

BENCHMARKING STUDY OF GRADE-LEVEL FEASIBILITY

Prepared for Alexandria City Public Schools

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In the following report, Hanover Research explores the strategies five school districts implemented to address increasing enrollment and the role that grade-level reconfiguration played during the strategic planning process. These strategies and their implications are first summarized followed by in-depth case profiles of each school district.

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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

In the last decade, Alexandria City Public Schools (ACPS) experienced large increases in student enrollment, creating overcrowding and space constraints at the Division’s schools. ACPS continues to experience these trends in overpopulation, and in an effort to confront such challenges, has considered reconfiguring grade levels across the Division’s schools and/or building an additional facility. With these considerations in mind, ACPS aims to identify solutions to address the increasing student populations by establishing a long-term plan for grade-level feasibility and sustainability.

To support ACPS’s efforts in examining grade-level feasibility, Hanover has proposed a series of mixed methods studies (Figure ES.1). The following study consists of the second phase of this ongoing research and benchmarks best practices, possible challenges, and observed outcomes of grade-level reconfiguration and other strategies peer school districts have implemented to confront increasing enrollment. This information is primarily drawn from five in-depth interviews with district personnel who have insight about decisions to either pursue grade-level reconfiguration or alternative solutions to overcrowding. Additional information about grade-level reconfiguration for feasibility is supplemented from secondary literature and published reports. In all, findings from this phase of investigation are organized into two key sections:

- **Section I: Overview of Grade-Level Feasibility Strategies** summarizes information obtained from in-depth interviews with district leaders as well as secondary articles and reports to explore the factors shaping decisions to reconfigure grades and the implications of doing so. Altogether, Hanover reviews several main strategies for addressing enrollment and considerations for operating costs, students, educators, and the community.
- **Section II: In-Depth Interview Profiles** details the practices of five peer school districts that have faced challenges to increasing enrollment and/or student overpopulation. Each of these profiles reviews a district’s decision making processes and factors for considering grade-level reconfiguration; the strategies that were ultimately used to address increasing enrollment; and the outcomes of these strategic decisions.

Figure ES.1: Summary of Proposed Work in Series

TITLE	TYPE	DATE COMPLETED
Analysis of Elementary and Secondary Grade Span Configurations	Literature Review	November 2016
Benchmarking Study of Grade-Level Feasibility	Mixed Methods: In-Depth Interviews; Synthesis of Supplementary Articles	February 2017
Environmental Scan of ACPS Service Area	Mixed Methods: Data Analysis; Synthesis of Supplementary Articles	Pending
Study of ACPS Ninth Grade Models	Data Analysis	Pending
Capstone Report	Synthesis	Pending

KEY FINDINGS

- **Three out of the five school districts have reconfigured grade levels across schools.** Two school districts, Aurora Joint District 28 in Colorado (referred to as Aurora Public Schools; APS) and Charlotte-Mecklenburg Schools in North Carolina (CMS), combined traditional K-5 elementary and 6-8 middle schools into single K-8 schools. At APS, this reconfiguration was made to accommodate the space and instructional needs of a growing student body. At CMS, K-8 schools were reconfigured for greater efficiency in the use of facilities space across schools. These grade span configurations align with a growing trend in schools across the nation that have transitioned from separate middle or junior high schools into more comprehensive K-8 schools. In the mid-1990s, there were approximately 2,500 K-8 schools. As of 2014, the number of K-8 schools grew to over 6,500. Only one school, Scottsdale Unified School District (SUSD), separated K-8 schools into distinct elementary and middle schools. This was done to support greater instructional focus tailored to the developmental and academic needs of young and middle grade students.
- **While more schools have reconfigured to K-8 models, studies comparing student outcomes at K-8 schools and middle schools have found conflicting results.** Some research documents improved academic and behavior outcomes for K-8 students as compared to those who attend traditional middle schools. These outcomes include better attendance, decreased suspensions and other disciplinary infractions, and improved academic achievement as measured by math and reading scores. Yet, many of these studies' findings are weakened by a number of methodological issues, such as study designs that limit ability to determine causality or a lack of statistical controls. Overall, the evidence suggests that no single grade span configuration across schools works best for all districts' needs, nor do researchers unanimously agree on a "best" grade span configuration model.
- **Internal building modifications, school expansion, and building renovations are some alternative strategies districts have done or have considered implementing to address overcrowding.** Two anonymous school districts have rearranged classrooms, offices, and/or other facility spaces within schools as a first step to maximize the usage of space. Both of these districts and CMS also reported using mobile or portable units to meet short-term space needs. Although, research shows that temporary units can have poor ventilation for student health. As another alternative, CMS and an anonymous district have planned to renovate existing schools while constructing new schools in the same enrollment boundaries. Opening multiple schools in a single boundary provides the district with greater space for enrollment.
- **Altering school zone boundaries, restructuring the class schedule, and offering more online learning opportunities are non-capital strategies to curb enrollment pressure.** Adjusting school boundaries helps to redistribute student populations across schools where one school may be above enrollment capacity while another has excess space. Restructuring the class schedule, such as lengthening the school day or creating a year-round calendar, increase the use of existing facilities spaces; although,

districts in Hanover's benchmarking study have not taken these steps. Finally, Anonymous District 1 and CMS have considered offering more online learning opportunities to create flexible use of learning spaces.

- **There are several key considerations districts should take into account when contemplating grade-level reconfiguration.** Reconfiguration often entails added costs associated with new materials, classroom items, facilities space, and student transportation. These costs may range from \$50 to \$250 per student as one report by the Brookings Institute estimated. Student wellbeing is also of critical importance when reconfiguring grades or adjusting boundaries that require student transitions between schools. Transitions can disrupt academic performance and social adjustment. At SUSD, these issues came to light among students required to transition from a traditional middle school to a K-8 school. Schools should also consider implications to educators and the community. At APS, licensing and certification requirements presented challenges to teacher assignments in new schools, and at several districts, parents expressed concerns for student wellbeing. These concerns ranged from different student age groups learning in the same environment to opportunities for quality programming at new schools.

SECTION I: OVERVIEW OF GRADE-LEVEL FEASIBILITY STRATEGIES

In the following section, Hanover summarizes salient themes from the five in-depth interviews recorded with professional staff of school districts that have reconfigured or implemented alternative strategies for increasing enrollment. Secondary sources are consulted to provide further information about the practices reported by the interview respondents.

STRATEGIES TO ALLEVIATE OVERCROWDING

GRADE-LEVEL RECONFIGURATION

Of the five districts Hanover interviewed, three reconfigured grade levels across schools to accommodate growth in enrollment. This aligns with the academic literature that suggests re-sequencing grade spans across schools is a common organizational consideration used to address a myriad of educational needs, including: content knowledge and alignment to state standards; development needs; district staffing and employment; and program design, length, and availability.¹ In the United States, the most traditional grade span model follows students from kindergarten to at least Grade 4.² After Grade 4, grade configuration varies, with some students transitioning to middle school (Grades 5 to 8 or Grades 6 to 8) or junior high (Grades 7 to 8). Other models may combine junior and senior high schools, which can span from Grades 6 to 12. Though, students commonly enter high school in Grade 9.³ Districts that have reconfigured grades have typically done so in response to enrollment pressure or new pedagogical theories concerning the educational and developmental needs of students.⁴

In Hanover's benchmarking analysis, two school districts combined traditional K-5 elementary and 6-8 middle schools into single K-8 schools: Aurora Joint District 28 in Colorado (referred to as Aurora Public Schools; APS) and Charlotte-Mecklenburg Schools in North Carolina (CMS). From a historical standpoint, K-8 schools were initially popular in the 19th century, but they became less common in the 20th century as a movement towards the separation of students in the middle grades began.⁵ More recently, however, school districts across the nation have

¹ "Illinois P-20 Council Grade Span Configuration Meeting: Recommendations to Illinois State Board of Education." Illinois Department of Education, June 2012. pp.1-2.
<https://www.illinois.gov/gov/P20/Documents/Educator%20Licensure/Grade%20Span%20Configuration%20Recommendations%20to%20ISBE%20final.pdf>

² Renchler, R. "Grade Span." *National Association of Elementary School Principals*, 16:3, Spring 2000. p.2.
<http://files.eric.ed.gov/fulltext/ED440471.pdf>

³ "The Structure of Education in the United States." National Center for Education Statistics.
https://nces.ed.gov/programs/digest/d13/figures/fig_01.asp?referrer=figures

⁴ Schwerdt, G. "The Impact of Alternative Grade Configurations on Student Outcomes through Middle and High School." Harvard University Institute for Economic Research, September 2011. p.1.
<http://www.edweek.org/media/gradeconfiguration-13structure.pdf>

⁵ [1] McEwin, C.K. and M.W. Greene. "The Status of Programs and Practices in America's Middle Schools: Results from Two National Studies." Association for Middle Level Education, 2011. p. 5.
http://www.amle.org/portals/0/pdf/articles/status_programs_practices_amle.pdf [2] Byrnes, V. and A. Ruby.

transitioned from middle or junior high schools into more comprehensive K-8 schools.⁶ As of 2014, there were over 6,500 K-8 schools in the United States, a large increase from around 2,500 K-8 schools 20 years earlier.⁷ In the local region, Grade K-8 schools account for a larger proportion of elementary schools in the District of Columbia and Maryland than in Virginia. More specifically, in the District of Columbia, there are 32 K-8 schools compared to 68 K-5 schools; in Maryland, there are 92 K-8 schools compared to 667 K-5 schools; and in Virginia, there are 12 K-8 schools compared to 839 K-5 schools.⁸

While both APS and CMS reconfigured some schools to reflect K-8 grade spans, their reasons for doing so differ somewhat. As reported by APS’s interview contact, Josh Hensley (Hensley), the district’s Planning Coordinator, building K-8 schools and reconfiguring others to include this grade span was a more efficient use of resources for accommodating capacity needs. Building multiple elementary and

Number of K-8 to K-5 Schools in 2014:	
District of Columbia	32: 68
Maryland	92: 667
Virginia	12: 839

middle schools would have required more resources and time. Including upper middle grades with lower grades, on the other hand, enables the district not only to meet current enrollment needs, but it also provides the district with facilities space for future growth.⁹ Efficiency aside, Hensley described that K-8 schools are more popular among parents, reduce the number of transitions that students have to make from elementary to middle grades, and promotes closeness among students and teachers.¹⁰ At CMS, Scott McCully (McCully), the district’s Executive Director for Planning and Student Placement, stated that reconfiguring to K-8 grade spans allowed the district to optimize space at schools with fewer enrolled students.¹¹

Despite recent trends favoring K-8 grade configurations, the benefits to this model, including some of those cited by APS and CMS, lack clear empirical support. Research regarding ideal

“Comparing Achievement between K-8 and Middle Schools: A Large-Scale Empirical Study.” *American Journal of Education*, 114, November 2007. pp. 102–103.
http://web.jhu.edu/CSOS/images/TDMG/ComparingAchievement_btwK_8.pdf

⁶ [1] “Table 216.80: Public secondary schools, by grade span, average school enrollment, and state or jurisdiction: 2013-14,” Op. cit., p. 26. [2] “Table 216.10. Public Elementary and Secondary Schools, by Level of School: Selected Years, 1967-68 through 2011-12.” National Center for Education Statistics, 2013. p. 216.
http://nces.ed.gov/programs/digest/d13/tables/dt13_216.10.asp

⁷ [1] “Table 216.80: Public secondary schools, by grade span, average school enrollment, and state or jurisdiction: 2013-14,” Op. cit., p. 26. [2] “Table 216.10. Public Elementary and Secondary Schools, by Level of School: Selected Years, 1967-68 through 2011-12.” National Center for Education Statistics, 2013. p. 216.
http://nces.ed.gov/programs/digest/d13/tables/dt13_216.10.asp

⁸ Information taken from: “Table 216.75: Public Elementary Schools, by Grade Span, Average School Enrollment, and State or Jurisdiction: 2013-14.” National Center for Education Statistics, 2015.
https://nces.ed.gov/programs/digest/d15/tables/dt15_216.75.asp?current=yes

⁹ Hensley, Josh. Planning Coordinator, Aurora Joint District 28, Phone interview. December 14, 2016.

¹⁰ Ibid.

¹¹ McCully, Scott. Executive Director for Planning and Student Placement, Charlotte-Mecklenburg Schools, Phone interview. December 8, 2016.

grade configurations for middle grade students is inconclusive, and studies comparing student outcomes at K-8 schools and middle schools have found conflicting results. For example, some have found improved academic and behavior outcomes for K-8 students compared to middle school students, such as better attendance,¹² decreased suspensions and other disciplinary infractions,¹³ and improved academic achievement (e.g., improved math and reading scores).¹⁴ Yet, many of these studies' findings are weakened by a number of methodological issues, such as study designs that limit ability to determine causality, or lack of statistical control for potential confounding variables such as class size, student demographics, or school/district policies.¹⁵ One notable benefit to K-8 reconfiguration, however, is reducing the number of transitions students have to make from school to school. Research shows that such transitions are linked with a wide range of academic and behavioral problems, such as decreased self-esteem, grades, test scores, engagement, attendance, and increased disciplinary infractions and suspensions.¹⁶

The only other district to reconfigure grades in Hanover's benchmarking study is Scottsdale Unified School District (SUSD). Contrary to APS and CMS, SUSDS separated K-8 schools into distinct elementary and middle schools. Terry Worcester (Worcester), the district's Director of Planning and Design, explained that this was done to enhance instruction at both levels. By taking this step, the district ultimately sought to improve elementary and middle grade academic performance and better prepare students in 6-8 schools for the transition to high

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- ¹² [1] Abella, R. "The Effects of Small K-8 Centers Compared to Large 6-8 Schools on Student Performance." *Middle School Journal*, 37:1, September 2005. Accessed via Web of Science [2] Cook, P.J. et al. "The Negative Impacts of Starting Middle School in Sixth Grade." *Journal of Policy Analysis and Management*, 27:1, December 1, 2008. <http://dx.doi.org/10.1002/pam.20309> [3] Arcia, E. "A Comparison of Elementary/K-8 and Middle Schools' Suspension Rates." *Urban Education*, 42:5, September 2007. Accessed via Web of Science
- ¹³ [1] Ibid. [2] Cook, P.J. et al. "The Negative Impacts of Starting Middle School in Sixth Grade." *Journal of Policy Analysis and Management*, 27:1, December 1, 2008. <http://dx.doi.org/10.1002/pam.20309> [3] Arcia, E., Op. cit.
- ¹⁴ [1] Cook, P.J. et al., Op. cit. [2] Alspaugh, J.W. "Achievement Loss Associated with the Transition to Middle School and High School." *Journal of Educational Research*, 92:1, October 1998. Accessed via EBSCOhost [3] Schwerdt, G. and M.R. West. "The Impact of Alternative Grade Configurations on Student Outcomes through Middle and High School." July 15, 2011. Accessed via Web of Science [4] Rockoff, J. and B. Lockwood. "Stuck in the Middle: Impacts of Grade Configuration in Public Schools." *Journal of Public Economics*, 94:11/12, December 2010. Accessed via EBSCOhost [5] Clark, D.M. et al. "Math and Reading Differences Between 6-8 and K-8 Grade Span Configurations: A Multiyear, Statewide Analysis." *Current Issues in Education*, 16:2, August 15, 2013. <http://researchnetwork.pearson.com/wp-content/uploads/Clark-D-2013-Current-Issues-in-Education-2.pdf>
- ¹⁵ [1] "What the Research Says (or Doesn't Say) About K-8 Versus Middle School Grade Configurations." *Education Northwest*, August 18, 2011. <http://educationnorthwest.org/news/what-research-says-or-doesnt-say-about-k-8-versus-middle-school-grade-configurations> [2] "WWC Quick Review of the Article 'The Negative Impacts of Starting Middle School in Sixth Grade.'" Institute of Education Sciences What Works Clearinghouse, June 2008. http://ies.ed.gov/ncee/wwc/pdf/quick_reviews/sixthgrademiddle_060308.pdf [3] Jacob, B.A. and J.E. Rockoff. "Organizing Schools to Improve Student Achievement: Start Times, Grade Configurations, and Teacher Assignments." Hamilton Project, Brookings Institution, September 2011. p. 5. https://www0.gsb.columbia.edu/faculty/jrockoff/papers/092011_organize_jacob_rockoff_paper.pdf
- ¹⁶ [1] Benner, A.D. "The Transition to High School: Current Knowledge, Future Directions." *Educational Psychology Review*, 23:3, April 2011. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3182155/> [2] Cook, P.J. et al., Op. cit. p. 106. <http://dx.doi.org/10.1002/pam.20309> [3] Juvonen, J. et al. "Focus on the Wonder Years - Challenges Facing the American Middle School." RAND Corporation, 2004. pp. 13-15. http://www.rand.org/content/dam/rand/pubs/monographs/2004/RAND_MG139.pdf



"[...] the body of evidence highlights that no single grade span configuration across schools works best for all districts' needs, nor do researchers unanimously agree on a "best" configuration model."

school. At large, experts find that the dedicated alignment between early childhood and early elementary education facilitates longer-term learning and performance gains. In fact, some researchers find that "creating an intentionally aligned educational system for children 3 to 8 years old based on their developmental characteristics and abilities could be a major factor in sustaining public investments in education."¹⁷ Dedicated PreK-3 alignment, for example, is shown to help reduce the fade out effects that are

common among young children and promote more successful transitions in school.¹⁸ Nonetheless, the body of evidence highlights that no single grade span configuration across schools works best for all districts' needs, nor do researchers unanimously agree on a "best" configuration model.¹⁹

INTERNAL MODIFICATION, EXPANSION, AND RENOVATING FACILITIES

Two school districts in the benchmarking study did not report the use of grade-level reconfiguration for addressing increased student enrollment. Rather, these school districts, both of which request complete anonymity, turned to alternative strategies for overcrowding. CMS also implemented some of these alternative strategies as well to help alleviate enrollment pressure. One such strategy is altering the structure of existing spaces across classes and other rooms in a school to maximize the use of space. As one respondent with Anonymous District 1 explained, altering classroom space is typically the first strategy for making the most of a district's resources.²⁰ Of course, as the respondent for Anonymous District 2 stated, this seemingly simple step is not without its challenges. A district modifying the use of internal spaces may likely face pushback from staff who are affected by such changes and the reduction of space that was once theirs.²¹

Another strategy to address enrollment growth is the use of mobile or portable units to expand space. Indeed, both anonymous districts and CMS reported the use of temporary, mobile units for short-term use to combat space constraints.²² According to Community and

¹⁷ Bogard, K. and R. Takanishi. "PK-3: An Aligned and Coordinated Approach to Education for Children 3 to 8 Years Old." *Social Policy Report*, 19:3, 2005. p.5. <http://files.eric.ed.gov/fulltext/ED521747.pdf>

¹⁸ [1] "PreK-3rd Annual Report: Year One: 2011-2012." San Francisco Unified School District, December 2012. p.6. http://www.sfusd.edu/en/assets/sfusd-staff/programs/files/Early%20Education/PreK-3rd%20Report%20Year%20One_7-18-13.pdf [2] Reynolds, A., K. Magnuson, and S. Ou. "PK-3 Education: Programs and Practices that Work in Children's First Decade." Foundation for Child Development, January 2006. p. 5. <https://fcd-us.org/sites/default/files/ProgramsandPractices.pdf>

¹⁹ Sellar, W. "Configuring Schools: A Review of the Literature." Ontario Institute for Studies in Education, August 2004. p.2. <http://www.hpedsb.on.ca/ec/directorsOffice/arc/documents/Configuringschools.pdf>

²⁰ Respondent 1. Anonymous District 1, Phone interview. December 7, 2016.

²¹ Respondent 2. Anonymous District 2, Phone interview. December 6, 2016.

²² [1] McCully, Op. cit. [2] Respondent 2, Op. cit. [3] Respondent 1, Op. cit.

Environmental Defense Services (CEDS), a network of professionals that help solve the environmental concerns of private, nonprofit, and public entities, nearly one-third of all U.S. schools during the 2012-2013 school year relied on the use of mobile units to house classrooms.²³ While mobile units may provide quick and temporary facilities space, and while research has not identified any detrimental effects of their use for learning,²⁴ several studies have documented some health and safety hazards to their use.²⁵ A 2004 case study of portable units in Los Angeles County, for instance, showed poor ventilation and cooling.²⁶ None of the respondents that spoke with Hanover analysts, however, discussed such complications. In fact, research shows that the structural flaws of permanent facilities may sometimes raise even more concern for students' health and safety than mobile units.²⁷

Adding portable units to a school is not the only structural solution to overcrowding and enrollment growth. Two of the interviewed districts have, or have considered, renovating existing or replacement schools in an effort to expand space. At CMS, the district recently constructed a new school within the same boundaries as a replacement school.²⁸ The district plans to renovate the replacement school and retool its classrooms so that it may be reopened as a magnet school. Taking these steps will ease enrollment pressure as students have the option of enrolling in either program. A similar plan has been made at Anonymous District 2 where the district plans to build a new middle school and renovate an old middle school. This plan is in its earliest stages, stated the interview respondent, and the older school may actually be transformed into an elementary school depending on need.²⁹

ALTERNATIVE NON-CAPITAL OPTIONS

Altering school zone boundaries, restructuring the class schedule, and offering more online learning opportunities comprise three additional strategies for curbing pressure to the use of facilities space. As noted by CEDS, adjusting school boundaries makes sense if one school is above enrollment capacity while another has excess space.³⁰ With a similar approach, Anonymous District 1 has considered "teaming elementary schools" in which adjacent school boundaries are clustered.³¹ Students residing within the boundaries of a cluster of schools then have the option of enrolling in any program. In this case, school boundaries are flexible to population growth and allow the district to maximize the use of space.³² Researchers warn,

²³ "Preventing School Overcrowding & Other Development Impacts." Community and Environmental Defense Services. <http://ceds.org/school.html>

²⁴ Cheung Chan, T. "Do Portable Classrooms Impact Teaching and Learning?" *Journal of Educational Administration*, 47:3, May 8, 2009.

²⁵ [1] Shendell, D.G., A.M. Winer, et al. "Evidence of Inadequate Ventilation in Portable Classrooms: Results of a Pilot Study in Los Angeles County." *Indoor Air*, 14:3, June 1, 2004. [2] Shendell, D.G., R. Prill, et al. "Associations between Classroom CO2 Concentrations and Student Attendance in Washington and Idaho." *Lawrence Berkeley National Laboratory*, January 1, 2004. <http://escholarship.org/uc/item/88r0924r>

²⁶ Shendell, Winer, et al., Op. cit.

²⁷ Cheung Chan, Op. cit.

²⁸ McCully, Op. cit.

²⁹ Respondent 2, Op. cit.

³⁰ "Preventing School Overcrowding & Other Development Impacts," Op. cit.

³¹ Respondent 1, Op. cit.

³² Ibid.

however, that frequent “non-promotional school change” negatively affects students’ academic achievement, their social adjustment, and the school environment.³³ With these detrimental effects in mind, school districts should only enact boundary changes when necessary, never making these changes common practice.

Restructuring the class schedule and offering more online learning opportunities shift the focus of strategic enrollment planning from facilities space to instructional practice. Extending the school day or creating a year-round schedule is a practice that districts facing over-enrollment often consider.³⁴ Indeed, proponents of a year-round academic calendar often cite the benefit of facilities efficiency in addition to other academic benefits and opportunities for enrichment.³⁵ Both APS and Anonymous District 1 have considered switching to a year-round program but have not done so given the complexity of the process.³⁶ Similarly, Anonymous District 1 and CMS have considered offering more online learning opportunities to create flexible use of learning spaces. Though, empirical research yields mixed findings about whether or not online education is comparable with or more effective than in-person instruction.³⁷



Alternative Strategies to Alleviate Overcrowding

- Internal Modifications to Classrooms and Facilities Space
- School Expansion Using Mobile Units
- School Renovations
- Alter School Boundaries
- Restructure Class Schedule
- Offer Extended or Online Learning

IMPLICATIONS FOR CONSIDERATION

DISTRICT RESOURCES AND OPERATING COSTS

Whether a district decides to reconfigure grades or implement alternative strategies to address overcrowding and space constraints, there are a number of factors to consider. As it relates to grade-level reconfiguration, operating costs and the management of resources are

³³ Isernhagen, J.C. and N. Bulkin. “The Impact of Mobility on Student Performance and Teacher Practice.” *The Journal of At-Risk Issues*, 16:1, 2011. pp. 17–18. <http://files.eric.ed.gov/fulltext/EJ942895.pdf>

³⁴ “Preventing School Overcrowding & Other Development Impacts,” Op. cit.

³⁵ [1] “Year-Round Education Program Guide - Multitrack Year-Round Education.” California Department of Education. <http://www.cde.ca.gov/ls/fa/yr/guide.asp> [2] “Research Spotlight on Year-Round Education.” National Education Association. <http://www.nea.org/tools/17057.htm>

³⁶ [1] Hensley, Op. cit. [2] Respondent 1, Op. cit.

³⁷[1] Means, B. et al. “Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.” U.S. Department of Education, 2010. <https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf> [2] Miron, G. and J.L. Urschel. “Understanding and Improving Full-Time Virtual Schools: A Study of Student Characteristics, School Finance, and School Performance in Schools Operated by K12 Inc.” National Education Policy Center, 2012. <http://files.eric.ed.gov/fulltext/ED533960.pdf> [3] Bakia, M. et al. “Understanding the Implications of Online Learning for Educational Productivity.” U.S. Department of Education, Office of Educational Technology. <http://files.eric.ed.gov/fulltext/ED532492.pdf>

key issues for consideration. More specifically, grade-level reconfiguration often entails added costs associated with new materials, classroom items, facilities space, and student transportation.³⁸ A report published by the Brookings Institute found that these costs vary by district, however. The authors of this study estimated that the costs of reconfiguring from K-5/6-8 to K-8 schools ranges from about \$50 to \$250 per student based on national data and data reported by specific districts that have undertaken these efforts.³⁹ The costs of grade-level reconfiguration ultimately depend on the resources already available to the district and how much change is needed to accommodate the needs of new grade levels.

Among the respondents Hanover interviewed, each noted that reconfiguring grades and/or expanding facilities space were much less expensive options compared to building new schools. From this perspective, such strategies for addressing increasing enrollment are worth the costs when the alternative is to construct new schools. Hensley and Worcester also added that the new grade span configurations at both APS and SUSD are more conducive to student transportation and commuting needs than they were under their original arrangements.⁴⁰

STUDENT WELLBEING

Student wellbeing is of critical importance when reconfiguring grades or adjusting school boundaries that require student transitions between schools. As noted above, transitions can disrupt academic performance and social adjustment. Some districts have created comprehensive transition programs to support students and reduce the potential negative effects of school transitions.⁴¹ Overall, transition programs should be comprehensive efforts that involve input and collaboration between students, families, and staff; address students' academic and social needs through coordinated instruction and support programs; and occur on an ongoing basis.⁴² Just as the literature suggests, without a transition program in place, students at APS that transitioned from a middle school to a K-8 school did have difficulty

³⁸ Paglin, C. and J. Fager. "Grade Configuration: Who Goes Where?" Northwest Regional Educational Laboratory, July 1997. p. 10. <http://www.cityofportsmouth.com/school/centraloffice/eefc/4g.pdf>

³⁹ Jacob and Rockoff, Op. cit., pp. 5-6.

⁴⁰ Hensley, Op. cit. [2] Worcester, Terry. Director of Planning and Design, Scottsdale Unified District, Phone interview. December 16, 2016.

⁴¹ "The Power of a Great Education: PSEA's 20/20 Vision for the Future - Implement Transition Programs for Middle School and 9th Grade." Pennsylvania State Education Association, January 2010. https://www.psea.org/uploadedfiles/legislationandpolitics/vision/vision_transitionprograms.pdf

⁴² [1] "The Importance of Easing Transitions for Young Adolescents." California Department of Education. <http://pubs.cde.ca.gov/tcsii/ch6/trnsitionyngadlsnt.aspx> [2] "Research Brief - Transition from Middle School to High School." Education Partnerships, Inc. pp. 1–5. <http://files.eric.ed.gov/fulltext/ED538706.pdf> [3] "Supporting Students in Their Transition to Middle School." National Middle School Association and the National Association of Elementary School Principals, 2002. <http://www.nppsd.org/vimages/shared/vnews/stories/525d81ba96ee9/Tr%20-%20Supporting%20Students%20in%20Their%20Transition%20to%20Middle%20School.pdf> [4] Niesen, V. and P.S. Wise. "Transition from Elementary to Middle School: Strategies for Educators." National Association of School Psychologists. http://www.nasponline.org/communications/spawareness/transition_elem2mid.pdf

acclimating to the new environment.⁴³ To prepare for these changes, districts should consider answers to the following key questions for reconfiguration:⁴⁴

- Will the grade configuration increase or decrease parent involvement?
- How many students will be enrolled at each grade level and what implication does this have on course offerings and instructional grouping?
- How many transition points will occur? How will these be addressed?
- How will the presence or absence of older students affect younger students?
- Is the design of the school building suited to this grade configuration?
- What is the cost and length of student travel?
- What are the opportunities for interaction between age groups?
- What are the effects of the grade configuration on curriculum? Is there better continuity and articulation in curriculum with fewer gaps and overlaps?
- Are there stronger ties among schools, students, and parents?

CONSIDERATIONS FOR EDUCATORS AND COMMUNITY FEEDBACK

In addition to student wellbeing, strategies to address increasing enrollment should be informed by their implications for educators and feedback from the community at large. In the case of APS, for instance, licensing requirements for elementary and secondary teaching certification presented challenges when reconfiguring to K-8 schools. To this end, making teacher assignments to the new K-8 schools was difficult for administrators because separate certification is needed to instruct Grades K-6 and 7-8.⁴⁵ At APS, SUSD, and CMS, all districts faced some parent and community pushback to reconfiguration. At schools where elementary and middle grades were combined, parents expressed some concern about the mixing of younger and older students. Some also felt that Grade 8 students' preparation for the transition to high school would be negatively impacted when attending a school with much younger children. At schools where elementary and middle grades were separated, parents expressed displeasure at the fact that siblings close in age would be attending separate schools. Rather, these parents preferred the continuity that K-8 schools offered. Finally, at CMS, parents were concerned that combining grade levels would diminish the quantity and quality of offerings to older students.

To prepare for potential concerns, districts considering grade-level reconfiguration should make a concerted effort to solicit feedback from the community. After selecting potential configurations based on research, secondary literature, and regional trends, districts should assess stakeholders' views on these potential configurations.⁴⁶ To ensure alignment with

⁴³ Hensley, Op. cit.

⁴⁴ List of bulleted information taken from: Barton, R. and J. Klump. "Figuring Out Grade Configurations." *Principal's Research Review*, 7:3, May 2012. pp.4–5. <http://educationnorthwest.org/sites/default/files/resources/PRR-Figuring-Out-Grade-Configurations.pdf>

⁴⁵ Hensley, Op. cit.

⁴⁶ Paglin, C. and J. Fager., Op. cit., p. 9.

stakeholder values, a number of districts have conducted surveys and focus groups with students, parents, and other community members to determine which grade configuration to adopt. Districts have also created boundary review committees, consisting of parents, teachers, and staff, which have reviewed district plans for grade configuration and school boundary zones.⁴⁷

⁴⁷ [1] Reid, M. "SKSD Grade Reconfiguration Memo." South Kitsap School District, July 15, 2015. <http://www.skitsap.wednet.edu/cms/lib/WA01000495/Centricity/Domain/49/2015%20Grade%20Reconfiguration%20Memo%20final.pdf> [2] "Benefits/Challenges: Next Generation EPS Secondary Learning Experiences/Grade Configuration." Edina Public Schools. <http://www.edinaschools.org/cms/lib07/MN01909547/Centricity/Shared/PDFs/Grade%20Configuration%20-%20Benefits-Challenges.pdf> [3] "Edina School Board Approves Future Direction for Middle School, High School Configurations." Edina Public Schools, June 20, 2014. <http://www.edinaschools.org/site/default.aspx?PageType=3&DomainID=30&ModuleInstanceID=3758&ViewID=047E6BE3-6D87-4130-8424-D8E4E9ED6C2A&RenderLoc=0&FlexDataID=7533&PageID=109> [4] "FAQs - Middle School Grade Configurations." Jeffco Public Schools. http://www.jeffcopublicschools.org/fmp/sixth_grade_faq.pdf [5] Smith, C. "District-Wide Enrollment Balancing Recommendations." Portland Public Schools, March 19, 2016. p. 10. <http://www.pps.net/cms/lib8/OR01913224/Centricity/Domain/182/3-29-16-Super-Final-Recommendations-March-29-16.pdf>

SECTION II: IN-DEPTH INTERVIEW PROFILES

In the following section, Hanover profiles five school districts that have implemented various strategies to address increasing enrollment and the role grade-level reconfiguration played during the strategic planning process using information recorded in in-depth interviews with district leaders. In the first phase of Hanover’s ongoing study, previous reports noted that districts must take into account a number of factors when considering potential grade configurations. This include projected enrollment, school size, transportation costs, the number of transition points, stakeholder values, and school goals, among other factors. The profiles in this section review how such considerations were made when confronting challenges to student overpopulation and are guided by the following key research questions:

- What varieties of “grade reconfiguration” or alternative strategies are considered and used by public school districts in high-growth areas?
- How do districts navigate the challenges of carrying out a grade reconfiguration plan?
- What are the impacts – positive, neutral, and negative – of grade reconfiguration on district stakeholder experiences (students, families, teachers, administrators, and community members)?

Prior to reviewing each district’s approach in detail, Hanover briefly reviews methods for peer district selection.⁴⁸

METHODOLOGY

To draft an initial sample of target school districts, Hanover first identified school districts associated with the fastest-growing U.S. Metropolitan Statistical Areas (MSAs) based on an analysis of population change from April 1, 2010, to July 1, 2015. This analysis was performed using data reported by the U.S. Census Bureau.⁴⁹ Analysts then used the National Center for Education Statistics’ (NCES) database search tool to identify the public K12 education providers serving these regions and enrolling at least 10,000 students.⁵⁰ This step produced a total of 60 potential school districts likely to have experienced increases in student populations in recent years.

After identifying these school districts, interview outreach via email was specifically targeted to districts similar to ACPS in size as defined by: student enrollment between 10,000 and 30,000 students and/or 50 or fewer total schools. Outreach efforts were also focused on districts that considered or employed grade-level reconfiguration as a strategy for managing increasing enrollment. Hanover secured interviews with five school districts, two of which interview respondents requested complete anonymity. Figure 2.1 on the next page lists these

⁴⁸ A complete description of Hanover’s methods for district selection is made available in the interview protocol guide, *Protocol: Benchmarking Study of Grade Level Feasibility*

⁴⁹ “American FactFinder - Advanced Search.” U.S. Census Bureau.
<http://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

⁵⁰ “Search for Public School Districts.” National Center for Education Statistics. <https://nces.ed.gov/ccd/districtsearch/>

districts, interview respondents, and notable strategies for addressing increases in enrollment.

Figure 2.1: Interview Participants and Notable Strategies for Planning

ENROLLMENT CHALLENGES	RECONFIGURATION IMPLEMENTED?	ADDITIONAL OR ALTERNATIVE STRATEGIES	POSITIVE IMPLICATIONS TO RECONFIGURATION	NEGATIVE IMPLICATIONS TO RECONFIGURATION
Josh Hensley, Planning Coordinator; Aurora Joint District 28, CO				
<p>The district experienced a 19 percent increase in enrollment in the last 10 years (an additional 6,500 students). Approximately 40,000 students were enrolled as of the 2014-2015 school year.</p>	<p>Yes; starting in 2002, the district began planning for and building new schools that combine elementary and middle grades. Current buildings were reconfigured from separate elementary and middle schools into K-8 schools.</p>	<p>Additional K-8 schools were built in conjunction with reconfiguration.</p>	<ul style="list-style-type: none"> ▪ Transitions: Reduces the number of student transitions between schools. ▪ Transportation: More middle school-aged students are able to ride the bus. ▪ Positive Feedback: Parents perceive impact positively with regard to school environment, student-teacher relationships, and climate 	<ul style="list-style-type: none"> ▪ Transitions: Middle school students struggled to acclimate to K-8 setting. ▪ Stakeholder Pushback: Some concern has been expressed about the wellbeing of students. ▪ Licensure: State licensing requirements make it difficult to assign teachers to schools and grades
Terry Worcester, Director of Planning and Design; Scottsdale Unified School District, AZ				
<p>The district experienced major increases in enrollment between the years 1990 and 2000 at a rate above 30 percent. Administrators are now facing declines in enrollment. Approximately 26,000 students are currently enrolled.</p>	<p>Yes; in 2006, the district began creating K-5 schools out of what used to be K-8 schools; although, some K-8 schools were maintained given their areas of academic interest.</p>	<p>An additional 6-8 middle school was built in a central location.</p>	<ul style="list-style-type: none"> ▪ Transportation: New school locations work well for student commuting. ▪ Instructional Focus: Separate schools allow for more focused academic instruction, programs, and enrichment opportunities. 	<ul style="list-style-type: none"> ▪ Managing Facilities and Operating Costs: Reconfiguring requires careful consideration of how to reconsolidate resources. ▪ Stakeholder Pushback: Some concern has been expressed about separating siblings from the same families into two different schools.
Scott McCully, Executive Director for Planning and Student Placement; Charlotte-Mecklenburg Schools, NC				
<p>The district experienced major increases in enrollment between the years 1990 and 2000. At 145,000 students, the district anticipates high enrollment growth in the coming years.</p>	<p>Yes; the district created K-8 schools adapted from older buildings with reduced enrollment and low utilization. Though, administrators have not reconfigured grades in an explicit attempt to prioritize a specific grade-level model. Rather, many schools vary in their grade-level configurations.</p>	<p>The district adds mobile units for temporary need. Replacement buildings have also been updated to provide alternative enrollment options.</p>	<ul style="list-style-type: none"> ▪ Instructional Focus: Separate schools allow for more focused academic instruction, programs, and enrichment opportunities. 	<ul style="list-style-type: none"> ▪ Managing Facilities: Some reconfigured schools are not conducive for instruction of new grade-levels and negatively affect the quality of offerings. ▪ Stakeholder Pushback: Some concern has been expressed about offerings at schools where attendance is lowered

ENROLLMENT CHALLENGES	RECONFIGURATION IMPLEMENTED?	ADDITIONAL OR ALTERNATIVE STRATEGIES	POSITIVE IMPLICATIONS TO RECONFIGURATION	NEGATIVE IMPLICATIONS TO RECONFIGURATION
Respondent 1; Anonymous District 1				
<p>The district has experienced substantial growth and is above its maximum capacity by 500 students. Capacity is projected to exceed by 1,000 students in the 2017-2018 school year.</p>	<p>No; the district has implemented alternative strategies to combat issues with overcrowding.</p>		<p>A lottery system is used to manage the enrollment of students into prekindergarten. Existing facilities space is re-altered for more efficient use. Mobile units are added for temporary need. Teaming elementary schools allows students to enroll in schools in other boundaries. The district has also considered adjusting the class schedule and expanding online learning.</p>	
Respondent 2; Anonymous District 2				
<p>The district has experienced minimal pressure to enrollment given recent expansion of charter schools. Some schools, however, have faced high enrollment and pressure to capacity levels.</p>	<p>No; the district has implemented alternative strategies to combat issues with overcrowding.</p>		<p>Existing facilities space is re-altered for more efficient use. Mobile units are added for temporary need, and the district has considered updating existing buildings. The district has also re-altered school boundaries and the class schedule.</p>	

AURORA JOINT DISTRICT 28

Aurora Joint District 28 (often referred to as Aurora Public Schools; APS) is a large school district in Colorado that serves 39,184 total students according to 2014-2015 estimates provided by the district's website.⁵¹ APS is located near the Denver-Aurora-Lakewood MSA,

Overview



- **Total students:** ~40,000
- **Recent Growth:** 19 percent increase in enrollment in 10-year span
- **Enrollment Strategy:** Build and reconfigure to K-8 schools

which has experienced considerable population growth in the last several years. In April 2010, the population was a recorded 2,543,482 people; as of July 2015, the U.S. Census Bureau estimated a population of 2,814,330 people.⁵² This equates to an approximate 10.6 percent increase in total population size. In addition to this expanding resident population, APS also serves a number of student populations that face barriers to learning. Over two-thirds of the student body receives free or reduced price lunch while another third

consists of second language learners.⁵³ These student populations often require additional support services and resources, which can place pressure on a school district as it seeks to meet the needs of a diverse student body. To learn more about the challenges APS has faced with regard to student enrollment as well as the strategies the district has used to overcome these challenges, Hanover spoke with Josh Hensley (Hensley), a Planning Coordinator with APS's Planning Department.

CHALLENGES TO ENROLLMENT

Just as the larger region has witnessed population growth, Hensley shared that APS has experienced rapid growth in the last 10 years, with a 19 percent increase in enrollment (approximately 6,500 students).⁵⁴ The cause of this growth, Hensley described, is linked, in part, with the community's working class environment conducive to the needs of new immigrants settling in the area. More families relocating from Denver's urban core to the community is another reason the local population has witnessed increases in recent years as the city continues to experience gentrification and demographic change.⁵⁵ Aside from these changes, Hensley stated that the eastern neighborhoods located within APS's boundaries are planned for further development: "At the same time [that] we've been seeing growth within the existing part of the district, we've also been experiencing [...] typical suburban enrollment growth from new housing developments."⁵⁶

While APS has historically experienced steady population growth over the past decade, within the last several years, Hensley explained, economic decline, fewer births, and increases in young residents without children have caused enrollment to slow. "In the last couple years,"

⁵¹ "Demographics." Aurora Public Schools. <http://aurorak12.org/about-aps/fast-facts/demographics/>

⁵² "American FactFinder - Advanced Search," Op. cit.

⁵³ "Demographics," Op. cit.

⁵⁴ Hensley, Op. cit.

⁵⁵ Ibid.

⁵⁶ Ibid.

Hensley continued, “we've had somewhat of a reversal of this growth trend [...] in 2015 last year, we saw a bit of a flattening of enrollment. We still grew, but at about half the rate we had been.”⁵⁷ Despite these slight declines in growth, APS still had to take proactive steps to manage facilities space and resources as more students flooded the hallways of the district’s schools.

RECONFIGURING GRADE LEVELS

CREATING K-8 SCHOOLS

Hensley noted that, APS began planning for and building new schools that combined elementary and middle grades in 2002. Prior to this, the district sorted grades into Grade K-5 elementary, Grade 6-12 secondary, and Grade 9-12 high schools. “We decided that in our new schools, we were going to move to K-8, so we have built four new K-8's in the district in our new residential development,” Hensley described.⁵⁸ Although the district continues to operate separate elementary and middle schools, schools built to accommodate the growing student population at the start of the 21st century were made to serve all students in Grades K-8. Several other schools have been reconfigured to serve these grades as well.⁵⁹ Aside from early childhood education, technical, pilot, charter, and alternative schools and programs, currently, APS operates 29 elementary schools, six PK-8 and K-8 schools, eight middle schools, two PK-8 exploratory schools, and nine high schools.⁶⁰



“We decided that in our new schools, we were going to move to K-8, so we have built four new K-8's in the district in our new residential development”

-Josh Hensley

MOTIVATING FACTORS FOR RECONFIGURATION

APS made the decision to build and combine some elementary and middle schools to offer Grades K-8 for several reasons.⁶¹ Foremost, explained Hensley, reconfiguring grades to include K-8 enables the district “to build more seats in a developing area quicker.” In other words, building facilities with the capacity to serve students up through Grades 7 and 8 in areas with the greatest growth is more efficient for managing resources as it eliminates the need to build a separate middle school building. “[W]e can add [the] unit as a K-8 and serve more students immediately,” Hensley reiterated.⁶² Originally, administrators planned to build elementary schools that could eventually be transformed into larger schools. However, APS did not “have the luxury of additional space to do that.”⁶³ In addition to the benefit of

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ “Schools.” Aurora Public Schools. <http://aurorak12.org/schools/>

⁶¹ Hensley, Op. cit.

⁶² Ibid.

⁶³ Ibid.

resource efficiency, reconfiguring grades to include K-8 in a single school setting reduces the number of transitions students must make as they matriculate into the upper grades.⁶⁴ This rationale is supported in the literature on grade reconfiguration whereupon fewer school transitions are shown to benefit students' academic and social growth.⁶⁵

Aside from these primary considerations, Hensley added that K-8 schools have "become popular" in the greater Denver region.⁶⁶ "Parents like them as a substitute for these large middle schools" where students entering their early teen years would otherwise find themselves learning in a crowded environment.⁶⁷ Hensley noted that the K-8 configuration "also helps promote [student] relationships with the teachers by having just the smaller class sizes."⁶⁸

THE PLANNING AND DECISION MAKING PROCESS

While Hensley began working with APS in 2004 after the decision to build K-8 schools had been made, based on his understanding of the planning process, the plan to build and reconfigure K-8 schools was promoted through a bond election: "At the time, we were going for a bond election, and we promoted [K-8 plans] through our bond advertising for our bond election."⁶⁹ Conversations with local developers and the Board of Education helped to solidify and advertise plans for developing and reconfiguring schools. The district also engaged in an "extensive boundary process" to determine which students living in different neighborhood



"I would say that [...] there's more middle school kids that are able to ride the bus than there would be had [the district planned for] a traditional elementary and middle school feeder pattern"

-Josh Hensley

residencies would be eligible for enrollment in a K-8 school. In fact, the boundaries made for the new and reconfigured K-8 schools are more fitting for transportation needs. "I would say that [...] there's more middle school kids that are able to ride the bus than there would be had [the district planned for] a traditional elementary and middle school feeder pattern," stated Hensley.⁷⁰

Overall, Hensley reported an overwhelmingly positive response from parents about the plans.⁷¹ This positive

feedback can be attributed, in part, to the timing of school construction and new housing development. Because plans to reconfigure and build K-8 schools were underway prior to developers' investment in new construction and neighborhood expansion, many families

⁶⁴ Ibid.

⁶⁵ [1] Benner, A.D. Op. cit. [2] Cook, P.J. et al. Op. cit. [3] Juvonen, J. et al. Op. cit.

⁶⁶ Hensley, Op. cit.

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

moving to the area were pleased to find out that their children would be attending new schools. “We received a very favorable response from parents about wanting to attend a new school and also the K-8 model that we were going to be opening.”⁷²

CHALLENGES TO RECONFIGURATION

STUDENT TRANSITIONS FROM MIDDLE TO K-8 SCHOOLS

Although parent feedback comprises just one of several challenges a district often faces to reconfiguration, and while Hensley reported a positive response from families to APS’s K-8 schools, these changes were not without other challenges to implementation. A primary challenge to combining elementary and middle school grades the district faced was preparing students for the transition, particularly those that were moving from a middle to a K-8 school:

I would say the biggest challenge [...] when we first opened a school is [when] we moved all of the students that were in that attendance area to the new schools, so we took kids that already been in a traditional middle school and moved them to a smaller K-8 model, and that was a big of a challenge in that they had developed different expectations [...] ⁷³

As Hensley continued to explain, students in the middle schools had grown accustomed to interacting with a large number of other students their age. They had also become familiar with more autonomy permitted in middle schools, such as not waiting in line with others to walk to lunch. Returning to a school modeled more closely with elementary-level practices was difficult for cohorts of students that had been exposed to middle grades-only schools.⁷⁴

STUDENT WELLBEING

A less common yet notable challenge the district continues to face is apprehension from parents who express concern that their younger children attend school with much older students.⁷⁵ Some have also felt that students who attend the K-8 schools may be inadequately prepared for making the transition to high school, that matriculating directly from a primary school model to one that requires more maturity may be more difficult than making those transitions from middle to high schools. Though, Hensley stated that he has never personally heard these concerns from either families or high school administrators.⁷⁶ As such, concerns for student wellbeing a rarely voiced.

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Ibid.

STATE LICENSURE REQUIREMENTS

“One of the real issues that has been expressed and has been a bit of a difficulty for us,” Hensley highlighted, “[is that] there's different licensure requirements for elementary schools.”⁷⁷ Here, Hensley referred to teacher licensure in which educators may obtain certification for teaching in either Grades K-6 or 7-8. “When you have a K-8 model, unless you have a teacher that's dual qualified or dual licensed to teach both, then there can be an issue within teaching in the primary grades and then teaching in seventh and eighth grades.”⁷⁸ Assigning teachers with the appropriate certifications to grade levels became an even more difficult task when APS considered offering year-round education. The district originally proposed this solution for areas within the district experiencing rapid growth. However, creating a year-round calendar “became difficult in how [to] staff [schools] and have enough middle school qualified teachers that can teach” at different periods of time over the full year.⁷⁹ “That was something that we worked on that we didn't really have an answer for,” Hensley concluded.⁸⁰



“One of the real issues that has been expressed and has been a bit of a difficulty for us [is that] there's different licensure requirements for elementary schools.”

-Josh Hensley

OUTCOMES

CREATING MORE INTIMATE SCHOOL CLIMATES

Hensley listed several benefits to K-8 reconfiguration, mainly in the form of community reception. Based on his observations as a Planning Coordinator, Hensley stated that since the creation of the K-8 schools, parents have enjoyed:⁸¹

- The proximate location of the schools to homes and within neighborhoods;
- The lengthened school days that the model enables;
- The closer interactions and relationships the students are able to forge with educators;
- The more intimate environment that the schools offer; and
- The opportunities for older students to work with and assist young students.

These benefits aside, APS has yet to assess the impact K-8 grade-level reconfiguration has had on student academic performance. “I know that our K-8 schools are some of our higher

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

performing schools [...] but it's not something that we've, at least that I have seen, where we've done any in depth study on," Hensley acknowledged.⁸²

RECOMMENDATIONS

While district leaders have yet to evaluate the success of the K-8 schools for student academic and social outcomes, Hensley emphasized the importance of taking "purposeful" action when asked about his recommendations for implementing reconfiguration.⁸³ "[D]o you have the support of administration? Is this what your community wants long-term?" Hensley asked hypothetically as if he were contemplating reconfiguration as strategy for resolving student overpopulation.⁸⁴ Indeed, an important part of the planning process is determining which locations are projected to experience population growth and then working with developers to assess need. "[F]or us we, have about anywhere from 30- to 40,000 new homes planned in our eastern areas over the next 20 years to 25 years" Hensley added, "We're actively out working with developers getting school sites."⁸⁵

Hensley also discussed the need to give thoughtful consideration to facility size, or "being purposeful about how big you want your K-8's to be."⁸⁶ According to Hensley, APS offers two facilities models; the smaller schools include three "rounds" per grade level, and the larger schools offer four "rounds" per grade level. For APS, the larger schools have proven to be more compatible with the needs of the community. Of course, for any district, altering facilities spaces or building new schools depends on the district's long-term goals and the types of environments the district wants its students learning in.⁸⁷

SCOTTSDALE UNIFIED SCHOOL DISTRICT

Scottsdale Unified Schools District (SUSD), Arizona, is a large, urban school district that serves nearly 26,000 students.⁸⁸ SUSD overlaps with the Phoenix-Mesa-Scottsdale MSA, which has experienced large population growth in recent years. From April 2010 to July 2015, the Phoenix-Mesa-Scottsdale MSA grew from an estimated 4,192,887 to 4,574,531 people as reported by the U.S. Census Bureau.⁸⁹ This represents a population growth rate of 9.1 percent over the five-year period. While the larger region has experienced significant increases in population

Overview



- **Total students:** ~26,000
- **Recent Growth:** Over 30 percent increase in enrollment from 1990 to 2000
- **Enrollment Strategy:** Build and reconfigure to separate K-5 and 6-8 schools

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ "General Information." Scottsdale Unified Schools District. <https://concrete.susd.org/search/general-information/>

⁸⁹ "American FactFinder - Advanced Search," Op. cit.

size, student data provided by SUSD actually reveal larger enrollment growth between 1990 and 2000 than in more recent years.⁹⁰ According to SUSD, students under age 5 and ages 5 to 13 declined in their enrollment by 16 percent from 2000 to 2010, with little increases to enrollment among students in the 14 to 17 age range.⁹¹ A decade earlier, however, students in all three age groups grew in their rates of enrollment by 31.2 percent or more.⁹²

To learn more about how SUSD addressed these demographic and enrollment changes, Hanover interviewed Terry Worcester (Worcester), the district’s Director of Planning and Design. As confirmed in the interview, Worcester has a background in architecture specialized in K12 education and has been working with the district for the last two years.⁹³ Worcester’s role as Director of Planning and Design is to help the district plan for and design the use of facilities space.

CHALLENGES TO ENROLLMENT

Confirming the demographic trends discussed above, Worcester stated that much of the local area’s population growth occurred between the 1990s and the early 2000s.⁹⁴ Because of Scottsdale’s high population density and proximity to the Phoenix metropolitan area, this growth curtailed after the beginning of the 21st century, with little space left to grow. “Much of the geographic area for the city to grow has been consumed by growth, so we as a district do not grow as rapidly as other cities’ districts that are further out on the perimeter of the metropolitan area,” discussed Worcester, “My perspective specifically to Scottsdale Unified is from a context of rapid growth, and then a decline of sudden rapid growth.”⁹⁵

Worcester continued to explain that Arizona’s patterns in rapid growth often produce an “enormous influx of students” in a given area.⁹⁶ Initially, developers will build on a given tract of land, allowing for an elementary, middle, or high school site. As these communities continue to expand, districts find themselves needing to accommodate the educational needs of even more students. As Worcester described, “suddenly, there are hundreds, if not thousands, of students that need to be accommodated in that new tract for this new development, which triggers new construction. With new construction, you have to make a decision on how to deal with that extraordinary rapid growth.”⁹⁷ Drawing on his expertise and demographic research, Worcester stated that, after a couple of decades of rapid growth, these communities typically witness a decrease in population size. Consequently, school

⁹⁰ “Scottsdale Unified Schools District Demographics and Enrollment Analysis.” Scottsdale Unified Schools District Governing Board, January 14, 2014. <https://concrete.susd.org/files/5514/2447/0334/SUSD-Enrollment-and-Demographics-Projection-to-2022.pdf>

⁹¹ Ibid.

⁹² Ibid.

⁹³ Worcester, Op. cit.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ Ibid.

⁹⁷ Ibid.

districts in the region must plan for a boom in enrollment followed by a slow decline. Patterns in SUSD’s growth suggest that the district is now entering this phase of decline.⁹⁸

RECONFIGURING GRADE LEVELS

CREATING K-5 SCHOOLS

In 2006, the district began creating K-5 schools out of what used to be K-8 schools; although, SUSD maintained some K-8 schools in given areas of academic interest.⁹⁹ The district also built a centrally located middle school for students in Grades 6-8. Today, the district operates 16 elementary schools, three Grade K-8 schools, six Grade 6-8 middle schools, and five high schools (plus one online high school program).¹⁰⁰

MOTIVATING FACTORS FOR RECONFIGURATION

According to Worcester, SUSD decided to break up the district’s K-8 schools into separate elementary and middle schools so that the elementary schools could focus on the instruction and support of younger children. Ultimately, SUSD sought to improve the academic performance of students in these early grades while enabling students in 6-8 middle schools to prepare for the transition to high school.¹⁰¹

THE PLANNING AND DECISION MAKING PROCESS

The first step to planning for reconfiguration, Worcester explained, is estimating the number of students projected per household in new communities with large growth: “The first question to ask is how do we, as educators, make the decision on what composition the school needs to be? That decision typically is related to how many students are actually going to be projected per household in that new growth area.”¹⁰² Once a district has calculated enrollment projections, Worcester stated that the next step is to scan the area for facilities space. If both an elementary and a middle school are absent from areas with expected increases in enrollment, for example, it may be best to create K-8 schools that contain both elementary and middle



“The first question to ask is how do we, as educators, make the decision on what composition the school needs to be? That decision typically is related to how many students are actually going to be projected per household in that new growth area”

-Terry Worcester

⁹⁸ Ibid.

⁹⁹ Ibid.

¹⁰⁰ “General Information,” Op. cit.

¹⁰¹ Worcester, Op. cit.

¹⁰² Ibid.

grades. “That typically is what has happened in Scottsdale and other growth districts around the metropolitan area,” Worcester noted.¹⁰³

When SUSD began to stall and even decline in its enrollment growth, the district then focused efforts on the separation of K-8 into K-5 and 6-8 schools for more tailored instruction and organization suited for young- and mid-grade-level students.¹⁰⁴ With these aims, the district decided to build a middle school, holding a bond election to make the final decision to separate K-8 and establish 6-8 middle schools. With approval, the district moved forward with the plan and adapted new school boundaries. Worcester emphasized that the new boundaries work well for commuting and student transitions from elementary to middle school.¹⁰⁵

CHALLENGES TO RECONFIGURATION

MANAGING FACILITIES AND OPERATING COSTS

Worcester responded that efficiently managing facilities and costs was immensely difficult when asked about the challenges of restructuring K-8 to K-5 schools. “When you have a facility designed for K-8 and then it goes to K-5, you have surplus facilities,” Worcester discussed—surplus facilities “become an alligator within the district in that you have

operating costs and you have maintenance costs [...] In the case of our district, suddenly some of these fantastic growth areas now are in such population decline that schools are half populated.”¹⁰⁶ After reconfiguring grades across schools to address population needs, SUSD had extra classrooms. The district decided to use these empty spaces for the instruction of small-scale programs, such as gifted or special education programs, pull-out instruction, or classes for the community.¹⁰⁷ When making decisions on how to consolidate resources, the district considered costs for consumables, such as electricity or other utilities expenses, as well as the costs of full-price employees and staffing.¹⁰⁸



Leaders planning for reconfiguration should prepare for and consider...

- **Projected enrollment**
- **School location**
- **Operating costs, including utilities and staffing expenses**
- **Stakeholder pushback**

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

STAKEHOLDER PUSHBACK

Aside from having to reconsolidate resources, another challenge to reconfiguration was managing negative feedback from the community and parents. As Worcester noted, splitting K-8 into K-5 elementary and 6-8 middle schools means that students from the same family will attend different facilities.¹⁰⁹ This disrupts the “continuity” and “convenience” for parents when different-aged siblings were once able to attend the same K-8 school.¹¹⁰ Indeed, these concerns were voiced by community members as SUSD planned to create separate elementary and middle school facilities: “[O]ur public constituents, and I assume most public constituents, like K-8 simply because you may have age groups within your family; so if you have [...] an upper-elementary and you have a junior-higher, they’re going to the same facility.”¹¹¹ In these instances, stakeholders were displeased with the separation of the schools. Overall, Worcester described the community’s perceptions of grade-level reconfiguration as “[v]ery much negative.”¹¹²



“Our decision-making is to make our decisions based upon facility equity.”

-Terry Worcester

OUTCOMES

By separating the K-8 into distinct elementary and middle schools, SUSD has been able to take a more “progressive focus on academic achievement.”¹¹³ Worcester gave the example that the 6-8 middle schools can better focus on offering higher-level enrichment opportunities, such as robotics or sports teams. Though, to Worcester’s knowledge, SUSD has not taken steps to evaluate the impact of the reconfiguration on students, the community, educators, or other schooling operations.¹¹⁴ Rather, reconfiguration was implemented at a time when the district was facing severe budget cuts, undermining SUSD’s ability to thoroughly assess the feasibility and outcomes of reconfiguration. To this point, Worcester remarked:

The reality is that the reconsideration would have been as the district was going into severe recession. Arizona was severely in recession from 2006 or 2007 [and] that state funding was literally cut to zero. Millions and millions of dollars were lost, and so the evaluations that you mention would mostly be in context of being able to afford schools, and keeping them open versus closing them, and consolidation.¹¹⁵

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

RECOMMENDATIONS

Worcester recommended that districts considering reconfiguration establish a baseline estimate for approximating how many students, classrooms, and staff a school should consist of for the most efficient use of resources.¹¹⁶ He mentioned that SUSD recently passed a \$229 million bond election for the building of eight new elementary schools. “I would give advice to a district superintendent and governing board to establish a baseline [...] Our point of view is that we establish a baseline of most-productive facilities for the K-5, and that tends to be 700 students, 4 classrooms for each grade level.”¹¹⁷ Maintaining a balance of 700 students at these schools, Worcester and his colleagues have found, is productive from a leadership perspective as well.

Aside from establishing a baseline for operational use, Worcester encourages decision makers to be equitable in their planning of reconfiguration and school construction. “Our decision-making is to make our decisions based upon facility equity,” which, Worcester admits, can be a very difficult goal to accomplish when creating school boundaries.¹¹⁸ At SUSD, for instance, the district’s boundaries overlap with very affluent and socioeconomically disadvantaged communities.¹¹⁹ With equity in mind, district leaders have remained firm about ensuring equitable educational opportunities for students from all socioeconomic backgrounds. “Within our communication department, we use the slogan, ‘One size does not fit all,’” Worcester explained, “meaning that there are other educational opportunities in different places. If there is an academic program for one area, then we try to make it for others.”¹²⁰

CHARLOTTE-MECKLENBURG SCHOOLS

Charlotte-Mecklenburg Schools (CMS) is large, urban school district in Mecklenburg County, North Carolina, that serves just over 145,000 students based on the latest estimates provided by the NCES.¹²¹ According to U.S. Census Bureau records, the Charlotte-Concord-Gastonia, NC-SC MSA has grown by more than 200,000 people from April 2010 to July 2015, just under 10 percent of the total population during this five-year period.¹²² Indeed, the CMS Planning Services Department states that the district “continues to experience major growth within its communities

Overview



- **Total students:** ~145,000
- **Recent Growth:** 3 percent annual county growth
- **Enrollment Strategy:** Build and reconfigure to K-8 schools, add mobile units and update replacement schools

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Ibid.

¹²¹ “Search for Public School Districts,” Op. cit.

¹²² “American FactFinder - Advanced Search,” Op. cit.

and schools” with an average county growth rate of 3 percent each year.¹²³ When segmented by different geographies within the county, northern and southern communities are witnessing much of this growth. “It is anticipated that this growth trend will continue for at least the next ten years,” writes the Planning Services Department on the CMS website, “Given the changing demographics of our school-age population and the amount of growth we anticipate, CMS will continue to face challenges as we plan for student assignment and how we can best meet the needs of each child we serve.”¹²⁴ Hanover interviewed Scott McCully (McCully), the Executive Director for Planning and Student Placement, to learn more about CMS’s strategies for addressing student overpopulation.

CHALLENGES TO ENROLLMENT

When asked about the population changes the district has endured in recent years, McCully responded that the region experienced immense growth from the 1990s into the 2000s, with substantial slowing after the Great Recession in 2008: “We have experienced what I would call pretty consistent and rapid growth [...] since probably the early 1990s. That has



“While CMS has not reconfigured grades in an explicit attempt to prioritize a specific model, the district has ‘experimented with other grade configuration’ with the expansion of new facilities and among its existing buildings.”

crescendo or peaked in the mid-2000s and has slowed pretty substantially with the recession of 2008.”¹²⁵ Aside from economic factors, part of the reduction in growth can be attributed to demographic changes in the residency of families with no children, McCully added. “[T]he growth that we’re seeing now is probably more so from younger, single, non-children family individuals.”¹²⁶ In addition to this demographic trend, McCully shared that the state recently lifted the cap on the number of students that may enroll in charter schools. Consequently, students attending charters would otherwise attend CMS, reducing enrollment in the district’s public schools. Regardless of these factors and their effects on enrollment, the district still grew by over 1,000 students in the past year. With this, McCully concluded that CMS is “a growing district year after year.”¹²⁷

RECONFIGURING GRADE LEVELS

VARIED GRADE CONFIGURATIONS

While CMS has not reconfigured grades in an explicit attempt to prioritize a specific model, the district has “experimented with other grade configurations” with the expansion of new

¹²³ “Charlotte-Mecklenburg Schools Demographic Overview.” Charlotte-Mecklenburg Schools. <http://www.cms.k12.nc.us/cmsdepartments/StudentPlacement/PlanningServices/Pages/Charlotte-MecklenburgSchoolsDemographicOverview.aspx>

¹²⁴ Ibid.

¹²⁵ McCully, Op. cit.

¹²⁶ Ibid.

¹²⁷ Ibid.



“We actually have a PK-8 opening next year that’s designed and built specifically for a PK-8. Typically, that’s a middle school kind of configuration, even though most of the grades are younger [...] That way we can ensure that we have the adequate facilities for those older students.”

-Scott McCully

facilities and among its existing buildings.¹²⁸ In total, the district operates about 170 facilities: 95 elementary schools, 39 middle schools, and 32 high schools.¹²⁹ Many of these schools are composed of non-traditional grade-level arrangements.¹³⁰ For instance, roughly 10 schools are K-8 plus two magnet schools consisting of K-12 and 6-12 configurations, respectively. Another program is offered in a Montessori school with Grades PK-6, and a second Montessori school is set to open with Grades 7-12.¹³¹ McCully also added that the district operates three “middle colleges” for students in Grades 11-13

with another opening next year.¹³² In addition to these arrangements, the district has also used Gates grants in the past to separate high schools into different buildings on a single campus. While some of these schools have since rejoined into a single high school, CMS’s Olympic campus is still devised as separate buildings with multiple principals.¹³³

As it relates to the interests of ACPS, the district has had to create K-8 schools adapted from older buildings with reduced enrollment and low utilization. Altogether, these grade configuration patterns demonstrate CMS’s unique need to create schools with varied and, in many respects, non-traditional grade-level offerings.¹³⁴

MOTIVATING FACTORS

The reasons for opening schools with these alternative configurations and reconfiguring other schools are multifaceted. Primarily, the decision to offer diverse schools is rooted in students’ academic needs.¹³⁵ Many of the K-8 schools at CMS are specialized for instruction concentrated in particular disciplines, such as STEM or languages. However, McCully explained that rearranging grades in older buildings to serve students in Grades K-8 was driven, in part, to create more efficiency in funding use:

¹²⁸ Ibid.

¹²⁹ These estimates are provided by McCully. The CMS website provides other school counts. Aside from one alternative school and two programs for exceptional children, according to district’s webpage, CMS currently operates 108 elementary schools, 43 middle schools, and 34 high schools (including academies and eLearning programs). This information can be found at: “Schools.” Charlotte-Mecklenburg Schools. <http://www.cms.k12.nc.us/cmsschools/Pages/default.aspx>

¹³⁰ McCully, Op. cit.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Ibid.

It's an interesting phenomenon because we have kind of an older corridor area for which the enrollment had actually shrunk a little bit. We had schools that were 50 percent, 60 percent utilized. [A] review of those schools in that area occurred in 2010 as a direct result of the budgetary cliff that we're experiencing here in the school system. It was really more for budgetary reasons to go with [the K-8] model for those schools.¹³⁶

THE PLANNING AND DECISION MAKING PROCESS

When planning, CMS does not move forward with reconfiguration unless the district has determined that the facilities available are appropriately suited for the proposed grades: “what we've said is that we will not go forth with a K-8 unless there's an appropriate facility to match the grade configuration,” McCully clarified.¹³⁷ This decision is based on the district’s prior experience shifting middle schoolers into buildings that were previously used as elementary schools. Administrators learned that while such buildings were not fully utilized, the spaces within the schools still lacked the features and amenities needed to accommodate instruction for students in the middle grades. “Oftentimes, [these buildings] lacked some of the other amenities that would be needed for an older student, a middle school student such as a gym, a track, [or] lockers.”¹³⁸ Thus, grade-level reconfiguration is only approved unless the school building can sufficiently meet the needs of the student body.

Should Planning Services determine that new K-8 facilities are fitting for enrollment need, CMS constructs new buildings aligned with the features typical of middle schools. In fact, the district is underway with the creation of a new PK-8 school. “We actually have a PK-8 opening next year that’s designed and built specifically for a PK-8,” stated McCully, “Typically, that's a middle school kind of configuration, even though most of the grades are younger [...] That way we can ensure that we have the adequate facilities for those older students.”¹³⁹ Likewise, the curriculum at the new K-8 school will be adapted to middle school learning, with extracurricular offerings to enrich the school’s core programs. Again, this decision is informed by CMS’s past reconfiguring experiences in which too few students were assigned to a K-8 school limiting the district’s ability to offer a broad range of electives. When discussing this, McCully mentioned that “[s]ome of the feedback [CMS] received is there's just not enough critical mass of students to be able to offer a full complement of electives. That includes choral and band, and all of the other extracurricular [classes] that middle school students have grown to expect. I think that is certainly a lesson learned.”¹⁴⁰

Maintaining equity in educational offerings is also valued when the district plans for grade-level reconfiguration and the construction of new schools.¹⁴¹ For example, CMS uses a blind lottery to assign students to its full and partial magnet schools. In these cases, students record

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

their first, second, and third priority schools.¹⁴² The district has since expanded the capacity of the most popular schools to accommodate “students who really have a desire to be in [those] program[s].”¹⁴³ When asked how the community has responded to these and other decision making practices, McCully stated that, overall, there have been no major concerns or pushback. McCully elaborated on this point, mentioning that “[i]f there [are] any concerns, it's more of a concern about maybe a parent wanting their child to get into a specific program.”¹⁴⁴

ALTERNATIVE STRATEGIES TO RECONFIGURATION AND CHALLENGES

EXPANSION AND UPDATING REPLACEMENT SCHOOLS

While the district has added new schools and reconfigured school grades where possible, CMS has had to implement other strategies to accommodate growth in student enrollment. To put recent growth in perspective, McCully noted that this year’s increase in enrollment is roughly the equivalent of adding a new elementary school to the system. In other words, an ‘elementary school’s worth’ of students enrolled in CMS this year alone.¹⁴⁵ Notably, the district did not construct a new school this year, although school development is underway. “What we have done to accommodate that growth,” McCully expanded, “is very similar to what other districts do, and that's to continue to add mobile units [...] Unfortunately, that seems to be the only way that we can manage at least the short-term growth.”¹⁴⁶ The decision to add mobile units is strongly linked with CMS’s budget, which does not lend itself easily to the construction of new buildings:

Our facilities are basically funded through a general obligation bond issue, and usually the cycle on that is every four years. The last bond that we had was in 2013 for approximately 295 million. Frankly, that's a lot of money, there's no question about that, but it didn't go very far. When a high school costs anywhere from 60 to 80 million, a middle school about 30 to 40 million, and an elementary around 20, it goes quickly. Then that also includes any renovations or any school replacements.¹⁴⁷

Aside from adding mobile units, the district has strategically built a new school in the same attendance zone as a replacement school.¹⁴⁸ After the district updates the replacement school building, students will have the option to enroll in either school. To this point, McCully stated: “we aren't forcing anybody to go to the school that we've just rebuilt, but we're giving that as an option.”¹⁴⁹ Ultimately, the district aims to use its “existing assets to the greatest extent possible and [reopen] schools that have been closed and converting those to high

¹⁴² Ibid.

¹⁴³ Ibid.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

¹⁴⁹ Ibid.

desirable magnet programs,” steps which can help optimize facilities space as the population continues to grow.¹⁵⁰

OUTCOMES

Overall, McCully has found the strategies the district uses to address enrollment challenges helpful for leveling the pressure to accommodate growth.¹⁵¹ Reconfiguring grades in buildings where enrollment was low and updating existing buildings into magnet schools have helped to ease pressure for slots. Though, McCully did not speak to the implications these practices have had for students or educators.¹⁵²

RECOMMENDATIONS

McCully emphasized the importance of planning ahead and being creative with the use of space available to the district to create room for more students. Even solutions that only increase capacity by a small margin are still important for addressing over enrollment:



“For districts pressed with overcrowding, McCully encouraged looking to redevelop old schools, redesigning commercial spaces, or leasing existing facilities from developers as a means to increase facilities space.”

“[r]eally keep that capital plan up-to-date, and then just really from there look at creative solutions. Even though it may not yield a huge number in terms of general release. I mean, every student counts.”¹⁵³ For districts pressed with overcrowding, McCully encouraged looking to redevelop old schools, redesigning commercial spaces, or leasing existing facilities from developers as a means to increase facilities space. For instance, McCully noted that “[i]n high growth areas or high transient areas, sometimes it’s better to lease, [or] get into a long-term lease, and then that way [a district] can get out of it if you need to;

or at the end of the lease, evaluate if that’s the right place to have a school.” Extending this discussion, McCully added that collaboration with external partners to determine projections in enrollment can help a district plan accordingly.¹⁵⁴ At CMS, professional staff are actively collaborating with demographers at the University of North Carolina, Chapel Hill to understand what the enrollment needs might be in the next 10 to 20 years.¹⁵⁵ Doing so has helped to gauge the need for facilities and other resources in the long-term.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

ANONYMOUS DISTRICT 1

Anonymous District 1 (District 1) is a midsize, urban school district located in the Southeastern region of the United States. The metropolitan area in which the district is located has witnessed substantial population growth at a rate above 8 percent from April 2010 to July 2010 based on data reported by the U.S. Census Bureau. With high population growth, the

Overview



- **Total students:** ~26,000
- **Recent Growth:** Capacity expected to exceed 1,000 students in 2017-2018
- **Enrollment Strategy:** Internal space modification, add mobile units, adjust class schedule, team elementary schools, expand online learning options

district has faced considerable increases in student attendance. As of the 2016-2017 academic year, over 26,000 students attended District 1, more than 500 above the district's capacity.¹⁵⁶ Projection estimates released by District 1 suggest that by the next school year, enrollment will exceed capacity by nearly 1,000 students. This estimate even accounts for increased capacity at several of the district's schools. To better understand these challenges and District 1's strategies for meeting enrollment demand, Hanover interviewed Respondent 1 who requested complete anonymity.

CHALLENGES TO ENROLLMENT

As District 1's enrollment records would suggest, Respondent 1 stated that the district has faced issues with increasing student populations and pressure to accommodate all students with only the resources and facilities that the district has: "[w]e're in need of more seats to accommodate our students. That's sort of the biggest challenge. More seats, more funding, everything that's associated with more students in school. So we're in need of a lot of resources to accommodate schools and kids."¹⁵⁷ Respondent 1 noted that while some schools within the district are facing more pressure than others, on the whole, most of District 1's schools are growing.¹⁵⁸ Adding to these challenges, the district's urban location and population density makes it difficult to expand facilities as there is little space to expand. "We're sort of in a place where land is extremely expensive, we don't have a lot of sites," Respondent 1 described, "the county's essentially built out. So it gets a little more challenging for us."¹⁵⁹

ALTERNATIVE STRATEGIES TO RECONFIGURATION

PRE-KINDERGARTEN LOTTERY SYSTEM

Respondent 1 stated that the district has not reconfigured grades in an attempt to curb pressure for facilities space; although, this is a strategy that leaders have considered. Rather,

¹⁵⁶ This information is based on enrollment estimates provided by District 1. This and other sources that disclose the name of the district are kept confidential.

¹⁵⁷ Respondent 1, Op. cit.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

Respondent 1 affirmed that District 1’s current grade-level configuration works well for organizing students.¹⁶⁰ The district currently operates traditional PK-5 elementary, Grade 6-8 middle, and Grade 9-12 high schools in addition to two 6-12 schools.¹⁶¹ Slots for the pre-kindergarten program are limited to about 1,200 seats, however, which are assigned to students through a lottery system. Some spaces are reserved for low-income students and others are open to all student applicants.¹⁶²

INTERNAL MODIFICATIONS AND EXPANSION

To address issues of student overpopulation, District 1 follows a sequence of facility alteration options, from small-scale adjustments to large-scale solutions. When classrooms first require more seats to meet increased enrollment, the district’s first response is to make internal modifications to space arrangements.¹⁶³ As Respondent 1 explained, “[f]irst we look at if we can do, what we call, internal space modifications. [Asking,] Can we change rooms that are non-capacity generating into capacity generating rooms?”¹⁶⁴ If increases to enrollment are steady, and if it appears that the school’s population will remain high, the district will then consider more extensive modifications. In these cases, district leaders will consider building additional facilities space to an existing school.¹⁶⁵ For temporary accommodations, District 1 will add “relocatables” to schools in need.¹⁶⁶ The final step District 1 will take to address increasing enrollment is to build a new school. Of course, this step is “last on the hierarchy,” Respondent 1 noted, as the district tries “to go through another means prior to full-out building a new school.”¹⁶⁷ Most recently, District 1 considered offering pre-kindergarten and kindergarten in separate centers as part of its expansion.¹⁶⁸



“First we look at if we can do, what we call, internal space modifications. [Asking,] Can we change rooms that are non-capacity generating into capacity generating rooms?”

-Respondent 1

NON-CAPITAL OPTIONS

When asked about the use of any additional creative or alternative strategies to accommodate increasing enrollment, Respondent 1 listed a variety of “non-capital options,” or “options where instead of building more space, we use our existing space more efficiently.”¹⁶⁹ These options include adjusting class schedules, “teaming elementary

¹⁶⁰ Ibid.
¹⁶¹ Ibid.
¹⁶² Ibid.
¹⁶³ Ibid.
¹⁶⁴ Ibid.
¹⁶⁵ Ibid.
¹⁶⁶ Ibid.
¹⁶⁷ Ibid.
¹⁶⁸ Ibid.
¹⁶⁹ Ibid.

schools,” and expanding online learning options.¹⁷⁰ With regard to scheduling, Respondent 1 elaborated, the district considered offering year-round education so that students could learn at different times, but thus far, the district has not made this change. Teaming elementary schools, on the other hand, clusters the boundaries of schools in close proximity so that students may choose to enroll in any one of the team schools. This enables students to attend schools with greater capacity. District 1 has also considered developing 24-7 online learning options in an effort to consolidate the district’s resources while meeting the needs of a growing student body.¹⁷¹

Another non-capital option that has been proposed is to change admission and transfer policies to better manage the flow of incoming students. Altering school boundaries, instituting shared spaces, and leasing spaces are similar strategies District 1 has considered to manage the distribution of students across schools.¹⁷²

OUTCOMES

While Respondent 1 did not comment on how these processes have impacted students, educators, or the community at large, he did emphasize that expansion presents opportunities for improving instruction:

[...] I guess [expansion is] an opportunity. Instead of looking at it as something negative, we see it as an opportunity. We're really looking to improve instruction. That's first and foremost here. While we're expanding space, we're also looking at putting instruction first in doing so.¹⁷³

ANONYMOUS DISTRICT 2

Anonymous District 2 (District 2) is a large, urban school district located in the Southern region of the United States that serves over 50,000 students. The metropolitan area in which District 2 is located grew by approximately 8 percent from April 2010 to July 2015 based on calculations of U.S. Census Bureau population estimates. Already much larger than most U.S. districts, District 2 has witnessed steady growth in recent years with a 4 percent increase in its student body from 2010 to 2016.¹⁷⁴ To learn more about how District 2 has managed the increase in enrollment, Hanover spoke with Respondent 2 who requested complete anonymity.

Overview



- **Total students:** ~50,000
- **Recent Growth:** 4 percent increase in enrollment from 2010 to 2016
- **Enrollment Strategy:** Internal space modification, add mobile units, adjust boundaries, adjust class schedule,

¹⁷⁰ Ibid.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ This information is based on enrollment estimates provided by the state that District 2 is located in.

CHALLENGES TO ENROLLMENT

In email correspondence with Hanover, Respondent 2 noted that the district has not faced major challenges to growth in enrollment. Respondent 2 clarified that while some schools have faced capacity challenges, pressure to accommodate growing student populations is not felt district-wide.¹⁷⁵ In one instance, District 2 split an elementary school into Grade K-2 and 3-5 configurations, resulting in two campuses with one school administration. The district also recently created a traditional school set to expand from a K-5 to a K-8, with grade-level configuration designed to incrementally expand into a K-8 over time.¹⁷⁶ By adding one grade each consecutive year, the K-8 school will meet its full capacity in three years. Aside from these configurations, Respondent 2 confirmed that the district has not had to reconfigure grades in response to overcrowding.¹⁷⁷ During the interview, rather, Respondent 2 stated that the district’s current configuration—which is made up of K-5 elementary, 6-8 middle, and 9-12 high schools—has worked well for organizing school grades. Even so, the district’s urban location does present challenges to expansion when necessary.¹⁷⁸

ALTERNATIVE STRATEGIES TO RECONFIGURATION

INTERNAL MODIFICATIONS, EXPANSION, AND UPDATING REPLACEMENT SCHOOLS

Respondent 2 touched on how the development of charter schools has drawn more students away from the district’s traditional public schools. This can, in part, explain why District 2 has experienced minimal increases in enrollment recently: “As an overall district [...] we're actually bleeding students to the charter schools every year [...] Charter schools stand alone and they draw students from certain attendance boundaries based on capped enrollment that's approved by the School Board.”¹⁷⁹ Nonetheless, District 2 has implemented several techniques to address temporary need. Foremost, the district will assess the use of facilities space to determine if adjustments can be made for more efficient use of classrooms. Respondent 2 gave an example and added that “[i]f classrooms are being used as offices, obviously that impacts your capacity, as a rather obvious point.”¹⁸⁰ In this instance, a school may reassess the use of classroom space for an office while taking into consideration the autonomy the department needs in order to manage operations. “There are several variables that you can look at to try and get more kids in the building without impacting the delivery of instruction.”¹⁸¹

¹⁷⁵ Respondent 2, Op. cit.

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

¹⁷⁸ Ibid.

¹⁷⁹ Ibid.

¹⁸⁰ Ibid.

¹⁸¹ Ibid.

As another option, the district will extend facilities through the use of portable structures. The district is also planning on building a bigger middle school using an older building that hasn't been operating for some time. "[W]e're actually going to be building a bigger middle school in a location that hasn't been used for 25 years and perhaps turn the existing middle into an elementary to help relieve some of the overcrowding in elementary, but that's all, it isn't something we've done. This is something we're planning."¹⁸² Together, these rearrangements help to modify existing facilities without having to reconfigure grades across schools.

NON-CAPITAL OPTIONS

Restructuring school boundaries and altering the class schedule are other non-capital strategies District 2 has implemented at schools faced with increasing enrollment. In either case, however, it can be challenging to make these decisions.¹⁸³ Teachers typically enjoy block scheduling and assigned classrooms, for example, as it provides opportunities to complete work during open block times. As Respondent 2 pointed out, however, this scheduling arrangement results in unoccupied classroom space during a teacher's open block period—space that is in high demand at schools pressured to accommodate increases in enrollment.¹⁸⁴ To maximize the use of space, the district may require teachers to "float," freeing space during a period an educator is not scheduled to teach.¹⁸⁵ While this practice is more efficient for the use of resources, teachers prefer assignments to a single classroom, Respondent 2 explained.

OUTCOMES

Because District 2 has not faced much pressure to reconfigure grades or expand facilities, Respondent 2 did not speak directly to the outcomes of any changes that have been made to its high-capacity schools.¹⁸⁶ Rather, Respondent 2 concluded that districts facing this pressure, particularly in urban and dense areas, must approach such challenges creatively and consider how to reorganize the existing use of facilities to maximize efficiency.¹⁸⁷



“ “[W]e're actually going to be building a bigger middle school in a location that hasn't been used for 25 years and perhaps turn the existing middle into an elementary to help relieve some of the overcrowding in elementary, but that's all, it isn't something we've done. This is something we're planning”

-Respondent 2

¹⁸² Ibid.

¹⁸³ Ibid.

¹⁸⁴ Ibid.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

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