

Excellence for Every Child

Knox County Schools
ASSESSMENT OF DEMAND FOR MIDDLE SCHOOL FACILITIES

FINAL REPORT | FEBRUARY 2015
BRAILSFORD \& DUNLAVEY

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## INTRODUCTION

Seeking to better understand the capacity and transportation challenges at the middle school level, Knox County Schools ("KCS" or the "District") selected The Brailsford \& Dunlavey Team ("B\&D") to assess the demand of its middle school facilities and identify if there is a need for new or improved middle school facilities in order to best serve the District's middle school student population. Using the District's new five-year strategic plan as a guidance tool, the District is seeking outside expertise to understand student enrollment, established middle school boundary alignment, transportation efficiency, and population projections across its 14 middle schools.

## BACKGROUND

The B\&D Team includes Davis Demographics \& Planning ("DDP"), a national PK-12 planning and demographics leader, and U.S Computing, Inc. ("USCi")., a leader in PK-12 transportation consulting, (collectively the "B\&D Team") which was created to provide KCS with an Assessment of Demand for Middle School Facilities ("Assessment"). This report summarizes the overall findings and synthesizes the information gathered as part of the Assessment to provide potential options for implementation to meet the strategic mission and vision of Knox County Schools.

Knox County is the third most populous county in the State of Tennessee. Accordingly, the District is challenged with maintaining the highest quality in educational services and facilities for teaching and learning. At the heart of this challenge is the opportunity to understand the demographics and migration patterns of students, families, and business services that support Knox County's children. With more than 27,000 elementary students feeding into the 14 existing middle schools, the demand to provide safe, equitable, sound, and educationally efficient facilities that meet $21^{\text {st }}$ century rigor is at a premium. B\&D's Team, which includes educational specialists the areas of educational planning, demographic and transportation analysis, focused on determining a range of plans that allows KCS to maximize the level of its community's investments given a dynamic future environment.

## SUMMARY OF TASK APPROACH

The work plan pursued as part of this Assessment is outlined below:

- Task 1: Project Kick-Off: This consisted of site visits, a Strategic Asset Value ("SAV") session, and collaborative discussions with KCS's Chief of Staff, Chief Academic Officer, Facilities department, Maintenance and Operations
department, Secondary Education department, Student Support Services department, Transportation and Enrollment department, and others.
- Task 2: Data Analysis and Review: The B\&D Team synthesized information received from KCS related to established middle school zones, transportation routes, and student population projections.
- Task 3: Recommendation and Presentation: A Presentation to KCS was given that included possible plans middle schools program cost and location, zoning, and also demographic and transportation.
- Task 4: Final Report: This report reflects the above steps synthesized, organized, and assembled to provide KCS with a framework to support its decision making through an enhanced understanding of facility usage and demand for its 14 middle school facilities throughout the County.

These tasks were accomplished with the full support of KCS staff and employees. The B\&D Team's approach was an iterative process involving collaboration, associated expertise, and core industry knowledge that provided the foundation for each presented plan exercise.

The B\&D Project Team was comprised of the Following Individuals:

- Brad Noyes, Senior Vice President, B\&D
- Julie Williams, Senior Project Manager, B\&D
- Marcus Huff, Assistant Project Manager, B\&D
- Lorne Woods, Project Manager, DDP
- David Kaitz, Project Manager, DDP
- Kerry Somerville, Project Manager, USCi
- Nancy Rawls, Project Manager, USCi

Using an iterative process, The B\&D Project Team discovered key findings that led to a series of suggested options presented in this report for addressing the District's middle school demand and capacity challenges. A key factor affecting the District's capacity equity is an enrollment bump in 2019 causing a dramatic jump at almost every middle school. The District's west and south located schools will gain significant student enrollment causing additional overcrowding requiring additional facilities support.

## STRATEGIC ASSET VALUE ("SAV")

Knox County Schools ("KCS" or the "District") engaged Brailsford \& Dunlavey ("B\&D") and its team of subconsultants to assess the need for current or future middle school facilities to better serve its growing student populations ("Plan" or "Assessment"). In response to KCS's newly established five-year strategic plan, District leaders strived to better understand student enrollment and population projections across the District's 14 middle schools and any relational impacts that the changing student population may have on transportation and zoning alignment. As one of the first steps in the planning process, B\&D facilitated a Strategic Asset Value ("SAV") workshop with a group of administrators and key personnel from KCS. This group included the following individuals:

| Mr. Russ Oaks | Chief of Staff |
| :--- | :--- |
| Dr. Elizabeth Alves | Chief Academic Officer |
| Mr. Doug Dillingham | Director of Facilities Planning |
| Mr. Jim French | Director of Maintenance \& Operations |
| Mr. Clifford Davis | Executive Director of Secondary Education |
| Ms. Melissa Massie | Executive Director of Student Support Services |
| Dr. Rick Grubbs | Director of Transportation \& Enrollment |
| Mr. Frank Draper | Specialist CTE (stand-in for Mr. Don Lawson) |

During the SAV session, the group discussed independent strategic objectives related to the Assessment. The intent of the discussion was as follows:

- To facilitate the involvement of KCS stakeholders in the planning process
- To align the objectives of the assessment of middle school demand with KCS's five-year strategic plan, ensuring implementation consistency during the planning effort
- Not to modify KCS's Mission or introduce new values

The SAV session's purpose identified and prioritized strategic objectives KCS must address through physical and programmatic recommendations. The group "Stakeholders" identified a value between 1 and 10 for each objective representing how existing facilities are supporting each goal; these selections were marked with an "X". The stakeholders also identified a value between 1 and 10 for each strategic objective representing the aspirant intensity that KCS should pursue as part of the Assessment; these selections were marked with an "0." Gaps existing between the " $X$ " and the " 0 " signaled opportunities, during the planning process, to
identify the programmatic and physical solutions that may be available to close those gaps. Figure 1.1 is an excerpt from the SAV worksheet and provides an example of how the placement of the " $X$ " and the " 0 " leads to B\&D's gap analysis.

Figure 1.1: SAV Workshop Example

| Strategic Objectives By Category | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Legend: Existing Conditions-X Targeted Aspirations- 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| I. Educational Environment |  |  |  |  |  |  |  |  |  |  | Value Benchmarks |
| a. Teaching \& Learning Spaces |  |  |  |  |  | X |  |  |  |  | 1 = Investments should focus on teaching spaces tailored to the delivery of specific ac ademic offerings. |
|  |  |  |  |  |  |  |  |  | 0 |  | $10=$ Investments should focus on providing flexible and adaptable teaching spaces that serve multiple functions. |

The gap analysis results were then synthesized and translated into the SAV Story that articulates the attributes that the Plan strives to accommodate. The SAV Story is intended to describe KCS's targeted future reality and identify the particular role that the Assessment must fulfill in order to achieve those objectives. The SAV had three (3) areas of focus: educational environment, school community, and operations and finance.

The SAV Story is comprised of four (4) distinct "chapters," including:

1. Priority of Spaces / Facility Concept
2. Neighborhood / Community Context
3. Architectural \& Construction Quality
4. Organizational / Operational Paradigm

## EXISTING STRATEGIC DRIVERS \& TARGETED FUTURE REALITY

The SAV work session summarized the District's desired outcomes by identifying the strategic drivers for the Assessment. Specifically, organizing the gap between existing conditions and targeted future reality provided understanding to areas needing immediate attention bringing KCS into alignment with its five-year strategic plan. Exhibit A: Strategic Asset Value Tool, graphically shows the results of the SAV session. The largest gaps that resulted from the analysis that must be addressed are:

- Enhance learning pedagogy and invest in classroom educational spaces;
- Enhance the neighborhood school concept valued by the community;
- Allocate capital funding throughout the district to provide safe, secure, and operational facilities; and,
- Advance the architectural quality of facilities during the capital improvement process.


## PRIMARY DRIVERS

## LEARNING PEDAGOGY

The District's current educational offerings at each facility are meeting state standards and exceeding KCS educational requirements in certain facilities. Increasing student capacity in classrooms challenges individualized student pedagogy. Technological advancements le.g., smart boards, iPads, and personal laptops for students) have been ways KCS has achieved individualized learning in the classroom. Additionally, KCS leadership indicated the District is exploring opportunities to enhance students' engagement in the classroom, le.g. improving the device-to-student ratio to 1:1). As student capacity continues to increase in middle school classrooms, identifying innovative techniques to improve the learning pedagogy will be necessary to provide personalized student learning experiences.

## EDUCATIONAL (TEACHING, LEARNING, CORE, AND SUPPORT) SPACES

Enhancing educational spaces is a focus for the District. Creating flexible learning spaces allow programmatic changes to be more adaptable. Converting existing spaces and, in recent cases, entire schools from high school to middle school, to accommodate student population growth and specialized learning and instruction challenges the target instructional/learner reality. Through community collaboration, KCS has identified creative ways to transform educational spaces into multi-functional uses including the use of exterior spaces that support indoor/outdoor learning. Another example of space transformation is installing classroom partitions in oversized classroom creating smaller learning areas. These approaches to addressing spatial concerns are productive solutions and must continue to be explored and implemented pragmatically throughout the District.

## ENROLLMENT POLICIES AND BOUNDARIES

KCS aspires to provide access to efficient, functional, and academically competitive community schools for students throughout the District. The current location of middle schools has resulted in a significant commute within several middle school communities of more than 30 minutes each way. Figure 1.2 shows the approximate location of the 14 middle schools across Knox County.

Figure 1.2: Knox County Middle Schools Locations


## APPROXIMATE LOCATION

Historically, Knox County built all middle schools on the edge of the County. This contributed to eventually imbalanced school zones throughout the District. Although school transportation is provided, historic siting may negatively impact student participation in after school programs and activities.

Efficiently managing the neighborhood school concept li.e., allowing middle schools to be utilized as community schools) constitutes a shift that KCS is already in support of an outcome identified by the SAV stakeholders. Facilities that offer programs for students and the community both during and after school hours would further enhance the concept of the school as the centers of community. A balanced approach should be taken as KCS seeks to efficiently transition the concept of community schools from neighborhood schools. Some ways of making this transition, would be to encourage school administration to support community activities within the schools. Hosting community meetings that inform KCS families on the value of
community schools and distributing information through media outlets are also ways that can be impactful. Strategically transitioning schools into learning centers that accommodate the entire community directly aligns with the District's five-year strategic plan.

## CAPITAL IMPROVEMENTS ALLOCATION

Increasing student capacity at middle school facilities directly impacts operational costs across the District. Immediate critical maintenance and operations issues are addressed with capital investments at individual middle school facilities. The need for addressing deferred maintenance and general maintenance has outpaced the available funding, which has resulted in system-wide impact. This need will increase across the District and will continue to grow as facilities increase in age. Several stakeholders stated that capital programmatic needs are more prevalent throughout the District than maintenance needs.

## ROLE OF SCHOOL FACILITY AS CIVIC ASSET

The average age of the 14 middle school facilities throughout the district is 47 years. The majority of the middle schools have passed their intended facility life span, which requires capital investments to address maintenance concerns. KCS's focus is strengthening community collaboration at its schools by allowing the facilities to host community programs and activities. Future renovation and addition designs will aim to create multifunctional community spaces in support of facilities becoming civic assets. Creating these spaces allow school facilities to serve a dual purpose of supporting community programs and activities that build upon the perspective of school facilities as civic assets.

## LIFE, SAFETY, AND SECURITY

A focus on health, safety, and security issues at its middle school facilities are critical to the District. KCS implemented heightened security measures at each facility improving secured access and security check points. Engaging the community to establish watch programs will bring the school and communities together, but can also provide security services at no additional cost to the District. Future facility improvement and new construction work is a proactive approach to improving middle school facilities. Updating and maintaining the security protocol, process, and procedures for KCS will also be important in achieving the desired outcome. KCS is committed to offering the students, faculty, and community quality safety and security at each middle school as set forth by the District's goals and standards.

## SAV STORY

The synthesis of the strategic drivers is translated into the SAV Story below, which articulates the attributes that the Plan must strive to accommodate and describes the targeted future reality as the Plan aims to fulfill KCS's objectives.

## PRIORITY OF SPACES / FACILITY CONCEPT

"Goal 1: Focus on Every Student, Objective 2: Personalize Learning," taken from KCS's five-year strategic plan states that the District will be focusing on, "structuring the schools to best meet the learning needs of students." Currently, the District has had to pursue creative solutions in some of its middle school facilities with respect to its use of educational spaces. This is largely in response to outdated school designs or functional use changes (i.e., converting a high school into a middle school, etc.). In order to achieve KCS's objective of "structuring the schools to best meet the learning needs of students," the District must encourage flexible and adaptable learning spaces that aim to change the way middle school facilities are perceived, designed, and utilized to better reflect $21^{\text {st }}$ Century learning environments.

The transition of utilizing some spaces for multi-learning, both indoor and outdoor, will create learning environments that enhance the educational program. While maintaining the current building footprint, creating breakout spaces for learning in hallways is an example of a method that schools use to create collaborative interaction spaces throughout the facility. This will allow teachers to continue to utilize the school as a teaching tool and develop diverse learning environments for students. Also, faculty can organize small learning communities among the middle schools that will allow the discussion of educational objectives and lessons learned that work well at individual facilities. Progressive steps, taken over time, will drive the District towards achieving its targeted reality of having facility spaces that are adaptable, flexible, and that can be utilized by the school and community.

## NEIGHBORHOOD / COMMUNITY CONTEXT

"Goal 1: Focus on Every Student, Objective 3: Facilitate High Quality Student Supports," taken from KCS's strategic plan, states that the District will, "strengthen and scale Community Schools." Effectively managing the concept of neighborhood-to-community school was discussed in length and identified as an important driver for the District during the SAV session. As KCS moves forward with implementing the five-year strategic plan, the District must promote community school usage for students, faculty, and parents at neighboring middle school facilities. KCS families are essential to the success of each student, and middle school facilities must create and support learning spaces that draw families and community members into the schools. Current KCS efforts, such as the "Community Schools Initiative," which provides support systems for students and families and "Great Schools Partnership," which provides a number of programs for students, faculty, and the community, are excellent ways that KCS is already shifting this concept. KCS has the opportunity to serve students, families, and communities of diverse races, ethnicities, religions, and socio-economic backgrounds and middle school facilities develop external partnerships with the community that draw these individuals with varied backgrounds. This is a step towards creating a school community where families interact with other families, which ultimately supports the transition of the District to having community schools.

## architectural \& Construction quality

"Goal 3: Partner with Our Stakeholders, Objective 2: Invite \& Earn Stakeholder Feedback," taken from KCS's five-year strategic plan, states that KCS will, "Develop and promote differentiated stakeholder engagement opportunities." This strategic goal aims to encourage increased community engagement and input in future school designs. In order to achieve this goal, KCS should provide community design forums and enhance future physical and programmatic space designs. This process allows for community engagement to ensure that a future facility's physical configuration and its impact on learning fit the context of the community. Community input on future addition and renovation concepts will provide diverse perspectives and community consensus. Community engagement (e.g., school clean ups, improvement events, etc.) will assist in providing economical ways of improving the schools' architectural quality by providing clean and welcoming environments while also strengthening the community schools. In addition to community engagement, having designs that consider both physical and programmatic integration of quality-of-life services will enhance the District's architectural quality.

## ORGANIZATIONAL / OPERATIONAL PARADIGM

"Goal 1: Focus on Every Student, Objective 1: Guarantee Excellence in the Classroom," taken from KCS's five-year strategic plan, states that the District will, "Cultivate the 'Whole Child' by providing diverse learning opportunities". The District aspires to have facilities that are safe, secure, functional, and operational, while supporting KCS policies and maintaining its budget allocations. In order to achieve these goals and accomplish the established strategic plan, KCS may develop new educational policy requirements that focus on cultural changes to curricula throughout the District. KCS educators currently "own" their classroom space for the entire academic year. Adapting a more flexible teaching policy over time will impact the learning dynamics at each middle school across the District. Creating specific learning spaces in each facility that provide teachers the opportunity to rotate instruction provides another means of fostering this transition. Using collaborative assignments among classrooms that promote student-to-student engagement both inside and outside of their direct classroom will also progress the District to its desired outcome. Nationally, there is an increased importance placed on student collaboration and group approach to learning.

## EDUCATIONAL SPACE ADEQUACY

Educational Space Adequacy analysis associated with learning environments ensures that the educational facilities in the District are safe, healthy, and educationally adequate to support the delivery of education to all students. Educational space adequacy examines a school's intended educational programs and the allocation of the availability of individual learning areas throughout a school's campus. The space adequacy components examine the total learning environment that is intended to support students and teachers in achieving their academic and personal development goals. Educational Space Adequacy components or categories include:

1. Academic Learning Spaces
2. Special Learning Spaces
3. Support Spaces
4. School Configuration

Within each of the four categories are a series of assessment areas that received a weighted score. This weighted score was tabulated and provided an overall Educational Space Adequacy score for each school.

B\&D created a rubric, or an appraisal tool, that the B\&D Team utilized when visually inspecting each of the 14 middle school sites in order to provide a complete snapshot of each campus' Educational Space Adequacy rating. Figure 1.3 shows an example of the appraisal tool:

Figure 1.3: Appraisal Tool Example


The purpose of conducting an Educational Space Adequacy appraisal is to clearly identify school building capacity and space utilization challenges. Examining KCS's overall demand for middle school students in conjunction with the appraisal tool allowed the B\&D Team to gain an understanding of potential student and community migration patterns, age and size of school sites, and educational program offerings as a whole and at each school site.

The iterative process of tying the SAV to the Educational Space Adequacy appraisal allowed the B\&D Team to apply the filters and outcomes from the SAV session to its visual examinations and comparisons of the collected data as it applied to each site's capacity and utilization of spaces in relation to the categories below:

1. Educational Adequacy and the Educational Environment
2. School Community
3. Operations and Finance

## METHODOLOGY AND OBJECTIVES

Utilizing the Educational Space Adequacy tool provides a consistent rubric to verify and compare existing conditions. Obtaining the data - the site's capacity versus enrollment - informs how the alignment of educational spaces with the utilization of to the actual size, configuration, and condition of the facility. During the Assessment, B\&D staff members met with each middle school's principal to review and confirm the following:

- Student enrollment
- Site configuration and classroom verification
- Educational space adequacy
- Facilities utilization
- Programmatic content alignment
- Community engagement
- Overall capacity of site


## EDUCATIONAL SPACE ADEQUACY APPRAISALFORM

As shown in Exhibit B: Educational Adequacy Form, the site appraisal form provided verification of educational spaces, programmatic alignment, and classroom utilization for the purposes of determining school site capacity. The results highlight the demand of spaces and physical condition needs for a particular middle school.

## BUILDING CAPACITY OF SCHOOL

Building Capacity is defined by the number of teaching stations multiplied by the number of students per teaching station. There are a number of other important factors that help define a school's overall capacity. The Program Capacity identifies the building capacity multiplied by utilization percentage. Percent Utilization - as defined below - represents the percentage of the day a teaching station is being used. A Teaching Station represents any room where the school regularly schedules full-size classes. Students per Teaching Station is recognized as the average of students in a regularly scheduled full-size class. Specific programmatic requirements for each site were not available at the time of the visits. B\&D selected the Building Capacity as our model for determining each middle school's capacity.

## UTILIZATION FACTOR

Utilization of a school is defined as the student enrollment divided by the school's building capacity. Capacity of each school should be derived from a planning model used for that school's program with adjustments to the model that arise from the actual classroom count, need for spaces to serve special needs programs, and the use of temporary classrooms on campus. School utilization planning requires an understanding of space needs for a range of academic programs offered in a school, as well as classroom and common spaces available for student use and the number of students anticipated in the future. In simplest terms, utilization is the portion of a building's space that is assigned to students.

## INITIAL AND OPTIMUM STUDENT CAPACITY

When considering building a new school facility, the initial building capacity assigned is the building capacity necessary to house the students anticipated to enroll at the school by the end of the study period. The optimum building capacity is usually the maximum number of students (capacity) of that type (elementary, middle, high schools) based on applicable district policies. Establishing optimum building capacities makes it possible to plan the initial project and construction budgets within the framework of the overall school size. Overall school size relates to the school's core facilities such as media, cafeteria, administration, circulation, and other auxiliary spaces. Classrooms (teaching stations) and core facilities create the spaces related to identifying the school's optimum building capacity.

## DEMOGRAPHIC OVERVIEW

Knox County Schools ("KCS" or the "District") engaged the B\&D Team, in particular, its partner, Davis Demographics \& Planning, Inc. ("DDP"), to use the most recent population projections generated by the Knox County Metropolitan Planning Commission (or "MPC") to assist in preparing a series of middle school boundary scenarios. The purpose of these middle school scenarios is to help the District determine the best use of their current middle school facilities over the next 10 years and to determine the most effective approaches to supplement or repurpose its facility inventory of spaces to meet its population's needs.

The projected student enrollments generated by MPC cover a ten-year period which are calculated at the Study Area level (i.e., at the micro-population level). Knox County's middle schools have been broken up into 1,229 individual "study areas." No study area straddles two District attendance zones. Therefore, the projected number of students in each of the District's current attendance areas is derived by the sum of all of the study areas that comprise that particular region. The District-wide projection is the summary of all 1,229 study areas.

As a particular exercise for this analysis, the concept of running projections at the "study area" level is presented as an ideal for a particular school district that plans on re-adjusting its current attendance areas. This then gives the District the ability to determine a variety of new attendance area scenarios and know approximately what the future number of students may be living in the subject areas. This is exactly the process that DDP employed for KCS as part of the Assessment.

A variety of factors go into the calculation of the "study area" projections. These components include the following:

1. Examining the current and planned residential development over the next ten years;
2. Applying the appropriate Student Yield Factors to this new development;
3. Determining birth factors for this District area; and,
4. Calculating mobility factors, which examine the in/out migration of students within existing housing units (this factor, for example, takes into account, the "resale" of units, apartment migration, and dropout rates).

## SOURCES OF DATA DEMOGRAPHIC DATA

## Historical Enrollment:

New Housing Information:

Birth Data: lused for estimating incoming Kindergarten)

MPC obtained K-12 student data files downloaded by KCS each October from fall 2011 to fall 2014

Compiled by MPC for the KCS area using approved residential development data such as final plats and concept plans.

Live birth counts for the KCS District area (by zip code) were obtained from the Tennessee Department of Health, Office of Policy, Planning and Assessment. Figure 1.4 shows Knox County, Tennessee areas by zip code.

Figure 1.4: Knox County, TN areas by zip code


## TRANSPORTATION OVERVIEW

Knox County Schools ("KCS" or the "District") engaged the B\&D Team, in particular, its partner, U.S. Computing, Inc. ("USCi"), to evaluate the District's current approach to transportation services. Upon examination of the District's existing transportation policies, routes, and contracting services, the B\&D Team aligned transportation solutions with the scenarios A1 through B4 that resulted from DDP's demographics analysis. These scenarios presented options or exercises for altering elementary and middle school boundaries, as well as adding possible new middle school campuses. USCi's recommendations that specifically address the current challenges and test KCS's middle school transportation cost and operational efficiencies.

The Knox County School District Transportation Department provided empirical information for the Assessment concerning the total number of runs the District makes daily to transport middle school students, portions of eligible students using transportation services for each middle school, and percentages of eligible students using the transportation system in October 2014. Utilizing KCS transportation data, USCi ran cost and scheduling scenarios overlaid with the demographical analysis provided by DDP. Looking at the number of eligible students per bus run, bus routes, miles driven, and overall daily / average transportation costs per school site (and per student), USCi created the overview and required direction to directly connect observations and solutions. At this time, the District has only two bell times for the majority of its schools. An early bell time is in use for the elementary schools with a later bell time for its middle and high schools. Several of KCS magnet schools have later bell times. Due to the single bell time for middle and high schools, students may be transported together to all secondary schools. In the more rural areas of the District, particularly in the east portion of the county (i.e., Carter Middle School area), elementary students are also transported with secondary students, allowing a single vehicle to cover a large area once in the morning and again in the afternoon.

The District currently engages 76 external contractors to provide student transportation via bus. Based on the outcomes of the planning scenarios - Plans A1 through B4 - the B\&D Team detects certain challenges facing the District in the potential reconfiguration of its the bussing routes. Changing elementary school feeder boundaries or shifting middle school boundaries present different types of challenges that will impact school transportation and operational efficiencies.

KCS's Transportation Department is experiencing variations in transportation costs per student depending on the following variables:

- Distance to the school from the assigned bus stops
- Density of the number of students in an area
- Type of area of the District whether rural or urban
- Parental option to provide their own transportation

For example, as seen in Figure 1.5, in Karns Middle's attendance area, transportation costs are both the most expensive and least expensive bussing in the District for middle school students. Also, the Karns Middle attendance area contains the longest and shortest runs by distance for the entire District's middle school transportation system. Transportation's costs have many different variables, which can change from week to week or even day to day.

Figure 1.5: Karns Middle School Attendance Area Analysis

| Extremes in costs across the district--highest \& lowest cost in district in same attendance boundary |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bus | School | total monthly | daily cost per bus | daily avg bus | eligible middle riders | actual middle school rider | cost per <br> eligible <br> middle <br> rider | cost per middle actual rider | middle bus per mile |
| 198 | Karns Middle | \$3,498.00 | \$197.63 | \$49.41 | 79 | 72 | \$0.63 | \$0.69 | \$3.13 |
| 915 | Karns Middle | \$4,206.00 | \$237.63 | \$95.05 | 11 | 5 | \$8.64 | \$19.01 | \$13.39 |
|  |  |  |  |  |  |  |  |  |  |
| Extremes in costs across the district--shortest \& longest distance in district in same attendance boundary |  |  |  |  |  |  |  |  |  |
| 138 | Karns Middle | \$3,581.00 | \$202.32 | \$80.93 | 51 | 43 | \$1.59 | \$1.88 | \$1.21 |
| 915 | Karns Middle | \$4,206.00 | \$237.63 | \$95.05 | 11 | 5 | \$8.64 | \$19.01 | \$13.39 |

## DEMAND ANALYSIS OVERVIEW \& PLANS

KCS's middle school enrollment is not equitably distributed throughout the District. Topography, residential housing and new development, and rural versus urban elements all present factors as to why schools typically have building capacity challenges. Understanding each site's uniqueness, the demographic patterns, bell patterns and times, and the student transportation as contributing factors, the B\&D Team constructed a series of options presented in two phases. The Team's first phase of suggested options did not address any boundary changes due to the extensive District study in 2011. These initial options included:

- Potential new school in the Gibbs area
- Potential new school in the Hardin Valley area and closing Cedar Bluff Middle School to save operational costs and maintain efficiencies
- Closing Vine Middle Magnet School or re-aligning the school to serve as a performing arts magnet
- Potential new development of additional charter schools
- Re-purpose Carter Middle School
- Reconfigure Carter Elementary School to a K-8 school Reconfigure Carter High School to a 7-12 school

Upon District guidance and better understanding of the history, the second phase included The B\&D Team developing revised options after working through an iterative process. Recognizing opportunities to equitably distribute middle school students and address the 2019 enrollment jump, the B\&D Team considered choosing to re-align boundaries and parent responsibility zones (PRZ). Selecting eight potential plans, the presented options address overall building capacity, 10-year projected student enrollment, capital investments, transportation, and suggested bell time changes.

The Key Findings suggest a new middle school in the Gibbs area is not supportable based on projected future enrollment. The key Findings do indicate a new middle school in the Hardin Valley area is supportable based on projected future enrollment. Additional discussions and review are anticipated before the District would move forward with any combination of the plans in this report.

The following eight potential plans provide an exercise of thought and are intended to deliver KCS those options and possibilities at its disposal in planning for current and future middle school enrollment demand and spaces. This exercise is not intended to steer the District into the decision making process of choosing one plan or to the exclusion of another plan. These illustrations allow the staff and Board Members to discuss specific issues that the District is currently facing or will be experiencing over the next 5-10 years.

The eight plans are divided into two categories: a) the four maps that are in the A-series focus on keeping the current elementary (K-5) boundaries intact and making them direct feeders into particular middle school regions; b) the four maps that are in the B-series remove the currently employed direct elementary-to-middle school feeder assumption and consider the potential of moving smaller regions (study areas) rather than utilizing on the larger elementary boundaries. The A-series maps have larger regions lintact current elementary attendance areas) that are moved around while the B-series maps give more flexibility in determining possible middle school boundaries.

Last, these plans are not necessarily mutually exclusive. For example, the District could chose to repurpose Carter MS (Plans A4 or B4) and still open a new MS in the Gibbs area (Plans A2 or B2) or a new MS in the Hardin Valley area (Plans A3 or B3).

If a specific plan of action is decided, such as opening a new middle school, then it is strongly suggested that the District conduct additional targeted analyses beyond this planning level analysis to determine the final new boundaries. The plans that are included as part of this Assessment can be used as potential starting point for pursuing new boundaries, but they are not intended to be the ultimate solution. Additionally, the student forecasts used in creating these plans will need to be updated and reviewed annually to insure that the latest demographic, socio-economic, and market trends are included.

## OPTION DETAILS



Move Only Complete Elementary School Attendance Areas:

- Boundary changes take into consideration complete resident area students for connection to friends and familiarity
- Increases enrollment at seven middle schools in excess of suggested building capacity
- Decreases enrollment at six middle schools adjusting enrollment to below building capacity
- Associated capital expenditures for additions to accommodate over capacity schools
- Enrollment challenges District-wide remain for 2019
- Transportation costs are still a challenge

MIDDLE SCHOOL PLAN A1
NO NEW MIDDLE SCHOOLS - Change Direct Elementary School Feeders (ES) Boundaries

Plan A1 entails realigning the Elementary School Attendance Area feeder schools and not building another new middle school. Examining all elementary feeder schools with resident enrollment, this option proposes aligning complete elementary school attendance area boundaries to a specific middle school. This scenario changes the current elementary school boundaries to direct feeders for a specific middle school. The effects of this scenario impact the building capacity at seven middle schools by increasing the volume of middle school students well over the purposeful building capacity of the current campus facilities. The existing bell system remains intact. Transportation will remain a challenge. The added operational costs and capital expenditures for building and maintaining a new school do not exist in this scenario.

The challenge is presenting a new boundary structure to the KCS community.


OPTION DETAILS


Move Only Complete Elementary School Attendance Areas:

- Plan provides educational spaces for 775 Gibbs area students
- Neighborhood school allows more students to walk to school decreasing transportation costs
- Keeps elementary school neighborhoods together for direct feeders to middle schools
- Capital investments associated with new facilities
- Five existing school sites remain overburdened with enrollment exceeding capacity
- Transportation costs are still a challenge


## MIDDLE SCHOOL PLAN A2

NEW GIBBS AREA MIDDLE SCHOOL - Change Direct Elementary School Feeders (ES) Boundaries

The proposed Plan A2 entails realigning the Elementary School Attendance Area feeder schools and building a new middle school in the Gibbs area of the District. This option proposes moving 775 students from Halls and Holston Middle Schools to the new Gibbs area school with a designed capacity of 800 students. The move would decrease the 2019 capacities at Halls and Holton to 754 and 586 students, respectively, while increasing student capacities at five school sites. With the continuing shift in student migration from the eastern to the western portions of the County, Gibbs Middle School would continue to decrease in student population to 700 students by 2024, well below the school's designed capacity, further challenging the District's operational efficiency. The existing bell system remains intact further challenging the transportation costs and efficiencies. This plan would require immediate action to be taken to begin the planning, designing, and construction process for Gibbs Area Middle School.


## OPTION DETAILS



Move Only Complete Elementary School
Attendance Areas:

- New middle school would relieve overcrowding at four sites in the west and south areas of District
- Right-sizes 12 middle school sites by 2024
- Neighborhood school allows more students to walk to school
- Capital investment associated with new school
- Single bell time presents on-going challenges
- Immediate action is needed to implement new middle school planning, design and construction processes


## MIDDLE SCHOOL PLAN A3

NEW HARDIN VALLEY AREA MIDDLE SCHOOL - Change Direct Elementary School Feeders (ES) Boundaries

The proposed Plan A3 entails realigning the Elementary School Attendance Area feeder schools and building a new middle school in the Hardin Valley area of the District. This option proposes moving 800 to 820 students from Cedar Bluff, Karns, and Farragut Middle Schools to the new Hardin Valley area school with a designed capacity of 800 students. The move would decrease the 2019 student populations at six middle schools while increasing student capacities at six school sites. Moving only complete elementary school boundaries and adding a new middle school in the Hardin Valley area does not address the under-utilized school campuses in the north and east portions of the County. Right-sizing of 12 middle school sites would continue through 2024 with Hardin Valley Middle School coming online. The existing bell system remains a challenge further complicating the transportation costs and efficiencies. This plan would require immediate action to be taken to begin the planning, designing, and construction process for Hardin Valley Middle School.


## OPTION DETAILS



Move Only Complete Elementary School Attendance Areas:

- May provide creative educational programming structure by re-configuring schools
- May provide specialized learning facilities for alternative education program
- Does not resolve east county transportation and learning space challenges for neighboring schools
- Construction expenditures associated with reconstruction and modernization of existing facilities
- Single bell time presents continuing transportation and cost efficiencies
- Overcrowding in growth areas of District still remains


## MIDDLE SCHOOL PLAN A4

REPURPOSE CARTER MIDDLE SCHOOL No New Middle Schools Change Direct Elementary School Feeders (ES) Boundaries

The proposed Plan A4 entails realigning the Elementary School Attendance Area feeder schools and re-purposing Carter Middle School. As the growth continues to decline in the east and north portions of the District, repurposing Carter Middle School would allow the district to re-structure the elementary and high school configurations in the area. The new school configurations would consist of moving a total of 160 sixth graders from Carter MS to Chilhowee (3-5) and Carter (K-5) Elementary Schools forming 3-6 and K-6 schools; moving a total $3637^{\text {th }}$ and $8^{\text {th }}$ graders from Carter MS to Carter and Austin Magnet High Schools thus creating a $7^{\text {th }}-12^{\text {th }}$ school configuration and allowing Carter MS to be repurposed for a variety of District or community uses including an alternative school, community partnerships, or possibly a District office. KCS would maintain the capital asset while providing creative

learning opportunities in the northeast portion of the district.

## OPTION DETAILS



Reconfigure MS
Boundaries Balancing Residence Counts by Capacity Figures:

- Flexible and economical solutions with limited capital investment
- Provides equal distribution of students based on continued growth
- Right-sizes most middle schools with the exception of three which remain overcrowded

Projected 2019 enrollment spike will continue to overburden existing overcrowded schools

## MIDDLE SCHOOL PLAN B1

NO NEW MIDDLE SCHOOLS - Boundary Changes that Balance Residence Counts by Student Capacity Loads

The proposed Plan B1 entails adjusting current middle school boundaries to balance residence counts by school building capacity figures and NOT building another new middle school. This scenario changes the current middle school boundary zones and adjusts them to reflect a better balancing among the 14 sites. This option relieves overcrowding and right-sizes all but three middle school sites - Karns, West Valley, and Farragut - which necessitates minor additions to accommodate the growth. This option provides the needed modernization and educational space adequacy improvements at the other sites. While this option provides a flexible solution with limited capital investment, it does not resolve the singular issue of the one bell time that continues to impact transportation costs and efficiencies.

The District will realize an enrollment spike in 2019, which this option does not address.


## OPTION DETAILS



Reconfigure MS Boundaries Balancing Residence Counts by Capacity Figures:

- Plan provides educational spaces for 800 Gibbs area students
- Neighborhood school allows more students to walk to school decreasing transportation costs
- Significant boundary changes for five middle schools
- Capital investment associated with new school
- Right-sizes almost all middle schools in District
- Insufficient projected future enrollment for a new Gibbs area school to meet targeted building capacity


## MIDDLE SCHOOL PLAN B2

NEW GIBBS AREA MIDDLE SCHOOL - Boundary Changes that Balance Residence Counts by Student Capacity Loads

The proposed Plan B2 entails significant boundary changes Holston, Carter, South-Doyle, Bearden, and Farragut Middle Schools. This option proposes moving 700 students from Halls and Holston Middle Schools to the new Gibbs area school with a designed capacity of 800 students. The boundary changes and the new middle school would relieve overcrowding in the south area of the district with the exception of West Valley accommodating 1,351 students (building capacity is 1,200 ). With the continuing shift in student migration from the eastern to the western portions of the County, Gibbs Middle School would continue to decrease in student population from 700 to 576 students by 2024, well below the school's designed capacity further challenging the District's operational efficiency. The existing bell system remains intact further challenging the transportation costs and efficiencies. This plan would require immediate action to be taken to begin the planning, designing, and construction process for Gibbs Area Middle School.


OPTION DETAILS


Reconfigure MS
Boundaries Balancing Residence Counts by Capacity Figures:

- New middle school would relieve overcrowding at all but one middle school site (West Valley - 2024)
- Provides resolution for 2019 enrollment bump with the exception of Gresham
- New middle school boundary alignment allows equal distribution of students based on continued growth
- Neighborhood school allows more students to walk to school
- Capital investment associated with new school


## MIDDLE SCHOOL PLAN B3

NEW HARDIN VALLEY AREA MIDDLE SCHOOL - Boundary Changes that Balance Residence Counts by Student Capacity Loads

The proposed Plan B3 entails moving existing middle school boundaries to better balance residence counts by student capacity figures and building a new middle school in the Hardin Valley area of the District. This option proposes moving 700 students from Karns and Farragut Middle Schools to the new Hardin Valley area school with a designed capacity of 800 students. The move would decrease the 2019 student populations at all middle schools with the exception of Gresham Middle School gaining 31 students. West Valley Middle School would continue to experience growth through 2024 receiving 1,346 students. This option would relieve overcrowding at the western and southern portions of the District and provide swing and growth space for schools in the eastern and northern areas of the District. The existing bell system remains a challenge further perplexing the transportation costs and efficiencies. This plan would require immediate action to be taken to begin the planning, designing, and construction processes for Hardin Valley Middle School.


OPTION DETAILS


Reconfigure MS Boundaries Balancing Residence Counts by Capacity Figures:

- May provide creative educational programming structure by re-configuring schools
- May provide specialized learning facilities for alternative education program
- Does not resolve east county transportation and learning space challenges for neighboring schools
- Construction expenditures associated with reconstruction and modernization of existing facilities
- Single bell time presents continuing transportation and cost efficiencies
- Overcrowding in growth areas of District still remains


## MIDDLE SCHOOL PLAN B4

REPURPOSE CARTER MIDDLE SCHOOL No New Middle Schools Boundary Changes that Balance Residence Counts by Student Capacity Loads

The proposed Plan B4 entails moving existing middle school boundaries to better balance residence counts by student capacity figures and repurposing Carter Middle School. As the growth continues to decline in the eastern and northern portions of the District, repurposing Carter Middle School would allow the District to re-structure the elementary and high school configurations in the area. The new school configurations would consist of moving a total of $6606^{\text {th }}--8^{\text {th }}$ graders in 2019 from Carter MS. A total of $2106^{\text {th }}$ graders would move to Chilhowee ( $3^{\text {rd }}-5^{\text {th }}$ ), Carter ( $K-5^{\text {th }}$ ), and East Knox (K-5 $5^{\text {th }}$ ) Elementary Schools forming $3^{\text {rd }}-6^{\text {th }}$ and K-6th schools. The remaining $4507^{\text {th }}-8^{\text {th }}$ grade students would move from Carter MS to Carter and Austin Magnet High Schools, thus, creating a $7^{\text {th }}-12^{\text {th }}$ school configuration allowing Carter MS to be repurposed for a variety of District or community uses.


## DEMOGRAPHIC ANALYSIS

The concept of running projections at the "study area" level is ideal for a school district that may consider re-adjusting its current attendance areas. This gives the District the ability to determine a variety of new attendance area plans and informs the District as to the approximate future number of students will be living in the study areas.

A variety of factors go into the calculation of the "study area" projections. These components include the following: (1) examining the current and planned residential development over the next ten years; (2) applying the appropriate Student Yield Factors to this new development; (3) determining birth factors for this District area; and, (4) calculating Mobility Factors, which examine the in/out migration of students within existing housing units (this factor, for example, takes the "resale" of units into account, apartment migration and dropout rates).

## METHODOLOGY

1. To start the projections the current $12^{\text {th }}$ grade students graduate and then the other 12 grades move up (K to $1^{\text {st }}, 1^{\text {st }}$ to $2^{\text {nd }}$, etc.).
2. Incoming kindergarten classes, for existing homes, are estimated by comparing changes in past births in the area. DDP assumes the current kindergarten class (2014/15) was born five years ago (2009). Future incoming kindergarten classes are estimated by comparing the number births in 2009 to the number of births in 2010 - 2013. MPC then compared the total births in 2009 to the total births in 2010, to determine a factor for next year's kindergarten class (2015/16). The 2009 births were compared to 2011 (2016/17's K class), 2009 to 2012 (2017/18's K class) and 2009 to 2013 (2018/19's K class).

The following steps aim to explain how DDP arrived at the birthrates used in the study (to estimate the number of incoming Kindergarteners for fall 2015 through fall 2020):
a) Historical live birth data by zip code was acquired from the Tennessee Department of Health (Nashville, TN). Since the fall 2014 student data is the base for the projections in this report, then the fall 2014 Kindergarten (K) class was to be used as the base for the birth rates. It is assumed that the majority of the 2014 K class was born in 2009, therefore the 2009 birth data become the "base year" for the birth rates.
b) MPC collected live birth data for the 31 zip codes in the District area (see the accompanying map) for the years 2003-2013 (2014 data are not yet available). The 2003-2008 data are not used in the actual birth rate calculations, but more for historical reference. A County-wide set of birthrates were calculated (see Table 1), but it was the Super Sector birthrate calculation that was applied to the appropriate study areas in the projections. The County-wide figures are simply there for reference.
c) To calculate the birth rates that would be used to determine the incoming class for fall 2015, MPC compared the fall 2010 live birth counts (representing the future fall 2015 K class) for the particular zip code(s) and compared it to the fall 2009 counts.
d) Since the future students representing fall 2019-fall 2024 (2014-2019 births) are not yet born at the time of this report, or the data are incomplete, then MPC had to take certain steps to determine the birth factors used for fall 2019-fall 2024. MPC created birth forecasts, based on historic births, to calculate the 2019-2024 birthrates for each super-sector. A goodness-of-fit test was used to evaluate each super-sector forecast prior to incorporating it into the model.
e) Once the initial birthrates are calculated (see Table 1), MPC then runs a series of algorithms to take into account more local historical Kindergarten counts to achieve a more realistic Kindergarten forecast at the study area level. This was done to avoid over or under projecting the number of new kindergarteners in the final years of the projection and is a very common practice. Because all future Kindergarten cohorts are based on the size of each study area's base year Kcohort, single-year events in which cohort sizes are smaller than average, larger than average, and cohorts with zero students can be magnified as the anomalous cohort propagates through the elementary grades of a projection. To combat
this, the birth rates for each study area in the model are manipulated to set the projection's base year, study area-level kindergarten cohorts to its three-year average. These modified values are then subjected to the super sector birth rate calculations.
3. Overall, births in the Knox County Schools District area are dropping ITable 1: Initial Birthrates Applied by MPC; reference Appendix 1: Davis Demographic \& Planning, Inc.: fall 2014 Middle School (6-8) Projections and Boundary Plans (February 23, 2015, Page 3) especially in the rural areas. This trend does typically result in smaller Kindergarten class sizes continuing to enter the District over many of the next ten years. New residential development information was compiled using data maintained by MPC representing building activity in the County. A listing of all residential development (by Study Area) used in these projections can be found in the enclosed Residential Development Summary Report. Only approved developments were used in the forecast and as a result the number of units do start to drop off after the next five years.
4. Student Yield Factors (SYF's) were also calculated by MPC and are listed on the next page. The new housing was essentially broken down into two main categories: 1) Single Family Residential (SFR) units, which consist of your typical single family homes and 2) Single Family Attached (SFA) units which are multi-family units. In addition, MPC broke down the District into a series of sectors and sub-sectors. It was at the main Sector level that MPC determined the SYF's to use in the projections. There are three main sectors in the District area: Rural Sectors, Suburban Sectors and Urban Sectors. The SYF's used in in the fall 2014 reference Appendix 1: Davis Demographic \& Planning, Inc.: fall 2014 Middle School (6-8) Projections and Boundary Plans (February 23, 2015); Page
5. Modify enrollment further by using student Mobility Factors as follows:

Student Mobility Factors further refine the ten-year student population projections. DDP is referring to "mobility" as the increase or decrease in the movement of students within the District boundary on an annual basis. A sampling of students living in established neighborhoods within a four year period are averaged and the resulting figures are applied to the projections as the students matriculate through the grades. Apartment movement, high school dropout rates, housing resales as well as foreclosure rates within the District are built into the Mobility Factors that DDP calculates. Mobility, similar to a cohort, is applied as a percentage of increase/decrease to each grade for every year of the projections.

Student counts for each study area are available for the last four school years (fall 2011 through fall 2014). A sample of 1,070 study areas (from a total of 1,229 ) was chosen within the District's boundaries that had no new residential development over the last five years. The Mobility Factors were conducted at the Super Sector level. These Super Sectors are classified as follows: Rural, Suburban, Suburban SW, Urban Core and Urban Ring. Therefore, 5 separate/unique sets of Mobility Factors were used, one for each of the District's Super Sectors (see Table 3 on the next page).

If the data are available, the advantage to running the Mobility Factors at the Super Sector level rather than looking exclusively at a District-wide average is that you can focus on specific trends that are occurring in specific parts of the County, which can lead to more accurate projections. The Mobility Factors are summaries of established neighborhoods without any influence of new residential development over the past five years.

MPC used KCS students living in the sampled 1,070 study areas taken over a four-year period using "address-matched" student data llocated by place of residence) from the years fall 2011 through fall 2014. Individual Mobility Factors were created to represent each grade transition in the KCS District area la Kindergarten to 1st grade Mobility Factor, a 1st grade to 2nd grade Mobility Factor and so on) for each of the District's five Super Sectors. For example, MPC looked at the sampling of 2011 Kindergarteners and compared it to the 2012 1st graders for that same area. The same process was conducted for 2012 Kindergarteners in comparison to 2013 1st graders and for 2013 Kindergarteners to 2014 1st graders. This comparison was also conducted for ALL grade transitions for the following three year pairings: fall 2011 compared to fall 2012, fall 2012 compared to fall 2013 and fall 2013 compared to fall 2014 school years. A net increase or decrease of zero students over time is represented by a factor of 1.000. A net student loss is represented by a factor less than 1.000 and a net gain by a factor greater than 1.000. (Table 3: Student Mobility Factors; reference Appendix 1: Davis Demographic \& Planning, Inc.: f32all 2014 Middle School (6-8) Projections and Boundary Plans (February 23, 2015); Page 5)
6. Each of the 1,229 Study Areas are then projected out over the next ten years (fall 2015 through fall 2024). From these study areas, individual Attendance Area reports are generated. These projections are based on where the students live and where they should be attending school. DDP and MPC uses the actual location of where the students reside, as opposed to their school of enrollment, in order to provide the most accurate depiction of where future schools (if necessary) should be located. The concept of running projections at the "study area" level is ideal for a school district that plans on re-adjusting its current attendance areas. The best way to plan for future schools is to know where the next group of students will be coming from, not necessarily which school they are currently attending.

## TRANSPORTATION ANALYSIS

## TRANSPORTATION

The Knox County School District Transportation Department ("Transportation") has shown creativity and ingenuity in routing their buses and efficiently deploying their independent contractors. Multiple schools are transported together in certain areas where middle schools and high schools either share a campus or are in very close proximity. In some areas, where there is a density of students outside the Parent Responsibility Zones but still relatively close to the school of attendance, the practice of "double tripping" is used to Transportation's advantage.

As an example of middle school and high school students being transported together, Transportation is currently bussing students for Powell Middle and Powell High School on nine of 11 buses delivering students to Powell Middle. Two buses make "double trips." Powell is an example of "double tripping" (i.e., buses picking up students, dropping off at a middle school and then a high school, departing and picking up more students dropping off the second load at the Powell Middle and then Powell High). One bus is delivering students to Powell Middle and then dropping the balance of the load at Central High. This practice which seeks to maximize efficiency works well in the District with the caveat that students may need supervision at the schools pre- / post-bell times. This type of routing exists for almost all of the schools that have middle schools and high schools sharing campuses or in very close proximity. As several of the high schools and middle schools share campuses, there would be no benefit in transporting the students on those campuses separately.

Efficient transportation and timely arrivals to schools with the best use of equipment and personnel available can depend upon the bell times at the various schools being serviced in a school district. With beginning times staggered, the same bus can transport students to a middle school and then go pick up high school students and transport them to their school. A study of possible bell time changes would only be of value in the Bearden, Cedar Bluff, Gresham, and Whittle Springs areas of KCS. As the majority of the middle schools and high schools in KCS share campuses, there would be no benefit in transporting the students on those campuses separately. With the exception of just two runs for Bearden Middle School, which transport high school students along with middle schools students, the transportation for these schools is not dependent on transporting in conjunction with the high schools and would likely benefit from bell times staggered with the area high schools.

Transportation contracts with more than 70 different contractors to create the District's bussing fleet. The large number of contractors and the various arrangements could complicate decisions depending on many variables regarding:

- Contract language regarding changes and use of equipment
- Seniority if fewer buses are required for different areas or times of the day with possible tiering options
- Where buses are garaged as opposed to where they may be needed
- Possible other unforeseen changes/requirements - large contractor vs. single or double bus contractor


## MIDDLE SCHOOL PLAN A1

NO NEW MIDDLE SCHOOLS - Change Direct Elementary School Feeders (ES) Boundaries
Change of elementary school feeder boundaries in Plan A1 impact Transportation significantly. Certain middle schools would be accepting a greater number of students impacting the availability of seats and number of runs for eligible elementary and middle school students. The greatest change with this plan would be in the Northeast area of the district affecting Powell, Halls, Holston, and Carter Middle Schools. Some students in the area could actually have a longer ride than they currently do. With the adjustment to the elementary school boundaries, the high school students who currently share transportation in the Carter, Halls, and Powell areas could also be affected with the need to reconfigure all transportation.

The creative and effective routing options KCS is using at this time would need to be reconfigured to reflect the feeder patterns for secondary students that would be affected in this scenario and also in Plan B1.

Boundary changes in the Southwest area of the district are relatively minor, in comparison. However, there would be some shifting in student population from Karns to Bearden and Cedar Bluff; additionally, Bearden West Valley and Northwest would also experience some shifting of students. These minor changes would require some adjustments to the current transportation, but would most likely not require additional buses.

Transportation's major impact is the continuous overload in the Karns and Bearden areas.
Buses may have to be added to accommodate the enrollment bump especially in 2019 for Karns and until 2024 for Bearden.

## MIDDLE SCHOOL PLAN A2

NEW GIBBS AREA MIDDLE SCHOOL - Change Direct Elementary School Feeders (ES) Boundaries

A new Gibbs Area Middle School would present transportation challenges to all the middle schools in the northeast area of the County. This addition of a new middle school will also impact the high schools and possibly even the elementary students in the Carter area.

The southern most strip of land along Rifle Range Road is located in the attendance area for Adrian Burnett Elementary and is currently part of the Halls High School attendance area. At this time, elementary students attending Adrian Burnett Elementary School and Halls High School students share three buses with Halls High School being the final destination. It is suggested that the elementary school students have their own bus(es). Possible reconfiguration of the high school runs in the area will need to be completed to accommodate the shifting of students created from adding a new middle school in the Gibbs area.

There will be challenges in the southwest growth area with additional buses or reconfiguration of the routes especially in the Bearden and Karns areas. Possible separation of elementary and/or high school students may be needed from the middle school students to balance bus loads and accommodate additional middle school students. This could be accomplished in the Bearden area with a tiering plan/bell schedule change. However, this is not an option for the Karns area with the campuses located immediately next to each other.

## MIDDLE SCHOOL PLAN A3

NEW HARDIN VALLEY AREA MIDDLE SCHOOL - Change Direct Elementary School Feeders (ES) Boundaries

The construction of a new middle school in the Hardin Valley/Karns area of the county would make a huge impact on the overcrowding and transportation issues currently existing in the southwest portion of the County. In the Hardin Valley area, the middle school and high school could be transported easily together as is the practice currently in many different areas of the District.

However, the eventual impact of overcrowding due to population growth would increase the number of buses in the West Valley section of the County by 2024 with the need for additional buses. The number of students requiring bussing in the Hardin Valley area will decrease after the 2019 peak.

Much of the same transportation patterns and eligibility of riders in the northeast area of the district would be able to continue. Buses from other parts of the County will eventually need to be added to accommodate the ridership in the central part of the County around Whittle Springs and Northwest Middle Schools creating a challenge to reconfigure the routing with the transportation contractor situation.

## MIDDLE SCHOOL PLAN A4

REPURPOSE CARTER MIDDLE SCHOOL No New Middle Schools Change Direct Elementary School Feeders (ES) Boundaries

The boundary changes in the Plan A4 would be essentially the same as described in Plan A1 with the exception of the Carter Middle School area, parts of South Doyle and Vine Middle Magnet School.

Transportation for Carter Middle School students would have few changes in their routing plan as these students from the elementary and secondary schools are currently being transported together. Minimal transportation changes will occur for the sixth grade students moving to Chilhowee Intermediate because many of the buses transporting Chilhowee students will also be transporting Carter Middle School students.

Transportation would be somewhat impacted by the changes in the South Doyle Middle, Vine Middle Magnet, and possible Whittle Springs Middle School areas. Transportation reconfiguration may be needed in the area where those boundaries meet. However, due to transportation changes in other areas where new efficiencies may be realized, the number of buses currently in use will most likely suffice to cover the changes.

Transportation would again be increased in the southwest part of the county due to anticipated growth. A bell study is recommended for Bearden and Whittle Springs Middle Schools with a move toward tiering to help with transportation costs and improved efficiencies.

## MIDDLE SCHOOL PLAN B1

NO NEW MIDDLE SCHOOLS - Boundary Changes that Balance Residence Counts by Student Capacity Loads

Adjusting the middle school boundaries in this scenario present many changes, most are very minor and would have virtually no effect on transportation.

The southwest growth area of the County is the exception where the Karns Middle School will be in an overload situation. Further examination of the bus runs for this area, confirms that students from multiple schools in the area, including Karns Elementary, Hardin Elementary, and Hardin Valley Academy, are transported with Karns Middle and High School students. This situation will necessitate the addition of buses or major reconfiguration of bus routes in an attempt to have an even higher load percentage.

The inclusion of elementary students on secondary buses presents the challenge of secondary students being picked up much earlier than desired. This adopted pattern accommodates the on-time delivery of elementary students prior to delivering middle school students and then high school students.

## MIDDLE SCHOOL PLAN B2

NEW GIBBS AREA MIDDLE SCHOOL - Boundary Changes that Balance Residence Counts by Student Capacity Loads

New transportation will have to be created for the entire northeast side of the County with the reconfiguration of middle school boundaries and new Gibbs Area Middle School. Transportation for the high school and elementary school will impact the Gibbs Area Middle School requiring mostly solo transportation. With the addition of the new middle school, changing of the middle school boundaries and realigning middle school students to other area schools, a bell study will be of most value in the central area of the County.

The Karns area will be at an optimum student count after the new school opens. Minimizing the overcrowding in the Karns area will allow buses once used to serve the Karns area students to beginning serving students in the northeast area of the County. Busses serving the West Valley, Powell, Northwest, and Whittle Springs Middle School areas through 2024 with the West Valley Middle School being the most critical will experience heavy bus loads and requiring creative daily planning. As the population grows, additional bus services may be required as well as route changes made to accommodate the additional students.

## MIDDLE SCHOOL PLAN B3

NEW HARDIN VALLEY AREA MIDDLE SCHOOL - Boundary Changes that Balance Residence Counts by Student Capacity Loads

In this plan, transportation for the northeast area of the County would have few changes and could continue with its current configuration.

A new Hardin Valley Middle School would relieve the overcrowding in Karns Middle School as well as reduce the number of buses in that area. Transportation changes would shorten the ride time for students in the southwest area, including parts of Farragut Middle School. The number of buses would most likely remain stable with buses driving shorter runs with the addition of the new middle school.

A bell study would be of value to the schools in the central part of the district utilizing this Plan. As the student population evens out over time with minimal overcrowding at the middle school level, potential transportation cost savings can be realized with careful planning.

## MIDDLE SCHOOL PLAN B4

REPURPOSE CARTER MIDDLE SCHOOL No New Middle Schools Boundary Changes that Balance Residence Counts by Student Capacity Loads

The boundary changes in Plan B4 would be essentially the same as described in Plan B1 with the exception of the Carter Middle School area, parts of South Doyle and Vine Middle Magnet School.

Transportation for Carter Middle School students would have few changes in their routing plan as these students from the elementary and secondary schools are currently being transported together. Minimal transportation changes will occur for the sixth grade students moving to Chilhowee Intermediate because many of the buses transporting Chilhowee students will also be transporting Carter Middle School students.

Again, the southwest area of the District has overload challenges with the Farragut Middle School, West Valley Middle School, and especially Karns Middle School. Karns presents the most likelihood of additional buses needed in the area. As none of these schools present the opportunity for tiering and bell time changes as a solution, additional buses in the area would need to be added with reconfiguration of the runs to create as much efficiency as possible with the buses used to their maximum capacity whenever possible.

## COST ANALYSIS

The cost analysis provided for this report was derived from multiple resources examining the United States' southern region construction cost / risk overview in and around the Knoxville areas. B\&D received independent cost analysis benchmarks provided by a senior level economist reviewing key considerations for new school construction as well as reconstruction and modernization project work. B\&D also reviewed regional costs provided by School Planning \& Management's $19^{\text {th }}$ Annual Construction Cost Report. The research and received information on school construction was based on schools completed and underway during 2013 and planned to start in 2014 from Market Data Retrieval (MDR), a company of Dun and Bradstreet (D\&B). MDR contacts school districts throughout the United States seeking information on their construction plans - new buildings, additions to existing buildings and major renovation, retrofit or modernization projects.

B\&D analyzed KCS's new school planning and construction costs data, aligned with the economic analysis of the other resources and derived a benchmark for new construction and for reconstruction / modernization work in the Knoxville area using an open shop procured through the public bid process. The delivery method for the construction of a new school is design/bid/build.

Figure 1.6 shows Regional Benchmarks Provided for 2015 for New and Reconstruction Educational Facilities within the Nashville / Knoxville region provided by Cumming Corporation:

Figure 1.6: Regional Benchmarks Provided for 2015 for New and Reconstruction Educational Facilities

| Construction Cost Benchmarks \$/ SF Current \$\$\$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | New Construction |  | Full Gut / Renovation |  | Moderate Renovation |  | Cosmetic Upgrade |  |
| Ref Description | Low | High | Low | High | Low | High | Low | High |
| 1. "Building Only" Costs |  |  |  |  |  |  |  |  |
| 1.1 Elementary Schools | \$148.50 | \$165.00 | \$133.65 | \$148.50 | \$103.95 | \$115.50 | \$74.25 | \$82.50 |
| 1.2 Middle Schools | \$162.00 | \$180.00 | \$145.80 | \$162.00 | \$113.40 | \$126.00 | \$81.00 | \$90.00 |
| 1.3 High Schools | \$166.50 | \$185.00 | \$149.85 | \$166.50 | \$116.55 | \$129.50 | \$83.25 | \$92.50 |
| 2. Sitework "Add Ons" |  |  |  |  |  |  |  |  |
| 2.1 Elementary Schools | \$6.50 | \$12.00 | \$5.20 | \$9.60 | \$5.00 | \$5.00 | \$3.00 | \$5.00 |
| 2.2 Middle Schools | \$14.00 | \$18.00 | \$11.20 | \$14.40 | \$8.00 | \$6.00 | \$3.00 | \$5.00 |
| 2.3 High Schools | \$14.00 | \$20.00 | \$11.20 | \$16.00 | \$8.00 | \$6.50 | \$3.00 | \$5.00 |

Identifying and understanding Key Considerations is important for planning purposes. B\&D examined a number of key considerations for the probability of a new middle school being added to KCS' school inventory. The "Team's" keen understanding of the educational marketplace and the duration for planning, designing, and constructing publically bid facilities, provides the following considerations as part of B\&D's Demand Analysis:

| Escalation | Reported costs are current dollars <br> Q4-Q1 bidding cycle typically most optimum. TN market <br> shift in full flow by Q2 / 2015 |
| :--- | :--- |
| Bid Timing | Will affect initial capital costs vs close out costs as well as <br> risk and quality |
| Delivery Method | Will affect productivity, risk, and logistical planning <br> Consider knock-on effects of 2015 construction flow. <br> Construction growth in TN is pushing north of 10\% |
| Occupied Facilities | and resulting in more bidding opportunities for the <br> contracting community |
| The post-recession era has significantly reduced |  |

The following cost analysis for new construction and reconstruction projects was applied to the various scenarios and plan options. The new middle school data provided to B\&D from KCS allowed for a planned capacity of 1,200 middle school students to be housed within a 165,000 sf middle school facility. The demographic analysis led our team to plan cost assumptions for 1,000 middle school students rather than the 800 reflected in Option Plans A2, A3 and B2 and B3. We also recalculated the GSF to 150,000 for 1,000 student capacity middle school.

Based upon the eight scenarios that represent options for providing new middle school facilities, additions to existing middle school campuses, and minor to major reconstruction of existing facilities, we offer the following estimated relative cost impacts:

New Construction Costs:

- New middle school with a building capacity for 1,200 students and a GSF of 165,000 approximately $\$ 40,837,000$.
- New middle school with a building capacity for 1,000 students and a GSF of 150,000 approximately $\$ 37,125,000$.
- New middle school with a building capacity of 1,000 students and a GSF of 137,500 approximately $\$ 34,031,000$.

Cost Assumptions for Additions to Existing Facilities:

- Average Loading of Classrooms: 28 students
- Classroom SF: 1,000
- Support Space SF: 500
- Project Cost per SF: \$209
- Range of Costs per Addition (15 classroom to 1 classroom): $\$ 3,448,500$ to $\$ 209,000$

KCS Reconstruction Cost Assumptions:

- Major Renovation of 100,000 SF at $\$ 150 /$ SF: $\$ 15,000,000$
- Medium Renovation of 100,000 SF at $\$ 125 /$ SF: $\$ 12,500,000$
- Light/Cosmetic Renovation of 25,000 SF at \$75/SF: \$1,875,000

Figure 1.7 represents the average daily transportation costs and ridership associated with each KCS Middle School:

Figure 1.7: Snapshot of Average Daily KCS Transportation Cost \& Ridership

| Row Labels $\quad$ | Sum of daily cost per bus | Sum of eligible middle riders | Sum of actual middle school rider | Sum of cost per eligible middle rider |  | Sum of cost per middle actual rider |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bearden Middle | \$ 2,435.42 | 840 | 578 | \$ | 16.49 | \$ | 26.10 |
| Carter Middle | \$ 4,691.70 | 749 | 569 | \$ | 49.55 | \$ | 63.82 |
| Cedar Bluff Middle | \$ 898.19 | 376 | 278 | \$ | 4.79 | \$ | 6.61 |
| Farragut Middle | \$ 4,286.44 | 1,267 | 793 | \$ | 20.38 | \$ | 30.51 |
| Gresham | \$ 1,235.88 | 518 | 341 | \$ | 6.60 | \$ | 10.07 |
| Halls Middle | \$ 2,953.33 | 842 | 468 | \$ | 18.37 | \$ | 30.71 |
| Holston | \$ 2,599.38 | 733 | 601 | \$ | 25.76 | \$ | 31.57 |
| Karns Middle | \$ 5,050.00 | 1,156 | 772 | \$ | 47.93 | \$ | 88.63 |
| Northwest | \$ 1,751.75 | 587 | 522 | \$ | 14.90 | \$ | 16.75 |
| Powell Middle | \$ 2,537.18 | 626 | 389 | \$ | 18.97 | \$ | 28.57 |
| South Doyle Middle | \$ 2,678.19 | 805 | 651 | \$ | 24.56 | \$ | 30.44 |
| Vine | \$ 396.95 | 64 | 60 | \$ | 3.72 | \$ | 3.94 |
| West Valley | \$ 2,896.72 | 984 | 703 | \$ | 21.34 | \$ | 29.59 |
| Whittle Springs | \$ 880.62 | 289 | 242 | \$ | 5.01 | \$ | 6.18 |
| Grand Total | \$ 35,291.76 | 9,836 | 6,967 | \$ | 278.35 | \$ | 403.48 |

## KEY FINDINGS

## DISTRIBUTION OF MIDDLE SCHOOL STUDENTS

KCS' middle school enrollment in not currently evenly distributed with respect to evenly distributed building capacity. Schools located in the north and east portions of the District are experiencing declining enrollment. Contrary to this decline, there is overcrowding in several middle schools located in the west and south areas of the District. Re-aligning the middle school boundaries present a possibly efficient approach to distributing future enrollment while minimizing the capital expenditure costs.

As context, a current summary of annual middle school expenditures is below:

- Transportation: $\$ 6.3$ million
- Utilities and Custodial: $\$ 4.4$ million
- Maintenance and Operations: $\$ 2.0$ million
- Construction: $\$ 7.0$ million

Reconstruction and modernization expenditures included in the plans across various sites would allow accommodation of new student enrollment while minimizing the use of larger class sizes. Adding additional classrooms and resource spaces would provide academic areas for students and teachers in order to meet the anticipated 2019 enrollment increase. As outlined above, transportation costs are varied across middle school sites on a per student basis but may be improved by future adjustments to school boundaries and staggered bell times.

## NEW CONSTRUCTION

Adding a new middle school in the Gibbs area is not supported by sufficient projected future demand, as student enrollment is projected to decline throughout the east and north portions of the District. Adding a new middle school in the Hardin Valley area is supported by sufficient projected future demand, as student enrollment is projected to have a sustained increase in this portion of the District. Any new middle school construction would be accompanied by adjustments to middle school boundaries. Also, additional classroom spaces would need to be provided at West Valley Middle School as sustained student enrollment growth in that area is projected.

If the process for any new middle school was started immediately, a new facility could accommodate the anticipated 2019 student enrollment increase.

## RECONSTRUCTION AND MODERNIZATION

Several middle school received a low Educational Space Adequacy score relating to the physical condition of the school and the associated programmatic teaching and learning areas. It is suggested that capital funds be applied at these schools consistent with the principles outlined in the District's Strategic Plan. In addition, boundary changes provide the option to minimize the number of additional classrooms that would otherwise be required to accommodate projected growth at several middle school sites.

## TRANSPORTATION

Through contracting services and related costs, KCS spends over $\$ 6$ million each year for student transportation. The average cost per middle school rider is $\$ 288$ while the average cost per mile is $\$ 4.69$. KCS middle school contract buses drive nearly 42,000 miles a year serving students throughout the District. Currently, student transportation seeks to capture available cost savings through "double tripping" and shared ridership between many middle and high schools. The B\&D Team suggest KCS examine their middle school bell times and stagger various schools start and end times to pursue additional cost savings.

## CONCLUSION

The B\&D Team's Middle School Demand Analysis methodology is an iterative process that examines a projected future condition through various analyses to determined possible plans that may address changes to student enrollment demand throughout the District. The analysis also included various impact factors including cost and efficiency. The plans in this report are presented for consideration by the District as it reviews future student distribution and associated capital expenditures. Further review of the data and purposeful planning will allow the District to allocate capital funds for new construction, renovation and reconstruction, or modernization of existing facilities. One of the key considerations for adding additional facilities is the 2019 enrollment spike that will impact more than half of the District's middle schools.

## OTHER CONSIDERATIONS

## TRANSPORTATION

As provided in the Transportation Analysis chapter of this report, US Computing analyzed numerous situations, challenges, and opportunities for Knox County Schools. In addition to providing the analysis for each plan scenario, the team B\&D Team noted specific opportunities consistent throughout the District that would allow for optimal fiscal and time management of school transportation. However, there are political considerations that require thoughtful yet deliberate direction for long-term healthy fiscal management. These considerations include:

- Recalculate / stagger bell times
- Establish new bus routes and adjust bell times
- Adjust parent responsibility zones


## VINE MAGNET MIDDLE SCHOOL

B\&D examined Vine Middle Magnet School, as a whole and as a standalone school, to better understand the low capacity/utilization and low educational space adequacy scores. Originally, as our team presented preliminary findings, we suggested that Vine Middle Magnet School be consolidated in order to provide operational efficiencies as Vine's enrollment consisted of a high number (34\%) of transfer students. As we gained a deeper understanding of Vine's programs and recent investments for long-term success, B\&D suggests Vine's building capacity be established at 600 . Also, we recommended continued renovation and reconstruction work while examining opportunities and community outreach programs to strengthen the student population.

## COMMUNITY PARTNERSHIPS

Knox County Schools has a rich and vibrant history within its geographic boarders. The presence of the University of Tennessee centrally located in the County provides interesting opportunities for creating community partnership and expanding adult education, career and technology education, and life-long learning connections between KCS and UT. In addition to the higher education connection, KCS has a well-established community partnership with the Boys \& Girls Club and YMCA. The creation of additional community partnerships that utilize existing spaces at the various middle school sites is an exciting future possibility.

EXHIBIT A: STRATEGIC ASSET VALUE TOOL


EXHIBIT B:
EDUCATIONAL ADEQUACY FORM



KCS COST ANALYSIS

| New Construction |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assumptions A2, A3 \& B2, B3 |  |  |  |  |  |
| Capacity | Building SF | Construction Cost per SF | Site Costs | Soft Costs | Total |
| 1200 | 165,000 | \$ 180.00 | \$ 18.00 | 25\% | 2019 |
|  |  | \$ 29,700,000.00 | \$ 2,970,000.00 | \$8,167,500.00 | \$ 40,837,500.00 |
| Capacity | Building SF | Construction <br> Cost per SF | Site Costs | Soft Costs | Total |
| 1000 | 150,000 | \$ 180.00 | \$ 18.00 | 25\% | 2019 |
|  |  | \$ 27,000,000.00 | \$ 2,700,000.00 | \$7,425,000.00 | \$ 37,125,000.00 |
| Capacity | Building SF | Construction Cost per SF | Site Costs | Soft Costs | Total 2015 |
| 1000 | 137,500 | \$ 180.00 | \$ 18.00 | 25\% | 2019 |
|  |  | \$ 24,750,000.00 | \$ 2,475,000.00 | \$6,806,250.00 | \$ 34,031,250.00 |


| Assumptions A4 \& B4 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Extent | Total SF | Cost per SF |  | Total 2015 |  | 10\% Escalation | Total 2019 |
| Major/Full Gut | 100,000 | \$ | 150.00 | \$ | 15,000,000.00 | \$ 1,500,000.00 | \$ 16,500,000.00 |
| Medium | 75,000 | \$ | 125.00 | \$ | 9,375,000.00 | \$ 937,500.00 | \$ 10,312,500.00 |
| Light / Cosmetic | 25,000 | \$ | 75.00 | \$ | 1,875,000.00 | \$ 187,500.00 | \$ 2,062,500.00 |

## New Construction - Additions

## Assumptions

| Loading (28) | Classroom SF |  | \# New <br> Classrooms | Needed Classroom |  | SF of Support Total Classroom |  |  |  | Project Costs/SF |  | Total 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Support Space | Space |  |  |  |  |  |
|  | 28 | 1000 |  |  | 15 | 15000 | 3 | 3 | 500 | 16500 | \$ | 209.00 | \$ 3,448,500.00 |
|  |  | 1000 |  | 12 | 12000 | 2 | 2 | 500 | 13000 |  |  | \$ 2,717,000.00 |
|  |  | 1000 |  | 7 | 7000 |  | 1 | 500 | 7500 |  |  | \$ 1,567,500.00 |
|  |  | 1000 |  | 6 | 6000 | 1 | 1 | 500 | 6500 |  |  | \$ 1,358,500.00 |
|  |  | 1000 |  | 4 | 4000 | 1 | 1 | 500 | 4500 |  |  | \$ 940,500.00 |
|  |  | 1000 |  | 3 | 3000 | 1 | 1 | 500 | 3500 |  |  | \$ 731,500.00 |
|  |  | 1000 |  | 2 | 2000 | 1 | 1 | 500 | 2500 |  |  | \$ 522,500.00 |
|  |  | 1000 |  | 1 | 1000 |  |  | 1000 | 1000 |  |  | \$ 209,000.00 |

Assumptions A2
Assumptions

| Loading (28) | Classroom SF |  | \# New <br> Classrooms | Needed Classroom SF |  | Support Space | SF of Support Space |  | Total Classroom SF | Project Costs/SF |  | Total 2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 28 | 1000 |  | 15 | 15000 | 3 |  | 500 | 16500 | \$ | 209.00 | \$ | 3,448,500.00 |
|  |  | 1000 |  | 12 | 12000 | 2 | 2 | 500 | 13000 |  |  |  | 2,717,000.00 |
|  |  | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  |  | 1,567,500.00 |
|  |  | 1000 |  | 6 | 6000 | 1 | 1 | 500 | 6500 |  |  |  | 1,358,500.00 |
|  |  | 1000 |  | 4 | 4000 | 1 | 1 | 500 | 4500 |  |  |  | 940,500.00 |
|  |  | 1000 |  | 3 | 3000 | 1 | 1 | 500 | 3500 |  |  |  | 731,500.00 |
|  |  | 1000 |  | 2 | 2000 | 1 | 1 | 500 | 2500 |  |  |  | 522,500.00 |
|  |  | 1000 |  | 1 | 1000 |  |  | 1000 | 1000 |  |  |  | 209,000.00 |


| Loading (28) | Classroom SF | \# New <br> Classrooms | Needed Classroom |  | Support Space | SF of Support Space |  | Total Classroom | Project Costs/SF |  | Total 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bearden | 1000 |  | 15 | 15000 | 2 |  | 500 | 16000 | \$ | 209.00 | \$ 3,344,000.00 |
| Karns | 1000 |  |  |  |  |  |  |  |  |  |  |
| Northwest | 1000 |  |  |  |  |  |  |  |  |  |  |
| West Valley | 1000 |  |  |  |  |  |  |  |  |  |  |
| Whittle Springs | 1000 |  |  |  |  |  |  |  |  |  |  |
| Halls | 1000 |  |  |  |  |  |  |  |  |  |  |
| Farragut | 1000 |  |  |  |  |  |  |  |  |  |  |
| Powell | 1000 |  |  |  |  |  |  |  |  |  |  |
| South-Doyle | 1000 |  |  |  |  |  |  |  |  |  |  |

## Renovation

Assumptions A4 \& B4

|  | Total SF | Cost per SF | Total 2019 |  |  |
| :--- | ---: | ---: | ---: | :--- | ---: |
| Extent | 100,000 | $\$$ | 150.00 | $\$$ | $15,000,000.00$ |
| Major/Full Gut | 100,000 | $\$$ | 125.00 | $\$$ | $12,500,000.00$ |
| Medium | 25,000 | $\$$ | 75.00 | $\$$ | $1,875,000.00$ |

## New Construction - Additions

| Assumptions A1 | No New Middle School |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \# New | Needed Classroom |  |  | SF of Support |  | Total Classroom | Project Costs/SF |  | Total 2019 |
| Loading (28) | Classroom SF | Classrooms |  |  | Support Space |  |  |  |  |  |  |
| Bearden | 1000 |  | 15 | 15000 | 3 | 3 | 500 | 16500 | \$ | 209.00 | \$ 3,448,500.00 |
| Northwest | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  | \$ 1,567,500.00 |
| West Valley | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  | \$ 1,567,500.00 |
| Whittle Springs | 1000 |  | 6 | 6000 | 1 | 1 | 500 | 6500 |  |  | \$ 1,358,500.00 |
| Karns | 1000 |  | 4 | 4000 | 1 | 1 | 500 | 4500 |  |  | \$ 940,500.00 |
| Halls | 1000 |  | 2 | 2000 | 1 | 1 | 500 | 2500 |  |  | \$ 522,500.00 |
| Total |  |  | 41 | 41000 | 8 | 8 |  | 45000 |  |  | \$ 9,405,000.00 |

Assumptions A2 New Gibbs Middle School

| Loading (28) | Classroom SF | \# New <br> Classrooms | Needed Classroom SF |  | Support Space | SF of Support Space |  | Total Classroom SF | Project Costs/SF |  | Total 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bearden | 1000 |  | 15 | 15000 | 3 |  | 500 | 16500 | \$ | 209.00 | \$ 3,448,500.00 |
| Northwest | 1000 |  | 7 | 7000 | 1 |  | 500 | 7500 |  |  | \$ 1,567,500.00 |
| West Valley | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  | \$ 1,567,500.00 |
| Whittle Springs | 1000 |  | 6 | 6000 | 1 | 1 | 500 | 6500 |  |  | \$ 1,358,500.00 |
| Karns | 1000 |  | 4 | 4000 | 1 | 1 | 500 | 4500 |  |  | \$ 940,500.00 |
| Total |  |  | 39 | 39000 | 7 | 7 |  | 42500 |  |  | \$8,882,500.00 |

Assumptions A3 New Hardin Valley Middle School


Assumptions A4 Re-Purpose Carter MS

| Loading (28) | \# New |  | Needed Classroom |  |  | SF of Support |  |  | Total Classroom |  | Project Costs/SF |  | Total 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classroom SF | Classrooms |  | SF |  | Support Space | Space |  | SF |  |  |  |  |
| Bearden | 1000 |  | 15 |  | 15000 | 3 | ) | 500 |  | 16500 | \$ | 209.00 | \$ 3,448,500.00 |
| Northwest | 1000 |  | 7 |  | 7000 | 1 | 1 | 500 |  | 7500 |  |  | \$ 1,567,500.00 |
| Whittle Springs | 1000 |  | 6 |  | 6000 | 1 | 1 | 500 |  | 6500 |  |  | \$ 1,358,500.00 |
| Karns | 1000 |  | 4 |  | 4000 | 1 | 1 | 500 |  | 4500 |  |  | \$ 940,500.00 |
| Halls | 1000 |  | 2 |  | 2000 | 1 | 1 | 500 |  | 2500 |  |  | \$ 522,500.00 |
| Total |  |  | 34 | \$ | 34,000.00 | 7 | 7 |  | \$ | 37,500.00 |  |  | \$ 7,837,500.00 |

## New Construction - Additions

|  | \# New |  | Needed Classroom |  | SF of Support |  |  | Total Classroom | Project Costs/SF |  | Total 2019 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Loading (28) | Classroom SF | Classrooms | S |  | Support Space | Space |  |  |  |  |  |
| Karns | 1000 |  | 12 | 12000 | 2 |  | 500 | 13000 | \$ | 209.00 | \$ 2,717,000.00 |
| Farragut | 1000 |  | 4 | 4000 | 1 |  | 500 | 4500 |  |  | \$ 940,500.00 |
| West Valley | 1000 |  | 4 | 4000 | 1 |  | 500 | 4500 |  |  | \$ 940,500.00 |
| Total |  |  | 20 | 20000 | 4 |  |  | 22000 |  |  | \$ 4,598,000.00 |

Assumptions B2 New Gibbs Middle School - Middle School Boundary Changes

| Loading (28) | \# New |  | Needed Classroom |  | SF of Support Total Classroom |  |  |  | Project Costs/SF |  | Total 2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classroom SF | Classrooms |  |  | Support Space | Space |  |  |  |  |  |  |
| West Valley | 1000 |  | 4 | 4000 | 3 |  | 500 | 5500 | \$ | 209.00 | \$ | 1,149,500.00 |
| Northwest | 1000 |  | 2 | 2000 | 1 |  | 500 | 2500 |  |  | \$ | 522,500.00 |
| South-Doyle | 1000 |  | 2 | 2000 | 1 |  | 500 | 2500 |  |  | \$ | 522,500.00 |
| Powell | 1000 |  | 1 | 1000 | 1 |  | 500 | 1500 |  |  | \$ | 313,500.00 |
| Total |  |  | 9 | 9000 | 6 |  |  | 12000 |  |  |  | 2,508,000.00 |

Assumptions B3 New Hardin Valley Middle School - Middle School Boundary Changes

| Loading (28) | Classroom SF | \# New | Needed Classroom |  | SF of Support |  |  | Total Classroom | Project Costs/SF |  | Total 2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Classrooms |  |  | Support Space | Space |  |  |  |  |  |  |
| West Valley | 1000 |  | 3 | 3000 | 1 |  | 500 | 3500 | \$ | 209.00 | \$ | 731,500.00 |
| Total |  |  | 3 | 3000 | 1 |  |  | 3500 |  |  | \$ | 731,500.00 |

Assumptions B4 Re-Purpose Carter MS - Middle School Boundary Changes

| Loading (28) | \# New |  | Needed Classroom |  |  | SF of Support |  |  | Total Classroom |  | Project Costs/SF |  | Total 2019 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classroom SF | Classrooms |  | SF |  | Support Space | Space |  | SF |  |  |  |  |  |
| Karns | 1000 |  | 12 |  | 12000 | 3 |  | 500 |  | 13500 | \$ | 209.00 |  | 2,821,500.00 |
| Farragut | 1000 |  | 4 |  | 4000 | 1 |  | 500 |  | 4500 |  |  | \$ | 940,500.00 |
| West Valley | 1000 |  | 3 |  | 3000 | 1 | , | 500 |  | 3500 |  |  | \$ | 731,500.00 |
| Total |  |  | 19 | \$ | 19,000.00 | 5 |  |  | \$ | 21,500.00 |  |  |  | 4,493,500.00 |

## New Construction - Additions

Assumptions A2 New Gibbs Middle School

| Loading (28) | Classroom SF | \# New | Needed Classroom |  | Support Space | SF of Support Space |  | Total | Project Costs/SF |  | Total 2019 Project |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Classrooms |  |  |  |  |  | Classroom SF |  |  |  |  |
| Bearden | 1000 |  | 15 | 15000 | 3 | 3 | 500 | 16500 | \$ | 209.00 | \$ | 3,448,500.00 |
| Northwest | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  | \$ | 1,567,500.00 |
| West Valley | 1000 |  | 7 | 7000 | 1 | 1 | 500 | 7500 |  |  | \$ | 1,567,500.00 |
| Whittle Springs | 1000 |  | 6 | 6000 | 1 | 1 | 500 | 6500 |  |  | \$ | 1,358,500.00 |
| Karns | 1000 |  | 4 | 4000 | 1 | 1 | 500 | 4500 |  |  | \$ | 940,500.00 |
| Total |  |  | 39 | 39000 | 7 | 7 |  | 42500 |  |  | \$ | 8,882,500.00 |



Assumptions B2 New Gibbs Middle School - Middle School Boundary Changes



Assumptions A3 New Hardin Valley Middle School


| Capacity | Building SF |  | ConstructionCost per SF |  | Site Costs |  | Soft Costs | Total 2019 | Total 2019 Project |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  | 1000 | 150,000 | \$ | 180.00 | \$ | 18.00 | 25\% | 2019 |  |  |
|  |  |  | \$ | ,000.00 | \$ | 2,700,000.00 | \$ 7,425,000.00 | \$ 37,125,000.0C |  |  |
| Total |  |  |  |  |  |  |  |  |  | 42,663,500.00 |

Assumptions B3 New Hardin Valley Middle School - Middle School Boundary Changes


| Capacity | Building SF |  | Construction Cost per SF | Site Costs |  | Soft Costs | Total 2019 | Total 2019 Project |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1000 | 150,000 | \$ 180.00 | \$ | 18.00 | 25\% | 2015 |  |
|  |  |  | \$ 27,000,000.00 | \$ | 2,700,000.00 | \$ 7,425,000.00 | \$ 37,125,000.0C |  |
| Total |  |  |  |  |  |  |  | \$ 37,856,500.00 |



KCS PROPOSED NEW MIDDLE SCHOOL BUDGET

## KCS Proposed New Middle School Budget

| A PROPOSED NEW MIDDLE SCHOOL |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | BUDGET | REMARKS |  |
| 1 | LAND |  |  | 1 |
| 2 | Contracts w/ Other Agencies |  |  | 2 |
| 3 | Land Purchase |  |  | 3 |
| 4 | SUBTOTAL: LAND | \$0.00 |  | 4 |
| 5 |  |  |  | 5 |
| 6 | CONSTRUCTION |  |  | 6 |
| 7 | Architectural/Engineering Fees | \$1,600,000.00 |  | 7 |
| 8 | Consultants |  |  | 8 |
| 9 | Contracts with Other Agencies | \$20,000.00 | Surveys | 9 |
| 10 | Professional Reimbursables | \$25,000.00 |  | 10 |
| 11 | Environmental Testing - Soils | \$25,000.00 |  | 11 |
| 12 | Risk Insurance | \$5,000.00 |  | 12 |
| 13 | Construction | \$28,750,000.00 |  | 13 |
| 14 | Site Development |  | Contained in 13 above | 14 |
| 15 | Contingency | \$500,000.00 |  | 15 |
| 16 | SUBTOTAL: CONSTRUCTION | \$30,925,000.00 |  | 16 |
| 17 |  |  |  | 17 |
| 18 | NETWORKING |  |  | 18 |
| 20 | Technology Equipment | \$1,200,000.00 |  | 20 |
| 21 | Technology Infrastructure | \$1,300,000.00 |  | 21 |
| 25 | SUBTOTAL: NETWORKING | \$2,500,000.00 |  | 25 |
| 26 |  |  |  | 26 |
| 27 | FURNITURE \& EQUIPMENT |  |  | 27 |
| 28 | Furniture \& Equipment | \$500,000.00 |  | 28 |
| 29 | Cafeteria Seating | \$75,000.00 |  | 29 |
| 30 | Library | \$500,000.00 |  | 30 |
| 31 | SUBTOTAL: FURNITURE \& EQUIPMENT | \$1,075,000.00 |  | 31 |
| 32 |  |  |  | 32 |
| 33 | total | \$34,500,000.00 |  | 33 |

Note: Based on approximately 165,000 S.F. providing a capacity of 1200 students and no land purchase required.


TRANSPORTATION COST DATA

APPENDIX A:
DAVIS DEMOGRAPHICS \&
PLANNING, INC.: FALL 2014
MIDDLE SCHOOL (6-8)
PROJECTIONS AND BOUNDARY PLANS (FEBRUARY 23, 2015)

# Fall 2014 Middle School (6-8) Projections and Boundary Plans 

Fall 2015 - Fall 2024 Middle School Student Population Projections By Residence

(Based on Fall 2014 Student Data)

February 23, 2015

Prepared by


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Fall 2014/2015 Projections by "Residence" for Knox County Schools

Knox County Schools (KCS, or the District) has contracted with Brailsford \& Dunlavey, Inc. (B\&D) and requested that Davis Demographics \& Planning, Inc. (DDP) use the most recent projection generated by the Knox County Metropolitan Planning Commission (or MPC) to assist in preparing a series of Middle School boundary plans. The purpose of these Middle School plans is to help the District determine the best use of their current MS facilities over the next 10 years and to look at options to build new middle schools and/or repurpose certain specific sites. The enrollment forecast is based upon student residence. The projected student enrollments generated by MPC cover a ten year period that are based upon the actual Fall 2014 student enrollment figures. The projections conducted by the MPC were calculated at the smallest level possible, the Study Area. The Knox County Schools has been broken up into 1,229 individual "study areas." No study area straddles two District attendance areas. Therefore, the projected number of students in each of the District's current attendance areas is derived by the simple addition of all of the study areas that comprise that particular region. The District-wide projection is the summary of all 1,229 study areas.

The concept of running projections at the "study area" level is ideal for a school district that plans on re-adjusting its current attendance areas. This then gives the District the ability to determine a variety of new attendance area plans and know approximately what the future number of students will be living in the proposed areas. This is exactly the process that DDP is using for KCS in conjunction with this B\&D study.

A variety of factors go into the calculation of the "study area" projections. These components include the following: (1) examining the current and planned residential development over the next ten years; (2) apply the appropriate Student Yield Factors to this new development; (3) determining birth factors for this District area; and (4) calculating Mobility Factors, which examine the in/out migration of students within existing housing units (this factor, for example, takes the "resale" of units into account, apartment migration and dropout rates).

## SOURCES OF DATA

Historical Enrollment:

New Housing Information:

Birth Data:
(used for estimating
incoming Kindergarten)

MPC obtained K-12 student data files downloaded by the KCS each October from Fall 2011 to Fall 2014.

Compiled by MPC for the KCS area using approved, residential development data such as final plats and concept plans.

Live birth counts for the KCS District area (by zip code) were obtained from the Tennessee Department of Health, Office of Policy, Planning and Assessment.

## METHODOLOGY

1. Graduate 12th grade: move up other grades.
2. Incoming kindergarten classes, for existing homes, are estimated by comparing changes in past births in the area. DDP assumes the current kindergarten class $(2014 / 15)$ was born in five years ago (2009). Future incoming kindergarten classes are estimated by comparing the number births in 2009 to the number of births in 2010 - 2013. MPC then compared the total births in 2009 to the total births in 2010, to determine a factor for next year's kindergarten class $(2015 / 16)$. The 2009 births were compared to 2011 (2016/17's K class), 2009 to 2012 (2017/18's K class) and 2009 to 2013 (2018/19's K class).

The following steps should help explain how DDP arrived at the birthrates used in the study (to estimate the number of incoming Kindergarteners for Fall 2015 through Fall 2020):
a) Historical live birth data by zip code was acquired from the Tennessee Department of Health (Nashville, TN). Since the Fall 2014 student data is the base for the projections in this report, then the Fall 2014 Kindergarten (K) class was to be used as the base for the birth rates. It is assumed that the majority of the 2014 K class was born in 2009, therefore the 2009 birth data becomes the "base year" for the birth rates.
b) MPC collected live birth data for the 31 zip codes in the District area (see the accompanying map) for the years 2003-2013 (2014 data is not yet available). The 2003-2008 data is not used in the actual birth rate calculations, but more for historical reference. A County-wide set of birthrates were calculated (see Table 1), but it was the Super Sector birthrate calculation were applied to the appropriate study areas in the projections. The County-wide figures are simply there for reference.
c) To calculate the birth rates that would be used to determine the incoming class for Fall 2015, MPC compared the Fall 2010 live birth counts (representing the future Fall 2015 K class) for the particular zip code(s) and compared it to the Fall 2009 counts.
d) Since the future students representing Fall 2019-Fall 2024 (2014-2019 births) are not yet born at the time of this report, or the data is incomplete, then MPC had to take certain steps to determine the birth factors used for Fall 2019-Fall 2024. MPC created birth forecasts, based on based historic births, to calculate the 2019-2024 birthrates for each super-sector. A goodness-of-fit test was used to evaluate each super-sector forecast prior to incorporating it into the model.
e) Once the initial birthrates are calculated (see Table 1), MPC then runs a series of algorithms to take into account more local historical Kindergarten counts to achieve a more realistic Kindergarten forecast at the study area level. This was done to avoid over or under projecting the number of new kindergarteners in the final years of the projection and is a very common practice. Because all future Kindergarten cohorts are based on the size of each study area's base year K-cohort, single-year events in which cohort sizes are smaller than average, larger than average, and cohorts with zero students can be magnified as the anomalous cohort propagates
through the elementary grades of a projection. To combat this, the birth rates for each study area in the model are manipulated to set the projection's base year, study area-level kindergarten cohorts to its three-year average. These modified values are then subjected to the super sector birth rate calculations.
f) Overall, births in the Knox County Schools District area are dropping (see Table 1 below), especially in the rural areas. This trend does typically result in smaller Kindergarten class sizes continuing to enter the District over many of the next ten years.

Table 1 INITIAL BIRTHRATES APPLIED BY MPC (Live Birth Counts Acquired at the Zip Code Level And then Applied at the Super Sector Region)

| School Year $\begin{gathered}\text { Projectio } \\ \text { nYear }\end{gathered}$ | County Level | Rural | Suburban <br> North | Suburban Southwest | Urban Core | Urban Ring |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall 2014/15 SY Year 1 | 0.964 | 0.956 | 0.955 | 1.002 | 1.008 | 0.966 |
| Fall 2015/16 SY Year 2 | 0.970 | 0.944 | 0.986 | 1.049 | 0.969 | 0.986 |
| Fall 2016/17 SY Year 3 | 1.000 | 0.970 | 1.020 | 1.112 | 1.027 | 1.009 |
| Fall 2017/18 SY Year 4 | 0.968 | 0.923 | 0.985 | 1.071 | 0.926 | 0.965 |
| Fall 2018/19 SY Year 5 | 0.995 | 0.953 | 1.031 | 1.122 | 0.997 | 1.005 |
| Fall 2019/20 SY Year 6 | 0.997 | 0.949 | 1.042 | 1.147 | 1.000 | 1.009 |
| Fall 2020/21 SY Year 7 | 0.999 | 0.944 | 1.054 | 1.172 | 1.003 | 1.014 |
| Fall 2021/22 SY Year 8 | 1.000 | 0.940 | 1.065 | 1.198 | 1.005 | 1.019 |
| Fall 2022/23 SY Year 9 | 1.002 | 0.936 | 1.076 | 1.223 | 1.008 | 1.024 |
| Fall 2023/24 SY Year 10 | 1.004 | 0.932 | 1.088 | 1.248 | 1.010 | 1.029 |

3. New residential development information was compiled using data maintained by MPC representing building activity in the County. A listing of all residential development (by Study Area) used in these projections can be found in the enclosed Residential Development Summary Report. Only approved developments were used in the forecast and as a result the number of units do drop start to drop off after the next five years.
4. Student Yield Factors (SYF's) were also calculated by MPC and are listed on the next page. The new housing was essentially broken down into two main categories: 1) Single Family Residential (SFR) units, which consist of your typical single family homes and 2) Single Family Attached (SFA) units which are multi-family units. In addition, MPC broke down the District into a series of sectors and sub-sectors. It was at the main Sector level that MPC determined the SYF's to use in the projections. There are three main sectors in the District area: Rural Sectors, Suburban Sectors and Urban Sectors. The SYF's used in the projections can be found in Table 2 on the following page.

Table 2
STUDENT YIELD FACTORS USED IN THE FALL 2014 PROJECTIONS

| Rural Sectors | Single Family Residential (SFR) |  |  | Single Family Attached (SFA) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ES Yield | MS Yield | HS Yield | ES Yield | MS Yield | HS Yield |
| East County | 0.2164 | 0.0440 | 0.0717 | 0.0141 | 0.0033 | 0.0100 |
| Northeast County | 0.2164 | 0.0440 | 0.0717 | 0.0141 | 0.0033 | 0.0100 |
| South City | 0.2164 | 0.0440 | 0.0717 | 0.0141 | 0.0033 | 0.0100 |
| South County | 0.2164 | 0.0440 | 0.0717 | 0.0141 | 0.0033 | 0.0100 |

Single Family Residential (SFR) Single Family Attached (SFA)

| Suburban Sectors | ES Yield | MS Yield | HS Yield | ES Yield | MS Yield | HS Yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| North County | 0.2539 | 0.0550 | 0.1013 | 0.0371 | 0.0088 | 0.0264 |
| Northwest County | 0.2539 | 0.0550 | 0.1013 | 0.0371 | 0.0088 | 0.0264 |
| Southwest County | 0.2539 | 0.0550 | 0.1013 | 0.0371 | 0.0088 | 0.0264 |


| Urban Sectors | Single Family Residential (SFR) |  |  | Single Family Attached (SFA) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ES Yield | MS Yield | HS Yield | ES Yield | MS Yield | HS Yield |
| North City | 0.2173 | 0.0549 | 0.0844 | 0.0112 | 0.0027 | 0.0080 |
| Northwest City | 0.2173 | 0.0549 | 0.0844 | 0.0112 | 0.0027 | 0.0080 |
| West City | 0.2173 | 0.0549 | 0.0844 | 0.0112 | 0.0027 | 0.0080 |
| Central City | 0.2173 | 0.0549 | 0.0844 | 0.0112 | 0.0027 | 0.0080 |
| East City | 0.2173 | 0.0549 | 0.0844 | 0.0112 | 0.0027 | 0.0080 |

5. Modify enrollment further by using student Mobility Factors as follows:

Student Mobility Factors further refine the ten-year student population projections. DDP is referring to "mobility" as the increase or decrease in the movement of students within the District boundary on an annual basis. A sampling of students living in established neighborhoods within a four year period are averaged and the resulting figures are applied to the projections as the students matriculate through the grades. Apartment movement, high school dropout rates, housing resales as well as foreclosure rates within the District are built into the Mobility Factors that DDP calculates. Mobility, similar to a cohort, is applied as a percentage of increase/decrease to each grade for every year of the projections.

Student counts for each study area are available for the last four school years (Fall 2011 through Fall 2014). A sample of 1,070 study areas (from a total of 1,229 ) was chosen within the District's boundaries that had no new residential development over the last five years. The Mobility Factors were conducted at the Super Sector level. These Super Sectors are classified as follows: Rural, Suburban, Suburban SW, Urban Core and Urban Ring. Therefore, 5
separate/unique sets of Mobility Factors were used, one for each of the District's Super Sector (see Table 3 on the next page).
If the data is available, the advantage to running the Mobility Factors at the Super Sector level rather than looking exclusively at a District-wide average is that you can focus on specific trends that are occurring in specific parts of the County, which can lead to more accurate projections. Remember, the Mobility Factors are summaries of established neighborhoods without any influence of new residential development over the past five years.

MPC used KCS students living in the sampled 1,070 study areas taken over a four-year period using "address-matched" student data (located by place of residence) from the years Fall 2011 through Fall 2014. Individual Mobility Factors were created to represent each grade transition in the KCS District area (a Kindergarten to 1 st grade Mobility Factor, a 1 st grade to 2 nd grade Mobility Factor and so on) for each of the District's five Super Sectors. For example, MPC looked at the sampling of 2011 Kindergarteners and compared it to the 2012 1st graders for that same area. The same process was conducted for 2012 Kindergarteners in comparison to 2013 1st graders and for 2013 Kindergarteners to 2014 1st graders. This comparison was also conducted for ALL grade transitions for the following three year pairings: Fall 2011 compared to Fall 2012, Fall 2012 compared to Fall 2013 and Fall 2013 compared to Fall 2014 schoolyears. A net increase or decrease of zero students over time is represented by a factor of 1.000. A net student loss is represented by a factor less than 1.000 and a net gain by a factor greater than 1.000. The following Mobility Factors were then applied to all of the study areas that comprise the appropriate Super Sector:

Table 3
STUDENT MOBILITY FACTORS
(applied to the appropriate study areas that make up each Super Sector)

| Super Sector | Super Sector Mobility Factor Rates |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | K to 1 | 1 to 2 | 2 to 3 | 3 to 4 | 4 to 5 | 5 to 6 | 6 to 7 | 7 to 8 | 8 to 9 | 9 to 10 | 10 to 11 | 11 to 12 |
| Rural | 0.989 | 0.981 | 0.997 | 1.014 | 0.987 | 0.987 | 0.986 | 1.017 | 1.037 | 1.000 | 0.966 | 0.943 |
| Suburban North | 1.003 | 1.000 | 0.993 | 0.989 | 0.987 | 0.999 | 0.988 | 1.008 | 0.993 | 1.002 | 0.996 | 0.951 |
| Suburban SW | 1.047 | 1.005 | 1.001 | 1.019 | 1.022 | 1.000 | 1.011 | 1.000 | 1.036 | 1.008 | 0.990 | 0.985 |
| Urban Core | 0.953 | 0.980 | 0.980 | 0.986 | 0.972 | 0.945 | 0.992 | 0.994 | 0.945 | 0.993 | 0.950 | 0.904 |
| Urban Ring | 1.005 | 0.952 | 0.977 | 0.985 | 1.001 | 0.927 | 0.992 | 0.995 | 1.063 | 1.023 | 0.987 | 0.962 |

GREEN = net increase from one grade to another
RED = net decrease from one grade to another BLUE = no change / straight pass through
6. Each of the 1,229 Study Areas are then projected out over the next ten years (Fall 2015 through Fall 2024). From these study areas, individual Attendance Area reports are generated.

These projections are based on where the students live and where they should be attending school. DDP and MPC uses the actual location of where the students reside, as opposed to their school of enrollment, in order to provide the most accurate depiction of where future schools (if necessary) should be located. The concept of running projections at the "study area" level is ideal for a school district that plans on re-adjusting its current attendance areas. The best way to plan for future schools is to know where the next group of students will be coming from, not necessarily which school they are currently attending.

| $\left.\begin{array}{\|l\|l\|} \text { Study } \\ \text { Area \# } \end{array} \right\rvert\,$ | 10/2014-10/2015 |  | 10/2015-10/2016 |  | 10/2016-10/2017 |  | 10/2017-10/2018 |  | 10/2018-10/2019 |  | 10/2019-10/2020 |  | 10/2020-10/2021 |  | 10/2021-10/2022 |  | 10/2022-10/2023 |  | 10/2023-10/2024 |  | $\begin{aligned} & \text { Ten } \mathrm{Yr} \\ & \text { Totals } \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { Study } \\ \text { Area \# } \end{array}$ | Elementary School of <br> Assignment | Middle School of Assignment | High School of Assignment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA |  |  |  |  |  |
| 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | blue grass limmentary | WEST VALLEY MIDDLE | bearden high |
| 4 | 0 | 8 | 0 | 9 | 0 | 7 | 0 | 5 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 34 | 4 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 6 | 6 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 6 | Corryton elementary | HoLston MIDDL | GIBBS HIGH |
| 13 | 9 | 0 | 13 | 0 | 10 | 0 | 7 | 0 | 5 | 0 | 2 |  | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 50 | 13 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | hardin valley High |
| 24 | 12 | 0 | 16 | 0 | 13 | 0 | 9 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 62 | 24 | hardin valley elementary | KARNS MIDDLE | hardin valley High |
| 25 | 9 | 0 | 6 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 25 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | hardin valey High |
| 27 | 5 | 2 | 4 | 1 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 27 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | hardin valley High |
| 46 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 46 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 47 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 47 | ALLotts elementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 52 | 2 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 52 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | Hardin Valley High |
| 55 | 64 | 43 | 88 | 55 | 69 | 40 | 47 | 27 | 31 | 19 | 16 | 10 | 9 | 6 | 5 | 4 | 3 | 3 | 0 | 0 | 539 | 55 | NORTHSHORE ELEMENTARY | WEST VALLEY MIDDLE | bearden High |
| 62 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 62 | bearden elementary | BEARDEN MIDDLE | WEST HIGH |
| 94 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 94 | ADRIAN BURNETT ELEMENTARY | HALS MIDDLE | GIBBS HIGH |
| 101 | 6 | 2 | 6 | 2 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 101 | RITTA ELEMENTARY | Holiston midole | GIBSS HIGH |
| 103 | 8 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 103 | EAST KNOX COUNTY Elementary | CARTER MIDDLE | CARTER HIGH |
| 108 | 12 | 0 | 6 | 0 | 5 | 0 | 3 | 0 |  | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 108 | SUNNYVIEW PRIMARY | CARTER MIDDLE | AUSTIN EASt HIGH |
| 110 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 110 | NEW HOPEWELL ELEMENTARY | SOUTH DOYLE MIDLL | SOUTH DOVLE HIGH |
| 139 | 44 | 0 | 49 | 0 | 35 | 0 | 24 | 0 | 16 | 0 | 7 | 0 | 4 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 183 | 139 | hardin valey elementary | KARNS MIDDLE | hardin valley high |
| 140 | 21 | 0 | 12 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 140 | hardin valley elementary | KARNS MIDDLE | hardin valley High |
| 141 | 34 | 0 | 19 | 0 | 10 | 0 | 5 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74 | 141 | hardin valey elementary | KARNS MIDDLE | hardin valey High |
| 152 | 5 | 4 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 152 | hardin valey elementary | KARNS MIDDLE | hardin valey High |
| 167 | 18 | 0 | 9 | 0 | 6 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 167 | hardin valley elementary | KARNS MIDDLE | KARNS HIGH |
| 173 | 5 | 7 | 3 | 6 | 2 | 4 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 173 | karns Elementary | KARNS MIDDLE | KARNS HIGH |
| 178 | 6 | 0 | 6 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 178 | hardin valley elementary | KARNS MIDDLE | KARNS HIGH |
| 184 | 37 | 0 | 24 | 0 | 18 | 0 | 10 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 101 | 184 | hardin valley elementary | KARNS MIDDLE | hardin valley High |
| 192 | 29 | 0 | 13 | 0 | 10 | 0 | 7 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 67 | 192 | BALL CAMP ELLEMENTARY | KARNS MIDDLE | HARDIN VALLEY HIGH |
| 196 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 196 | Powell elementary | Powell midole | KARNS HIGH |
| ${ }^{197}$ | 48 | 0 | 51 | 0 | 39 | 0 | 26 | 0 | 16 | 0 | 9 | 0 | 6 | 0 | 3 |  | 1 | 0 | 0 | 0 | 199 | 197 | KARNS ELLEmENTARY | KARNS MIDDLE | KARNS HIGH |
| 205 | 25 | 0 | 25 | 0 | 19 | 0 | 14 | 0 | 9 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 100 | 205 | Karns Elementary | KARNS MIDDLE | KARNS HIGH |
| 211 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 211 | KARNS ELLEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 213 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 213 | KARNS ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 214 | 11 | 0 | 12 | 0 | 10 | 0 | 5 | 0 |  | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 214 | Powell elementary | Powell midole | KARNS HIGH |
| 219 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 219 | KARNS ELEmentary | KARNS MIDDLE | KARNS HIGH |
| 228 | 8 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 228 | AMHERST ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 229 | 14 | 0 | 16 | 0 | 13 | 0 | 9 | 0 | 3 | 0 | , | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59 | 229 | AMHERST ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 242 | 6 | 5 | 7 | 5 | 6 | 4 | 3 | 3 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 242 | KARNS ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 246 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 246 | KARNS ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 248 | 8 | 0 | 4 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 248 | KARNS ELEMENTARY | KARNS MIDDLE | KARNS HIGH |
| 267 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 267 | ball CAMP Elementary | KARNS MIDDLE | HARDIN Valley High |
| 286 | 5 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 286 | CEDAR BLUFF PRIMARY | CEDAR BLUFF MIDDLE | hardin valle High |
| 289 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 289 | CEDAR BLUFF PRIMARY | CEDAR BLUFF MIDDLE | hardin valle High |
| 292 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 292 | CEDAR BLUFF PRIMARY | CEDAR BUFF MIDDLE | hardin valey high |
| 317 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 317 | WEST HILS ELLEMENTARY | BEARDEN MIDDLE | BEARDEN HIGH |
| 321 | 6 | 0 | 4 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 16 | 321 | WEST HILLS ELEMENTARY | BEARDEN MIDDLE | BEARDEN HIGH |
| 348 | 6 | 1 | 4 | 1 | 3 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 348 | MOUNT OLIVE ELEMENTARY | SOUTH DOYLE MIDLLE | SOUTH DOYLE HIGH |
| 363 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 363 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |


| $\begin{aligned} & \text { Study } \\ & \text { Area \# } \end{aligned}$ | 10/2014-10/2015 |  | 10/2015-10/2016 |  | 10/2016-10/2017 |  | 10/2017-10/2018 |  | 10/2018-10/2019 |  | 10/2019-10/2020 |  | 10/2020-10/2021 |  | 10/2021-10/2022 |  | 10/2022-10/2023 |  | 10/2023-10/2024 |  | $\begin{aligned} & \text { Ten } \mathrm{Yr} \\ & \text { Totals } \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { Study } \\ \text { Area \# } \end{array}$ | Elementary School of Assignment | Middle School of Assignment | High School of Assignment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA |  |  |  |  |  |
| 374 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 374 | Northshore limmentary | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 376 | 0 | 4 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 376 | bearden elementary | BEARDEN MIDDLE | WEST HIGH |
| 380 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 380 | WEST HILS ELEMENTARY | bearden midole | WEST HIGH |
| 384 | 28 | 0 | 25 | 0 | 18 | 0 | 10 | 0 | 7 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 95 | 384 | NORTHSHORE ELEMENTARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 385 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 385 | NORTHSHORE ELEMENTARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 387 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 387 | NORTHSHORE ELEMENTARY | FARRAGUT MIDDLE | FARragut High |
| 404 | 5 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 404 | NEW HOPEWELL ELEMENTARY | SOUTH DOYLE MIDDL | SOUTH DOYYEHIGH |
| 416 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 416 | blue grass lementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 417 | 6 | 0 | 7 | 0 | 6 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 417 | A Llotts flementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 431 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 431 | ALlotts Elementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 461 | 5 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 461 | BEARDEN ELEMENTARY | BEARDEN MIDDLE | WEST HIGH |
| 463 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 463 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 464 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 464 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARragut High |
| 472 | 46 | 0 | 34 | 0 | 19 | 0 | 12 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 123 | 472 | NORTHSHORE ELEMENTARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 476 | 20 | 0 | 21 | 0 | 8 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 476 | BONNY KATE ELEMENTARY | SOUTH DOYLE MIDDLE | SOUTH DOYYE HIGH |
| 479 | 5 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 479 | BONNY KATE ELEMENTARY | SOUTH DOYLE MIDDLE | SOUTH DOYLE HIGH |
| 484 | 5 | 5 | 3 | 4 | 3 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 484 | SUNNYVIEW PRIMARY | Carter midole | CARTER HIGH |
| 489 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 489 | SUNNYVIEW PRIMARY | CARTER MIDDLE | CARTER HIGH |
| 493 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 493 | CARTER ELEMENTARY | CARTER MIDDLE | CARTER HIGH |
| 508 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 508 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 562 | 0 | 19 | 0 | 13 | 0 | 9 | 0 | 7 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 60 | 562 | SOUTH KNOXVILLE ELEMENTARY | SOUTH DOYLE MIDDLE | SOUTH Doyle high |
| 608 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 608 | ROCKY HILLELEMENTARY | WEST VALLEY MIDDLE | WEST HIGH |
| 610 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 610 | ROCKY HILL ELLEMENTARY | BEARDEN MIDDLE | WEST HIGH |
| 620 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 620 | ROCKY HILL ELEMENTARY | BEARDEN MIDDLE | WEST HIGH |
| 622 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 622 | sequoyah elementary | Bearden midole | WEST HIGH |
| 628 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 628 | ROCKY HILL ELEMENTARY | BEARDEN MIDDLE | WEST HIGH |
| 630 | 35 | 0 | 19 | 0 | 14 | 0 | 7 | 0 | 5 | 0 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87 | 630 | ROCKY HILL ELLEMENTARY | BEARDEN MIDDLE | WEST HIGH |
| 638 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 638 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 650 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 650 | NORTHSHORE ELEMENTARY | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 651 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 651 | Northshore elementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 661 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 661 | Powell elementary | Powell midole | POWELL HIGH |
| 671 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 671 | STERCHIELEMENTARY | GRESHAM MIDDLE | CENTral high |
| 675 | 23 | 0 | 18 | 0 | 16 | 0 | 16 | 0 | 12 | 0 | 7 | 0 | 6 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 104 | 675 | Sterchil elementary | GRESHAM MIDDLE | CENTRAL HIGH |
| 676 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 676 | STERCHIELEMENTARY | GRESHAM MIDDLE | CENTRAL HIGH |
| 699 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 699 | BRICKEY MCCLOUD ELEMENTARY | HALLS MIDDLE | Hals High |
| 700 | 9 | 0 | 6 | 0 | 5 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 700 | BRICKEY MCCLOUd ELEMENTARY | HALLS MIDDLE | HalLs HIGH |
| 711 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 711 | BRICKEY MCCLOUD ELEMENTARY | Powell midole | POWELLHIGH |
| 712 | 0 | 3 |  | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 712 | Brickey mccloud elementary | HALLS MIDDLE | CENTral high |
| 716 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 716 | BRICKEY MCCLOUd ELEMENTARY | Powell midde | CENTRAL HIGH |
| 726 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 726 | PLEASANT RIDGE ELEMENTARY | Northwest midil | KARNS HIGH |
| 731 | 8 | 0 | 4 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 731 | COPPER RIDGE ELEMENTARY | Powell midde | POWELLHIGH |
| 784 | 5 | 4 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 784 | Powell elementary | Powell midole | POWEL HIGH |
| 785 | 5 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 785 | Powell elementary | Powell midole | Poweluhigh |
| 798 | 23 | 0 | 15 | 0 | 6 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 798 | COPPER RIDGE ELEMENTARY | HALLS MIDDLE | HalLs High |
| 836 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 836 | DOGWOOD ELLEMENTARY | SOUTH DOYLE MIDDLE | SOUTH Doyle High |
| 844 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 844 | MOUNT OLIVE ELEMENTARY | SOUTH DOYLE MIDDLE | SOUTH Doyle High |


| $\left.\begin{array}{\|c} \text { Study } \\ \text { Area\# } \end{array} \right\rvert\,$ | 10/2014-10/2015 |  | 10/2015-10/2016 |  | 10/2016-10/2017 |  | 10/2017-10/2018 |  | 10/2018-10/2019 |  | 10/2019-10/2020 |  | 10/2020-10/2021 |  | 10/2021-10/2022 |  | 10/2022-10/2023 |  | 10/2023-10/2024 |  | $\begin{aligned} & \text { Ten } \mathrm{Yr} \\ & \text { Totals } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Study } \\ \text { Area \# } \end{array}$ | Elementary School of Assignment | Middle School of Assignment | High School of Assignment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA | SFR | SFA |  |  |  |  |  |
| 845 | 9 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 845 | MOUNT OLIVE ELEMENTARY | SOUTH DOYLE MIDLE | SOUTH DOYYE HIGH |
| 856 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 856 | DOGWOOD ELEMENTARY | SOUTH DOYLE MIDLL | SOUTH DOYLE HIGH |
| 860 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 860 | bearden elementary | bearden middie | WEST HIGH |
| 887 | 6 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 887 | WESt Haven llementary | NORTHWEST MIDDLE | WEST HIGH |
| 895 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 895 | NORTHSHORE ELEMENTARY | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 904 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 904 | NORTHSHORE ELEMENTARY | WEST VALLEY MIDDLE | BEARDEN HIGH |
| 910 | 12 | 2 | 16 | 0 | 13 | 0 | 9 | 0 | 5 | 0 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 64 | 910 | A Lootts Elementary | WEST VALLEY MIDDLE | FARRAGUT HIGH |
| 919 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 919 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 926 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 926 | Halls Elementary | Halls midole | HALS HIGH |
| 928 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 928 | GIBBS ELEmentary | Holston midole | G1885 HIGH |
| 935 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 935 | GIBBS ELEMENTARY | HoLSTON MIDDLE | GIB8S HIGH |
| 942 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 942 | EASt KNOX COUNTY ELEMENTARY | CARTER MIDDLE | CARTER HIGH |
| 967 | 14 | 0 | 9 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 967 | BRICKEY MCCLOUD ELEMENTARY | HALLS MIDDLE | HALLS HIGH |
| 968 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 968 | BRICKEY MCCLOUD ELEMENTARY | HALLS MIDDLE | HALS HIGH |
| 996 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 996 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 997 | 0 | 8 | 0 | 4 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 997 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARragut High |
| 1001 | 9 | 0 | 12 | 0 | 10 | 0 | 7 | 0 | 5 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 | 1001 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 1009 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1009 | NORTHSHORE LLEMENTARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 1011 | 5 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1011 | NORTHSHORE ELEMENTARY | FARRAGUT MIDDLE | FARRAGUT HIGH |
| 1049 | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1049 | RITTA ELEMENTARY | HoLston midole | GIBBS HIGH |
| 1053 | 12 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 1053 | EASt KNOX COUNTY ELEMENTARY | CARTER MIDDLE | CARTER HIGH |
| 1059 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1059 | HaLLS Elementary | HALLS MIDDLE | GIBBS HIGH |
| 1064 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1064 | ADRIAN BURNETT ELEMENTARY | HALLS MIDDLE | GIBBS HIGH |
| 1076 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1076 | GIBBS ELEmENTARY | HoListon midole | GIBBS HIGH |
| 1107 | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1107 | PLEASANT RIDGE ELEMENTARY | NORTHWEST MIDDLE | WEST HIGH |
| 1122 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1122 | FARRAGUT PRIMARY | FARRAGUT MIDDLE | HARDIN VALLEY HIGH |
| 1140 | 12 | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 1140 | HaLLS Elementary | HALLS MIDDLE | HalLS HIGH |
| 1142 | 2 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1142 | HaLLS Elementary | HALLS MIDDLE | HalLs High |
| 1171 | 11 | 0 | 9 | 0 | 5 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 31 | 1171 | RITTA ELEMENTARY | HoLston MIDDLE | GIBSS HIGH |
| 1172 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 3 | 1172 | RITTA ELEMENTARY | HoListon midole | G18B5 HIGH |
| 1176 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1176 | GIBBS ELEMENTARY | HoLston midole | GIBBS HIGH |
| 1177 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1177 | Gibbs Elementary | HoLston MIDDLE | GIBBS HIGH |
| 1179 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1179 | Gibbs Elementary | HoLston MIDDLE | GIBBS HIGH |
| 1180 | 0 | 4 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1180 | GIBBS ELEMENTARY | Holston MIDDLE | GIBSS HIGH |
| 1183 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1183 | RITTA ELEMENTARY | HoLston MIDDLE | G1BBS HIGH |
| 1186 | 2 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 2 | 1186 | RITTA ELEMENTARY | Hoiston midole | FUlton High |
| 1190 | 11 |  | 9 | 2 | 8 | 2 | 7 | 1 | 5 | 1 | 3 | 0 | 4 | 0 | 2 | 0 |  | 0 | 0 |  | 61 | 1190 | RIITA ELEMENTARY | GRESHAM MIDDLE | CENTRALHIGH |
| 1232 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1232 | BALL CAMP ELEMENTARY | KARNS MIDDLE | HARDIN VALLEY HIGH |
| 1236 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1236 | blue grass elementary | WEST VALLEY MIDDLE | BEARDEN HIGH |
| Total | 992 | 139 | 715 | 122 | 469 | 79 | 291 | 55 | 180 | 33 | 97 | 17 | 61 | 10 | 32 | 6 | 10 | 4 | 0 | 0 | 3,312 | Total |  |  |  |
|  | $\begin{gathered} \hline \text { Total } 14 / 15= \\ 1,131 \end{gathered}$ |  | Total15 / $16=$ <br> 837 |  | $\begin{gathered} \text { Total } 16 / 17= \\ 548 \end{gathered}$ |  | $\begin{gathered} \hline \text { Total } 17 / 18= \\ 346 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { Total } 18 / 19= \\ 213 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { Total } 19 / 20= \\ 114 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Total } 20 / 21= \\ 71 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Total } 21 / 22= \\ 38 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Total } 22 / 23= \\ 14 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { Total } 23 / 24= \\ 0 \\ \hline \end{gathered}$ |  | $\begin{array}{\|l\|} \hline \text { Ten } \mathrm{Yr} \\ \text { Totals } \\ \hline \end{array}$ |  |  |  |  |







| At | ce Ar | Bearden |  | tion | 10 | 14 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACTUAL |  |  | PROJEC | RESID | STUDEN |  |  |  |  |  |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 499.0 | 505.8 | 510.9 | 531.3 | 502.0 | 528.2 | 532.1 | 536.5 | 540.5 | 544.6 | 548.7 |
| 1 | 525.0 | 499.2 | 504.8 | 509.9 | 529.9 | 500.9 | 526.7 | 530.8 | 535.0 | 539.0 | 543.2 |
| 2 | 525.0 | 513.4 | 488.4 | 492.8 | 497.6 | 517.0 | 488.7 | 513.9 | 517.7 | 521.9 | 525.9 |
| 3 | 481.0 | 518.2 | 506.1 | 481.5 | 485.3 | 490.0 | 509.0 | 481.2 | 505.9 | 509.6 | 513.8 |
| 4 | 437.0 | 478.5 | 514.0 | 501.9 | 477.6 | 481.1 | 485.6 | 504.6 | 476.9 | 501.3 | 505.1 |
| 5 | 453.0 | 435.7 | 477.3 | 511.8 | 499.6 | 475.0 | 478.3 | 483.1 | 501.7 | 474.3 | 498.5 |
| 6 | 399.0 | 435.1 | 416.9 | 456.5 | 488.0 | 477.4 | 455.0 | 457.2 | 461.8 | 479.7 | 453.7 |
| 7 | 383.0 | 398.2 | 433.5 | 414.8 | 454.1 | 485.2 | 474.6 | 452.6 | 454.5 | 459.1 | 477.0 |
| 8 | 393.0 | 384.1 | 398.2 | 433.2 | 414.2 | 453.6 | 484.3 | 473.9 | 451.8 | 453.6 | 458.3 |
| 6-8 | 1175.0 | 1217.4 | 1248.6 | 1304.5 | 1356.3 | 1416.2 | 1413.9 | 1383.7 | 1368.1 | 1392.4 | 1389.0 |


|  | nce Ar ACTUAL | ter | Proj | $\begin{aligned} & \text { tion D } \\ & \text { PROJEC } \end{aligned}$ | 10/1 | STUDEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 257.0 | 256.1 | 251.4 | 260.1 | 244.7 | 255.0 | 254.3 | 253.4 | 252.7 | 252.1 | 251.3 |
| 1 | 258.0 | 253.3 | 251.8 | 247.0 | 255.4 | 240.3 | 250.2 | 249.5 | 248.6 | 247.9 | 247.2 |
| 2 | 277.0 | 254.4 | 249.1 | 247.3 | 242.5 | 250.6 | 235.7 | 245.4 | 244.7 | 243.8 | 243.1 |
| 3 | 270.0 | 276.4 | 253.3 | 247.7 | 245.9 | 241.0 | 248.9 | 234.2 | 243.7 | 243.0 | 242.2 |
| 4 | 272.0 | 273.1 | 279.1 | 255.7 | 249.8 | 248.0 | 243.0 | 250.9 | 236.1 | 245.7 | 245.0 |
| 5 | 287.0 | 268.9 | 269.1 | 274.9 | 251.8 | 245.9 | 244.0 | 239.1 | 246.9 | 232.3 | 241.7 |
| 6 | 310.0 | 281.7 | 263.6 | 262.9 | 269.0 | 246.4 | 240.4 | 238.7 | 233.9 | 241.5 | 227.3 |
| 7 | 292.0 | 307.1 | 278.6 | 260.5 | 259.8 | 265.7 | 243.3 | 237.4 | 235.7 | 230.9 | 238.4 |
| 8 | 295.0 | 296.8 | 311.4 | 282.1 | 263.9 | 262.8 | 268.9 | 246.4 | 240.2 | 238.6 | 233.8 |
| 6-8 | 897.0 | 885.6 | 853.6 | 805.5 | 792.7 | 774.9 | 752.6 | 722.5 | 709.8 | 711.0 | 699.5 |

Attendance Area Cedar Bluff MS Projection Date 10/1/2014

|  | ACTUAL |  |  | PROJEC | RESIDE | STUDEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 178.0 | 183.2 | 189.1 | 195.7 | 188.9 | 197.7 | 199.8 | 202.1 | 204.2 | 206.3 | 208.6 |
| 1 | 198.0 | 179.0 | 184.0 | 189.8 | 196.2 | 189.5 | 198.3 | 200.4 | 202.7 | 204.8 | 206.9 |
| 2 | 204.0 | 198.5 | 179.3 | 184.1 | 189.8 | 196.2 | 189.5 | 198.3 | 200.4 | 202.7 | 204.8 |
| 3 | 171.0 | 203.1 | 197.3 | 178.1 | 182.8 | 188.5 | 194.9 | 188.2 | 196.9 | 199.0 | 201.3 |
| 4 | 197.0 | 169.6 | 201.1 | 195.3 | 176.2 | 180.8 | 186.4 | 192.7 | 186.1 | 194.8 | 196.8 |
| 5 | 195.0 | 194.9 | 167.6 | 198.6 | 192.7 | 173.9 | 178.5 | 184.0 | 190.2 | 183.7 | 192.2 |
| 6 | 208.0 | 195.3 | 195.0 | 167.6 | 198.4 | 192.5 | 173.7 | 178.3 | 183.8 | 190.0 | 183.5 |
| 7 | 203.0 | 205.9 | 193.1 | 192.7 | 165.6 | 196.0 | 190.2 | 171.6 | 176.1 | 181.6 | 187.8 |
| 8 | 201.0 | 205.0 | 207.7 | 194.8 | 194.2 | 166.9 | 197.5 | 191.8 | 173.0 | 177.5 | 183.1 |
| 6-8 | 612.0 | 606.2 | 595.8 | 555.1 | 558.2 | 555.4 | 561.4 | 541.7 | 532.9 | 549.1 | 554.4 |

The above projections DO NOT include Out-of-District students.
The above projections are based upon student residence, not upon school of attendance.
The above projections were prepared by the Knox County Metropolitan Planning Commission in October 2014.

Please see the Middle School 6-8 Attendance Matrix for a detailed accounting of the current student data.

| Atte | ce Area | Farrag |  | ction | e 10 | 2014 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACTUAL | PROJECTED RESIDENT STUDENTS |  |  |  |  |  |  |  |  |  |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 394.0 | 368.0 | 386.0 | 408.4 | 394.2 | 412.8 | 421.3 | 430.0 | 438.9 | 447.4 | 456.0 |
| 1 | 400.0 | 416.6 | 387.9 | 405.1 | 427.5 | 412.0 | 430.8 | 439.6 | 448.6 | 457.7 | 466.5 |
| 2 | 369.0 | 407.3 | 422.5 | 392.1 | 408.5 | 430.4 | 414.3 | 433.0 | 441.8 | 450.6 | 459.8 |
| 3 | 422.0 | 374.4 | 411.5 | 425.2 | 393.8 | 409.5 | 430.9 | 414.7 | 433.4 | 441.9 | 450.7 |
| 4 | 425.0 | 434.4 | 384.2 | 420.7 | 433.7 | 401.1 | 416.5 | 438.2 | 421.6 | 440.4 | 449.1 |
| 5 | 407.0 | 438.2 | 446.8 | 393.5 | 430.3 | 442.9 | 409.0 | 424.6 | 446.6 | 429.5 | 448.6 |
| 6 | 448.0 | 412.4 | 442.2 | 449.3 | 395.0 | 431.2 | 443.3 | 409.3 | 424.8 | 446.6 | 429.5 |
| 7 | 436.0 | 456.0 | 419.1 | 447.9 | 454.6 | 398.9 | 435.5 | 447.5 | 413.1 | 428.6 | 450.6 |
| 8 | 463.0 | 440.4 | 459.5 | 421.3 | 449.5 | 455.6 | 399.7 | 436.0 | 448.0 | 413.4 | 428.9 |
| 6-8 | 1347.0 | 1308.8 | 1320.8 | 1318.5 | 1299.1 | 1285.7 | 1278.5 | 1292.8 | 1285.9 | 1288.6 | 1309.0 |

Attendance Area Gresham MS Projection Date 10/1/2014

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACTUAL | 2014 | 2015 | 2016 | PROJECTED RESIDENT STUDENTS |  |  |  |  |  |  |  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 306.0 | 309.7 | 313.8 | 323.1 | 307.0 | 321.4 | 322.7 | 324.4 | 326.0 | 327.6 | 329.0 |  |  |  |  |  |  |  |  |  |
| 1 | 335.0 | 306.4 | 309.7 | 313.7 | 322.9 | 306.8 | 320.8 | 322.2 | 323.8 | 325.3 | 326.7 |  |  |  |  |  |  |  |  |  |
| 2 | 316.0 | 321.8 | 294.5 | 297.3 | 301.0 | 309.7 | 294.0 | 307.5 | 308.6 | 310.1 | 311.4 |  |  |  |  |  |  |  |  |  |
| 3 | 280.0 | 310.3 | 315.6 | 288.7 | 291.5 | 294.9 | 303.2 | 287.8 | 300.9 | 302.0 | 303.3 |  |  |  |  |  |  |  |  |  |
| 4 | 283.0 | 277.2 | 306.7 | 311.6 | 285.2 | 287.7 | 290.9 | 299.1 | 283.7 | 296.6 | 297.5 |  |  |  |  |  |  |  |  |  |
| 5 | 295.0 | 283.2 | 277.2 | 306.3 | 311.5 | 284.6 | 287.0 | 290.2 | 298.1 | 282.9 | 295.5 |  |  |  |  |  |  |  |  |  |
| 6 | 271.0 | 276.1 | 264.6 | 258.9 | 286.0 | 290.6 | 265.7 | 267.8 | 270.6 | 278.0 | 263.6 |  |  |  |  |  |  |  |  |  |
| 7 | 270.0 | 269.9 | 274.7 | 263.1 | 257.5 | 284.2 | 288.5 | 263.8 | 265.7 | 268.5 | 275.7 |  |  |  |  |  |  |  |  |  |
| 8 | 258.0 | 269.9 | 269.5 | 274.1 | 262.4 | 256.7 | 283.1 | 287.4 | 262.8 | 264.6 | 267.2 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $6-8$ | 799.0 | 815.9 | 808.8 | 796.1 | 805.9 | 831.5 | 837.3 | 819.0 | 799.1 | 811.1 | 806.5 |  |  |  |  |  |  |  |  |  |

Attendance Area Halls MS Projection Date 10/1/2014

|  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | ACTUAL |  |  | PROJECTED RESIDENT STUDENTS |  |  |  |  |  |  |  |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| $K$ | 332.0 | 313.9 | 323.8 | 334.9 | 323.4 | 338.4 | 341.9 | 345.6 | 349.1 | 352.5 | 356.3 |
| 1 | 311.0 | 335.7 | 316.2 | 325.5 | 336.2 | 324.6 | 339.5 | 342.8 | 346.6 | 350.0 | 353.5 |
| 2 | 320.0 | 313.4 | 337.0 | 316.7 | 325.6 | 336.2 | 324.5 | 339.2 | 342.5 | 346.3 | 349.7 |
| 3 | 328.0 | 320.5 | 312.6 | 335.4 | 314.8 | 323.6 | 334.0 | 322.2 | 336.8 | 340.1 | 343.8 |
| 4 | 339.0 | 327.3 | 318.5 | 310.1 | 332.2 | 311.8 | 320.3 | 330.4 | 318.8 | 333.2 | 336.5 |
| 5 | 345.0 | 337.4 | 324.5 | 315.2 | 306.5 | 328.3 | 307.9 | 316.2 | 326.2 | 314.7 | 328.9 |
| 6 | 368.0 | 347.1 | 338.0 | 324.6 | 315.0 | 306.1 | 327.9 | 307.3 | 315.5 | 325.5 | 314.0 |
| 7 | 380.0 | 365.7 | 344.0 | 334.6 | 321.0 | 311.4 | 302.5 | 324.0 | 303.6 | 311.7 | 321.6 |
| 8 | 362.0 | 385.2 | 369.8 | 347.4 | 337.6 | 323.8 | 314.0 | 305.0 | 326.6 | 306.0 | 314.2 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| $6-8$ | 1110.0 | 1098.0 | 1051.8 | 1006.6 | 973.6 | 941.3 | 944.4 | 936.3 | 945.7 | 943.2 | 949.8 |

The above projections DO NOT include Out-of-District students.
The above projections are based upon student residence, not upon school of attendance.
The above projections were prepared by the Knox County Metropolitan Planning Commission in October 2014.
Please see the Middle School 6-8 Attendance Matrix for a detailed accounting of the current student data.


Attendance Area Karns MS Projection Date 10/1/2014

|  | ACTUAL |  |  | PROJECT | RESID | STUDEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 469.0 | 460.7 | 479.3 | 497.3 | 481.9 | 503.9 | 509.2 | 514.9 | 520.2 | 525.2 | 530.7 |
| 1 | 464.0 | 482.8 | 472.0 | 487.5 | 503.1 | 485.8 | 506.8 | 511.6 | 517.0 | 521.9 | 526.7 |
| 2 | 507.0 | 476.2 | 492.1 | 478.2 | 491.2 | 505.0 | 486.6 | 507.0 | 511.5 | 516.6 | 521.3 |
| 3 | 493.0 | 515.5 | 482.6 | 495.2 | 479.0 | 490.0 | 502.6 | 483.9 | 503.8 | 507.9 | 512.8 |
| 4 | 471.0 | 499.8 | 519.5 | 483.9 | 494.0 | 476.0 | 485.9 | 497.8 | 479.0 | 498.3 | 502.3 |
| 5 | 506.0 | 477.3 | 503.1 | 519.6 | 481.9 | 490.0 | 471.3 | 480.5 | 492.0 | 473.0 | 492.0 |
| 6 | 430.0 | 517.0 | 485.7 | 508.8 | 522.3 | 483.5 | 490.2 | 470.9 | 479.8 | 490.9 | 471.8 |
| 7 | 456.0 | 434.1 | 518.2 | 485.0 | 505.9 | 517.9 | 478.7 | 484.9 | 465.7 | 474.2 | 485.0 |
| 8 | 436.0 | 469.1 | 445.0 | 527.4 | 492.0 | 511.7 | 522.9 | 483.1 | 489.1 | 469.4 | 477.9 |
| 6-8 | 1322.0 | 1420.2 | 1448.9 | 1521.2 | 1520.2 | 1513.1 | 1491.8 | 1438.9 | 1434.6 | 1434.5 | 1434.7 |

Attendance Area Northwest MS Projection Date 10/1/2014

|  | ACTUAL |  |  | PROJEC | RESIDE | STUDEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 449.0 | 432.6 | 432.4 | 448.9 | 420.8 | 443.9 | 445.8 | 448.1 | 450.2 | 452.4 | 454.6 |
| 1 | 392.0 | 443.5 | 426.2 | 426.3 | 442.4 | 414.9 | 437.5 | 439.5 | 441.7 | 443.8 | 446.0 |
| 2 | 424.0 | 380.3 | 429.9 | 412.9 | 412.9 | 428.6 | 401.9 | 423.8 | 425.7 | 427.9 | 429.9 |
| 3 | 413.0 | 416.0 | 373.1 | 421.7 | 404.9 | 404.9 | 420.2 | 394.0 | 415.5 | 417.4 | 419.6 |
| 4 | 417.0 | 407.6 | 410.2 | 367.9 | 415.8 | 399.2 | 399.2 | 414.3 | 388.5 | 409.6 | 411.5 |
| 5 | 371.0 | 412.5 | 402.7 | 405.5 | 363.6 | 411.3 | 394.6 | 394.6 | 409.5 | 384.1 | 404.9 |
| 6 | 314.0 | 350.1 | 390.2 | 380.4 | 382.6 | 343.6 | 388.7 | 372.3 | 372.4 | 386.5 | 362.6 |
| 7 | 302.0 | 311.6 | 347.2 | 386.9 | 377.2 | 379.3 | 340.6 | 385.3 | 369.1 | 369.2 | 383.2 |
| 8 | 341.0 | 301.3 | 310.8 | 346.1 | 385.8 | 376.0 | 378.0 | 339.6 | 384.2 | 367.9 | 368.0 |
| 6-8 | 957.0 | 963.0 | 1048.2 | 1113.4 | 1145.6 | 1098.9 | 1107.3 | 1097.2 | 1125.7 | 1123.6 | 1113.8 |

The above projections DO NOT include Out-of-District students.
The above projections are based upon student residence, not upon school of attendance.
The above projections were prepared by the Knox County Metropolitan Planning Commission in October 2014.
Please see the Middle School 6-8 Attendance Matrix for a detailed accounting of the current student data.


Attendance Area South Doyle MS Projection Date 10/1/2014

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACTUAL | 2014 | 2015 | 2016 | PROJECTED RESIDENT STUDENTS |  |  |  |  |  |  |  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| K | 426.0 | 416.9 | 410.2 | 423.8 | 399.6 | 415.5 | 414.3 | 412.8 | 411.5 | 410.3 | 409.0 |  |  |  |  |  |  |  |  |
| 1 | 396.0 | 420.1 | 410.8 | 403.7 | 416.7 | 392.9 | 408.4 | 407.2 | 405.6 | 404.3 | 403.1 |  |  |  |  |  |  |  |  |
| 2 | 437.0 | 390.1 | 413.2 | 403.6 | 396.3 | 408.9 | 385.5 | 400.6 | 399.4 | 397.8 | 396.6 |  |  |  |  |  |  |  |  |
| 3 | 437.0 | 436.3 | 388.9 | 411.3 | 401.5 | 394.1 | 406.5 | 383.3 | 398.3 | 397.0 | 395.5 |  |  |  |  |  |  |  |  |
| 4 | 404.0 | 442.9 | 441.8 | 393.2 | 415.3 | 405.4 | 397.9 | 410.4 | 386.9 | 402.0 | 400.7 |  |  |  |  |  |  |  |  |
| 5 | 381.0 | 399.5 | 437.2 | 435.7 | 387.4 | 408.9 | 399.2 | 391.8 | 404.0 | 381.0 | 395.8 |  |  |  |  |  |  |  |  |
| 6 | 387.0 | 375.4 | 392.8 | 429.3 | 427.8 | 379.8 | 400.7 | 391.4 | 384.1 | 396.0 | 373.6 |  |  |  |  |  |  |  |  |
| 7 | 402.0 | 383.1 | 371.3 | 388.1 | 423.9 | 422.3 | 374.9 | 395.5 | 386.2 | 379.1 | 390.8 |  |  |  |  |  |  |  |  |
| 8 | 358.0 | 408.7 | 389.2 | 376.9 | 393.5 | 429.7 | 428.2 | 380.0 | 400.7 | 391.4 | 384.2 |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $6-8$ | 1147.0 | 1167.2 | 1153.3 | 1194.3 | 1245.2 | 1231.8 | 1203.8 | 1166.9 | 1171.0 | 1166.5 | 1148.6 |  |  |  |  |  |  |  |  |

Attendance Area Vine MS Projection Date 10/1/2014

|  | ACTUAL |  |  | PROJEC | RESID | STUDEN |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 146.0 | 142.8 | 137.3 | 145.5 | 131.2 | 141.2 | 141.7 | 142.1 | 142.4 | 142.8 | 143.1 |
| 1 | 136.0 | 139.1 | 136.1 | 130.8 | 138.7 | 125.0 | 134.6 | 135.0 | 135.4 | 135.7 | 136.1 |
| 2 | 127.0 | 133.3 | 136.4 | 133.4 | 128.2 | 135.9 | 122.5 | 131.9 | 132.3 | 132.7 | 133.0 |
| 3 | 126.0 | 124.5 | 130.6 | 133.6 | 130.7 | 125.6 | 133.2 | 120.1 | 129.3 | 129.7 | 130.1 |
| 4 | 113.0 | 124.2 | 122.7 | 128.8 | 131.8 | 128.9 | 123.9 | 131.3 | 118.4 | 127.5 | 127.8 |
| 5 | 131.0 | 109.8 | 120.8 | 119.3 | 125.2 | 128.1 | 125.3 | 120.4 | 127.6 | 115.1 | 123.9 |
| 6 | 91.0 | 123.8 | 103.8 | 114.1 | 112.7 | 118.3 | 121.0 | 118.4 | 113.8 | 120.6 | 108.7 |
| 7 | 84.0 | 90.3 | 122.8 | 103.0 | 113.2 | 111.8 | 117.3 | 120.1 | 117.4 | 112.9 | 119.6 |
| 8 | 92.0 | 83.5 | 89.7 | 122.1 | 102.3 | 112.5 | 111.1 | 116.6 | 119.3 | 116.7 | 112.2 |
| 6-8 | 267.0 | 297.6 | 316.3 | 339.2 | 328.2 | 342.6 | 349.4 | 355.1 | 350.5 | 350.2 | 340.5 |

The above projections DO NOT include Out-of-District students.
The above projections are based upon student residence, not upon school of attendance.
The above projections were prepared by the Knox County Metropolitan Planning Commission in October 2014.
Please see the Middle School 6-8 Attendance Matrix for a detailed accounting of the current student data.

| Attendance Area West Valley MS ACTUAL |  |  |  | Projection Date 10/1/2014 PROJECTED RESIDENT STUDENTS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2014 |  | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| K | 349.0 | 347.2 | 365.7 | 388.7 | 375.4 | 393.3 | 402.0 | 410.6 | 419.5 | 428.1 | 436.6 |
| 1 | 349.0 | 369.8 | 368.1 | 386.5 | 409.4 | 394.6 | 412.6 | 421.3 | 430.1 | 439.4 | 448.2 |
| 2 | 341.0 | 355.0 | 376.1 | 373.4 | 390.7 | 412.9 | 397.4 | 415.1 | 423.7 | 432.4 | 441.6 |
| 3 | 372.0 | 345.6 | 359.7 | 379.8 | 376.0 | 392.6 | 414.1 | 398.2 | 415.8 | 424.2 | 432.9 |
| 4 | 365.0 | 383.4 | 356.6 | 370.0 | 389.4 | 384.7 | 400.9 | 422.4 | 406.0 | 423.8 | 432.3 |
| 5 | 342.0 | 377.4 | 396.3 | 367.9 | 380.5 | 399.5 | 394.0 | 410.1 | 432.0 | 415.1 | 433.1 |
| 6 | 442.0 | 346.2 | 381.7 | 399.7 | 370.2 | 382.0 | 400.3 | 394.4 | 410.4 | 432.1 | 415.1 |
| 7 | 376.0 | 450.1 | 353.4 | 388.5 | 405.8 | 375.4 | 386.8 | 405.0 | 399.0 | 415.0 | 436.9 |
| 8 | 370.0 | 379.2 | 453.4 | 356.0 | 390.3 | 406.9 | 376.0 | 387.1 | 405.2 | 399.1 | 415.0 |
| 6-8 | 1188.0 | 1175.5 | 1188.5 | 1144.2 | 1166.3 | 1164.3 | 1163.1 | 1186.5 | 1214.6 | 1246.2 | 1267.0 |


| At <br> K | nce Ar ACTUAL | le | Springs$2016$ | MS Projection Date 10/1/2014 PROJECTED RESIDENT STUDENTS |  |  |  | 2021 | 2022 | 2023 | 2024 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2014 | 2015 |  | 2017 | 2018 | 2019 | 2020 |  |  |  |  |
|  | 205.0 | 200.3 | 192.5 | 204.0 | 184.0 | 198.1 | 198.7 | 199.3 | 199.7 | 200.3 | 200.7 |
| 1 | 196.0 | 195.4 | 190.8 | 183.5 | 194.4 | 175.3 | 188.8 | 189.3 | 189.9 | 190.3 | 190.8 |
| 2 | 207.0 | 192.1 | 191.5 | 187.0 | 179.8 | 190.6 | 171.8 | 185.0 | 185.5 | 186.1 | 186.5 |
| 3 | 183.0 | 202.9 | 188.2 | 187.6 | 183.3 | 176.2 | 186.7 | 168.4 | 181.3 | 181.8 | 182.4 |
| 4 | 176.0 | 180.4 | 200.0 | 185.6 | 185.0 | 180.7 | 173.7 | 184.1 | 166.0 | 178.7 | 179.3 |
| 5 | 175.0 | 171.1 | 175.4 | 194.4 | 180.4 | 179.8 | 175.7 | 168.9 | 179.0 | 161.4 | 173.7 |
| 6 | 157.0 | 165.4 | 161.7 | 165.7 | 183.7 | 170.5 | 169.9 | 166.0 | 159.6 | 169.1 | 152.5 |
| 7 | 221.0 | 155.7 | 164.1 | 160.4 | 164.4 | 182.3 | 169.1 | 168.6 | 164.7 | 158.3 | 167.8 |
| 8 | 181.0 | 219.7 | 154.8 | 163.1 | 159.4 | 163.4 | 181.2 | 168.1 | 167.6 | 163.7 | 157.4 |
| 6-8 | 559.0 | 540.8 | 480.6 | 489.2 | 507.5 | 516.2 | 520.2 | 502.7 | 491.9 | 491.1 | 477.7 |

The above projections DO NOT include Out-of-District students.
The above projections are based upon student residence, not upon school of attendance.
The above projections were prepared by the Knox County Metropolitan Planning Commission in October 2014.
Please see the Middle School 6-8 Attendance Matrix for a detailed accounting of the current student data.


MS Plan A1 (Moving only ES Attendance Areas/NO NEW SCHOOLS)
(Resident Counts Only)

| Middle School | Practical MS CAPACITIES |  |  | Projected 2019 Residents |  |  | Projected 2024 Residents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current (2014) |  | Proj. Count | Change from 2014 | +/- Cap. | Proj. Count | Change from 2014 | +/- Cap. |
|  |  | Counts | +/- Cap. |  |  |  |  |  |  |
| BEARDEN MS | 1,200 | 1,360 | 160 | 1,633 | 273 | 433 | 1,631 | 271 | 431 |
| CARTER MS | 650 | 612 | -38 | 523 | -89 | -127 | 468 | -144 | -182 |
| CEDAR BLUFF MS | 550 | 578 | 28 | 534 | -44 | -16 | 534 | -44 | -16 |
| FARRAGUT MS | 1,200 | 1,075 | -125 | 1,020 | -55 | -180 | 1,046 | -29 | -154 |
| GRESHAM MS | 800 | 759 | -41 | 770 | 11 | -30 | 765 | 6 | -35 |
| HALLS MS | 1,000 | 1,193 | 193 | 1,046 | -147 | 46 | 1,052 | -141 | 52 |
| HOLSTON MS | 1,000 | 1,066 | 66 | 1,082 | 16 | 82 | 915 | -151 | -85 |
| KARNS MS | 1,200 | 1,228 | 28 | 1,406 | 178 | 206 | 1,299 | 71 | 99 |
| NORTHWEST MS | 950 | 995 | 45 | 1,122 | 127 | 172 | 1,144 | 149 | 194 |
| POWELL MS | 1,000 | 831 | -169 | 731 | -100 | -269 | 729 | -102 | -271 |
| SOUTH DOYLE MS | 1,100 | 1,031 | -69 | 1,107 | 76 | 7 | 1,020 | -11 | -80 |
| VINE MS | 600 | 348 | -252 | 404 | 56 | -196 | 400 | 52 | -200 |
| WEST VALLEY MS | 1,250 | 1,382 | 132 | 1,352 | -30 | 102 | 1,443 | 61 | 193 |
| WHITTLE SPRINGS MS | 500 | 733 | 233 | 700 | -33 | 200 | 662 | -71 | 162 |
|  | 13,000 | 13,191 | 191 | 13,430 | 239 | 430 | 13,108 | -83 | 108 |
|  | Total MS Capacity |  |  |  | Compared to 2014 |  |  | Compared to 2014 |  |


| Current Bound |  |  |
| :---: | :---: | :---: |
| 2014 | Actual 2014 |  |
| Residence | Enrollment |  |
| 1,175 | 1,178 |  |
| 897 | 850 |  |
| 612 | 617 |  |
| 1,347 | 1,383 |  |
| 799 | 811 |  |
| 1,110 | 1,119 |  |
| 897 | 907 |  |
| 1,322 | 1,334 |  |
| 957 | 829 |  |
| 914 | 939 |  |
| 1,147 | 1,081 |  |
| 267 | 336 |  |
| 1,188 | 1,224 |  |
| 559 | 536 |  |
| 13,191 | 13,144 | Includes OD |
| 32 | 79 | Other Schools |
| 13,223 | 13,223 |  |

Schools that have counts greater than 30 students over capacity


MS Plan A2 (Moving only ES Attendance Areas/Adding a Gibbs MS)
(Resident Counts Only)

$=$ Schools that have counts greater than 30 students over capacity


MS Plan A3 (Moving only ES Attendance Areas/Adding a Hardin Valley MS)
(Resident Counts Only)

| Middle School | Practical MS CAPACITIES |  |  | Projected 2019 Residents |  |  | Projected 2024 Residents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current (2014) |  | Proj. Count | $\begin{array}{\|c\|} \hline \text { Change from } \\ 2014 \\ \hline \end{array}$ | +/- Cap. | Proj. Count | Change from 2014 | +/-Cap. |
|  |  | Counts | +/- Cap. |  |  |  |  |  |  |
| BEARDEN MS | 1,200 | 1,032 | -168 | 1,280 | 248 | 80 | 1,249 | 217 | 49 |
| CARTER MS | 650 | 612 | -38 | 523 | -89 | -127 | 468 | -144 | -182 |
| CEDAR BLUFF MS | 550 | 578 | 28 | 534 | -44 | -16 | 534 | -44 | -16 |
| FARRAGUT MS | 1,200 | 1,075 | -125 | 1,020 | -55 | -180 | 1,046 | -29 | -154 |
| GRESHAM MS | 800 | 759 | -41 | 770 | 11 | -30 | 765 | 6 | -35 |
| HALLS MS | 1,000 | 1,193 | 193 | 1,046 | -147 | 46 | 1,052 | -141 | 52 |
| HARDIN VALLEY AREA MS (new) | 800 | 690 | -110 | 820 | 130 | 20 | 729 | 39 | -71 |
| HOLSTON MS | 1,000 | 1,066 | 66 | 1,082 | 16 | 82 | 915 | -151 | -85 |
| KARNS MS | 1,200 | 866 | -334 | 939 | 73 | -261 | 952 | 86 | -248 |
| NORTHWEST MS | 950 | 995 | 45 | 1,122 | 127 | 172 | 1,144 | 149 | 194 |
| POWELL MS | 1,000 | 831 | -169 | 731 | -100 | -269 | 729 | -102 | -271 |
| SOUTH DOYLE MS | 1,100 | 1,031 | -69 | 1,107 | 76 | 7 | 1,020 | -11 | -80 |
| VINE MS | 600 | 348 | -252 | 404 | 56 | -196 | 400 | 52 | -200 |
| WEST VALLEY MS | 1,250 | 1,382 | 132 | 1,352 | -30 | 102 | 1,443 | 61 | 193 |
| WHITTLE SPRINGS MS | 500 | 733 | 233 | 700 | -33 | 200 | 662 | -71 | 162 |
|  | 13,800 | 13,191 | -609 | 13,430 | 239 | -370 | 13,108 | -83 | -692 |
|  | Total MS Capacity |  |  |  | $\begin{array}{c\|} \hline \text { Compared to } \\ 2014 \\ \hline \end{array}$ |  |  | $\begin{array}{\|c\|} \hline \text { Compared to } \\ 2014 \\ \hline \end{array}$ |  |


$=$ Schools that have counts greater than 30 students over capacity


## MS Plan A4 (Moving only ES Attendance Areas/Repurpose Carter MS)


$45=$ Schools that have counts greater than 30 students over capacity

|  | HOW CARTER MS 6-8 STUDENTS ARE DIVIDED UP |  |  | $\underline{2024}$ | 6th only |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\underline{2014}$ | $\underline{2019}$ |  |  |
| CARTER (6th Graders) | Chilhowee (3-5 school) | 118 | 80 | 76 |  |
| CARTER (6th Graders) | Carter ES (K-5 school) | 92 | 80 | 76 | 6th only |
|  |  | 210 | 160 | 152 | 6th only |
|  |  | $\underline{2014}$ | $\underline{2019}$ | $\underline{2024}$ |  |
| CARTER (7-8 Graders) | Carter HS (9-12) | 370 | 331 | 294 | 7-8 only |
| CARTER (7-8 Graders)(with Chil | Austin Magnet School | 32 | 32 | 22 | 7-8 only |
|  |  | 402 | 363 | 316 | 7-8 only |
|  | CARTER (ALL 6-8) | $\underline{2014}$ | $\underline{2019}$ | $\underline{2024}$ |  |
|  | vee \& Carter ES as feeders) | 612 | 523 | 468 | 6-8 ALL |

## Middle School Plan B1

(Using Fall 2014 Projections and Trying to Balance Residence Counts by Capacity Figures)
Option with Current MS Sites NO NEW SCHOOLS

MS Plan B1 (Balancing to Capacity Figures/NO NEW SCHOOLS)
(Resident Counts Only)

| Middle School | Practical MS CAPACITIES |  |  | Projected 2019 Residents |  |  | Projected 2024 Residents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current (2014) |  | Proj. Count | Change from 2014 | +/- Cap. | Proj. Count | Change from 2014 | +/- Cap. |
|  |  | Counts | +/- Cap. |  |  |  |  |  |  |
| BEARDEN MS | 1,200 | 1,025 | -175 | 1,203 | 178 | 3 | 1,198 | 173 | -2 |
| CARTER MS | 650 | 775 | 125 | 660 | -115 | 10 | 601 | -174 | -49 |
| CEDAR BLUFF MS | 550 | 612 | 62 | 555 | -57 | 5 | 554 | -58 | 4 |
| FARRAGUT MS | 1,200 | 1,347 | 147 | 1,286 | -61 | 86 | 1,309 | -38 | 109 |
| GRESHAM MS | 800 | 797 | -3 | 831 | 34 | 31 | 806 | 9 | 6 |
| HALLS MS | 1,000 | 1,110 | 110 | 941 | -169 | -59 | 950 | -160 | -50 |
| HOLSTON MS | 1,000 | 1,000 | 0 | 1,007 | 7 | 7 | 860 | -140 | -140 |
| KARNS MS | 1,200 | 1,447 | 247 | 1,636 | 189 | 436 | 1,541 | 94 | 341 |
| NORTHWEST MS | 950 | 834 | -116 | 961 | 127 | 11 | 969 | 135 | 19 |
| POWELL MS | 1,000 | 1,039 | 39 | 1,006 | -33 | 6 | 1,008 | -31 | 8 |
| SOUTH DOYLE MS | 1,100 | 1,031 | -69 | 1,107 | 76 | 7 | 1,020 | -11 | -80 |
| VINE MS | 600 | 381 | -219 | 457 | 76 | -143 | 453 | 72 | -147 |
| WEST VALLEY MS | 1,250 | 1,228 | -22 | 1,255 | 27 | 5 | 1,346 | 118 | 96 |
| WHITTLE SPRINGS MS | 500 | 565 | 65 | 524 | -41 | 24 | 492 | -73 | -8 |
|  | 13,000 | 13,191 | 191 | 13,429 | 238 | 429 | 13,107 | -84 | 107 |
|  | Total MS Capacity |  |  |  | Compared to 2014 |  |  | Compared to 2014 |  |

Schools that have counts greater than 30 students over capacity

## Middle School Plan B2

(Using Fall 2014 Projections and Trying to Balance Residence Counts by Capacity Figures)
Option with a New Gibbs Area Middle School

MS Plan B2 (Balancing to Capacity Figures/New Gibbs Area MS Site)
(Resident Counts Only)

$=$ Schools that have counts greater than 30 students over capacity


MS Plan B3 (Balancing to Capacity Figures/New Hardin Valley Area MS Site)
(Resident Counts Only)

| Middle School | Practical MS CAPACITIES |  |  | Projected 2019 Residents |  |  | Projected 2024 Residents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Current (2014) |  | Proj. Count | Change from | +/-Cap. | Proj. Count | $\begin{gathered} \text { Change from } \\ 2014 \\ \hline \end{gathered}$ | +/-Cap. |
|  |  | Counts | +/- Cap. |  |  |  |  |  |  |
| BEARDEN MS | 1,200 | 1,025 | -175 | 1,203 | 178 | 3 | 1,198 | 173 | -2 |
| CARTER MS | 650 | 775 | 125 | 660 | -115 | 10 | 601 | -174 | -49 |
| CEDAR BLUFF MS | 550 | 612 | 62 | 555 | -57 | 5 | 554 | -58 | 4 |
| FARRAGUT MS | 1,200 | 1,222 | 22 | 1,164 | -58 | -36 | 1,193 | -29 | -7 |
| GRESHAM MS | 800 | 797 | -3 | 831 | 34 | 31 | 806 | 9 | 6 |
| HALLS MS | 1,000 | 1,110 | 110 | 941 | -169 | -59 | 950 | -160 | -50 |
| HARDIN VALLEY AREA MS (new) | 800 | 571 | -229 | 695 | 124 | -105 | 634 | 63 | -166 |
| HOLSTON MS | 1,000 | 1,000 | 0 | 1,007 | 7 | 7 | 860 | -140 | -140 |
| KARNS MS | 1,200 | 1,001 | -199 | 1,063 | 62 | -137 | 1,023 | 22 | -177 |
| NORTHWEST MS | 950 | 834 | -116 | 961 | 127 | 11 | 969 | 135 | 19 |
| POWELL MS | 1,000 | 1,039 | 39 | 1,006 | -33 | 6 | 1,008 | -31 | 8 |
| SOUTH DOYLE MS | 1,100 | 1,031 | -69 | 1,107 | 76 | 7 | 1,020 | -11 | -80 |
| VINE MS | 600 | 381 | -219 | 457 | 76 | -143 | 453 | 72 | -147 |
| WEST VALLEY MS | 1,250 | 1,228 | -22 | 1,255 | 27 | 5 | 1,346 | 118 | 96 |
| WHITTLE SPRINGS MS | 500 | 565 | 65 | 524 | -41 | 24 | 492 | -73 | -8 |
|  | 13,800 | 13,191 | -609 | 13,429 | 238 | -371 | 13,107 | -84 | -693 |
|  | Total MS Capacity |  |  |  | $\begin{array}{\|c\|} \hline \text { Compared to } \\ 2014 \\ \hline \end{array}$ |  |  | Compared to 2014 |  |


$=$ Schools that have counts greater than 30 students over capacity

## Middle School Plan B4

(Using Fall 2014 Projections and Trying to Balance Residence Counts by Capacity Figures)

Option with NO NEW MIDDLE SCHOOLSITES, but Repurpose Carter Middle School

NOTE: Map is the same as MS Plan B1, but the Carter MS area's 6th graders would go to the respective elementary schools and the 7-8 graders


MS Plan B4 (Balancing to Capacity Figures/Repurpose Carter MS)
(Resident Counts Only)

$=$ Schools that have counts greater than 30 students over capacity

## APPENDIX B:

BRAILSFORD \& DUNLAVEY: KNOX COUNTY SCHOOLS EDUCATIONAL SPACE ADEQUACY APPRAISAL

Knox County Schools - Educational Space Adequacy Appraisal

| Name of School | Enrollment | Year Built | Add/Ren | TL SF | Acres | \# TS | Load | Capacity | 75\% | Delta | 85\% | Delta | Projected 2015 | 2019 | 2024 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vine Middle School | 336 | 1951 | 1965, '75, '88, '97 | 112,000 | 9.1 | 21 | 28 | 600 | 441 | (105) | 499.8 | (164) | 267 | 342.6 | 340.5 |
| Bearden Middle School | 1178 | 1978 | 1993 | 163,647 | 30.3 | 47 | 28 | 1200 | 987 | 191 | 1118.6 | 59 | 1175 | 1416.2 | 1389 |
| Holston Middle School | 907 | 1956 | 1971, 2005 | 195,000 | 21.7 | 42 | 28 | 1000 | 882 | 25 | 999.6 | (93) | 897 | 923 | 785 |
| Whittle Middle School | 536 | 1959 | 1999, 2003 | 73,550 | 13.29 | 27 | 28 | 500 | 567 | (31) | 642.6 | (107) | 559 | 516.2 | 477.7 |
| Gresham Middle School | 811 | 1931 | 1938, '53, '74 | 112,967 | 23 | 34 | 28 | 800 | 714 | 97 | 809.2 | 2 | 799 | 831.5 | 806.5 |
| West Valley Middle School | 1224 | 1999 | none | 187,920 | 66+ | 46 | 28 | 1250 | 966 | 258 | 1094.8 | 129 | 1188 | 1164.3 | 1267 |
| Halls Middle School | 1119 | 1981 | none | 140,000 | 30.5 shared | 46 | 28 | 1000 | 966 | 153 | 1094.8 | 24 | 1110 | 941.3 | 949.8 |
| South Doyle Middle School | 1081 | 1974 | 1991 | 205,000 | 41 | 45 | 28 | 1100 | 945 | 136 | 1071 | 10 | 1147 | 1231.8 | 1148.6 |
| Farragut Middle School | 1383 | 1984 | 1991 | 165,000 | 20 | 54 | 28 | 1200 | 1134 | 249 | 1285.2 | 98 | 1347 | 1285.7 | 1309 |
| Cedar Bluff Middle School | 617 | 1964 | 2000 | 82,400 | 26.6 shared | 28 | 28 | 550 | 588 | 29 | 666.4 | (49) | 612 | 555.4 | 554.4 |
| Carter Middle School | 850 | 1948 | 1954, '56, '83 | 95,000 | 16 | 38 | 28 | 650 | 798 | 52 | 904.4 | (54) | 897 | 774.9 | 699.5 |
| Northwest Middle School | 829 | 1966 | 1994 | 150,000 | 42.5 | 48 | 28 | 950 | 1008 | (179) | 1142.4 | (313) | 957 | 1098.9 | 1113.8 |
| Karns Middle School | 1334 | 1974 | 1999, 2003 | 195,000 | 24 | 63 | 28 | 1200 | 1323 | 11 | 1499.4 | (165) | 1322 | 1531.1 | 1434.7 |
| Powell Middle School | 939 | 1974 | 2006, 2008 | 151,898 | 41 | 43 | 28 | 1000 | 903 | 36 | 1023.4 | (84) | 914 | 835.2 | 831.3 |
| Total Middle School Students | 13144 |  |  |  |  | 582 |  | 13000 | 12222 | 922 | 13851.6 | -707.6 | 13191 | 13448 | 13107 |
| Total Transfer Percentage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Knox County Schools - Educational Space Adequacy Appraisal

| Knox County Schools |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Middle School Comprehensive Plan |  |  |  |  |  |  |  |
| Facility Needs and Space Conditions |  |  |  |  |  |  |  |
|  | Facility Construction |  | Educational Space Adequacy |  |  |  |  |
| Middle School | Year Built | Add'n / Renovation | Academic | Special Learning | Support | School Config. | Avg. Adequacy |
| West Valley MS | 1999 | N/A | 86\% | 89\% | 84\% | 92\% | 88\% |
| Powell MS | 1974 | 2006, 2008 | 92\% | 86\% | 78\% | 85\% | 85\% |
| Karns MS | 1974 | 1999, 2003 | 94\% | 88\% | 78\% | 78\% | 85\% |
| Halls MS | 1981 | N/A | 84\% | 85\% | 80\% | 81\% | 83\% |
| Gresham MS | 1931 | 1938, '53, '74 | 86\% | 77\% | 82\% | 85\% | 83\% |
| South Doyle MS | 1974 | 1991 | 80\% | 81\% | 78\% | 87\% | 82\% |
| Holston MS | 1956 | 1971, 2005 | 83\% | 80\% | 82\% | 80\% | 81\% |
| Northwest MS | 1966 | 1994 | 70\% | 77\% | 80\% | 86\% | 78\% |
| Farragut MS | 1984 | 1991 | 79\% | 74\% | 78\% | 79\% | 78\% |
| Whittle MS | 1959 | 1999, 2003 | 80\% | 75\% | 84\% | 71\% | 78\% |
| Bearden MS | 1978 | 1993 | 78\% | 75\% | 78\% | 73\% | 76\% |
| Carter MS | 1948 | 1954, '56, '83 | 74\% | 72\% | 74\% | 62\% | 71\% |
| Vine MS | 1951 | 1965, '75, '88, '97 | 65\% | 64\% | 66\% | 62\% | 64\% |
| Cedar Bluff MS | 1964 | 2000 | 63\% | 65\% | 52\% | 66\% | 62\% |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  | 50-59\% | Poor to Low Border |  |
|  |  |  |  |  | 60-69\% | Borderline |  |
|  |  |  |  |  | 70-79\% | Low to Satisfactory |  |
|  |  |  |  |  | 80-89\% | Mid to High Satisfac |  |
|  |  |  |  |  | 90-99\% | Excellent |  |

## Knox County Schools - Educational Space Adequacy Appraisal

|  | Enrollment Projections |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name of School | Current Enroll | 2014 Residents | 2019 | 2024 | 10 Yr . |  |
| Bearden Middle School | 1178 | 1175 | 1416.2 | 1389 | 214.0 | 0.182128 |
| Carter Middle School | 850 | 897 | 774.9 | 699.5 | (197.0) | -0.22018 |
| Cedar Bluff Middle School | 617 | 612 | 555.4 | 554.4 | (58.0) | -0.09412 |
| Farragut Middle School * | 1383 | 1347 | 1285.7 | 1309 | (38.0) | -0.02821 |
| Gresham Middle School | 811 | 799 | 831.5 | 806.5 | 8.0 | 0.009387 |
| Halls Middle School | 1119 | 1110 | 941.3 | 949.8 | 160.0 | -0.14432 |
| Holston Middle School | 907 | 897 | 923 | 785 | 112.0 | -0.12486 |
| Karns Middle School | 1334 | 1322 | 1531.1 | 1434.7 | 113.0 | 0.08525 |
| Northwest Middle School | 829 | 957 | 1098.9 | 1113.8 | 157.0 | 0.163845 |
| Powell Middle School | 939 | 914 | 835.2 | 831.3 | (83.0) | -0.09048 |
| South Doyle Middle School | 1081 | 1147 | 1231.8 | 1148.6 | 2.0 | 0.001395 |
| Vine Middle School | 336 | 267 | 342.6 | 340.5 | 74.0 | 0.275281 |
| West Valley Middle School * | 1224 | 1188 | 1164.3 | 1267 | 79.0 | 0.066498 |
| Whittle Middle School | 536 | 559 | 516.2 | 477.7 | (81.0) | -0.14544 |
| Total Middle School Students | 13144 | 13191 | 13448 | 13107 | 462.0 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

## Knox County Schools - Educational Space Adequacy Appraisal

| Name of School | Current Enroll | Residents | Year Built | Add/Ren | TL SF | Acres | \# TS | Avg Load | Bldg Cap | 75\% | Delta | 85\% | Delta | Projected 2014 | 2019 | 2024 | 10 Yr . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bearden Middle School | 1178 | 1175 | 1978 | 1993 | 163,647 | 30.3 | 47 | 28 | 1200 | 987 | 191 | 1118.6 | 59 | 1175 | 1416.2 | 1389 | 214.0 |
| Carter Middle School | 850 | 897 | 1948 | 1954, '56, '83 | 95,000 | 16 | 38 | 28 | 650 | 798 | 52 | 904.4 | (54) | 897 | 774.9 | 699.5 | (197.0) |
| Cedar Bluff Middle School | 617 | 612 | 1964 | 2000 | 82,400 | 26.6 shared | 28 | 28 | 550 | 588 | 29 | 666.4 | (49) | 612 | 555.4 | 554.4 | (58.0) |
| Farragut Middle School | 1383 | 1347 | 1984 | 1991 | 165,000 | 20 | 54 | 28 | 1200 | 1134 | 249 | 1285.2 | 98 | 1347 | 1285.7 | 1309 | (38.0) |
| Gresham Middle School | 811 | 799 | 1931 | 1938, '53, '74 | 112,967 | 23 | 34 | 28 | 800 | 714 | 97 | 809.2 | 2 | 799 | 831.5 | 806.5 | 8.0 |
| Halls Middle School | 1119 | 1110 | 1981 | none | 140,000 | 30.5 shared | 46 | 28 | 1000 | 966 | 153 | 1094.8 | 24 | 1110 | 941.3 | 949.8 | 160.0 |
| Holston Middle School | 907 | 897 | 1956 | 1971, 2005 | 195,000 | 21.7 | 42 | 28 | 1000 | 882 | 25 | 999.6 | (93) | 897 | 923 | 785 | 112.0 |
| Karns Middle School | 1334 | 1322 | 1974 | 1999, 2003 | 195,000 | 24 | 63 | 28 | 1200 | 1323 | 11 | 1499.4 | (165) | 1322 | 1531.1 | 1434.7 | 113.0 |
| Northwest Middle School | 829 | 957 | 1966 | 1994 | 150,000 | 42.5 | 48 | 28 | 950 | 1008 | (179) | 1142.4 | (313) | 957 | 1098.9 | 1113.8 | 157.0 |
| Powell Middle School | 939 | 914 | 1974 | 2006, 2008 | 151,898 | 41 | 43 | 28 | 1000 | 903 | 36 | 1023.4 | (84) | 914 | 835.2 | 831.3 | (83.0) |
| South Doyle Middle School | 1081 | 1147 | 1974 | 1991 | 205,000 | 41 | 45 | 28 | 1200 | 945 | 136 | 1071 | 10 | 1147 | 1231.8 | 1148.6 | 2.0 |
| Vine Middle School | 336 | 267 | 1951 | 1965, '75, '88, '97 | 112,000 | 9.1 | 21 | 28 | 600 | 441 | (105) | 499.8 | (164) | 267 | 342.6 | 340.5 | 74.0 |
| West Valley Middle School | 1224 | 1188 | 1999 | none | 187,920 | 66+ | 46 | 28 | 1250 | 966 | 258 | 1094.8 | 129 | 1188 | 1164.3 | 1267 | 79.0 |
| Whittle Middle School | 536 | 559 | 1959 | 1999, 2003 | 73,550 | 13.29 | 27 | 28 | 500 | 567 | (31) | 642.6 | (107) | 559 | 516.2 | 477.7 | (81.0) |
| Total Middle School Students | 13144 | 13191 |  |  |  |  | 582 |  |  | 12222 | 922 | 13851.6 | -707.6 | 13191 | 13448 | 13107 | 462.0 |
| Total Transfer Percentage |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 18\% |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
















|  | A | в | c | D | E | F | 6 | H | I | J | k | L | M | N | $\bigcirc$ | P | Q | R | s | T | U | $\checkmark$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bus | School | total montly | daily cost per bus | pot_of_cost | daily _uv_ bus | capacty | eligible midale enders | actual midide $\leq$ school Irider | pet_ actual us eligible | shares bus with | shared $\_$students | total actual İiders | pot_ of capacity | cost_per eligible middle | cost_per_middle actual_rider | AM_mies | am_time | pm_miles | pm_time | total_middle school_mile | middle_bus per_mile |
|  |  | 36 Bearde Middle | \$4,238.00 | ${ }_{\text {Saly }}^{\text {S239.44 }}$ | ${ }_{0} 0.5$ | ${ }_{\text {Sla }}$ | ${ }_{90}$ | ${ }^{86}$ | ${ }_{55}$ |  |  |  | ${ }_{5}$ | ${ }_{\text {den }}$ |  | ${ }_{5} 52.18$ | AM.4.87 | 56 | ${ }_{\text {pmames }} 15.88$ | ${ }_{5}$ | 30.75 | ${ }_{\text {P }}^{5}$ |
| 3 |  | 39 Bearden Middle | ¢3,559.00 | \$201.07 | 0.4 | \$80.43 | 66 | 44 | 14 | 32\% | West High | 29 | 43 | 65\% | \$1.83 | 55.74 | 20.1 | ${ }^{61}$ | 22.78 |  | 42.88 | \$1.88 |
| 4 | 46 | 46 Bearden Middle | \$4,116.00 | \$232.54 | 0.5 | \$116.27 | 84 | 81 | 63 | 78\% |  |  | 63 | 75\% | \$1.44 | \$1.85 | 10.5 | 31 | 8.31 | 40 | 18.81 | 56.18 |
| 5 |  | 49 Bearden Middle | \$3,515.00 | \$198.59 | 0.5 | 599.29 | 66 | 65 | 47 | 72\% |  |  | 47 | 71\% | \$1.53 | \$2.11 | 13.21 | 48 | 13.05 | 51 | 26.26 | 53.78 |
|  |  | 68 Bearden Middle | \$4,132.00 | \$223.45 | 0.4 | 593.38 | 84 | 77 | 56 | 73\% | Westhigh | 51 | 107 | 127\% | \$1.21 | \$1.67 | 5.6 | 20 | 7.14 |  | 12.74 | \$7.33 |
| 7 | 129 | 129 Bearden Middle | \$4,001.00 | \$226.05 | 0.6 | \$135.63 | 66 | 83 | 50 | 60\% |  |  | 50 | 76\% | \$1.63 | 52.71 | 9.6 | 27 | 13.95 | 55 | 23.55 | 55.76 |
| 8 | 182 | 182 Bearden Middle | \$3,978.00 | ${ }_{\text {\$224,75 }}$ | 0.5 | \$112.37 | 66 | 61 | 51 | 84\% |  |  | 51 | 77\% | \$1.84 | 52.20 | 12.2 | 29 | 10.53 | 26 | 22.73 | \$4.94 |
|  | 917 | 17 Bearden Middle | \$4,133.00 | \$233.50 | 0.8 | \$186.80 | 84 |  |  | 100\% |  |  | 78 | 93\% | 52.39 | 52.39 | 15.7 | 51 | 16.2 | 49 | 31.9 | 55.86 |
| 10 | 931 | 31 Bearden Middle | \$3,780.00 | \$213.56 | 0.4 | 585.42 | 66 | 82 | 46 | 56\% |  |  | 46 | 70\% | \$1.04 | \$1.86 | 10.6 | 33 | 8.92 | 36 | 19.52 | 54.38 |
| 11 | 912 | ${ }^{29}$ Bearden Middle | S3,537.00 | \$199.83 | 0.6 | S119.90 | 66 | 101 | 66 | 65\% |  |  | 66 | 100\% | 51.19 | 51.82 | 16.4 | 36 | 6.91 |  | 23.31 | 55.14 |
|  | 921 | 15 Bearden Middle | \$4,118.00 | \$232.66 | 0.35 | 581.43 | 84 | 82 | 52 | 63\% |  |  | 52 | 62\% | 50.99 | \$1.57 | 15.3 | 52 | 10.52 | 43 | 25.82 | 53.15 |
| 13 |  | 44 Carter Mididle | \$3,890.00 | ${ }^{5219.77}$ | 0.25 | \$54.94 | 66 | 27 | 22 | 81\% | Carter ligh | 8 | 30 | 45\% | \$2.03 | \$2.50 | 18.6 | 52 | 13.79 | 56 | 32.39 | \$1.70 |
| 14 |  | 57 Carter Middle | \$3,980.00 | ${ }^{\$ 224.86}$ | 0.25 | \$56.21 | 66 | 20 | 17 | 85\% | Carter H igh | 11 | 28 | 42\% | \$2.81 | \$3.31 | 15.1 | 36 | 14.2 | 40 | 29.3 | \$1.92 |
|  |  | 59 Carter Middle | \$3,870.00 | ${ }^{5218.64}$ | 0.25 | \$54.66 | 66 | 17 | 12 | 71\% | Carter High | 12 | 24 | 36\% | 53.22 | 54.56 | 13.9 | 32 | 15.15 |  | 29.05 | 51.88 |
| 16 | 61 | 61 Carter Midade | \$3,823.00 | \$215.99 | 0.25 | \$54.00 | 66 | ${ }^{21}$ | 19 | 90\% | Carter High | 14 | 33 | 50\% | 52.57 | \$2.84 | 12.8 | 48 | 14.37 | 44 | 27.17 | \$1.99 |
| 17 |  | 62 Carter Middle | \$3,517.00 | \$198.70 | 0.5 | 599.35 | 66 | 79 | 48 | 61\% | Carter ligh | 33 | 81 | 123\% | \$1.26 | \$2.07 | 21.2 | 80 | 22.09 |  | 43.29 | 52.29 |
| 18 |  | ${ }^{65}$ Carter Middle | \$3,491.00 | \$197.23 | 0.3 | \$59.17 | 66 | 33 | 28 | 85\% | Carter H ligh | 26 | 54 | 82\% | 51.79 | \$2.11 | 16.4 | 54 | 27.55 | 74 | 43.95 | 51.35 |
| 19 |  | 73 Carter Middle | \$4,450.00 | \$251.41 | 0.3 | \$75.42 | 66 | 41 | 28 | 68\% | Carter High | 33 | 61 | 92\% | \$1.84 | \$2.69 | 24.3 | 59 | 24.07 | 87 | 48.37 | \$1.56 |
| 20 |  | 79 Carter Mididle | \$3,492.00 | \$197.29 | 0.3 | \$59.19 | 66 | 47 | 32 | 68\% | Carter High | 8 | 40 | 61\% | 51.26 | \$1.85 | 25.2 | 53 | 8.9 | 27 | 34.1 | \$1.74 |
| 21 |  | ${ }^{34}$ Carter Mididle | \$3,780.00 | \$213.56 | 0.25 | 553.39 | 66 | 29 | 24 | 83\% | Carter High | 20 | 44 | 67\% | \$1.84 | \$2.22 | 14.2 | 47 | 16.33 | 60 | 30.53 | \$1.75 |
|  |  | ${ }^{\text {95 } 5 \text { carter Midale }}$ | \$3,529.00 | \$199.38 | 0.3 | 559.81 | 66 | 47 | 33 | 70\% | Carter High | 18 | 51 | 77\% | 51.27 | \$1.81 | 10.4 | 39 | 8.38 | 31 | 18.78 | 53.18 |
| 23 |  | 10 Carter Middle | \$4,102.00 | ${ }_{\text {¢231.75 }}$ | 0.5 | \$115.88 | 84 | 39 | 37 | 95\% |  |  | 37 | 44\% | \$2.97 | 53.13 | 14.3 | 36 | 13.17 | 45 | 27.47 | \$4.22 |
| 24 | 120 | 120 Carter Middle | \$3,912.00 | \$221.02 | 0.5 | \$110.51 | ${ }^{66}$ | 40 | 40 | 100\% |  |  | 40 | 61\% | \$2.76 | \$2.76 | 13.2 | 30 | 12.6 | 42 | 25.8 | 54.28 |
| 25 | 132 | 132 Carter Middle | \$3,477.00 | \$196.44 | 0.35 | \$68.75 | 66 | 35 | 24 | 69\% | Carter H ligh | 20 | 44 | 67\% | \$1.96 | \$2.86 | 13.6 | 49 | 12.13 | 55 | 25.73 | \$2.67 |
| 26 | 161 | ${ }_{11}$ Carter Middle | \$9,531.00 | \$199.49 | 0.3 | \$59.85 | 66 | 24 | 21 | 88\% | Carter tigh | 20 | 41 | 62\% | \$2.49 | \$2.85 | 11.2 | 41 | 13.44 | 34 | 24.64 | \$2.43 |
| 27 | 162 | 162 Carter Midalle | \$4,003.00 | ${ }_{\text {\$226.16 }}$ | 0.3 | 567.85 | 66 | 22 | 16 | 73\% | Carter High | 12 | 28 | 42\% | 53.08 | \$4.24 | 13.7 | 33 | 13.59 | 47 | 27.29 | \$2.49 |
| 28 | 163 | ${ }^{63}$ Carter Middle | \$3,437.00 | \$194.18 | 0.35 | 567.96 | 66 | 37 | 32 | 86\% | Carter ligh | 24 | 56 | 85\% | \$1.84 | \$2.12 | 12.7 | 36 | 11.92 | 34 | 24.62 | 52.76 |
| 29 | 173 | ${ }^{173}$ Carter Middle | \$4,523.00 | \$255.54 | 0.3 | \$76.66 | 84 | 26 | 22 | 85\% | Carter tigh | 32 | 54 | 64\% | \$2.95 | 53.48 | 15.5 | 54 | 17.45 | 66 | 32.95 | \$2.33 |
| 30 | 212 | 12 Carter Midalle | \$3,890.10 | \$219,78 | 0.25 | \$54.94 | ${ }^{66}$ | 35 | 22 | 63\% | Carter High | 9 | 31 | 47\% | \$1.57 | \$2.50 | 11.3 | 40 | 13.64 | 51 | 24.94 | \$2.20 |
| 31 |  | 75 Carter Midalle | \$3,510.00 | \$198.31 | 0.35 | 569.41 | 66 | ${ }^{23}$ | 21 | 91\% | Carter High | 8 | 29 | 44\% | 53.02 | 53.31 | 12.2 | 38 | 12.38 | 42 | 24.58 | 52.82 |
| 32 | 945 | 25 Carter Midade | \$3,625.00 | \$204.80 | 0.25 | 551.20 | 66 | 19 | 17 | 89\% | Carter High | 18 | 35 | 53\% | 52.69 | 53.01 | 7.7 | 36 | 10.31 | 55 | 18.01 | \$2.84 |
| 33 | 9173 | 173 Carter Middle | \$3,475.00 | \$199.33 | 0.5 | 598.16 | 66 | 37 | 19 | 51\% | Carter High | 16 | 35 | 53\% | 52.65 | 55.17 | 10.7 | 30 | 10.7 | 31 | 21.4 | 54.59 |
| 34 | 9189 | 89 Carter Middle | \$3,733.00 | \$211.07 | 0.4 | 584.43 | 66 | 51 | 35 | 69\% | Carter High | 13 | 48 | 73\% | \$1.66 | \$2.41 | 25.8 | 78 | 25.41 | 78 | 51.21 | \$1.65 |
| 35 |  | 82 Cedar Bluf Midade | \$4,084.00 | \$230.73 | 0.5 | S115.37 | 84 | 93 | 85 | 91\% |  |  | 85 | 101\% | 51.24 | \$1.36 | 6.3 | 25 | 7.15 | 31 | 13.45 | 58.58 |
| 36 |  | ${ }^{\text {97 }}$ Cedar Bluf M Middle | \$4,108.00 | \$232.09 | 0.5 | \$116.05 | ${ }^{84}$ | 86 | 55 | 64\% |  |  | 55 | 65\% | \$1.35 | \$2.11 | 12.7 | 39 | 11.84 | 47 | 24.54 | 54.73 |
|  | 202 | ${ }^{02}$ Cedar Buff Midale | \$4,103.00 | \$231.81 | 0.6 | \$139.08 | 84 | 112 | 77 | 69\% |  |  | 77 | 92\% | \$1.24 | \$1.81 | 7.3 | 27 | 10.58 |  | 17.88 | 57.78 |
| 38 | 725 | ${ }^{25} 5$ Cedar Buff Middle | \$3,603.00 | ${ }_{\text {\$203.56 }}$ | 0.4 | 581.42 | ${ }^{66}$ | 85 | 61 | ${ }^{72 \%}$ |  |  | 61 | 92\% | 50.96 | 51.33 | 9.8 | 31 | 8.46 | 35 | 18.26 | 54.46 |
| 39 |  | 29 Farragut Midale | \$4,236.00 | \$239.32 | 0.25 | \$59.83 | 90 | 44 | 39 | 89\% | Farragut ligh | 22 | 61 | 68\% | \$1.36 | \$1.53 | 7.9 | 32 | 7.39 | 34 | 15.29 | 53.91 |
| 40 | 33 | 33 Farragut Midale | ¢4,254.00 | $\$_{\$ 240.34}$ | 0.25 | \$60.08 | 90 | 62 | 33 | 53\% | Faragut tigh | 26 | 59 | 66\% | 50.97 | \$1.82 | 8.2 | 36 | 8.98 | 33 | 17.18 | 53.50 |
| 41 |  | 35 Faragut Middle | \$4,235.00 | ${ }_{5} 829.27$ | 0.25 | S59.82 | 90 | 52 | 45 | 87\% | Faragut tigh | 21 | 66 | 73\% | S1.15 | \$1.33 | 6.9 | ${ }^{28}$ | 7.11 | 35 | 14.01 | 54.27 |
| 42 | 205 | 25.5 Faragut Middle | \$4,620.00 | \$261.02 | 0.5 | ${ }^{5130.51}$ | 84 | 67 | 56 | 84\% |  |  | 56 | 67\% | \$1.95 | 52.33 | 10.1 | 35 | 10.83 | 31 | 20.93 | 56.24 |
| 43 | 209 | 299aragut Middle | \$4,110.00 | \$232.20 | 0.25 | \$58.05 | ${ }^{84}$ | 101 | 47 | 47\% | Faragut High | ${ }^{22}$ | ${ }^{69}$ | ${ }^{82 \%}$ | S0.57 | \$1.24 | 8.7 | ${ }^{33}$ | 9.12 | 48 | 17.82 | \$3.26 |
| 44 | 216 | 16 Farragut Middle | \$4,126.00 | \$233.11 | 0.25 | \$58.28 | 84 | 69 | 47 | 68\% | Faragut tigh | 29 | 76 | 90\% | 50.84 | 51.24 | 16.3 | 51 | 16.02 | 61 | 32.32 | 51.80 |
| 45 | 218 | 218 Farragut Midale | \$4,236.00 | ${ }_{\text {¢ }}^{52393}$ | 0.5 | ${ }_{5}^{5119.66}$ | ${ }_{90}^{90}$ | ${ }_{1}^{119}$ | 54 | 45\% | Faragut tigh | 32 | 86 | 96\% | S1.01 | \$2.22 | 18.6 | ${ }^{58}$ | 14.17 | 57 | 32.77 | \$3.65 |
| 46 <br> 47 <br> 4 |  | 290 Faragaut Midale | ¢4,251.00 <br> $4,251.00$ | ${ }_{\text {¢ }}^{\text {\$240.17 }}$ | 0.5 0.25 | $\frac{5120.08}{560.04}$ | 90 90 | $\frac{62}{53}$ | $\frac{46}{30}$ | 74\% | Faragut tigh | 26 | $\frac{46}{56}$ | $\frac{51 \%}{62 \%}$ | $\stackrel{\text { S1.94 }}{\text { ¢1.13 }}$ | S22.61 $\$ 2.00$ | 9.6 12.1 | 30 <br> 37 |  | ${ }_{4}^{35}$ | 19.75 21.96 | 56.08 <br> 2.73 |
| 48 | 221 | 211 Farragut Middle | \$4,127.00 | \$233.16 | 0.25 | 558.29 | 84 | 98 | 52 | 53\% | Faraguthigh | 22 | 74 | 88\% | 50.59 | ${ }_{\text {S12,12 }}$ | ${ }_{8} 8.8$ | 32 | 8.48 | 29 | 17.28 |  |
| 49 | 227 | 27 Farragut Middle | ¢4,242.00 | \$239.66 | 0.25 | \$59.92 | 90 | 66 | 38 | 58\% | Farrauuthigh | 28 | 66 | 73\% | 50.91 | \$1.58 | 9.7 | 40 | 9.37 | 41 | 19.07 | \$3.14 |
| 50 | 231 | 231 Farragut Middle | \$4,132.00 | \$233.45 | 0.3 | \$70.03 | 84 | 31 | 30 | 97\% | Farraut tigh | 24 | 54 | 64\% | \$2.26 | \$2.33 | 10.7 | 36 | 10.06 | 46 | 20.76 | 53.37 |
| 51 | 243 | 23.5 arragut Midale | \$4,116.00 | \$232.54 | 0.25 | \$58.14 | ${ }^{84}$ | 66 | 45 | 68\% | Faragut tigh | 7 | 52 | 62\% | 50.88 | \$1.29 | 10.8 | 34 | 9.17 | 36 | 19.97 | \$2.91 |
| 52 | 24 | 277 Farraut Midale | \$4,110.00 | \$232.20 | 0.25 | \$58.05 | 84 | 55 | 54 | 98\% | Faragut tigh | 7 | 61 | 73\% | \$1.06 | \$1.08 | 11.8 | 36 | 11.95 | 36 | 23.75 | \$2.44 |
| 53 | 249 | 29 Farragut Midale | \$4,256.00 | \$240.45 | 0.25 | \$60.11 | 90 | 53 | 28 | 53\% | Faragut tigh | 8 | 36 | 40\% | 51.13 | \$2.15 | 7.6 | 27 | 8.74 | 39 | 16.34 | 53.68 |
| 54 | 261 | 612 Farragut Middle | \$4,109.00 | \$232.15 | 0.25 | \$58.04 | 84 | 75 | 44 | 59\% | Farrauthigh | 19 | 63 | 75\% | 50.77 | \$1.32 | 7.4 | 31 | 8.26 | 32 | 15.66 | \$3.71 |
| 55 | 288 | 88 Farragut Middle | \$4,221.00 | 5238.47 | 0.5 | \$119.24 | 90 | ${ }_{130}$ | 65 | 50\% | Faraguthiligh | 34 | 99 | 110\% | 50.92 | 51.83 | 13.6 | 61 | ${ }^{15.34}$ | 64 | 28.94 | 54.12 |
| 56 |  | 35 Farraut Midale | \$4,238.00 | \$239.44 | 0.25 | \$59.86 | 90 | 64 | 40 | 63\% | Farraut tigh | 28 | 68 | 76\% | 50.94 | \$1.50 | 8.3 | 29 | 7.85 | 33 | 16.15 | \$3.71 |
| 57 |  | 19 Gresham | \$3,533.00 | \$199.60 | 0.35 | 59.86 | 66 | 90 | 48 | 53\% |  |  | 48 | 73\% | 50.78 | \$1.46 | 9.6 | 38 | 11.27 | 40 | 20.87 | 53.35 |
| 58 |  | 48 Gresham | S4,236.00 | ${ }_{\text {S2393.32 }}$ | 0.6 | S143.59 | ${ }_{90}$ | 89 | 76 | 85\% |  |  | 76 | 84\% | S1.61 | S1.89 | ${ }^{11.6}$ | ${ }_{4}^{45}$ |  | 45 |  | ${ }_{55}^{5565}$ |
| 59 |  | ${ }^{11} 10$ Gresham | s3,527.00 <br> $8,508.00$ | ${ }_{\text {\$199.27 }}^{\text {\$198.19 }}$ | 0.5 0.5 | 599.63 <br> 99.10 | ${ }_{66}^{66}$ | ${ }_{94}^{94}$ | 50 57 | 53\% |  |  | 50 57 | 76\% | $\stackrel{\text { S }}{\substack{\text { S.06 } \\ \text { S101 }}}$ | S1.99 S1.74 | 9.9 10.8 | ${ }_{31}^{38}$ | 8.34 12.19 | $\stackrel{42}{54}$ | 18.24 22.99 | ${ }_{5}^{55.46}$ |
| ${ }_{61}^{60}$ | 206 | 206 Gresham | ¢3,.08.00 $\$ 3,512.00$ | \$198.42 | 0.5 0.5 | S99.10 <br> 99.21 | ${ }_{66}^{66}$ | ${ }_{86} 8$ | 57 50 | 58\% |  |  | 50 | 76\% | ${ }_{\text {S1.01 }}$ | $\stackrel{\text { S1.74 }}{51.98}$ | 10.9 | 38 <br> 34 | 12.59 | 51 | ${ }_{221.99}$ |  |
| 62 | 246 | 246 Gresham | \$3,559.00 | \$201.07 | 0.3 | \$60.32 | ${ }_{6}$ | 61 | 60 | 98\% |  |  | 60 | 91\% | \$0.99 | \$1.01 | 8.9 3.9 | 14 14 | ${ }_{5}^{12.25}$ | 19 | ${ }_{9}^{21.45}$ | 54.62 56.59 |
| 63 |  | 11 Halls Middle | \$4,266.00 | ${ }_{\text {\$241.02 }}$ | 0.3 | \$72.31 | 66 | 33 | 20 | 61\% | Halls High | 22 | 42 | 64\% | \$2.19 | 53.62 | 25.8 | 70 | 21.45 | 66 | 47.25 | \$1.53 |
| 64 |  | ${ }^{12}$ Halls Middle | \$3,508.00 | \$198.19 | 0.3 | \$59.46 | 66 | 36 | 32 | 89\% | Halls figh | 10 | 42 | 64\% | \$1.65 | \$1.86 | 12.3 | 42 | 14.15 | 44 | 26.45 | \$2.25 |
| 65 |  | ${ }^{88}$ Halls Middle | \$3,520.00 | \$199.87 | 0.3 | \$59.66 | ${ }^{66}$ | ${ }_{6}^{69}$ | 34 | 49\% | Halls ligh | 20 | ${ }_{54}$ | 82\% | 50.86 | ${ }_{51.75}^{523}$ | 12.7 | ${ }^{52}$ | ${ }^{13.15}$ | 46 | 25.85 | \$2.31 |
| ${ }_{6}^{66}$ |  | 92 Halls Middle | \$3,491.00 | \$197.23 | 0.3 | 559.17 | 66 | 56 | 25 | 45\% | Halls High | 12 | 37 | 56\% | 51.06 | \$2.37 | 9 | ${ }^{33}$ | 11.61 | 44 | 20.61 | $\stackrel{52.87}{5247}$ |
| 年67 |  | ${ }^{125}$ Halls Midald | ¢3,525.00 <br> $8,252.00$ | ${ }_{\$ 1999.15}^{\$ 240.23}$ | 0.35 <br> 0.3 <br> 0 | 569.70 <br> 572.07 | 66 90 | ${ }_{93}^{69}$ | 39 50 | $\frac{62 \%}{51 \%}$ | $\underset{\text { Halls }}{\text { Hiligh }}$ | $\stackrel{16}{15}$ | $\begin{array}{r}55 \\ 65 \\ \hline\end{array}$ | 83\% | S1.11 50.73 | \$1.79 <br> 1.14 <br> 1.4 | 13.4 8.9 | 53 <br> 34 | 14.8 11.41 | ${ }_{45}^{57}$ | ${ }_{20.31}^{28.2}$ | ¢2.47 <br> 8.55 <br> 8. |
| 69 |  | 184Halls Middle | ${ }_{\text {coser }}$ | ${ }_{\text {¢ } 2233.33}$ | 0.4 | $\stackrel{593.33}{ }$ | 84 | 123 | 48 | 39\% | Halls High | 14 | 62 | 74\% | ${ }_{5}^{50.76}$ | \$1.94 | ${ }_{15}^{15.8}$ | ${ }_{5}^{54}$ | 1.4 .08 | ${ }_{6} 6$ | 31.88 | ¢ |
| 70 |  | 004Halls Middle | \$3,517.00 | \$198.70 | 0.3 | \$59.61 | 66 | 65 | 62 | 95\% | Halls tigh | 38 | 100 | 152\% | 50.92 | 50.96 | ${ }_{8.2}$ | 30 | 3.29 | 15 | 11.49 | \$5.19 |


|  | A | B | c | D | E | F | 6 | H | I | J | K | L | M | N | 0 | P | Q | R | 5 | T | U | v |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bus | School | total monthy | daily cost per bus | pot of cost | daily avg bus | capacity | eligible midole riders | actual midale school rider | pot actual vs eligible | shares bus with | shared students | total actual riders | pet of capacity | cost per eligible midale fider | cost_per_middle actual rider | AM miles | am time | pm miles | pm time | total_middle | middle_bus per_mile |
|  |  | 10 Halls Middle | \$3,437.00 | \$194.18 | 0.3 | \$58.25 | 66 | 32 | 28 | 88\% | Halls High | 20 | 48 | 73\% | \$1.82 | \$2.08 | 20.4 | 61 | 16.9 | 40 | 37.3 | \$1.56 |
| 72 |  | 330 Halls Middle | \$3,437.00 | \$194.18 | 0.3 | \$58.25 | 66 | 53 | 28 | 53\% | Halls ligh | 21 | 49 | 74\% | 51.10 | \$2.08 | 7.3 | 22 | 6.17 | 30 | 13.47 | \$4.32 |
| 73 |  | 245 Halls Middle | \$9,525.00 | \$199.15 | 0.3 | \$59.75 | ${ }^{66}$ | 56 | 32 | 57\% | Halls High | 18 | 50 | 76\% | \$1.07 | \$1.87 | 8.5 | 36 | 7.64 | 38 | 16.14 | 53.70 |
|  |  | 13 Halls Middle | \$3,511.00 | \$198.36 | 0.3 | \$59.51 | 66 | 35 | 25 | 71\% | Hall High | 25 | 50 | 76\% | 51.70 | \$2.38 | 25 | 51 | 11.37 | 46 | 36.37 | \$1.64 |
| 75 | 915 | 52 Halls Middle | \$4,375.00 | $\$^{\$ 247.18}$ | 0.25 | 561.79 | 66 | 99 | 31 | 31\% | Halls ligh | 21 | 52 | 79\% | 50.62 | 51.99 | 10 | 42 | 11.93 | 51 | 21.93 | \$2.82 |
| 76 |  | 34 Halls Middle | \$3,780.00 | ${ }^{\$ 213.56}$ | 0.3 | \$64.07 | 66 | ${ }^{23}$ | 14 | $61 \%$ | Halls High | 10 | 24 | 36\% | 52.79 | 54.58 | 19.9 | ${ }^{61}$ | 22.98 | 57 | 42.88 | \$1.49 |
|  |  | ${ }_{3} 3$ Holston | \$3,504.00 | \$1979.97 | 0.5 | 598.98 | 66 | 55 | 54 | 98\% |  |  | 54 | 82\% | \$1.80 | \$1.83 | 5.3 | 22 | 10.82 | 45 | 16.12 | 56.14 |
| 78 | 64 | 64 Holston | \$4,269.00 | \$224.19 | 0.8 | \$192.95 | 66 | 64 | 48 | 75\% |  |  | 48 | 73\% | 53.01 | 54.02 | 23 | 64 | 23.05 | 87 | 46.05 | \$4.19 |
| 79 |  | ${ }_{11}$ Holston | \$4,206.00 | ${ }_{5237.63}$ | 0.5 | 5118.81 | ${ }^{84}$ | 72 | 63 | 88\% |  |  | 63 | 75\% | \$1.65 | 51.89 | 21.1 | 71 | 15.8 | 58 | 36.9 | 53.22 |
|  |  | 77 Holston | \$3,735.00 | \$211.02 | 0.5 | \$100.51 | 66 | 52 | 41 | 79\% |  |  | 41 | 62\% | 52.03 | \$2.57 | 17.8 | 57 | 17.74 | 55 | 35.54 | \$2.97 |
| , | 93 | 93 Holston | \$3,531.00 | \$199.49 | 0.5 | 599.75 | ${ }^{66}$ | 49 | 37 | 76\% |  |  | 37 | 56\% | \$2.04 | \$2.70 | 16.2 | 45 | 25.41 | 76 | 41.61 | \$2.40 |
|  |  | 16 Holston | \$9,527.00 | \$199.27 | 0.75 | \$149.45 | ${ }^{66}$ | 44 | 31 | 70\% |  |  | 31 | 47\% | 53.40 | 54.82 | 24 | 67 | 28.65 | 87 | 52.65 | \$2.84 |
| 83 |  | ${ }^{24}$ Holston | \$4,108.00 | \$232.09 | 0.5 | \$116.05 | 84 | 51 | 51 | 100\% |  |  | 51 | 61\% | \$2.28 | \$2.28 | 10.1 | 30 | 9.3 | 39 | 19.4 | 55.98 |
| 84 | 14 | ${ }^{47}$ H Hoston | \$3,912.00 | \$221.02 | 0.6 | \$132.61 | 66 | 81 | 57 | 70\% |  |  | 57 | 86\% | \$1.64 | \$2.33 | 21.7 | 60 | 22.85 | 82 | 44.55 | \$2.98 |
| 85 |  | 180 Holston | \$9,534.00 | \$199.66 | 0.5 | 599.83 | 66 | 84 | 61 | 73\% |  |  | 61 | 92\% | 51.19 | \$1.64 | 14.1 | 42 | 14.6 | 57 | 28.7 | 53.48 |
|  |  | 94 Holston | \$4,130.00 | \$223,33 | 0.5 | \$116.67 | 84 | 82 | 67 | 82\% |  |  | 67 | 80\% | \$1.42 | \$1.74 | 12.3 | 43 | 12.1 | 52 | 24.4 | 54.78 |
| 87 | 585 | 85 Holston | ¢4,034.00 | \$227.91 | 0.5 | \$113.95 | 84 | 49 | 41 | 84\% |  |  | 41 | 49\% | 52.33 | 52.78 | 13.9 | 40 | 16.99 | 41 | 30.89 | 53.69 |
| 88 | 914 | 47 Holston | ¢3,519.00 | \$198.81 | 0.75 | \$149.11 | 66 | 50 | 50 | 100\% |  |  | 50 | 76\% | 52.98 | \$2.98 | 14 | ${ }^{47}$ | 16.76 | 59 | 30.76 | 54.85 |
|  |  | 17 Karns Midade | \$4,107.00 | \$232.03 | 0.3 | 569.61 | 84 | 54 | 39 | 72\% | Karns High | 30 | 69 | 82\% | \$1.29 | \$1.78 | 12.4 | 41 | 11.89 | 42 | 24.29 | \$2.87 |
| 90 |  | 38 karns Middle | ¢3,536.00 | \$199.77 | 0.3 | \$59.93 | ${ }^{66}$ | 40 | 19 | 48\% | Karns High | 9 | 28 | 42\% | 51.50 | 53.15 | 10.1 | 40 | 12.65 | 54 | 22.75 | \$2.63 |
| 91 |  | 86 Karns Middle | \$4,474.00 | \$252.77 | 0.3 | \$57.83 | ${ }^{66}$ | 55 | 31 | 56\% | Karns High | 12 | 43 | 65\% | 51.38 | 52.45 | 11.6 | 36 | 10.76 | 35 | 22.36 | 53.39 |
|  |  | 87 Karns Middle | \$3,523.00 | \$199.04 | 0.35 | \$69.66 | 66 | 100 | 41 | $41 \%$ | Karns High | 33 | 74 | 112\% | 50.70 | 51.70 | 18.4 | 61 | 23.67 | 80 | 42.07 | \$1.66 |
| 93 | 100 | ${ }^{200} \mathrm{Karns}$ Middle | \$4,280.00 | ${ }^{\$ 241.81}$ | 0.3 | \$72.54 | ${ }^{84}$ | 77 | 59 | 77\% | Karns High | 8 | 67 | 80\% | 50.94 | \$1.23 | 9.8 | 30 | 11.6 | 58 | 21.4 | \$3.39 |
| 94 |  | 15 Karns Middle | \$4,863.00 | ${ }^{\text {\$274.75 }}$ | 0.3 | \$82.42 | ${ }^{84}$ | 55 | 45 | ${ }^{82 \%}$ | Karns High | 15 | 60 | 71\% | \$1.50 | \$1.83 | 6.8 | 27 | 9.06 | 37 | 15.86 | 55.20 |
|  |  | 138 Karns Middle | \$3,581.00 | \$202.32 | 0.4 | \$80.93 | 66 | 51 | 43 | $84 \%$ | Hardin Valley Academy | 22 | 65 | 98\% | \$1.59 | \$1.88 | 34.5 | 64 | 32.65 | 81 | 67.15 | \$1.21 |
| 96 | 146 | 146 Karns Middle | ¢4,231.00 | \$239.04 | 0.3 | 57.71 | 90 | 9 | 4 | 44\% | Karns High | 49 | 53 | 59\% | \$7.97 | \$17.93 | 6.3 | 20 | 14.96 | 56 | 21.26 | 53.37 |
| 97 |  | 149 Karns Middle | \$5,155.00 | \$291.24 | 0.25 | 572.81 | 84 | 43 | 40 | 93\% | Karss High | 20 | 60 | 71\% | 51.69 | 51.82 | 10.6 | 28 |  | 27 | 18.78 | 53.88 |
|  |  | 50 Karns Middle | 93,488.00 | \$197.06 | 0.3 | \$59.12 | 66 | 49 | 16 | 33\% | Karns High | 16 | 32 | 48\% | \$1.21 | 53.69 | 9.9 | 37 | 9.97 | 45 | 19.87 | 52.98 |
| 99 |  | 988 Kars Middle | ¢3,498.00 | \$197.63 | 0.25 | 549.41 | 66 | 79 | 72 | 91\% | Karns High | 1 | 73 | 111\% | 50.63 | 50.69 | 8.3 | 20 | 7.49 | 29 | 15.79 | 53.13 |
| 100 |  | 20 Karns Middle | \$4,257.00 | ${ }^{\$ 240.51}$ | 0.3 | 572.15 | 90 | 37 | 28 | 76\% | Karss High | 34 | 62 | 69\% | \$1.95 | \$2.58 | 11.4 | ${ }^{43}$ | 12.16 | 50 | 23.56 | \$3.06 |
| 101 |  | 13 Karns Middle | ¢4,067.00 | ${ }^{\$ 229.77}$ | 0.4 | 59.191 | 66 | 39 | 36 | 92\% | Hardin Valley Academy | 17 | 53 | 80\% | \$2.36 | \$2.55 | 23.9 | 71 | 21.89 | 78 | 45.79 | \$2.01 |
| 102 | 22 | 24 Karns Midalle | ¢4,182.00 | \$226.27 | 0.35 | 58.69 | 84 | 52 | 44 | 85\% | Karns High | 19 | 63 | 75\% | 51.59 | \$1.88 | 7.1 | 31 | 7.42 | 30 | 14.52 | 55.70 |
| 103 |  | 35 karns Middle | \$8,504.00 | \$197.97 | 0.4 | 579.19 | ${ }^{66}$ | ${ }^{22}$ |  | $41 \%$ | Hardin Valley Academy | 35 | 44 | 67\% | 53.60 | 58.80 | 8.1 | 25 |  | 50 | 22.1 | 53.58 |
|  |  | 53 Karns Middle | ¢4,133.00 | ${ }^{5233.50}$ | 0.3 | 570.05 | ${ }^{84}$ | 72 | 40 | 56\% | Hardin Valley Academy | 54 | 94 | 112\% | 50.97 | \$1.75 | 17.3 | 44 | 2.54 | 75 | 43.84 | 51.60 |
| 105 |  | 15 Karns Middle | \$4,206.00 | ${ }^{\$ 237.63}$ | 0.4 | \$95.05 | ${ }^{84}$ | ${ }^{11}$ | 5 | 45\% | Karns H igh | 47 | 52 | 62\% | 58.64 | \$19.01 | 7.1 | 22 |  |  | 7.1 | \$13.39 |
| 106 | 92 | 24 Karns Middle | \$4,206.00 | ${ }^{5237.63}$ | 0.3 | 571.29 | ${ }^{84}$ | 49 | 34 | 69\% | Karns High | 5 | 39 | 46\% | \$1.45 | \$2.10 | 16.2 | 46 | 18.49 | 53 | 34.69 | \$2.06 |
|  | 925 | 25 Karns Middle | \$4,662.00 | \$226.39 | 0.35 | 592.19 | ${ }^{66}$ | 84 | 54 | 64\% |  |  | 54 | 82\% | \$1.10 | \$1.71 | 14.9 | 43 | 16.3 | 50 | 31.2 | \$2.95 |
| ${ }_{108}^{108}$ |  | 39 Karns Midale | \$3,520.00 $\$ 445000$ | ${ }_{\text {\$ }}^{\$ 1959.87}$ | 0.4 | S79.55 <br> 10.56 | 66 84 84 | 69 55 | 48 | 70\% | Hardi V Valley Academy | 11 | 59 57 | 89\%\% | S1.15 S183 | \$1.66 | 20.8 24.6 | 67 <br> 57 |  | 81 | ${ }_{\text {coin }}^{50.63}$ | \$51.57 |
|  | ${ }_{9}^{9948}$ | 86 Karns Middele | ¢44,450.00 <br> $9,462.00$ | ${ }_{\text {¢ }}^{\text {\$251.41 }}$ | 0.4 0.8 | S100.56 $\$ 156.47$ | 84 <br> 68 | 55 54 | 38 27 | 69\% | Hardin Valley Academy | 19 | $\stackrel{57}{27}$ | 68\% | ¢1.83 $\$ 2.90$ | \$2.65 $\$ 5.80$ | $\frac{24.6}{6.6}$ | ${ }^{57}$ |  | -69 | 48.14 <br> 13.4 | ¢22.09 <br> $\$ 11.68$ |
| 111 |  | 37 Northwest | \$9,524.00 | \$199.10 | 0.6 | \$119.46 | 66 | 96 | 85 | 89\% |  |  | 85 | 129\% | \$1.24 | \$1.41 | 10.4 | 35 | 11.64 | 36 | 22.04 | \$5.42 |
| 112 | 24 | 241 Northwest | \$4,085.00 | \$230.79 | 0.6 | \$138.47 | 84 | 46 | 43 | 93\% |  |  | 43 | 51\% | 53.01 | 53.22 | 9.4 | 36 | 8.88 | 42 | 18.28 | \$7.58 |
|  | 32 | 26 Northwest | \$4,122.00 | \$232.88 | 0.6 | \$139,73 | ${ }^{84}$ | 69 | 69 | 100\% |  |  | 69 | 82\% | 52.03 | 52.03 | 7.6 | ${ }^{33}$ | 9.8 | 26 | 17.4 | 58.03 |
| 114 | 33 | 30 Northwest | \$3,436.98 | \$194.18 | 0.5 | 597.09 | ${ }^{66}$ | 99 | 96 | 97\% |  |  | 96 | 145\% | 50.98 | 51.01 | 11.3 | 32 | 12.36 | 29 | 23.66 | 54.10 |
| 115 | 930 | 30 Northwest | \$3,518.00 | \$198.76 | 0.7 | 5139.13 | 66 | 93 | 74 | 80\% |  |  | 74 | 112\% | \$1.50 | \$1.88 | 14 | 40 | 13.83 | 52 | 27.83 | 55.00 |
| 116 |  | 38 Northwest | ¢4,120.00 | \$232.77 | 0.6 | \$139.66 | 84 | 78 | 58 | 74\% |  |  | 58 | 69\% | 51.79 | \$2.41 | 11.4 | 35 | 12.95 | 44 | 24.35 | 55.74 |
| 117 | 96 | 63 Northwest | ¢4,097.00 | ${ }^{5231.47}$ | 0.5 | 5115.73 | 84 | 39 | 35 | 90\% |  |  | 35 | 42\% | \$2.97 | 53.31 | 10.4 | 38 | 8.51 | 32 | 18.91 | 56.12 |
| 118 | 972 | 72 Northwest | \$4,103.00 | ${ }^{\$ 231.81}$ | 0.4 | 592.72 | ${ }^{84}$ | ${ }^{67}$ | 62 | 93\% |  |  | 62 | 74\% | \$1.38 | \$1.50 | 7.5 | ${ }^{23}$ | 5.38 | 22 | 12.88 | \$7.20 |
| \|119 |  | 9 Powell Middle | \$4,160.00 | \$235.03 | 0.4 | 594.01 | ${ }^{90}$ | 59 | 46 | 78\% | Powell High | 22 | 68 | 76\% | \$1.59 | \$2.04 | 11.3 | ${ }^{41}$ | 18.12 | 68 | 29.42 | \$3.20 |
| ${ }_{121}^{120}$ |  | ${ }^{14} 15$ Powell Mididle | $\$ 4,229.00$ $\$ 3.57 .00$ | ¢ 2238.93 | 0.3 0.3 | S71.68 <br> 59995 | 90 <br> 66 | ${ }_{4}^{100}$ | 66 24 | 66\% | ${ }_{\text {Powell ligh }}^{\text {Powell }}$ | ${ }^{27}$ | ${ }_{33}^{93}$ | 103\% | ${ }_{50}^{50.72}$ S143 | 51.09 5250 | 8.7 <br> 23 <br> 1 | $\stackrel{26}{65}$ |  | [ 54 | 24.25 3534 14 | \$2.96 <br> 170 |
|  |  | 26 Powell Mididle | ¢4,232.00 | \$239.10 | 0.5 | \$119.55 | 90 | 72 | 49 | 68\% | Powellhigh |  | ${ }^{39}$ | 54\% | $\stackrel{\text { S1.43 }}{ }$ |  | 23.3 <br> 7.6 | 69 <br> 29 | 7.09 | ${ }_{35}$ | 35.34 <br> 14.99 | \$58.14 |
| 123 | 7 | ${ }_{55}$ Powell Middle | \$4,122.00 | \$232.88 | 0.3 | \$69.86 | 84 | 127 | 51 | 40\% | Powell ligh | 35 | 86 | 102\% | 50.55 | \$1.37 | 14.7 | 56 | 15.01 | 85 | 29.71 | \$2.35 |
| 124 |  | ${ }^{55}$ Powell Middle | \$5,641.00 | ${ }_{5318.70}$ | 0.2 | S63.74 | ${ }_{9}^{90}$ | ${ }^{37}$ | 17 | 46\% | Powell High | 26 | ${ }^{43}$ | 48\% | \$1.72 | 53.75 | 17.5 | 51 | 16.17 | 62 | 33.67 | \$1.89 |
| 125 |  | 99 Powell Middle | ¢4,160.00 | \$235.03 | 0.3 | 570.51 | ${ }^{84}$ | 21 | 14 | $67 \%$ | Powell ligh | 24 | 38 | 45\% | 53.36 | 55.04 | ${ }^{9.5}$ | 35 | 8.5 | 36 | 18 | 53.92 |
| 126 | 105 | ${ }^{0.5}$ Powell Middle | \$8,525.00 | \$199.15 | 0.6 | S119.49 | ${ }^{66}$ | 38 | 36 | 95\% | Powell ligh | 29 | 65 | 98\% | 53.14 | 53.32 | 6.7 | 25 | 13.18 | 47 | 19.88 | 56.01 |
| ${ }^{127}$ | 203 | 233 Powell Middle | \$4,244.00 | \$239.77 | 0.3 | 571.93 | ${ }_{90}^{90}$ | 52 | 31 | 60\% | Powell ligh | 16 | 47 | 52\% | 51.38 | \$2.32 | 12.4 | ${ }^{43}$ | 12.68 | 58 | 25.08 | \$2.87 |
| $\frac{128}{129}$ | 28. | 81 Powell Middle | \$8,529.00 | \$199.38 | 0.3 | 559.81 | ${ }^{66}$ | 44 | 26 | 59\% | Powell High | 35 | 61 | 92\% | 51.36 | 52.30 | 17.2 | 53 | 14.45 | 56 | 31.65 | \$1.89 |
| $\stackrel{129}{130}$ | ${ }_{9} 20$ | Pap Powell Mididle | \$3,529.00 <br> 836030 | ${ }_{\text {\$ }}^{\$ 199.38}$ | 0.35 | ${ }_{\text {S }}^{569.78}$ | ${ }_{66}^{66}$ | 34 96 | ${ }_{8}^{29}$ | 85\% ${ }_{\text {92\% }}$ | Powell High | 13 | ${ }_{88}^{42}$ | 64\% 133\% | $\stackrel{\text { S2.05 }}{5127}$ | $\stackrel{\text { S2.41 }}{\$ 139}$ |  |  | 8.4 | ${ }^{41}$ | ${ }^{16.8}$ |  |
| ${ }_{131}^{130}$ | 5 | 50. South Dove Midade |  | ${ }_{\text {\$203.56 }}^{\$ 207.29}$ | 0.6 0.5 | S122.14 <br> $\$ 103.64$ | ${ }_{66}^{66}$ | 96 40 | 88 37 | ${ }_{93 \%}^{92 \%}$ |  |  | 88 37 | 56\% | S1.27 $\$ 2.59$ | \$1.39 <br> $\$ 2.80$ <br> 18 | 24 12.9 | 80 40 40 | 15.06 13.11 | 56 <br> 49 | 39.06 26.01 | 53.13 <br> 3.98 |
| 132 |  | 94 South Dove Middle | \$3,506.00 | \$198.08 | 0.5 | 59.04 | 66 | 60 | 56 | 93\% |  |  | 56 | 85\% | \$1.65 | \$1.77 | 9.5 | 37 | 9.84 | 41 | 19.34 | 55.12 |
| 133 | 101 | ${ }^{21}$ South Dovele Middle | \$8,525.00 | \$199.15 | 0.5 | 599.58 | ${ }^{66}$ | 70 | 42 | 60\% |  |  | 42 | 64\% | \$1.42 | \$2.37 | 23 | 71 | 22.32 | 72 | 45.32 | \$2.20 |
| ${ }^{134}$ | 102 | 22: South Dovie Mididle | \$8,510.00 | \$198.31 | 0.5 | 599.15 | 66 | 49 | 51 | 104\% |  |  | 51 | 77\% | 52.02 | \$1.94 | 25.2 | ${ }^{68}$ | 23.01 | 71 | 48.21 | \$2.06 |
| $\stackrel{135}{136}$ |  | 19.5 South oovle Midade | 93,506.00 9353400 | ${ }_{\text {\$ }}^{\text {\$ } 199.08}$ | 0.6 0.35 | $\frac{5118.85}{\text { S6988 }}$ | ${ }_{66}^{66}$ | ${ }^{88}$ | ${ }^{67}$ | ${ }_{76 \%} 7$ |  |  | ${ }^{67}$ | $\frac{102 \%}{27}$ | $\frac{51.35}{5291}$ | $\frac{51.77}{5388}$ | 16.3 | 62 | 12.01 | ${ }_{51} 6$ | ${ }^{28.31}$ | 54.20 <br> 53.50 |
| 137 | 168 | 68 South Dovle Mididle | ¢9,802.00 | \$214.80 | 0.5 | ${ }_{5107.40}$ | 66 | 59 | 37 | 63\% | South Dovle ligh | 20 | 57 | 86\% | \$1.82 | \$2.90 | 35.5 | 80 | 32.03 | 85 | 67.53 | \$1.59 |
| 138 | 171 | 71 South Dove Mididle | \$4,111.00 | \$232.26 | 0.6 | \$139.36 | ${ }^{66}$ | 61 | 43 | 70\% |  |  | 43 | 65\% | 52.28 | 53.24 | 28.6 | 76 | 26.01 | 108 | 54.61 | \$2.55 |
| 139 | 250 | 250 South Dove Midade | ¢4,097.00 | ${ }_{\text {\$231.47 }}$ | 0.5 | \$115.73 | 84 | 45 | 50 | 111\% |  |  | 50 | 60\% | \$2.57 | \$2.31 | 16.1 | 62 | 6.8 | 24 | 22.9 | 55.05 |


|  | A | B | c | D | E | F | 6 | H | 1 | J | k | L | M | N | 0 | P | Q | R | 5 | T | u | v |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Bus | School | total monthy | daily cost per bus | pot_of_cost | dail__ve_ bus | capacity | eligible_midele inders | actual_midale school_rider | pot_actual us eligible | shares_bus with | shared students | total_atual İiders | pet_of_capacity | cost_per_eligible_mididle_fider | $\begin{array}{\|c} \text { cost_per_middle } \\ \text { actual_rider } \\ \hline \end{array}$ | AM_miles | am_time | pm_miles | pm_time | total_middle school miles | $\begin{gathered} \text { middle_bus } \\ \text { per_mile } \\ \hline \end{gathered}$ |
| 140 | 279 | South Doyle Midale | 93,517.00 | \$198.70 | 0.5 | \$99.35 | 66 | 53 | 49 | 92\% |  |  | 49 | 74\% | \$1.87 | \$2.03 | 19 | 57 | 19.9 | 61 | 38.9 | \$2.55 |
| 141 | 285 | South Doyle Middle | 93,514.00 | \$198.53 | 0.4 | \$99.41 | 66 | 67 | 56 | 84\% |  |  | 56 | 85\% | \$1.19 | \$1.42 | 14.3 | 51 | 9.84 | 38 | 24.14 | 53.29 |
| 122 | 582 | 2 South Doyle Middle | \$3,510.00 | \$198.31 | 0.75 | \$148.73 | 66 | 93 | 57 | 61\% |  |  | 57 | 86\% | 51.60 | 52.61 | 6.6 | 31 | 11.15 | 45 | 17.75 | 58.38 |
| 143 | 52 | 2 V Ve | 98,509.00 | \$198.25 | 0.35 | 569.39 | 66 | 37 | 33 | 89\% |  |  | 33 | 50\% | \$1.88 | \$2.10 | 3.5 | 14 | 3.78 | 15 | 7.28 | 59.53 |
| 144 | 145 | Vine | ¢9,517.00 | \$198.70 | 0.25 | \$99.68 | 66 | 27 | 27 | 100\% |  |  | 27 | 41\% | \$1.84 | \$1.84 | 6.5 | 24 | 4.54 | 13 | 11.04 | 54.50 |
| 145 | 157 | West valley | ¢3,713.00 | \$209.77 | 0.4 | 583.91 | 66 | 57 | 47 | 82\% |  |  | 47 | 71\% | \$1.47 | 51.79 | 8.8 | 24 | 7.13 | 28 | 15.93 | 55.27 |
| 146 | 236 | West valley | ¢3,437.00 | \$194.18 | 0.5 | 597.09 | 66 | 95 | 64 | 67\% |  |  | 64 | 97\% | \$1.02 | \$1.52 | 9.5 | 32 | 7.93 | 36 | 17.43 | 55.57 |
| 147 | 328 | 8 West valley | \$4,034.00 | \$227.91 | 0.5 | \$113.95 | 84 | 52 | 46 | 88\% |  |  | 46 | 55\% | \$2.19 | \$2.48 | 14.3 | 31 |  | 23 | 20.3 | 55.61 |
| 148 | 369 | West valley | \$4,227.00 | \$238.81 | 0.5 | \$119.41 | 90 | 89 | 67 | 75\% |  |  | 67 | 74\% | \$1.34 | \$1.78 | 10.2 | 28 | 10.28 | 30 | 20.48 | 55.83 |
| 199 | 581 | 1 West valley | \$4,454.00 | $\$ 251.64$ | 0.5 | \$125.82 | 36 | 34 | 20 | 59\% |  |  | 20 | 56\% | 53.70 | 56.29 | 13.1 | 43 | 21.23 | 53 | 34.33 | 53.66 |
| 150 | 583 | West valley | \$4,252.00 | \$240.23 | 0.5 | \$120.11 | 90 | 78 | 51 | 65\% |  |  | 51 | 57\% | \$1.54 | \$2.36 | 9.2 | 27 | 8.89 | 28 | 18.09 | 56.64 |
| 151 | 975 | West valley | \$3,500.00 | \$197.74 | 0.5 | 59.87 | 66 | 44 | 33 | 75\% |  |  | 33 | 50\% | \$2.25 | 53.00 | 7.8 | 19 | 6.12 | 18 | 13.92 | 57.10 |
| 152 | 9104 | West valley | 93,512.00 | \$198.42 | 0.5 | 59.21 | 84 | 101 | 66 | 65\% |  |  | 66 | 79\% | 50.98 | \$1.50 | 11.1 | 33 | 10.75 | 39 | 21.85 | 54.54 |
| 153 | 9149 | West valley | \$4,118.00 | \$232.66 | 0.5 | \$116.33 | 84 | 71 | 53 | 75\% |  |  | 53 | 63\% | 51.64 | \$2.19 | 15.4 | 42 | 15.41 | 43 | 30.81 | 53.78 |
| 154 | 9185 | West valley | \$4,236.00 | \$229.32 | 0.5 | 5119.66 | 90 | 94 | 64 | 68\% |  |  | 64 | 71\% | 51.27 | 51.87 | 7.6 | 19 | 9.35 | 34 | 16.95 | 57.06 |
| 155 | 9197 | West valley | \$3,502.00 | \$197.85 | 0.6 | 5118.71 | 66 | 114 | 80 | 70\% |  |  | 80 | 121\% | \$1.04 | 51.48 | 10.4 | 39 | 10.9 | 56 | 21.3 | 55.57 |
| 156 | 9368 | West valley | \$4,037.00 | \$228.08 | 0.2 | 545.62 | 30 | 23 | 23 | 100\% |  |  | 23 | 77\% | \$1.98 | \$1.98 |  |  | 9.37 | 17 | 9.37 | 54.87 |
| 157 | 9369 | West valley | \$4,250.00 | \$220.11 | 0.5 | \$120.06 | 90 | 132 | 89 | 6\%\% |  |  | 89 | 99\% | 50.91 | \$1.35 | 9.6 | 31 | 9.64 | 49 | 19.24 | 56.24 |
| 158 | 126 | Whitte Springs | \$4,240.00 | \$239.55 | 0.5 | 5119.77 | 90 | 84 | 88 | 105\% |  |  | 88 | 98\% | \$1.43 | \$1.36 | 6.2 | 22 | 5.09 | 18 | 11.29 | 510.61 |
| 159 | 277 | 7 Whittle Sprines | ¢9,735.00 | \$221.02 | 0.25 | \$52.75 | 66 | 70 | 47 | 67\% |  |  | 47 | 71\% | 50.75 | \$1.12 |  |  | 5.36 | 23 | 5.36 | \$9.84 |
| 160 | 283 | 3 Whittle springs | \$4,091.00 | ${ }_{\text {S233.13 }}$ | 0.3 | \$69.34 | 84 | 70 | 60 | 86\% |  |  | 60 | 71\% | 50.99 | \$1.16 | 9.6 | 27 | 11.7 | 40 | 21.3 | 53.26 |
| 161 | 9142 | Whittle spring | \$3,521.00 | \$198.93 | 0.6 | \$119.36 | 66 | 65 | 47 | 72\% |  |  | 47 | 71\% | 51.84 | \$2.54 | 15.7 | 50 | 11.06 | - 40 | 26.76 | 54.46 |
| ${ }_{162}^{163}$ |  | potential reductions by staggering bell times |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\stackrel{164}{165}$ |  | red text = double middle school runs |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

BRAILSFORD \& DUNLAVEY

