65,349	65,491	65,647	66,176	66,706
Grade 4	59,816	60,164	60,954	59,729	61,532	62,958	63,231	65,545	65,687	65,844	66,375
Grade 5	59,765	59,940	60,545	61,339	60,106	61,922	63,356	63,631	65,959	66,103	66,260
Grade 6	60,289	59,994	60,543	61,154	61,956	60,711	62,544	63,994	64,271	66,623	66,768
Grade 7	60,982	61,467	61,280	61,840	62,464	63,284	62,012	63,885	65,365	65,648	68,050
Grade 8	62,072	61,191	61,726	61,538	62,101	62,728	63,550	62,273	64,154	65,640	65,925
Grade 9	66,009	65,301	64,093	64,653	64,457	65,046	65,703	66,565	65,227	67,197	68,754
Grade 10	67,628	66,201	65,423	64,213	64,774	64,577	65,167	65,825	66,689	65,348	67,322
Grade 11	68,003	67,104	65,485	64,715	63,518	64,073	63,879	64,463	65,113	65,968	64,642
Grade 12	74,199	72,700	71,549	69,823	69,002	67,726	68,318	68,110	68,733	69,426	70,337
Total	822,412	818,648	818,453	821,660	826,715	832,700	840,572	848,460	857,000	865,492	873,907
Grades KG-6	431,059	424,684	428,897	434,878	440,399	445,267	451,943	457,340	461,720	466,264	468,878
Grades 7-12	398,893	393,964	389,556	386,782	386,316	387,434	388,629	391,120	395,280	399,227	405,029

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Minnesota State Demographic Center, May 2009

Alternative 1 Projections of Minnesota Nonpublic K-12 Enrollments

Top down method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016- 2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	7,540	8,202	8,238	8,539	8,558	8,578	8,648	8,717	8,771	8,826	8,880
Grade 1	6,817	7,548	7,723	7,757	8,041	8,058	8,077	8,142	8,208	8,259	8,310
Grade 2	7,047	7,359	7,581	7,757	7,790	8,076	8,093	8,112	8,178	8,243	8,295
Grade 3	7,005	7,513	7,362	7,584	7,760	7,793	8,078	8,096	8,115	8,181	8,246
Grade 4	7,092	7,419	7,516	7,365	7,588	7,763	7,797	8,082	8,100	8,119	8,185
Grade 5	6,784	7,217	7,290	7,386	7,237	7,456	7,629	7,662	7,942	7,960	7,978
Grade 6	6,756	6,847	6,910	6,979	7,071	6,929	7,138	7,303	7,335	7,603	7,620
Grade 7	5,939	6,039	6,021	6,076	6,137	6,218	6,093	6,277	6,422	6,450	6,686
Grade 8	6,243	5,860	5,912	5,894	5,948	6,008	6,086	5,964	6,144	6,287	6,314
Grade 9	4,544	4,422	4,341	4,379	4,365	4,405	4,450	4,508	4,417	4,551	4,656
Grade 10	4,750	4,431	4,379	4,298	4,335	4,322	4,362	4,406	4,463	4,374	4,506
Grade 11	4,711	4,458	4,351	4,300	4,220	4,257	4,244	4,283	4,326	4,383	4,295
Grade 12	4,565	4,377	4,307	4,203	4,154	4,077	4,113	4,100	4,138	4,180	4,234
Total	79,793	81,694	81,930	82,516	83,204	83,940	84,807	85,653	86,560	87,414	88,205
Grades KG-6	49,041	52,106	52,620	53,367	54,045	54,653	55,460	56,115	56,649	57,190	57,514
Grades 7-12	30,752	29,588	29,310	29,149	29,159	29,287	29,347	29,538	29,911	30,224	30,691

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Minnesota State Demographic Center, May 2009

Alternative 2 Projections of Minnesota Total K-12 Enrollments

Bottom up method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016- 2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	69,497	71,107	71,415	74,029	74,190	74,366	74,966	75,566	76,038	76,509	76,981
Grade 1	67,033	69,118	70,677	70,984	73,581	73,741	73,917	74,513	75,109	75,578	76,047
Grade 2	68,128	66,791	68,873	70,411	70,716	73,304	73,464	73,639	74,232	74,826	75,293
Grade 3	67,400	68,317	66,989	69,080	70,607	70,913	73,508	73,668	73,844	74,439	75,034
Grade 4	66,908	67,619	68,550	67,229	69,333	70,848	71,155	73,759	73,919	74,095	74,693
Grade 5	66,549	67,177	67,906	68,852	67,536	69,653	71,160	71,468	74,083	74,244	74,421
Grade 6	67,045	66,878	67,507	68,266	69,233	67,930	70,067	71,554	71,864	74,494	74,656
Grade 7	66,921	67,529	67,409	68,040	68,858	69,869	68,594	70,765	72,212	72,525	75,178
Grade 8	68,315	67,054	67,665	67,554	68,185	69,013	70,032	68,761	70,940	72,381	72,694
Grade 9	70,553	69,625	68,436	69,081	69,054	69,694	70,633	71,738	70,507	72,766	74,145
Grade 10	72,378	70,634	69,704	68,515	69,161	69,135	69,776	70,718	71,825	70,594	72,855
Grade 11	72,714	71,568	69,843	68,924	67,748	68,387	68,361	68,995	69,926	71,021	69,803
Grade 12	78,764	77,059	75,839	74,021	73,030	71,806	72,488	72,481	73,151	74,159	75,334
Total	902,205	900,477	900,815	904,985	911,233	918,661	928,121	937,624	947,649	957,630	967,136
Grades KG-6	472,560	477,008	481,918	488,850	495,196	500,757	508,236	514,166	519,089	524,186	527,126
Grades 7-12	429,645	423,470	418,897	416,135	416,036	417,904	419,885	423,458	428,560	433,444	440,010

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Minnesota State Demographic Center, May 2009

Alternative 2 Projections of Minnesota Public K-12 Enrollments

Bottom up method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016-2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	61,957	62,902	63,175	65,486	65,629	65,785	66,316	66,846	67,264	67,681	68,098
Grade 1	60,216	62,202	63,151	63,425	65,746	65,889	66,046	66,578	67,111	67,530	67,949
Grade 2	61,081	60,198	62,183	63,132	63,406	65,726	65,869	66,026	66,558	67,091	67,509
Grade 3	60,395	61,485	60,596	62,595	63,550	63,825	66,160	66,304	66,462	66,998	67,534
Grade 4	59,816	60,842	61,940	61,044	63,057	64,020	64,297	66,650	66,795	66,954	67,494
Grade 5	59,765	60,305	61,339	62,446	61,543	63,573	64,543	64,822	67,194	67,340	67,501
Grade 6	60,289	60,475	61,021	62,067	63,187	62,274	64,328	65,309	65,592	67,992	68,140
Grade 7	60,982	61,610	61,800	62,358	63,428	64,572	63,639	65,738	66,741	67,030	69,482
Grade 8	62,072	61,248	61,879	62,070	62,631	63,705	64,854	63,917	66,025	67,032	67,323
Grade 9	66,009	64,946	64,084	64,744	64,944	65,531	66,654	67,857	66,876	69,082	70,136
Grade 10	67,628	66,111	65,046	64,183	64,845	65,045	65,632	66,757	67,962	66,979	69,189
Grade 11	68,003	66,871	65,371	64,318	63,465	64,119	64,316	64,897	66,010	67,201	66,229
Grade 12	74,199	72,458	71,252	69,654	68,532	67,622	68,319	68,530	69,149	70,334	71,604
Total	822,412	821,653	822,837	827,523	833,961	841,684	850,972	860,231	869,738	879,244	888,188
Grades KG-6	423,519	428,408	433,405	440,195	446,117	451,091	457,558	462,536	466,976	471,586	474,226
Grades 7-12	398,893	393,245	389,433	387,328	387,844	390,593	393,415	397,696	402,762	407,658	413,962

Boldface values are based on births recorded through 2007. Boldface values in italics are based on projected births from 2008 on.

Minnesota State Demographic Center, May 2009

Alternative 2 Projections of Minnesota Nonpublic K-12 Enrollments

Bottom up method

	Actual 2008- 2009	Projected 2009- 2010	Projected 2010- 2011	Projected 2011- 2012	Projected 2012- 2013	Projected 2013- 2014	Projected 2014- 2015	Projected 2015- 2016	Projected 2016- 2017	Projected 2017- 2018	Projected 2018- 2019
Kindergarten	7,540	8,205	8,241	8,542	8,561	8,581	8,650	8,720	8,774	8,828	8,883
Grade 1	6,817	6,916	7,526	7,559	7,835	7,852	7,871	7,935	7,998	8,048	8,098
Grade 2	7,047	6,593	6,689	7,279	7,311	7,578	7,595	7,613	7,674	7,736	7,784
Grade 3	7,005	6,833	6,393	6,486	7,058	7,088	7,348	7,364	7,381	7,441	7,500
Grade 4	7,092	6,778	6,611	6,185	6,275	6,829	6,858	7,109	7,125	7,142	7,199
Grade 5	6,784	6,872	6,568	6,406	5,993	6,081	6,617	6,646	6,889	6,904	6,920
Grade 6	6,756	6,403	6,486	6,198	6,046	5,657	5,739	6,245	6,272	6,502	6,516
Grade 7	5,939	5,919	5,609	5,682	5,430	5,297	4,956	5,028	5,471	5,495	5,696
Grade 8	6,243	5,806	5,786	5,483	5,555	5,308	5,178	4,844	4,915	5,348	5,372
Grade 9	4,544	4,680	4,352	4,337	4,110	4,164	3,979	3,881	3,631	3,684	4,009
Grade 10	4,750	4,523	4,657	4,331	4,316	4,091	4,144	3,960	3,863	3,614	3,667
Grade 11	4,711	4,697	4,472	4,605	4,283	4,268	4,045	4,098	3,916	3,820	3,574
Grade 12	4,565	4,601	4,588	4,368	4,498	4,183	4,169	3,951	4,002	3,825	3,731
Total	79,793	78,824	<i>77,977</i>	<i>77,462</i>	<i>77,272</i>	<i>76,977</i>	<i>77,148</i>	<i>77,393</i>	<i>77,911</i>	<i>78,386</i>	<i>78,948</i>
Grades KG-6	49,041	48,600	48,513	48,655	49,079	49,666	50,678	51,631	52,113	52,600	52,900
Grades 7-12	30,752	30,225	29,464	28,807	28,193	27,311	26,470	25,762	25,798	25,786	26,048

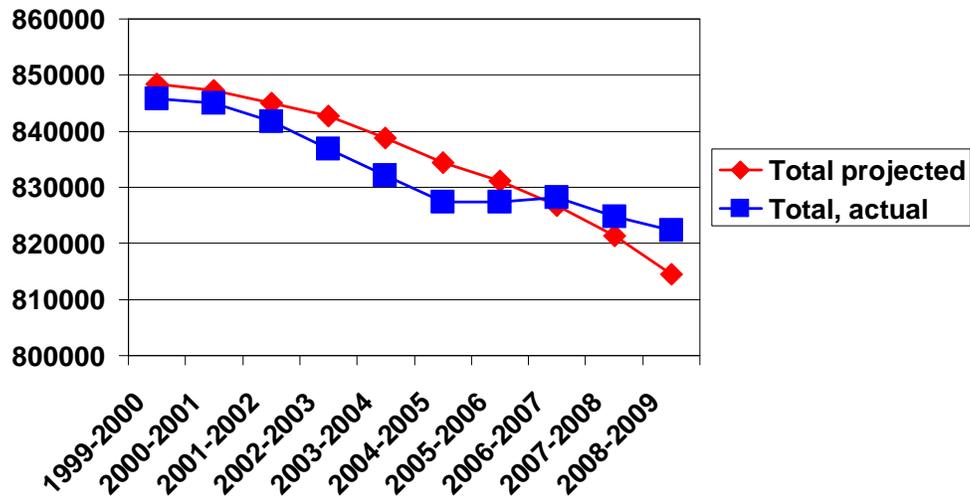
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Minnesota State Demographic Center, May 2009

Accuracy of enrollment projections

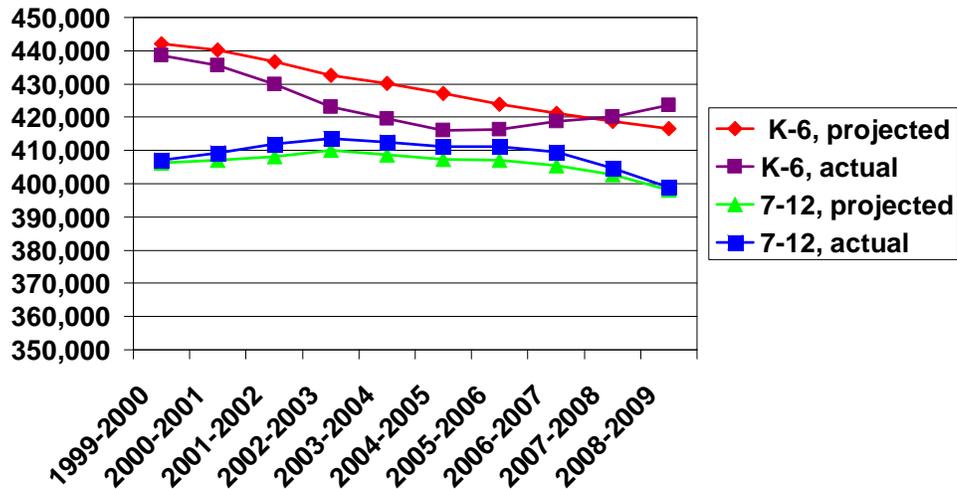
Enrollment projections (for public schools only) were published in 1999 using a similar methodology to the one used in this report. The results show that projected K-12 total enrollment was within 1 percent of actual enrollment in each year. For most of the projections period, the projections were a bit high, but for the past three years actual enrollments exceeded projections.

Actual and projected Minnesota K-12 public school enrollments



Minnesota Department of Education; State Demographic Center 1999 projections

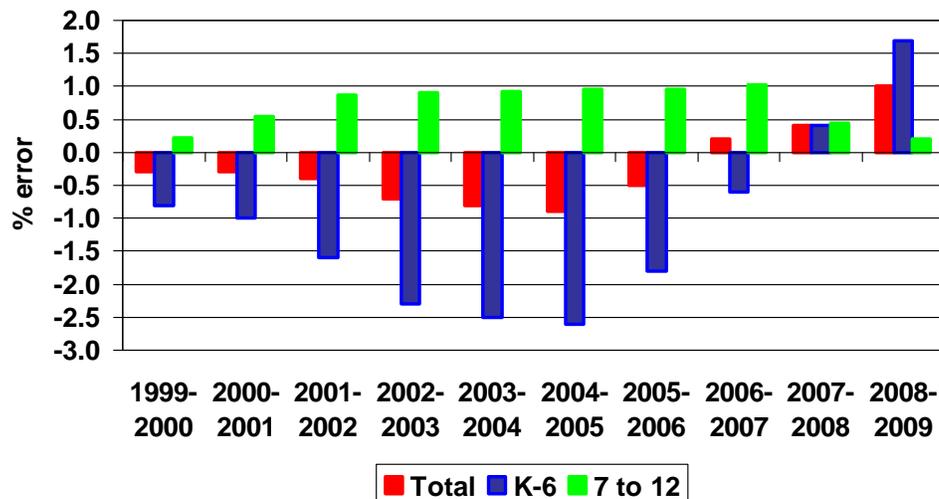
Actual and projected Minnesota public school enrollments



Minnesota Department of Education; State Demographic Center 1999 projections

Projections errors were greater for K-6 enrollment than for grades 7-12, reaching a maximum of -2.6 percent in 2004-2005. Throughout most of the projections period, projections were higher than the actual K-6 enrollment. In the last two years, actual K-6 enrollments have exceeded expectations.

Annual error in projecting school enrollments, Minnesota, 1999-2000 to 2008-2009



Minnesota Department of Education; State Demographic Center 1999 projections.
Positive values indicate actual enrollment was higher than projected; negative values indicate actual enrollment was lower than projected.

The finding that projections error is greater in lower grades is not surprising. There is a five-year gap between birth and kindergarten enrollment, and in later years projected rather than actual births must be used. Both factors introduce more sources of potential error. Projections of secondary enrollments, on the other hand, are more predictable because they are based on students who are already born and attending school.

The projections presented in this report could be more or less accurate than the 1999 version. Unanticipated shifts in fertility rates and migration rates could affect future trends. The relative popularity of public and nonpublic schools could also change over time.

Sources

Enrollment data for public and nonpublic schools from Minnesota Department of Education

http://education.state.mn.us/MDE/Data/Data_Downloads/Student/index.html

[Projected births by Minnesota county](#). Population projections from 2005-2035. (Dataset)

“Minnesota School Enrollment Trends,” Martha McMurry, Minnesota State Demographic Center, Working Paper 99-15, April 1999.

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