

**HERMISTON SCHOOL DISTRICT  
POPULATION AND ENROLLMENT FORECASTS  
2007-08 TO 2016-17**

**Prepared By  
Population Research Center  
Portland State University**

**JUNE, 2007**



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## EXECUTIVE SUMMARY

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The Hermiston School District (HSD) has experienced increases in overall K-12 enrollment in each of the past 11 years. In the past five years, enrollments have increased by an average of 119 annually, reaching a total of 4,776 students in Fall 2006.

This report presents the results of a study conducted by the Portland State University Population Research Center (PRC) concluding that the most likely scenario is for continued enrollment growth in the HSD during the next 10 years until 2016-17.

PRC's methodology links enrollment trends with the area's population dynamics. Employment and population growth are expected to continue in the Hermiston area, so demand for housing within the HSD's boundaries will remain strong. The City of Hermiston will account for most of the District's population growth due to the number of residential developments already approved and additional land available for development, contrasting with the lower density rural zoning outside the Hermiston Urban Growth Boundary (UGB).

In the 20 year population forecast that we characterize as the "mid-range," the District adds about 11,300 persons overall, growing from about 22,000 in 2000 to 33,300 in 2020. The forecast population growth averages 2.1 percent annually, significantly higher than the 0.9 percent annual growth rate for Umatilla County based on the State of Oregon Office of Economic Analysis' most recent long-range forecast.<sup>1</sup> Results of the mid-range, or "most likely" enrollment forecast for the district show the HSD adding another 1,000 students in the next 10 years, at an average annual growth rate of 1.9 percent.

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<sup>1</sup>County growth rate for 2000-2020 from "Forecasts of Oregon's County Populations and Components of Change, 2000 to 2040." Oregon Department of Administrative Services, Office of Economic Analysis, April, 2004.

The mid-range population and enrollment forecasts are based on the assumptions that:

- employment growth will continue within the region, resulting in more young adults moving to the area and job opportunities for the area's existing residents.
- ongoing residential development, particularly within the Hermiston UGB, will allow many of the area's new residents to find homes within the District's boundaries. The mid-range population forecast is consistent with housing growth averaging 150 to 200 units per year.
- fertility rates remain near recent levels, with continued small decreases for women under age 30 and small increases for women age 30 and older.
- the number of births to women residing in the District continues to increase throughout the forecast, but at a slower rate than in recent years.

The low-range and high-range population and enrollment forecasts are intentionally extreme; they should be seen as representing lower and upper bounds for a spectrum of possible scenarios.

Table 1 contains recent historic and mid-range forecast enrollments for the District's grade level groups in five year intervals. Following the table is a brief summary of the mid-range forecasts, including the comparison between the enrollment forecasts and current building capacities. More detail, including district-wide forecasts by grade level and forecasts for individual schools are included in the "Enrollment Forecasts" section of this report. The alternate low and high range forecasts are presented in Appendix A.

**Table 1**  
**Historic and Forecast Enrollment**  
**Hermiston School District by School Level**

	Actual			MID-RANGE Forecast	
	1996-97	2001-06	2006-07	2011-12	2016-17
K-5	1,787	2,056	2,266	2,598	2,693
<i>5 year growth</i>		269	210	332	95
6-8	899	959	1,141	1,223	1,391
<i>5 year growth</i>		60	182	82	168
9-12	1,085	1,165	1,369	1,502	1,715
<i>5 year growth</i>		80	204	133	213
<b>Total</b>	<b>3,771</b>	<b>4,180</b>	<b>4,776</b>	<b>5,323</b>	<b>5,799</b>
<b><i>5 year growth</i></b>		<b>409</b>	<b>596</b>	<b>547</b>	<b>476</b>

***District-wide Enrollment Forecast Summary***

- Enrollment growth occurs at every level during the next five years and the following five years (2011 to 2016).
- Total K-12 enrollment will grow by about 500 students in each five year period, and about 1,000 students within the 10 year forecast horizon.
- Most of the elementary enrollment growth occurs between now and 2010.
- Most of the growth in secondary enrollment occurs after 2010.
- By 2016, elementary schools add over 400 students, middle schools add 250 students, and the high school adds about 350 students.

***Enrollments Compared with Building Capacities***

Based on a recent estimate of building capacities for each of the District’s schools, the mid-range forecast indicates that district-wide elementary capacity will be reached by Fall 2009 and exceeded by Fall 2010. When modular buildings currently on school sites are *included* in capacity calculations, 2016-17 elementary enrollments will exceed current capacities by about 200 students. If the modular buildings are *excluded* from the capacity

calculations, elementary enrollment already exceeded capacity by about 200 students in the 2006-07 school year.

The mid-range forecast for district-wide enrollment in 6<sup>th</sup>-8<sup>th</sup> grade is roughly equal to current district-wide middle school capacity in Fall 2013, and exceeds capacity in Fall 2014.

Hermiston High School's current capacity of 1,885 is not reached within the 10 year horizon of these forecasts.

A detailed comparison of enrollment forecasts and building capacities is included in the "Enrollment Forecasts" section of this report.

## INTRODUCTION

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In Fall 2006, the Hermiston School District (HSD) requested that the Portland State University Population Research Center (PRC) prepare enrollment forecasts for the District and each of its schools and report the results to the District's Long Range Facilities Planning Committee. This study integrates information about HSD enrollment trends with local area population, housing, and economic trends, and includes population forecasts for the District as well as forecasts of district-wide enrollment by grade level and total enrollment for individual schools for the period between 2007-08 and 2016-17. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, county population forecasts from the Oregon Office of Economic Analysis, employment trends and forecasts from the Oregon Employment Department, and interviews with local officials, real estate professionals, and business people.

The District serves the City of Hermiston and adjacent unincorporated areas within Umatilla County. The entire extent of Hermiston's Urban Growth Boundary (UGB) is within the District except for a small area of commercial and industrial land southeast of the City. Census data from the year 2000 characterized the District's population as 76 percent urban and 24 percent rural.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District. Next are the results of the district-wide population and enrollment forecasts and individual school forecasts and a description of the forecast methodology. A final section contains a brief discussion of the nature and accuracy of forecasts, and appendices present alternate low and high forecast scenarios and a one page profile for each of the District's schools showing its enrollment history and forecasts, and population and housing trends within its attendance area.

We would like to acknowledge (in alphabetical order) the help of the following individuals who contributed to the study by answering questions, providing local insight, or providing data:

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## POPULATION AND HOUSING TRENDS, 1990 to 2006

During the decade between 1990 and 2000, total population within the HSD grew by 31 percent, from 16,822 persons to 21,997. Umatilla County grew by 19 percent overall, but excluding the HSD the remainder of the County grew by just 14 percent. Although the HSD accounted for just 28 percent of the County's population in 1990, 46 percent of the County's growth in the 1990s occurred within the HSD boundaries. Although the City of Hermiston expanded its boundaries between 1990 and 2000, annexing 173 residents, the unincorporated portion of the District grew just as fast as the City, and the unincorporated area population remained at 40 percent of the District total. Table 2 shows the 1990 and 2000 census counts and 2006 population estimates for the City and County.

	1990	2000	2006	Avg. Annual Growth Rate	
				1990-2000	2000-2006
City of Hermiston*	10,047	13,154	15,410	2.7%	2.5%
HSD Total	16,822	21,997	N/A	2.7%	
HSD Unincorporated	6,775	8,843	N/A	2.7%	
Umatilla County	59,249	70,548	72,190	1.7%	0.4%

*\*Note: Part of the City of Hermiston's population growth resulted from the annexation of 173 persons between 1990 and 2000 and 26 persons between 2000 and 2006.*

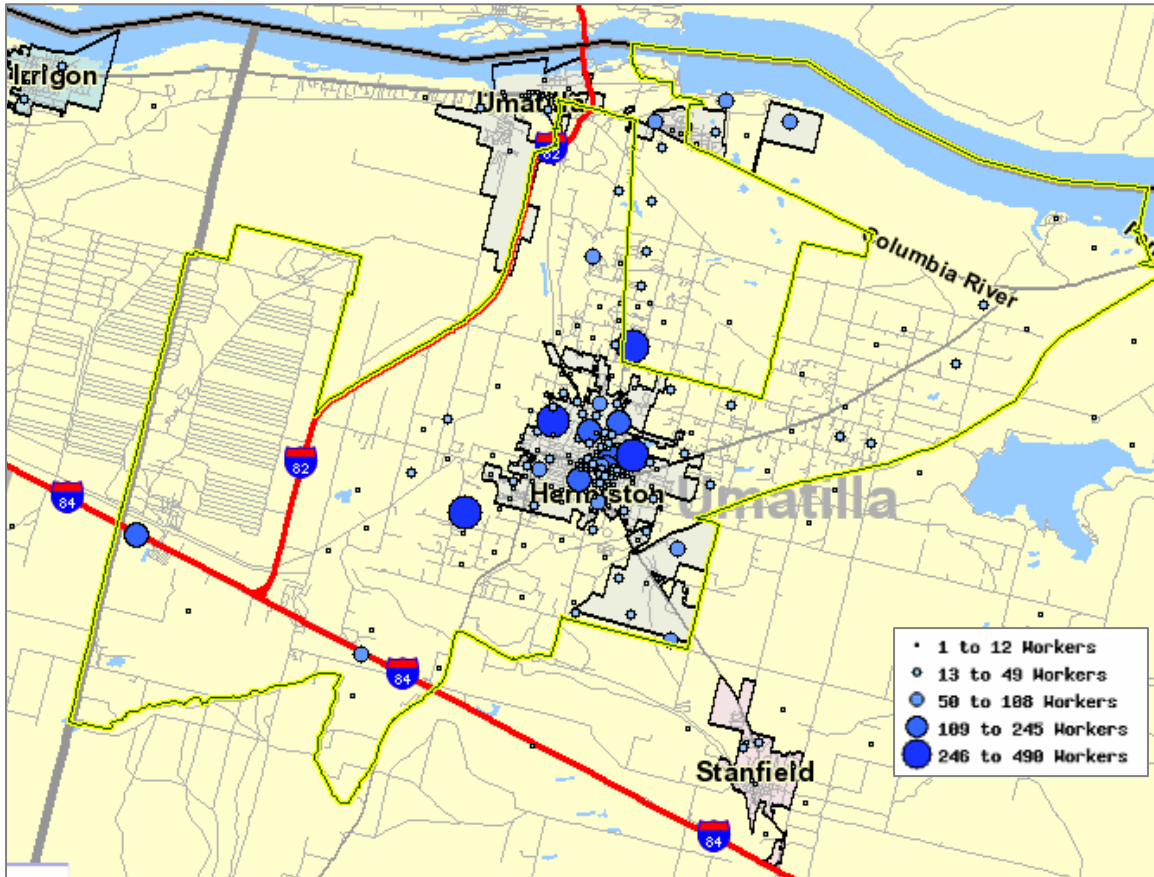
*Sources: U.S. Census Bureau, 1990 and 2000 censuses; Portland State University Population Research Center, 2006 estimates.*

Population growth in the area is closely linked with economic development and job growth within the District. The 2000 Census reported that 50 percent of the City of Hermiston's employed residents worked within Hermiston itself, not including the many who worked in unincorporated areas just outside the City.<sup>2</sup> Among private sector workers living throughout the HSD in 2003, 39 percent worked within the City and an additional 36 percent worked in unincorporated areas. The dots on Map 1 indicate the

<sup>2</sup>U.S. Census Bureau, 2000 Census, Summary File 3, Table P27.

places of work in 2003 for area residents. The map illustrates that most of the area's workers were employed within or just outside of Hermiston's municipal boundaries.<sup>3</sup>

**Map 1  
Place of Work of HSD Area Residents, 2003**



The database from which Map 1 was generated reports that in 2003 there were 570 employers in the Hermiston area, and nearly 10,000 jobs. There were about 1,300 more jobs than employed residents in the area, so there is a net inflow of commuters into the area. Two thirds of area workers lived within Umatilla County, but about 13 percent commuted from out of state (presumably from Washington State).

<sup>3</sup>U.S. Census Bureau, LED Origin-Destination Database (2nd quarter 2003). Commute shed and Labor Shed reports for residents and workers in block groups approximating zip code 97838. Created on line at <http://lehd.dsd.census.gov/led/datatools/onthemap.html>.

***Population by Age Group***

Population by age group for 1990 and 2000 is reported in Table 3 below. The largest numbers of adults in 2000 were in the age groups between 35 and 49, “baby boomers” born in the 1950s and early 1960s, but the population of younger adults in the age groups between 20 to 34 was only slightly smaller. Every age group gained population between 1990 and 2000, with the exception of 65 to 69 year olds. The 65 to 69 year old population also fell in Oregon and in the U.S. between 1990 and 2000, a lingering impact of low birth rates during the depression era of the early 1930s.

The school-age population growth rate of 23 percent during the 1990s was slower than total population growth, so the share of school-age population (age 5 to 17) fell from 22.1

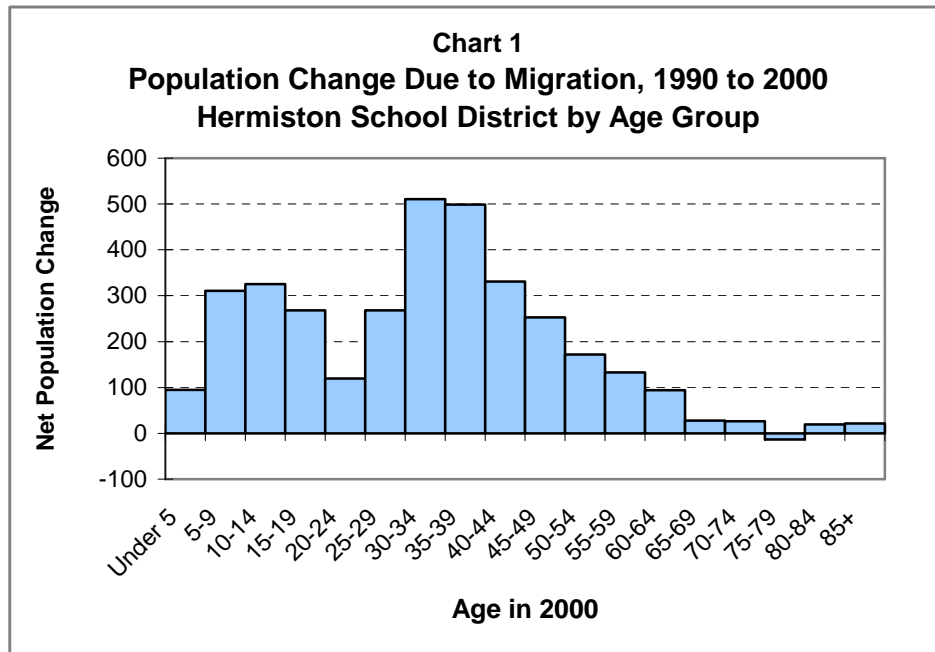
**Table 3  
Population by Age Group  
Hermiston School District, 1990 and 2000**

	1990	2000	1990 to 2000 Change	
			Number	Percent
Under Age 5	1,368	1,701	333	24%
Age 5 to 9	1,478	1,814	336	23%
Age 10 to 14	1,429	1,691	262	18%
Age 15 to 17	808	1,052	244	30%
Age 18 to 19	483	690	207	43%
Age 20 to 24	975	1,539	564	58%
Age 25 to 29	1,135	1,547	412	36%
Age 30 to 34	1,343	1,475	132	10%
Age 35 to 39	1,406	1,616	210	15%
Age 40 to 44	1,184	1,648	464	39%
Age 45 to 49	993	1,626	633	64%
Age 50 to 54	759	1,320	561	74%
Age 55 to 59	672	1,080	408	61%
Age 60 to 64	696	797	101	15%
Age 65 to 69	673	622	-51	-8%
Age 70 to 74	564	605	41	7%
Age 75 to 79	429	489	60	14%
Age 80 to 84	256	376	120	47%
Age 85 and over	171	309	138	81%
<b>Total Population</b>	<b>16,822</b>	<b>21,997</b>	<b>5,175</b>	<b>31%</b>
Total age 5 to 17	3,715	4,557	842	23%
share age 5 to 17	22.1%	20.7%		

*Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to HSD boundary by Portland State University Population Research Center.*

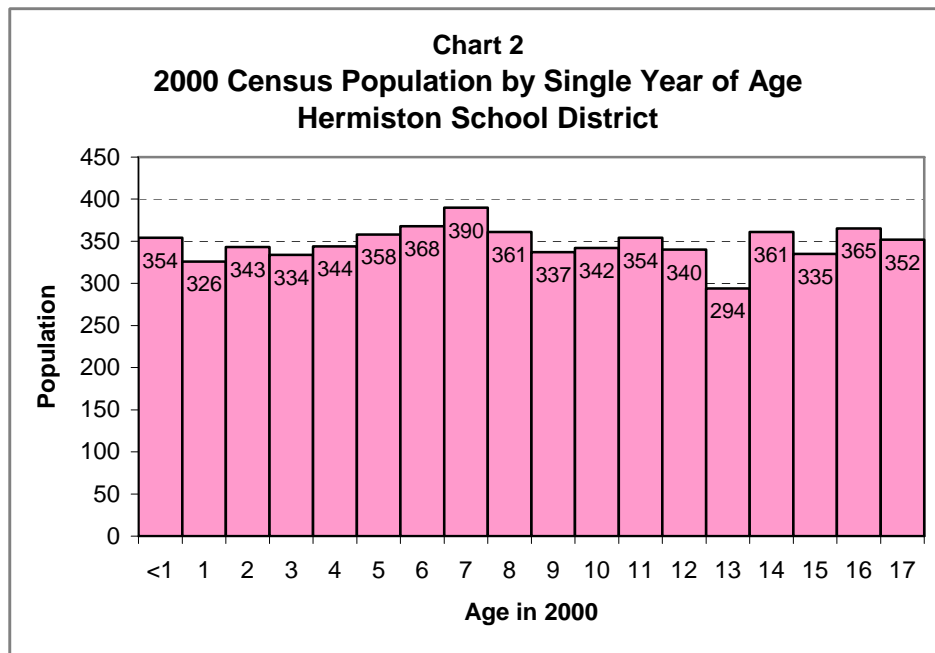
percent in 1990 to 20.7 percent in 2000. It remained higher than Umatilla County’s 20.3 percent share and the State of Oregon’s 18.2 percent share in 2000.

By “surviving” the 1990 population and 1990s births (estimating the population in each age group that would survive to the year 2000) and comparing the “survived” population to the actual 2000 population by age group, we are able to estimate net migration by age cohort. Chart 1 shows the estimated population change that each age group contributed due to migration between 1990 and 2000. For example, for the cohort that was 20 to 24 in 1990 and 30 to 34 in 2000, about 500 more people moved into the HSD than out of it in the 1990s. It is remarkable that the District had positive net migration for every cohort under age 75, as most areas outside of major urban centers and without a four year college experience a net loss of young adults in their 20s. Because of the area’s job growth, Hermiston’s migration pattern does not resemble the typical pattern prevalent in rural or suburban communities or small cities throughout most of Oregon.



The balanced age distribution of the adult population (nearly as many young adults age 20 to 34 as older adults 35 to 49) contributed to a balanced age distribution of the child population in 2000. Younger adults have young children, and older adults are more likely to have teenagers or adult children. Chart 2 shows the child population in single

year detail for the HSD in 2000. There was variation between individual ages, but on average, census counts for older children were about the same as for younger children. In contrast, we have observed other school districts with an older skew to their age distribution if they are dominated by relatively expensive owner-occupied housing, or a younger skew if they have a larger share of affordable rental housing. Job growth and housing options influence the composition of a district’s adult population, which directly impacts the size and age distribution of the child population.



***Births and Fertility Rates***

The number of births each year to women living in the HSD has trended upward throughout the 1990s and into the 2000s, and reached a new high estimated at 410 in 2003, nearly 50 percent more births than in 1990. Table 4 on the next page reports the number of births in the District annually from 1990 to 2003. The geographic detail is incomplete for 2004 and 2005 births in Umatilla County, so we could not produce estimates for those years.

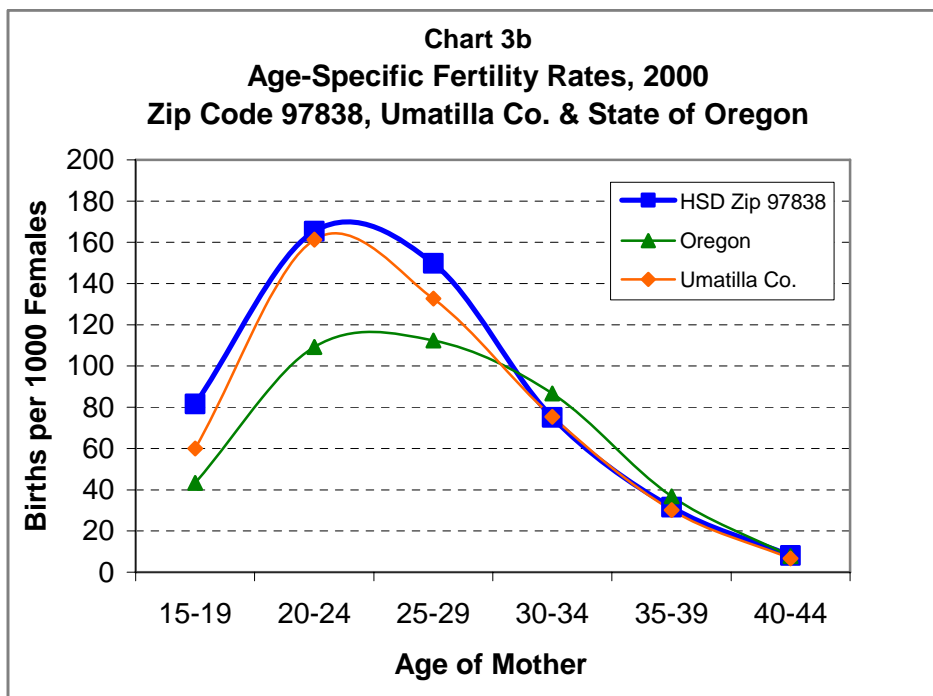
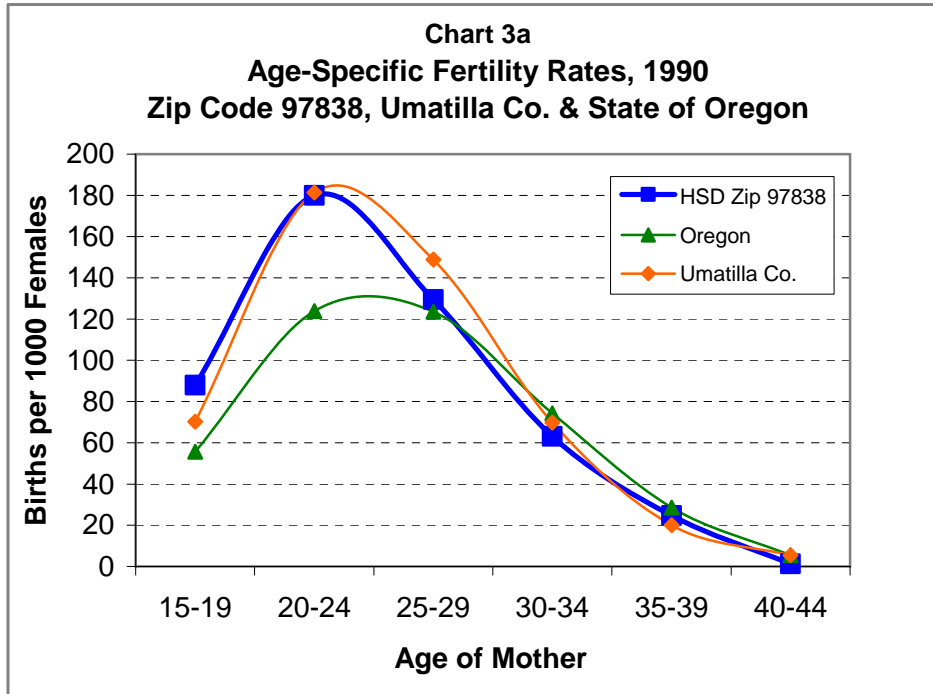
**Table 4**  
**Annual Births, 1990 to 2003**  
**Hermiston School District**

<b>Year</b>	<b>Births</b>
1990	277
1991	292
1992	313
1993	308
1994	310
1995	342
1996	278
1997	331
1998	305
1999	355
2000	360
2001	383
2002	355
2003	410
2004	N/A
2005	N/A

*Source: PSU-PRC estimates using Oregon Center for Health Statistics zip code data and geocoded birth records. Geographic detail is unavailable for a large percentage of Umatilla County births in 2004 and 2005, so HSD estimates were not prepared for those years.*

The HSD boundary is very similar to the 97838 ZIP code area, so ZIP code data is used to estimate fertility rates for the District. The rates for 1990 and 2000 are shown in Charts 3a and 3b on the next page. For comparison, Umatilla County and State of Oregon fertility rates are also included. The ZIP code rates were calculated for each age group by dividing the average annual number of births in the three year period around each census (1989 to 1991 and 1999 to 2001) by the female population counted in the census. For example, there were an average of 104 births per year to women age 25 to 29 in 1999 to 2001 and a population of 692 women age 25 to 29 counted in the 2000 Census. So the fertility rate in 2000 for women age 25 to 29 was  $104/692 = 0.150$  births per female, or 150 per thousand. The charts show that in both 1990 and 2000 ZIP 97838 fertility rates were similar to Umatilla County rates, but for women under age 30, rates were higher than State of Oregon rates.

In Oregon and in Umatilla County between 1990 and 2000, fertility rates decreased for women under age 30 and increased for women age 30 and over. These trends were



generally reflected in the ZIP 97838 birth rates, with the exception of an increase in rates for women 25 to 29. The other notable trend between 1990 and 2000 was a significant decrease in fertility rates for Latina women. Umatilla County’s population of Latinas age 15 to 44 increased by 134 percent between 1990 and 2000, but the number of births to

Latinas increased by only 68 percent. Latina fertility rates are likely to continue to fall as labor force participation and educational attainment continue to increase for the American-born children of immigrants.<sup>4</sup> Also, fertility rates in Mexico, the leading country of origin for immigrants to Oregon, have fallen sharply, and are now only a bit higher than U.S. rates.<sup>5</sup>

Another common measure of fertility is the Total Fertility Rate (TFR). This is an estimate of the number of children that would be born to the average woman during her childbearing years, based on age-specific fertility rates observed at a given time. The 2000 TFR for ZIP 97838 was 2.56, slightly higher than the 1990 rate of 2.43. The ZIP's TFRs in 2000 were higher than those in Umatilla County (2.33) and Oregon (1.98).

### ***Housing Growth***

During the 1990s, the number of housing units within the District's boundaries increased by 1,617 (24 percent), as shown in Table 5 on the next page. About 500 of the additional housing units were apartments and about 1,100 were single family (stick built, mobile, or manufactured homes). As of 2000, multiple family units accounted for 23 percent of the District's overall housing stock. Table 5 also shows that the growth rate for the number of households with children under 18 (22 percent) was similar to the 25 percent growth rate for households without children under 18. The 40 percent share of households in the HSD that included at least one child under the age of 18 in 2000 was higher than Umatilla County's 38 percent share and the State of Oregon's 33 percent share. The average number of persons per household increased from 2.67 in 1990 to 2.73 in 2000.

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<sup>4</sup>See "Fertility of Immigrant Women in California." California Department of Finance, Demographic Research Unit, April, 1995, at <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/documents/IMPAA.PDF>. Also Dowell Myers, John Pitkin, and Julie Park. 2005. "California Demographic Futures: Projections to 2030, by Nativity, Immigrant Generations, and Time of Arrival in the U.S." Population Dynamics Research Group, School of Policy, Planning, and Development. Los Angeles, CA: University of Southern California, at <http://www.usc.edu/schools/sppd/research/popdynamics/publications.htm>.

<sup>5</sup> UN (United Nations). 2005b. *World Population Prospects 1950–2050: The 2004 Revision*. Database. Department of Economic and Social Affairs, Population Division. New York. TFR estimates for the 2000-05 period are 2.0 for the U.S. and 2.4 for Mexico.

**Table 5**  
**Hermiston School District**  
**Housing and Household Characteristics, 1990 and 2000**

	1990	2000	1990 to 2000 Change	
			Number	Percent
Housing Units	6,695	8,312	1,617	24%
Single Family <i>share of total</i>	3,546 53%	4,325 52%	779	22%
Multiple Family <i>share of total</i>	1,455 22%	1,953 23%	498	34%
Mobile Home and Other <i>share of total</i>	1,694 25%	2,034 24%	340	20%
Households	6,246	7,731	1,485	24%
Households with children under 18 <i>share of total</i>	2,531 41%	3,080 40%	549	22%
Households with no children under 18 <i>share of total</i>	3,715 59%	4,651 60%	936	25%
Household Population	16,663	21,143	4,480	27%
Persons per Household	2.67	2.73	0.07	3%

*Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to HSD boundary by Population Research Center, PSU.*

Since 2000, the pace of residential development within the District has continued. Table 6 shows the annual number of housing units permitted within the City of Hermiston since

**Table 6**  
**Housing Units Authorized by Building Permits**  
**City of Hermiston**

Year Permit Issued	Single Family	Multiple Family
1996	33	0
1997	55	53
1998	77	106
1999	100	32
2000	70	0
2001	104	0
2002	116	124
2003	122	24
2004	94	14
2005	104	56
2006	89	22
2007 (Jan-Apr)	29	6

*Source: U.S. Census Bureau, Residential Construction Branch. Data available online at <http://censtats.census.gov/bldg/bldgprmt.shtml>.*

1996. During the 2000 to 2006 period permits were issued for 939 new housing units, an average of 134 units annually. These figures do not include homes being added in the unincorporated area outside of the City. In the 1990s, just over three fourths of the District's new housing development occurred within the City of Hermiston, and recent building permit data from Umatilla County indicates that the share remains about the same. That is, slightly less than a quarter of the District's net housing growth is occurring outside of the City of Hermiston.

The number of new lots in recently approved subdivisions is sufficient to ensure continued housing growth at or above recent levels for at least the next few years, assuming that market conditions remain favorable. Recently approved or pending residential developments are accounted for in Tables 7 and 8, with elementary and middle schools indicated for each development.

Some of the earlier single family developments shown in Table 7 have been completed, and the most recent ones have not yet broken ground, but there is currently substantial homebuilding activity occurring within four of the District's five elementary attendance areas. Leading the current development is the Desert View Elementary area, where homes are being built in Shea Meadows and St. Johns Estates. Next is the Sunset Elementary area, where Pheasant Run is nearly completed and Quail Ridge is ongoing. New homes are also being built in the Rocky Heights (Overlook Ridge subdivision) and Highland Hills (Highland Summit Phases 5 and 6) Elementary areas.

Following the lists of subdivisions and multi-family developments, Table 9 shows the number of new housing units authorized within the City of Hermiston since 2005, tabulated by elementary and middle school area. The 343 units permitted since January 2005 include 222 stick-built single family homes, 37 manufactured homes, and 84 apartment units. Most of the apartments were in the Sunset Elementary area, including the 48 unit The Aspens, and 20 units in duplexes on Willow Court.

**Table 7**  
**Single Family Subdivisions**  
**City of Hermiston, 2002 to 2007**

Approval*	Elementary School Area	Middle School Area	Subdivision Name	Lots
<b>2002</b>	DVES	ALMS	Buttercreek Mobile Home Park	42
	DVES	ALMS	St Johns Estates Phase 2	15
	DVES	ALMS	Shea Meadows Phase 2	9
	DVES	ALMS	Shea Meadows Phase 3	9
	SSES	SMS	Quail Ridge	13
			<b>2002 Total:</b>	<b>88</b>
<b>2003</b>	RHES	ALMS	Hart Estates	8
	SSES	SMS	Pheasant Run Phase 5	33
	SSES	SMS	Quail Ridge Phase 2	31
	SSES	SMS	Pelekai Tracts	4
	SSES	SMS	The Aspens	19
	RHES	SMS	Desert Shadows Phase 3 (Overlook Ridge)	95
			<b>2003 Total:</b>	<b>190</b>
<b>2004</b>	DVES	ALMS	St. Johns Phase 3	16
	DVES	ALMS	Shea Meadows Phase 4	30
	HHES	SMS	Four Pines Subdivision	4
	SSES	SMS	Pheasant Run Phase 6	26
			<b>2004 Total:</b>	<b>76</b>
<b>2005</b>	HHES	SMS	Whites Addition	4
	RHES	ALMS	Alder Court	13
	HHES	SMS	Highland Summit Phase 6	22
	HHES	SMS	Sandstone Phase 4	17
	SSES	SMS	Quail Ridge Phase 3	22
			<b>2005 Total:</b>	<b>78</b>
<b>2006</b>	DVES	ALMS	Larkin Court	9
	DVES	ALMS	St Johns Phase 4	30
	RHES	SMS	Punkin Ridge (aka Skyline Ridge)	131
			<b>2006 Total:</b>	<b>170</b>
<b>2007 (Jan-May)</b>	DVES	SMS	St. Johns Estates Phase 5	28
	RHES	SMS	Quail Ridge Phase 4	70
	SSES	SMS	Sunset Estates	126
	DVES	ALMS	Desert Falls Estates (preliminary)	250
			<b>2007 Total:</b>	<b>474</b>
			<b>Grand Total January 2002 - May 2007:</b>	<b>1076</b>

\*Note: "Approval" indicates the year of approval for the land use change. Construction and occupancy may be in later years.

Sources: Compiled by Population Research Center, PSU from information provided by Hermiston planning department. The number of units sometimes changes between initial approval and final construction, so unit counts in this table may differ slightly from those published elsewhere.

**Table 8  
Multiple Family Developments  
City of Hermiston, 2002 to 2007**

<b>Approval*</b>	<b>Elementary School Area</b>	<b>Middle School Area</b>	<b>Development Name</b>	<b>Units</b>
<b>2002</b>	RHES	ALMS	Sterling Ridge Apartments	70
	SSES	SMS	Quail Ridge Apartments	40
	WPES	ALMS	Hacienda West	32
<b>2002 Total:</b>				<b>142</b>
<b>2003</b>	RHES	ALMS	Sterling Ridge Apartments Phase 2	66
	SSES	SMS	The Aspens	48
<b>2003 Total:</b>				<b>114</b>
<b>2004</b>			None	
<b>2004 Total:</b>				<b>0</b>
<b>2005</b>	SSES	SMS	Willow Court (duplexes)	38
<b>2005 Total:</b>				<b>38</b>
<b>2006</b>			None	
<b>2006 Total:</b>				<b>0</b>
<b>2007 (Jan-May)</b>	RHES	ALMS	NW Corner of NW 3rd St. and W Standard Ave. (Santiam Properties)	26
<b>2007 Total:</b>				<b>26</b>
<b>Grand Total January 2002-May 2007:</b>				<b>320</b>

*\*Notes: "Approval" indicates the year of approval for the land use change. Construction and occupancy may be in later years.*

*Senior housing developments are not included in this table because they do not directly impact school enrollment.*

*Sources: Compiled by Population Research Center, PSU from information provided by Hermiston planning department. The number of units sometimes changes between initial approval and final construction, so unit counts in this table may differ slightly from those published elsewhere.*

**Table 9**  
**Housing Units Authorized by Building Permits**  
**City of Hermiston, Issued Since 2005 by Attendance Area**

<b>Elementary Area *</b>	<b>Number of Housing Units</b>			
	<b>2005</b>	<b>2006</b>	<b>2007 (Jan-Apr)</b>	<b>1/05-4/07 Total</b>
Desert View	51	45	15	<b>111</b>
Highland Hills	27	14	9	<b>50</b>
Rocky Heights	17	23	6	<b>46</b>
Sunset	85	38	9	<b>132</b>
West Park	2	1	1	<b>4</b>
<b>Middle School Area*</b>				
Armand Larive	58	50	22	<b>130</b>
Sandstone	124	71	18	<b>213</b>
<b>District Total</b>	<b>182</b>	<b>121</b>	<b>40</b>	<b>343</b>

*\*Note: Current (2006-07) attendance areas.*

*Source: City of Hermiston Building Department Monthly Logs. HSD attendance areas identified by Population Research Center, PSU..*



## ENROLLMENT TRENDS

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Between 2005-06 and 2006-07 the Hermiston School District's total K-12 enrollment increased by 135 students (2.9 percent). Enrollment has grown in each of the past 11 years, but only the 2003-04 to 2004-05 increase of 202 students was larger. In the five years since 2001-02, the District has added 596 K-12 students, an average of 119 annually. In previous five year periods, the HSD gained 409 K-12 students between 1996-97 and 2001-02, and 99 between 1991-92 and 1996-97.

Growth in 2006-07 was greatest at the high school (9-12) level, which gained 62 students (4.7 percent) from 2005-06. Middle schools (6-8) added 51 students (also 4.7 percent), and elementary schools gained just 22 students (1.0 percent) as a relatively large 5<sup>th</sup> grade class moved on to middle school.

Other notable district-wide enrollment trends include:

- Kindergarten enrollment reached an all-time high of 399 students in 2006-07.
- Overall elementary (K-5) enrollment is also at an all-time high of 2,266 students.
- Secondary schools have added about 400 students in the six years since 2000-01.
- The District's largest class in 2006-07 is grade 6 (405 students).

On the next page, Table 10 summarizes the enrollment history for the District by grade level annually from 1996-97 to 2006-07.

**Table 10  
Hermiston School District, Historic Enrollment, 1996-97 to 2006-07**

<b>Grade</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-00</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>
<b>K</b>	291	306	352	328	333	331	323	350	393	386	399
<b>1</b>	304	312	340	346	329	380	333	335	373	378	397
<b>2</b>	308	300	306	358	342	311	378	339	350	373	385
<b>3</b>	286	322	300	334	345	353	323	399	341	357	370
<b>4</b>	294	288	328	304	326	365	369	328	399	348	365
<b>5</b>	304	299	293	335	310	316	377	363	344	402	350
<b>6</b>	294	314	289	305	309	311	323	379	388	340	405
<b>7</b>	311	307	324	299	312	334	318	324	398	371	359
<b>8</b>	294	308	330	322	315	314	351	331	343	379	377
<b>9</b>	401	381	407	437	314	289	332	372	351	335	369
<b>10</b>	265	291	282	294	320	318	282	333	356	331	337
<b>11</b>	246	233	232	239	273	307	307	271	310	341	325
<b>12</b>	166	203	195	185	268	251	287	287	269	300	338
<b>UN</b>	7	0	1	0	0	0	2	2	0	0	0
<b>Total</b>	<b>3,771</b>	<b>3,864</b>	<b>3,979</b>	<b>4,086</b>	<b>4,096</b>	<b>4,180</b>	<b>4,305</b>	<b>4,413</b>	<b>4,615</b>	<b>4,641</b>	<b>4,776</b>
<i>Annual change</i>		93 2.5%	115 3.0%	107 2.7%	10 0.2%	84 2.1%	125 3.0%	108 2.5%	202 4.6%	26 0.6%	135 2.9%
<b>K-5</b>	1,787	1,827	1,919	2,005	1,985	2,056	2,103	2,114	2,200	2,244	2,266
<b>6-8</b>	899	929	943	926	936	959	992	1,034	1,129	1,090	1,141
<b>9-12</b>	1,078	1,108	1,116	1,155	1,175	1,165	1,208	1,263	1,286	1,307	1,369

	<b>5 Year Change: 1996-97 to 2001-02</b>		<b>5 Year Change: 2001-02 to 2006-07</b>		<b>10 Year Change: 1996-97 to 2006-07</b>	
	<b>Change</b>	<b>Pct.</b>	<b>Change</b>	<b>Pct.</b>	<b>Change</b>	<b>Pct.</b>
K-5	269	15%	210	10%	479	26%
6-8	60	6%	182	19%	242	26%
9-12	87	8%	204	18%	291	26%
<b>Total</b>	<b>409</b>	<b>11%</b>	<b>596</b>	<b>14%</b>	<b>1,005</b>	<b>26%</b>

Source: Oregon Department of Education, October 1 Enrollment Summaries.

### ***Private and Home School Enrollment***

There are two private schools in Hermiston offering grades above kindergarten. Hermiston Christian School currently enrolls 44 K-8 students and 14 high school students, and Hermiston Junior Academy enrolls about 50 students in grades K-9. Hermiston Christian has had stable enrollment the past several years, and Hermiston Junior Academy has been stable for the past few years but its enrollment is down from about 65 students several years ago. In the future, Hermiston Christian School may build a new building with potential for expansion, but that is not expected to happen for at least a few years.

Responses to the “long form” of the 1990 and 2000 Censuses indicate that there was an increase in the number and share of HSD area students attending private schools between 1990 and 2000. The estimate based on the long form sample was about 210 private school students in grades 1-12, or about five percent of all residents in 2000, up from about 70, or two percent of HSD residents, in 1990.

In addition to public and private schools, the other option is home schooling. Home schooled children age 7 to 18 living in the District are required to register with the Umatilla-Morrow Education Service District, though the statistics are not precise because students who move out of the area are not required to drop their registration. Students who enroll in public schools after being registered as home schooled are dropped from the home school registry. In the 2006-07 school year there are about 150 HSD residents registered, including about 100 elementary and middle school age children and about 50 high school age children. The current number of registered home school students represents about three percent of the HSD’s resident school-age population.

### ***Hispanic Enrollment Growth***

Hermiston has a long-established Hispanic community, but like other parts of Oregon with robust job growth, the number of Hispanic families has soared in the past several years. In 2006-07, the District’s Hispanic enrollment grew by 107 students (six percent), representing about four fifths of overall district-wide growth. Over the past five years, Hispanic enrollment has

increased by 479 students (37 percent), while the number of non-Hispanic students has increased by 117 students (four percent).

The White, non-Hispanic population is still influenced by the “baby boom” and “baby bust” cycle, so after the baby boom “echo” of the late 1980s there have been decreasing numbers of births due to the smaller population of adults born in the 1970s. Statewide, white non-Hispanic births peaked in 1990, so many school districts currently have declining non-Hispanic enrollment as fewer kindergarten students replace graduating high school students each year. Conversely, the Hispanic population has been augmented by foreign born young adults, and has a much younger age structure, resulting in higher enrollment in elementary grades than in secondary grades.

Table 11 on the next page reports Hispanic enrollment by school level annually over the past several years.



### ***Enrollment Trends at Individual Schools***

Because elementary school boundaries changed in 2004 and again in 2006, it is difficult to discern demographic trends for individual schools by simply comparing current and former enrollments. Overall elementary enrollment has increased in each of the past five years, and there were 210 more students at the District's elementary schools in Fall 2006 compared with Fall 2001. Four of the five elementary schools have more enrollment now than they did five years ago, the exception being Desert View, which had its attendance area reduced in 2004 and in 2006.

After the 2005-06 school year, boundary changes reduced the size of the attendance areas of Desert View (2005-06 enrollment of 25 K-5 students in the area reassigned to West Park), Sunset (2005-06 enrollment of 29 K-5 students in the area reassigned to Rocky Heights), and Highland Hills (2005-06 enrollment of 33 students in the area reassigned to Rocky Heights and 22 K-5 students in the area reassigned to West Park). Rocky Heights and West Park grew in enrollment in 2006-07 due to these boundary changes. Sunset also grew in spite of its smaller boundary, due to new housing development including The Aspens apartment complex.

After the 2003-04 school year, Desert View lost enrollment as portions of its attendance area were reassigned to Highland Hills and West Park, and Sunset lost enrollment as a portion of its attendance area was reassigned to Rocky Heights.

All three of the District's secondary schools have gained enrollment over the past five years, with growth rates of 18 percent (Armand Larive M.S. and Hermiston H.S.) to 20 percent (Sandstone M.S.).

Total enrollments at each of the District's schools annually from 2001-02 to 2006-07 are shown in Table 12 on the next page.





## ENROLLMENT FORECASTS

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### *District-wide Population Forecast*

A demographic cohort-component model was used to forecast population for the District by age and sex. The components of population change are births, deaths, and migration (residential relocation). Using age-specific fertility rates, age-sex specific mortality rates, age-sex specific migration rates, estimates of recent net migration levels, and forecasts of future migration levels, each component is applied to the base year population in a manner that simulates the actual dynamics of population change.

Many of the findings described in the earlier sections “Population and Housing Trends” and “Enrollment Trends” inform the assumptions used in the population forecast for the 2000 to 2020 period. In particular, the increases in births and school enrollment since 2000 support the assumption that net migration levels have been equal to or higher than what the District experienced in the 1990s. Housing development is also consistent with the migration assumptions, as the average number of new housing units added annually since 2000 has equaled or exceeded the 160 per year average between 1990 and 2000.

Migration rates by age group are also similar to those observed in the past. For example, because job growth drives most of the migration, we expect the largest influx among people between the ages of 25 to 39. Fertility rates by age group based on those observed in 2000, are expected to change only slightly, with continued small increases for women age 30 and over and decreases for women under age 30. Unlike the 1990 to 2000 period, we do not expect the District to gain residents in their early 20s through net migration, but the young adult population is expected to increase because of overall population growth and the larger baby boom “echo” cohort born in the 1980s and 1990s. The increase in the young adult population causes the number of births within the HSD to increase throughout the forecast period.

We also consulted external population and employment forecasts prepared by state and local agencies:

- The Oregon Office of Economic Analysis forecasts that Umatilla County's population will grow by 21 percent (0.9 percent annually) between 2000 and 2020, from 70,548 in 2000 to 85,242 in 2020.<sup>6</sup>
- The City of Hermiston added about 390 acres to its Urban Growth Boundary in 2004 after conducting a residential buildable land inventory. The report cites a 1999 Umatilla County projection of 1.8% annual growth within the City of Hermiston over a 20 year period, remarking that "this forecast is conservative compared to the rate of population growth that occurred in Hermiston during the last decade."<sup>7</sup>
- The Oregon Employment Department forecasts that employment in the region is forecast to grow by eight percent in a ten year period (0.7 percent annually).<sup>8</sup>

Our forecast for 2020 population in the HSD is 33,280, an increase of 11,283 persons from the 2000 Census (2.1 percent average annual growth). In Table 13, the forecast rate of growth is compared to the county and city forecasts summarized above and also to the 1990 to 2000 growth rates for each area. The forecast for the City of Hermiston was prepared in 1999, and may not have foreseen the City's estimated 2.5 percent annual growth between 2000 and 2006.

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<sup>6</sup>"Forecasts of Oregon's County Populations and Components of Change, 2000 to 2040." Oregon Department of Administrative Services, Office of Economic Analysis, April, 2004.

<sup>7</sup>"City of Hermiston, Residential Buildable Land Inventory, February 2004." Prepared by Hobson Ferrarini Associates.

<sup>8</sup>"Employment Projections by Industry, 2004-2014." Oregon Employment Department, Workforce Analysis, July, 2005. Employment in the Morrow/Umatilla region was 30,850 in 2004 and 33,240 in the 2014 forecast.

**Table 13**  
**Comparison of Population Growth Rates**  
**Umatilla County, City of Hermiston, and Hermiston S.D.**

Area	1990 to 2000 Historic Avg. Annual Growth Rate	2000 to 2020 Forecast Avg. Annual Growth Rate*
Umatilla County	1.7%	0.9%
City of Hermiston	2.7%	1.8%
Hermiston S.D.	2.7%	2.1%

*\*Umatilla County 2000 to 2020 Forecast from "Forecasts of Oregon's County Populations and Components of Change, 2000 to 2040." Oregon Department of Administrative Services, Office of Economic Analysis, April, 2004. City of Hermiston 20 year forecast from 1999 Umatilla County study cited in "City of Hermiston, Residential Buildable Land Inventory, February 2004." Hermiston S.D. forecast by Population Research Center, PSU.*

The District-wide population forecast by age group is presented in Table 14 on the next page. School-age population (5 to 17) is forecast to increase by 2,081 persons, or 46 percent. By 2020, the fastest growing age groups are the “baby boom” generation ages 55 to 74.

This forecast is characterized as a “mid-range” forecast because it represents the most likely scenario for future growth. Although the housing market will not always be as heated as in recent years, the number of new lots in subdivisions already approved and the availability of land within Hermiston’s Urban Growth Boundary will cause the City of Hermiston to remain attractive to home builders and home buyers as long as economic growth continues to fuel migration into the region. The mid-range forecast is consistent with housing growth averaging 150 to 200 units per year.

The mid-range forecast falls between the “low-range,” in which little or no job growth occurs, housing growth slows to about 50 units annually, and fertility rates fall, and the “high-range,” in which major new employers site facilities in the area, about 300 housing units are built each year and fertility rates rise. The low and high population forecasts are intentionally extreme; they should be seen as representing lower and upper bounds for a spectrum of possible scenarios. Only the mid-range forecast is fully developed in this report with detailed analysis including individual school forecasts and capacity

**Table 14**  
**Population by Age Group: MID RANGE Forecast**  
**Hermiston School District, 1990 to 2020**

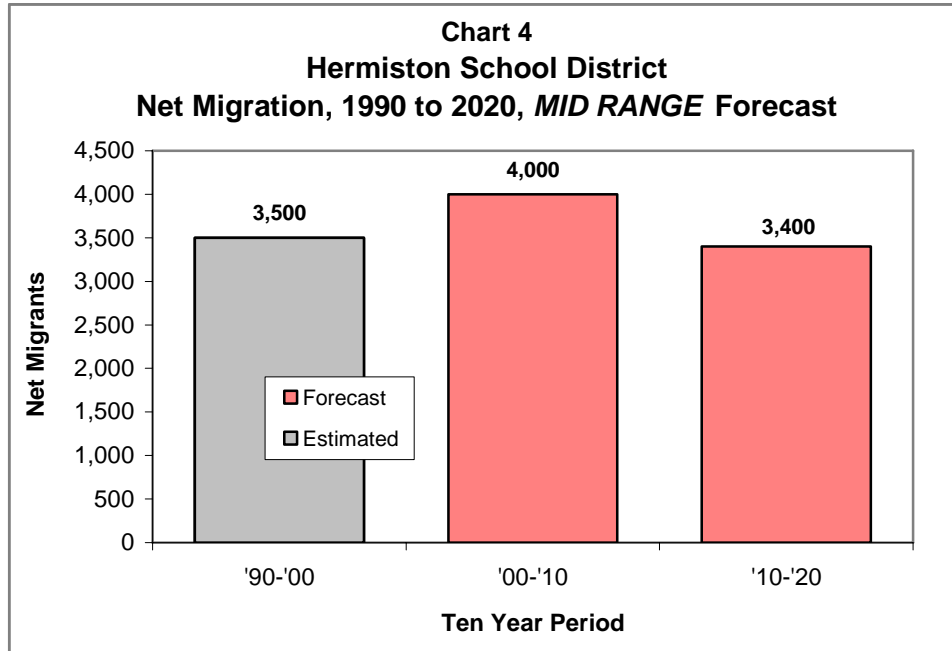
	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	1,368	1,701	2,183	2,456	755	44%
Age 5 to 9	1,478	1,814	2,308	2,514	700	39%
Age 10 to 14	1,429	1,691	2,046	2,536	845	50%
Age 15 to 17	808	1,052	1,301	1,588	536	51%
Age 18 to 19	483	690	807	1,051	361	52%
Age 20 to 24	975	1,539	1,733	1,978	439	29%
Age 25 to 29	1,135	1,547	1,910	2,162	615	40%
Age 30 to 34	1,343	1,475	2,037	2,227	752	51%
Age 35 to 39	1,406	1,616	2,009	2,371	755	47%
Age 40 to 44	1,184	1,648	1,788	2,316	668	41%
Age 45 to 49	993	1,626	1,838	2,233	607	37%
Age 50 to 54	759	1,320	1,773	1,898	578	44%
Age 55 to 59	672	1,080	1,704	1,902	822	76%
Age 60 to 64	696	797	1,333	1,770	973	122%
Age 65 to 69	673	622	978	1,530	908	146%
Age 70 to 74	564	605	692	1,152	547	90%
Age 75 to 79	429	489	455	713	224	46%
Age 80 to 84	256	376	403	451	75	20%
Age 85 and over	171	309	409	432	123	40%
<b>Total Population</b>	<b>16,822</b>	<b>21,997</b>	<b>27,707</b>	<b>33,280</b>	<b>11,283</b>	<b>51%</b>
Total age 5 to 17	3,715	4,557	5,655	6,638	2,081	46%
share age 5 to 17	22.1%	20.7%	20.4%	19.9%		

	1990-2000	2000-2010	2010-2020
<b>Population Change</b>	<b>5,175</b>	<b>5,710</b>	<b>5,573</b>
Percent	30.8%	26.0%	20.1%
Average Annual	2.7%	2.3%	1.8%

Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to HSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2010 and 2020.

comparisons. The low and high population forecasts are included in Appendix A as tables A1 and A2 and the total fertility rates implied in each forecast series are presented in Appendix A, Table A3.

The overall population increase attributable to net migration in the mid-range forecast is shown in Chart 4 on the next page. In the forecast period net migration accounts for about two thirds of overall population growth, with natural increase (births minus deaths) accounting for the balance. Similar charts for the low and high range forecasts are included in Appendix A as Chart A1 and Chart A2.



***District-wide Enrollment Forecast***

Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 1999-2000 school year) are compared to the population at the appropriate ages counted in the census. The “capture rate,” or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in HSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District’s enrollment. If there is evidence that capture rates have changed since the time of the census, they may be adjusted in the forecast. Capture rates of 0.91 for kindergarten and 0.92 for first grade are used throughout the forecast.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District’s population. Once the students are in first grade, a set of baseline grade progression rates (GPRs) are used to move students from one grade to the next. These baseline GPRs, usually 1.00 for elementary grades, represent a scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration

levels of the overall population by single years of age. Table 15 shows the average GPRs for the past seven years of observed historic transitions (beginning with 1999-2000 to 2000-01 until 2005-06 to 2006-07), the baseline GPRs used in the model, and the average GPRs calculated from the enrollment forecasts between 2006-07 and 2016-17.

**Table 15**  
**Grade Progression Rates<sup>1</sup>**  
**HSD, MID RANGE Forecast**

<b>Grade Transition</b>	<b>Historic Average: 1999-00 to 2006-07</b>	<b>Baseline (without the influence of migration)</b>	<b>Forecast Average: 2006-07 to 2016-17</b>
K-1	1.03	-- <sup>2</sup>	1.03
1-2	1.00	1.00	1.01
2-3	1.02	1.00	1.01
3-4	1.02	1.00	1.01
4-5	1.01	1.00	1.01
5-6	1.00	1.00	1.01
6-7	1.03	1.00	1.01
7-8	1.03	1.00	1.02
8-9	1.00	1.01	1.03
9-10	0.98	0.96	0.98
10-11	0.96	0.94	0.96
11-12	0.98	0.95	0.96

*1. Ratio of enrollment in an individual grade to enrollment in the previous grade the previous year.*

*2. The enrollment forecast model uses capture rates for first grade; K-1 baseline GPRs are not used.*

The base year data for the population forecast is 1990 Census data. From the 1990 base, the model is calibrated to actual change using 2000 Census results and annual school enrollment data from 1989-90 to the most recent year (2006-07). Forecast births in this historic period are calibrated to actual births that occurred within the District, and net migration levels are calibrated to the net migration that was estimated between the 1990 and 2000 censuses.

Births to women residing within the specific boundaries of the District were estimated for the years 1990 to 2003, using individual birth records obtained through a data use agreement with the Oregon Center for Health Statistics. This data provides a closer fit than the annual data published by zip code, both spatially and chronologically, as births

can be grouped by school attendance area and by kindergarten cohort (September to August). For 2004 and beyond, births are forecast using fertility rates and female population by age group.

Chart 5 shows that kindergarten class sizes in the past decade have generally been larger than the number of births five years earlier. This shows that the HSD gains young children due to migration. Although we assume that the ratio of HSD kindergarten enrollment to kindergarten age population is 0.91, the ratio of HSD kindergarten to lagged births has ranged between 0.98 and 1.19 in recent years.

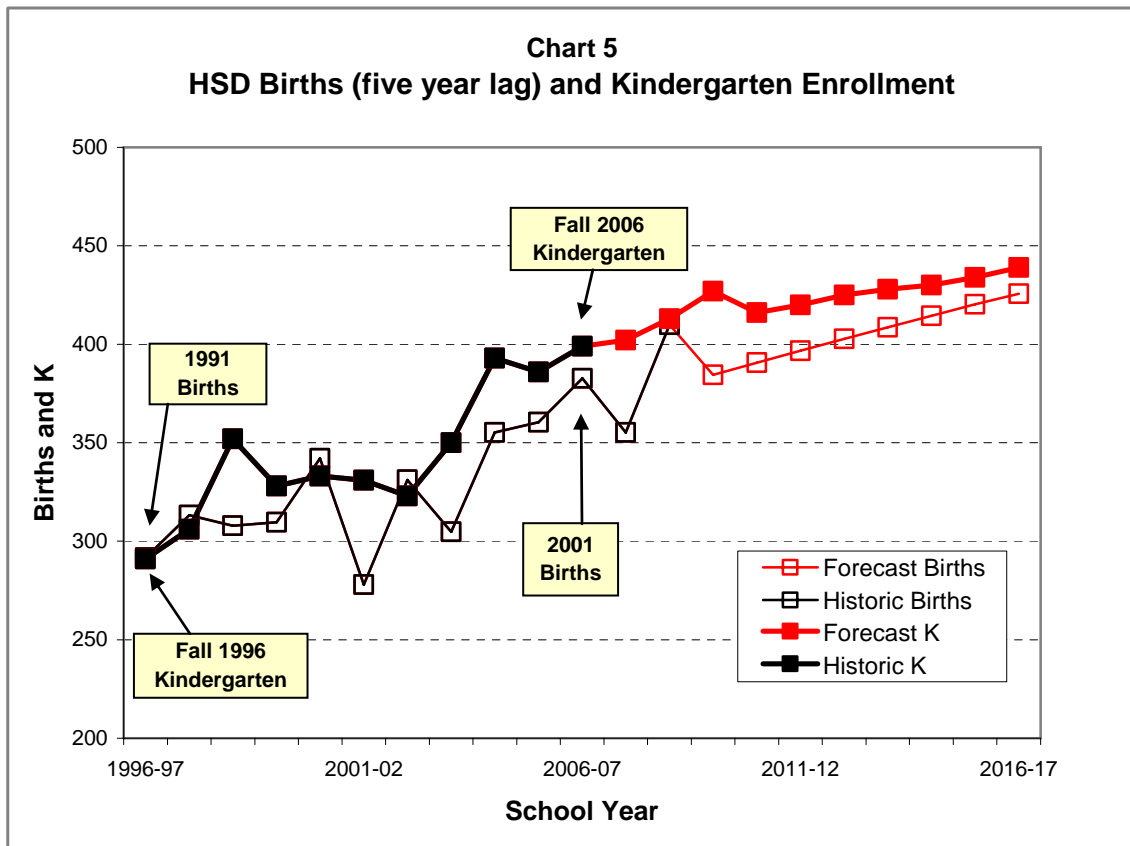


Table 16 on the next page contains grade level forecasts for the Hermiston School District for each year from 2007-08 to 2016-17. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12). Overall K-12 enrollment is forecast to increase by an average of 102 students annually through 2016-17.



In the first few years of the forecast, the biggest growth is at the elementary (K-5) level, due to the forecast of increasing kindergarten enrollment, positive net migration, and the “inverted pyramid” of current enrollment. Notice that in 2006-07 the largest elementary class is kindergarten, followed by 1<sup>st</sup> grade, then 2<sup>nd</sup> grade, and so on. The smallest class is currently in 5<sup>th</sup> grade. If kindergarten continues to increase as forecast, there will be substantial elementary enrollment growth due to larger kindergarten classes replacing smaller 5<sup>th</sup> grade classes in the District’s elementary schools. Middle school (6-8) enrollment grows relatively slowly through 2010 due to smaller classes passing through these grades, and high school (9-12) enrollment grows at a slower rate than in the past few years.

By the end of the forecast period, elementary enrollment growth begins to flatten as the decreasing fertility rates among women under age 30 result in slower growth in the number of births. Secondary enrollment growth dominates during the 2011-12 to 2016-17 period, reflecting the earlier elementary enrollment growth.

### ***Individual School Forecasts***

In addition to the district-wide enrollment forecasts, we have also prepared forecasts for individual schools under a scenario in which current boundaries and grade configurations remain constant. Of course, school districts typically respond to enrollment change in various ways including attendance area boundary changes, grade reconfiguration, opening or closing facilities, transporting students to schools outside their community, or other permanent or stopgap measures. However, the individual school forecasts depict what future enrollments might be if today’s facilities and programs were unchanged.

The methodology for the individual school forecasts relies on grade progression rates from the district-wide forecast, and the observed ratio of kindergarten and first grade enrollment to lagged births within the school’s attendance area. New kindergarten and first grade classes were forecast each year based on recent trends and historic and forecast births. Subsequent grades were forecast using the GPRs, which were adjusted to account

for expected future housing growth in individual school attendance areas. The final forecasts for individual schools are controlled to match the district-wide forecasts.

Each of the five elementary schools' attendance areas includes a cross section of urban and rural areas. Each includes some vacant residential land within the City of Hermiston and planned residential land within the Hermiston UGB in areas that have not yet been annexed. Four of the five areas (with the exception of West Park) include one or more subdivisions currently under development, and three of the areas (Rocky Heights, Sunset, and Desert View) contain subdivisions that have gained preliminary or final approval by the City but have not yet begun development.

Enrollment growth for individual elementary schools will depend on the timing and extent of new development within each area as well as the characteristics of new housing. Forecasts for individual schools depict a scenario that is consistent with the mid-range district-wide forecasts and incorporate what we know about current and planned residential development, but future land use decisions and development patterns may affect the outcome. In the next several years, Desert View is forecast to grow more than other elementary areas because it currently is gaining the most new single family housing. In the short run DVES also grows because its smallest classes in 2006-07 are in 4<sup>th</sup> and 5<sup>th</sup> grade. Highland Hills, Rocky Heights, and Sunset also grow significantly, and West Park's enrollment is relatively stable because it has little new housing growth, and is comprised mostly of areas that are already built up or are outside of the UGB.

Both of the District's middle schools and the High School are forecast to grow because of larger classes entering from feeder schools as well as the area's growth due to migration. At each of the middle schools, most of the forecast growth occurs after 2010-11. For the 10 year period, forecast growth rates range from 21 percent at Armand Larive to 25 percent at Hermiston High.

Table 17 on the next page presents the enrollment forecasts for each school. School profiles in Appendix B integrate the enrollment forecasts with information for the school's attendance area including births, 1990 and 2000 census data, housing development, and the school's building capacity.



### ***Enrollments Compared with Building Capacities***

HSD Assistant Superintendent of Instructional Services Mark Mulvihill prepared a capacity report in January 2007 after consulting previous studies and meeting with school principals. The report, prepared to assist the Long Range Facilities Planning Committee, includes building capacity figures for each of the District's schools using District-established acceptable limits on class sizes. Staffing ratios used in the capacity calculations are a little higher than current staffing ratios. The ratios used were 1:24 for K-2<sup>nd</sup>, 1:27 for 3<sup>rd</sup>-5<sup>th</sup>, and 1:30 for secondary school classes, reaching a 1:40 level in secondary school performance classes such as music and P.E. The building capacity figures include the assumption that support classrooms currently used for special education, music, etc. will remain as support classrooms.

We used the building capacities established in the January 2007 report to evaluate whether the District's schools would reach capacity under the mid-range enrollment forecast reported in this study, and if so, when. Table 18a compares current and forecast enrollment with building capacity, showing that some individual elementary schools may reach capacity by Fall 2008, and exceed capacity by Fall 2009. The District would reach its overall elementary capacity by Fall 2009 and exceed capacity by Fall 2010. Middle schools would reach capacity by Fall 2013, and exceed capacity by Fall 2014. The High School would have available capacity throughout the 10 year forecast horizon.

Capacity figures in Table 18a include modular buildings currently on the school sites. Because of concerns about the lifespan of the modular classrooms, the committee was interested in seeing a similar table that excludes the modular building capacities. Table 18b shows that without the modular buildings, elementary enrollment has already exceeded district-wide elementary capacity by about 200 students.





## FORECAST UNCERTAINTY

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By exploring recent population, housing, and enrollment trends in the Hermiston School District, linking population and enrollment forecasts in the demographic model, and producing district-wide enrollment forecasts by grade level, we have completed a study that we believe will be useful for a variety of long-range planning needs of the District.

The level of enrollment growth that the District has recently experienced is expected to continue for the foreseeable future as the region aggressively pursues economic development opportunities and home builders continue to plan new developments within the Hermiston UGB. In contrast to many other parts of Oregon where the population is aging and there are fewer births now than there were several years ago, Hermiston's large young adult population has resulted in an increase in births.

Although it seems that all of the stars are aligned for continued growth, we caution the users of this report on the nature of forecasting in general. Fertility and mortality rates are relatively stable, but migration can vary greatly in an uncertain future. The migration assumptions involve judgment and the expectation that future trends will fall neatly into place in alignment with current trends and external forecasts produced by other agencies. We know from past history that unforeseen events can affect these expectations.

Another uncertainty in the forecast involves the entry grades, kindergarten and 1<sup>st</sup> grade. The relationship between births and subsequent kindergarten and 1<sup>st</sup> grade enrollment five to six years later is affected by two factors — the migration of children during the years prior to enrolling in school, and the capture rate. The Fall 2006 kindergarten enrollment of 399 and 1<sup>st</sup> grade enrollment of 397 were the highest ever. The enrollment figures are closely related to the number of births several years earlier, but migration into and out of the District and the public school capture rates also help to determine class sizes. If there are sustained increases in kindergarten and 1<sup>st</sup> grade, they will influence District enrollment totals for years to come, since students have 13 years to progress

through the system. Conversely, if future kindergarten classes do not increase as forecast, overall K-12 enrollments will be lower than the mid-range forecast predicts.

In general, forecast error varies according to the size of the population being forecast and the length of the forecast horizon. The smaller the population and the longer the forecast period, the larger the error is likely to be. The Hermiston School District currently has a population of about 25,000, and has more jobs than workers within its boundaries, but is economically interdependent with a larger area that includes much of Umatilla and Morrow Counties and the Tri-Cities area in Washington State. The level of economic growth in the area as well as decisions that families make about where to live will affect school enrollment.

Because of the uncertainties of forecasts described in this section, it is important to monitor the results and update the forecast as needed. Even if the forecast proves to be reliable in the first few years, it is advisable to update the forecast as new information becomes available. New information may be school enrollment data, new census data, proposals for major new housing development, or land use changes that may result in housing or economic growth that differs significantly from recent and current trends.

## **APPENDIX A**

### **LOW AND HIGH RANGE ALTERNATE FORECASTS**



**Table A1**  
**Population by Age Group: *LOW RANGE* Forecast**  
**Hermiston School District, 1990 to 2020**

	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	1,368	1,701	2,045	2,122	421	25%
Age 5 to 9	1,478	1,814	2,213	2,149	335	18%
Age 10 to 14	1,429	1,691	1,990	2,206	515	30%
Age 15 to 17	808	1,052	1,251	1,423	371	35%
Age 18 to 19	483	690	787	958	268	39%
Age 20 to 24	975	1,539	1,705	1,859	320	21%
Age 25 to 29	1,135	1,547	1,838	1,921	374	24%
Age 30 to 34	1,343	1,475	1,868	1,822	347	24%
Age 35 to 39	1,406	1,616	1,864	1,942	326	20%
Age 40 to 44	1,184	1,648	1,711	1,926	278	17%
Age 45 to 49	993	1,626	1,777	1,925	299	18%
Age 50 to 54	759	1,320	1,724	1,715	395	30%
Age 55 to 59	672	1,080	1,660	1,742	662	61%
Age 60 to 64	696	797	1,301	1,634	837	105%
Age 65 to 69	673	622	970	1,469	847	136%
Age 70 to 74	564	605	685	1,103	498	82%
Age 75 to 79	429	489	458	714	225	46%
Age 80 to 84	256	376	398	438	62	16%
Age 85 and over	171	309	403	417	108	35%
<b>Total Population</b>	<b>16,822</b>	<b>21,997</b>	<b>26,648</b>	<b>29,484</b>	<b>7,487</b>	<b>34%</b>
Total age 5 to 17	3,715	4,557	5,454	5,778	1,221	27%
<i>share age 5 to 17</i>	22.1%	20.7%	20.5%	19.6%		

	1990-2000	2000-2010	2010-2020
<b>Population Change</b>	<b>5,175</b>	<b>4,651</b>	<b>2,837</b>
<i>Percent</i>	30.8%	21.1%	10.6%
<i>Average Annual</i>	2.7%	1.9%	1.0%

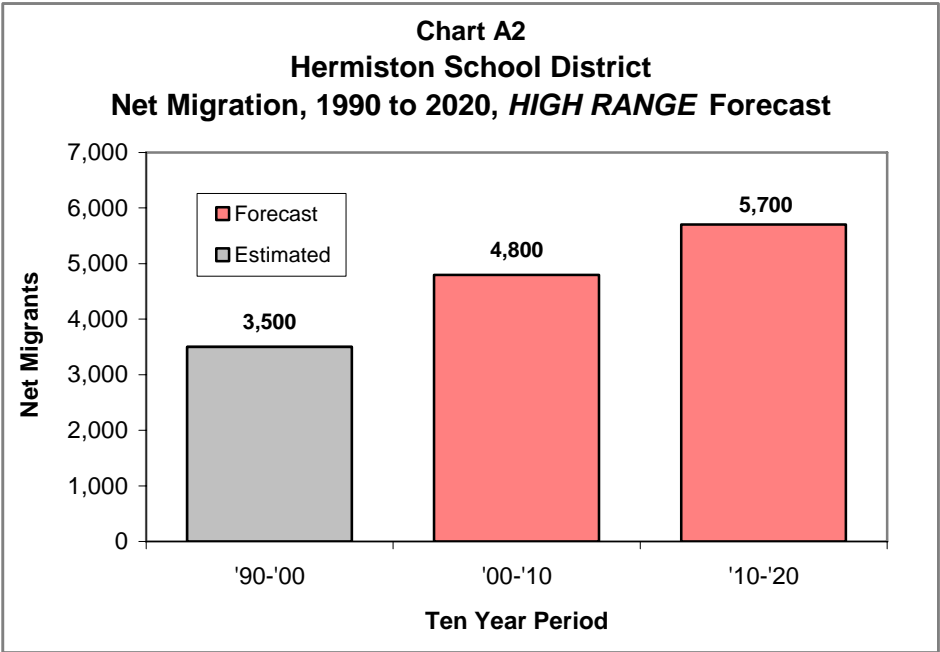
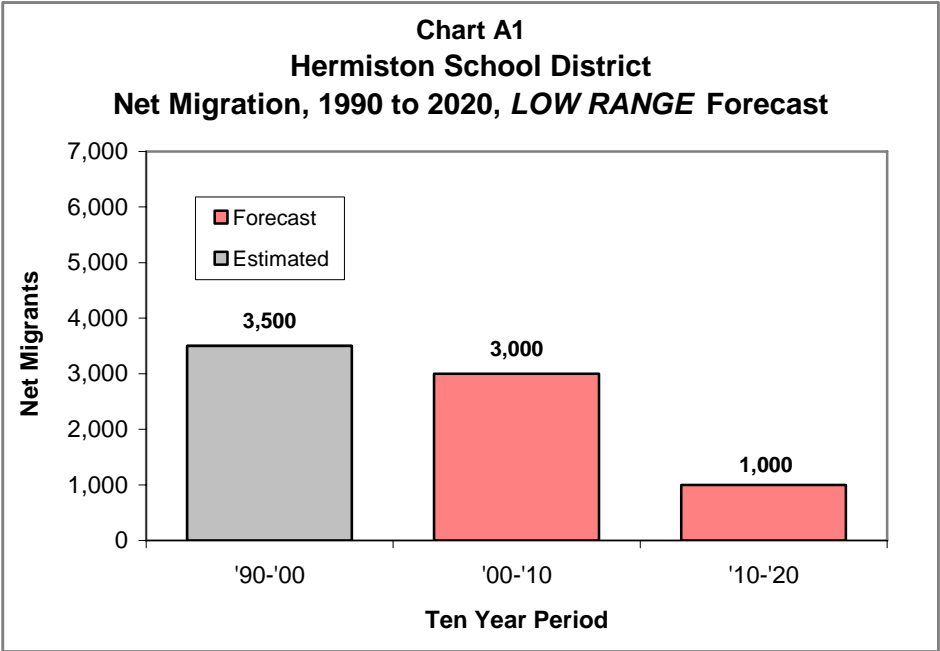
Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to HSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2010 and 2020.

**Table A2**  
**Population by Age Group: *HIGH RANGE* Forecast**  
**Hermiston School District, 1990 to 2020**

	1990 Census	2000 Census	2010 Forecast	2020 Forecast	2000 to 2020 Change	
					Number	Percent
Under Age 5	1,368	1,701	2,342	2,867	1,166	69%
Age 5 to 9	1,478	1,814	2,389	2,950	1,136	63%
Age 10 to 14	1,429	1,691	2,086	2,902	1,211	72%
Age 15 to 17	808	1,052	1,341	1,746	694	66%
Age 18 to 19	483	690	823	1,134	444	64%
Age 20 to 24	975	1,539	1,753	2,077	538	35%
Age 25 to 29	1,135	1,547	1,965	2,376	829	54%
Age 30 to 34	1,343	1,475	2,164	2,588	1,113	75%
Age 35 to 39	1,406	1,616	2,117	2,759	1,143	71%
Age 40 to 44	1,184	1,648	1,845	2,664	1,016	62%
Age 45 to 49	993	1,626	1,883	2,502	876	54%
Age 50 to 54	759	1,320	1,809	2,056	736	56%
Age 55 to 59	672	1,080	1,737	2,041	961	89%
Age 60 to 64	696	797	1,358	1,886	1,089	137%
Age 65 to 69	673	622	984	1,579	957	154%
Age 70 to 74	564	605	697	1,193	588	97%
Age 75 to 79	429	489	454	712	223	46%
Age 80 to 84	256	376	406	462	86	23%
Age 85 and over	171	309	413	445	136	44%
<b>Total Population</b>	<b>16,822</b>	<b>21,997</b>	<b>28,565</b>	<b>36,939</b>	<b>14,942</b>	<b>68%</b>
Total age 5 to 17	3,715	4,557	5,816	7,598	3,041	67%
<i>share age 5 to 17</i>	22.1%	20.7%	20.4%	20.6%		

	1990-2000	2000-2010	2010-2020
<b>Population Change</b>	<b>5,175</b>	<b>6,568</b>	<b>8,374</b>
<i>Percent</i>	30.8%	29.9%	29.3%
<i>Average Annual</i>	2.7%	2.6%	2.6%

Source: U.S. Census Bureau, 1990 and 2000 Censuses; data aggregated to HSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2010 and 2020.



**Table A3**  
**Total Fertility Rate Assumptions\***  
**HSD Population Forecasts**

<b>Year</b>	<b>LOW RANGE</b>	<b>MID RANGE</b>	<b>HIGH RANGE</b>
1990 estimate	2.43	2.43	2.43
2000 estimate	2.50	2.50	2.50
2010 forecast	2.31	2.38	2.50
2020 forecast	2.15	2.28	2.50

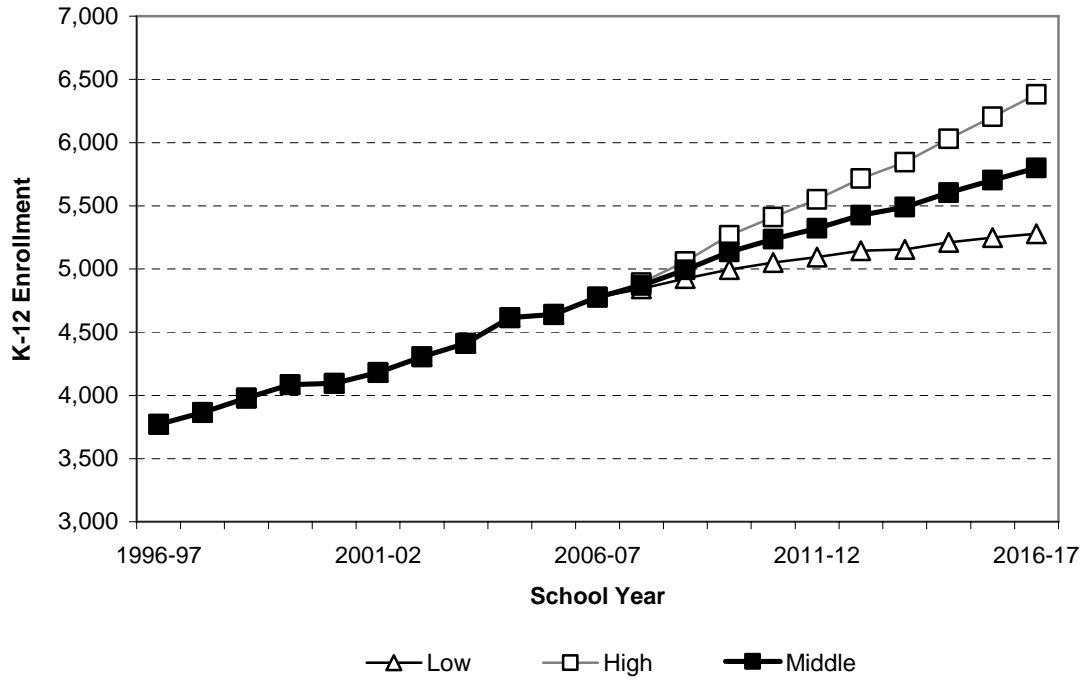
*\*The number of children that would be born to the average woman during her child-bearing years, based on age-specific fertility rates observed at a given time.*

**Table A4**  
**Average Grade Progression Rates\***  
**HSD Forecasts, 2006-07 to 2016-17**

<b>Grade Transition</b>	<b>LOW RANGE</b>	<b>MID RANGE</b>	<b>HIGH RANGE</b>
K-1	1.024	1.030	1.038
1-2	1.007	1.014	1.019
2-3	1.007	1.014	1.019
3-4	1.007	1.012	1.017
4-5	1.005	1.010	1.015
5-6	1.005	1.010	1.015
6-7	1.005	1.010	1.015
7-8	1.008	1.016	1.022
8-9	1.020	1.030	1.038
9-10	0.969	0.979	0.986
10-11	0.949	0.958	0.966
11-12	0.955	0.962	0.966

*\*Ratio of enrollment in an individual grade to enrollment in the previous grade the previous year. The figures are averages for the 10 year period calculated from the enrollment forecasts.*

**Chart A3**  
**HSD Alternate Enrollment Forecasts, 2007-08 to 2016-17**



**Table A5  
Hermiston School District, *LOW RANGE* Enrollment Forecasts, 2007-08 to 2016-17**

Grade	Actual	Forecast									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
<b>K</b>	399	400	405	409	392	390	387	386	385	386	387
<b>1</b>	397	411	410	413	419	401	399	397	395	394	395
<b>2</b>	385	401	413	411	416	422	404	402	400	398	397
<b>3</b>	370	389	403	414	414	419	425	407	405	403	401
<b>4</b>	365	373	391	404	417	417	422	428	410	408	406
<b>5</b>	350	368	375	392	406	419	419	424	430	412	410
<b>6</b>	405	353	370	376	394	408	421	421	426	432	414
<b>7</b>	359	408	355	371	378	396	410	423	423	428	434
<b>8</b>	377	363	411	356	374	381	399	413	427	427	432
<b>9</b>	369	386	370	416	363	382	389	407	421	436	436
<b>10</b>	337	359	374	356	403	352	370	377	395	408	423
<b>11</b>	325	321	340	353	338	383	334	351	358	375	387
<b>12</b>	338	312	306	323	337	323	366	319	335	342	358
<b>Total</b>	<b>4,776</b>	<b>4,844</b>	<b>4,923</b>	<b>4,994</b>	<b>5,051</b>	<b>5,093</b>	<b>5,145</b>	<b>5,155</b>	<b>5,210</b>	<b>5,249</b>	<b>5,280</b>
<i>Annual change</i>		68 1.4%	79 1.6%	71 1.4%	57 1.1%	42 0.8%	52 1.0%	10 0.2%	55 1.1%	39 0.7%	31 0.6%
<b>K-5</b>	2,266	2,342	2,397	2,443	2,464	2,468	2,456	2,444	2,425	2,401	2,396
<b>6-8</b>	1,141	1,124	1,136	1,103	1,146	1,185	1,230	1,257	1,276	1,287	1,280
<b>9-12</b>	1,369	1,378	1,390	1,448	1,441	1,440	1,459	1,454	1,509	1,561	1,604

	5 Year Growth: 2006-07 to 2011-12		5 Year Growth: 2011-02 to 2016-17		10 Year Growth: 2006-07 to 2016-17	
	Growth	Pct.	Growth	Pct.	Growth	Pct.
K-5	202	9%	-72	-3%	130	6%
6-8	44	4%	95	8%	139	12%
9-12	71	5%	164	11%	235	17%
<b>Total</b>	<b>317</b>	<b>7%</b>	<b>187</b>	<b>4%</b>	<b>504</b>	<b>11%</b>

Population Research Center, Portland State University, June 2007

**Table A6**  
**Hermiston School District, *HIGH RANGE* Enrollment Forecasts, 2007-08 to 2016-17**

Grade	Actual	Forecast									
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
<b>K</b>	399	406	422	447	444	457	469	478	485	493	504
<b>1</b>	397	415	423	441	463	460	473	485	495	502	511
<b>2</b>	385	404	424	433	449	472	468	482	494	504	511
<b>3</b>	370	392	413	434	441	457	481	477	491	503	513
<b>4</b>	365	376	400	422	441	448	464	489	485	499	511
<b>5</b>	350	370	382	407	428	447	454	471	496	492	506
<b>6</b>	405	355	376	389	413	434	453	460	478	503	499
<b>7</b>	359	411	361	383	394	419	440	459	466	485	510
<b>8</b>	377	367	421	371	391	402	428	449	469	476	495
<b>9</b>	369	391	382	440	385	405	417	444	465	486	493
<b>10</b>	337	364	387	379	433	379	399	411	437	458	479
<b>11</b>	325	325	353	376	366	418	366	385	396	421	442
<b>12</b>	338	314	315	343	363	353	403	353	372	382	407
<b>Total</b>	<b>4,776</b>	<b>4,890</b>	<b>5,059</b>	<b>5,265</b>	<b>5,411</b>	<b>5,551</b>	<b>5,715</b>	<b>5,843</b>	<b>6,029</b>	<b>6,204</b>	<b>6,381</b>
<i>Annual change</i>		114 2.4%	169 3.5%	206 4.1%	146 2.8%	140 2.6%	164 3.0%	128 2.2%	186 3.2%	175 2.9%	177 2.9%
<b>K-5</b>	2,266	2,363	2,464	2,584	2,666	2,741	2,809	2,882	2,946	2,993	3,056
<b>6-8</b>	1,141	1,133	1,158	1,143	1,198	1,255	1,321	1,368	1,413	1,464	1,504
<b>9-12</b>	1,369	1,394	1,437	1,538	1,547	1,555	1,585	1,593	1,670	1,747	1,821

	5 Year Growth: 2006-07 to 2011-12		5 Year Growth: 2011-02 to 2016-17		10 Year Growth: 2006-07 to 2016-17	
	Growth	Pct.	Growth	Pct.	Growth	Pct.
K-5	475	21%	315	11%	790	35%
6-8	114	10%	249	20%	363	32%
9-12	186	14%	266	17%	452	33%
<b>Total</b>	<b>775</b>	<b>16%</b>	<b>830</b>	<b>15%</b>	<b>1,605</b>	<b>34%</b>

Population Research Center, Portland State University, June 2007



**APPENDIX B**

**POPULATION, HOUSING, ENROLLMENT, AND CAPACITY FOR  
INDIVIDUAL SCHOOLS**

