DECISIONINSITE

Intelligently Planning the Future

Annual Enrollment Projection Report

ANALYSIS OF ENROLLMENT PROJECTIONS

Fall 2010

Prepared for:

Del Mar Union School District

Prepared by:

DECISION INSITE
Intelligently Planning the Future

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Submitted: Jan 16, 2010

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Del Mar Union School District

Executive Summary

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DecisionInsite is pleased to present this report of findings to the Board of Education and Executive Staff of Del Mar Union School District

Both a Moderate and a Conservative projection have been generated for the district. Conservative projections are more suitable for budget planning purposes; the Moderate projections more suitable for facilities planning purposes.

Kindergarten Enrollment

In general, Kindergarten enrollment over the past three years has been relatively stable. The data also show that the difference between the graduating cohort and the incoming cohort has been relatively stable.

Note that both studies project a significant increase at the Kindergarten level in the ten year future.

Cohort Patterns

A typical student cohort ages from grade to grade relatively unchanged from the previous year. Historically, 3 cohorts show more than a 5% annual change.

New Housing Development

Approximately 2800 new residential units are projected to be occupied over the next 10 years.

Over the period of years during which these units will be occupied, the annual impact in any given year, based on the Moderate Study, is estimated in peak years to be 200 students.

District-wide Enrollment Projection

Both projections forecast a significant increase across the 10 year period based upon the historical enrollment trends and projected new residential development.

More Information

A richer and more comprehensive review of these two studies is contained in the Final Report accompanying this Executive Summary. A wealth of more detailed information and analysis regarding these two studies is quickly and easily accessible online.

Respectfully Prepared and Submitted by:
The DecisionInsite Team
January 16, 2010

Del Mar Union School District

District Enrollment Projections

Recent Changes in Enrollment

Familiarity with recent historical enrollment patterns and trends establishes the foundation for understanding projected enrollment.

Percentages in the table below compare the current year enrollment to that of three years ago.

4 Year History Change	
Kindergarten	120%
Gr K-6	113%
District	113%

Figure: 1

Kindergarten Impact

Kindergarten enrollment is often the most significant driver of overall future district-wide enrollment. A trend at Kindergarten from year to year, or a trend in the difference between the district's graduating cohort in a given year and the Kindergarten cohort the subsequent year, will eventually be reflected in the total district enrollment count.

In general, Kindergarten enrollment over the past three years has been relatively stable. The data in the table below also show that the difference between the graduating cohort and the incoming cohort has been relatively stable.

[More details: Enrollment History > District-wide > History Years Enrollment]

Percent of Previous Year			
	2007	2008	2009
Kindergarten	104%	108%	107%
Grade 6 to K'tn	107%	106%	102%
Total K-6	106%	103%	104%

Figure: 2

Live Birth Trends

Live birth trends have an impact in large geographies, and on long range projections. However, in smaller areas of study, such as a school district, population mobility is often a mitigating if not an overriding factor, thereby reducing the effectiveness of live births as a predictor of enrollment.

In projecting Kindergarten enrollment, live births are allowed to have a positive impact on the early projected years if there is an increasing trend in live births over several recent years. The average percent change in live births over the last five years in zip codes served by the district is 101%.

The chart below displays in the years shown, cumulative live births in zip codes served by the district. (Note that zip codes are not typically conterminous with district boundaries.) The Kindergarten bar on the graph shows the number of Kindergarten students enrolled 5 years later.

[More details: Enrollment History > District-wide]

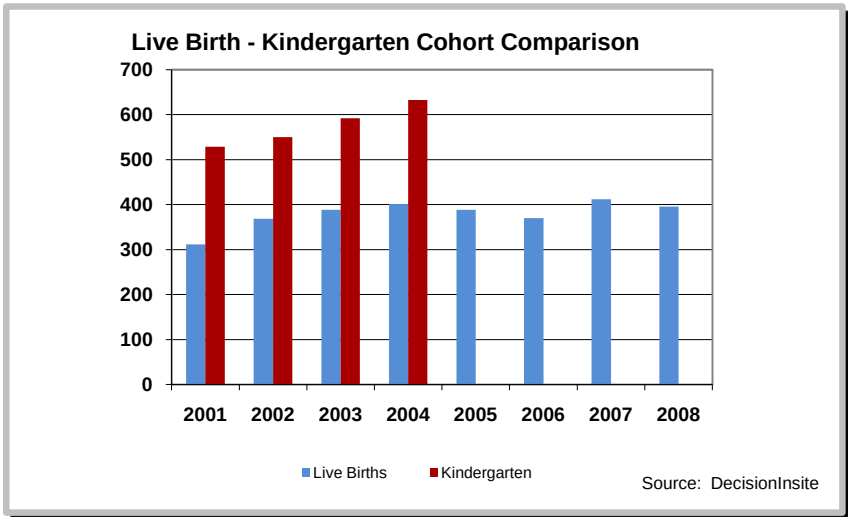

Figure: 3

The Live Birth Enrollment Rate is the percentage of live births in zip codes served by the district that enroll as Kindergarten students five years later. The district's average Live Birth Enrollment Rate for the last 5 years is 157%.

Cohort Impact

A typical student cohort ages from grade to grade relatively unchanged from the previous year. By contrast, the cohort matriculating from Kindergarten to Grade 1 is a common example of a cohort increase, typically attributable to students returning from a private school Kindergarten.

In the following table, cohort changes with more than a 2% variance from static are marked accordingly. Those with more than a 5% changed are marked as 'Significant'.

Average Cohort Change Past Three Years			
Cohort	**Percent**	**+/-**	**Significant**
K > 1	106%	++++	SSSS
1 > 2	105%	++++	SSSS
2 > 3	105%	++++	SSSS
3 > 4	104%	++++	
4 > 5	102%	++++	
5 > 6	103%	++++	

Figure: 4

Incoming Out-of-District Transfer Impact

The number of students served from outside the district boundaries can impact enrollment. It is a factor over which the district may have some control. For the past two years, the number of out-of-district students served annually has been approximately 30, and has been declining.

[More details: Enrollment History > District-wide > Out of District]

Key Variables in Projecting District Enrollment

Both a Moderate and a Conservative projection have been generated for the district. The Conservative projections are more suitable for budget planning purposes; the Moderate projections more suitable for facilities planning purposes.

As a matter of standard practice, DecisionInsite does not typically include in the Enrollment Projections specialized schools or programs such as Home and Hospital Programs, Community Day Schools or Independent Study Programs. Our work is focused on projecting grade level enrollment for typical schools that are reported to the state.

The variables that distinguish the Conservative projection from the Moderate are described in the table below.

Variable	Conservative Study	Moderate Study
Kindergarten Enrollment Change	3 Year History	4 Year History
Cohort Change	3 Year History	4 Year History
K Enrollment Change Cap	Restricts increasing Kindergarten trends	Constrains upward Kindergarten trends
K Enrollment Change Floor	Allows downward Kindergarten trends	Limits downward Kindergarten trends
Dwelling Units	Shifts developer(s) calendar	Assumes developer(s) phasing calendar
Student Generation Rates	Typical of recent history	Typical of recent history
Incoming Out-of-District Transfers	Assumes increasing rate	Assumes increasing rate

Figure: 5

Impact of Projected New Dwelling Units

Projected Occupancy

Approximately 2800 new residential units are projected to be occupied over the next 10 years. The tables below show the mix of proposed units across the three dwelling unit types. The Moderate table summarizes the plans described by developers. The Conservative table estimates a more likely scenario based on anticipated market conditions.

[More details: Residential > Reports > Proposed Dwelling Units]

New Dwelling Units Projected to be Occupied by Year (Moderate)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Multi-family		73	50	42	100	219	220	208	119	
Attached			6							
Detached	54	166	35	4	360	385	376	379	31	28
Totals:	**54**	**239**	**91**	**46**	**460**	**604**	**596**	**587**	**150**	**28**

Figure: 6

New Dwelling Units Projected to be Occupied by Year (Conservative)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Multi-family		22	29	37	87	147	136	154	176	176
Attached			2	3	1					
Detached	11	51	72	72	223	198	231	272	311	311
Totals:	**11**	**73**	**103**	**112**	**311**	**345**	**367**	**426**	**487**	**487**

Figure: 7

The graph below depicts visually the differences between the phasing projected in the Moderate and Conservative studies.

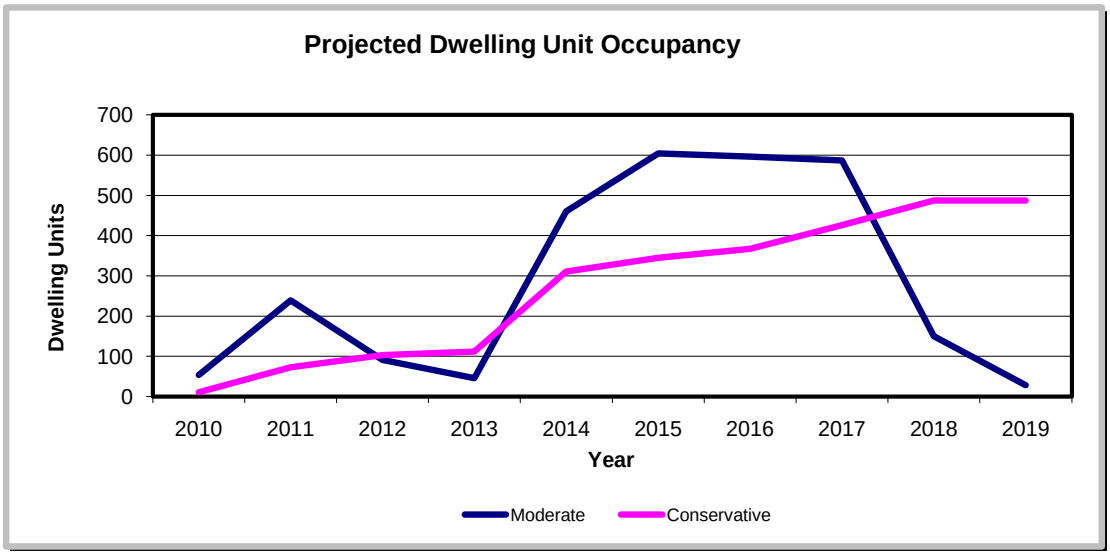

Figure: 8

Students Generated

Over the period of years during which these units will be occupied, the impact, based on the Moderate Study, is shown in the table below. The "Annual" row projects the number of students new to the district from these units, in a given year. The "Aggregate" row projects the accumulated increase in students served by the district through the year indicated. The table in Figure 9 reflects the students generated using the Conservative estimate of projected Dwelling Units.

Students Generated by Residential Development (Moderate)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Aggregate	0	129	157	162	340	541	742	940	967	976
Annual	32	97	28	5	178	201	201	198	27	9

Figure: 9

Conservative Students Generated as a Percent of Moderate										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Aggregate	22%	27%	51%	75%	71%	64%	62%	64%	78%	93%

Figure: 10

Student Generation Rates

Moderate student generation rates are typical of students enrolled from existing developments of similar product type. Conservative student generation rates, if different, are designed to anticipate a diminution in family size.

[More details: Residential > Reports > Student Generation Rates]

A complete set of reports regarding new residential development is available online in the DI System under the 'Residential' menu. The Reports sub-menu includes Proposed Dwelling Units, Students Generated by new development and by studyblock, Student Generation Rates, and reports comparing the Conservative and Moderate versions. Specialized users have access to view the district map displaying polygons that represent each of the dwelling unit projects, and the key data related to each project.

All projections are based on assumptions, and when read or shared are best prefaced with the phrase, "Based on these assumptions….", or "Based on these historical trends…." Particularly for projections more than 5 years out, "Enrollment Trend" is a far more accurate descriptor.

Projected Enrollment Changes by Level

The tables below display the five year district-wide projections by grade level, and allow a comparison to enrollment in the current year.

Conservative 5 Year District-wide Projection by Grade Level

Grade	2009	2010	2011	2012	2013	2014
K	633	630	631	635	641	644
1	618	644	644	648	652	669
2	611	628	658	660	664	674
3	609	627	647	680	682	689
4	620	617	639	660	694	703
5	649	622	622	646	669	711
6	593	654	629	632	656	684
Subtotals:	**4333**	**4422**	**4470**	**4561**	**4658**	**4774**
Pct Chg:	**3.7%**	**2.1%**	**1.1%**	**2.0%**	**2.1%**	**2.5%**

Figure: 11

Moderate 5 Year District-wide Projection by Grade Level

Grade	2009	2010	2011	2012	2013	2014
K	633	650	674	684	688	706
1	618	652	680	692	700	732
2	611	642	687	705	715	738
3	609	640	679	716	732	755
4	620	628	670	699	735	768
5	649	630	649	681	708	763
6	593	662	651	662	693	735
Subtotals:	**4333**	**4505**	**4690**	**4839**	**4971**	**5198**
Pct Chg:	**3.7%**	**4.0%**	**4.1%**	**3.2%**	**2.7%**	**4.6%**

Figure: 12

As the following graph illustrates, both projections forecast a significant increase across the 10 year period based upon the historical enrollment trends and projected new residential development.

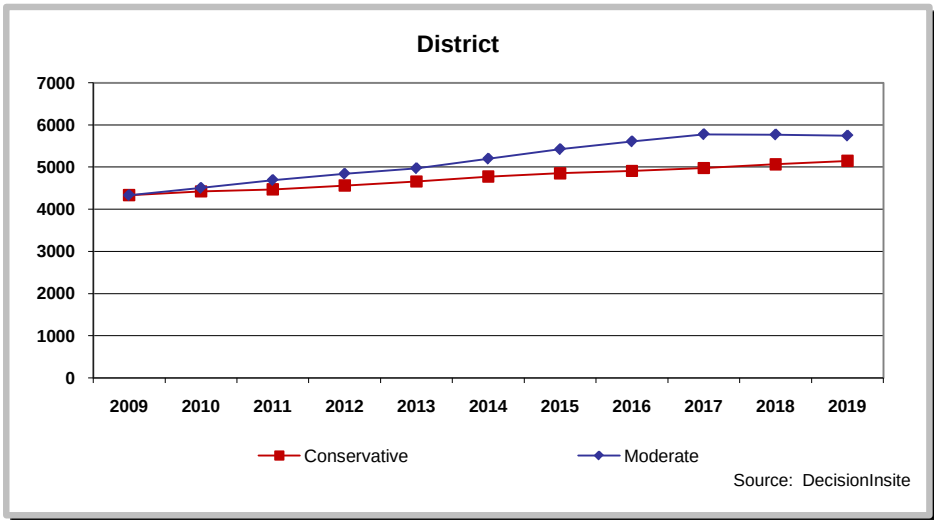

Figure: 13

The tables below compare the Conservative and Moderate enrollment projections by key grade level groupings.

Projected changes in enrollment at Kindergarten or lower grade level groupings will eventually impact total district enrollment.

5 Year Enrollment Trends: Moderate and Conservative Compared

Change by Level	Conservative	Moderate
Kindergarten Only	644	706
Change	102%	112%
District	4774	5198
Change	110%	120%

Figure: 14

Note that considered together; both studies project an increase at the Kindergarten level.

The table below compares the ten year projections. In the ten year future at Kindergarten, both studies, viewed together, project a significant increase.

10 Year Enrollment Trends: Moderate and Conservative Compared

Change by Level	Conservative	Moderate
Kindergarten Only	679	763
Change	107%	121%
District	5147	5743
Change	119%	133%

Figure: 15

Summary of District Projections by Year

The complete district-wide projection table for each study is available online. Click on the Client Login tab at: http://www.decisioninsite.com. Each district-wide projection has its corresponding set of individual School Projections.

The tables below present a more detailed annual view of projected changes by grade level clusters for both the Moderate and Conservative Projections.

The "Pct Previous Year" row represents the percent of the previous year's enrollment in each grade cluster that is projected in the subsequent year.

The "Five Year Change" row represents the percent change projected over the enrollment five years prior.

Conservative Projection

Change by Level	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Kindergarten Only	633	630	631	635	641	644	647	651	659	669	679
Pct Previous Year	107%	100%	Change	107%	101%	100%	100%	101%	101%	102%	101%
Five Year Change						102%					105%
District	4333	4422	Change	119%	4658	4774	4854	4908	4978	5066	5147
Pct Previous Year	104%	102%	0%	0%	102%	102%	102%	101%	101%	102%	102%
Five Year Change						110%					108%

NOTE: Gray column most recent history year.

Figure: 16

Moderate Projection

Change by Level	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Kindergarten Only	633	650	674	684	688	706	728	749	770	767	763
Pct Previous Year	107%	103%	0%	0%	101%	103%	103%	103%	103%	100%	99%
Five Year Change						112%					108%
District	4333	4505	4690	4839	4971	5198	5422	5606	5776	5768	5743
Pct Previous Year	104%	104%	104%	103%	103%	105%	104%	103%	103%	100%	100%
Five Year Change						120%					110%

NOTE: Gray column most recent history year.

Figure: 17

Grade Level Profile Comparison

Another view of grade level enrollment can be seen in the chart below. The current grade level enrollment profile is compared with the projected grade level profile in the five and ten year future.

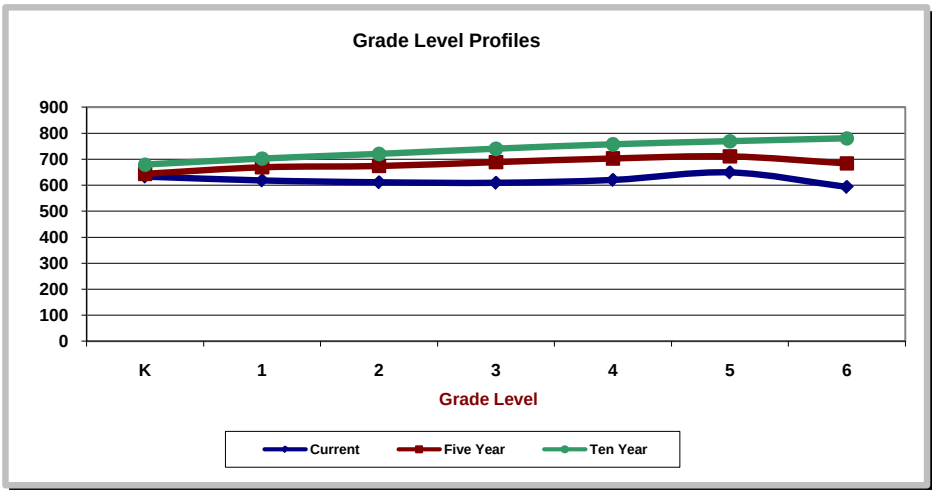

Figure: 18

Projecting School Enrollment

School projections are primarily a function of the proportion of district students who enroll at a given school, modified by intra-district transfers within a given school level that may occur subsequent to initial enrollment, and augmented by inter-district transfer students.

School Draw Impact

A draw rate is the percentage of students who enroll at a particular grade level in a given school from a specified geographic area. Open enrollment among district schools is projected using this concept. Except for changes in school boundaries or other changes in policy, historical draw rates from a given geographic area to a specific school (including out-of-district students) are assumed in the projections.

Intra-district Transfers

Transfers within the district are incorporated into the projections in order to anticipate the movement of students from one district school to another within the same level, e.g., transfer from a neighborhood school to a special school. Recent historical transfer patterns are typically assumed in the projections.

[More details: Enrollment History > All Schools > Open Enrollment]

Inter-district Transfers

Transfers into the district by out-of-district students, sometimes referred to as ‘permit students’, are an integral part of the district and school projections. Recent historical transfer patterns are typically assumed in the projections.

[More details: Enrollment History > District-wide > Out of District]

Individual School Projection Tables

The complete set of individual school projection tables for each study is available on line.

[More details: Projections > All Schools > Projections]

MySchoolLocator

MySchoolLocator is a web-based service accessible to DecisionInsite clients. This service allows Internet users to enter a residential address, and find out which district schools are assigned to serve them. Access is by the District's web site.

The URL for the next school year is: **http://di.decisioninsite.com/Locator.aspx?StudyID=45346**

Specialized district users have access to customize the messages seen by those accessing the MySchoolLocator.

NOTE: All projections are based on assumptions, and when read or shared are best prefaced with the phrase, “Based on these assumptions….”, or “Based on these historical trends….” Particularly for projections more than 5 years out, “Enrollment Trend” is a far more accurate descriptor.

Impact of the Projections on School Capacity

Facility challenges, if any, may manifest differently in the Moderate or Conservative projections. Because school capacity data has not yet been entered into the system, all schools are shown as exceeding capacity.

[More details: Projections > All Schools > Over Capacity]

The table below lists up to five schools that are projected to experience the most change in enrollment in the 5 year future based on the Conservative projection.

[More details: Projections > All Schools >Ten Percent Change]

School	Five Year Percent Change	Ten Year Percent Change
ASHLEY FALL	-30%	-35%
OCEAN AIR	27%	19%
SYCAMORE RIDGE	24%	159%
TORREY HILLS	17%	11%
SAGE CANYON	13%	16%

Figure: 19

Impact of SDC Students on Capacity

Relative to the impact of SDC students on school capacity, note that SDC students are integrated with the grade level student counts.

Analyzing/Studying/Reviewing the Enrollment Projections

The projections of district and school enrollment are based on a complex mix of historical data, the projection of recent trends, and specific assumptions regarding the future. At DecisionInsite, we strongly encourage our clients to actively engage with the data with the aim of better understanding, further refining, and using the results to inform decisions about to be made. We believe increased effectiveness for both the district and DecisionInsite comes with increased and welcome dialogue.

Graphs or tables may be copied from the PDF version of this document using the Snapshot Tool inside PDF Reader. Please do not hesitate to contact DecisionInsite regarding any questions or suggestions that may arise regarding these studies.

Respectfully Prepared and Submitted by:
The DecisionInsite Team
January 16, 2010

Appendix

Assumptions and Methodology

Three major factors drive district-wide student enrollment projections. These include:

1. recent kindergarten enrollment trends, modified by live birth data, if applicable,
2. changes in the grade level cohorts of students served as they age through, and
3. changes in the number of residential units within the district

District-wide projections are disaggregated to school projections based on the historical patterns of:

1. the rates at which each school draws enrollment from various sections of the district, and
2. the pattern of transfers within the district at a given level from one school to another.

District Projections

Studyblocks

For demographic analysis and enrollment projections, the district is divided into studyblocks. A studyblock is a custom unit of geography created by DecisionInsite for the purpose of generating reliable projections. They are based either upon Census Bureau blockgroups or census tracts or some combination thereof. A studyblock serves as the basis for the analysis of students served by the district and by schools. The objective is to do analysis with a small enough geographic unit to sense small area changes but large enough to allow for reliable projection. Studyblocks typically encompass 500–1000 students.

Kindergarten Enrollment

The projected Kindergarten enrollment is a key variable in projecting K–12 enrollment. The base Kindergarten projection is determined by the trend of Kindergartners served in each studyblock in the previous 3 or 4 years. Depending on the circumstances, a growth trend in Kindergarten enrollment may be capped. Steep straight-line trends are mathematically moderated to avoid unrealistic results.

School Capacities

School capacities provided by the district are compared to projected enrollments. Districts are invited to calculate school capacities in a manner that best serves the enrollment projection environment, and enter them into the DI System.

A Special Day Class (SDC) student at the elementary level is calculated by default as requiring 1 seat. This value, at district option, may be changed to 3, on the assumption that a class of 10 SDC students will occupy a typical classroom.

Students in the Projections

Enrollment projections are limited to typical K–12 students. SDC students are projected as a stable percentage of the typical population unless all SDC students are mainstreamed. Excluded from the projections are students enrolled in Pre-Kindergarten, Adult High School, Home School, Adult Ed, Independent Study programs and other special schools.

Attendance Boundaries

Attendance boundaries are assumed to remain constant, unless otherwise noted by the district.

Closed Schools

Opportunities for open enrollment (intra-district) are assumed to remain unchanged, unless otherwise noted by the district.

Inter-district Enrollment

Students enrolled from other school districts are treated in aggregate in separate studyblocks. Students in Kindergarten, grades 1-3, and the initial grade at each level, are projected only to the extent they exist in recent years. Students enrolled in other grade level cohorts are aged through to the highest grade at each level. These defaults may be modified at district request.

Cohort Percent Change

Cohort percentage changes are calculated in order to assure sensitivity to perennial changes in students served by the district as they age from one grade level to the next. If every cohort were stable as it ages, the cohort percent change, from one grade to the next in each studyblock, would be calculated as 100%. For each studyblock, a cohort weighted average percent change over a defined number of years is calculated based on the change in the enrollment served as it ages from the previous grade level.

Average cohort percentages above 100% might, for example, reflect students returning from private schools. Cohort percentages below 100% might reflect drop-outs.

Growth studyblocks are those showing unusually high increases in elementary grade enrollment and/or cohort percent change in recent years—due, typically, to new housing development. Once growth studyblocks are identified, their default cohort percent change rate is set to 100% so as not to over-project new residential growth. By default, growth is not predicted to continue unless new occupied dwelling units are projected.

Dwelling Unit Impact

The predicted impact of new dwelling units on school enrollment is based on three factors: 1) new dwelling units, 2) the student generation rate for each unit type, and 3) the grade level distribution of newly generated students.

1. Dwelling Units

New dwelling units are categorized into 3 housing types: Single Family Detached, Single Family Attached, and Multifamily. Developers and builders are contacted for information relative to their plans for occupancy of new dwelling units.

2. Student Generation

Student generation rates are determined for each product type for each level: elementary, middle school and high school. Student generation rates are based on similar products types where such exist; otherwise, a default generation rate is used.

3. Grade Level Distribution

For each level, students generated by new dwelling units are distributed across grade levels. These percentages are based on historical patterns where they exist; otherwise, default percentages are used.

School Projections

Projecting enrollment at the school level is based on the concept of a school draw rate, i.e., the percent of students from a given studyblock who enroll in a given school at its lowest grade. Draw rates reflect the impact of open enrollment within a district. For example, if one-half the sixth-graders from a given studyblock enroll in a particular 6–8 middle school, that school has a draw rate of 50% from that studyblock.

The draw rate for the most recent year is applied by default to the projected district enrollment for that grade from a given studyblock. The draw rate ages with the cohort. In this way, if the underlying cohort changes, the number of students enrolled at the school will change accordingly.

Draw rates can be adjusted if necessary. Manipulation of draw rates is used, for example, to project the impact of changes in attendance boundaries, or the impact of closing a school to open enrollment.

Intra-district Transfers

Grade-level transfers within or across schools are included in the projections to accommodate fluctuations like retention, transfer to continuation school, or any other special programs a district may offer that result in students changing schools at other than the typical grade configuration shifts. Transfers are calculated by applying the percent of a grade level population at one school that is transferred in the following year to another school, or continued at the same grade level at a given school in the following year.

Caveats on Projections and Methodology

On Projections

Enrollment projections are based upon two critical factors: the student and school data from the school district and the mathematical formulas that are applied to those data. Projections fundamentally look at recent history as reflected in the student data and assume that past patterns and trends will continue into the future. The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year.

DecisionInsite takes great care in preparing a district's projections. A range of unpredicted anomalies, however, can cause reality to vary from the historical patterns. These include, but are not limited to, rapid changes in the economy, mortgage interest rates, the housing market, the job market, residential development plans, rental rates, etc. Anomalous changes that occur between the last set of student data and the first projection are not reflected in the projections unless the district works with DecisionInsite to amend the projections.

In the projections, calculations are mathematically precise. Each result is rounded to a whole number for ease of reading. This rounding sometimes results in the displayed whole numbers in a column not adding exactly to the displayed total of the column. This phenomenon, which is a result of rounding and not of any inaccuracy in the calculations, occurs both in the enrollment projections and in the community demographics.

On Student Data

DecisionInsite obtains historical student data files from the district. To the extent that the student data files are internally inconsistent from year to year, or the count of students in the files does not reflect the count of actual enrollees, errors are introduced to the projection calculations. For optimum results, the student data files must also consistently capture the same categories of students annually.

The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year. It is important that the student files obtained from the district are close to a common date each year, typically near the beginning of the school year. The snapshot of historical data near the beginning of the school year is best suited to our goal of projecting enrollment for the beginning of subsequent school years. To the extent the historical student data provided is not at one year intervals, or is not at a common date near the beginning of the school year, projections may reflect monthly fluctuations in enrollment that will diminish the accuracy of the projections.

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