
# Douglas County Schools

## Facility Master Plan
## (version 3)
## March 29, 2010

MGT of America, Inc. | Stafford King Wiese

MGT OF AMERICA, INC.

STAFFORD KING WIESE ARCHITECTS




# ACKNOWLEDGEMENTS

MGT of America, Inc. would like to thank the members of the Douglas County Board of Trustees, the Facility Task Force, the superintendent, district administrators, staff, parents, and the community. Without their foresight, cooperation, and support, this project would not have been successful. Special thanks to Holly Luna and Gina Steinman who were invaluable in providing support to MGT during this process.

This effort is dedicated to improving the educational opportunities for all the students throughout the school district.

***Douglas County Board of Trustees***

Cynthia Trigg

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# SECTION 1.0: BACKGROUND

## VISION, CORE VALUES & DISTRICT STRATEGIES

The Douglas County School District (DCSD) has a very long and proud tradition of providing quality educational programs and services to its students. The school district serves the communities of Gardnerville, Minden, and South Lake Tahoe in the Carson Valley and Lake Tahoe regions. The district has a strategic plan which was adopted in 1994 and is updated on an annual basis. The vision for the district is articulated within this document as follows:

***Vision Statement***

> *The Douglas County School District, in partnership with parents and community, will ensure that all students are competent in basic skill areas, demonstrate continuous achievement toward educational excellence and reach their highest potential as productive, responsible citizens.*

***Core Beliefs***

The board also identified its core beliefs that define the educational culture of the district. The core beliefs connect to facilities in that appropriately designed schools significantly enhance the educational opportunities for Douglas children.

*As a District, we believe that...*

*All children can learn and we can teach all children.*

*Communication is critical for understanding and success.*

*Education provides the foundation for a lifetime of learning in an ever-changing world.*

*Diversity and individual differences have value and are to be respected.*

*High expectations for all individuals promote achievement.*

*All students deserve instruction that promotes problem solving, reasoning, questioning, accessing, and applying knowledge.*

*The education of children is best achieved through a cooperative effort of the home, school, and community.*

*Respect for self and others is necessary in an educational environment.*

*All students and staff have the right to a safe, healthy, and supportive learning environment.*

*Education enables students to recognize and strive for higher standards.*

### *District Strategies*

The strategies for the district's strategic plan include the following:

- Implement measurable, observable competencies and common assessments for continual improvement in student achievement throughout the core curriculum.
- Provide a variety of effective educational opportunities and interventions for students who need assistance in meeting graduation requirements and provide acceleration opportunities for students to reach their highest potential.
- Provide students instruction and experiences in career awareness, exploration, and preparation.

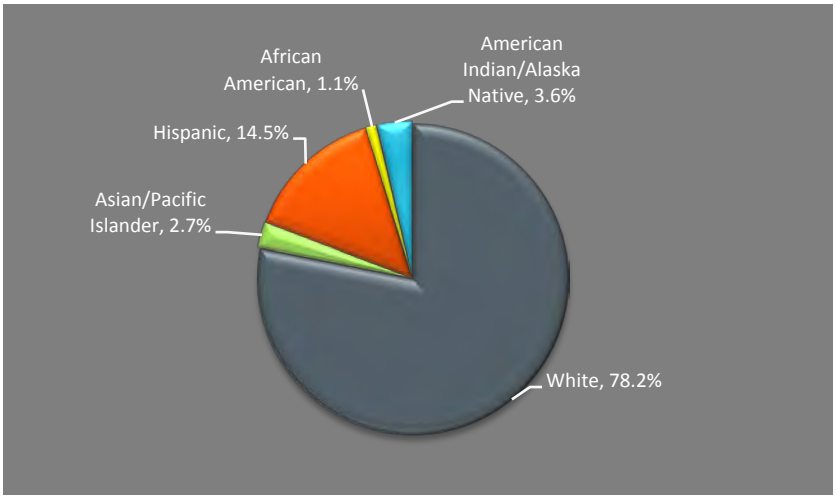
## DISTRICT PROFILE

Douglas County School District is located in western Nevada and borders the state of California. The district covers 751 square miles and a population of approximately 52,386 residents. There are seven elementary schools, two middle schools, one high school, one 7-12 school, an alternative education program (ASPIRE), and one school for adjudicated youth.

### *Student Demographics*

Student enrollment in the district is predominantly Caucasian (78.2%), as illustrated in *Exhibit 1-1*. The number of students in the Hispanic and other subgroups is large enough so that the district needs to meet the federal No Child Left Behind achievement standards. The state of Nevada has a very different ratio of students than DCSD. The state-wide average is 43.1 percent White, 11.1 percent African American, 36.4 percent Hispanic, 7.9 percent Asian, and 1.5 percent Native American.

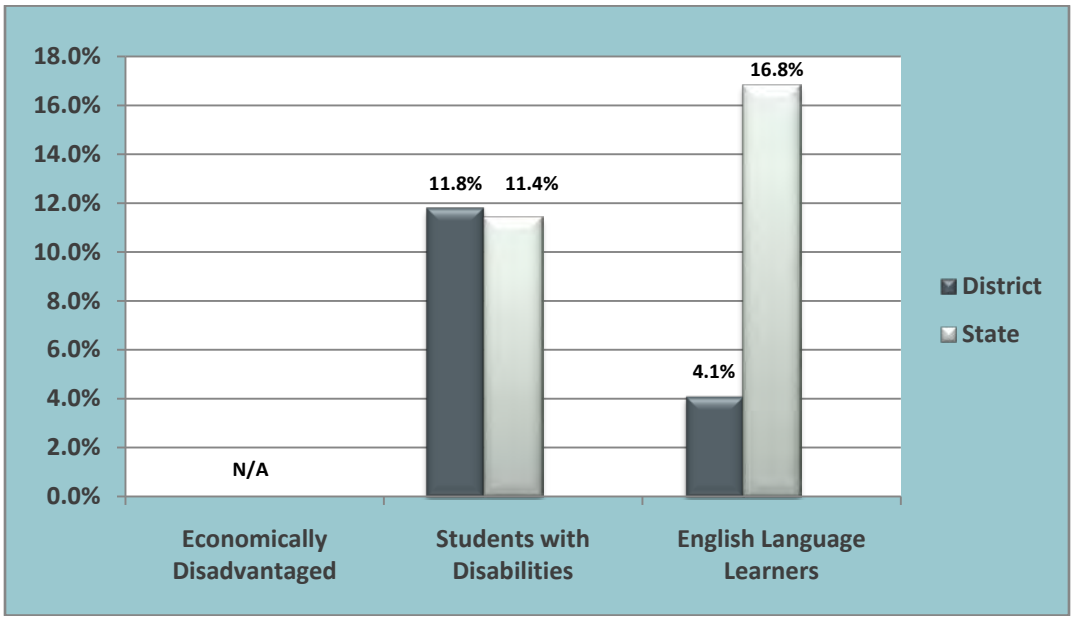
**Exhibit 1-1**
**Douglas County School District**
**Student Population Distribution by Ethnicity**




Source: Douglas County School District, 2008-2009 DIP.

The district supports the learning needs of all students, but provides additional support for students with special needs. As shown in *Exhibit 1-2*, the percentage of students identified as "English Language Learners" is significantly lower than the state average of 16.8 percent. Douglas County School District has an equal percentage of students with disabilities compared to the state. Almost twelve percent of the students qualify for some additional support through the special education department.

**Exhibit 1-2**
**Douglas County School District**
**Enrollment of Students with Special Needs**



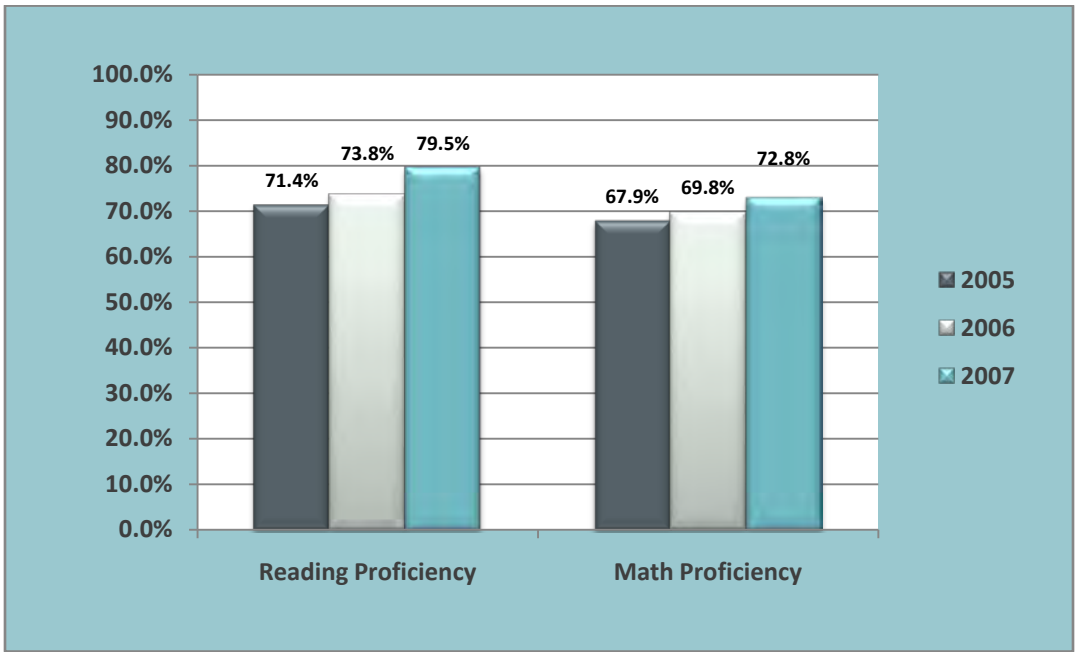

Source: Schooldatadirect.com, 2009.

### *Student Achievement*

Student achievement in DCSD is measured by annual assessments in communications arts (reading and writing) and mathematics, as required by the Nevada Department of Education, in compliance with the federal No Child Left Behind Act ("NCLB") of 2001. Students in grades 3–12 must participate in the assessments and the district must track and report their performance to the public using a report card that allows comparison with other districts in the state. NCLB requires that districts make *Adequate Yearly Progress* (AYP) towards federally-approved goals in three areas – *Performance* (measured by the percent of students meeting standards on the state assessments), *Participation* (measured by the percent of students who took the test), and one additional indicator – either graduation rate or school attendance rate. Schools that receive Title I funding that do not meet AYP targets in any one of these areas face a series of increasingly stringent sanctions.

*Exhibit 1-3* shows that DCSD has achieved consistent gains in both reading proficiency and math proficiency over the last three years. This data displays the district averages across all grade levels. It is important for the district to make growth in student achievement in order to meet state and federal standards. Reading proficiency increased by 8.1 percent over this time span; math proficiency increased by 4.9 percent.

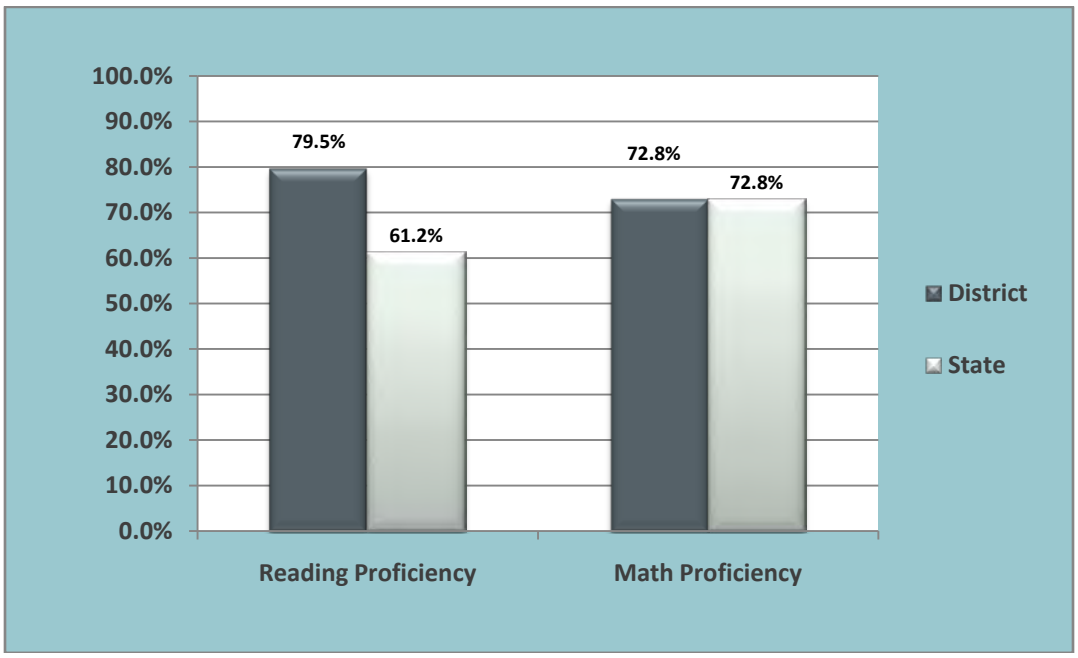
**Exhibit 1-3**
**Douglas County School District**
**Student Performance over Time**




Source: Schooldatadirect.com, 2009.

As shown in *Exhibit 1-4*, Douglas County students outperformed their counterparts in the state in reading with math proficiencies equaling state averages. Reading scores were 18.3 percent better than the state average; math scores were equal to the state average scores (72.8%).

**Exhibit 1-4**
**Douglas County School District**
**Student Achievement – Communications Arts and Mathematics**




Source: Schooldatadirect.com, 2009.

In summary, as the data indicate, test scores validate that students of Douglas County School District receive a quality education. Its excellent reputation within the county as well as surrounding areas is supported by the impressive test results.

### *Curriculum*

The curriculum in Douglas County School District is under the supervision of the Education Services Department. Schools provide instruction in the basic skills (reading, math, science, and social studies) in elementary school grades PK–6. Students also receive instruction in general music, art, and physical education from specialists. All elementary schools have a library and students have access to the library and computer labs once a week. At the middle school level, students continue their studies in the basic skills areas mentioned above and have access to art and various music courses, the library, and computer labs. Building from the curriculum offered at the middle school, the traditional high school provides a comprehensive curriculum that includes world languages and more choices for career and technical education (CTE) coursework. High school students can also access dual credit and CTE coursework at Western Nevada College through a reciprocal agreement.

The district offers after-school programs, a gifted program, academic support in basic skills, and numerous athletic opportunities for students at the high school level. The district also offers summer school after the regular school year ends.

In addition to its own program offerings, the district partners with the Douglas County Parks and Recreation Department and the Boys' and Girls' Club of Western Nevada in order to provide before- and after-school programs and enhanced support for a multitude of events designed to provide activities for students of all ages.

Douglas County School District maintains high academic standards through the rigorous curriculum expected in all core content areas. Before there were state standards, DCSD developed "critical content" for every subject at every grade level. Teachers have been heavily involved in the development of curriculum and critical content was developed and continues to be reviewed by teachers at the various grade and content levels. Curriculum is not decided in isolation, but rather is a collaborative effort between teachers and the Education Services Department. Embedded in the critical content are common benchmark assessments as well as high stakes competencies required for graduation. In elementary schools, a belief in "balanced math" and "balanced literacy" are cornerstones in the delivery of these subjects for DCSD students. Neither relies solely on a textbook to guide instruction but instead encourages original material development and a balanced approach to delivery. Douglas County provides a continuum of services in the schools, ranging from meeting the needs of special education students to offering elementary courses for gifted and talented students.

In the middle schools, pre-advanced placement (AP) strategies are used throughout seventh through ninth grade English using the Springboard program sponsored and distributed by the College Board. Students are placed in math courses depending upon ability level. The two high schools in the county offer a variety and breadth of AP courses. The average pass rate on the AP exams for the 08-09 school year was 79.5 percent. Career and Technical Education (CTE) courses are also offered at both high schools ranging from Culinary Arts to Welding. Douglas County's new teachers are required to complete a two-year program of professional development designed around best practices and on-site mentoring support. This provides new teachers with the necessary tools to become familiar with the critical content and to employ research-based teaching strategies in their classroom.

### *Special Programs and Accomplishments*

DCSD offers a program called ASPIRE for high school level expelled students and those wishing to work in an alternative school setting rather than a traditional one. Students are currently supervised by two licensed teachers as they complete courses for credit through the use of a text-based computer program. Part of the program requires a "Values Clarification" course where students are encouraged to participate in community-based volunteer programs. For instance, students recently helped paint a youth center in town by adding murals and inspirational sayings to the walls.

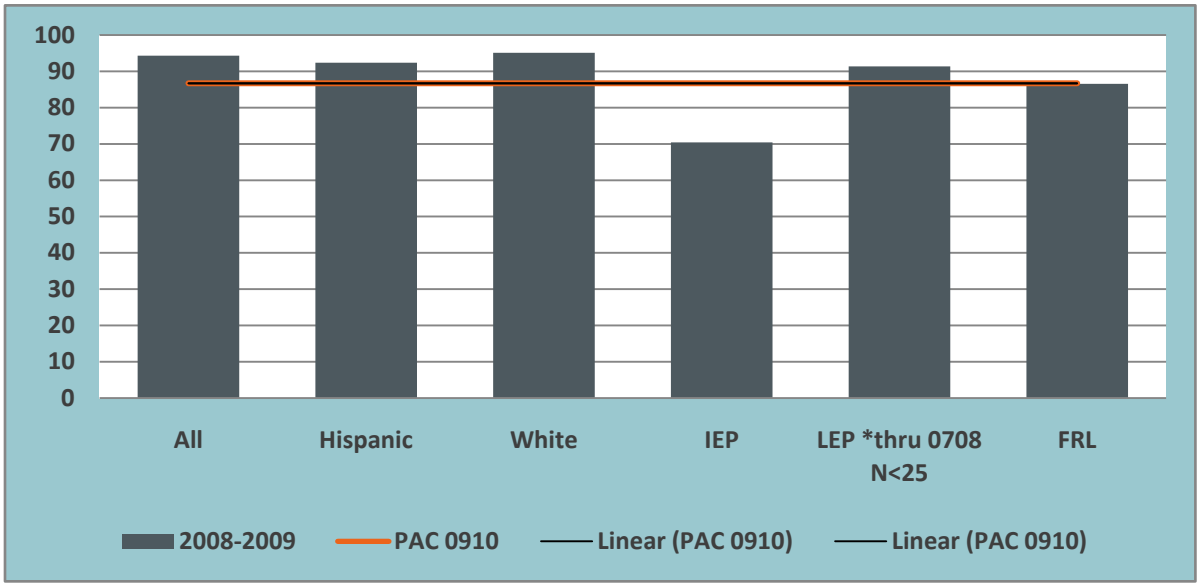
Students in this program are generally credit deficient and often lack the academic motivation necessary to complete and earn a diploma. The use of a text-based computer program has proven to be quite challenging for students as a high degree of reading comprehension is necessary to make progress through the lessons.

DCSD operates two programs that provide additional support to students – Title I and Special Education. The Title I program is a federally-funded compensatory education program designed to provide

supplementary services to students in the basic skills, typically reading and mathematics. Funding is based on the percent of students who qualify for free or reduced price meals. The funding is used to provide additional instructional support. The Special Education department provides support for students with a range of identified needs, including prekindergarten students with developmental delays, students with autism, and students with other learning needs. Each student has an Individual Educational Program (IEP) that defines the specially-designed instruction to meet the identified needs. Students may be placed in a school or program or be part of the general education class with some instructional support structures, including pull-out classes, tutorials, and co-teaching at all levels.

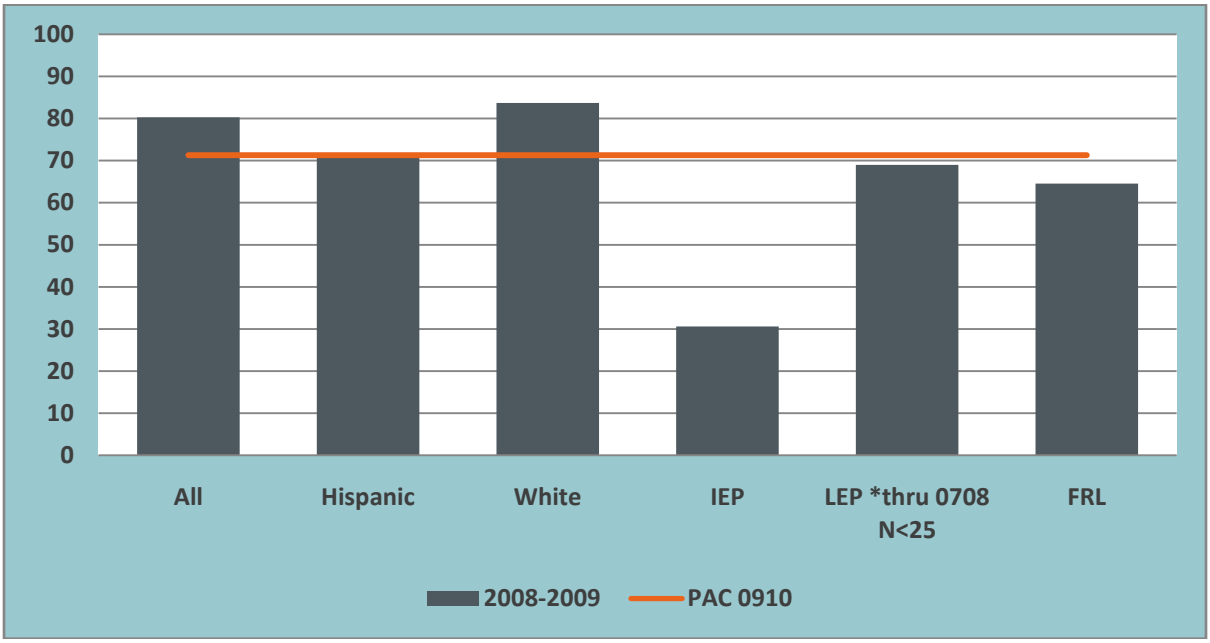
As shown earlier in *Exhibit 1-2,* twelve percent of the students in the district qualify for special education programs. The following two exhibits, *Exhibit 1-5* (Communication Arts) and *Exhibit 1-6* (Math), depict the progress of students by subgroup at the high school level towards achieving the federal target of 100 percent proficiency by 2014. Based on the Communication Arts and Math assessments, "Students with Disabilities" (IEP) is a subgroup that presents the biggest challenge for this district. There are many reasons to account for the scores for this subgroup, including the need for appropriate program spaces.

**Exhibit 1-5**
**Douglas County School District**
**AYP Student Achievement – Sub Groups**
**DCSD High Schools Communication Arts**




Source: Douglas County School District, 2009.

**Exhibit 1-6**
**Douglas County School District**
**AYP Student Achievement – Sub Groups**
**DCSD High Schools Mathematics**




Source: Douglas County School District, 2009.

In summary, as the data indicate, test scores validate that students of Douglas County School District receive a quality education. As for the programs offered, Douglas County needs to have an alternative program, but one that increases engagement and offers the students more than the traditional curriculum. Ideally, students in an alternative program not only walk out with necessary credits and competencies but hopefully can benefit from some job or skill training as well. Douglas County continues to lose students to alternative programs outside of the district and there is a desire and a need to keep these students here. In order to keep them, DCSD must engage these students and ensure they leave with the proper tools to be contributing members of society. The program is currently located in a middle school that limits the number of students and the type of program that can be offered.

# SECTION 2.0: FINDINGS - PERCEPTION DATA

## PROCESS

Interviews, focus groups, and community meetings were conducted with key stakeholders, both internal and external, to Douglas County Schools. This section provides a summary of the findings from interviews, focus groups, and the community public meetings. The purpose of these activities was to gather background information from staff and community members to become better informed regarding Douglas County School District in terms of its programs, facilities, and key facility-related issues. In all, there were approximately 100 hours of interviews/meetings conducted during the course of this study.

| INTERNAL AND EXTERNAL INTERVIEWS |
| --- |
| MGT staff held interviews with Douglas County School District's School Board as well as central office administrators. Key community members (elected and not elected) were identified by the district and interviews were conducted with these individuals. |
| **FOCUS GROUPS** |
| MGT conducted focus groups with administrators, teachers, classified staff, and bus drivers. Focus groups were also held with elementary, middle, and high school students in several schools. |
| **COMMUNITY PUBLIC MEETINGS** |
| Parents and community members were invited to two presentations about the study and then participated in an electronic survey and small group discussion. The survey instrument used during the public meetings was also available online, bringing the total participants to 580 in the community meeting process. |

## INTERVIEWS/FOCUS GROUPS

MGT staff interviewed members of the Douglas County School District Board of Trustees ("the Board"), central administrators, and a cross-section of community members. MGT also conducted focus groups (teachers, students, and staff) to learn more about the educational programs, policies, and practices of the district. Their insight and perspectives were an important aspect of the analysis conducted regarding existing facilities and the future needs.

### *Greatest Challenges*

MGT conducted interviews with the key personnel listed in the previous paragraph. Those interviewed were first asked to identify the "greatest challenges" facing the school district. Responses were varied, but several common themes emerged. The following are the key points from the interviews and focus groups:

**Interviews/Focus Groups – Greatest Challenges**

- Budget issues generated by the decreasing enrollment in the district, especially in the Lake Tahoe basin.
- Grade configuration (moving grade 6 to the middle schools and grade 9 to Douglas High School).
- Equal opportunities for programs and technology.
- Improving communications, both internally and externally.
- Age and condition of some of the buildings.
- Use of school facilities by community.
- Future plans for Kingsbury Middle School.
- The need for more space at the central office.
- Lack of proper program spaces for performing arts, JROTC, science, and gifted/talented.
- Role of the school district in addressing high suicide rate for the community.
- Relationships with community partners, including Western Nevada College and public libraries.
- Maintain the district's excellent reputation.
- The average age in Douglas County is increasing.
- Need for stronger career and technical education (CTE) and alternative programs.
- Need for community partnerships.

### *Facility Issues*

Respondents were then asked to focus on the building issues with this question, "What are the greatest facility challenges that DCSD faces?" These are the predominant issues:

| Interviews/Focus Groups – Facility Issues |
| --- |
| ◆ Efficiency and effectiveness: Operating the right number of buildings while maintaining high educational standards.<br>◆ HVAC: There are temperature differentials in many of the schools.<br>◆ Lack of a deferred maintenance program.<br>◆ Lack of a preventative maintenance program.<br>◆ Use of portables.<br>◆ Joint use of facilities with the community.<br>◆ Improving energy efficiency of buildings.<br>◆ Security issues, e.g. line of sight, locking systems, lack of lighting.<br>◆ Age and condition of some of the buildings.<br>◆ Use of school facilities by community.<br>◆ Future plans for Kingsbury Middle School.<br>◆ The need for more space at the central office.<br>◆ Grade configuration (moving grade 6 to the middle schools and grade 9 to Douglas High School). |

### *Facility Master Plan Outcomes*

Participants were asked to identify the most important outcomes from the MGT study and the facility master plan. The respondents were all united in their belief that a facility master plan is critical to DCSD's revitalization. Respondents were very clear that the right facility master plan is what the district needs.

**Interviews/Focus Groups – Facility Master Plan Outcomes**

- A facility master plan that is data driven, creative, has community buy-in, and will be fully implemented by the board.
- Provides the district a road map to follow.
- Addresses issues related to declining enrollment in the Lake Tahoe area.
- Establishes preventive maintenance and deferred maintenance programs.
- Improves academic opportunities.
- Is communicated clearly both internally and externally and regularly updated.
- Creates an appropriate and effective grade configuration.
- Ties in with the energy efficiency program currently underway.
- Mitigates security concerns.
- Allows for more emphasis on K-3 programs.
- Increases CTE opportunities.
- Generates appropriate learning spaces for all programs.

## COMMUNITY PUBLIC MEETINGS – LARGE- AND SMALL-GROUP DATA

In December 2009, MGT staff conducted community input sessions at each of the high schools. *Exhibit 2-1* shows the dates, locations, and number of respondents for each of the public meetings. Public input was significantly enhanced by the online survey that accompanied the public meetings. There were 538 total responses, 5 of which were from Spanish speakers, who were provided the same survey in Spanish. The total public input between the public meetings and the on-line survey was 580 participants. The data gathered at the community meetings is understood to be a characterization of the sentiment of those present and not a representative sampling of the Douglas community.

**Exhibit 2-1**
**Douglas County School District**
**Community Public Meeting Schedule**

| Date | Location | Number of Respondents |
|---|---|---|
| September 16, 2009 | Douglas High School | 22 |
| September 23, 2009 | Whittell High School | 20 |

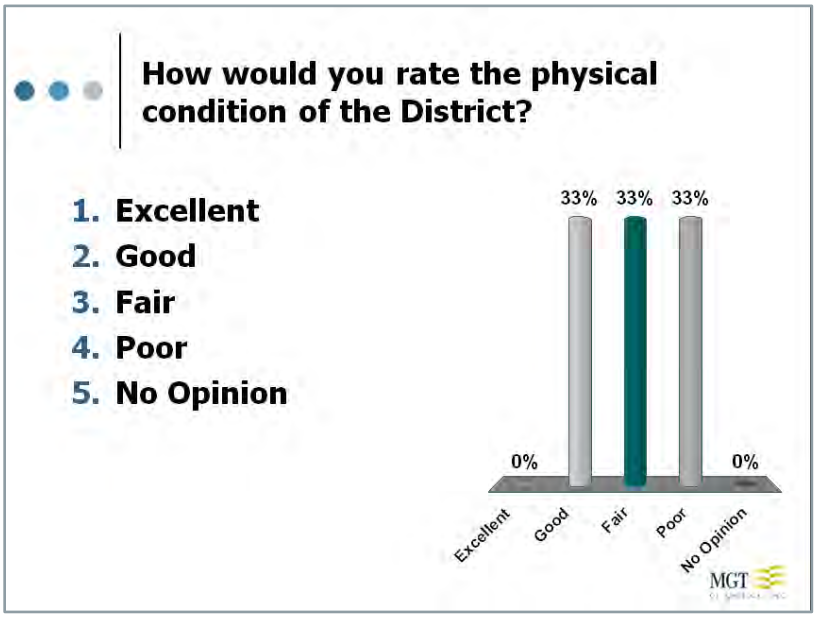
Source: MGT of America, Inc., 2009.

### *Methodology*

The public sessions included three activities. The first was an informational presentation about the facility master plan process. The second activity was an audience participation session using electronic Response Cards™, or "clickers." These devices enabled the participants to record their individual answers to the survey, which was projected on a screen as a PowerPoint presentation. Questions started with demographics to determine the make-up of the audience and continued on, asking the audience a variety of questions that pertained to DCSD facilities , including safety, indoor air quality, historic preservation, the importance of appropriate learning experiences, etc. (See *Appendix I* for the complete survey.) The anonymous results from each question were posted instantaneously on the screen as a bar graph which allowed the participants to view how the group as a whole had responded to each question. This group survey was designed to act as a lead-in to foster more in-depth conversations when the audience was broken up into smaller groups. The audience appeared to be pleased with this format, based on the comments that were made during the presentations.

*Exhibit 2-2* is an example of the survey questions and the graphical response from the participants.

**Exhibit 2-2**
**Douglas County School District**
**Sample Meeting Bar Graph**




Source: MGT of America, Inc., 2009.

The third activity was a small group discussion of the issues identified in the large group session. These discussions were facilitated by staff from SKW Architects and MGT. The role of each facilitator was to moderate the discussion, listen to the comments, and record the views of the group.

The total community participation results in Douglas County School District were impressive. There were more than 580 people who participated in the public input process and provided information about the questions posed. Most of the participants were residents of the district. Ninety-five percent were parents of students and seventeen percent were district employees.

### *Meeting Results Summary*

*Exhibit 2-3* provides a summary of the questions covered during the public sessions. Topics of discussion included outlining the strengths and weaknesses of the district's educational programs, commenting on the physical condition of the buildings, and getting a sense of whether the school district was operating the correct number of schools.

**Exhibit 2-3**
**Douglas County School District**
**Summary of Responses to the Large Group Survey**
**September 2009**

| | Issue | Summary |
|---|---|---|
| 1. | **Quality of education students receive in DCSD.** | 78% of participants responded that the quality of education at DCSD was *Excellent* or *Good.* |
| 2. | **Overall physical condition of DCSD schools.** | 50% rated the physical condition of DCSD schools as *Excellent/Good*; 49% rated the condition as *Fair/Poor* with 1% undecided. |
| 3. | **Overall safety in DCSD schools.** | 65% rated safety as *Excellent* or *Good* while 32% rated safety as *Fair* or *Poor.* |
| 4. | **Appropriate learning spaces.** | 98% rated appropriate learning spaces as *Very Important* and *Important.* |
| 5. | **Access to schools and traffic patterns.** | 62% rated this issue as *Very Important* and 32% rated it as *Important.* |
| 6. | **Food service facilities.** | 81% of the respondents rated the facilities for food services as *Very Important* and *Important.* |
| 7. | **HVAC** | 97% of respondents rated HVAC as *Very Important/Important.* |
| 8. | **Health/Environmental** | 97% of respondents also rated Health/Environment issues as *Most Important/Important.* |
| 9. | **Technology** | Technology was one of the highest rated areas with 98% of the respondents rating this area as *Most Important/Important.* |
| 10. | **Exterior (Curb Appeal)** | Only 60% of the respondents felt that curb appeal was *Most Important/Important.* |
| 11. | **Interior Conditions** | Conversely, 93% rated the interior conditions as *Most Important/Important.* |
| 12. | **Playgrounds/Ball fields** | Playgrounds and ball fields were given a high response. 90% of the respondents rated this area as *Most Important/Important.* |

**Exhibit 2-3**
**Douglas County School District**
**Summary of Responses to the Large Group Survey**
**September 2009 (continued)**

| | Issue | Summary |
|---|---|---|
| **13.** | **Historic Preservation** | Feelings were mixed regarding historic preservation. Half of the respondents (49%) felt this was *Most Important/Important.* Only 18% felt that this topic was *Somewhat/Not Important*. A significant percentage chose to be neutral on the issue (33%) |
| **14.** | **Right Number of School Buildings** | Opinions varied on the topic of operating the right number of buildings in Douglas. 50% *Strongly Agreed/Agreed* that the district is operating the right number of schools; 22% of the respondents felt that this was not the case; 28% were neutral. |
| **15.** | **Portables** | The topic of portables also drew mixed reviews. 55% *Strongly Agreed/Agreed* that the use of portables was acceptable; 26% *Strongly Disagreed/Disagreed*. The remaining percentage (19%) was neutral. |
| **16.** | **Grade Configuration** | Grade configuration received mixed reviews as well. 48% of the respondents rated this area as *Most Important/Important*; 21% *Strongly Disagreed/Disagreed* with the remaining percentage remaining neutral (30%). |

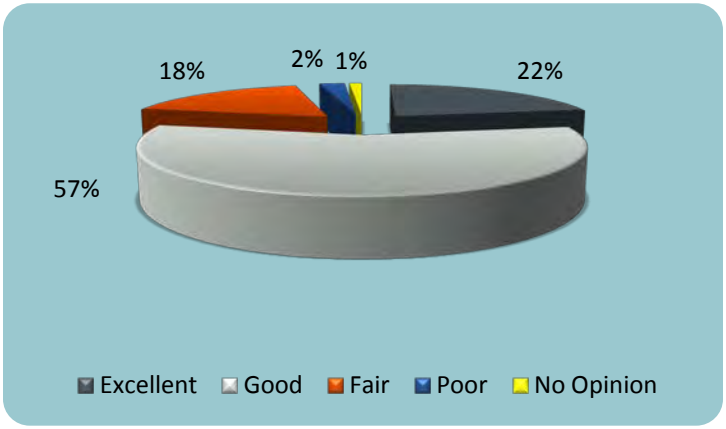
Source: MGT of America, Inc. 2009.

The following pages provide more detail about the responses to questions from the public meetings. Both the percentages and some selected comments from the small group discussions are included. The following is a sampling of topics. Full results from the community input sessions are presented in *Appendix A.*

### *1. Quality of Education*

When asked to rate the overall quality of education that students receive in DCSD, 78 percent said it was *Good* or *Excellent*. A sample narrative from the small group conversations consisted of these points:

- *The quality of education depends on teachers. DCSD has many dedicated teachers.*
- *Electives allow students to explore different subjects before going to college. DCSD offers a good selection of electives.*
- *There are high expectations for students.*
- *Reading programs have excelled.*
- *The range of opportunities are good.*
- *DCSD is one of the best districts in this state.*
- *Education has a high priority in the district.*
- *There is an over-emphasis on testing for the district, state, and nation.*

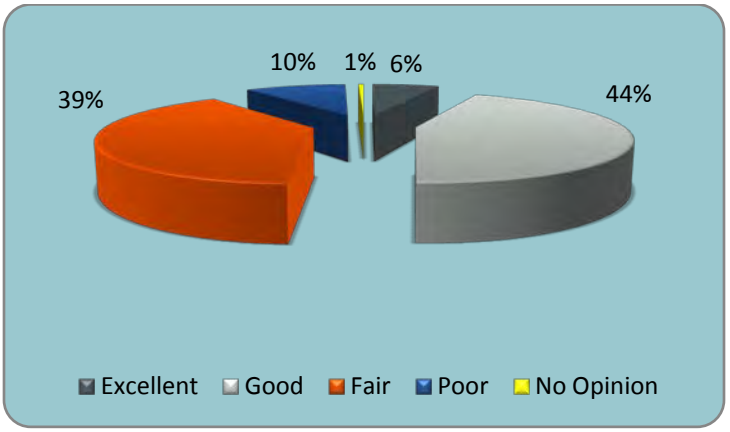



Source: MGT of America, Inc., 2009.

### *2. Physical Condition of Facilities*

Participants were less positive about the physical condition of the DCSD buildings. Forty-nine (49) percent thought the buildings were *Fair*/*Poor*. Fifty percent thought the overall condition of buildings was *Excellent or good*. A sample narrative from the small group conversations consisted of these points:

- *The age of the buildings is an issue.*
- *There are major facility needs for the district.*
- *All DCSD students should have access to the same high standards for buildings.*
- *Need to have sufficient spaces for programs.*
- *Hallways too crowded at DHS.*
- *Piñon Hills is too crowded.*
- *District has made effort to repair buildings but budgets are limited.*
- *Schools are poorly maintained and need a deferred maintenance and preventative maintenance programs.*
- *There are student equity issues across the district in both programs and facilities.*

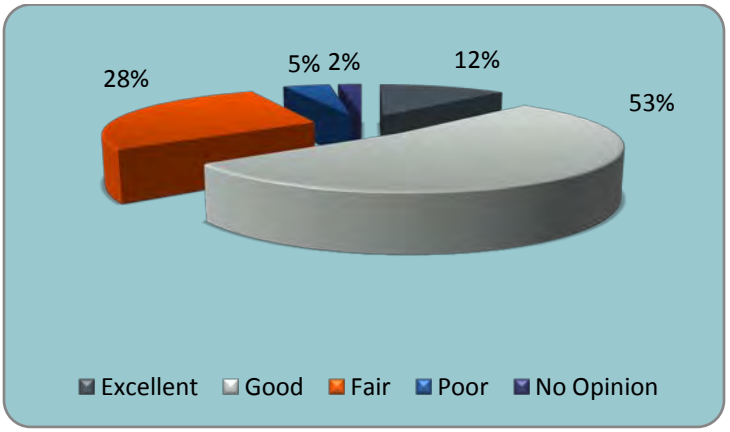



Source: MGT of America, Inc., 2009.

### *3. Safety*

Participants were very concerned about safety. Sixty-five (65) percent of the respondents rated safety as either *Excellent* or *Good* while 32 percent felt safety was either *Fair*/*Poor*. A sample narrative from the small group conversations consisted of these points:

- *District does a good job with safety. Fire drills and other disaster drills are performed on a regular basis.*
- *Having an open campus at DHS is not safe for students.*
- *Need more walking paths.*
- *Exit/entrance to DHS is not safe.*
- *Speed limits must be enforced.*

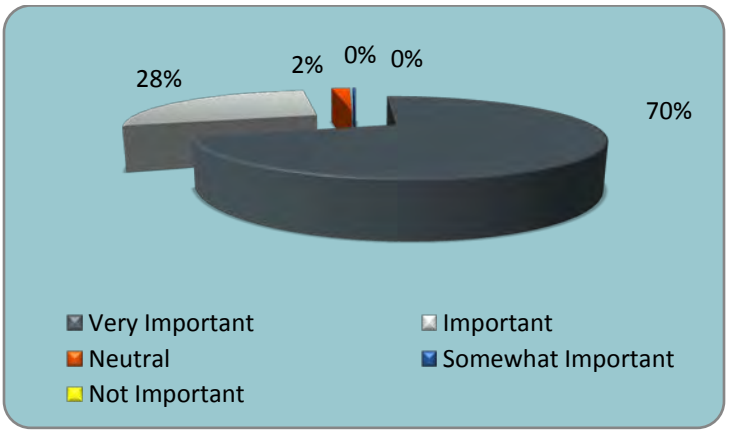



Source: MGT of America, Inc., 2009.

### *4. Appropriate Learning Spaces*

The chart below presents the results pertaining to appropriate learning spaces. These are spaces that are designed for specific programs such as music, art, science, special education, etc. In response to the question, 98 percent of the respondents indicated that this topic was *Very Important/Important*. A sample narrative from the small-group conversations consisted of these points:

- *Across-the-board agreement that appropriate spaces are vital to effective learning.*
- *Spaces vary from building to building. Some have appropriate spaces; others do not.*
- *Special education rooms not centrally located.*
- *High school classrooms are crowded due to sizes of rooms.*
- *GES has small crowded classrooms.*
- *Piñon Hills is crowded and does not have appropriate spaces.*
- *District should not use portables to solve space problems; not appropriate learning spaces.*
- *CVMS teachers have to use carts for some programs.*
- *CVMS lacks appropriate learning spaces generally speaking.*
- *Technology and CTE shops have serious deficiencies at GWHS.*

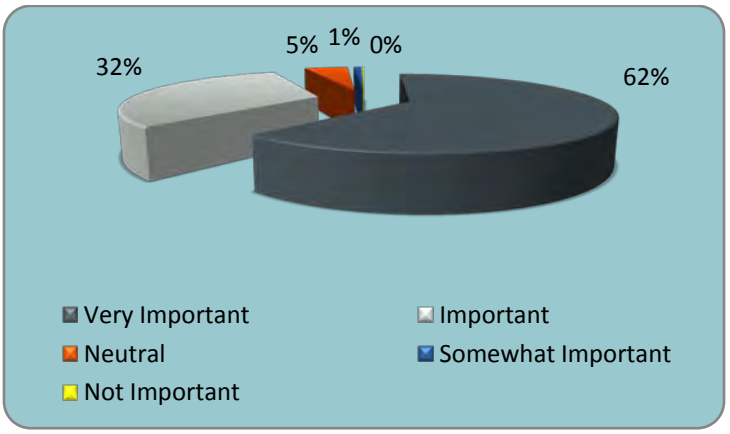



Source: MGT of America, Inc., 2009.

### *5. Access and Traffic Patterns*

The chart below shows that 62 percent of the respondents felt that traffic patterns were *Very Important*. Thirty-two (32) percent responded with *Important*. A sample narrative from the small group conversations consisted of these points:

- *Location of CVMS on the highway is dangerous.*
- *Gardnerville is difficult to access; a crossing guard is needed.*
- *Students are driving too fast at DHS.*
- *Access to DHS is difficult and dangerous.*
- *No sidewalks at Piñon Hills.*
- *Access to the lake schools is a safety concern.*

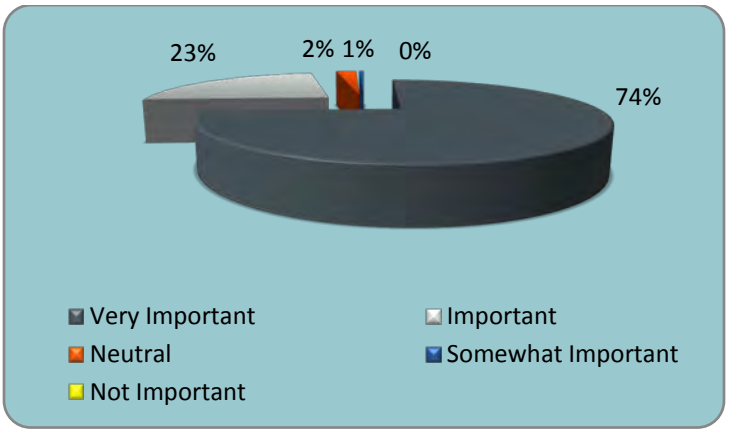



Source: MGT of America, Inc., 2009.

### *6. Heating, Air Conditioning, and Ventilation (HVAC)*

As the next chart indicates, HVAC functions received one of the higher ratings from the participants. 97 percent rated this issue as *Very Important/Important*. Only one percent rated this as *Somewhat/Not Important*. A sample narrative from the small group conversations consisted of these points:

- *CVMS heating system is old.*
- *High School is too cold in the spring and fall.*
- *Energy efficiency is a huge issue to save money.*
- *Alternative energy uses should be explored.*

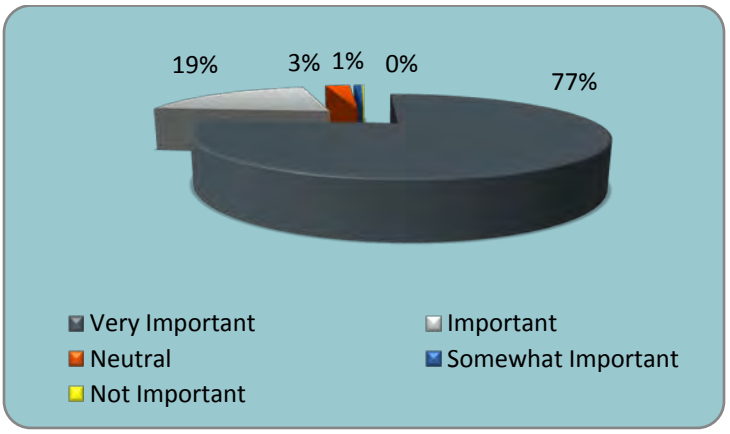



Source: MGT of America, Inc., 2009.

### *7. Health/Environment*

Participants were asked to consider any issue that would affect health or the environment for learning. 97 percent of participants felt this topic to be *Very Important/Important*. Three percent were neutral on the subject. A sample narrative from the small group conversations consisted of these points:

- *Would like to see the district use more "green" cleaning materials.*
- *Air filtering through mechanical systems needs improvements.*
- *Need to involve more people in green issues.*
- *FFA is recycling which is a positive.*

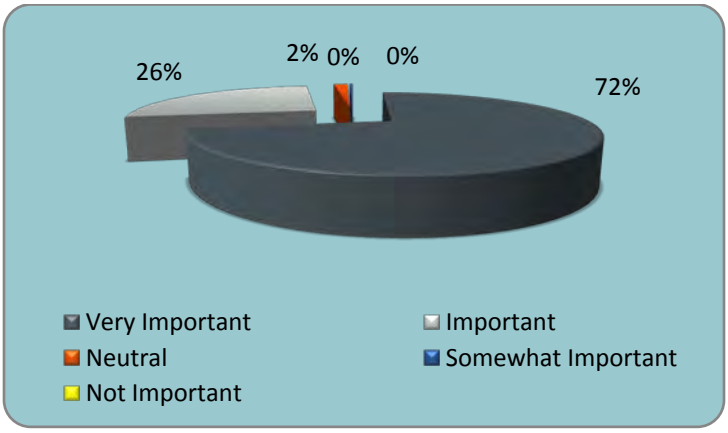



Source: MGT of America, Inc., 2009.

### *8. Technology*

Technology is not limited to computers alone. In contemporary schools, a variety of technological tools should be available to students and faculty, such as SMART boards, FM audio systems for the hearing impaired, as well as a wide range of multimedia applications designed to enhance the learning experience. Participants were asked to consider the question of technology in the broadest sense possible. Ninety-eight percent of participants felt that technology was *Very Important/Important*. A sample narrative from the small group conversations consisted of these points:

- *Smart boards are important to the learning process.*
- *Technology is difficult due to the age of the buildings.*
- *Need more access to technology.*
- *More hands-on for students' use of technology.*
- *Some teachers using technology more than others.*
- *Still too much paperwork in the classrooms.*
- *Not the best technology at CVMS.*
- *District working to improve technology.*
- *PTO's have helped in acquiring technology.*
- *Have a 5-year replacement plan in place.*
- *Technology at the lake schools is insufficient.*
- *Better technology at the lake schools would significantly improve the educational opportunities available to students.*
- *Long-distance learning opportunities for both the lake and valley schools would be an asset.*

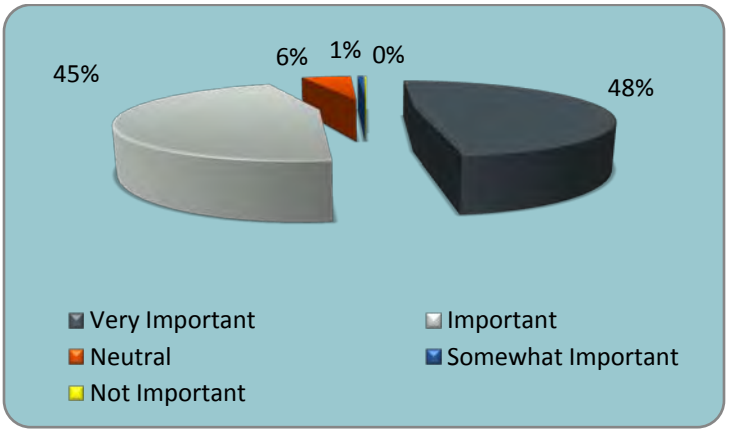



Source: MGT of America, Inc., 2009.

### *9. Interior Conditions*

Interior conditions received a rating of 93 percent *Very Important/Important*. The exterior conditions of schools only enjoyed a rating of 60 percent *Most Important/Important*. Participants felt much more strongly that the inside of the building was more important than "curb appeal." A sample narrative from the small group conversations consisted of these points:

- *Exterior conditions are the last thing we should think about.*
- *Fancy designs are not important to us.*
- *Learning environments within a building are more important.*
- *Some schools have worn out carpet.*
- *At GWHS and ZCES the overall quality of interior space is not good; both lack any curb appeal.*

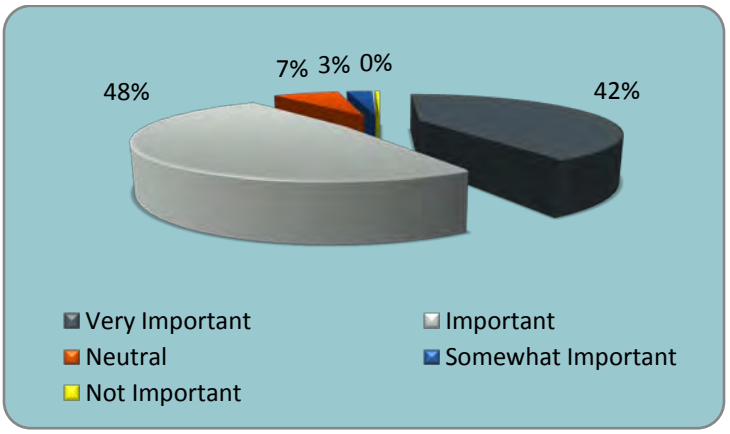



Source: MGT of America, Inc., 2009.

### *10. Playgrounds/Ballfields/ Athletic Facilities*

Ninety (90) percent rated this category as *Very Important/Important.* A sample narrative from the small group conversations consisted of these points:

- *Playgrounds and athletic facilities are generally good for DCSD.*
- *PTO's have been helpful with elementary playgrounds.*
- *GWHS and ZCES lack quality playfields and common spaces.*
- *Expanding partnerships between the district and library at the lake would open spaces for fields.*

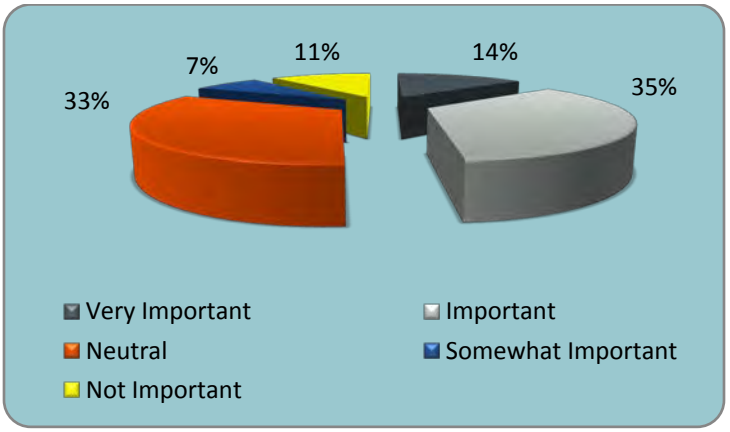



Source: MGT of America, Inc., 2009.

### *11. Historic Preservation*

The results show that there were mixed opinions on this matter. Forty-nine percent felt this was *Very Important/Important*; 33 percent were undecided on the matter; and 18 percent indicated historic preservation was *Somewhat Important/Not Important*. A sample narrative from the small group conversations consisted of these points:

- *At CVMS maybe the old gym should be kept but not the rest of the campus.*
- *Historic preservation is very important but only to a certain extent.*
- *Not the school district's job to be historic preservationists.*
- *Historic preservation is less important than other priorities.*

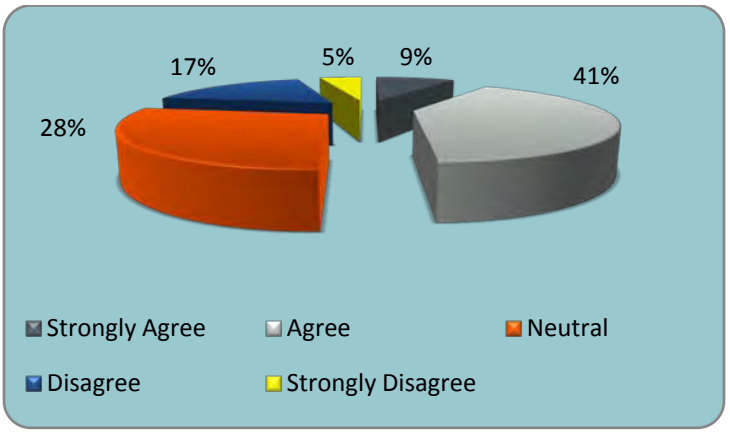



Source: MGT of America, Inc., 2009.

### *12. Number of School Buildings Operated by the District*

When asked if DCSD operates the right number of school buildings, 50 percent *Strongly Agreed/Agreed* that they were. Twenty-two percent felt that they were not operating the right number of buildings while a significant 33 percent were neutral on the matter. These comments were made:

- *One middle school would be better than having competition for two middle schools.*
- *The PK-8 configuration has merit and should be explored.*
- *Some facilities are in the wrong places.*
- *Generally, we have the right number of school buildings.*
- *The lake does not want a PK-12 school.*

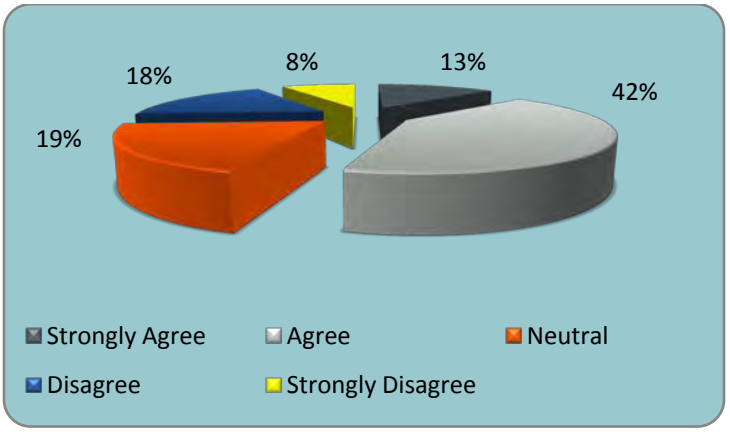



Source: MGT of America, Inc., 2009.

### *13. Portables*

Fifty-five percent *Strongly Agreed/Agreed* that this strategy was acceptable while 26 percent felt that it was not a good idea to use portables. Twenty-eight percent were neutral on this topic.

- *Okay to use portables but only if they are used short term.*
- *Never use portables.*
- *Portables are expensive in the long run.*
- *Change boundaries instead of using portables.*
- *Walking outside to portables can be uncomfortable for students for during the winter months.*

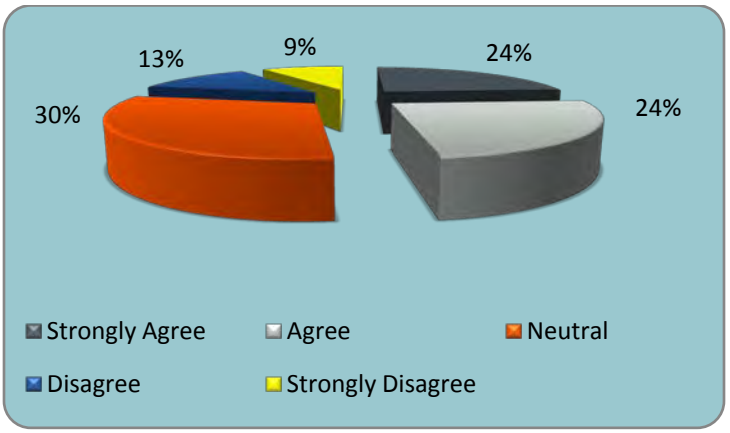



Source: MGT of America, Inc., 2009.

### *14. Grade Configuration*

The participants were then asked whether DCSD should rethink its present grade configuration. Forty-eight percent strongly agreed/agreed that grade configuration should be reexamined; Twenty-one percent were in disagreement and 30 percent were neutral. These comments were made:

- *Freshmen belong in the high school.*
- *A four-year high school is preferable.*
- *Not sure that the 6th grade should be moved out of the elementary environment.*
- *Don't like idea of having 7/8 at GWHS.*
- *More separation for 7/8 graders is needed at GWHS.*




Source: MGT of America, Inc., 2009.

## CONCLUSIONS AND MAJOR THEMES

The collection of public input utilizing a variety of methodologies has enabled MGT to discover the major themes for the district using a method called, "Triangulation." Triangulation is an approach to data analysis that synthesizes information from multiple sources. Triangulation seeks to examine existing data, to strengthen interpretations, and to improve policy and programs based on the available evidence. By examining information collected by different methods, from different groups and in different populations, findings can be corroborated across data sets, reducing the impact of potential biases that can exist in a single interview.

Based on the perception data collected from multiple sources, the following major themes have emerged:

**GRADE CONFIGURATION:** In absolutely every forum of the public input process, grade configuration was a major issue. The overriding consensus was to move the 9th grade students into Douglas High School. Most present felt strongly that the 9th graders belong in a more traditional high school setting. The middle school operates on a different class schedule and has fewer elective choices for 9th grade than at the high school, including CTE courses. The middle school students are exploring subjects while the 9th grade students are starting to collect credits toward graduation. Students who fail courses must repeat them, so the high school still needs to offer 9th grade English, for example, using teaching time that could be used for other courses, which means that courses are duplicated on both middle and high school campuses. In addition, 9th grade students who are housed at the middle school have less access to extra-curricular programs based on busing and time. Less conclusive was the discussion of moving the 6th graders into a middle school environment. There were divided feelings about this configuration. There was less consensus about moving to a PK-12 grade configuration at the lake.

**DECLINING ENROLLMENT:** Declining school enrollment has had a negative impact on the district; the most obvious is a reduction in funding. Insufficient funding causes the district to pare back educational programs that the district feels are important to students.

**COMMUNITY USE OF FACILITIES:** Community organizations regularly use DCSD facilities for many activities. This is very popular with the community because it provides access to space that supports community-wide programs. Community use is also popular with the district as the community-at-large tends to support the schools; not just people with school-aged children. However, community use of the facilities puts a strain on school budgets because of the additional time and materials required to clean the building and the added utility consumption. Overall, the positives outweigh the negatives and the community feels strongly that being able to use school buildings is important.

**NON-COLLEGE-BOUND PATHWAYS:** There exists a need to improve the pathways for non-college-bound students. Specifically, these needs exist in an expanded alternative education program that is in alignment with the Career Technical Education programs. Presently, facilities are a hindrance to delivering these programs by limiting the opportunities for these students.

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**IMPROVE COMMUNICATIONS:** The overall theme is that there is a great need to improve communications between the board and administration; administration and teachers; and the school district with its parents. This includes communication about the facility master plan when it is approved and implemented.

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**FACILITY MASTER PLAN EXPECTATIONS:** The creation of a facility master plan is critical to the district's future success. However, this plan must have the following characteristics if it is to be a useful tool. The plan must:

- Engage the public in the creation and implementation of the plan.
- Be a plan that examines all the options in an impartial manner.
- Be creative in considering solutions.
- Address both the lake and valley issues.
- Repurpose any building that is not being used by the district or provide direction to abandon.
- Master the demographics component. The plan must be able to predict future enrollment in a reasonably accurate manner.
- Address educational suitability as well as physical condition and capacity issues.
- Be a plan that will be supported, adopted, and implemented, by the board.

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**DOUGLAS COUNTY PRIDE:** The public is highly supportive of the work being accomplished by the district and wants to see every student succeed. When asked about accomplishments, internal and external participants all expressed appreciation and support for the work that is being done. Standards have been set high for this school district by its community. Challenges notwithstanding, it is the expectation that all the students of DCSD receive a quality education.

# SECTION 3.0: DEMOGRAPHIC ANALYSIS AND ENROLLMENT PROJECTIONS

MGT developed enrollment projections for the ten-year planning period, using several enrollment projection models to evaluate enrollment patterns for the district. Over the next ten years, enrollment is expected to increase slightly across the district. The specific impact of future student enrollment on school building capacities is outlined in Section 4.0 of this report.

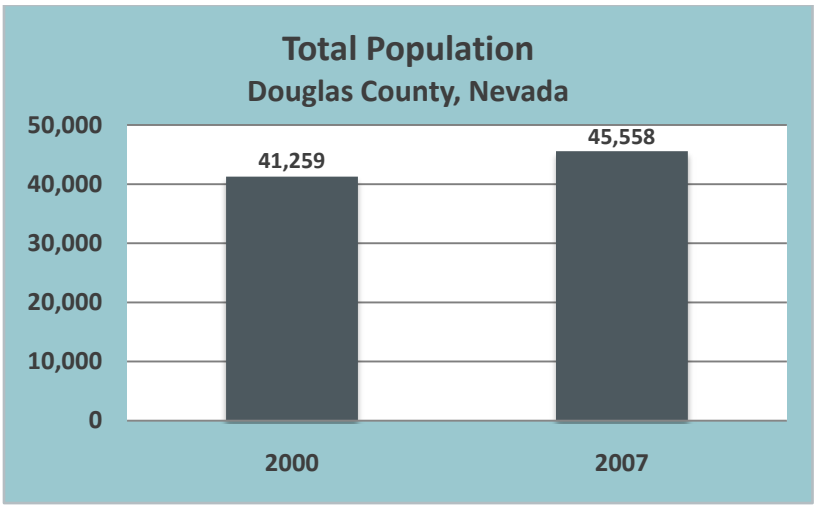
## HISTORICAL DATA

An analysis of both quantitative and qualitative data forms the basis for MGT's enrollment projections. Quantitative data comes from the district, the city, the county, and the U.S. Census Bureau ("Census"). Quantitative data provides the basic understanding of trends "by the numbers." Qualitative data is gathered from conversations with district officials familiar with enrollment trends, city planners, and personnel from the city, and provides the "why" behind the numbers. Both forms of data are critical to the preparation of enrollment projections for the district's ten year facility master plan.

### *Douglas County Population Trends*

It is important to understand the context in which enrollment trends occur within the district. Douglas County had a population of 41,259 in 2000; estimates indicate that number has increased to 45,558 in 2007. *Exhibit 3-1* shows the increase in total population from 2000 to 2007[1].

**Exhibit 3-1**
**Douglas County**
**Total Population**
**2000 to 2007**

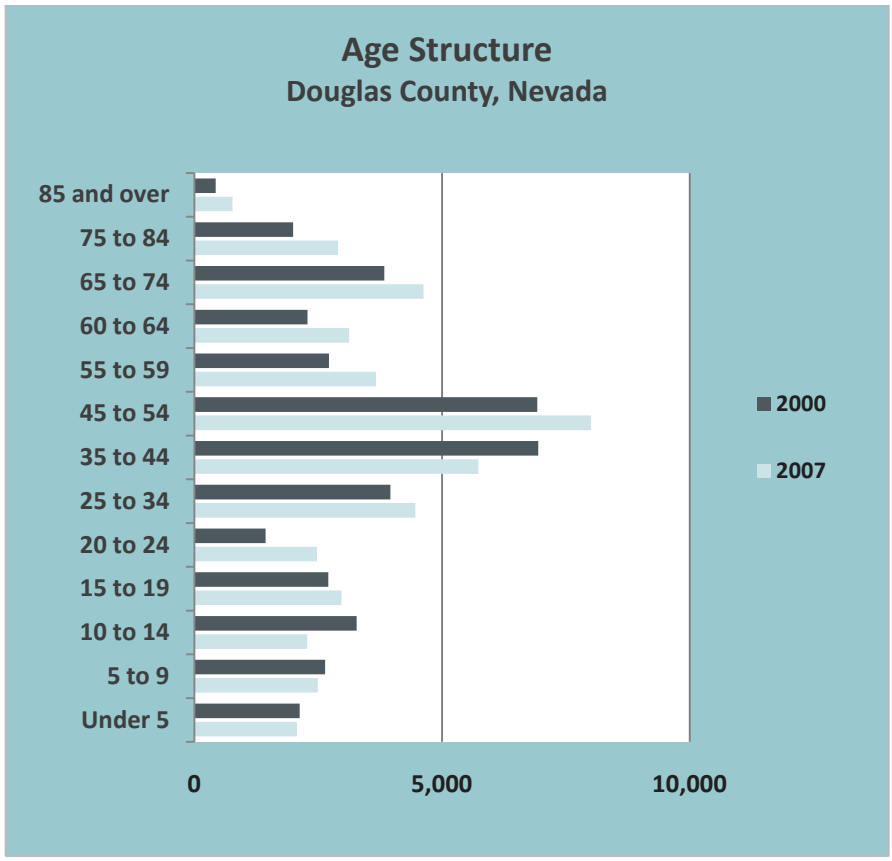



Source: U.S. Census Bureau.

[1] From the US Census Bureau 2008 Community Survey 1-year estimates are not available for Douglas County for the detailed charts 3-2 and below – to keep consistent 2007 numbers are used for all the charts.

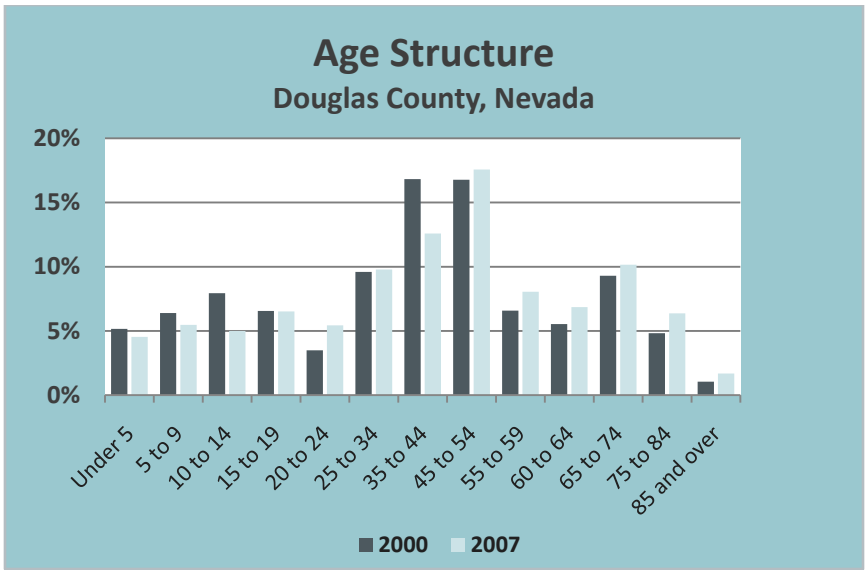
An examination of the age structure of Douglas County reveals that the largest segment of the population is between 25 and 54 years of age. *Exhibits 3-2* and *3-3* illustrate the age structure of the Douglas County population in 2000 and in 2007.

**Exhibit 3-2**
**Douglas County**
**Population Age Structure**
**(Total by Age Group)**
**2000 to 2007**




Source: U.S. Census Bureau.

**Exhibit 3-3**
**Douglas County**
**Population Age Structure**
**(by Percentage of Population)**
**2000 to 2007**

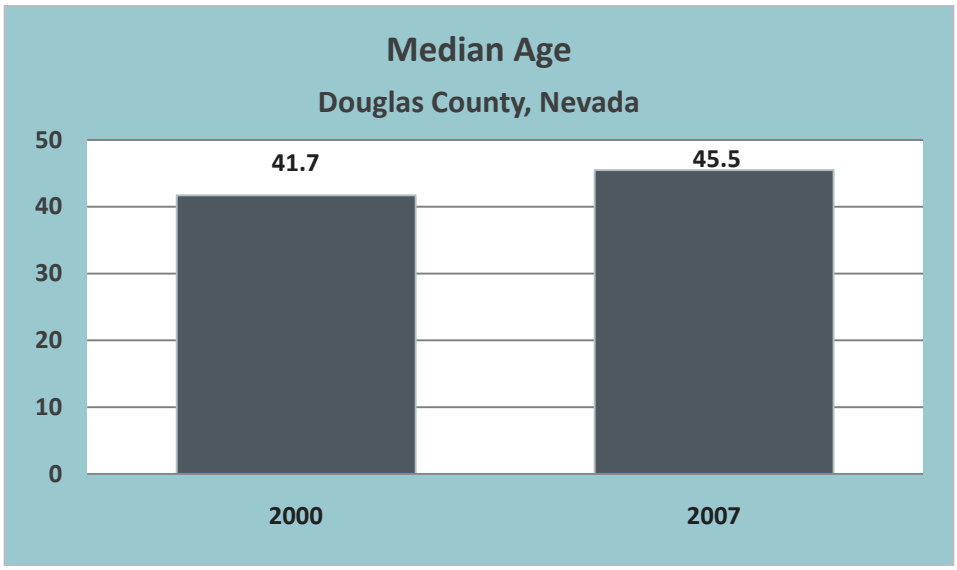



Source: U.S. Census Bureau.

Analysis of the age structure does not necessarily lead to any specific conclusions, but it does offer some interesting observations. Note that the population from *Under 5* through the *15 to 19* segment shows a decline from 2000 to 2007, which indicates a decline in the school age population. Also note that the segments from *45 to 54* through 85+ show an increase from 2000 to 2007. This indicates that the older poupulation is growing, while the younger population is declining.

Finally, note the change from 2000 to 2007 in the age segments for *20 to 24*, *25 to 34* and *35 to 44*. In 2000, the total number and percent of population increased from one group to the next. In 2007, the trend continued but at a much slower rate. This indicates that the largest segments of the population are getting older, a fact that is also evidenced by the increase in the median age of the Douglas County population. *Exhibit 3-4* shows the increase in median age from 2000 to 2007.

**Exhibit 3-4**
**Douglas County**
**Median Age of Population**
**2000 to 2007**




Source: U.S. Census Bureau.

The percent change in population at each age segment further reveals that the population in Douglas County is getting older. *Exhibit 3-5* shows the percent change in population for each age segment. The "Under 5" population decreased approximately 12 percent from 2000 to 2007. In addition, the "5 to 9" and "10 to 14" age segments decreased 14.5 percent and 37 percent, respectively, over that same time period. This data suggests that children who are born in Douglas County move out of the area *before* those children start attending school.

**Exhibit 3-5**
**Douglas County**
**Percent Change in Population - 2000 to 2007**
**(by Age Segment)**

| Age Segment | % Change |
|---|---|
| Under 5 | -11.9% |
| 5 to 9 | -14.5% |
| 10 to 14 | -37.0% |
| 15 to 19 | -0.5% |
| 20 to 24 | 55.9% |
| 25 to 34 | 2.0% |
| 35 to 44 | -25.2% |
| 45 to 54 | 4.8% |
| 55 to 59 | 22.2% |
| 60 to 64 | 23.8% |
| 65 to 74 | 9.2% |
| 75 to 84 | 31.9% |
| 85 and over | 61.8% |

Source: U.S. Census Bureau.

The white population increased from 37,908 in 2000 to 42,045 in 2007, but did not increase as a percentage of total population (92 percent). Other races accounted for the remaining eight percent of the Douglas County population in both 2000 and 2007. *Exhibit 3-6* illustrates the racial structure in Douglas County for 2000 and 2007.

**Exhibit 3-6**
**Douglas County**
**Racial Structure**
**(Total Population by Race)**
**2000 to 2007**

| | 2000 | 2007 | Change | % Change | % of 2000 Population | % of 2007 Population | Change in % of Population |
|---|---|---|---|---|---|---|---|
| White | 37,908 | 42,045 | 4,137 | 11% | 92% | 92% | 0.4% |
| Asian | 517 | 1,141 | 624 | 121% | 1% | 3% | 1.3% |
| American Indian | 692 | 624 | (68) | -10% | 2% | 1% | -0.3% |
| African American | 129 | 126 | (3) | -2% | 0% | 0% | 0.0% |
| Native Hawaiian | 63 | 9 | (54) | -86% | 0% | 0% | -0.1% |
| Other Race | 1,048 | 612 | (436) | -42% | 3% | 1% | -1.2% |
| Two or More Races | 902 | 1,001 | 99 | 11% | 2% | 2% | 0.0% |
| **Total** | **41,259** | **45,558** | | | | | |

Source: U.S. Census Bureau.

The data presented thus far builds the context for the following discussion regarding future DCSD enrollment.

### *Historical Enrollment*

The core body of data used to develop an enrollment projection is historical enrollment. Total enrollment in the Douglas County School District stood at 6,972 students in 2000. Since then, enrollment has decreased to 6,361 in 2009. *Exhibit 3-* 7 details the enrollment history of PK-12 students in the district for the past ten years. *Exhibit 3-8* charts the data shown in *Exhibit 3-7.*

**Note:** *Enrollment data for ungraded and alternative school students (94 students in 2009) are not included in the tables and charts that follow.*

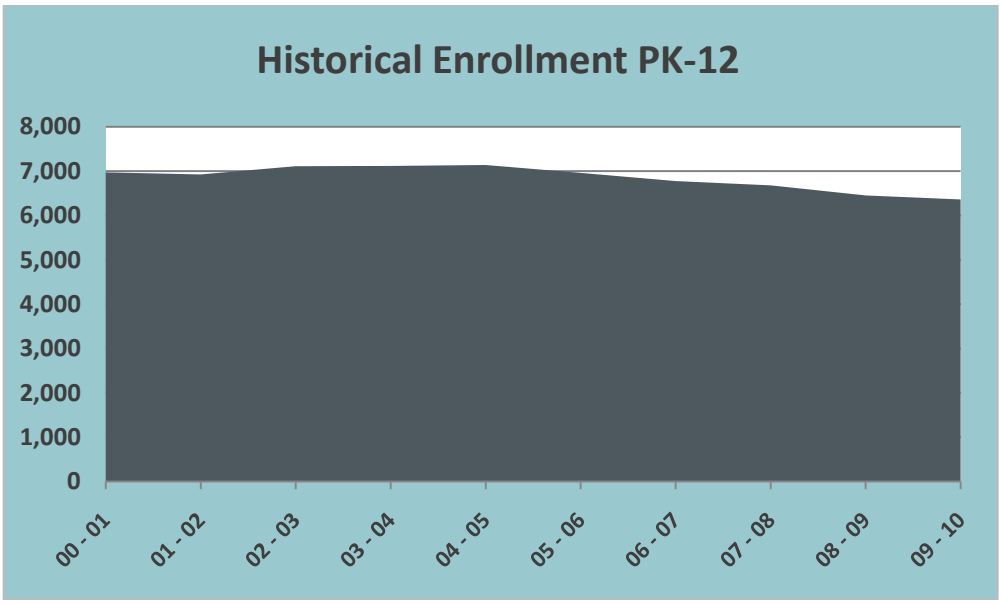
**Exhibit 3-7**
**Douglas County Public Schools**
**Enrollment History***
**2000-2009**

| | 2000 - 01 | 2001 - 02 | 2002 – 03 | 2003 - 04 | 2004 - 05 | 2005 - 06 | 2006 - 07 | 2007 - 08 | 2008 - 09 | 2009 - 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| PK | 47 | 33 | 30 | 48 | 57 | 48 | 45 | 66 | 65 | 61 |
| K | 402 | 409 | 432 | 426 | 457 | 405 | 431 | 438 | 402 | 417 |
| 1 | 466 | 428 | 486 | 467 | 495 | 508 | 467 | 460 | 489 | 450 |
| 2 | 454 | 455 | 454 | 506 | 467 | 487 | 511 | 446 | 464 | 490 |
| 3 | 525 | 485 | 480 | 462 | 512 | 460 | 483 | 519 | 455 | 454 |
| 4 | 549 | 556 | 504 | 499 | 502 | 509 | 471 | 475 | 525 | 472 |
| 5 | 588 | 561 | 599 | 511 | 504 | 510 | 506 | 484 | 474 | 523 |
| 6 | 566 | 595 | 575 | 620 | 506 | 493 | 517 | 519 | 472 | 487 |
| 7 | 591 | 592 | 631 | 610 | 622 | 538 | 502 | 513 | 511 | 465 |
| 8 | 582 | 586 | 626 | 634 | 615 | 621 | 554 | 496 | 502 | 524 |
| 9 | 615 | 578 | 631 | 637 | 649 | 622 | 601 | 543 | 487 | 526 |
| 10 | 570 | 603 | 565 | 618 | 646 | 639 | 704 | 701 | 621 | 557 |
| 11 | 548 | 563 | 570 | 554 | 585 | 595 | 552 | 555 | 526 | 482 |
| 12 | 469 | 481 | 528 | 525 | 521 | 525 | 432 | 464 | 459 | 453 |
| PK-6 | 3,597 | 3,522 | 3,560 | 3,539 | 3,500 | 3,420 | 3,431 | 3,407 | 3,346 | 3,354 |
| 7-9 | 1,788 | 1,756 | 1,888 | 1,881 | 1,886 | 1,781 | 1,657 | 1552 | 1,500 | 1,515 |
| 10-12 | 1,587 | 1,647 | 1,663 | 1,697 | 1,752 | 1,759 | 1,688 | 1,720 | 1,606 | 1,492 |
| **Total** | **6,972** | **6,925** | **7,111** | **7,117** | **7,138** | **6,960** | **6,776** | **6,679** | **6,452** | **6,361** |

Source: Douglas County Public Schools, 2009.

*Excludes Ungraded and Alternative Students.

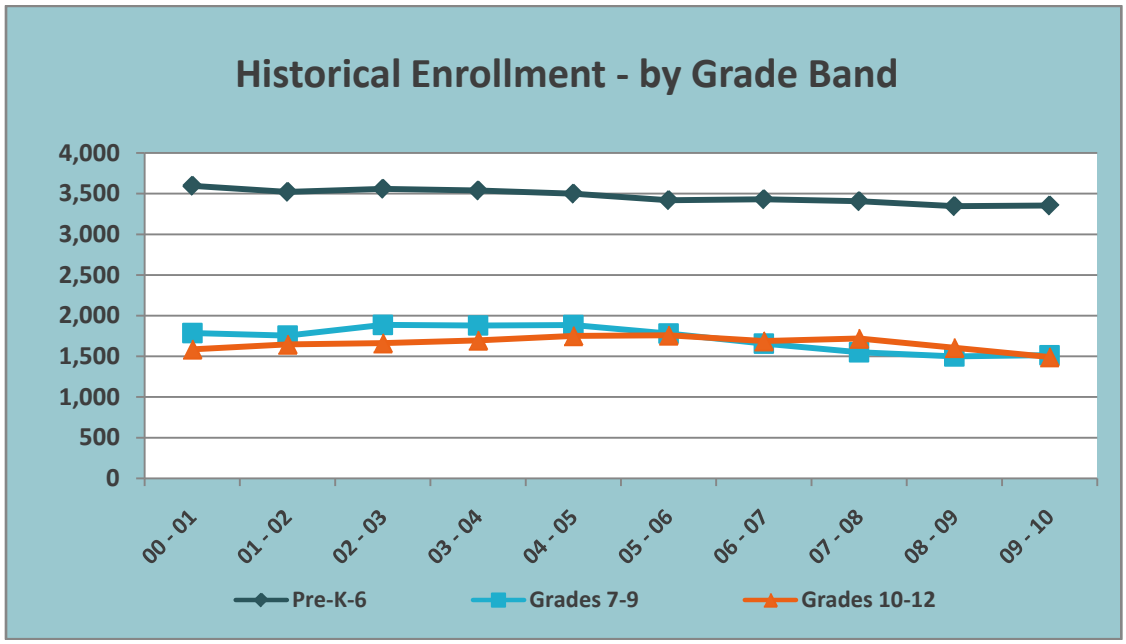
**Exhibit 3-8**
**Douglas County Public Schools**
**Historical Enrollment**
**2000-2009**




Source: Douglas County Public Schools, 2009.

An examination of historical enrollment at the grade-band level reveals that the decline in overall enrollment over the last ten years has been led by a drop in enrollment at the PK-6 grade band, which decreased by 6.8 percent. The 7-9 grade band also decreased in enrollment by 15.3 percent, and the 10-12 grade band decreased as well with a six percent decline in enrollment. *Exhibit 3-9* illustrates the historical enrollment for each grade band.

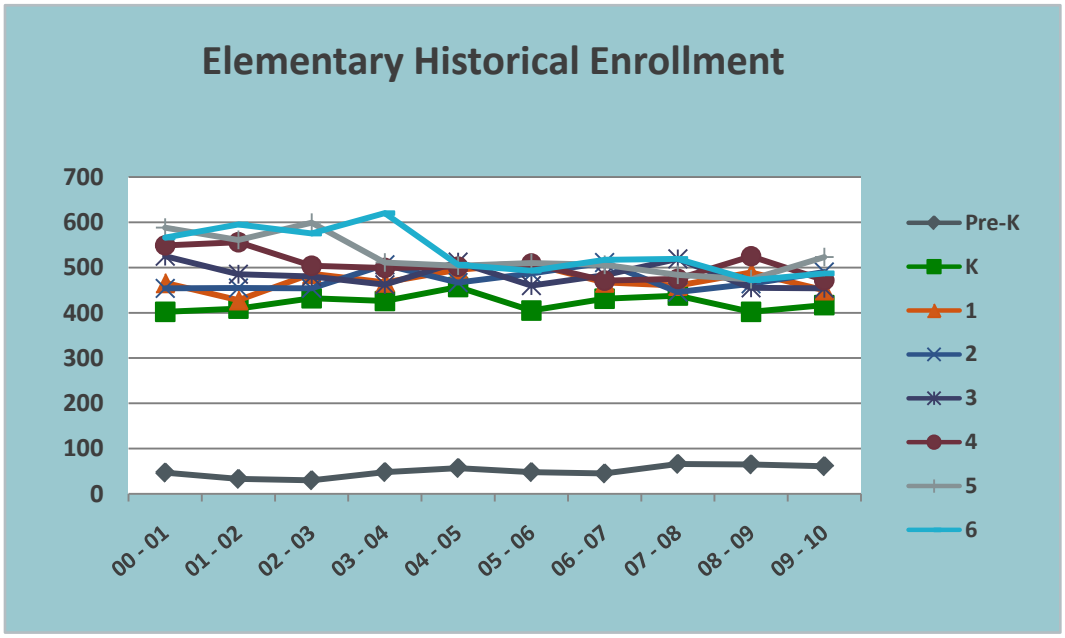
**Exhibit 3-9**
**Douglas County Public Schools**
**Historical Enrollment**
**(by Grade Band)**




Source: Douglas County Public Schools, 2009.

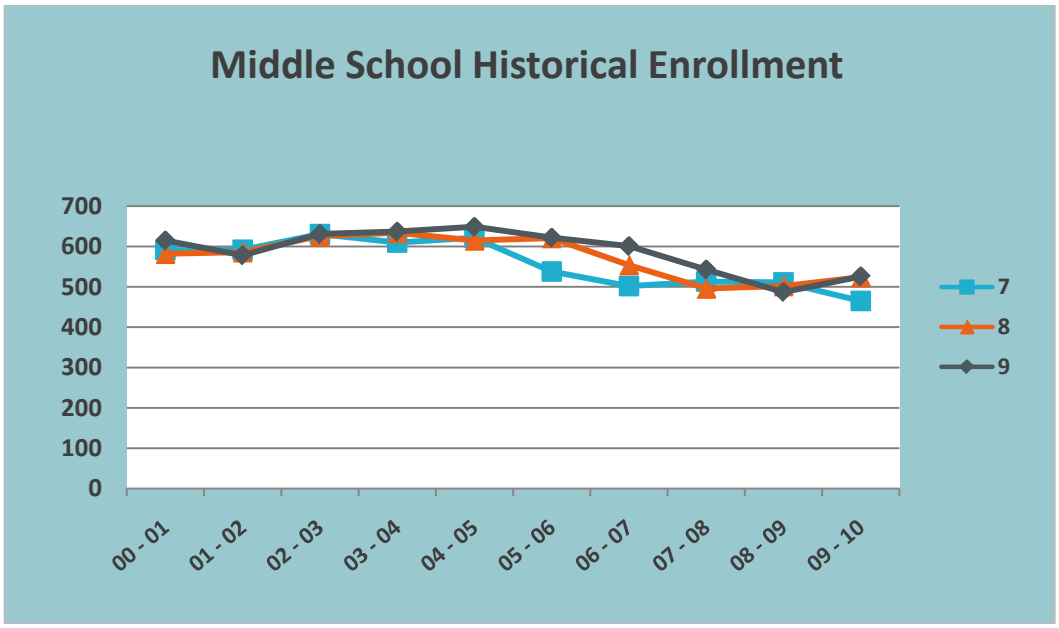
A closer look at historical enrollment at individual grade levels does not reveal any clear trends. Elementary grade-level enrollment data have all historically trended downward with no individual grade having an evidently stronger influence than another grade. Likewise, the middle and high school grade-level enrollment data do not indicate any particular grade influencing the overall trend in historical enrollment. The following *Exhibits 3-10*, *3-11,* and *3-12* illustrate the historical enrollment for each grade level.

**Exhibit 3-10**
**Douglas County Public Schools**
**Historical Elementary School Enrollment**
**(by Grade Level)**



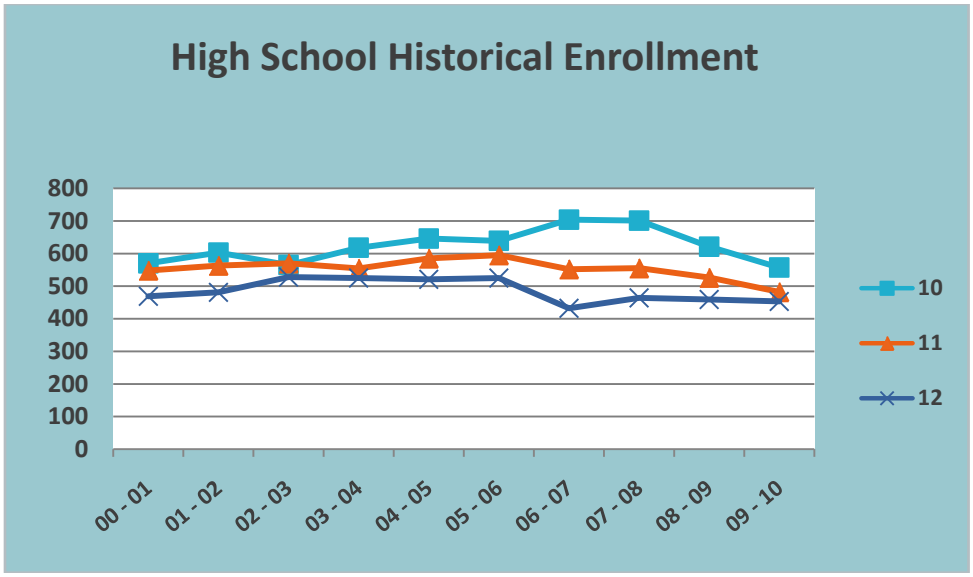

Source: Douglas County Public Schools, 2009.

**Exhibit 3-11**
**Douglas County Public Schools**
**Historical Middle School Enrollment**
**(by Grade Level)**




Source: Douglas County Public Schools, 2009.

**Exhibit 3-12**
**Douglas County Public Schools**
**Historical High School Enrollment**
**(by Grade Level)**



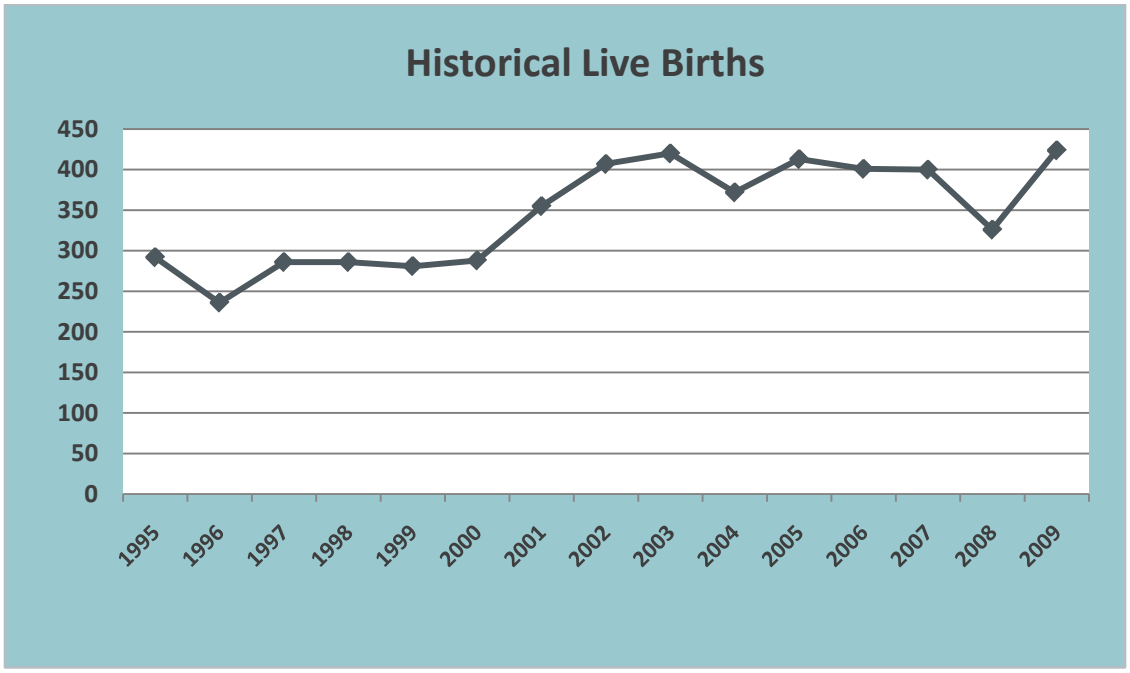

Source: Douglas County Public Schools, 2009.

The trends observed in the historical enrollment data will form a key component of the enrollment projections prepared as a part of this master plan.

***Live Births and Kindergarten Enrollment***

A second key component to analyzing potential future enrollment is to examine live-birth trends in the county and the live-births-to-kindergarten capture rate. A steady or increasing birth rate in the county could lead to additional students in the district, which would also push future enrollment higher. In Douglas County, live births have been declining since 2005. However, the number of live births in Douglas County has been fluctuating between a low of 236 in 1996 to a high of 420 in 2003. *Exhibit 3-13* shows the trend of historical live births for the county.

**Exhibit 3-13**
**Douglas County Public Schools**
**Historical Live Births***
**1995-2009**

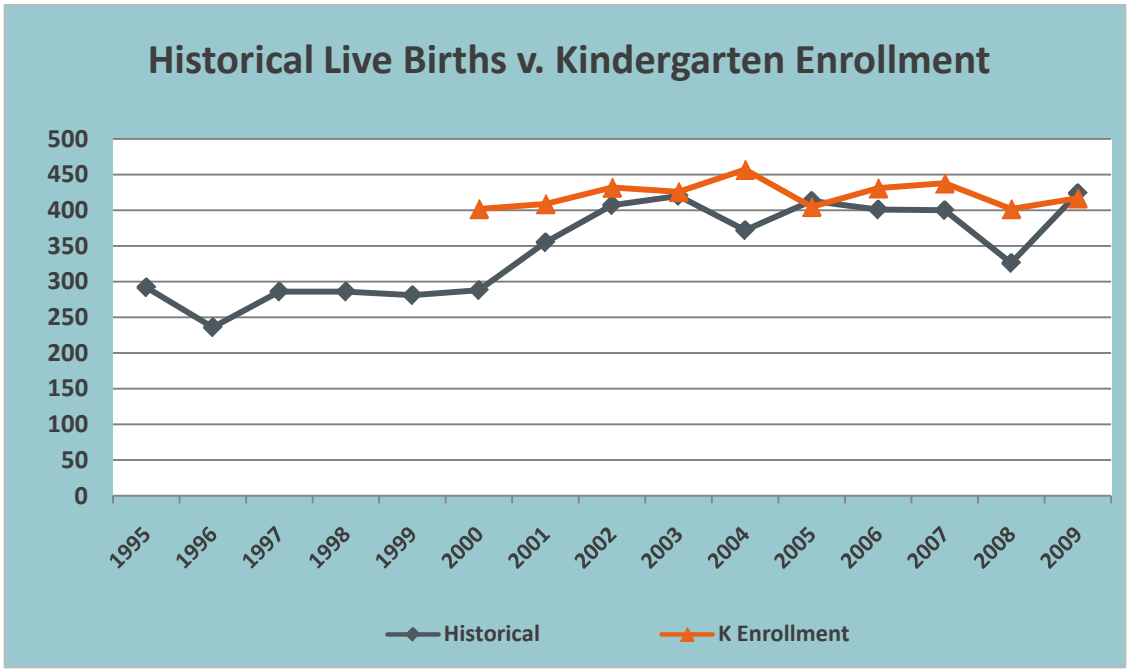



Source: Douglas County Department of Health, 2009.

*2009 live birth data has been estimated using linear regression.

When examining the ratio of live-births-to-kindergarten enrollment, live-birth data is collected for the past fifteen years and kindergarten enrollment for the past ten years. For example, a child born in 1990 would enroll in kindergarten at the age of five. Therefore, in this analysis, we are looking at how many children are enrolled in kindergarten as compared to the number of children born in the county five years prior to a particular school year. *Exhibit 3-14* compares the district's historical kindergarten enrollment to the live birth data.

**Exhibit 3-14**
**Douglas County Public Schools**
**Historical Kindergarten Enrollment and Historical Live Birth Data**



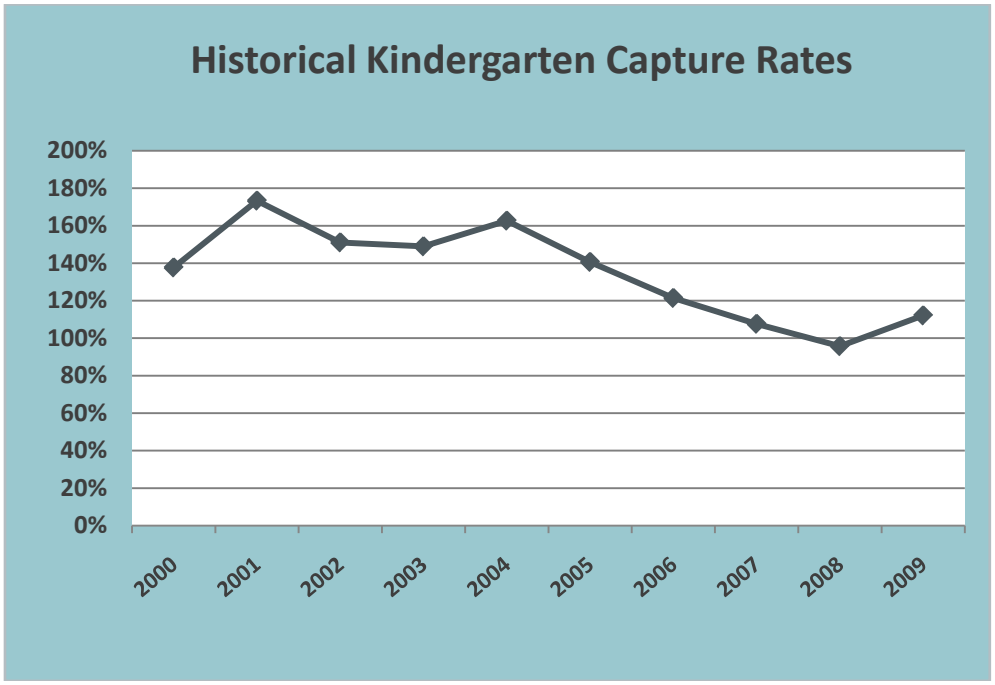

Source: Douglas County Department of Health, 2009; Douglas County Public Schools, 2009.

Two statistics are critical to understanding the relationship between live births and kindergarten enrollment in the district: the correlation coefficient and the capture rate.

The correlation coefficient calculates the relationship between two series of data. A correlation coefficient of 1 indicates a strong relationship; a correlation coefficient of 0 indicates a weak relationship. For DCSD, the correlation coefficient for kindergarten enrollment to live births is -0.019, which indicates a weak relationship and therefore the live birth rate is a poor indicator of future kindergarten enrollment.

The capture rate measures the percentage of live births that resulted in kindergarten enrollment five years later. Over the last ten years, the district's capture rate has averaged 135.11 percent, however, the capture rate has been declining in recent years as *Exhibit 3-15* illustrates. This capture rate, in excess of 100 percent, indicates that young families have been moving into the district. The recent decline in this capture rate probably indicates that fewer young families are migrating to Douglas County and this conclusion is reasonable given the current state of the economy.

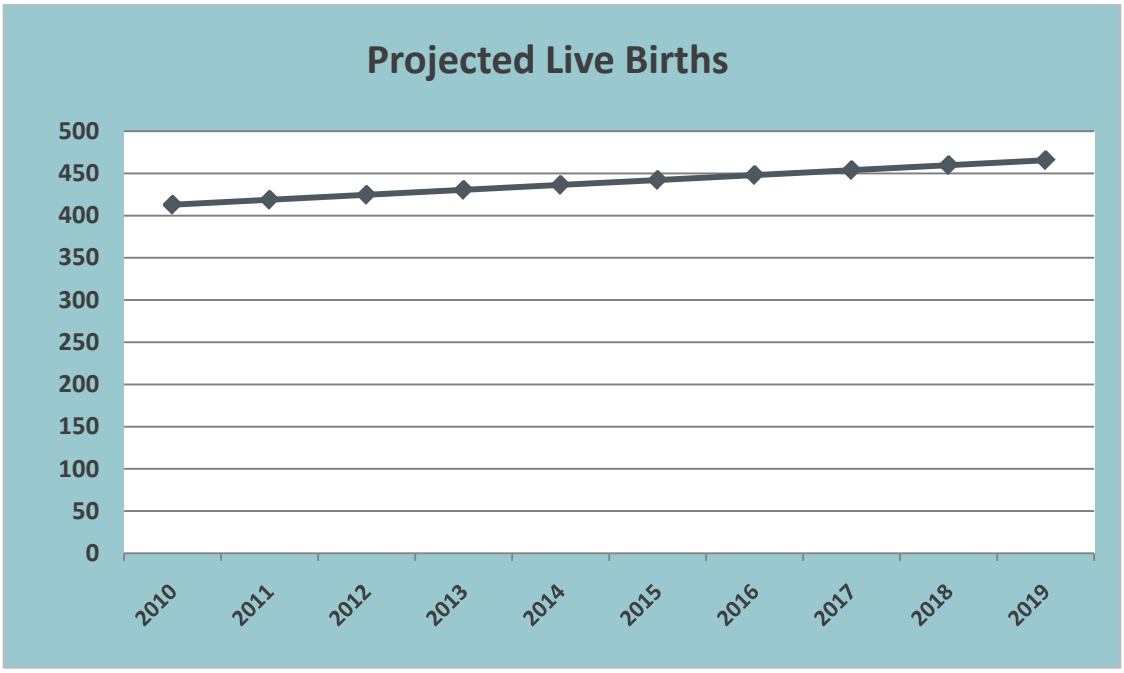
**Exhibit 3-15**
**Douglas County Public Schools**
**Historical Capture Rates**




Source: MGT of America, Inc., 2009.

*Exhibit 3-16* illustrates the projected live births for the district. Live births are projected using a linear regression model based on historical live births in the county. Given the weak correlation of historical live births to historical kindergarten enrollment as shown in *Exhibit 3-15*, future kindergarten enrollment cannot necessarily be expected to follow a similar trend.

**Exhibit 3-16**
**Douglas County Public Schools**
**Projected Live Births**



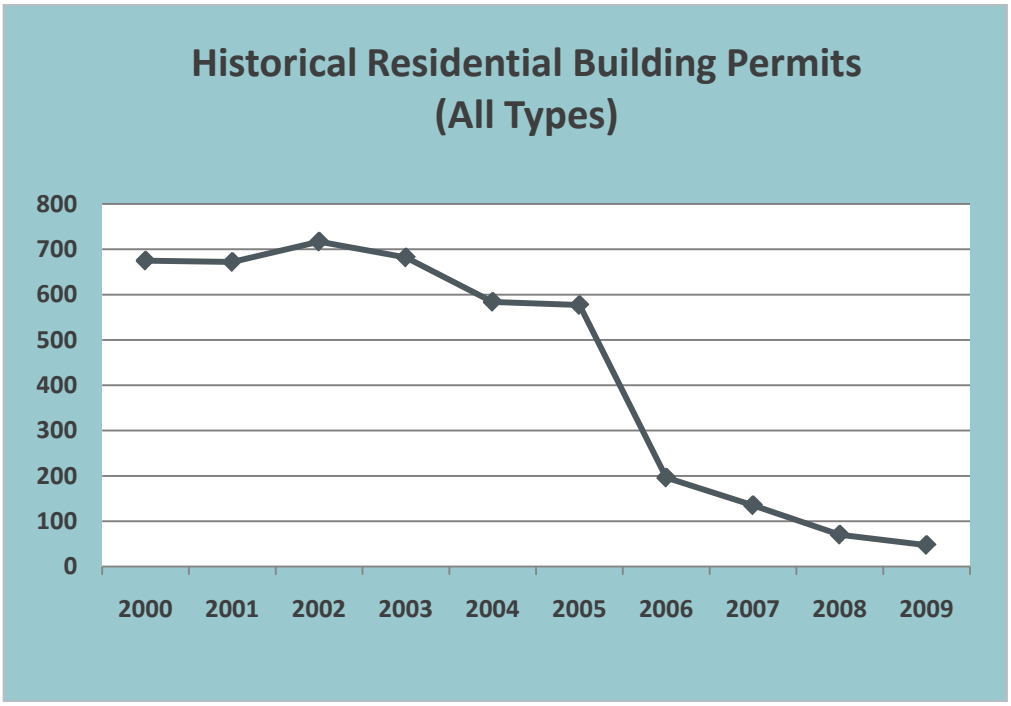

Source: MGT of America, Inc., 2009.

### *Housing Units*

A third key piece of data used to develop enrollment projections is analyzing the trends in housing units in the county. The U.S. Census Bureau recorded 19,006 households in Douglas County in the 2000 Census and estimated 18,673 households in 2007. The census data provides a starting point for this analysis, but building permits provide additional information upon which to base an assumed number of households following the 2000 Census.

Since 2000, the number of housing permits issued each year in Douglas County has significantly decreased. *Exhibit 3-17* illustrates the number of housing permits issued each year since 2000 in Douglas County, which includes both single- and multi-family building permits.

**Exhibit 3-17**
**City of Douglas County**
**Historical Residential Building Permits**

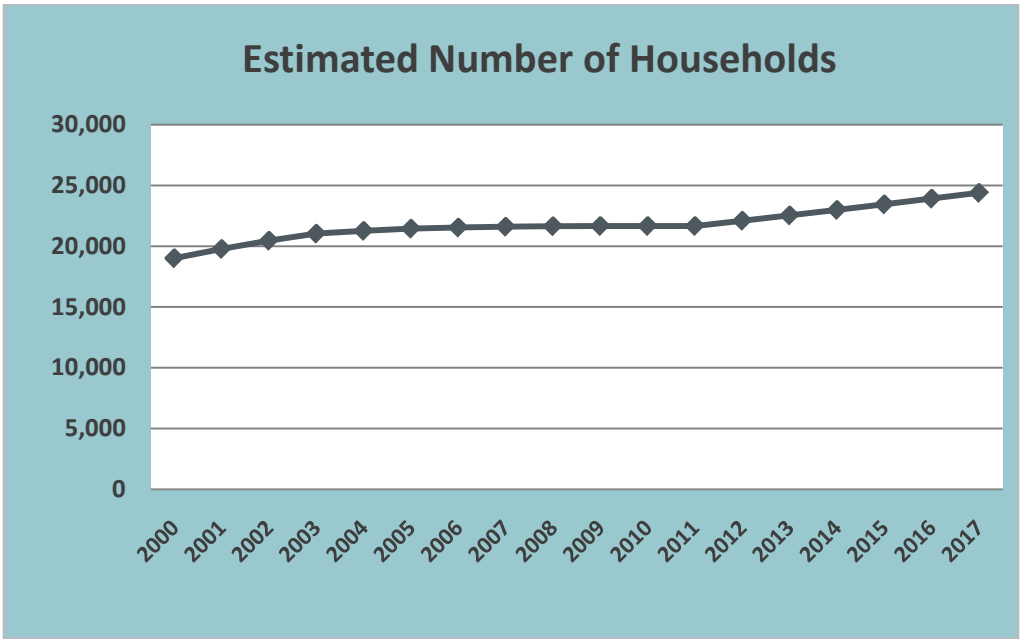



Source: Douglas County Master Plan Review, 2009.

*Exhibit 3-18* projects the number of housing units for Douglas County through 2017. Normally a projection would be based on historic trends, but in Douglas County's case, the historical trend of housing permits would have led to a decline in the number of existing housing units. Consequently, we have projected the maximum number of permits that could be realized under the current growth limits of two percent per year and used this factor to project housing units. Clearly the actual number of permits and resulting housing units will be dependent on the state of the economy which no one can predict at this point.

If we combine the historical and maximum projected building permits, and assume that each permit will result in a built residential unit, we can estimate the number of future households in the district. The total estimated number of households is generated by using the number of households established by the 2000 Census and adding it to the number of historical and projected building permits as illustrated by *Exhibit 3-18*.

**Exhibit 3-18**
**City of Douglas County**
**Estimated Number of Households**




Source: MGT of America, Inc., 2009.

### *Conclusions and Observations About Historical Data*

Based on the analysis of data presented in this section, we have concluded the following regarding the demographics of Douglas County:

1. Live births are leveling off, which could stabilize enrollment.
2. Households are increasing, but new residents are not adding many students to the district.
3. The population is getting older, which will lead to fewer students.
4. The population of white residents has increased while the population of African-Americans has decreased, though these trends will have minimal direct impact on future student enrollment.

## ENROLLMENT PROJECTION METHODOLOGY

Enrollment projections are merely an *estimate* of future activity based on the historical data and information provided. As demonstrated by the district calculations over the past ten years, there can be constant variations in growth. These numbers can be highly accurate, but it must be remembered that the numbers are still a projection or estimate. During the implementation of any of the recommendations provided, it is critical that the district reassess these numbers on a regular basis and adjust plans accordingly.

To identify trends and prepare for adequate spaces, teaching staff and materials and supplies, educational leaders use several methods of projecting enrollment. Among the most commonly used models are *Average Percentage Annual Increase, Cohort Survival, Linear Regression*, and *Student-per-Housing Unit* models. Because no one model is foolproof, MGT generates a weighted average of these four "base" models to arrive at its enrollment projection.

A rule of thumb when forecasting enrollment is that the models should use as many years of historical data as there are years in the projection period. In other words, if the model is projecting enrollment for five years from now, then five years of historical data is used. If the model is projecting enrollment for ten years from now, then ten years of historical data is used. Each of the following "base" models draw data in this manner for their calculations.

### *Average Percentage Annual Increase Model*

This model calculates future school enrollment growth based on the historical average growth from year to year for each grade level. This simple model multiplies the historical average percentage increase (or decrease) by the prior year's enrollment to project future enrollment estimates. For example, if enrollment in the first grade decreased five percent from 2000 to 2001 and decreased seven percent from 2001 to 2002, then the average percentage change would be a six percent decrease, and six percent would be the factor used to project future enrollment in this base model.

### *Linear Regression Model*

This model uses a statistical approach to estimating an unknown future value of a variable by performing calculations on known historical values. Once calculated, several future values for different future dates can then be plotted to provide a "regression line" or "trend line". MGT has chosen a "straight-line" model to estimate future enrollment values, a model that finds the "best fit" based on the historical data.

### *Cohort Survival Model*

This model calculates the growth or decline in a grade level over a period of ten years based on the ratio of students who attend each of the previous years, or the "survival rate". This ratio is then applied to the incoming class to calculate the trends in that class as it "moves" or graduates through the school system. For example, if history shows that between the first and second grades, the classes for the last ten years have grown by an average of 3.5 percent, then the size of incoming classes for the next ten years is calculated by multiplying them by 103.5 percent. If the history shows a declining trend, the multiplying factor would be 100 percent minus the declining trend number.

The determination of future kindergarten enrollment estimates is critical, especially for projections exceeding more than five years. There are two methods of projecting kindergarten enrollment as previously discussed on pages 45-49. The first model is based on the correlation between historical birth rates (natality rates) and historical kindergarten enrollment. The second model uses a linear regression line based on the historical kindergarten enrollment data.

***Students-Per-Household Model***

This last model utilizes the estimated number of households as its base data. Using the housing unit data and historical enrollment data, MGT created a student generation factor for each projected housing unit. By taking the total enrollment by grade level and dividing it by the current housing levels, a *student generation factor* (SGF) was calculated for each grade level. This factor indicates the number of students within each grade level that will be generated by each new housing unit.

Once each of these four base models has been calculated, MGT generates a weighted average of each of the models. A weighted average allows the analysis to reflect all of the trends observed in the historical data and the over-arching themes from the qualitative information gathered in this process. The weighted average also works to maximize the strengths of each of the "base" models.

Two models, the Average Percentage Annual Increase Model and the Linear Regression Model, emphasize historical data. These models are quite effective predictors if there is no expectation of unusual community growth or decline and student population rates have minimal fluctuation.

The Cohort Survival Model also uses historical enrollment numbers, but takes into account student-mobility patterns and the effects of the natality rates in prior years. The Cohort Survival Model is perhaps the best-known predictive tool using this type of data. However, like the Annual Percentage Annual Increase Model and the Linear Regression Model, the Cohort Survival Model loses its predictive capabilities in communities that experience, or are expecting to experience, more rapid growth or rapid decline.

The Students-Per-Household Model allows the planner to take into account projections for housing developments and general growth in the county. This model looks forward and is based on the input from local planners. The planning information is important and the district should continue to monitor this information.

*Exhibit 3-19* identifies the weights used in this analysis.

**Exhibit 3-19**
**Weights Used to Generate Weighted Average of "Base" Models**

| Weighting Factors | |
|---|---|
| **Model** | **Weight** |
| Average Percentage Annual Increase | 0.3 |
| Students-per-Household | 0.1 |
| Cohort Survival | 0.3 |
| Linear Regression | 0.3 |

Source: MGT of America, Inc., 2009.

MGT weighted the Average Percentage Annual Increase Model .3, or 30 percent, so that the weighted average reflected the overall enrollment decline experienced by the district over the last ten years. The Students-Per-Household Model warranted only a .1, or 10 percent, weight because the district's new housing units are not expected to add many students to the district. The people inhabiting those units are not likely to have children. Also, this projection is based on the maximum allowable building units, which is unlikely to be the case in the current economy.

The Cohort Survival Model was weighted at .3, or 30 percent, to allow the leveling off of live births to influence enrollment over the next ten years. Finally, the Linear Regression Model was weighted .3, or 30 percent, to prevent the "bump" in enrollment in the early part of the last ten years from distorting the "line of best fit" generated by the linear regression analysis.

## ENROLLMENT PROJECTIONS

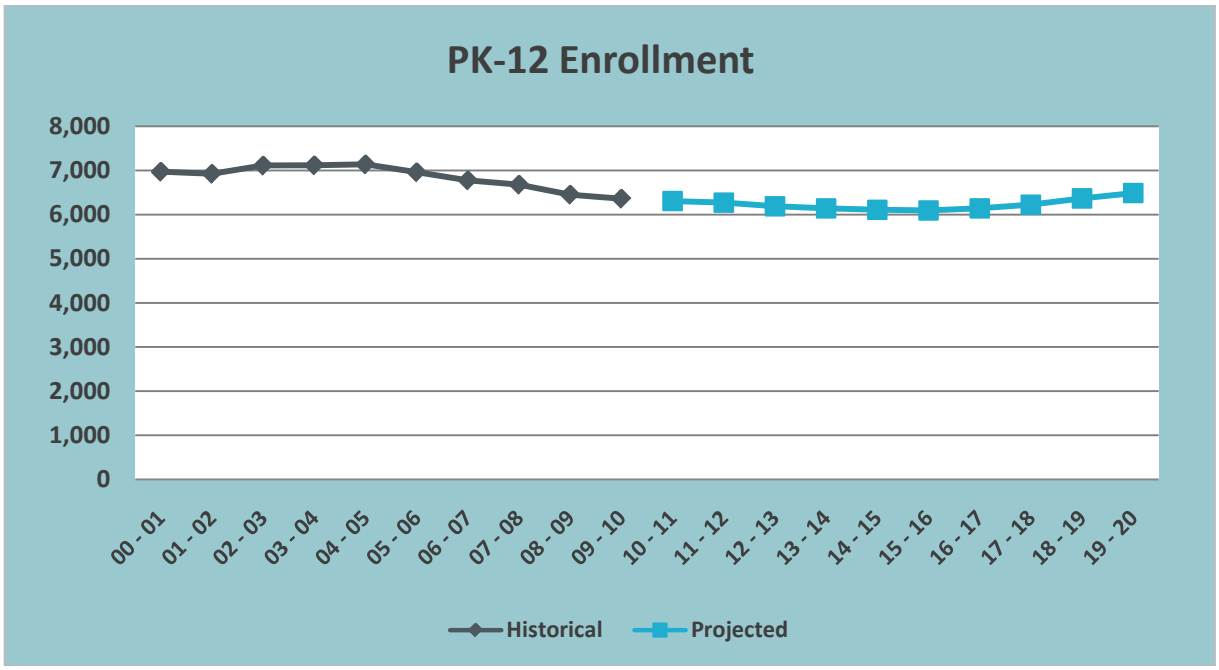
MGT has utilized the methodology described above to forecast enrollment for the district over the next ten years. *Exhibit 3-20* identifies the projected enrollment for each grade level. *Exhibit 3-21* illustrates the historical and projected enrollment for the entire district.

**Exhibit 3-20**
**Douglas County Public Schools**
**Projected Enrollment**

| | 2010 - 11 | 2011 - 12 | 2012 - 13 | 2013 - 14 | 2014 - 15 | 2015 - 16 | 2016 - 17 | 2017 - 18 | 2018 - 19 | 2019 - 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| PK | 59 | 57 | 56 | 72 | 73 | 72 | 76 | 84 | 88 | 88 |
| K | 461 | 458 | 436 | 409 | 458 | 443 | 449 | 454 | 464 | 473 |
| 1 | 442 | 476 | 490 | 491 | 443 | 489 | 491 | 498 | 514 | 518 |
| 2 | 494 | 514 | 561 | 525 | 529 | 503 | 545 | 553 | 565 | 573 |
| 3 | 456 | 436 | 409 | 469 | 475 | 468 | 446 | 496 | 492 | 487 |
| 4 | 454 | 450 | 473 | 487 | 519 | 511 | 514 | 478 | 515 | 505 |
| 5 | 528 | 548 | 549 | 522 | 523 | 569 | 559 | 540 | 501 | 544 |
| 6 | 498 | 483 | 454 | 466 | 461 | 465 | 478 | 467 | 466 | 435 |
| 7 | 449 | 440 | 431 | 438 | 440 | 393 | 390 | 429 | 430 | 439 |
| 8 | 518 | 533 | 540 | 494 | 458 | 462 | 438 | 448 | 507 | 512 |
| 9 | 538 | 530 | 492 | 466 | 435 | 423 | 439 | 431 | 456 | 507 |
| 10 | 533 | 500 | 445 | 451 | 488 | 485 | 502 | 540 | 530 | 549 |
| 11 | 442 | 430 | 423 | 413 | 407 | 416 | 415 | 419 | 439 | 431 |
| 12 | 436 | 418 | 428 | 437 | 399 | 395 | 398 | 388 | 401 | 425 |
| PK-6 | 3,393 | 3,422 | 3,429 | 3,440 | 3,482 | 3,519 | 3,559 | 3,570 | 3,605 | 3,624 |
| 7-9 | 1,504 | 1,503 | 1,463 | 1,398 | 1,333 | 1,278 | 1,267 | 1,307 | 1,392 | 1,458 |
| 10-12 | 1,411 | 1,347 | 1,295 | 1,301 | 1,293 | 1,296 | 1,315 | 1,348 | 1,370 | 1,405 |
| **Total** | **6,307** | **6,272** | **6,187** | **6,140** | **6,108** | **6,094** | **6,141** | **6,225** | **6,367** | **6,488** |

Source: MGT of America, Inc., 2009.

**Exhibit 3-21**
**Douglas County Public Schools**
**Historical and Projected Enrollment – PK-12**



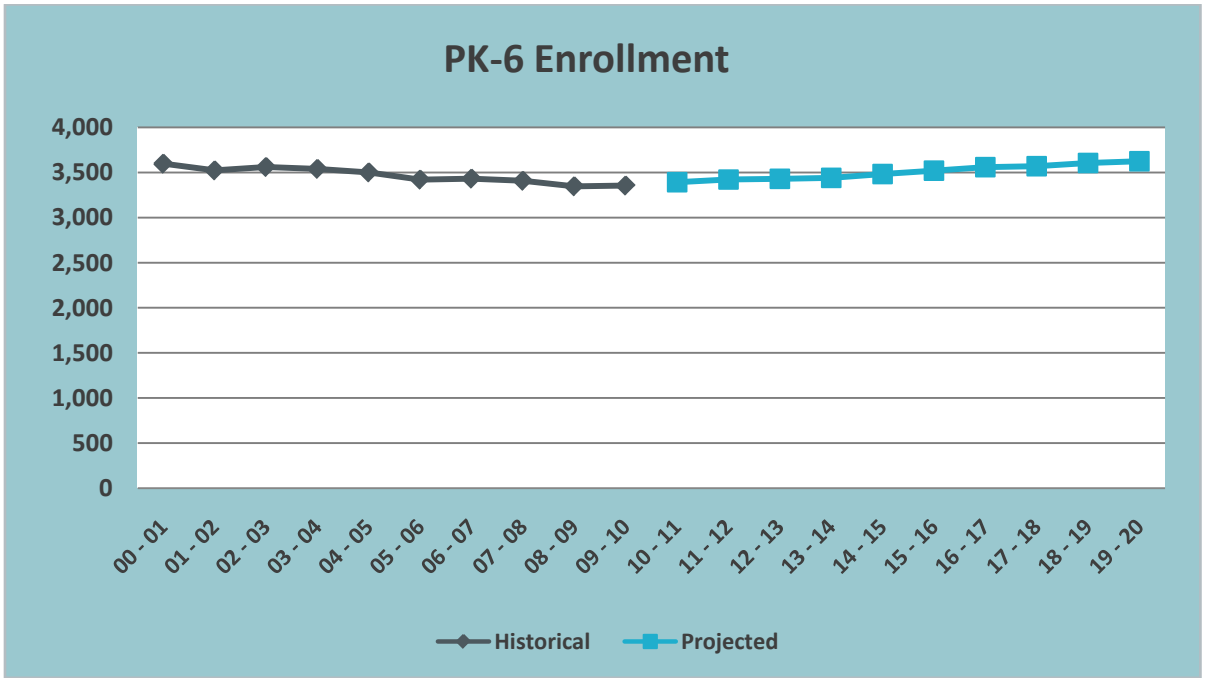

Source: MGT of America, Inc., 2009.

As the foregoing *Exhibit 3-21* shows, enrollment across the district is expected to decline slightly in the next few years and then show a slight increase near the end of the ten year planning period. This is a reasonable projection given the following:

- Live births are projected to increase.
- While there is a poor correlation between the live birth rate and the kindergarten capture rate, the capture rate has historically been more than 100 percent indicating an influx of students into the district.
- While the slowing economy has negatively affected the rate of construction of homes, there is a general consensus among stakeholders that the rates of building and migration into the county will increase once the economy improves.

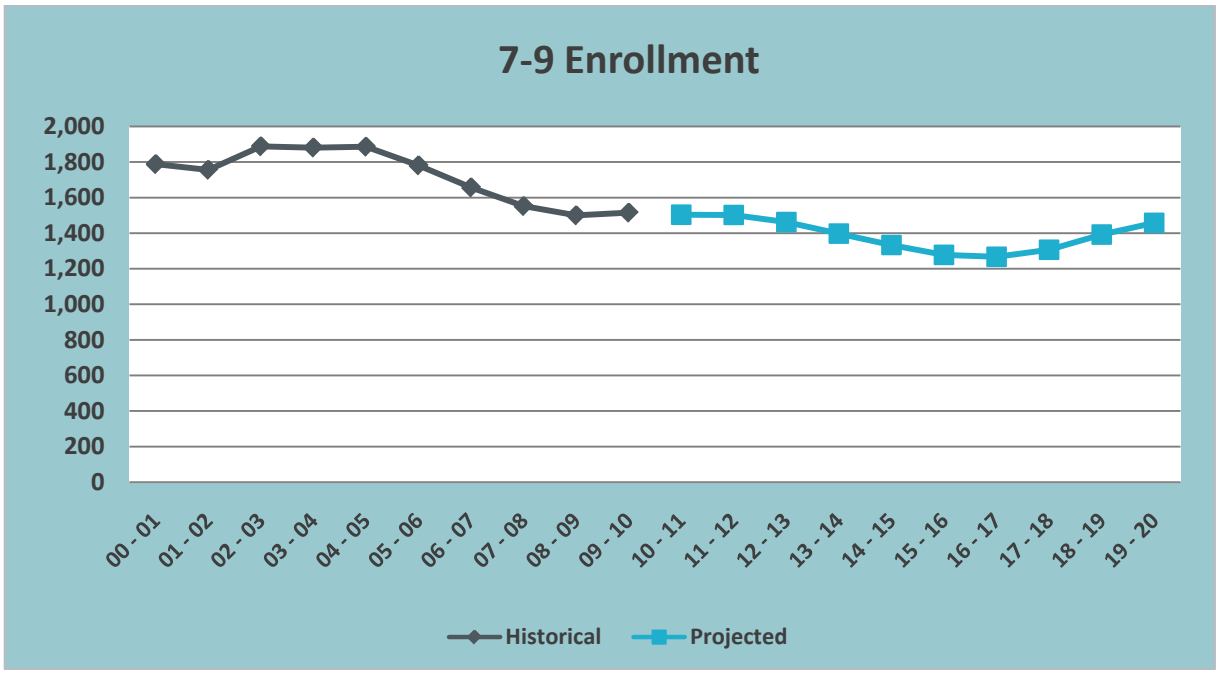
The district is strongly encouraged to revisit these projections on an annual basis and update them to reflect current trends and data. The following *Exhibits 3-22* through *3-24* illustrate the historical and projected enrollment at each grade band.

**Exhibit 3-22**
**Douglas County Public Schools**
**Historical and Projected Enrollment – PK-6**



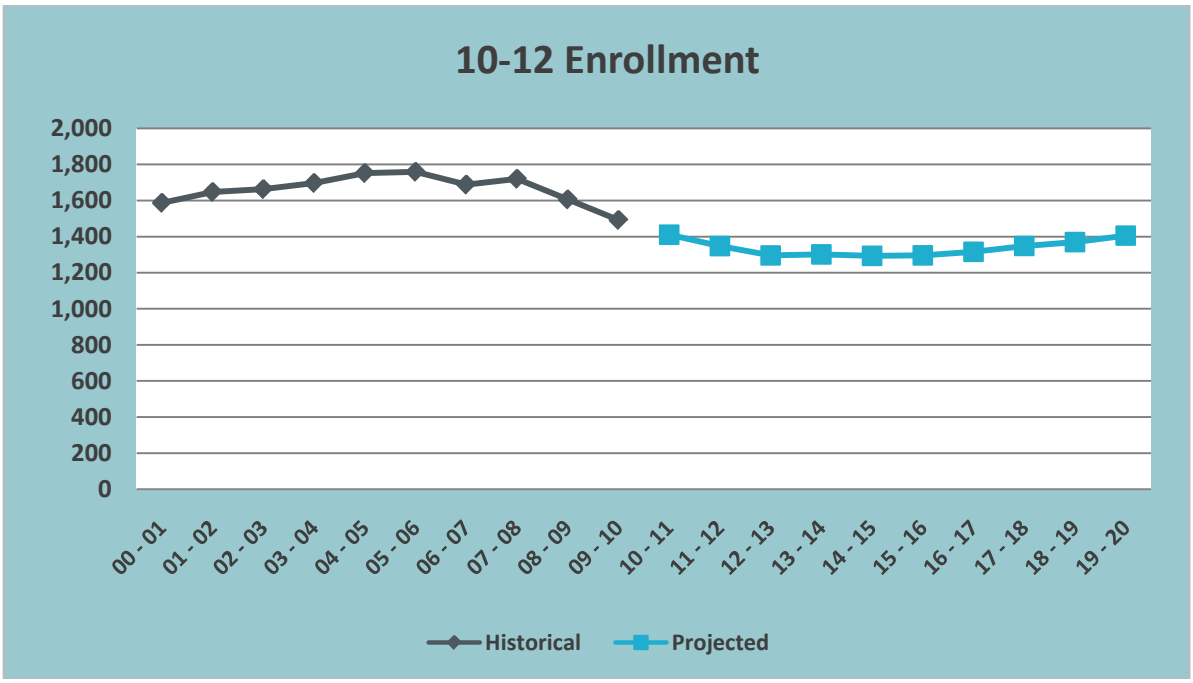

Source: MGT of America, Inc., 2009.

**Exhibit 3-23**
**Douglas County Public Schools**
**Historical and Projected Enrollment – 7-9**




Source: MGT of America, Inc., 2009.

**Exhibit 3-24**
**Douglas County Public Schools**
**Historical and Projected Enrollment – 10-12**




Source: MGT of America, Inc., 2009.

In the next section of the report, we will utilize these enrollment projections to measure the future utilization rates in Douglas County schools and determine whether there will be excess space or a need for additional space.

# SECTION 4.0: CAPACITY AND UTILIZATION ANALYSIS

The capacity of a facility is defined as the number of students the facility can accommodate. More specifically, a school's capacity is the number of students which can be accommodated given the specific educational programs, the class schedules, the student-teacher ratios, and the size of the rooms. MGT's uses a capacity model called the *Instructional Use Model.* While there are other methods for calculating the capacity of a school, the Instructional Use Model is most appropriate when building a facility master plan because it most accurately reflects how the schools are used. Utilization is calculated by dividing the number enrolled at the school by its capacity.

## SCHOOL BUILDING CAPACITY

The Instructional Use Model, used by MGT, counts the number of the various types of instructional rooms and multiplies that number by the maximum students-per-room or the *loading* factor to identify the gross capacity for the school. The gross capacity is then multiplied by a scheduling factor, which takes into account the realities of how the space is used. For example, high school students move from room to room and enroll in a variety of courses. As a result, some rooms will sit empty or will be less than fully occupied at any given time. Teacher preparation periods will also contribute to rooms not being used for instruction at a particular time. Therefore, MGT uses a 75 percent scheduling factor to reduce the gross capacity of the building to reflect the unused rooms due to the realities of how a high school functions. An elementary school, on the other hand, has students that remain in one room for most of the school day. Therefore, MGT uses a 95 percent scheduling factor for elementary schools to reflect the fairly consistent, day-long use of elementary classrooms.

The loading factors used for the capacity calculations are listed below. Small schools typically have smaller class sizes than larger schools and therefore use an adjusted loading factor, or a small school factor, to determine a realistic capacity. Consequently, for the schools located at Lake Tahoe which have smaller enrollments, we have used a small school factor to establish the realistic loading factors. Calculation of the small school factor takes into account the average number of students enrolled in classes at the schools in question, calculates the percentage difference between the average class size and the class size standards (*Exhibit 4-1* below) and applies that percentage difference to the capacity calculation of the schools considered small (in this case, Zephyr Cove and George Whittell).

**Exhibit 4-1**
**Instructional Use Model Guidelines**

| Instructional-Use Model Guidelines | | |
|---|---|---|
| **Room Type** | **Students/ Room Typical School** | **Students/ Room Small School** |
| Pre-School | 18 | 15 |
| K Capacity (full day) | 25 | 22 |
| Elementary Classroom | 25 | 22 |
| Secondary Classroom | 25 | 23 |
| Art (Secondary) | 20 | 18 |
| Music (Secondary) | 30 | 27 |
| Science Lab (Secondary) | 25 | 23 |
| CTE, Consumer Arts, Etc. | 20 | 18 |
| PE (Secondary) | 25 | 23 |
| Computer Lab (Secondary) | 25 | 23 |
| Spec. Ed. - Severe (Elementary) | 10 | 9 |
| Spec. Ed. - Resource* | 15 | 14 |
| Alternative Education | 20 | 18 |
| Portable | 0 | 0 |
| **Scheduling Factors** | | |
| Elementary Schools | 95.0% | |
| Middle Schools | 85.0% | |
| High Schools | 75.0% | |

Source: MGT of America, Inc., 2009.

*Excluded From Capacity Count

The following example shows how MGT used the Instructional Use Model to calculate the capacity of Douglas High School:

**Exhibit 4-2**
**Douglas County School District**
**Example Calculation of Capacity – Douglas High School**

| Room Type | Number of Classrooms x | Students/Classroom | = Capacity |
|---|---|---|---|
| General Classrooms | 48 | 25 | 1,200 |
| Art | 3 | 20 | 60 |
| Music | 2 | 30 | 60 |
| Science | 9 | 25 | 225 |
| Vocational Education | 6 | 20 | 120 |
| Physical Education | 5 | 25 | 125 |
| Special Ed (Severe) | 2 | 10 | 0 |
| Special Ed (Resource) | 1 | 15 | 0 |
| Portable | 14 | 0 | 0 |
| | | | Total Capacity (w/o scheduling factor) = 1,790 |
| | | | x High School scheduling factor of 75% |
| | | | **Douglas High School Capacity = 1,343** |

Source: MGT of America, Inc., 2009.

Using the Instructional Use Model, as shown in *Exhibit 4-2*, MGT has calculated the capacity for each of the district's school buildings. *Exhibit 4-3* identifies each school's capacity by grade band.

**Exhibit 4-3**
**Douglas County School District**
**School Capacities by Site**

| Site Name | Capacity | Small School Capacity |
|---|---|---|
| **Elementary Schools** | | |
| CC Meneley Elementary School | 563 | N/A |
| Gardnerville Elementary School | 611 | N/A |
| Gene L. Scarselli Elementary School | 594 | N/A |
| Jacks Valley Elementary School | 563 | N/A |
| Minden Elementary School | 468 | N/A |
| Piñon Hills Elementary School | 475 | N/A |
| Zephyr Cove Elementary School | N/A | 253 |
| **Elementary School Total** | **3,528** | |
| **Middle Schools** | | |
| Carson Valley Middle School | 803 | N/A |
| Pau-Wa-Lu Middle School | 782 | N/A |
| **Middle School Total** | **1,585** | |
| **High Schools** | | |
| Douglas High School | 1,343 | N/A |
| George Whittell High School | N/A | 354 |
| **High School Total** | **1,697** | |
| **District Total** | **6,809** | |

Source: MGT of America, Inc., 2009.

The following *Exhibit 4-4* identifies the range of capacities and the average capacity at each grade band.

**Exhibit 4-4**
**Douglas County School District**
**Capacity Analysis Summary by Site Type**

| Site Type | Capacity Range | | Average Capacity |
|---|---|---|---|
| Elementary Schools | 253 | 611 | 504 |
| Middle Schools | 782 | 803 | 793 |
| High Schools | 354 | 1,343 | 848 |

Source: MGT of America, Inc., 2009.

## CAPACITY AND ENROLLMENT – UTILIZATION ANALYSIS

The effective management of school facilities requires a school's capacity and enrollment to be matched. When capacity exceeds enrollment (underutilization), operational costs are higher than necessary and facilities may need to be re-purposed or the facilities may need to be removed from inventory. When enrollment exceeds capacity (overutilization), the school may be overcrowded and may require capital expenditures to alleviate the crowding. MGT has calculated and analyzed the present utilization rates for each grade band based on the enrollment information in the preceding section and the capacity information presented above. *Exhibits 4-5* through *4-7* present that information for the schools currently in use.

**Exhibit 4-5**
**Douglas County School District**
**Utilization of Schools Currently in Use by Grade Band***

| Site Type | Capacity | Enrollment | | Utilization | |
|---|---|---|---|---|---|
| | | 2009 | 2019 | 2009 | 2019 |
| Elementary Schools | 3,528 | 3,354 | 3,717 | 95% | 105% |
| Middle Schools | 1,585 | 1,405 | 1,339 | 89% | 84% |
| High Schools | 1,697 | 1,602 | 1,486 | 94% | 88% |

Source: MGT of America, Inc., 2009.

*Note that capacity is based on school type category (ES, MS, HS) while enrollment is based on grade band (PK-6, 7-9, 10-12). This method of presenting the information may result in a mismatch between the totals shown here and the totals shown in *Exhibit 3-20.*

**Exhibit 4-6**
**Douglas County School District**
**Utilization Analysis by School Type**

| Site Type | 2009 Utilization Range | | 2009 Average Utilization |
|---|---|---|---|
| Elementary Schools | 88% | 107% | 95% |
| Middle Schools | 78% | 99% | 89% |
| High School | 65% | 102% | 94% |

Source: MGT of America, Inc., 2009.

**Note:** The difference in total projected enrollment for the district (*Exhibit 3-20*) and the total of the individual schools (*Exhibits 4-5 and 4-7)* is due to the mathematics of the models and the historical enrollment of a particular school. For example, a school may show significant growth from year to year, which would result in a high average annual growth modeling factor and a high overall projection for that particular school. However, the abundance of growth at a particular school will be balanced by the other schools in the district-wide model, which leads to a lower average annual growth modeling factor and a less significant increase in future enrollment. The same is true for grade band projections as compared to the sum of the individual schools within a particular grade band. In the end, the district-wide and grade band totals provide good macro views of potential future trends. The individual school projections provide micro views of the potential future of a particular school, which makes the individual school projections appropriate for planning for that particular building's future.

**Exhibit 4-7**
**Douglas County School District**
**Summary of Capacity and Current Enrollment of Elementary Schools**

| Site Name | 2009 – 2010 Enrollment | 2019 – 2020 Projected Enrollment | Capacity | 2009 – 2010 Utilization | 2019 – 2020 Utilization |
|---|---|---|---|---|---|
| **Elementary Schools** | | | | | |
| CC Meneley Elementary School | 553 | 556 | 563 | 98% | 99% |
| Gardnerville Elementary School | 539 | 554 | 611 | 88% | 91% |
| Gene L. Scarselli Elementary School | 570 | 614 | 594 | 96% | 103% |
| Jacks Valley Elementary School | 516 | 617 | 563 | 92% | 110% |
| Minden Elementary School | 445 | 546 | 468 | 95% | 117% |
| Piñon Hills Elementary School | 506 | 664 | 475 | 107% | 140% |
| Zephyr Cove Elementary School | 225 | 164 | 253 | 89% | 65% |
| **Elementary Total** | **3,354** | **3,717** | **3,528** | **95%** | **105%** |
| **Middle Schools** | | | | | |
| Carson Valley Middle School | 798 | 849 | 803 | 99% | 106% |
| Pau-Wa-Lu Middle School | 607 | 490 | 782 | 78% | 63% |
| **Middle Total** | **1,405** | **1,339** | **1,585** | **89%** | **84%** |
| **High Schools** | | | | | |
| Douglas High School | 1,373 | 1,334 | 1,343 | 102% | 99% |
| George Whittell High School | 229 | 152 | 354 | 65% | 43% |
| **High Total** | **1,602** | **1,486** | **1,697** | **94%** | **88%** |
| **District Total** | **6,361** | **6,541** | **6,809** | **93%** | **96%** |

Source: MGT of America, Inc., 2009.

| Color Key |
|---|
| Utilization greater than 100% |
| Utilization between 90% and 100% |
| Utilization between 80% and 90% |
| Utilization between 70% and 80% |
| Utilization below 70% |

## CAPACITY AND UTILIZATION CONCLUSIONS

As *Exhibit 4-7* shows, all of the district's schools, with the exception of the two schools at Lake Tahoe and Pau-Wa-Lu Middle School, will be over 90 percent utilized in ten years, with five schools over 100 percent utilization. This indicates that some space will need to be added at some schools. How much space and which schools will be dependent on additional factors that will be presented in the following chapters.

# SECTION 5.0: FACILITY ASSESSMENTS

This section presents the results of the facility assessments that were conducted by MGT for the Douglas County School District. MGT uses a facility assessment tool called BASYS® to measure the condition of school facilities. These assessments are divided into four components:

- Educational Suitability
- Building Condition
- Technology Readiness
- Site Condition

## EDUCATIONAL SUITABILITY ASSESSMENT

The educational suitability assessment evaluates how well the facility supports the educational program that it houses. Each school receives one suitability score which applies to all the buildings at the facility. The educational suitability of each school was assessed with BASYS® using the following categories:

| | |
|---|---|
| **Environment:** | The overall environment of the schools with respect to creating a safe and positive learning environment. |
| **Circulation:** | Pedestrian/vehicular circulation and the appropriateness of site facilities and signage. |
| **Support Space:** | The existence of facilities and spaces to support the educational program being offered. These include general classrooms, special learning spaces (e.g. music rooms, libraries, science labs), and support spaces (e.g. administrative offices, counseling offices, reception areas, kitchens, health clinics). |
| **Size:** | The adequacy of the size of the program spaces. |
| **Adjacencies:** | The appropriateness of adjacencies (e.g., physical education space separated from quiet spaces). |
| **Storage & Fixed Equipment** | The appropriateness of utilities, fixed equipment, storage, and room surfaces (e.g. flooring, ceiling materials, wall coverings). |

Suitability scores are interpreted as follows:

| | |
|---|---|
| **90+** | **Good:** The facility is designed to provide for and support the educational program offered. It may have minor suitability issues but generally meets the needs of the educational program. |
| **75-89** | **Fair:** The facility has some problems meeting the needs of the educational program and may require some remodeling. |
| **50-74** | **Poor:** The facility has numerous problems meeting the needs of the educational program and needs significant remodeling or additions. |
| **Below 50** | **Unsatisfactory:** The facility is unsuitable in many areas of the educational program. |

*Exhibit 5-1* presents the range and average of suitability scores by facility type. The suitability scores range from 44 to 83. The average scores fall within the "Poor" category:

**Exhibit 5-1**
**Douglas County School District**
**Suitability Score Ranges**

| Site Type | Suitability Score Range | | Average Suitability Score |
|---|---|---|---|
| | Low | High | |
| Elementary Schools | 44 | 83 | 65 |
| Middle Schools | 59 | 72 | 65 |
| High Schools | 49 | 82 | 66 |

Source: MGT of America, Inc., 2009.

*Exhibit 5-2* presents the educational suitability score for each school. As the scores indicate, some schools have significant suitability deficiencies.

**Exhibit 5-2**
**Douglas County School District**
**Suitability Scores – By Site**

| Site Name | Suitability Score |
|---|---|
| **Elementary Schools** | |
| CC Meneley Elementary School | 52.51 |
| Gardnerville Elementary School | 43.74 |
| Gene L. Scarselli Elementary School | 83.20 |
| Jacks Valley Elementary School | 48.64 |
| Minden Elementary School | 83.24 |
| Piñon Hills Elementary School | 67.29 |
| Zephyr Cove Elementary School | 77.87 |
| **Elementary School Average** | **65.21** |
| **Middle Schools** | |
| Carson Valley Middle School | 58.77 |
| Pau-Wa-Lu Middle School | 72.20 |
| **Middle School Average** | **65.48** |
| **High Schools** | |
| Douglas High School | 49.33 |
| George Whittell High School | 81.84 |
| **High School Average** | **65.59** |
| **Other Facilities** | |
| Administrative Office | N/A |
| Kingsbury Middle School | 48.40 |
| Support Services Complex & Additional Support Buildings | N/A |

Source: MGT of America, Inc., 2009.

## BUILDING CONDITION ASSESSMENT

The BASYS® building condition score measures the amount of needed improvements in the building's major systems. The weighted condition score of a school is the average condition score (weighted by building square footage) of all the buildings at a school (excluding portables). The scores are interpreted as follows:

| | |
|---|---|
| **90+** | **New or Like New:** The building and/or a majority of its systems are in good condition, less than one year old, and only require preventative maintenance. |
| **75-89** | **Good:** The building and/or a majority of its systems are in good condition and only require routine maintenance. |
| **60-74** | **Fair:** The building and/or some of its systems are in fair condition and require minor to moderate repair. |
| **50-59** | **Poor:** The building and/or a significant number of its systems are in poor condition and require major repair or renovation. |
| **Below 50** | **Unsatisfactory:** The building and/or a majority of its systems should be considered for replacement. |

The condition assessment process rates each system in a building as "new", "good", "fair", "poor", or "unsatisfactory" based on a detailed description of each rating for the particular system. The possible score for each system is based on that system's contribution to the overall cost of building construction. Therefore, the condition score is a measure of that portion of the value of the building which is in good condition. The capital needs score (100 minus the condition score) is a measure of the capital needs or deferred maintenance. This score, when presented as a percent, is also referred to the facility condition index or FCI. For example, a building which has a condition score of 80, has a capital needs score of 20 (100 – 80 = 20). A capital needs score of 20 indicates that 20 percent of the value of the building can be reinvested in the building in order to attain a score of 100 and put the building in a "like new" condition. Typically, capital needs scores are calculated using a base condition score of 90 (which indicates that a system is in good condition and requiring only routine maintenance), since it is unreasonable to expect all buildings to be in "like new" condition indefinitely. The capital needs score and resulting calculations do not include the costs of additions, site improvements, improvements for educational suitability, or technology readiness improvements.

*Exhibit 5-3* presents the range of condition scores and the weighted average condition scores (weighted by GSF) by type of facility for the Douglas County School District. As the exhibit shows, there is a range of condition scores, from 61 to 81, with the average condition scores in the range of "Fair" to "Good".

**Exhibit 5-3**
**Douglas County School District**
**Building Condition Score Ranges**

| Site Type | Building Condition Score Range | | Average Condition Score |
|---|---|---|---|
| | Low | High | |
| Elementary Schools | 61 | 81 | 73 |
| Middle Schools | 74 | 79 | 77 |
| High Schools | 70 | 77 | 73 |

Source: MGT of America, Inc., 2009.

*Exhibit 5-4* presents the weighted average condition score for each school that was assessed. As the exhibit shows, condition scores are in the "Fair" to "Good" categories which indicates that the facilities are generally in need of routine maintenance and minor system repair with some moderate repairs necessary.

**Exhibit 5-4**
**Douglas County School District**
**Condition Scores– By Site**

| Site Name | *GSF | Average Condition Score |
|---|---|---|
| **Elementary Schools** | | |
| CC Meneley Elementary School | 53,534 | 69.08 |
| Gardnerville Elementary School | 55,293 | 72.20 |
| Gene L. Scarselli Elementary School | 55,640 | 75.48 |
| Jacks Valley Elementary School | 51,740 | 61.27 |
| Minden Elementary School | 47,971 | 80.84 |
| Piñon Hills Elementary School | 47,295 | 81.38 |
| Zephyr Cove Elementary School | 40,206 | 71.61 |
| **Elementary School Average** | **50,240** | **73.12** |
| **Middle Schools** | | |
| Carson Valley Middle School | 89,449 | 74.32 |
| Pau-Wa-Lu Middle School | 107,410 | 79.45 |
| **Middle School Average** | **98,430** | **76.88** |
| **High Schools** | | |
| Douglas High School | 158,552 | 76.58 |
| George Whittell High School | 56,030 | 69.71 |
| **High School Average** | **107,291** | **73.14** |
| **Other Facilities** | | |
| Administrative Office | 10,800 | 59.47 |
| Kingsbury Middle School | 34,510 | 60.73 |
| Support Services Complex & Additional Support Buildings | 73,997 | 75.45 |

Source: MGT of America, Inc., 2009.
*GSF excludes portables

## TECHNOLOGY READINESS

The BASYS® technology readiness score measures the capability of the existing infrastructure to support information technology and associated equipment. The score can be interpreted as follows:

| | |
|---|---|
| **90+** | **Good:** The facility has the infrastructure to support information technology. |
| **75-89** | **Fair:** The facility is lacking in some infrastructure. |
| **50-74** | **Poor:** The facility is lacking significant infrastructure to support information technology. |
| **Below 50** | **Unsatisfactory:** The facility has little or no infrastructure to support information technology. |

*Exhibit 5-5* presents the range of technology scores and the average technology scores by facility type. Technology readiness scores vary from 51 to 89, with the averages in the "Poor" category.

**Exhibit 5-5**
**Douglas County School District**
**Technology Score Ranges**

| Site Type | Technology Readiness Score Range | | Average Technology Score |
|---|---|---|---|
| | Low | High | |
| Elementary Schools | 53 | 89 | 74 |
| Middle Schools | 51 | 63 | 57 |
| High Schools | 68 | 69 | 69 |

Source: MGT of America, Inc., 2009.

*Exhibit 5-6* presents the technology readiness score for each school site.

**Exhibit 5-6**
**Douglas County School District**
**Technology Scores – By Site**

| Site Name | Technology Score |
|---|---|
| **Elementary Schools** | |
| CC Meneley Elementary School | 58.30 |
| Gardnerville Elementary School | 53.30 |
| Gene L. Scarselli Elementary School | 89.20 |
| Jacks Valley Elementary School | 75.00 |
| Minden Elementary School | 86.70 |
| Piñon Hills Elementary School | 80.00 |
| Zephyr Cove Elementary School | 74.20 |
| **Elementary School Average** | **73.81** |
| **Middle Schools** | |
| Carson Valley Middle School | 50.80 |
| Pau-Wa-Lu Middle School | 63.35 |
| **Middle School Average** | **57.08** |
| **High Schools** | |
| Douglas High School | 68.30 |
| George Whittell High School | 69.20 |
| **High School Average** | **68.75** |
| **Other Facilities** | |
| Administrative Office | N/A |
| Kingsbury Middle School | 58.30 |
| Support Services Complex & Additional Support Buildings | N/A |

Source: MGT of America, Inc., 2009.

## SITE CONDITION ASSESSMENT

The site condition assessment score is a measure of the amount of capital needs or deferred maintenance at the site, which includes the driveways and walkways, the parking lots, the playfields, the utilities, and fencing. The scores are interpreted as follows:

| | |
|---|---|
| **90+** | **New or Like New:** The site and/or a majority of its systems are in good condition, less than one year old, and only require preventative maintenance. |
| **75-89** | **Good:** The site and/or a majority of its systems are in good condition and only require routine maintenance. |
| **60-74** | **Fair:** The site and/or some of its systems are in fair condition and require minor repair. |
| **50-59** | **Poor:** The site and/or a significant number of its systems are in poor condition and require major repair or renovation. |
| **Below 50** | **Unsatisfactory:** The site and/or a majority of its systems should be considered for replacement. |

The site assessment scores were calculated in the same manner as the building condition scores. *Exhibit 5-7* presents the range of site assessment scores and the average site assessment scores by facility type. The site assessment scores averaged in the "Fair" category.

**Exhibit 5-7**
**Douglas County School District**
**Site Assessment Score Ranges**

| Site Type | Site Assessment Score Range | | Average Site Score |
|---|---|---|---|
| | Low | High | |
| Elementary Schools | 60 | 65 | 63 |
| Middle Schools | 60 | 66 | 63 |
| High Schools | 66 | 73 | 69 |

Source: MGT of America, Inc., 2009.

*Exhibit 5-8* presents the site assessment score by each school site. Each school site receives a single site assessment score.

**Exhibit 5-8**
**Douglas County School District**
**Site Scores – By Site**

| Site Name | Site Score |
|---|---|
| **Elementary Schools** | |
| CC Meneley Elementary School | 59.81 |
| Gardnerville Elementary School | 64.59 |
| Gene L. Scarselli Elementary School | 60.02 |
| Jacks Valley Elementary School | 64.93 |
| Minden Elementary School | 65.26 |
| Piñon Hills Elementary School | 64.31 |
| Zephyr Cove Elementary School | 63.59 |
| **Elementary School Average** | **63.22** |
| **Middle Schools** | |
| Carson Valley Middle School | 60.00 |
| Pau-Wa-Lu Middle School | 65.54 |
| **Middle School Average** | **62.77** |
| **High Schools** | |
| Douglas High School | 65.64 |
| George Whittell High School | 72.66 |
| **High School Average** | **69.15** |
| **Other Facilities** | |
| Administrative Office | 52.47 |
| Kingsbury Middle School | 64.97 |
| Support Services Complex & Additional Support Buildings | 72.66 |

Source: MGT of America, Inc., 2009.

## COMBINED SCORES

The building condition, educational suitability, technology readiness, and site condition scores are combined into one score for each school to assist in the task of prioritizing projects. Since the building condition score is a measure of the maintenance needs (e.g. leaky roofs, etc.) and the educational suitability score is a measure of how well the building design and configuration supports the educational program, it is possible to have a high score for one assessment and a low score for another assessment. It is the combined score that attempts to give a comprehensive picture of the conditions that exist at each school and how each school compares relative to the other schools in the district. The combined score is also one of the criteria used to formulate priorities and recommendations in Section 6.0 of this report.

To create the combined score, the four scores are weighted, based on which deficiencies the district wants to emphasize and the relative impact on capital costs. For Douglas County School District, the educational suitability score was weighted 40 percent, the building condition score was weighted 40 percent, the technology readiness score was weighted 10 percent, and the site condition score was weighted 10 percent. *Exhibit 5-11* presents all the scores for each facility and the resulting combined score using this weighting formula.

**Exhibit 5-11**
**Douglas County School District**
**Combined Scores – By Site**

| Site Name | Suitability Score | Condition Score | Tech. Readiness Score | Site Score | Combined Score 40/40/10/10 |
|---|---|---|---|---|---|
| **Elementary Schools** | | | | | |
| CC Meneley Elementary School | 52.51 | 69.08 | 58.30 | 59.81 | 60.45 |
| Gardnerville Elementary School | 43.74 | 72.20 | 53.30 | 64.59 | 58.16 |
| Gene L. Scarselli Elementary School | 83.20 | 75.48 | 89.20 | 60.02 | 78.39 |
| Jacks Valley Elementary School | 48.64 | 61.27 | 75.00 | 64.93 | 57.96 |
| Minden Elementary School | 83.24 | 80.84 | 86.70 | 65.26 | 80.83 |
| Piñon Hills Elementary School | 67.29 | 81.38 | 80.00 | 64.31 | 73.90 |
| Zephyr Cove Elementary School | 77.87 | 71.61 | 74.20 | 63.59 | 73.57 |
| **Elementary School Average** | **65.21** | **73.12** | **73.81** | **63.22** | **69.04** |
| **Middle Schools** | | | | | |
| Carson Valley Middle School | 58.77 | 74.32 | 50.80 | 60.00 | 64.32 |
| Pau-Wa-Lu Middle School | 72.20 | 79.45 | 63.35 | 65.54 | 73.55 |
| **Middle School Average** | **65.48** | **76.88** | **57.08** | **62.77** | **68.93** |
| **High Schools** | | | | | |
| Douglas High School | 49.33 | 76.58 | 68.30 | 65.64 | 63.76 |
| George Whittell High School | 81.84 | 69.71 | 69.20 | 72.66 | 74.80 |
| **High School Average** | **65.59** | **73.14** | **68.75** | **69.15** | **69.28** |
| **Other Facilities** | | | | | |
| Administrative Office | N/A | 59.47 | N/A | 52.47 | N/A |
| Kingsbury Middle School | 48.40 | 60.73 | 58.30 | 64.97 | 55.98 |
| Support Services Complex & Additional Support Buildings | N/A | 75.45 | N/A | 72.66 | N/A |

Source: MGT of America, Inc., 2009.

The above exhibit provides the data to prioritize needs based on the overall condition of the facility. The next step in the development of facility recommendations is to develop budget estimates to address the deficiencies identified.

# SECTION 6.0: CONCLUSIONS AND TEN-YEAR MASTER PLAN RECOMMENDATIONS

The recommendations and conclusions contained in this chapter are based on the data presented in previous chapters and will be divided into the following three sections:

| | |
|---|---|
| **The Process:** | The process of developing the master plan, the summary of total need and costs, and the prioritization process. |
| **Master Plan Recommendations:** | The ten-year master plan recommendations for school facility improvements, additions and new construction. This section will include recommendations for providing adequate instructional facilities over the next ten-year period. Included will be condition improvements, additions, and new facilities. Cost estimates and a priority timeline will also be provided. |
| **Supporting Recommendations:** | Supporting recommendations that will be necessary to implement the ten-year plan. Recommendations will address enrollment projections, communication of the master plan, key indicators of success, the purchase of CMMS software, liquidation of Kingsbury Middle School, and conducting a higher level of facility assessment at selected sites. |

## PROCESS AND PRIORITIZATION

The process of prioritization involved the development of a needs summary based on the data obtained, budget estimates, and assigned "cut points" for determining the priority level.

Early in the option development phase it was determined that the alternatives for addressing the master plan needs would be examined separately for the "lake schools" (George Whittell and Zephyr Cove) and the remaining "valley schools." This decision was based on several key factors. First, the needs, desires, and concerns are different between the lake and the valley. Second, the demographic projections between the valley and lake are significantly different. Third, the geographic separation between the lake and the valley allows a decision to be made for one without affecting the other. Finally, the existing system already separates the valley from the lake by having different grade configurations and schedules.

It was also determined that four alternative scenarios should be examined, based on grade-level configurations, for both the valley and lake schools. Grade configuration plays a significant role in Douglas County schools. The current configuration was significantly influenced by facility needs. In the valley, a lack of capacity at Douglas High School resulted in the present configuration; whereas the present configuration at lake schools was a result of falling enrollment. By using grade configuration as

the variable for the option development, the master plan was able to address the majority of the concerns for the district. In addition to changing the configuration, the options also address the following needs:

- The physical condition of each school
- The educational suitability condition of each school
- The technology readiness condition of each school
- The condition of the site at each school location
- The capacity and utilization of each school
- Possible attendance boundary changes
- Estimated cost for improvements

The options consisted of:

| Lake Schools | Valley Schools |
|---|---|
| Option 1: Status Quo (PK-6, 7-12) | Option A: Status Quo (PK-6, 7-9, 10-12) |
| Option 2: PK – 12 | Option B: PK-5, 6-8, 9-12 |
| Option 3: PK – 8 | Option C: PK-6, 7-8, 9-12 |
| Option 4: No lake school | Option D: PK-8, 9-12 |

***Analysis of Alternatives***

*Exhibits 6-1*, *6-2* and *6-3* below provide detail of the recommended facility improvements and associated costs for lake options 1 and 2. Option 2 is shown with two scenarios or *branches*. Both scenarios utilize George Whittell for the PK-12 facility, however branch 1 would eliminate a portion of the building in order to construct a new portion, branch 2 renovates the existing facility. Lake options 3 and 4 detail are not shown because these options were eliminated early in the process.

**Exhibit 6-1**
**Douglas County School District**
**Lake Option 1: Status Quo (PK-6, 7-12)**

## Douglas County School District
## Facility Condition Matrix
## Lake Option 1: Status Quo (PK-6, 7-12)

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UTILIZATION | RECOMMENDATIONS AND PHASES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | Total |
| | | | | | | | PHASE | COST | PHASE | COST | |
| Zephyr Cove Elementary School | 73.57 | 80.00 | 225 | 164 | 253 | 65% | 2 | $879,000 | | | |
| George Whittell High School | 74.80 | 80.00 | 229 | 152 | 354 | 43% | 2 | $1,751,000 | | | |
| **Total/Average** | **74.19** | **80.00** | **454** | **316** | **607** | **52%** | | **$2,630,000** | | | **$2,630,000** |

**Comments:**

Source: MGT of America, Inc., 2009.

**Exhibit 6-2**
**Douglas County School District**
**Lake Option 2: PK-12 Facility**
**Branch 1 – Portions of Facility New**

## Douglas County School District
## Facility Condition Matrix
## Lake Option 2: Branch 1 - PK-12

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UTILIZATION | RECOMMENDATIONS AND PHASES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | BRANCH 1 DEMO AND REBUILD | | Total |
| | | | | | | | PHASE | COST | PHASE | COST | |
| George Whittell PK-12 | 74.80 | 80.00 | 454 | 316 | 354 | 89% | 2 | $981,200 | 2 | $7,561,000 | |
| **Total/Average** | **74.80** | **80.00** | **454** | **316** | **354** | **89%** | | **$981,200** | | **$7,561,000** | **$ 8,542,200** |

**Comments:**

**Repurpose ZCES**
**Branch 1: Demo portion of GWHS (27,500 sf), rebuild GWHS as a new PK-12 facility. Expand site to include GWHS, ZCES and Library. Convert ZCES to fields. GWHS - Increase renovation cost by 10% for program change**
**Branch 2: Renovate GWHS to PK-12, 10% renovation factor included.**

Source: MGT of America, Inc., 2009.

**Exhibit 6-3**
**Douglas County School District**
**Lake Option 2: PK-12 Facility**
**Branch 2 – Renovate Existing Facility**

## Douglas County School District
## Facility Condition Matrix
## Lake Option 2: Branch 2 - PK-12

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UTILIZATION | RECOMMENDATIONS AND PHASES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | Total |
| | | | | | | | PHASE | COST | PHASE | COST | |
| George Whittell PK-12 | 74.80 | 80.00 | 454 | 316 | 354 | 89% | 3 | $1,926,100 | | | |
| **Total/Average** | **74.80** | **80.00** | **454** | **316** | **354** | **89%** | | **$1,926,100** | | **$** | **$1,926,100** |

**Comments:**

**Repurpose ZCES**
**Branch 1: Demo portion of GWHS (27,500 sf), rebuild GWHS as a new PK-12 facility. Expand site to include GWHS, ZCES and Library. Convert ZCES to fields. GWHS - Increase renovation cost by 10% for program change**
**Branch 2: Renovate GWHS to PK-12, 10% renovation factor included for program change.**

Source: MGT of America, Inc., 2009.

*Exhibits 6-4* through 6-*7* below provide the detail regarding each of the valley school options. As with the lake options above the date provided shows the facility improvements needed, the phase when improvements would be completed and the estimated costs for each option.

**Exhibit 6-4**
**Douglas County School District**
**Valley Option A: Status Quo (PK-6, 7-9, 10-12)**

**Douglas County School District**
**Facility Condition Matrix**
**Valley Option A: Status Quo (PK-6, 7-9, 10-12)**

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UITLIZATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | BOUNDARY CHANGE | TOTAL |
| | | | | | | | PHASE | COST | PHASE | COST | | |
| CC Meneley Elementary School | 60.45 | 80.00 | 553 | 656 | 656 | 100% | 1 | $2,197,000 | 1 | $1,684,000 | +100 from MES | |
| Gardnerville Elementary School | 58.16 | 80.00 | 539 | 504 | 504 | 100% | 1 | $2,210,000 | 1 | $1,945,000 | -50 to MES | |
| Gene L. Scarselli Elementary School | 78.39 | 80.00 | 570 | 660 | 660 | 100% | 3 | $698,000 | 3 | $1,204,000 | +46 from MES | |
| Jacks Valley Elementary School | 57.96 | 80.00 | 516 | 617 | 617 | 100% | 1 | $2,856,000 | 1 | $975,000 | | |
| Minden Elementary School | 80.83 | 80.83 | 445 | 450 | 468 | 96% | N/A | | | | -146 to CMES & SES<br>+50 from GES | |
| Piñon Hills Elementary School | 73.90 | 80.00 | 506 | 664 | 664 | 100% | 2 | $540,000 | 2 | $3,439,000 | | |
| Carson Valley Middle School | 64.32 | 80.00 | 798 | 699 | 803 | 87% | 1 | $2,535,000 | | | -150 to PWLMS | |
| Pau-Wa-Lu Middle School | 73.55 | 80.00 | 607 | 640 | 782 | 82% | 2 | $1,033,000 | | | +150 from CVMS | |
| Douglas High School | 63.76 | 80.00 | 1,373 | 1,334 | 1,343 | 99% | 1 | $6,402,000 | | | | |
| **Total/Average** | **67.92** | **80.09** | **5,907** | **6,225** | **6,497** | **96%** | | **$18,471,000** | | **$9,247,000** | | **$27,718,000** |

**Comments:**

**Keep existing grade configuration PK-6, 7-9, 10-12.**
**Renovate, adjust boundaries and add capacity to facilities as needed.**

Source: MGT of America, Inc., 2009.

**Exhibit 6-5**
**Douglas County School District**
**Valley Option B: (PK-5, 6-8, 9-12)**

## Douglas County School District
## Facility Condition Matrix
## Valley Option B (PK-5, 6-8, 9-12)

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UITLIZATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | BOUNDARY CHANGE | TOTAL |
| | | | | | | | PHASE | COST | PHASE | COST | | |
| CC Meneley Elementary School | 60.45 | 80.00 | 553 | 556 | 563 | 99% | 1 | $2,197,000 | | | +44 from MES | |
| Gardnerville Elementary School | 58.16 | 80.00 | 539 | 395 | 397 | 99% | 1 | $2,210,000 | | | -105 to MES | |
| Gene L. Scarselli Elementary School | 78.39 | 80.00 | 570 | 596 | 594 | 100% | 3 | $698,000 | | | +76 from MES | |
| Jacks Valley Elementary School | 57.96 | 80.00 | 516 | 544 | 563 | 97% | 1 | $2,856,000 | | | | |
| Minden Elementary School | 80.83 | 80.83 | 445 | 466 | 468 | 99% | N/A | | | | -120 to CMES & SES<br>+105 from GES | |
| Piñon Hills Elementary School | 73.90 | 80.00 | 506 | 552 | 600 | 92% | 2 | $540,000 | 2 | $2,273,000 | | |
| Carson Valley Middle School | 64.32 | 80.00 | 798 | 683 | 803 | 85% | 1 | $2,535,000 | | | -150 to PWLMS | |
| Pau-Wa-Lu Middle School | 73.55 | 80.00 | 607 | 653 | 782 | 83% | 2 | $1,033,000 | | | +150 from CVMS | |
| Douglas High School | 63.76 | 80.00 | 1,373 | 1,781 | 1,800 | 99% | 1 | $7,042,200 | 1 | $15,934,000 | | |
| **Total/Average** | **67.92** | **80.09** | **5,907** | **6,225** | **6,570** | **95%** | | **$19,111,200** | | **$18,207,000** | | **$37,318,200** |

**Comments:**

**Change grade configuration to PK-5, 6-8, 9-12.**
**Renovate, adjust boundaries, and add capacity to facilities as needed.**
**DHS - Increase renovation cost by 10% to accommodate change in programs.**

Source: MGT of America, Inc., 2009.

**Exhibit 6-6**
**Douglas County School District**
**Valley Option C: Consolidate One MS (PK-6, 7-8, 9-12)**

## Douglas County School District
## Facility Condition Matrix
## Valley Option C Consolidate One MS (PK-6, 7-8, 9-12)

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UITLIZATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | BOUNDARY CHANGE | TOTAL |
| | | | | | | | PHASE | COST | PHASE | COST | | |
| CC Meneley Elementary School | 60.45 | 80.00 | 553 | 656 | 656 | 100% | 1 | $2,197,000 | 1 | $1,684,000 | +100 from MES | |
| Gardnerville Elementary School | 58.16 | 80.00 | 539 | 504 | 504 | 100% | 1 | $2,210,000 | 1 | $1,945,000 | -50 to MES | |
| Gene L. Scarselli Elementary School | 78.39 | 80.00 | 570 | 660 | 660 | 100% | 3 | $698,000 | 3 | $1,204,000 | +46 from MES | |
| Jacks Valley Elementary School | 57.96 | 80.00 | 516 | 617 | 617 | 100% | 1 | $2,856,000 | 1 | $975,000 | | |
| Minden Elementary School | 80.83 | 80.83 | 445 | 450 | 468 | 96% | N/A | | | | +50 from GES, -146 to CMES & SES | |
| Piñon Hills Elementary School | 73.90 | 80.00 | 506 | 664 | 664 | 100% | 2 | $540,000 | 2 | $3,439,000 | | |
| Carson Valley Middle School | 64.32 | 64.32 | 798 | | | | | | | | | |
| Pau-Wa-Lu Middle School | 73.55 | 80.00 | 607 | 892 | 900 | 99% | 2 | $1,033,000 | 2 | $2,528,000 | All district 7th and 8th graders | |
| Douglas High School | 63.76 | 80.00 | 1,373 | 1,781 | 1,800 | 99% | 1 | $7,042,200 | 1 | $15,934,000 | | |
| **Total/Average** | **67.92** | **78.35** | **5,907** | **6,225** | **6,269** | **99%** | | **$16,576,200** | | **$27,709,000** | | **$44,285,200** |

**Comments:**

**Change grade configuration to PK-6, 7-8, 9-12**
**Renovate, adjust boundaries and add capacity to facilities as needed.**
**Consolidate one MS (TBD-renovation and addition costs based on consolidating CVMS)**
**Convert one MS to Admin/PDC/Alt School/CTE Center - Note: Costs for conversion to be determined with additional study**
**DHS - Increase renovation cost by 10% to accommodate change in programs.**

Source: MGT of America, Inc., 2009.

**Exhibit 6-7**
**Douglas County School District**
**Valley Option D: (PK-8, 9-12)**

## Douglas County School District
## Facility Condition Matrix
## Valley Option D (PK-8, 9-12)

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UITLIZATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | BOUNDARY CHANGE | TOTAL |
| | | | | | | | PHASE | COST | PHASE | COST | | |
| CC Meneley Elementary School | 60.45 | 80.00 | 553 | 635 | 700 | 91% | 1 | $2,416,700 | 1 | $2,484,000 | | |
| Gardnerville Elementary School | 58.16 | 80.00 | 539 | 635 | 700 | 91% | 1 | $2,431,000 | 1 | $5,511,000 | | |
| Gene L. Scarselli Elementary School | 78.39 | 80.00 | 570 | 635 | 700 | 91% | 3 | $767,800 | 3 | $1,932,000 | 4,445 PK-8 students distributed equally among the 7 schools | |
| Jacks Valley Elementary School | 57.96 | 80.00 | 516 | 635 | 700 | 91% | 1 | $3,141,600 | 1 | $2,484,000 | | |
| Minden Elementary School | 80.83 | 80.83 | 445 | 635 | 700 | 91% | | | 3 | $4,211,000 | | |
| Piñon Hills Elementary School | 73.90 | 80.00 | 506 | 635 | 700 | 91% | 2 | $594,000 | 2 | $4,091,000 | | |
| Carson Valley Middle School | 64.32 | 64.32 | 798 | | | | | | | | | |
| Pau-Wa-Lu Middle School | 73.55 | 80.00 | 607 | 635 | 782 | 81% | 2 | $1,136,300 | | | | |
| Douglas High School | 63.76 | 80.00 | 1,373 | 1,781 | 1,800 | 99% | 1 | $7,042,200 | 1 | $15,934,000 | | |
| **Total/Average** | **67.92** | **78.35** | **5,907** | **6,225** | **6,782** | **92%** | | **$17,529,600** | | **$36,647,000** | | **$54,176,600** |

**Comments:**

**Change grade configuration to PK-8, 9-12.**
**Renovate, adjust boundaries and add capacity to facilities as needed.**
**One MS and all ES's become PK-8 (costs based on PWLMS becoming PK-8).**
**Convert one MS to Admin/PDC/Alt School/CTE Center - Note: Costs for conversion to be determined with additional study.**
**All - Increase renovation cost by 10% to accommodate change in programs.**

Source: MGT of America, Inc., 2009.

*Lake Option Analysis*

The following exhibit presents the pros and cons of the lake options considered:

**Exhibit 6-8**
**Douglas County School District**
**Lake Option Analysis**

| Lake Option | Pros | Cons |
|---|---|---|
| **Option 1: Status Quo (PK-6, 7-12)** | ◆ Maintains a two-school environment<br>◆ Lowest capital cost | ◆ Maintains the operational cost of operating two sites, which will continue to be underutilized |
| **Option 2: PK – 12** | ◆ Provides more efficient utilization of the school facilities, which will reduce operational costs<br>◆ Provides additional land area for athletics | ◆ Community concern over the mixing of age levels in one facility |
| **Option 3: PK – 8** | ◆ Allows younger children to stay closer to home<br>◆ Allows high school students to the full range of programs offered at Douglas High or South Lake Tahoe<br>◆ Potential to reduce operational costs | ◆ Eliminates a neighborhood school for high school grade levels<br>◆ Increases transportation costs and/or tuition costs |
| **Option 4: No lake school** | ◆ Allows high school students a full range of programs offered at Douglas High or South Lake Tahoe<br>◆ Potential to reduce operational costs | ◆ Eliminates a neighborhood school for high school and elementary grade levels<br>◆ Increases transportation costs and/or tuition costs |

Source: MGT of America, Inc.

Following extensive discussion and review regarding the four options presented above, it was decided to eliminate lake options 3 and 4 from further consideration. This was due to the overwhelming desire among all parties to provide school facilities for Douglas County students from all district neighborhoods, including Lake Tahoe. Maintaining a neighborhood school at the lake provides a greater opportunity for parent involvement in the education process and strengthens the likelihood of student success. The tight-knit community at South Lake Tahoe is supported and enhanced by the identity given to students who attend an autonomous school.

It was also determined that it was not desirable to transfer displaced students to either South Tahoe High School or Douglas High School. South Tahoe High School is part of Lake Tahoe Unified School District (LTUSD) in California. Transferring students there would require a school partnership between DCSD and LTUSD, which would be no easy task since the two districts are in different states and have different state standards and requirements. Furthermore, it was perceived that the students who transfer to LTUSD could be ostracized as outsiders and that they could have difficulty adapting to a different culture. Transferring students to Douglas High School was considered unfeasible due to increased travel time and costs to bus students to the valley.

The remaining lake options provide an opportunity to educate all grade levels at the lake in Douglas County at a neighborhood Douglas County school. These options remained on the table for further analysis. In both options the remaining operational sites will be updated to improve the condition, educational suitability, and technology readiness of the site.

Option 1 commits less one-time capital cost to the lake schools, but requires the district to improve, maintain, heat, light, and staff two facilities. As enrollment declines, the need for this level of square footage will continue to diminish. The current staffing levels have already prompted the need to share teaching, nursing, custodial and maintenance staff. Two facilities would force the staff and/or students to traverse the hill between the schools to a greater extent as the enrollment declines. The separate facilities do allow a clearer separation between the lower and upper grades within facilities that currently possess most of the age-appropriate functions. Option 2 requires capital to create learning environments for all age levels at George Whittell; however, this investment reduces the need to mitigate or live with the significant site challenges at Zephyr Cove. Architectural elements created in the conversion of George Whittell to a PK-12 can add a level of separation between the grade levels while scheduling of events can increase that capability.

George Whittell was chosen for the PK-12 site because the amount of level ground and the number and size of the core facilities including a commons, a library, and two gyms. By reducing operations to one site, the ability to efficiently share resources, staff, and specialty facilities is enhanced without depriving the other site of a critical service or function. In option 2, Zephyr Cove would be evaluated to discover the best use of the site to support the PK-12 campus.

Two “branches” have been identified for option 2. The branches represent the spectrum of the conversion process. The first branch entails demolishing the two classroom wings and rebuilding the classrooms in new facilities. The second branch represents the other end of the spectrum by not demolishing, but remodeling the existing buildings to accommodate the PK-12 program. In either branch, the core facilities would remain relatively untouched, except for improvements to address identified deficiencies. The core buildings are, for the most part, newer and in the best condition. The final determination for the extent of remodel and demolition will require further definition of the educational program and goals.

*Valley Option Analysis*

The following exhibit presents the pros and cons of the valley options considered.

**Exhibit 6-9**
**Douglas County School District**
**Valley Option Analysis**

| Valley Option | Pros | Cons |
|---|---|---|
| **Option A: Status Quo (PK-6, 7-9, 10-12)** | ◆ Minimal amount of program and facility change and investment<br>◆ Lowest capital cost | ◆ Does not allow the 9th grade to move into a high school environment<br>◆ Does not make additional space for special programs<br>◆ Does not address the decentralized district support functions |
| **Option B: PK-5, 6-8, 9-12** | ◆ Moves the 9th grade into a high school environment<br>◆ Significantly reduces the amount of expansion needed at the elementary level | ◆ Requires a significant investment into the Douglas High School expansion<br>◆ Does not make additional space for special programs<br>◆ Does not address the decentralized district support functions<br>◆ Increases transportation costs by sending 6th graders to two centralized facilities and 9th graders to Douglas High |
| **Option C: PK-6, 7-8, 9-12** | ◆ Moves the 9th grade into a high school environment<br>◆ Creates an open campus for additional special programs and centralizing district support functions<br>◆ Creates a valley-wide middle school in order to focus on middle school curriculum and services<br>◆ Eliminates the on-going operational costs of one middle school. | ◆ Requires a significant investment into the Douglas High School expansion<br>◆ Increases transportation cost by sending all 7th and 8th graders to one site and 9th graders to Douglas High School<br>◆ Requires facility expansion at the elementary and high school levels (and possibly the middle school level, depending on the final site determination) |

**Exhibit 6-9 (continued)**
**Douglas County School District**
**Valley Option Analysis**

| Valley Option | Pros | Cons |
|---|---|---|
| **Option D: PK-8, 9-12** | ◆ Moves the 9th grade into a high school environment<br>◆ Limits the number of school transitions for all children<br>◆ Creates an open campus for additional special programs and centralizing district support functions | ◆ Requires a significant investment into the Douglas High School expansion<br>◆ Requires the most facility impact and investment<br>◆ Limits transportation costs<br>◆ Decentralizes middle school services into seven valley locations |

Source: MGT of America, Inc., 2010.

In every option, decisions were made beyond grade configuration to accomplish all the objectives of the master plan. The renovations to the school sites are needed in all options as long as that school site is operational. The renovation numbers are driven by the four condition assessment scores and the amount of square footage at each site. Additional money has been allocated in the facility master plan if there is a significant program change. Expansion is dictated by the number of additional students required at each site. All options provide enough capacity for current enrollment and the projected enrollment at the ten-year mark. In order to facilitate the most responsible expansion, several factors were considered when choosing what sites to expand and where boundary changes would be appropriate. The criteria included, in no particular order:

- Site acreage
- Distance to adjacent schools
- Capacity of adjacent schools
- Future road improvement plans
- Growth potential
- Distance from a student's house to the assigned school
- Effects to the feeder pattern
- Need for other improvements on the site

While all options call for some boundary changes, monitoring of the student population and their location should be conducted at the time of a school's renovations to assess the best course of action for the boundary changes.

All options for valley schools beyond the status quo call for the 9th graders to move into Douglas High School. Although this signifies a major financial commitment, the benefits include:

***A change of mindset from middle school to high school.***
In the 9th grade, the rules change and the movement to a new school emphasizes that conversion. Starting in the 9th grade, the movement from one grade level to the next is based on the number of successfully completed Carnegie units. In addition, many programs (both academic and activity) are based on a 9-12 configuration. By having the facilities to reinforce that change, students will immediately become a part of that mind set. An immersion into a true high school environment has the potential to enhance the transition into secondary educational opportunities as well as life experiences.

***Required testing changes from 8th to 9th grade.***
Middle school sites currently have to juggle the requirements and schedules of multiple testing programs. If 9th grade was consolidated in the high school, then only the middle school mandatory test would be required at the middle school sites.

***Additional opportunities to support the career technical program at Douglas High School.***
With only three years and the level of required classes, there is limited time for a high school student to take career technical classes. The small amount of openings in a schedule reduces the enrollment, therefore, the number of programs that can be viable. A fourth year of high school will increase the number of students enrolled in the classes, justifying an expansion of offerings.

***Support of extracurricular activities.***
Currently, students interested in sports are bused to Douglas High for freshman sports, but this split location is not an ideal situation. Changes in schedules and classroom commitments strain the system. Programs such as ROTC have difficulty recruiting freshman because of the distance. A simple matter of having a friend come to your game or activity is hampered by the lack of transportation.

***A sense of belonging.***
Teenage years are times when belonging to a group is important. By leaving the ninth grade at the middle schools students sometimes feel like they don't belong. Students often feel that they are welcomed at some high school activities but not at others. Some 9th graders form friendships with teammates in other grades, but cannot see them during the regular school day.

Option A would not require the educational program or facility change needed to move the 9th graders, but the obstacles stated above would continue for the foreseeable future.

Options A and B do not result in consolidating any school sites. Continued use of every school site reduces the amount of expansion required to accommodate current and future students. Consideration was given to creating a 9th grade academy; however, educational research shows that student performance suffers at each school transition and adding another transition was not a favorable solution.

While consolidating a school site is rarely celebrated, an empty school site does open up opportunities that are not addressed in the general educational program, but is fully addressed in the options. For example, the Aspire program is currently restricted to a couple of classrooms on the Pau-Wa-Lu campus. Due to the presence of middle school students, Aspire students must be escorted to the bathroom and

have limited opportunity to go outside during their lunch break. While Aspire is a continuation program, there is also a need for a true alternative or career technical program in the district. Both of these programs would need a home to find success. Finally, services are located throughout the district. To increase communication and efficiency, it is important that the district educational and administrative services are co-located in an appropriate space. The current district office is in an older building and creates difficulty in layout, function, and ADA access. The board is unable to conduct any public meeting in the facility due to size limitations and accessibility. Operational costs should be reduced by this action because the number of school sites is reduced. While the converted school site will still need maintenance, electricity, and water, most of the functions occupying this building will be transferred from other locations. The existing location can then be consolidated, including the current district office. Options C and D create an opportunity to satisfy these needs by consolidating one of the two valley middle schools. Middle schools were chosen because this is the area where the most excess capacity exists. Even with option B, which moves one grade out of the elementary school, the numbers did not justify consolidating an elementary school. In option C, by keeping the 6th graders at the elementary schools, the middle school population was reduced even farther. In option D, the change of both middle schools into a PK-8 configuration would create too much extra capacity and in the wrong locations. The numbers did not justify the creation of a second high school in the valley and was rejected from consideration.

Option D would have a dramatic effect on the district as a whole. A significant investment would need to be made to alter the educational program to create an all PK-8 district. All PK-8 facilities would require major modifications which would negatively impact some of the smaller sites. While PK-8 schools reduce transitions and are a current national trend, Douglas County would need to commit excessive time and funds to accomplish this option.

The next step in determining the priorities for facility improvements was to determine "cut points" for phasing of the projects. *Exhibit 6-10* provides the starting place used for determining these cut points. The score and utilization points are based on the facility assessments and capacity analysis provided in Section 4.0 and 5.0 of this report.

**Exhibit 6-10**
**Douglas County School District**
**Prioritization & Utilization Cut Points***

| Phase | Assessment Cut Point (Combined Score) | Capacity Cut Point (Projected Utilization %) |
|---|---|---|
| 1 | <65 | >110 |
| 2 | 66-75 | <110* |
| 3 | 76-80 | <110 |

Source: MGT of America, Inc., 2009.
*If capacity is not projected to be over 110%, capacity solutions will be phased in conjunction with the condition improvements.

Based on the cut points, a school with a combined BASYS score of less than 65 and/or projected utilization of over 110 percent would be included in Phase 1 of the facility master plan. Schools with a combined BASYS score between 66 -75 would be included in Phase 2 and a score of 76-80 in Phase 3. Schools scoring over 80 would not be included for condition improvements during the master plan. Facilities with a projected capacity of over 100 percent but less than 110 percent would be scheduled for capacity improvements in conjunction with their condition priority due to the cost savings acquired.

The phasing of the schools was based on these cut points. These priorities put schools that were significantly over capacity and/or had the lowest assessment scores first. The major building projects at Douglas High School were placed in the second phase to allow time for funding, planning, and construction. The planning and design of the Douglas High school projects should begin during phase one to insure constructability in a timely manner. The middle schools should be completed at the same time so the grade configuration can change as soon as Douglas High School is ready for the ninth grade.

The final step in the prioritization process involved establishing the cost for the options. Funding the facility plan to a 90 percent BASYS level and an 80 percent level were both explored. *Exhibit 6-11 and 6-12* provide an overview of the total costs associated when selecting any combination of the lake and valley options.

**Exhibit 6-11**
**Douglas County School District**
**Valley – Lake Options Cost Matrix (90% version)**

| 90% Douglas County Public Schools Recommendation Costs (*inflation not included*) | | | | | | |
|---|---|---|---|---|---|---|
| | | | Valley | | | |
| | | | *A* | *B* | *C - Consolidate One MS Br1 (PK-8)* | *D* |
| | | | *Status Quo* | *PK-5, 6-8, 9-12* | *PK-6, PK-8, 7-8, 9-12* | *PK-8, 9-12* |
| Lake | *1* | *Status Quo* | $51,357,000 | $61,547,200 | $67,099,600 | $77,017,500 |
| | *2Br1* | *PK-12* | $55,150,000 | $65,340,200 | $70,892,600 | $80,810,500 |
| | *2Br2* | *PK-12* | $49,719,700 | $59,909,900 | $65,462,300 | $75,380,200 |

Source: MGT of America, Inc., 2009.

The total amount of dollars that would be required, as illustrated in *Exhibit 6-12* above, will likely exceed those available over the next ten-year period. While it is important to know the total need and associated costs, it is also important to look at what can reasonably be expected to be accomplished. *Exhibit 6-12* below provides the same information without bringing all facilities to a "like new" condition (BASYS score of 90). This exhibit instead budgets dollars that will result in meeting most facility needs (BASYS score of 80). It was determined that the only viable course of action was to recommend facilities be brought up to an 80% BASYS standard, a much more likely funding scenario for the district to achieve.

The specific manner in which these dollars would be spent is determined during the planning process for each facility with an architectural firm.

**Exhibit 6-12**
**Douglas County School District**
**Valley – Lake Options Cost Matrix (80% version)**

| 80% Douglas County Public Schools Recommendation Costs (*inflation not included*) | | | | | | |
|---|---|---|---|---|---|---|
| | | | Valley | | | |
| | | | *A* | *B* | *C – Consolidate One MS Br1 (PK-8)* | *D* |
| | | | *Status Quo* | *PK-5, 6-8, 9-12* | *PK-6 ,PK-8, 7-8, 9-12* | *PK-8, 9-12* |
| Lake | *1* | *Status Quo* | $30,348,000 | $39,948,200 | $47,696,800 | $56,806,600 |
| | *2Br1* | *PK-12* | $36,260,200 | $45,860,400 | $53,609,000 | $62,718,800 |
| | *2Br2* | *PK-12* | $29,644,100 | $39,244,300 | $46,992,900 | $56,102,700 |

Source: MGT of America, Inc., 2009.

### *Budget Estimates*

The budget estimates shown with the recommendations and priorities above for facility improvements, additions, and new construction are based on the following assumptions:

Condition renovations are calculated as (inverse condition score to 80 percent) x $173.30 (for an elementary school) x square footage. Therefore a school of 50,000 square feet with a condition score of 70 will require $866,481 for condition improvements ((0.8-0.7) x 173.30 x 50,000). Suitability, site, and technology readiness are calculated as above except the cost per square foot factor for an elementary school is $60.65, $23.63 and $3.05, respectively. Additions and new construction for elementary schools are based on $157.54 per square foot building construction costs. Renovation and new construction costs for all schools were based on R.S. means and interviews with facilities staff. All budget estimates are rounded to the nearest 100$^{th}$. *Exhibit 6-13* details the costs used to calculate budget estimates for Douglas County Public Schools.

**Exhibit 6-13**
**Douglas County School District**
**Budget Estimate Formula**

| Budget Estimate Formula - All Schools | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Project Type** | **Formula** | **Cost per GSF for new const.** | **FF&E @ 10%** | **Contingency @ 5%** | **A&E, permit, testing, etc. @10%** | **Replacement Cost per GSF** | **Renovation factor @ 10%** | **Renovation Cost per GSF** |
| Building Condition Deficiencies ES | Bldg. construction cost based on average replacement cost | $124.00 | $12.40 | $6.82 | $14.32 | $157.54 | $15.75 | $173.30 |
| Educational Suitability Deficiencies | 35% of building cost | $43.40 | $4.34 | $2.39 | $5.01 | N/A | $5.51 | $60.65 |
| Technology Readiness Deficiencies | 30% of electrical system costs | $2.40 | N/A | $0.12 | $0.25 | N/A | $0.28 | $3.05 |
| Grounds Condition Deficiencies | Site development cost per building square foot as established by MGT historical data (15% building cost) | $18.60 | N/A | $0.93 | $1.95 | $21.48 | $2.15 | $23.63 |
| Building Condition Deficiencies MS | Bldg. construction cost based on average replacement cost | $124.00 | $12.40 | $6.82 | $14.32 | $157.54 | $15.75 | $173.30 |
| Educational Suitability Deficiencies | 35% of building cost | $43.40 | $4.34 | $2.39 | $5.01 | N/A | $5.51 | $60.65 |
| Technology Readiness Deficiencies | 30% of electrical system costs | $2.40 | N/A | $0.12 | $0.25 | N/A | $0.28 | $3.05 |
| Grounds Condition Deficiencies | Site development cost per building square foot as established by MGT historical data (15% building Cost) | $18.60 | N/A | $0.93 | $1.95 | $21.48 | $2.15 | $23.63 |
| Building Condition Deficiencies HS & Support | Bldg. construction cost based on average replacement cost | $169.00 | $16.90 | $18.59 | $20.45 | $224.94 | $22.49 | $247.43 |
| Educational Suitability Deficiencies | 35% of building cost | $59.15 | $5.92 | $6.51 | $7.16 | N/A | $7.87 | $86.60 |
| Technology Readiness Deficiencies | 30% of electrical system costs | $3.27 | N/A | $0.33 | $0.36 | N/A | $0.40 | $4.35 |
| Grounds Condition Deficiencies | Site development cost per building square foot as established by MGT historical data (15% building cost) | $25.35 | N/A | $2.54 | $2.79 | $30.67 | $3.07 | $33.74 |

Additions for capacity are calculated using the building replacement costs times the number of students needed times a square foot per student factor. *Exhibit 6-14* details the square foot per student factor. The budget for an elementary school which needs capacity for 100 students would be calculated as follows. (100 students*$157.54/sf*115.4 sf/student) = $1,818,034.68.

**Exhibit 6-14**
**Douglas County School District**
**Budget Calculations**

| Additions for Capacity | SqFt/Student |
|---|---|
| ES | 115.4 |
| MS | 136 |
| HS | 155 |

Source: School Planning & Management Magazine - 2009 Annual School Construction Report.

*Exhibits 6-15* and *6-16* below provides a sample calculation using the data for Jacks Valley Elementary School, based on Option C Branch 1

**Exhibit 6-15**
**Douglas County School District**
**Jacks Valley ES Example Budget to Bring Scores to 80%**

| Assessment Type | % Score | % Deficiency to 80% | GSF | Cost/GSF | Subtotal | Round | 10% Grade Configuration Factor |
|---|---|---|---|---|---|---|---|
| Bldg | 61.27 | 0.187 | 51,740 | $173.30 | $1,679,280 | $1,679,000 | |
| Suit | 48.64 | 0.314 | 51,740 | $60.65 | $984,201 | $984,000 | |
| Tech | 75.00 | 0.050 | 51,740 | $3.05 | $7,886 | $8,000 | |
| Site | 64.93 | 0.151 | 51,740 | $23.63 | $184,250 | $184,000 | |
| **Total Renovation Budget** | | | | | | **$2,855,000** | **$3,140,500** |

Source: MGT of America, Inc., 2010.

**Exhibit 6-16**
**Douglas County School District**
**Jacks Valley ES Example Addition for Capacity Budget**

| | Students | *Cost/GSF | *GSF/ Student | Subtotal | Round |
|---|---|---|---|---|---|
| Current Capacity | 563 | | | | |
| Projected Enrollment | 617 | | | | |
| **Additional Capacity Needed** | **54** | **$157.54** | **136** | **$1,149,489** | **$1,149,000** |

Source: MGT of America, Inc., 2010.
*Note that the final recommendation budget estimate is based on converting JVES into a PK-8 Facility, thus MS student/GSF is used

***Reaching a Recommendation***

The above options were considered, debated, and presented to individuals within and outside the district. The reaction and suggestions to the options were considered by the master plan team. As stated earlier, lake options 3 and 4 were eliminated from consideration.

Lake option 2 was determined to be the best course of action although not implemented until the third phase. The desire to create a successful PK-12 that is a safe environment for all age levels has been demonstrated across the nation. The future design of the PK-12 facility should be dedicated to insuring appropriate separation of grade levels and creating suitable educational environments for all grade levels. Combining the two facilities into one will allow for efficient use of facilities and staff in order to dedicate the most resources available to the students in Lake Tahoe. This project is in the third phase to allow for the lake enrollments to be monitored over an extended period and to provide time for the educational planning of a PK–12 curriculum.

Valley option D was the first to be dismissed because of the large investment and impact to the smaller school sites. The advantages to having the 9th grade move into the high school eliminated option A. The remaining two valley options were more difficult to decide. While the advantages of having a school site available for the alternative functions was appealing, concern over how to bus students to a single school site for both middle and high school prevented the master planning team from choosing option C. The team then considered yet another option that combined the advantages of several options. This option consists of one 7-8 MS and the conversion of one elementary school to PK-8. The advantages this hybrid option is:

**Providing the district with one PK-8:**

- This grade configuration is being examined throughout the county and has been found to meet the needs of many students.
- This school would allow parents and students in Douglas County a choice of an alternative grade configuration from the 7-8 middle school.
- The PK-8 program reduces the number of school transitions for those who choose this option. Research has indicated that reducing the number of school transitions contributes towards improved student performance.
- Some students find the smaller number of middle school students a better atmosphere in which to excel.

**Providing the district with one 7-8 middle school:**

- Allows students/families the opportunity to choose a comprehensive middle school environment.
- The middle school program is designed to provide specific programs geared toward this age level. Some students find this a better atmosphere in which to excel.
- The larger middle school provides opportunities for classes and activities that may not be available in the PK-8 program with fewer grade 7-8 students.
- Many students are drawn to the social aspects of a middle school setting.

**Providing the two middle school models benefits the district as a whole:**

- This option reduces the total number of students in the 7-8 middle school from that shown in option C. This makes the single middle school option even more viable.
- The appeal of having a single PK-8 presented the opportunity to offer a middle school curriculum in two locations while still allowing an existing location to be available for reuse. This offers two different middle school settings to meet the needs of more students.

### Selecting the Right Middle School

Within the final recomendation, the valley middle schools are to be consolidated into one location. However, the designation of which of the two middle school sites would be best suited for a comprehensive middle school was not determined due to the need for additional conversation within the community and a more detailed study of each site's amenities. During the master planning process, the high-level anaysis provided an initial assesment on the two middle school locations. *Exhibit 6-17* on the following page summarizes the preliminary pros and cons discovered within the scope of the master plan, including the educational suitability of each site. The physical condition assessment data for both sites was not considered in this analysis because once a middle school site is selected, the master plan requires the remaining site be used as a alternative high school education facility and district-wide administration facility.

**Exhibit 6-17**
**Douglas County School District**
**Analysis of Middle School Site**

| Middle School Site | Pros | Cons |
|---|---|---|
| **Carson Valley** | ◆ Centralized location within Lake Tahoe Valley<br>◆ Larger school capacity<br>◆ Better cafeteria<br>◆ Student transportation costs will likely be less | ◆ Smaller site area<br>◆ Lower educational suitability score<br>◆ Internal circulation issues<br>◆ Vehicular circulation issues for a middle school location with proximity to the highway<br>◆ Lack of parking<br>◆ Age of facility<br>◆ Less curb appeal<br>◆ Proximity to the highway, public transportation and DHS could be a disadvantage to the alternative program at Pau Wa Lu |
| **Pau Wa Lu** | ◆ Newer facility<br>◆ Higher educational suitability score<br>◆ Pod concept provides socialization spaces for middle school students<br>◆ Structural system may be less flexible for the reconfiguration to an "alternative site"<br>◆ Larger site area<br>◆ Good internal circulation<br>◆ Location of library (Focal point of the building)<br>◆ Better site circulation<br>◆ Traffic issues minimized<br>◆ Proximity to the highway, public transportation and DHS could be an asset to the alternative program at Carson Valley<br>◆ Better curb appeal | ◆ Location not centrally located within the Lake Tahoe Valley<br>◆ Smaller school capacity<br>◆ Cafeteria would need re-evaluation<br>◆ Pods are noisy |

Source: MGT of America, Inc., 2010.

## TEN YEAR MASTER PLAN RECOMMENDATIONS

The ten-year facility master plan recommendations were developed based on the priorities developed through the evaluation process, community input, and fiscal realities. *Exhibit 6-17* provides a summary of those recommendations. The basic strategy recommended is to follow Valley Option C (PK-6, 7-8 and 9-12) and Lake Option 2 (PK-12). The only exceptions to those options and phasing priorities are:

- Douglas High School is included as Phase 2 so that there is adequate time for planning and a higher level assessment regarding the housing of grades 9-12.
- The middle school changes are included in Phase 2 so a higher level assessment can be completed to determine the best location (Carson Valley or Pau-Wa-Lu) to be utilized for alternative functions, vocational programs and centralized administrative functions.
- George Whittell is included in Phase 3 in order to plan for a PK-12 program.
- A recommendation has been added to convert one elementary school to a PK-8 option. The specific location for the PK-8 program can be determined after the site of the middle school has been established.

The recommendations include improving the condition of all schools that scored below 80 to a score of 80. In prioritizing the list of projects for each of these school sites, consideration should be given to the results of all four assessments in Appendix B of this report, the KIDS Committee List, and the Financial Grade Operational Audit.

**Exhibit 6-18**
**Ten-Year Facility Master Plan Recommendations**
**Summary**

## Douglas County School District
## Facilities Master Plan
## Recommendations C2
## Valley Option C - Consolidate One Middle School (PK-6, PK-8, 7-8, 9-12), Lake Option 2 Br 2 PK-12

| *Phase 1 (Years 1-3)* | |
|---|---|
| **Project** | **Budget Actual** |
| Renovate Piñon Hills ES, addition for capacity | $3,979,000 |
| Renovate CC Meneley ES, addition for capacity, adjust boundary (+100 students) | $3,881,000 |
| Renovate Gardnerville ES, addition for capacity, adjust boundary (-50 students) | $4,155,000 |
| Renovate Jacks Valley ES, addition for capacity | $4,290,600 |
| **Phase 1 Total** | **$16,305,600** |
| *Phase 2 (Years 4-6)* | |
| **Project** | **Budget Actual** |
| Renovate Douglas HS, convert to 9-12, addition for capacity | $22,976,200 |
| *Renovate middle school (-120 students) | $1,033,000** |
| Convert one ES to PK-8, addition for capacity (+120 students) | $2,850,000 |
| **Phase 2 Total** | **28,293,800** |
| *Phase 3 (Years 7-10)* | |
| | **Budget Actual** |
| Renovate George Whittell HS to PK-12 | $1,926,100 |
| Renovate Scarselli ES, addition for capacity, adjust boundary (+46 students) | $1,902,000 |
| **Phase 3 Total** | **$3,828,100** |
| **Grand Total** | **$46,992,900** |
| **Total with Inflationary Factor 5% annually** | **$57,913,000** |

*Remaining MS (PWL/CVMS) based on higher level assessment, cost estimate shown is for Pau-Wa-Lu
**Estimate based on Pau-Wa-Lu MS

Source: MGT of America, Inc., 2009.

The above recommendations are based on the following:

- The most significant facility needs over the next ten years are addressed.
- The priorities are based on objective data regarding current condition and utilization of facilities throughout the county as well as allowing for program planning.
- The current pressing needs for improvements at CC Meneley, Gardnerville, Jacks Valley and Piñon Hills are included in Phase 1 of the master plan
- The options are cost effective both in terms of capital and operational costs
- The incorporation of 9th grade students at Douglas High School better supports the curriculum.
- Carson Valley or Pau-Wa-Lu Middle School can be utilized for district-wide functions at a centralized location.
- The total budget estimates fall within reasonable expectations of revenue.

*Exhibit 6-18* provides the budget estimates by phase for the recommended ten-year facilities master plan.

**Exhibit 6-19**
**Ten-Year Facility Master Plan Recommendations**
**Budget Estimates**

| | Phase 1 | Phase 2 | Phase 3 | Subtotal | Total (w/inflation) |
|---|---|---|---|---|---|
| Elementary | $16,305,600 | $2,850,000 | $1,902,000 | $21,057,600 | $24,424,447 |
| Middle | | $1,033,000 | | $1,033,000 | $1,318,399 |
| High | | $22,976,200 | $1,926,100 | $24,902,300 | $32,169,827 |
| *Subtotal* | *$16,305,600* | *$26,859,200* | *$3,828,100* | *$46,992,900* | |
| ***Total (with inflationary factor 5% annually)** | **$17,976,924** | **$34,279,902** | **$5,655,847** | **$57,912,673** | **$57,912,673** |

| Phase | Number of Years to Complete | Inflation Year for Cost Calcs. | Years |
|---|---|---|---|
| 1 | 1-3 | 2 | 2010-11 to 2012-13 |
| 2 | 4-6 | 5 | 2013-14 to 2015-16 |
| 3 | 7-10 | 8 | 2016-17 to 2019-20 |
| ***These are general guidelines. Inflationary costs are determined by using the table above.*** | | | |

Source: MGT of America, Inc., 2009.

*Exhibits 6-19* through 6-*20* provide the detail regarding the completion of all master plan recommendations. If all recommendations are implemented the resulting status for all schools are shown in the exhibits. Therefore, renovated schools are shown with a combined score of 80 as recommended earlier in this chapter and all utilization rates are shown assuming that recommended additions are completed.

**Exhibit 6-20**
**Lake Option 2 Branch 2 – PK – 12**

**Douglas County School District**
**Facility Condition Matrix**
**Lake Option 2 Branch 2 - PK-12**

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UTILIZATION | RECOMMENDATIONS AND PHASES | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | PROJECTED (2019) | RENOVATE | | ADDITION FOR CAPACITY | | Total |
| | | | | | | | PHASE | COST | PHASE | COST | |
| George Whittell PK-12 | 74.80 | 80.00 | 454 | 316 | 354 | 89% | 3 | $1,926,100 | | | |
| **Total/Average** | **74.80** | **80.00** | **454** | **316** | **354** | **89%** | | **$1,926,100** | | | **$1,926,100** |

**Comments:**

**Repurpose ZCES**
**Branch 1: Demo portion of GWHS (27,500 sf), rebuild GWHS as a new PK-12 facility. Expand site to include GWHS, ZCES and Library. Convert ZCES to fields. GWHS - Increase renovation cost by 10% for program change**
**Branch 2: Renovate GWHS to PK-12, 10% renovation factor included for program change.**

Source: MGT of America, Inc., 2009.

**Exhibit 6-21**
**Valley Option C Branch 1 Consolidate One MS (PK-6, PK-8, 7-8, 9-12)**

## Douglas County School District
## Facility Condition Matrix
## Valley Option C Branch 1 Consolidate One MS (PK-6, PK-8, 7-8, 9-12)

| SCHOOL NAME | COMBINED SCORE | | ENROLLMENT | | CAPACITY | UITLIZATION | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CURRENT | PROJECTED | CURRENT (2009) | PROJECTED (2019) | | UITLIZATION | RENOVATE | | ADDITION FOR CAPACITY | | BOUNDARY CHANGE | TOTAL |
| | | | | | | | PHASE | COST | PHASE | COST | | |
| CC Meneley Elementary School | 60.45 | 80.00 | 553 | 656 | 656 | 100% | 1 | $2,197,000 | 1 | $1,684,000 | +100 from MES | |
| Gardnerville Elementary School | 58.16 | 80.00 | 539 | 504 | 504 | 100% | 1 | $2,210,000 | 1 | $1,945,000 | -50 to MES | |
| Gene L. Scarselli Elementary School | 78.39 | 80.00 | 570 | 660 | 660 | 100% | 3 | $698,000 | 3 | $1,204,000 | +46 from MES | |
| Jacks Valley Elementary School | 57.96 | 80.00 | 516 | 737 | 750 | 98% | 1 | $3,141,600 | 1 | $1,149,000 | | |
| Minden Elementary School | 80.83 | 80.83 | 445 | 450 | 468 | 96% | N/A | | | | +50 from GES, -146 to CMES & SES | |
| Piñon Hills Elementary School | 73.90 | 80.00 | 506 | 664 | 664 | 100% | 1 | $540,000 | 1 | $3,439,000 | | |
| TBD PK-8 | | | | 120 | 133 | | | | 2 | $2,850,000 | +120 from MS | |
| Carson Valley Middle School | 64.32 | 64.32 | 798 | 772 | 782 | 99% | 2 | $1,033,000 | | | -120 to PK-8 | |
| Pau-Wa-Lu Middle School | 73.55 | 73.55 | 607 | | | | | | | | | |
| Douglas High School | 63.76 | 80.00 | 1,373 | 1,781 | 1,800 | 99% | 2 | $7,042,200 | 2 | $15,934,000 | | |
| **Total/Average** | **67.92** | **77.63** | **5,907** | **6,225** | **6,284** | **99%** | | **$16,861,800** | | **$28,205,000** | | **$45,066,800** |

**Comments:**

**Change grade configuration to PK-6, PK-8, 7-8, 9-12.**
**Renovate, adjust boundaries and add capacity to facilities as needed.**
**Convert One ES to PK-8 (TBD-Cost based on renovating JVES to PK-8).**
**Consolidate one MS (Costs assume that PWLMS is renovated and that CVMS is consolidated).**
**Convert one MS to Admin/PDC/Alt School/VoTech Center - Note: Costs for conversion to be determined with additional study**
**DHS convert to 9-12.**
**DHS & PK-8 - Increase renovation cost by 10% to accommodate change in programs.**

Source: MGT of America, Inc., 2009.

***Evaluating the Recommendations***

Due to the large amount of factors that must be considered, no master plan recommendation is flawless. The recommendations were selected on their applicability to the objective data, national experience of the master plan team and needs of the Douglas County Community. The following charts list the positives and negatives of the final recommendation. In all cases, the master plan team believes the benefits of the recommendation outweigh the shortcomings.

***PROS: LAKE OPTION RECOMMENDED - PK – 12***

- Enrollment projections clearly indicated a continued downward trend necessitating a major change in grade configuration
- PK-12 is a used and accepted grade configuration
- "Renovate and then Migrate": students will be going to a new or renovated facility
- Divests district of expensive properties
- Allows district to realize significant income from sale of lake properties that will support and possibly accelerate implementation schedule
- Strong support for a school at the lake
- Reduces operational costs
- Creates designed flexible spaces for teaching
- Resolves capacity issues with one project
- Does not require any boundary adjustments at lake
- Requires development of educational specifications for new facility with faculty engagement

***CONS: LAKE OPTION RECOMMENDED - PK – 12***

- Major grade configuration change
- Enrollment trends might decline even more dramatically
- Additional parking needs on existing site is an issue
- Eliminates Zephyr Cove Elementary
- Higher initial capital cost

***PROS: VALLEY OPTION RECOMMENDED - PK-6, ONE PK-8, 7-8, 9-12 (CONSOLIDATE ONE MS)***

- Maintains the majority of existing facilities/sites
- Reduces operating expenses
- Creates a PK-8 option for parents/students
- Resolves all capacity issues
- Moves 9th grade to a high school
- Resolves all facility condition issues
- Is a cost effective option within financial ability of district
- Requires development of educational specifications for a new facility with faculty engagement
- Consolidates district programs into one central location
- Respects the neighborhood schools philosophy

***CONS: VALLEY OPTION RECOMMENDED: PK-6, ONE PK-8, 7-8, 9-12 (CONSOLIDATE ONE MS)***

- Requires multiple projects to meet capacity demands
- Requires attendance boundary changes
- Much of the work is scheduled in Phase 2, but could be accelerated
- Eliminates one middle school

## SUPPORTING RECOMMENDATIONS

The following recommendations are intended to provide guidance with the implementation of the ten-year master plan.

### Recommendation 1: Continue to Update Long-Term Enrollment Projections on a Regular Basis

Long-term enrollment projections should continue to be updated as the master plan is implemented. A sound projection methodology has been provided in this report. Updates of these projections will be relatively simple to prepare and, therefore, require much less effort than was undertaken for this study. MGT recommends continuing to update the data on a yearly basis. Data gathered from these regular updates should be shared with both staff and community as the basis for continuation of, or changes to, the original plan.

### Recommendation 2: Communication of the Facility Master Plan

The district is commended for its efforts to involve the community in the development of a facility master plan. MGT recommends that the district continue to communicate clearly and often to all stakeholders regarding the implementation progress of the facility master plan. To ensure community engagement and awareness, MGT recommends that a formal communications plan be developed. Sample communication plans can be easily found on the Internet or the district can engage local professional help in developing such a plan.

Formal communications plans establish clear goals, define the audiences to be reached (both internal and external) and identify the key messages that must be communicated if the facility plan is to be successful. In a well developed communications plan, responsibilities for implementation are assigned to specific individuals, timelines for completion have been established, and success indicators are determined to know whether strategies have been successful. Frequent reports to the Board and community are essential elements of a successful plan.

### Recommendation 3: Adopt Facility Master Plan Key Indicators of Success and Assign Monitoring Responsibilities to the Business Services Department

The Douglas County School Board believes it has a commitment to the people of Douglas County to demonstrate fiscal responsibility at all times. The Board takes this commitment very seriously and has often made public comments accordingly. In order to demonstrate this high level of commitment to spending public funds responsibility, MGT recommends that the Board adopt a performance dashboard for the facility master plan. Responsibility for monitoring the performance dashboard should be assigned at the direction of the superintendent to the Business Services Department.

Performance dashboards track the key indicators of success that the board wishes to monitor on a regularly scheduled basis. Standards must be set for each of the key indicators in order to monitor progress against those standards. MGT recommends that these indicators be considered:

- Facility scores as measured by the BASYS program (building condition educational suitability, site condition, technology readiness)
- Air quality
- Lighting levels
- Safety and security
- Energy efficiency
- Capacity and utilization
- Accuracy of enrollment projections

### Recommendation 4: Purchase and Deploy a CMMS Program

Full implementation of a facility master plan will result in additional investment in the district's school facilities. The maintenance and operation of all school facilities represents a significant investment by the district and its community. To protect this investment, MGT recommends that the district invest in a computerized maintenance management system (CMMS). This type of programs allows the district to track all maintenance investments, including time and materials, for the purpose of developing both deferred and preventative maintenance plans. This software investment will enhance the decision-making process for all building decisions.

### Recommendation 5: Develop Educational Specifications and Design Guidelines

The recommendations included in this master plan will necessitate new and remodeled facilities, and design teams will require program guidance from the district's educational team. It is recommended that the district develop educational specifications and design guidelines that reflect current and planned educational programs, current trends in educational facility planning, and design standards which promote the greatest efficiency. Educational specifications and design guidelines are the documentation required to ensure the physical design will meet the educational program requirements and the most efficient design techniques. The design guidelines include conversations about energy conservation, maintenance and utilities, the types of materials to be used, color palates, room sizes, lighting levels, and so on; educational specifications are even more detailed. Some of the key areas that the educational specifications will address are:

- Information technology requirements
- Special education spaces
- Circulation issues, both internal and external
- Vehicle access and parking
- Support space guidelines (library, cafeteria, counseling, child nutrition area, )
- Specialized room space requirements (kindergarten, science, music, art, CTE, PE)
- General classroom specifications
- Community use of facilities
- Administrative and office areas
- Building safety and security

## Recommendation 6: Liquidate Kingsbury Middle School Property

As is the case with most school districts, the facility needs of Douglas County Schools exceed the resources readily available to the district. Therefore, it is recommended that the district liquidate Kingsbury Middle School in order to provide additional revenue. The value of the Kingsbury property presents Douglas County School District with an asset that is not always available to other districts. Given the location of this property to Lake Tahoe, its value is significant and can add additional revenue to the funding of the facility master plan. The recommendation is based upon a review of the condition of the building, the student space needs for that area, and financial value of the property.

Kingsbury Middle School should be liquidated for these reasons:

- Additional revenue to fund capital improvements would be realized.
- Liquidation will eliminate present and future expenses needed to maintain the property.
- Eliminates district's responsibility for dealing with vandalism that will continue to decrease the value of the property.
- Abandoned school buildings reflect poorly on adjacent property.

## Recommendation 7: Discontinue School District Use of the Current District Administrative Center and the Heritage Building.

The facility master plan recommendations make the current use of the district administrative center and Heritage Building unnecessary. The plan calls for a relocation of administrative services into an existing middle school building and the renovation of Gardnerville Elementary School, making the Heritage Building no longer needed for instructional purposes. Under the terms of the agreement pertaining to the use of the administrative facility, when it is no longer used for educational purposes, the property could return to the trust. It is recommended that when the district administrative center is completed, the district will discontinue use of the current district office and allow the reversion back to the trust to occur. When the Gardnerville Elementary renovations are complete, the Heritage Building will no longer be needed for educational programs. It is recommended that at that time the district enter into discussions with the Douglas County Historical Society and other key community organizations to determine the best long-term use of the building. The expenses necessary to operate these buildings are prohibitive and do not justify housing a program when other Douglas County school facilities are better suited. Elimination of this expense would permit the district to redirect needed dollars towards other expenses that more directly support the educational programs of Douglas County Schools.

### Recommendation 8: Conduct Higher Level Facility Assessment at High Schools and Middle Schools

The master plan recommendations include changing grade configuration at both high school facilities, Douglas from 10-12 to 9-12 and Whittell from 7-12 to PK-12. In addition to the planning and development of educational specifications that will be necessary it will be essential that a higher level facility evaluation be conducted to determine precisely the level of work that will be necessary and the associated costs. Similarly, a higher level review will be necessary at Carson Valley and Pau-Wa-Lu in order to determine which middle school is best suited for continued grade 7-8 instruction and which is better suited for the centralization of district programs.

### Recommendation 9: Conduct a Detailed Transportation Review and Assessment.

The present transportation facilities are inadequate to support the mission of the transportation department. Furthermore, serious consideration should be given to creating a satellite facility located in the southern part of the county. Before final decisions can be made, it is necessary that the facility master plan be implemented. Key decisions made in the plan, specifically the location of the middle school and district administrative center, will have a large impact on the best solution to the issues pertaining to the transportation department. After determining the administrative center location, it is recommended that a detailed transportation review and assessment be conducted to determine the specific improvements needed and satellite facility location.

### Recommendation 10: Continue Discussions Regarding Potential School Sites.

While there are no new schools recommended in the ten-year master plan, it is prudent for the district to continue discussions regarding potential school sites to be available if/when needed. Past discussions with Douglas County officials have identified six possible sites in each region of the county. Discussions that lead to narrowing and securing the total number of sites will be beneficial in the case of unexpected growth.

## CRITICAL SUCCESS FACTORS IN THE FACILITY MASTER PLAN

The following critical success factors must be monitored in order to make necessary adjustments:

***Enrollment Trends***

It is important to monitor enrollment trends to verify the accuracy of assumptions included in Section 3.0 of the final report. In particular, it will be critical to watch for trends that would affect enrollment in a specific geographical region of the county. This activity should occur on a yearly basis.

***Capacity by Building***

Capacity of a school has a major impact on the efficiency and effectiveness of delivering educational programs to students. It is important that an accurate count of the instructional spaces be maintained as facilities and programs change. This activity should occur whenever a facility or program changes.

***Program Changes***

As educational programs are changed, added, or discontinued; the impact on facilities needs to be considered. This activity should occur whenever programs are added, updated, or discontinued.

***Douglas County Growth Plan Key Indicators of Success***

It is important that the decisions of the school district are aligned with the county's effort to improve the quality of life for the citizens of Douglas County. The key indicators of success listed in the county's plan must be monitored by the district on a yearly basis.

***Status of Renewing the Santini -Burton Act***

Federal legislation was created to restore and protect the watershed in the Lake Tahoe Basin. This Act will impact enrollment in schools located in the Lake Tahoe area should the Act be renewed. This should be monitored on an ongoing basis.

***Timing of the Sale for Kingsbury Middle School***

It is important that the timing of the sale of Kingsbury Middle School coincide with favorable market conditions. This should be monitored on an ongoing basis.

***CMMS Data***

The CMMS program as recommended in the master plan will allow for regular monitoring of facility operations. This data can be utilized to update BASYS facility scores. This activity should occur as facility improvements are completed.

## REVIEW SCHEDULE

To ensure the success of the facility master plan, we advise adhering to the following review schedule:

| Exhibits | Review Schedule |
|---|---|
| **Enrollment of Students with Special Needs** *(Exhibit 1-2)* | Yearly |
| **Total Population** *(Exhibit 3-1)* | Census Year |
| **Population Age Structure -Total by Age Group** *(Exhibit 3-2)* | Census Year |
| **Population Age Structure -by Percentage of Population** *(Exhibit 3-3)* | Census Year |
| **Median Age of Population** *(Exhibit 3-4)* | Census Year |
| **Percent Change in Population - 2000 to 2007 -by Age Segment** *(Exhibit 3-5)* | Census Year |
| **Projected Enrollment** *(Exhibit 3-20)* | Yearly |
| **Historical and Projected Enrollment – PK-12** *(Exhibit 3-21)* | Yearly |
| **Historical and Projected Enrollment – PK-6** *(Exhibit 3-22)* | Yearly |
| **Historical and Projected Enrollment – 7-9** *(Exhibit 3-23)* | Yearly |
| **Historical and Projected Enrollment – 10-12** *(Exhibit 3-24)* | Yearly |
| **Summary of Capacity and Current Enrollment of Elementary Schools** *(Exhibit 4-7)* | Completion of Phase I of master plan and all subsequent phase completion stages. |
| **Combined Scores – By Site** *(Exhibit 5-11)* | Completion of Phase I of master plan and all subsequent phase completion stages. |

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