



2018

Facility Study



Portsmouth Public Schools



M.B. Kahn Construction Co., Inc.



M. B. Kahn Construction Co., Inc.

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February, 2018

Portsmouth Public Schools
801 Crawford Street
Portsmouth, VA 23704

RE: Facility Study Report

Dear Dr. Bracy,

We are pleased to submit this Facility Study Report for the Portsmouth Public School Division. Many thanks to you, your board, faculty and staff for welcoming us throughout the Division, conducting tours of each facility, and answering countless questions regarding each of them. Everyone went out of their way to assist us in accomplishing our goals of providing you a comprehensive facility study report, to which we are extremely grateful.

We look forward to continuing to work with you as you prepare a roadmap to continue your success in educating students.

Sincerely,
M.B. KAHN CONSTRUCTION CO., INC.

Robert H. Brax
Director of Preconstruction



Columbia | Greenville | Charleston | Myrtle Beach | Atlanta | Richmond | Charlotte | Roanoke

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COMMUNITY AND DIVISION PROFILE

Introduction

- Purpose of the Facility Study
- Study Development and Implementation
- Acknowledgements

Community and Schools Profile

- Community Demographics
- School Demographics

Educational Programming

- 21st Century Learning Environments/Flexible Design-Based Curriculum
- Career and Technology Education
- Educational Funding

INTRODUCTION

Purpose of the Facility Study

In May 2017, the M.B. Kahn Construction Company, in partnership with the Portsmouth Public Schools, initiated a facility study with the following goals:

- To assess the Division’s current facilities’ conditions, uses, and maintenance needs.
- To offer options to address school operations issues, such as aging structures, declining enrollments, and overall demographic trends.
- To provide construction and maintenance strategies responsive to future uses and learning methods in light of funding constraints, existing projects and plans, and current facility conditions.



This study assesses existing facilities’ conditions, needs, and future plans to provide a blueprint that will reinforce proactive, cost-effective and appropriate actions division-wide. Recommended implementation options offered in this resulting document provide construction and maintenance strategies that will result in safe, healthy and functional learning spaces, responsive to 21st Century learning methods and facility needs unique to each school. This is a collaborative study, drawing on input from stakeholders within the Portsmouth community including Division leadership, school leaders, teachers, and

facility maintenance staff.

This study contains three sections. Section One provides community and school profiles, highlighting the demographic, economic, and environmental issues that may shape specific project implementation within the Portsmouth Public Schools. This section also includes an in-depth, school-based, demographic analysis conducted by the University of Virginia Demographics Research Group specifically for this project. Section Two provides implementation options and recommended action strategies in tandem with the needs identified by Portsmouth Public School System stakeholders, and within the realities of funding limitations. Section Three contains existing individual facility assessments which evaluate the thirteen elementary, three middle, and three high school campuses with a focus on the structural conditions, current uses, future needs, funding sources, and existing Division projects.

Though this plan focuses on the current and impending needs of the Division, it is a living document and will be most effective when Division stakeholders review and update action strategies as needed to reflect constraints and opportunities that may arise in the dynamic nature of School Division activities.

Study Development and Implementation

The initial task was a professional assessment of the physical and functional condition of each of the schools in the Division. Over the course of several weeks during the 2017 summer months, M.B. Kahn's inspectors visited the 19 Division schools. Inspectors reviewed key building components, such as the structural, electrical, and mechanical systems, along with the buildings' ages, occupant health and safety, location, current use, and future plans, to establish baseline data for the study. During the inspections, M.B. Kahn representatives interviewed principals and maintenance staff to address immediate and future needs. After much collaboration, this final Facility Study Report was developed.

Additionally, the Demographics Research Group, Weldon Cooper Center for Public Service, at the University of Virginia, conducted a demographic analysis of the school-age population in Portsmouth. Their findings comprise the demographics information contained in Section Two of this study and provide an in-depth analysis of demographic trends and enrollment projections for each school from 2016-2032.

The inclusion of comprehensive data as provided by Dr. Bracy and his team, allowed M.B. Kahn's staff to analyze each facility's core capacity, and to address areas that often limit growth. This can include internal components like cafeteria space, building ingress and egress, and existing floor plans, as well as with external factors such as building site, environmental constraints, fiscal challenges, and surrounding land uses. From this analysis, combined with input from the Division leadership, M.B.



Kahn staff formulated a series of future use options and recommended action strategies for the Division. From the physical assessment, demographics study, and the Division input, it is the intent of this process to provide an adaptive, responsive study that will be a foundation for strategic planning and maintenance operations benefitting student learning and providing high-quality, safe and healthy facilities for the Portsmouth Public Schools in years to come.

One risk in conducting facility studies many consultants face is to treat each school campus as a self-contained entity. This is understandable, because when on a school campus, it can feel like a place that is separate and safe from the world surrounding it. While this is the goal for creating secure and conducive learning spaces, it is impossible to create meaningful plans without understanding the surrounding area. In this study, M.B. Kahn staff included information to address outside planning efforts, environmental factors, and local community issues applicable to the Division's facility planning and maintenance programs. The City of Portsmouth Comprehensive Plan update, underway in 2017, the D2 Uptown Study, the City's 2017-2018 Budget and CIP projects, zoning, and environmental regulations, are examples of data included in the facility recommendations and Action Strategies outlined in this study.



Acknowledgements

Portsmouth Public School leadership and staff have been great partners throughout this process. At every school without exception, the faculty and staff were extremely welcoming and helpful. Their insights into the inner workings of their schools and the Division is critical to this plan's success. For the countless emails, phone calls, meetings, and inspections, the M.B. Kahn staff wish to extend our greatest thanks and appreciation. We are grateful for the knowledge and patience the Portsmouth community extended us, and appreciate the opportunity to work together in building great spaces to provide healthy, safe, and productive spaces for all Portsmouth's students that enhance learning for the 21st Century.

Special appreciation is extended to the following:

SCHOOL BOARD

Mr. Claude C. Parent, *Chairman*
Mrs. Costella B. Williams, *Vice-Chair*
Ms. Angelia N. Allen
Ms. LaKeesha S. "Klu" Atkinson
Rev. Joseph A. Fleming
Mrs. Sarah Duncan Hinds
Mr. Ted J. Lamb
Rev. Cardell C. Patillo
Dr. Ingrid P. Whitaker

SUPERINTENDENT

Dr. Elie Bracy, III

DIVISION STAFF

Mr. Scott A. Ziegler, *Director of Human Resources and Operations*
Mr. Thomas Marsh, *Project/Contracts Manager*
School Principals and Staff

COMMUNITY AND SCHOOLS PROFILE

Community Demographics

The City of Portsmouth is unique in that it can be defined as a historic and modern industrial community. Portsmouth was an important part in Colonial America’s establishment, and continues to serve as the epicenter for U.S. Navy shipbuilding and fleet maintenance. Even before its Charter in 1652, Portsmouth has been home to maritime industries and the U.S. Navy’s Norfolk Naval Shipyard. Today, the modern city is a vibrant reflection of a rich history, supported by current military and industrial operations, and home to unique neighborhoods with a diverse population.

Bordering on the Elizabeth River and surrounded by the cities of Chesapeake and Norfolk, Portsmouth is unable to expand through annexation. The city grew from the early 20th Century to the 1960’s to a peak population of nearly 115,000. It had since declined to a low of 95,535 by 1990;¹ however, this trend appears to be reversing. Since 1990, population increased by an average of 1.3% to an estimated 96,802 in 2014, and current projections estimate 102,838 residents by 2040.²

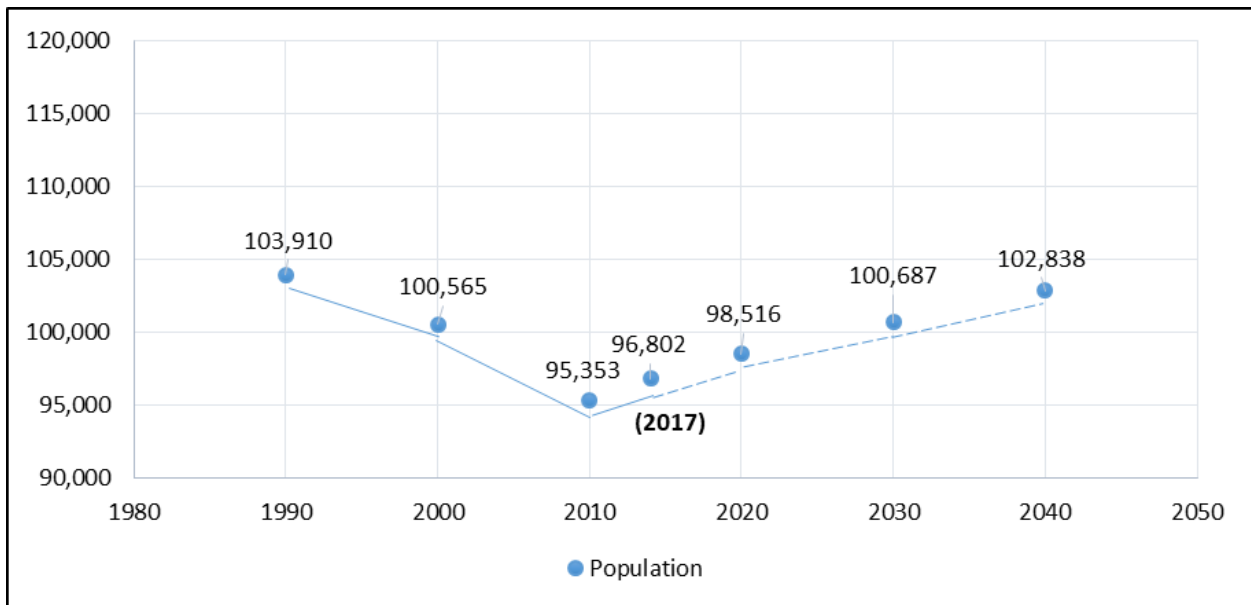


Figure 1: City of Portsmouth Population and Projections, 1990-2040

With little undeveloped land, Portsmouth’s recent population growth comes in part, from existing urban redevelopment. The city has several initiatives underway, from housing to historic preservation; and substantial changes to development codes that promote residential development. Age groups contributing to this growth are mostly young adults in their 20’s, and late middle-age residents likely to be empty-

¹ American Fact Finder, US Census Bureau. Retrieved September 8, 2017.

<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

² Portsmouth Demographic Study, p.6. June 2015. Demographics Research Group, Weldon Cooper Center for Public Service, University of Virginia. Accessed September 8, 2017. <http://www.portsmouthva.gov/DocumentCenter/View/751>

nesters or retirees. While these cohorts do not often have school-age children, the younger residents may add to future student population growth in years to come.³

Portsmouth's density is distributed fairly evenly throughout the city. While demolition and institutional uses created vacant areas, Portsmouth has a citywide population density of 3,524 persons per square mile (not including Craney Island and the Norfolk Naval Shipyard). According to the 2014 Portsmouth Demographics Study, Portsmouth is less dense than other population centers in Hampton Roads, including Norfolk, Newport News, and the northern half of Virginia Beach, despite being landlocked, and largely "built-out."⁴ This is important in understanding the even distribution of existing school populations, and to forecasting future school population needs.

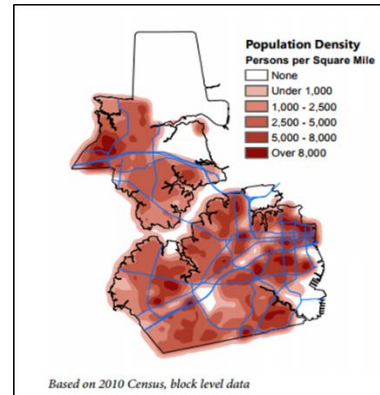


Figure 2: City of Portsmouth Population Density, 2014
Source: Portsmouth Demographics Study, 2014



Figure 3: Flooding at Westhaven Elementary School, September 2014

Community issues can become factors to population change. Tangible factors, such as the physical environment, traffic, crime, economy, and cultural amenities can bring people to a city, or push them away; as these tangible factors create intangible factors such as feelings of safety, welcoming, and quality of life. This study, though focused on school facilities and population, addresses apparent issues affecting school demographics, which in turn, affect school facility planning and maintenance programs. For example, in areas prone to flooding, recommendations may include mitigation strategies to reduce storm water runoff or impervious surfaces.

School Demographics

As of September 2017, the Division serves 14,340 students in three preschool centers, thirteen elementary schools, three middle schools, three high schools, one alternative and an adult learning center. The schools provide special education services to approximately 12.9% of the student body. The Division offers Advanced Placement, dual enrollment, and the First College program where high school students are given the opportunity to take college courses at Tidewater Community College.⁵ Enrollment in Career and Technical Education Courses is popular, with over 26.2% of students enrolled in courses throughout the three high schools.

The Division employs 2,212 faculty and staff, with 1,041 teachers and 1,171 staff. The Board of Education guides policy for the Division, and the School Superintendent and leadership guide daily operations.

³ A Demographic Analysis of the School Age Population in Portsmouth City, Virginia, pp. 4-9. Demographics Research Group, Weldon Cooper Center for Public Service, University of Virginia. Accessed September 8, 2017

⁴ Portsmouth Demographic Study, p.7. June 2015. Demographics Research Group, Weldon Cooper Center for Public Service, University of Virginia. Accessed September 8, 2017. p.7

⁵ Portsmouth Public Schools Five Year Strategic Plan, SY 2016-2021, p.4.

Most of the City’s land is owned by the federal government, resulting in a lower tax revenue than other cities of similar size. The City boasts a solid AA bond rating by maintaining tight fiscal controls and enforcing cost-controlling measures.

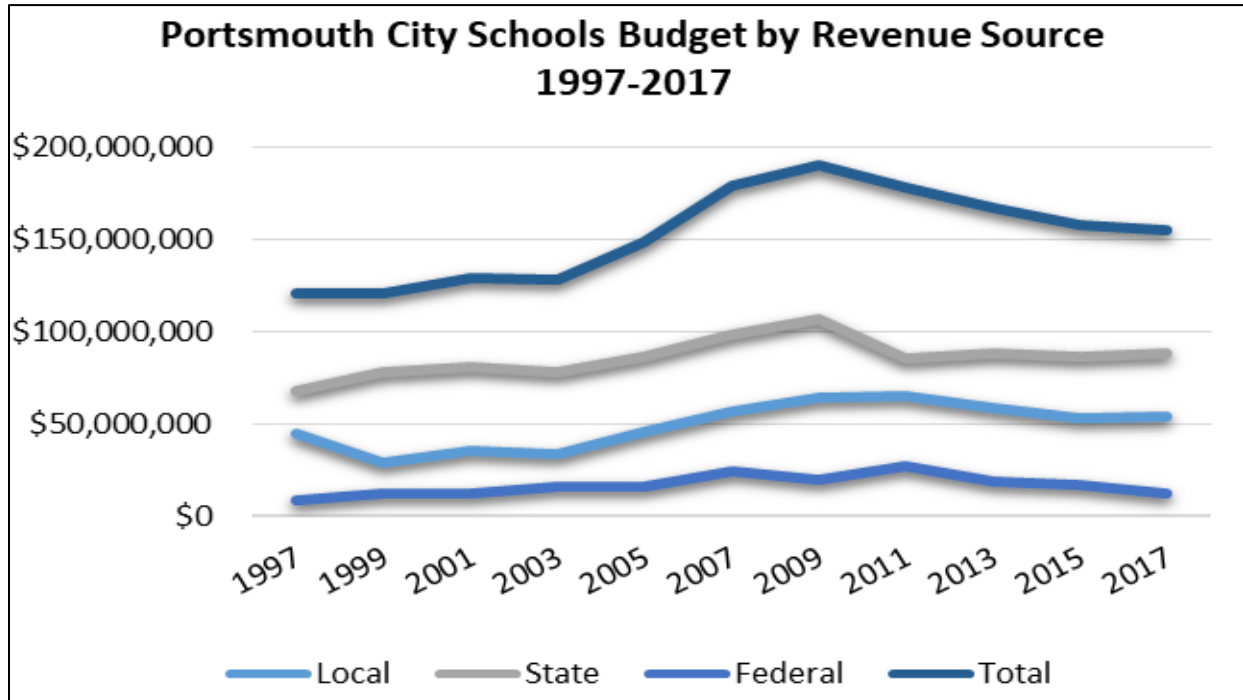


Figure 5: Portsmouth Public Schools Budget by Revenue Source, 2007-2017

Recently, declining enrollments, combined with cost-savings measures, prompted one preschool facility’s closure in the summer of 2017 to enable teachers to receive salary increases as a part of recruitment and retention incentives. The Division is dedicated to providing educational facilities that are reflective of 21st century learning programs, including technology services, career and technical education programs, and flexible, safe learning environments.



Figure 4: Emily N. Spong Preschool Facility Closed

The Capital Improvements Plan (CIP) included in the City of Portsmouth’s FY 2018 budget outlines nine school facility projects implemented over the next five years. FY 2018 appropriations include a proposed \$6,999,500 towards CIP projects in the current year. Additional funding for maintenance projects not included in the project will depend on external funding or reallocation in the CIP in subsequent years. The current educational facilities projects in the FY 2018 CIP are as follows:

Table 1: Portsmouth Public Schools FY 2018 Proposed CIP Education Facility Projects⁶

| Project | Appropriated to Date | FY2018 Adopted | 5 Year Total | CIP Total |
|--|------------------------|------------------------|-------------------------|-------------------------|
| Brighton ES Roof Replacement | \$ 78,000.00 | \$ 895,000.00 | \$ 895,000.00 | \$ 973,000.00 |
| Churchland Academy Parking Lot Addition | | \$ 77,500.00 | \$ 377,500.00 | \$ 377,500.00 |
| Churchland High HVAC | \$ 1,162,009.00 | \$ 1,000,000.00 | \$ 3,700,000.00 | \$ 4,862,009.00 |
| Churchland HS Stage/Sound/ Lighting Renovation | | \$ 345,000.00 | \$ 345,000.00 | \$ 345,000.00 |
| Hodges Manor ES Roof Top Unit Replacement | | \$ 380,000.00 | \$ 380,000.00 | \$ 380,000.00 |
| Mt. Hermon Preschool Roof Replacement | \$ 69,000.00 | \$ 863,000.00 | \$ 863,000.00 | \$ 932,000.00 |
| School Bus Fleet Replacement | \$ 3,956,082.00 | \$ 1,000,000.00 | \$ 5,000,000.00 | \$ 8,956,082.00 |
| Transfer to General Fund | \$ 2,750,000.00 | | | \$ 2,750,000.00 |
| Woodrow Wilson High School Roof | \$ 1,509,516.00 | \$ 1,889,000.00 | \$ 1,889,000.00 | \$ 3,398,516.00 |
| Woodrow Wilson HS HVAC Cooling Tower Rep | | \$ 550,000.00 | \$ 550,000.00 | \$ 550,000.00 |
| Total | \$ 9,524,607.00 | \$ 6,999,500.00 | \$ 13,999,500.00 | \$ 23,524,107.00 |

The following section presents results from “A Demographic Analysis of the School-Age Population in Portsmouth City, Virginia” by the Demographic Research Group, Weldon Cooper Center for Public Service, University of Virginia. In May 2017, M.B. Kahn commissioned the Center specifically for this study in conjunction with the facilities assessment study. The appendix contains the full results of the study, including school-level data. From 2000-2010, Portsmouth’s kindergarten to 12th grade student enrollment declined by over 12 percent, but between 2010 and 2014, Portsmouth’s student enrollment grew, in part, due to larger entering kindergarten classes. However, since 2014, student enrollment in Portsmouth has been declining in size. Many school divisions in the Hampton Roads Metropolitan Area have experienced declines in student enrollment since 2000, though the total K-12 student enrollment in the metro area has only declined by 6 percent from 2000-2016. Most of the decline in student enrollment in the Hampton Roads Metro Area has occurred since 2006 when the housing boom ended.

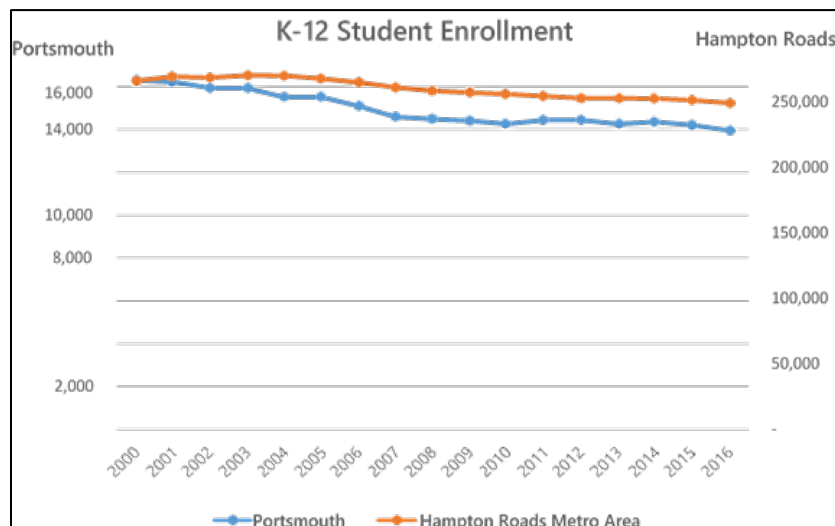


Figure 6: K-12 Student Enrollment 2000-2017
Source: Virginia Department of Education Fall Count

⁶ City of Portsmouth Adopted Operating Budget & Capital Improvement Program FY 2018, p.190-200

During the past two decades, the decline in public school enrollment in Portsmouth City has followed the decline in the city’s school-age population. Public school enrollment has declined more slowly than Portsmouth’s school-age population because the portion of Portsmouth children attending public school has risen to nearly 90 percent.

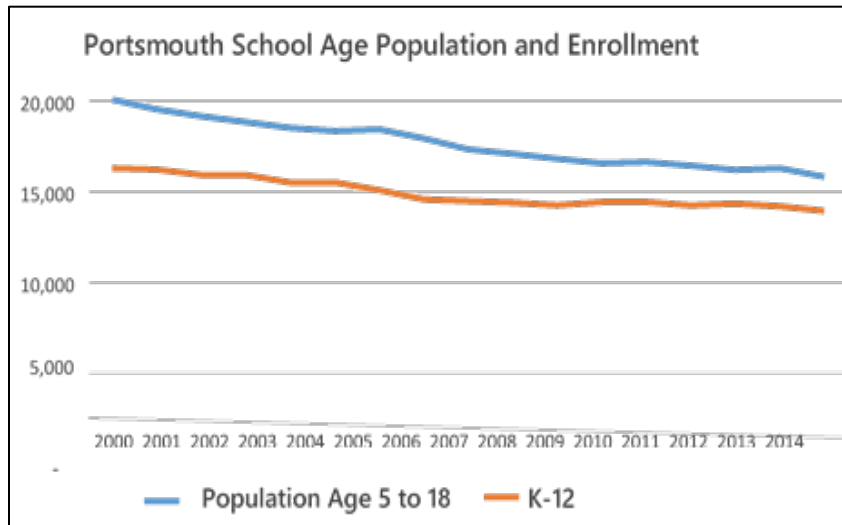


Figure 7: Portsmouth Public Schools Population and School Age Enrollment
 Source: Virginia Department of Education Fall Count, Census Bureau Age Estimates, and Decennial Census

Changes in the school-age population and, consequently, student enrollment are driven by a combination of family migration and birth rates. During the early 2000s, the school-age population in some school divisions declined as families moved out of the region.

Since 2010, the school-age population has declined in nearly every school division within the Hampton Roads Metro Area. Virginia, overall, has experienced a small decline in its school-age population since 2010 as a result of families moving out of the state and the fall in births after the housing boom ended. The school-age population in Portsmouth was less affected by this trend because a large number of families had already moved out of the city.

Table 2: Changes in School Age Population
 Source: Census Bureau Age Estimates and Decennial Census, and Decennial Census

| | 2000 to 2006 | 2010 to 2016 |
|----------------|--------------|--------------|
| Chesapeake | 4% | -3% |
| Norfolk | -6% | -9% |
| Portsmouth | -8% | -6% |
| Suffolk | 21% | -4% |
| Virginia Beach | -6% | -8% |
| Hampton Roads | -2% | -8% |
| Virginia | 4% | -1% |

One of the best ways to track whether a school division is gaining or losing families is to look at the ratio of its kindergarten enrollment to births five years earlier. If all the children born in Portsmouth in a given year—and only those children—enrolled in Portsmouth City Public Schools for kindergarten five years later, the kindergartner-to-birth ratio would be 100 percent. This rate of out-migration has been fairly consistent since at least 2000. Similar to Portsmouth, most urban school divisions in the region already had a large share of their families move out of the region prior to the end of the housing boom. As a result, Hampton Road’s urban school divisions have not experienced a significant rise in families moving away in recent years. In contrast, suburban school divisions in the region, such as Suffolk and Isle of Wight, have attracted

considerably fewer families in recent years, causing student enrollment in some suburban school divisions to decline.

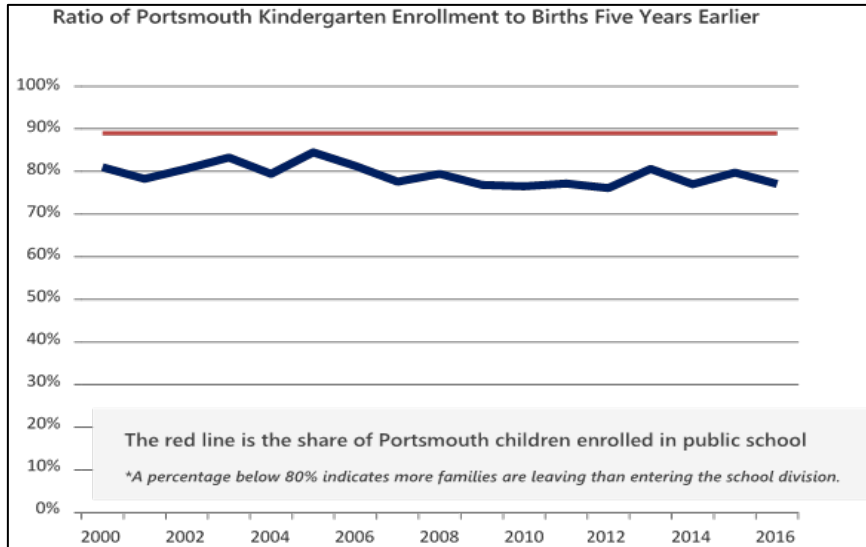


Figure 8: Ratio of Portsmouth Kindergarten Enrollment to Birth Five Years Earlier
 Source: Weldon Cooper Center Annual Births Tabulations

The decline in families moving to suburban school divisions in Hampton Roads is in large part tied to the end of the housing boom in 2007. Homeownership rates have fallen in the region and across the country as a result of the increased difficulty in obtaining mortgages. Since most of the suburban housing stock in Hampton Roads is owner occupied (rather than rental properties), fewer families have been able to afford to move to them, which has resulted in a boost in urban school division enrollment in most of Virginia’s metro areas.

Although the projection for Portsmouth Public Schools shows a slight decline in student enrollment, this will be distributed over a large number of facilities. The need to maintain most all of the existing facilities and classroom space, continues for the next 10 years.

EDUCATIONAL PROGRAMMING

21st Century Learning Environments/Flexible Design-Based Curriculum

The modern workforce and expectations of colleges and universities both require students to obtain more, as well as different types, of skills and knowledge. While the traditional reading, writing, science, and math are still necessary and take center stage, teachers are adapting their styles to incorporate technology and collaborative learning, when and where space allows. These adaptations take into consideration the following:



Awareness that students respond to different types of instruction and learning styles. Flexible spaces and furniture can help to meet different learning styles.



Traditional

classrooms in rows, chalkboards



photo credit: Craig Gaulden Davis

Collaborative

spaces allow for flexibility and group learning



Increase in number of students who require special accommodations, many of which are now required by law (such as Americans with Disabilities Act, which requires equal access within the facility).



Need for programs and spaces that promote 21st century skills in environments that reflect a modern workspace, such as media centers and technology-ready classrooms.



Need for community gathering spaces – for athletics, student performances, student programs, drama/arts programs, etc.



Access to technology that puts Portsmouth Public Schools’ students ahead of the curve. Technology upgrades are being recommended for most schools as technology and education go hand in hand. Technology, by design, is always evolving into newer and better applications in the classroom and the school. We have allocated an “allowance” cost for technology upgrades to most schools, but it is not inclusive of all needs across the Division.

Even traditional career paths require new ways of using technology to enhance learning and product development.



Emphasis on new security procedures. The school access and entry should be limited and easily monitored by office staff with appropriate, modern equipment.

Plans for adaptations should include not only the consideration of physical programming needs, but also the effects of buildings on student performance and community which include:

Natural Light – Providing abundant natural light has been proven to increase students’ test scores. Many Portsmouth City Schools, such as Churchland Middle, were not designed with adequate windows in the classrooms.

Collaboration – Just as employees do in the workforce, students must learn to collaborate in new ways to solve problems and create new products. The schools designed in the 1950s and 1960s were designed for individual factory workers, and not necessarily the modern workforce skills of the 21st century.

Perception – The front entrance of any public school is often the first impression for visitors and new residents. Factors such as landscaping, signs, and the front lobby can greatly enhance the perception of schools. Portsmouth City Schools is proving success and learning that is far above and beyond the “picture” or perception of the schools, due to the age of the buildings and grounds. Improvements to the schools would increase perception, improve morale among teachers and students, and attract more visitors and businesses.



Economic Impact – Good schools make good communities. The benefits of providing the best possible public education are well-known. The earlier children, especially those considered at-risk, can obtain interaction with public school programs, the better their chances for long-term success. The returns on investment for the entire community are:

- More educated workforce
- Reduced school dropout rates
- Less student discipline issues
- Lower crime rates
- Better teacher recruiting and retaining
- Higher wages
- Attraction of more businesses and quality jobs

A project based learning curriculum provides the format for students to gain knowledge and skills by working for an extended period of time on real-life, engaging and complex questions and problems. Project based learning is more than simply assigning a project to each student. It is a comprehensive approach and space to blending subjects into the learning process. Any school system seeking to add project based learning to its curriculum will need to consider the following impacts of a project based learning program:

- Facilities / Space
- Furniture and equipment
- Teacher training and development

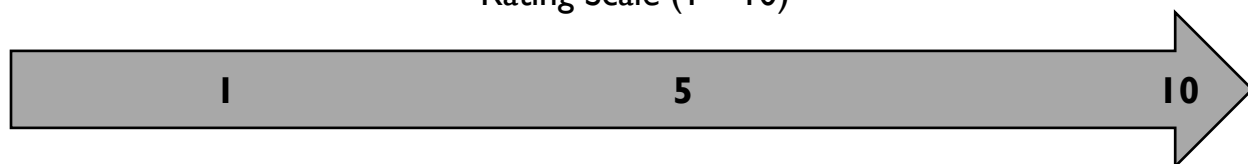
In the charts below, we have rated each school's facility design, building condition, and furniture in regards to its ability to house a flexible, project based learning curriculum. It should be noted that project based learning can take place in ANY setting; however, ample space that allows for flexible classroom set-up, furniture and new technology are strong aspects of a modern curriculum design.

PROVIDE COURSES THAT...



Figure 9: The mission of a project-based learning curriculum

**Flexible Curriculum Design
Rating Scale (1 – 10)**



Does not meet flexible design

Could meet with major renovations

Space meets now

| PRESCHOOLS | | |
|--------------------------|--|---------------|
| NAME OF SCHOOL | EDUCATIONAL CONSIDERATIONS | RATING |
| Emily N. Spong Preschool | 1957 design; Maintenance needs exceed feasibility for major renovations. | 1 |
| Mount Hermon Preschool | 1953 design; Maintenance needs exceed feasibility for major renovations. | 1 |
| Olive Branch Preschool | 1960 design; Maintenance needs exceed feasibility for major renovations. | 1 |

| ELEMENTARY SCHOOLS | | |
|-----------------------------------|---|---------------|
| NAME OF SCHOOL | EDUCATIONAL CONSIDERATIONS | RATING |
| Brighton Elementary | Furniture and set-up needs | 9 |
| Churchland Academy | Traditional classroom. No collaborative space except media center | 5 |
| Churchland Elementary | 1958 design; not feasible for structural changes or classroom additions. | 3 |
| Churchland Primary & Intermediate | Classrooms in “pods” that increase collaboration however too much noise in open spaces, especially those near restrooms and hallways. | 5 |
| Douglass Park Elementary | 1965 design; not feasible for structural changes or classroom additions. | 2 |
| Hodges Manor Elementary | 1956 design; Maintenance needs exceed feasibility for major renovations. | 1 |
| James Hurst Elementary | Classrooms in “pods” that increase collaboration however too much noise in open spaces, especially those near restrooms and hallways. | 5 |
| John Tyler Elementary | Furniture and set-up needs | 8 |
| Lakeview Elementary | 1967 design; Maintenance needs might exceed feasibility for major renovations. | 3 |
| Park View Elementary | Furniture and set-up needs | 8 |
| Simonsdale Elementary | Furniture and set-up needs | 9 |
| Victory Elementary | 1961 design; Maintenance needs exceed feasibility for major renovations. | 1 |
| Westhaven Elementary | 1954 design; Maintenance needs exceed feasibility for major renovations. | 1 |

| MIDDLE SCHOOLS | | |
|--------------------------|--|---------------|
| NAME OF SCHOOL | EDUCATIONAL CONSIDERATIONS | RATING |
| Churchland Middle | Stairwells and narrow hallways consume too space of the space. None to very little natural lighting. | 1 |
| Cradock Middle | 1966 design. Traditional, very small rooms. | 1 |
| William E. Waters Middle | 1966 design. | 1 |

| HIGH SCHOOLS | | |
|---------------------|---|--------|
| NAME OF SCHOOL | EDUCATIONAL CONSIDERATIONS | RATING |
| Churchland High | Some space can be converted, for example, the media center, to be used for collaborative area. | 6 |
| I.C. Norcom High | Some computer lab areas and media center could be utilized for collaboration | 7 |
| Woodrow Wilson High | Large spaces consumed by lockers and outdated technology – could be converted to better use of space. | 7 |

The above ratings are *only* for the facility’s design, condition, layout and furniture as required for a flexible learning curriculum / project based learning. These ratings do not reflect the positive aspects of the school and its positive learning in a traditional setting, which is currently being used. **Recommendation:** The School Division should consider implementing a Pilot Program for project-based learning at one of the higher ranked designed schools, to begin the process of teacher training and development and to track student success.



STEM and STEAM courses have impacted the educational approach at schools nationwide, for all grade levels.

Many of the Portsmouth City Schools require technology upgrades to teach the modern skills expected in today’s workforce.

Many Portsmouth Schools teachers have found creative ways to use project based learning principles and technology to teach students in the spaces they currently have. The principals and teachers should be commended for trying to adapt their older facilities into usable spaces that work. However, schools that are 50+ years old become more and more challenging each year - both educationally and maintenance-wise.

In addition to school programs, the school facilities and fields are used after school and summers for the following:

- Summer camps
- Community-wide sports leagues
- After school programs
- Training programs



The access to use the schools is an asset for the entire City and community. At the same time, wear and tear on the equipment and restrooms are both considerations for the School Division’s planning and budgeting purposes. Many

school divisions require fees and assistance with maintenance, equipment, and cleaning. These measures should be considered in the future budget process for Portsmouth City Schools.

Career and Technology Education (CTE)

A new Career & Technical Education Center (CTE) would provide an opportunity not only for students, but also the entire area. Involving students in courses that are relevant to their surroundings is an excellent way to help them achieve success. A new CTE facility that can be used by all of the schools will add creative courses and a fresh approach to learning. The following elements are recommendations to consider for the programming of a new CTE Center:

Naval yard – Ship building courses are directly relevant to Portsmouth City students. The area’s rich history in ports activity and ship building lends itself to courses that provide training for local and international jobs in the ports industry.

Traditional job skills – Naturally relevant to the ports industry comes traditional building courses such as welding and masonry. These skills are highly sought after in today’s market, and are timeless for many industries.

Specialized learning labs – We recommend that a Business Advisory Committee be formed to discuss possible specialized learning that would benefit students and their ability to seek higher education while also gaining college credits while in high school. This Committee would consist of 5 - 10 local business leaders who are interested and invested in the community. An example of a specialized learning lab might be “Logistics 101” course for handling international exports and imports of goods.

History and tourism – The Portsmouth area is rich in the history of our nation, including World War II history, African-American history and the downtown Portsmouth architecture. The recent multi-use bike and pedestrian trails project going throughout the Hampton Roads area is an example of a project that could benefit from student input through a course offered at the new CTE Center.

A new facility design allows educators to rethink the way students can:

- Engage
- Imagine
- Explore
- Emerge as leaders
- Map their careers
- Promote the City and region through positive programs for everyone – students, teachers, the community, and local businesses

Suggestions for the CTE’s educational program and classroom design:

- Space for cross-collaboration: problem, design, product focused learning
- Flexible and modular furniture
- Competency based learning – both knowledge and skills



The above photo provides an example of a specialized learning lab for 3-D printing at the Institute of Innovation for Richland School District Two in Columbia, South Carolina. Student projects can be seen on the table at right. The building design is not expensive, but rather, concrete floors and high ceilings allow for flexibility and easier maintenance.

In summary, the School Division should build on its current strengths of a family atmosphere and connection to community by adding CTE courses in which students can see their own reflections and relate to. A new building provides an opportunity to create a shared vision and new opportunities.

Educational Funding

Since the School Board has no power to tax or to issue debt, the City will be the source for any financing required for needed capital projects. The City may elect to issue general obligation bonds in the public market based on its credit rating, or to participate in the Virginia Public School Authority (VPSA) pooled bond program for school projects.

There may be opportunities for the City to refund some of its current bonds to achieve interest savings. If such refinancing occurs the City could add new money to the issuance for school projects.

The School Board should work with the City Finance Department and City Council to add the needed projects identified in this study to the City's Capital Improvement Plan (CIP) and to the City's planned debt issuance schedule. The City's Financial Advisor can provide key assistance in determining the appropriate times for future debt issuance as some portions of the City's current bonds are retired. M.B. Kahn's team recommends buy-in from the city, coupled with cooperative efforts between the School Board and the City to address timing of financing while the City seeks to retain its AA bond rating and have some remaining debt capacity.



PROPOSED IMPROVEMENT PLAN

Division Plan Overview

Facility Age and Capacity Challenges

Facility Condition Challenges

Educational Program Challenges

Components of the Plan

Facility Age and Capacity

Facility Conditions

Educational Program

Proposed Improvement Plan Summary

Cost Summary

Schedule Summary

Cash Flow Summary

Conclusion

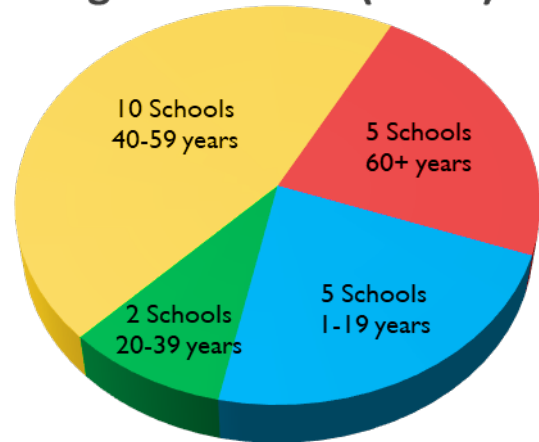
DIVISION PLAN OVERVIEW

Today, a student’s physical environment plays a more significant role in the education process than ever before in the history of public schools. School divisions continually face challenges of meeting the demands of today, while planning for the needs of the future. The manner in which students learn has changed dramatically over the past few decades, so it makes sense that the facilities in which they learn should also change dramatically. Facilities that were once new and innovative are aging, requiring expensive upgrades to keep up with new technology and educational styles. Therefore, M.B. Kahn considered the following factors in preparing the Overall Division Plan for upgrading the Portsmouth Public Schools: age and capacity, condition, and educational challenges.

Facility Age and Capacity Challenges

Although the Division has continually invested in its facilities through site improvements, renovations and additions, the core ages of the buildings are ever increasing. The average age of the Division’s schools is 43 years. The adjacent chart shows the ages of the schools in 20 year increments. As shown, there are five schools that are currently sixty years or older. At this age, the building has exceeded its useful life and should be scheduled for closure or replacement as soon as possible. Understanding this, schools in the 40-59 year range will most likely require substantial upgrades to sustain use for another decade. Not only are the schools aging, but many of the schools are nearing, if not exceeding maximum capacity limits specified by the Virginia Department of Education’s standards. Two options can be considered to address capacity issues: building new schools, or adding additions to existing schools. If funds are limited, it is not always affordable to build new schools and additions are necessary. In this case, it is wise to put additions at the youngest schools to get the most out of the service life. However, a point is reached where it is more cost efficient to replace the school than to add a new addition to a building whose core age is significantly older. Since the majority of the Division’s schools are over 40 years in age, it is imperative that a plan be created and schools scheduled for replacement.

Age of Schools (Years)



Facility Condition Challenges

As buildings age over time, the physical condition begins to play a critical role in maintaining the facility.



The Division’s maintenance program has done a great job maintaining the facilities with the resources available. However, maintenance budgets can only go so far to cover the regular maintenance on many of the facilities’ aging systems. Throughout the Division, there are recurring deficiencies in the infrastructure of the schools including needs for electrical, technology and HVAC upgrades. Not only should physical condition be considered, but also health and safety concerns as well. Many schools in the Division require significant improvements to security systems and upgrades to meet standard accessibility requirements. Items include adding

security vestibules to control access to the building during school hours, renovating restrooms to meet ADA requirements, and upgrading interior and exterior lighting for safe access and mobility. When assessing the Division's facilities, it was also found that many schools are in need of general renovations to improve the quality of the school environment. Schools in the 40-59 year range will require the majority of funds attributed to addressing facility condition challenges.

Educational Program Challenges

The Division's aging and deteriorating facilities also restrict instructional capability. With ongoing changes to educational programming, it is frequently discovered that the original design intent for the facility is not sufficient for current educational needs. Today's educational process requires facilities be more flexible for newer approaches to education. Examples of the newer approaches include project-based learning, STEM programs, collaborative learning, and integration of technology into education. The lack of flexibility within the instructional spaces results in additional educational challenges for the teachers and staff.



Not only that, studies show that the quality of the school environment significantly influences students' academic performance. For example, many studies have shown that natural light and bright colors improve the focus and creativity of students. Another educational challenge many divisions are facing is the career and technology education. As discussed previously, involving students in courses that are relevant to their surroundings is an excellent way to help them achieve success. The Division's current course offerings for CTE are limited and should be expanded significantly.

For each facility and the Division as a whole, M.B. Kahn staff assessed the factors discussed above and prepared a Proposed Improvement Plan for the Division.

COMPONENTS OF THE PLAN

Developing and maintaining this proposed improvement plan aids the Division in using funding wisely to ensure the schools will support the quality of learning the community expects. In any type of plan, if only partial funding is available, proper prioritization is critical. Prioritization of a school division's projects typically requires consideration of multiple factors. Safety concerns, building component failure, and worsening physical conditions are prioritization factors easily assessed by construction professionals. However, factors such as educational impact, equity, public perception, and other opinionated issues can greatly effect prioritization, and can only be assessed by the Division's governing body, the School Board, and the public. M.B. Kahn has prepared this plan in a way that can be easily modified, depending on how the needs in each area change over time, and can be completed in phases. Once a final plan is adopted, it is the "road map" to follow. This plan is a living document and should be reviewed for updates periodically.

When determining the main components of Portsmouth Public School Division's improvement plan, M.B. Kahn's team looked at many factors. It was determined that a long term Division Plan for Portsmouth Public Schools should include a combination of providing improvements that assist with the educational and operational aspects of the facilities, replacing the oldest schools, adding space to meet capacity requirements, and repairing or replacing major building components. To address all these areas, M.B. Kahn's team created a proposed improvement plan with the following main components:



FACILITY AGE AND CAPACITY



FACILITY CONDITION



EDUCATIONAL PROGRAM



Facility Age and Capacity

Purpose

The purpose of this component is to address two characteristics of the Divisions’ facilities: age and capacity. Although the Division has continually invested in its facilities over time, the core building ages are an average of 43 years. Typically, buildings should be considered for replacement when they have reached the 40-50 year range; however, to create an affordable and efficient plan for the Division, M.B. Kahn’s team provides facility age recommendations to address facilities that are closest to the end of their life-span (50-60 years). Not only should age be considered, but also capacity requirements. The Virginia Department of Education (VADOE) provides minimum standards for school facilities. M.B. Kahn’s team analyzed the Division’s current facilities in comparison to the standards and provides recommendations to address facilities that are not meeting the minimum square footage per student requirements.

Process

The process for developing the facility age recommendations involved analyzing the age of each facility individually and then as a part of the Division as a whole. The facility age was determined from the core building age without considering the facility’s addition ages and the results are presented in the adjacent table. Two of the four preschools are over 60 years in age. One has already been closed and students relocated. The Division should consider replacing the second facility or relocating the preschool students to another facility as previously managed. Six of the thirteen elementary schools in the Division are over 50 years in age. Replacing the three oldest, would be a good start to a long-term plan of replacing all six elementary schools. Therefore, it is recommended that the three oldest elementary schools be considered for replacement. All three middle schools in the Division are nearing the end of their expected life-spans. Therefore, it is recommended that all three middle schools be considered for replacement. All three high schools are below the 50-60 year age range, thus no recommendations were made in regards to age. Finally, although the IRC, DAC, and Stephen H. Clarke facilities are aging, the Division should prioritize the age issues at the elementary, middle, and high schools. Therefore, no recommendations were made for the IRC, DAC, or Stephen H. Clarke facilities in regards to age.

Table 3: The Division Facility Ages

| School Name | Year Built | Age |
|--|-------------|-----------|
| MOUNT HERMON PRESCHOOL CENTER | 1953 | 65 |
| EMILY SPONG PRESCHOOL CENTER | 1957 | 61 |
| OLIVE BRANCH PRESCHOOL CENTER | 1960 | 58 |
| CHURCHLAND PRESCHOOL CENTER | 1986 | 32 |
| WESTHAVEN ELEM | 1954 | 64 |
| HODGES MANOR ELEM | 1956 | 62 |
| CHURCHLAND ELEM | 1958 | 60 |
| VICTORY ELEM | 1961 | 57 |
| DOUGLASS PARK ELEM | 1965 | 53 |
| LAKEVIEW ELEM | 1967 | 51 |
| CHURCHLAND PRIMARY & INTERMEDIATE | 1976 | 42 |
| JAMES HURST ELEM | 1978 | 40 |
| CHURCHLAND ACADEMY ELEM | 1986 | 32 |
| JOHN TYLER ELEM | 2002 | 16 |
| BRIGHTON ELEM | 2004 | 14 |
| PARK VIEW ELEM | 2009 | 9 |
| SIMONSDALE ELEM | 2011 | 7 |
| CRADOCK MIDDLE | 1966 | 52 |
| WM. E. WATERS MIDDLE | 1966 | 52 |
| CHURCHLAND MIDDLE | 1970 | 48 |
| WOODROW WILSON HIGH | 1971 | 47 |
| CHURCHLAND HIGH | 1992 | 26 |
| I.C. NORCOM HIGH | 1999 | 19 |
| STEPHEN H. CLARKE ACADEMY | 1957 | 61 |
| INSTRUCTIONAL RESOURCE CENTER (IRC) | 1967 | 51 |
| DIAGNOSTIC, ADJUSTIVE AND CORRECTIVE CENTER FOR LEARNING (DAC) | 1971 | 47 |

The process for developing the facility capacity recommendations began with calculating the current square footage per student (using the proposed enrollments) for each school. When determining enrollments, the following factor was considered: the Division intends to move all 6th grade students from

the elementary schools to the middle schools. The result was then compared to VADOE’s minimum standards for square footage per student. A factor for “flexibility” was added to the sf/student requirements listed in the VADOE guidelines based on discussions with the Division and assuming bare minimum sized schools are not preferred. The comparison revealed that the high schools currently exceed VADOE’s minimum standards but all of the middle and some of the elementary schools will be below the minimum standards. The results of the middle and elementary school comparisons are shown in the following tables.

Table 4: Middle School Capacity Comparison – Adding 6th grade students to middle schools

| Middle School Capacity Comparison | | | | | | |
|-----------------------------------|-----|--------------------|---|--------------------|--|---------------------------|
| School Name | Age | Current Enrollment | NEW Enrollment (with 6 th graders) | Building Size (SF) | Virginia DOE Minimum SF/Student (+Flexibility) | NEW Oversize/ (Undersize) |
| CRADOCK MIDDLE | 52 | 503 | 771 | 106,220 | 153 | (11,743) |
| WM. E. WATERS MIDDLE | 52 | 543 | 841 | 104,601 | 153 | (24,072) |
| CHURCHLAND MIDDLE | 48 | 863 | 1,259 | 136,937 | 138 | (36,805) |
| TOTAL: | | 1,909 | 2,871 | (50%) More | | |

Table 5: Elementary School Capacity Comparison – Moving 6th grade students from elementary schools

| Elementary School Capacity Comparison | | | | | | |
|---------------------------------------|-------------|--------------------|--|--------------------|--|---------------------------|
| School Name | Age (years) | Current Enrollment | NEW Enrollment (without 6 th graders) | Building Size (SF) | Virginia DOE Minimum SF/Student (+Flexibility) | NEW Oversize/ (Undersize) |
| WESTHAVEN ELEM | 64 | 579 | 505 | 65,077 | 113 | 8,012 |
| HODGES MANOR ELEM | 62 | 593 | 515 | 50,133 | 113 | (8,062) |
| CHURCHLAND ELEM | 60 | 834 | 736 | 76,647 | 107 | (2,105) |
| VICTORY ELEM | 57 | 598 | 534 | 78,142 | 113 | 17,800 |
| DOUGLASS PARK ELEM | 53 | 683 | 597 | 73,775 | 107 | 9,896 |
| LAKEVIEW ELEM | 51 | 439 | 396 | 60,009 | 117 | 13,677 |
| CHURCHLAND PRIMARY & INTERMEDIATE | 42 | 543 | 464 | 71,150 | 113 | 18,718 |
| JAMES HURST ELEM | 40 | 589 | 528 | 75,105 | 107 | 18,609 |
| CHURCHLAND ACADEMY ELEM | 32 | 684 | 593 | 96,000 | 107 | 32,549 |
| JOHN TYLER ELEM | 16 | 646 | 585 | 61,040 | 107 | (1,555) |
| BRIGHTON ELEM | 14 | 469 | 412 | 56,566 | 117 | 8,362 |
| PARK VIEW ELEM | 9 | 544 | 477 | 79,622 | 113 | 25,721 |
| SIMONSDALE ELEM | 7 | 687 | 584 | 81,165 | 107 | 18,677 |
| TOTAL: | | 7,888 | 6,926 | (12%) Less | | |

As shown above, three middle schools and three elementary schools do not meet the VADOE's minimum standards. All three middle schools and two of the elementary schools with insufficient capacity are also recommended for replacement due to age requirements, so these results emphasize the need to replace these facilities. Moving the 6th graders to the middle schools creates a capacity issue at all three schools; however, constructing large additions on facilities of this age may not be a wise investment. Therefore, it is recommended that all three middle schools be replaced and a fourth middle school added to account for the capacity issues at the middle school level. The third elementary school with capacity issues, John Tyler, is only 16 years in age and thus has many years left in its life-span. Instead of replacing or adding an addition to this school, it is recommended that the Division build the three elementary schools already recommended for replacement with enough capacity to account for the deficiency at John Tyler. This recommendation will require slight changes to the current Division boundaries, but will be the most cost effective option. Finally, the three high schools and three preschools exceed the VADOE's minimum standards, thus no recommendations were made in regards to capacity.

Facility Condition



Purpose

The purpose of the facility condition recommendations is to review the existing conditions at each facility and to recognize and address deficiencies. The Division's maintenance program has done a great job maintaining the facilities with the resources available. However, maintenance budgets can only go so far to cover the regular maintenance on many of the facilities' aging systems. Therefore, M.B. Kahn's team prepared recommendations to support and expand the efforts of the Division.

Process

The process for developing the facility condition recommendations began by the M.B. Kahn team visiting each facility within the Division and conducting thorough reviews of the existing conditions. Interviews were held with principals, maintenance staff, and Division leaders to ensure all areas of concern were noted. Once the information was gathered, an analysis was conducted to determine the recurring deficiencies and develop broad categories for them. Upon completion of the analysis, each deficiency was placed into three categories, safety/security/accessibility, infrastructure, and general renovations. The following chart shows typical deficiencies that fall into each category:



Safety/Security/Accessibility

- Secure Vestibules
- Security Systems
- Door hardware
- Interior/Exterior Lighting
- Handrails & ramps
- Hardscaping
- Restrooms



Infrastructure

- Roof
- Windows
- HVAC
- Electrical Service/Capacity
- Parking/Drives
- Canopies
- Kitchen Equipment
- Playground Equipment
- Athletic Facilities (Title IX)
- Technology



General Renovations

- Flooring
- Ceilings
- Signage
- Paint
- Cabinets
- Chalkboards
- Front Entrance
- Furniture

The Division is in need of upgrades to facilities’ safety, security and accessibility elements. Items such as security vestibules, ADA compliant restrooms, hardware, and accesses, and interior/exterior lighting upgrades are needed throughout the Division’s facilities; therefore, it is recommended that the Division address safety/security/accessibility deficiencies. The Division needs to address failing infrastructure at many of its facilities. Original systems that are in schools 50-60 years old are nearing the end of their life-span. Often, the cost of maintaining these systems ends up being more than the cost of replacing them. Therefore, it is recommended that the Division address failing infrastructure. Also, many of the facilities in the Division need general renovations. General renovations include items that may seem superficial but ultimately increase the appeal of the facility, as well as provide comfortable learning and work environments for the students and staff. Therefore, it is recommended the Division address general renovation needs. For the purposes of this section, the deficiencies for all the Division’s facilities were grouped; however, detailed information for each facility is listed in the Individual Recommendation Sheets section. The reason for assessing each facility individually, is to ensure each facility’s needs are noted and addressed.

Educational Program



Purpose

The intent of the educational program recommendations is to address the limited course offerings for career and technology education at Portsmouth Public Schools. The Division currently offers CTE courses at each high school; however, not only are these courses limited, many of the lab spaces are having to be modified for office or classroom use. Throughout the facility study process, the Division’s leadership continuously stressed the desire to improve the CTE course offerings; therefore, M.B. Kahn’s team prepared recommendations to support and expand the efforts of the Division.

Process

The process for developing the educational program recommendations involved analyzing the existing CTE course offerings and then developing a plan for expanding them. Two options were evaluated: to

1 Individual

a. Expand program facilities at individual high schools

OR

2 Centralized

a. Renovate and add to existing facility for centralized facility

b. Construct a new centralized facility

expand program facilities at the individual high schools, or to build a centralized facility. During the analysis, it was determined that it was not cost efficient to build at the existing high schools due to having to duplicate labs at all three campuses. Therefore, the centralized option was chosen and three locations were evaluated: Lakeview ES, Olive Branch PS, and the

DAC Center. Lakeview ES seemed like a valid option in the beginning because of the extensive property already owned by the Division. There were two major concerns that led the team to eliminate this option.

First, the existing site conditions were unsuitable and could prove costly if this site were chosen. Secondly, the property was not located centrally within the three high schools. Olive Branch PS was the next location evaluated. This location was more centrally located than the Lakeview property and the school was already being closed by the Division. Two defining factors led the team to eliminate this site as an option. First, the location is surrounded by residential areas which means it is not convenient to a freeway. Second, this location would not be conducive for the exhibition of a statement building.

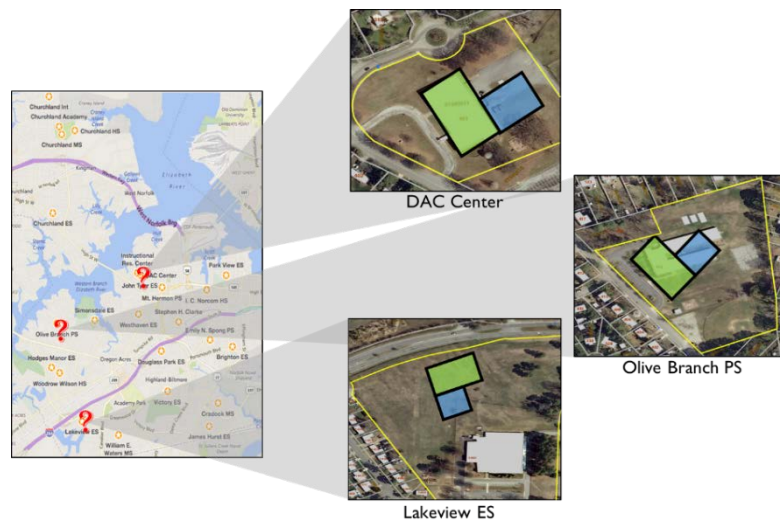


Figure 10: Locations considered for New CTE Facility

The evaluation of the final facility, the DAC Center, was two-fold. The team first looked at renovating the existing facility and adding an addition which would provide the high-bay lab space. Not only was this a more costly option, this also meant that the design options would be limited. The final option, was using the DAC Center, but demoing the existing facility and designing a new state of the art facility that could be used as a statement facility for the Division’s improvement plan. Since this site is centrally located, conducive for the exhibition of the statement building, and eliminates a facility that is currently vacant, the team felt this was the most effective option for the Division. After comparing the expansion of program facilities at the individual high schools to building a centralized facility, and evaluating three different sites, it was determined that a new CTE center at the DAC Center site would be the most effective option. This also allows for the new CTE center to be a statement building within the Division’s overall improvement plan. Therefore, it is recommended the Division build a new, centralized CTE center at the DAC Center site.

PROPOSED IMPROVEMENT PLAN SUMMARY

Cost Summary

The process of preparing the proposed program cost was based on the team's extensive experience in the areas of facilities planning, design, and construction. In evaluating the challenges of each school, careful analysis was given to identify a direction or goal for remedying each issue. The team investigated alternative options for achieving the remedies identified, and then assessed the feasibility of each option. The selection of the preferred or best approach was then assessed for the anticipated cost. The cost figures utilized for this exercise are intended to be sufficient enough for facilities and systems that represent in value and cost what taxpayers conceptualize as a "good buy". This means that a facility or system is physically appealing, functions well, is initially affordable, and will have reasonable operational and maintenance costs. In short, the goal is to get the most long-term value for the money spent.

The Proposed Program Cost, shown on the following page, and estimates included in the "Individual Facility Assessments" section of this plan are intended to be all inclusive costs for the projects. The amounts listed include costs for design fees, site development, construction, furniture and equipment, technology, and anticipated inflation (two-five years). The proposed program budget can be modified to accommodate funding availability and prioritization.

Following the Proposed Program Cost, are the Proposed Program Priorities. This list is meant to provide the Division direction as to which projects in the proposed program need immediate attention and which can be deferred to later in the program. Each project is placed into categories for 1st, 2nd and 3rd priority. This list can also be modified to accommodate funding availability and additional Division needs that may arise in the dynamic nature of School Division activities.

PROPOSED PROGRAM COST

Portsmouth Public Schools – Facility Study



age & capacity

FACILITY AGE AND CAPACITY IMPROVEMENTS

\$ 221,500,000

| | |
|---|---------------------|
| New Middle School – 900 students (#4) | \$38,500,000 |
| New Middle School – 700 students (<i>William E. Waters</i>) | \$34,500,000 |
| New Middle School – 900 students (<i>Churchland</i>) | \$40,000,000 |
| New Middle School – 600 students (<i>Cradock</i>) | \$31,000,000 |
| | |
| New Elementary School – 750 students (<i>Churchland ES</i>) | \$29,500,000 |
| New Elementary School – 550 students (<i>Hodges Manor</i>) | \$23,000,000 |
| New Elementary School – 600 students (<i>Westhaven</i>) | \$25,000,000 |
| | <u>\$221,500,00</u> |



condition

FACILITY CONDITION IMPROVEMENTS

\$ 53,000,000

| | |
|-------------------------------|---------------------|
| Safety/Security/Accessibility | \$13,000,000 |
| Infrastructure | \$25,500,000 |
| General Renovations | \$14,500,000 |
| | <u>\$53,000,000</u> |



program

EDUCATIONAL PROGRAM IMPROVEMENTS

\$ 35,000,000

| | |
|----------------------------------|---------------------|
| New Career and Technology Center | \$35,000,000 |
| | <u>\$35,000,000</u> |



cost

TOTAL PROGRAM COST

\$ 309,500,000

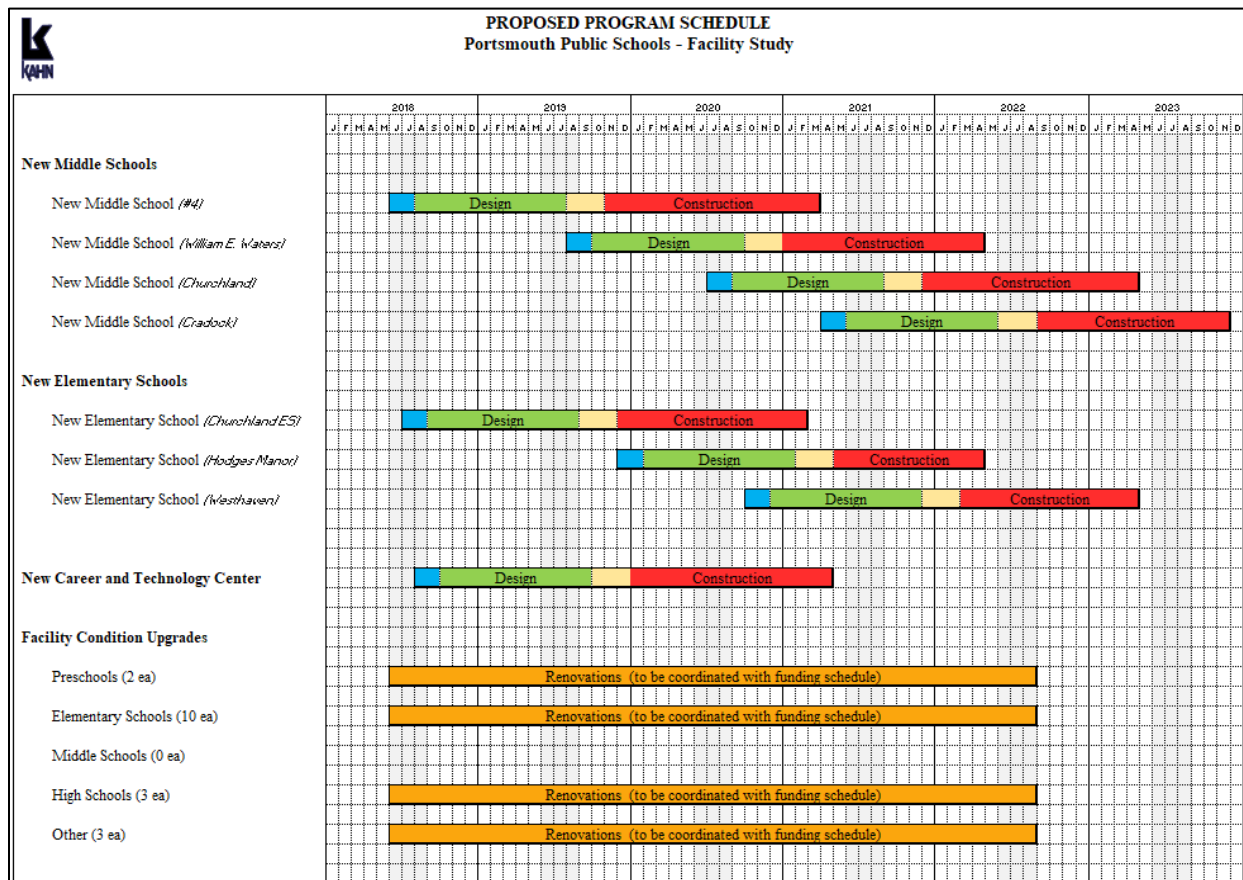
PROPOSED PROGRAM PRIORITIES

Portsmouth Public Schools – Facility Study

| 1st PRIORITY | |
|---|-----------------------|
| New Middle School – 900 students (#4) | \$38,500,000 |
| New Elementary School – 750 students (<i>Churchland ES</i>) | \$29,500,000 |
| New Career and Technology Center | \$35,000,000 |
| Individual Schools – (Safety/Infrastructure/Renovations) | \$23,100,000 |
| 1st Priority TOTAL: | \$126,100,000 |
| 2nd PRIORITY | |
| New Elementary School – 550 students (<i>Hodges Manor</i>) | \$23,000,000 |
| New Elementary School – 600 students (<i>Westhaven</i>) | \$25,000,000 |
| New Middle School – 900 students (<i>Churchland</i>) | \$40,000,000 |
| Individual Schools – (Safety/Infrastructure/Renovations) | \$15,400,000 |
| 2nd Priority TOTAL: | \$103,400,000 |
| 3rd PRIORITY | |
| New Middle School – 600 students (<i>Cradock</i>) | \$31,000,000 |
| New Middle School – 700 students (<i>William E. Waters</i>) | \$34,500,000 |
| Individual Schools – (Safety/Infrastructure/Renovations) | \$14,500,000 |
| 3rd Priority TOTAL: | \$80,000,000 |
| TOTAL PROGRAM COST: | \$ 309,500,000 |


Schedule Summary

The purpose of a schedule is to organize and complete projects in a timely, quality and financially responsible manner. When preparing a schedule for school projects, there are three important aspects to consider: the design/construction process, project funding, and the typical school calendar. The design/construction process drives the duration (length of time) of the schedule and includes time for procuring an architect, designing the project, approving the design, sending the design out for bid, and completing construction of the facility. Project funding drives the start of a project because projects cannot begin until funding is available. The school calendar influences the placement of the overall project duration so that the facility will be finished in time to open at the beginning of a semester. Upon consideration of these aspects, M.B. Kahn’s team determined that using an aggressive approach (assuming funding becomes available in year 2018), and maintaining constant oversight, all recommended projects could be completed by the end of year 2023. The proposed program schedule, shown below, is a representation of a feasible schedule for the Division’s program. Similar to the proposed program cost, it can be modified to accommodate funding availability and prioritization. As a reminder, a plan for relocating students while building new facilities will need to be developed.



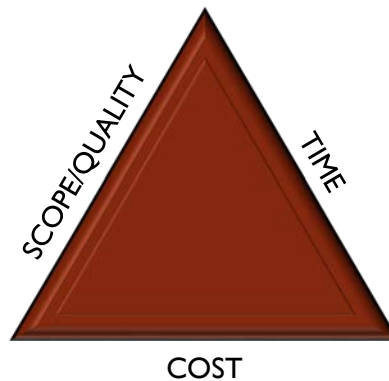
Cash Flow Summary

The purpose of a projected cashflow is to provide a forecast of funding needs for each project and the program as a whole. M.B. Kahn’s team understands that proper management of cashflow is vital to implementing a successful improvement plan. Recognizing this, a cashflow analysis was prepared specific to the Division’s Proposed Improvement Plan. The projected cashflow is based on the individual project estimates and anticipated expenditures associated with the program. This information has been applied to the proposed program schedule, with anticipated expenditures entered for the sub-period they are expected to occur. The cashflow includes anticipated expenditures for all project components including design fees, site development, construction, furniture and equipment, technology, and anticipated inflation (two-five years). Although the team utilizes a detailed methodology to improve the accuracy for forecasting cashflow, it is stressed that cashflow forecasts cannot be determined precisely. Variances may be incurred from design delays, material/equipment delays, weather delays, or other major project interruptions. For the purposes of submitting a cashflow at this time, it is believed that the information provided is as accurate as possible.

| | |  CAPITAL IMPROVEMENT PROGRAM Portsmouth City Schools | | | |
|---------------|----|---|--------------------|-------------------------|--------------------|
| | | PROJECTED CASHFLOW NEEDS | | | |
| | | QUARTERLY TOTAL | | CUMULATIVE TOTAL | |
| 2018 | Q1 | \$ | - | \$ | - |
| | Q2 | \$ | 1,262,972 | \$ | 1,262,972 |
| | Q3 | \$ | 4,476,639 | \$ | 5,739,611 |
| | Q4 | \$ | 4,626,579 | \$ | 10,366,190 |
| 2019 | Q1 | \$ | 4,626,579 | \$ | 14,992,769 |
| | Q2 | \$ | 4,626,579 | \$ | 19,619,348 |
| | Q3 | \$ | 4,920,510 | \$ | 24,539,859 |
| | Q4 | \$ | 7,515,551 | \$ | 32,055,410 |
| 2020 | Q1 | \$ | 17,552,762 | \$ | 49,608,172 |
| | Q2 | \$ | 27,279,007 | \$ | 76,887,179 |
| | Q3 | \$ | 27,007,600 | \$ | 103,894,779 |
| | Q4 | \$ | 20,888,947 | \$ | 124,783,726 |
| 2021 | Q1 | \$ | 21,442,285 | \$ | 146,226,011 |
| | Q2 | \$ | 16,365,041 | \$ | 162,591,052 |
| | Q3 | \$ | 18,703,862 | \$ | 181,294,913 |
| | Q4 | \$ | 17,811,066 | \$ | 199,105,979 |
| 2022 | Q1 | \$ | 17,792,038 | \$ | 216,898,018 |
| | Q2 | \$ | 20,783,396 | \$ | 237,681,414 |
| | Q3 | \$ | 18,611,275 | \$ | 256,292,689 |
| | Q4 | \$ | 16,672,249 | \$ | 272,964,939 |
| 2023 | Q1 | \$ | 16,139,328 | \$ | 289,104,267 |
| | Q2 | \$ | 12,072,093 | \$ | 301,176,360 |
| | Q3 | \$ | 4,722,838 | \$ | 305,899,198 |
| | Q4 | \$ | 3,651,674 | \$ | 309,550,872 |
| TOTALS | | \$ | 309,550,872 | \$ | 309,550,872 |

Conclusion

As a final point, when developing a project, it is important to note that scope, schedule, and cost are interrelated. In the construction industry, this relation has been commonly coined the “triple constraint”. The triple constraint mandates that any adjustment to either scope, time, or cost, WILL affect the other two components.



“Time” refers to the actual time required to complete a project. Naturally, the amount of time required to complete the project will be directly related to the extent of the project (scope) along with the total resources allocated to the project (cost). “Cost” is the estimation of money that will be needed to complete the project. The amounts listed in this report include costs for design fees, site development, construction, furniture and equipment, technology, and anticipated inflation (two-five years). “Scope/Quality” is the compilation of functional elements which make up the entire project. The scope is generally identified at the beginning of the project, although it can potentially change during the project life-cycle. The typical measure for successful completion of scope is the quality upon delivery.

The use of a triangle for the triple constraint, illustrates that one cannot adjust or alter one side without, in effect, altering the other sides. For example, if there is a request for a scope change mid-way through the execution of the project, the other two components (cost and time) will be affected. How much or how little is driven by the extent and complexity of the scope change. Therefore, it is crucial the Division be fully aware of the importance of its function and implications before implementing this proposed improvement plan.

As a final reminder, though this proposed improvement plan focuses on the current and impending needs of the Division, it is a living document and will be most effective when Division stakeholders review and update action strategies as needed to reflect constraints and opportunities that may arise in the dynamic nature of School Division activities.



INDIVIDUAL FACILITY ASSESSMENTS

Understanding the Recommendation Sheets

Individual Facility Recommendations

UNDERSTANDING THE RECOMMENDATION SHEETS

The Division’s schools were built over six decades, yet some common challenges were observed throughout. Each facility was assessed individually due to the varying degrees of necessary corrections. Results have been compressed into individual facility recommendation sheets. Each facility’s report provides a description of the existing facility, current enrollment information, overall analysis, list of major concerns, and list of recommendations with cost estimates resulting in many hours of research. Careful analysis identified a viable process for successful improvements. After comparing alternative options and cost factors, M.B. Kahn’s team selected the preferred approach offering the best value. The fundamental goal is to assist the Division in continuing efforts to improve its facilities as it continues to provide safe and efficient environments for its students, staff, and the public.

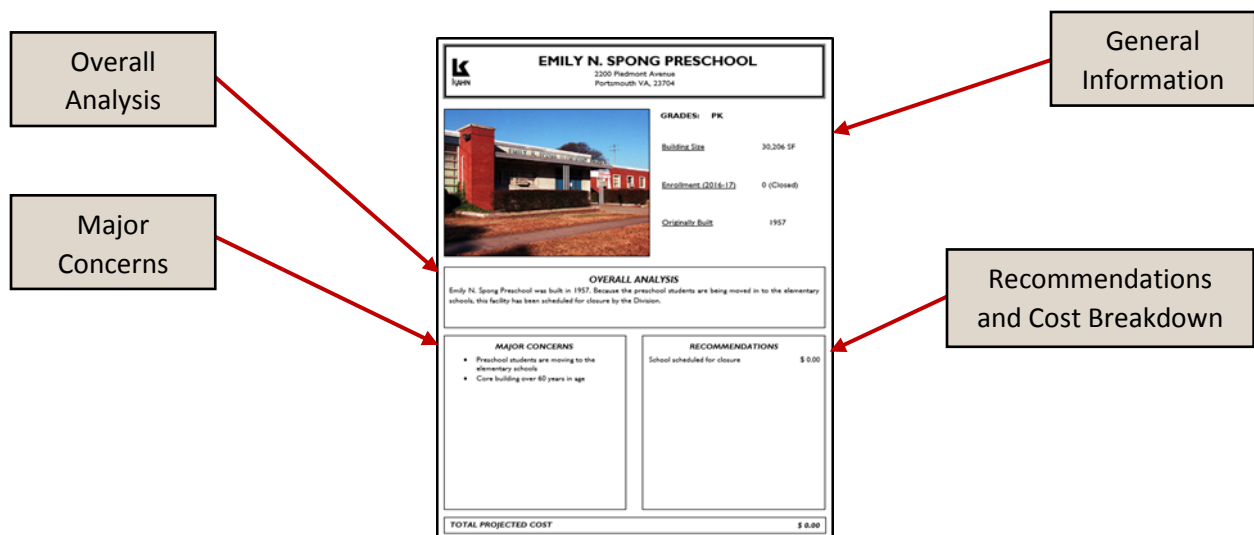
Recommendations for renovations and upgrades to the facilities were developed that address the identified issues of the existing facilities, and minimize the amount of resources required to be expended. The individual facility sheets include those recommendations, as well as proposed budgets to accomplish them. While reviewing these recommendations, the following should be noted:

General Information – This section of the report provides the basic information for the school facility, including the grade levels, current enrollment, and general size and age of the building.

Overall Analysis – This section of the report lists the overall condition, the adequacy for its intended use and an overall component rating (poor, fair, good, or excellent) of the facility. It is not intended that this be a complete and detailed analysis, but rather a summary of the observations made.

Major Concerns – This section of the report lists the major deficiencies noted with respect to the needs and overall condition of the facility. It is not intended that this be a complete and detailed list of maintenance items, but rather a summary of the larger issues and costly systems that require major renovations and upgrades. The concerns are not listed in priority.

Recommendations and Cost Breakdown – This section of the report provides a cost breakdown for the individual recommendations. The format is intended to allow the Division to have a better understanding of the overall cost, and allows “picking and choosing” issues based on available funding. The cost figures in this section are all-inclusive of construction costs, design fees, contingencies, etc. These cost figures do not include extended inflation costs.





Individual Facility Recommendations

The following are individual facility recommendations for each facility. The facility reports are grouped by grade level (preschool, elementary, middle, high) and then alphabetized. The schools are followed by the New CTE Center, Diagnostic, Adjustive and Corrective Center for Learning (DAC), Instructional Resource Center (IRC), and Stephen H. Clarke facilities.



EMILY N. SPONG PRESCHOOL

2200 Piedmont Avenue
Portsmouth VA, 23704



GRADES: PK

Building Size 30,206 SF

Enrollment (2017-18) 0 (Closed)

Originally Built 1957

OVERALL ANALYSIS

Emily N. Spong Preschool was built in 1957. In 2016 this facility was closed by the Division.

*It may be possible to use this facility as a “swing space” while replacing other schools in the division.

MAJOR CONCERNS

- Core building over 60 years in age

RECOMMENDATIONS

School closed by the Division in 2016 \$ 0.00

*Consider facility use as a “swing space” while replacing other schools in the division.

TOTAL PROJECTED COST

\$ 0.00



MT. HERMON PRESCHOOL

3000 North Street
Portsmouth, VA 23707



GRADES: PK

Building Size 36,317 SF

Enrollment (2017-18) 256

Originally Built 1953

OVERALL ANALYSIS

Mt. Hermon Preschool was built in 1953 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **poor** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations, unless students are moved to another location.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including electrical system and exterior lighting
- Compliance issues with ADA and Building Code requirements
- Core building over 60 years in age

RECOMMENDATIONS

Safety/Security/Accessibility Upgrades \$ 2,783,000

- Security vestibule
- Exterior lighting upgrades
- ADA upgrades
- Repair site security fencing

Infrastructure Repair \$ 750,000

- New entrance canopy
- Re-surface parking lots
- Add bus loop
- Upgrade power supply

General Renovations \$ 665,000

- Ceiling tile replacement
- Floor replacement
- New casework in classrooms
- New dry erase boards
- New roller shades in cafeteria

TOTAL PROJECTED COST

\$ 4,198,000



OLIVE BRANCH PRESCHOOL

415 Mimosa Road
Portsmouth, VA 23701



GRADES: PK

Building Size 32,700 SF

Enrollment (2017-18) 227

Originally Built 1960

OVERALL ANALYSIS

Olive Branch Preschool was built in 1960 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **fair** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations, unless students are moved to another location.

MAJOR CONCERNS

- No security vestibule
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

| | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 142,000 |
| • Security vestibule | |
| Infrastructure Repair | \$ 417,000 |
| • New canopy | |
| • New parking lot | |
| General Renovations | \$ 61,000 |
| • Floor Replacement | |

TOTAL PROJECTED COST

\$ 620,000



BRIGHTON ELEMENTARY

1100 Portsmouth Boulevard
Portsmouth, VA 23704



GRADES: PK - 6

Building Size 56,566 SF

Enrollment (2017-18) 469

Originally Built 2004

OVERALL ANALYSIS

Brighton Elementary was built in 2004 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **excellent** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Limited ADA playground equipment

RECOMMENDATIONS

| | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 104,000 |
| • Security vestibule | |
| Infrastructure Repair | \$ 531,000 |
| • New canopy | |
| • Re-surface parking lots | |
| • Catch basin repair | |
| • Upgrade playground equipment | |
| General Renovations | \$ 106,000 |
| • Ceiling tile replacement | |
| • Add sound panel in cafeteria | |

TOTAL PROJECTED COST

\$ 741,000



CHURCHLAND ACADEMY

4061 River Shore Road
Portsmouth, VA 23703



GRADES: PK - 6

Building Size 96,000 SF

Enrollment (2017-18) 684

Originally Built 1986

OVERALL ANALYSIS

Churchland Academy was built in 1986 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **fair** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including windows and lighting systems
- Compliance issues with ADA and Building Code requirements

RECOMMENDATIONS

- | | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 177,000 |
| <ul style="list-style-type: none"> • Security vestibule • ADA hardware upgrades • ADA stage access | |
| Infrastructure Repair | \$ 610,000 |
| <ul style="list-style-type: none"> • Re-surface parking lots • New mini-split • Select window replacement | |
| General Renovations | \$ 814,000 |
| <ul style="list-style-type: none"> • Ceiling tile replacement • Replace chalkboards • Floor replacement | |

TOTAL PROJECTED COST

\$ 1,601,000



CHURCHLAND ELEMENTARY

5601 Michael Lane
Portsmouth, VA 23703



GRADES: PK - 6

Building Size 76,647 SF

Enrollment (2017-18) 834

Originally Built 1958

OVERALL ANALYSIS

Churchland Elementary was built in 1958 and is nearing the end of its expected life-span. The cost associated with making this facility ADA and Building Code compliant would not be a sound investment for the School Division. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new elementary school.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including site drainage, foundation issues, and electrical systems
- Compliance issues with ADA and Building Code requirements
- Core building over 60 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 3,500,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 26,000,000 |
| <ul style="list-style-type: none"> • New elementary school • Approx. 750 students | |

TOTAL PROJECTED COST

\$ 29,500,000



CHURCHLAND PRIMARY AND INTERMEDIATE

5700 Hedgerow Lane
Portsmouth, VA 23703



GRADES: PK - 6

Building Size 71,150 SF

Enrollment (2017-18) 543

Originally Built 1976

OVERALL ANALYSIS

Churchland Primary and Intermediate was built in 1976 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **fair** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including roofing and electrical systems
- Open pod classrooms limit flexibility and cause noise and visual distractions to learning
- Limited ADA playground equipment

RECOMMENDATIONS

Safety/Security/Accessibility Upgrades \$ 1,949,000

- Security vestibule
- ADA restroom upgrades
- ADA stage access
- Exterior lighting upgrades

Infrastructure Repair \$ 623,000

- Repair/replace kitchen exhaust
- Upgrade playground equipment
- Repair site drainage
- Close open "pod" classrooms

General Renovations \$ 644,000

- Ceiling tile replacement
- Add casework in classrooms
- Floor replacement
- Remove classroom storage mezzanines

TOTAL PROJECTED COST

\$ 3,216,000



DOUGLASS PARK ELEMENTARY

34 Grand Street
Portsmouth, VA 23701



GRADES: PK - 6

Building Size 73,775 SF

Enrollment (2017-18) 683

Originally Built 1965

OVERALL ANALYSIS

Douglass Park Elementary was built in 1965 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **poor** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including roofing and electrical systems
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

- | | |
|--|--------------|
| Safety/Security/Accessibility Upgrades | \$ 1,117,000 |
| <ul style="list-style-type: none"> • Security vestibule • ADA restroom upgrades • Upgrade interior lighting • Replace exterior doors | |
| Infrastructure Repair | \$ 2,083,000 |
| <ul style="list-style-type: none"> • New canopy • Site drainage repair • Replace flat roof • Upgrade intercom system • Upgrade playground equipment | |
| | \$ 757,000 |
| General Renovations | |
| <ul style="list-style-type: none"> • Ceiling tile replacement • Floor replacement | |

TOTAL PROJECTED COST

\$ 3,957,000



HODGES MANOR ELEMENTARY

1201 Cherokee Road
Portsmouth, VA 23701



GRADES: PK - 6

Building Size 50,133 SF

Enrollment (2017-18) 593

Originally Built 1956

OVERALL ANALYSIS

Hodges Manor Elementary was built in 1956 and is nearing the end of its expected life-span. The cost associated with making this facility ADA and Building Code compliant would not be a sound investment for the School Division. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new elementary school.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including electrical systems
- Insufficient capacity for designated enrollment
- Compliance issues with ADA and Building Code requirements
- Core building over 60 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 3,000,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 20,000,000 |
| <ul style="list-style-type: none"> • New elementary school • Approx. 550 students | |

TOTAL PROJECTED COST

\$ 23,000,000



JAMES HURST ELEMENTARY

18 Dahlgren Avenue
Portsmouth, VA 23702



GRADES: PK - 6

Building Size 75,105 SF

Enrollment (2017-18) 589

Originally Built 1978

OVERALL ANALYSIS

James Hurst Elementary was built in 1978 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **fair** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including roofing, site drainage and electrical systems
- Open pod classrooms limit flexibility and cause noise and visual distractions to learning
- Damaged obsolete solar panels
- Insufficient stair railings

RECOMMENDATIONS

- | | |
|--|--------------|
| Safety/Security/Accessibility Upgrades | \$ 801,000 |
| <ul style="list-style-type: none"> • Security vestibule • Site security system (cameras) • Replace stair railings • Upgrade interior lighting | |
| Infrastructure Repair | \$ 2,300,000 |
| <ul style="list-style-type: none"> • Telecommunication upgrades • Partial roof replacement • Remove damaged solar panels • Upgrade playground equipment • Close open "pod" classrooms | |
| General Renovations | \$ 917,000 |
| <ul style="list-style-type: none"> • Ceiling tile replacement • Floor replacement | |

TOTAL PROJECTED COST

\$ 4,018,000



JOHN TYLER ELEMENTARY

3649 Hartford Street
Portsmouth, VA 23707



GRADES: PK - 6

Building Size 61,040 SF

Enrollment (2017-18) 646

Originally Built 2002

OVERALL ANALYSIS

John Tyler Elementary was built in 2002 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **good** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Insufficient capacity for designated enrollment
- Insufficient parking
- Limited roof access for maintenance
- Compliance issues with ADA and Building Code requirements
- Limited ADA playground equipment

RECOMMENDATIONS

- | | |
|---|------------|
| Safety/Security/Accessibility Upgrades | \$ 117,000 |
| <ul style="list-style-type: none"> • Security vestibule • ADA stage access • Larger roof access | |
| Infrastructure Repair | \$ 550,000 |
| <ul style="list-style-type: none"> • New canopy • Parking lot expansion • Upgrade playground equipment | |
| General Renovations | \$ 249,000 |
| <ul style="list-style-type: none"> • Kitchen ceiling replacement • Floor replacement | |

TOTAL PROJECTED COST

\$ 916,000



LAKEVIEW ELEMENTARY

1300 Horne Avenue
Portsmouth, VA 23701



GRADES: PK - 6

Building Size 60,009 SF

Enrollment (2017-18) 439

Originally Built 1967

OVERALL ANALYSIS

Lakeview Elementary was built in 1967 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **poor** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including HVAC and electrical systems
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

- | | |
|--|--------------|
| Safety/Security/Accessibility Upgrades | \$ 185,000 |
| <ul style="list-style-type: none"> • Security vestibule • ADA hardware upgrades • Soil testing • ADA stage access | |
| Infrastructure Repair | \$ 3,252,000 |
| <ul style="list-style-type: none"> • New canopy • Replace HVAC system • Telecommunication upgrades | |
| General Renovations | \$ 719,000 |
| <ul style="list-style-type: none"> • New school sign • Replace flooring • Replace ceiling tile • Upgrade media center • Replace casework in administrative spaces | |

TOTAL PROJECTED COST

\$ 4,156,000



PARK VIEW ELEMENTARY

260 Elm Avenue
Portsmouth, VA 23704



GRADES: PK - 6

Building Size 79,622 SF

Enrollment (2017-18) 544

Originally Built 2009

OVERALL ANALYSIS

Park View Elementary was built in 2009 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **excellent** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Limited use of courtyard due to lack of outdoor seating

RECOMMENDATIONS

| | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 148,000 |
| <ul style="list-style-type: none"> • Security vestibule • Stair rail repair • Site security fencing repair | |
| Infrastructure Repair | \$ 70,000 |
| <ul style="list-style-type: none"> • Courtyard furniture (outdoor learning) • Pavement marking/stripping | |
| General Renovations | \$ 165,000 |
| <ul style="list-style-type: none"> • Replace flooring • Replace ceiling tile • Cafeteria partition track repair • Paint canopy | |

TOTAL PROJECTED COST

\$ 383,000



SIMONSDALE ELEMENTARY

4841 Clifford Street
Portsmouth, VA 23701



GRADES: PK - 6

Building Size 81,165 SF

Enrollment (2017-18) 687

Originally Built 2011

OVERALL ANALYSIS

Simonsdale Elementary was built in 2011, is the newest school in the Division, and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **excellent** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Damage to green-roof
- Incorrectly functioning occupancy sensors in classrooms
- Insufficient parking

RECOMMENDATIONS

| | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 104,000 |
| <ul style="list-style-type: none"> • Security vestibule • Replace occupancy sensors | |
| Infrastructure Repair | \$ 261,000 |
| <ul style="list-style-type: none"> • New parking lot • Upgrade playground equipment • Repair green roof | |
| General Renovations | \$ 0.00 |

TOTAL PROJECTED COST

\$ 365,000



VICTORY ELEMENTARY

2828 Greenwood Drive
Portsmouth, VA 23701



GRADES: PK - 6

Building Size 78,142 SF

Enrollment (2017-18) 598

Originally Built 1961

OVERALL ANALYSIS

Victory Elementary was built in 1961 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **fair** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including site drainage
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

| | |
|---|------------|
| Safety/Security/Accessibility Upgrades | \$ 352,000 |
| <ul style="list-style-type: none"> • Security vestibule • ADA restroom upgrades • Site security fencing repair | |
| Infrastructure Repair | \$ 557,000 |
| <ul style="list-style-type: none"> • New Mini-Split • New Canopy (2 ea) • Upgrade playground equipment | |
| General Renovations | \$ 286,000 |
| <ul style="list-style-type: none"> • Replace flooring | |

TOTAL PROJECTED COST

\$ 1,195,000



WESTHAVEN ELEMENTARY

3701 Clifford Street
Portsmouth, VA 23707



GRADES: PK - 6

Building Size 65,077 SF

Enrollment (2017-18) 579

Originally Built 1954

OVERALL ANALYSIS

Westhaven Elementary was built in 1954 and is nearing the end of its expected life-span. The cost associated with making this facility ADA and Building Code compliant would not be a sound investment for the School Division. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new elementary school.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including plumbing, HVAC, and electrical systems
- Flood damage
- Compliance issues with ADA and Building Code requirements
- Core building over 60 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 3,500,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 21,500,000 |
| <ul style="list-style-type: none"> • New elementary school • Approx. 600 students | |

TOTAL PROJECTED COST

\$ 25,000,000



CHURCHLAND MIDDLE

4051 River Shore Road
Portsmouth, VA 23703



GRADES: 7-8

Building Size 136,937 SF

Enrollment (2017-18) 863

Originally Built 1970

OVERALL ANALYSIS

Churchland Middle was built in 1970 and is nearing the end of its expected life-span. The cost associated with making a school ADA and Building Code compliant would not be a sound investment for the School Division. Also, integrating 6th grade students into the current facilities will cause significant capacity issues. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new middle school.

MAJOR CONCERNS

- Failing infrastructure including windows, HVAC, and electrical systems
- Insufficient capacity for designated enrollment
- Poor building design for current 21st century learning environments
- Compliance issues with ADA and Building Code requirements
- Core building nearing 50 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 4,000,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 45,000,000 |
| <ul style="list-style-type: none"> • New middle school • Approx. 900 students | |

TOTAL PROJECTED COST

\$ 49,000,000



CRADOCK MIDDLE

21 Alden Avenue
Portsmouth, VA 23702



GRADES: 7-8

Building Size 106,220 SF

Enrollment (2017-18) 503

Originally Built 1966

OVERALL ANALYSIS

Cradock Middle was built in 1966 and is nearing the end of its expected life-span. The cost associated with making a school ADA and Building Code compliant would not be a sound investment for the School Division. Also, integrating 6th grade students into the current facilities will cause significant capacity issues. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new middle school.

MAJOR CONCERNS

- Failing infrastructure including roofing and electrical systems
- Insufficient capacity for designated enrollment
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 3,500,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 27,500,000 |
| <ul style="list-style-type: none"> • New middle school • Approx. 600 students | |

TOTAL PROJECTED COST

\$ 31,000,000



WILLIAM E. WATERS MIDDLE

600 Roosevelt Boulevard
Portsmouth, VA 23701



GRADES: 7-8

Building Size 104,601 SF

Enrollment (2017-18) 543

Originally Built 1966

OVERALL ANALYSIS

William E. Waters Middle was built in 1966 and is nearing the end of its expected life-span. The cost associated with making a school ADA and Building Code compliant would not be a sound investment for the School Division. Also, integrating 6th grade students into the current facilities will cause significant capacity issues. Overall the facility is in **poor** condition; therefore, it is recommended that this school be replaced with a new middle school.

MAJOR CONCERNS

- Failing infrastructure including windows, HVAC controls and electrical systems
- Insufficient capacity for designated enrollment
- Compliance issues with ADA and Building Code requirements
- Core building over 50 years in age

RECOMMENDATIONS

- | | |
|---|---------------|
| Site development | \$ 3,500,000 |
| <ul style="list-style-type: none"> • Demolition • Grading/Paving • Utilities | |
| New replacement school | \$ 31,000,000 |
| <ul style="list-style-type: none"> • New middle school • Approx. 700 students | |

TOTAL PROJECTED COST

\$ 34,500,000



FOURTH MIDDLE SCHOOL

Location TBD



GRADES: 7-8

Building Size TBD

Enrollment TBD

Originally Built TBD

OVERALL ANALYSIS

The Division has expressed interest in moving the 6th graders to the middle schools. During analysis, it was determined that this creates a capacity issue at all three middle schools. Instead of building all three new middle schools larger, it is recommended that the Division add a fourth middle school to account for the capacity issues at the middle school level.

MAJOR CONCERNS

- None

RECOMMENDATIONS

| | |
|---|---------------|
| Site development | \$ 3,500,000 |
| <ul style="list-style-type: none"> • Grading/Paving • Utilities | |
| New replacement school | \$ 31,000,000 |
| <ul style="list-style-type: none"> • New middle school • Approx. 900 students | |

TOTAL PROJECTED COST

\$ 34,500,000



CHURCHLAND HIGH

4301 Cedar Lane
Portsmouth, VA 23703



GRADES: 9-12

Building Size 262,000 SF

Enrollment (2017-18) 1,418

Originally Built 1992

OVERALL ANALYSIS

Churchland High was built in 1992 and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **good** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including site drainage, asphalt drives, and electrical systems
- Upgrades needed for current 21st century learning environments
- Athletic facility upgrades needed

RECOMMENDATIONS

- | | |
|---|--------------|
| Safety/Security/Accessibility Upgrades | \$ 340,000 |
| <ul style="list-style-type: none"> • Security vestibule • Exterior Lighting Upgrades • ADA hardware upgrades | |
| Infrastructure Repair | \$ 2,084,000 |
| <ul style="list-style-type: none"> • New canopy • Resurface parking lot and drives • Upgrade athletic facilities | |
| General Renovations | \$ 1,580,000 |
| <ul style="list-style-type: none"> • Upgrade auditorium flooring and add orchestra pit cover • Renovate media center (internet café) • Replace flooring • Replace ceiling tiles • Renovate teacher workrooms | |

TOTAL PROJECTED COST

\$ 4,004,000



I. C. NORCOM HIGH

1801 London Boulevard
Portsmouth, VA 23704



GRADES: 9-12

Building Size 280,812 SF

Enrollment (2017-18) 1,092

Originally Built 1999

OVERALL ANALYSIS

I.C. Norcom High was built in 1999, is the newest high school in the Division, and has many years left in its expected life-span. The Division will need to extend the use of this facility for many years to come. Overall the facility is in **good** condition; therefore, it is recommended that this school receive funding to address any major safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including site drainage and electrical systems
- Upgrades needed for current 21st century learning environments
- Athletic facility upgrades needed

RECOMMENDATIONS

- | | |
|--|--------------|
| Safety/Security/Accessibility Upgrades | \$ 1,105,000 |
| <ul style="list-style-type: none"> • Security vestibule • Exterior lighting upgrades • New driveway gates | |
| Infrastructure Repair | \$ 4,429,000 |
| <ul style="list-style-type: none"> • New canopy (2 ea) • Repair site drainage • Upgrade athletic facilities | |
| General Renovations | \$ 1,033,000 |
| <ul style="list-style-type: none"> • Interior paint • Replace flooring • Replace ceiling tiles | |

TOTAL PROJECTED COST

\$ 6,567,000



WOODROW WILSON HIGH

1401 Elmhurst Lane
Portsmouth, VA 23701



GRADES: 9-12

Building Size 261,665 SF

Enrollment (2017-18) 1,393

Originally Built 1971

OVERALL ANALYSIS

Woodrow Wilson High was built in 1971 and is nearing the end of its expected life-span. However, the Division will need to extend the use of this facility while addressing more immediate needs at other facilities. Overall the facility is in **good** condition; therefore, it is recommended that this school receive funding to address significant safety/security/accessibility upgrades, infrastructure repair, and general renovations.

MAJOR CONCERNS

- No security vestibule
- Failing infrastructure including site drainage and electrical systems
- Compliance issues with ADA and Building Code requirements
- Technology upgrades needed for current 21st century learning environments
- Athletic facility upgrades needed

RECOMMENDATIONS

- | | |
|---|--------------|
| Safety/Security/Accessibility Upgrades | \$ 3,850,000 |
| <ul style="list-style-type: none"> • Security vestibule • Interior lighting upgrades • ADA restroom upgrades • ADA hardware upgrades • Remove cafeteria partition | |
| Infrastructure Repair | \$ 4,473,000 |
| <ul style="list-style-type: none"> • Technology upgrades • Upgrade electrical system | |
| General Renovations | \$ 3,391,000 |
| <ul style="list-style-type: none"> • Remove lockers • Replace flooring • Replace acoustical ceiling • Clean interior brick throughout commons • Upgrade teacher's lounge/storage | |

TOTAL PROJECTED COST

\$ 11,714,000



NEW CTE CENTER

401 W Road
Portsmouth, VA 23707



GRADES: N/A

Building Size TBD

Enrollment TBD

Originally Built TBD

OVERALL ANALYSIS

The Division's leadership has continuously stressed the desire to increase and improve the CTE course offerings. CTE courses are currently offered at each high school; however, over time many of the lab spaces have been modified for other uses. It is more cost efficient to offer a wide variety of courses at one facility as opposed to each individual high school; therefore, it is recommended that a new centralized CTE Center be built on the DAC Campus.

MAJOR CONCERNS

- Limited CTE course offerings currently available to students

RECOMMENDATIONS

| | |
|---|---------------|
| Site Development | \$ 3,500,000 |
| <ul style="list-style-type: none"> Demolition Grading/Paving Utilities | |
| New replacement facility | \$ 31,500,000 |
| <ul style="list-style-type: none"> New CTE Center | |

TOTAL PROJECTED COST

\$35,000,000



DIAGNOSTIC, ADJUSTIVE AND CORRECTIVE CENTER FOR LEARNING (DAC)

401 W Road
Portsmouth, VA 23707



GRADES: N/A

Building Size 31,500 SF

Enrollment (2017-18) N/A

Originally Built 1971

OVERALL ANALYSIS

The Diagnostic, Adjustive, and Corrective Center for Learning (DAC) was built in 1971 and is nearing the end of its expected life-span. Overall the facility is in **poor** condition and is not currently being used; therefore, it is recommended that the site be repurposed for other School Division needs.

MAJOR CONCERNS

- Currently unoccupied
- Not conducive for 21st century learning environment

RECOMMENDATIONS

Repurpose site \$ 0.00

TOTAL PROJECTED COST

\$0.00



INSTRUCTIONAL RESOURCE CENTER (IRC)

365 I Hartford Street
Portsmouth, VA 23707



GRADES: N/A

Building Size 18,683 SF

Enrollment (2016-17) N/A

Originally Built 1967

OVERALL ANALYSIS

The Instructional Resource Center (IRC) was built in 1967 and is nearing the end of its expected life-span. The cost associated with making this facility ADA and Building Code compliant would not be a sound investment for the School Division. Overall the facility is in **fair** condition; therefore, it is recommended that only limited upgrades be done at this time with consideration of replacing the facility within the next 15 years.

MAJOR CONCERNS

- Limited access to electrical panels
- Compliance issues with ADA and Building Code requirements
- Failing infrastructure including systems
- Core Building over 50 years in age

RECOMMENDATIONS

| | |
|--|------------|
| Safety/Security/Accessibility Upgrades | \$ 513,000 |
| • ADA restroom upgrades | |
| Infrastructure Repair | \$ 328,000 |
| • Upgrade electrical system | |
| General Renovations | \$ 162,000 |
| • New building sign | |
| • Replace flooring | |
| • Replace ceiling tiles | |

TOTAL PROJECTED COST

\$ 1,003,000



STEPHEN H. CLARKE ACADEMY

2801 Turnpike Road
Portsmouth, VA 23707



GRADES: K-3 – 12, Adult Education

Building Size 108,200 SF

Enrollment (2016-17) 100

Originally Built 1957

OVERALL ANALYSIS

Stephen H. Clarke Academy was built in 1957 and is nearing the end of its expected life-span. The cost associated with making this facility ADA and Building Code compliant would not be a sound investment for the School Division. Overall the facility is in **poor** condition; therefore, it is recommended that only limited upgrades be done at this time with consideration of replacing the facility within the next 15 years.

MAJOR CONCERNS

- Renovations of current spaces are needed to match current use
- Compliance issues with ADA and Building Code requirements
- Failing infrastructure including site drainage and electrical systems
- Core building over 60 years in age

RECOMMENDATIONS

- | | |
|---|--------------|
| Safety/Security/Accessibility Upgrades | \$ 991,000 |
| • ADA restroom upgrades | |
| Infrastructure Repair | \$ 2,176,000 |
| • Upgrade electrical system | |
| • Repair site drainage | |
| • New parking lot | |
| General Renovations | \$ 2,804,000 |
| • New casework in main office | |
| • Renovate administration spaces | |
| • Renovate “boy’s” gym to be a workshop | |
| • Add overhead doors in workshop | |
| • Replace flooring | |
| • Replace ceiling tiles | |

TOTAL PROJECTED COST

\$ 5,971,000



APPENDIX

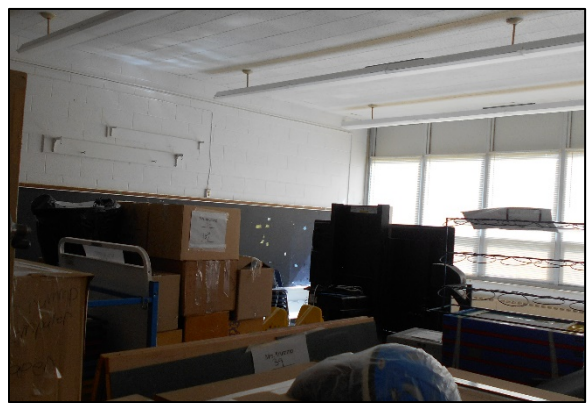
Facility Photos

Facility Data Sheet

University of Virginia Demographics Report

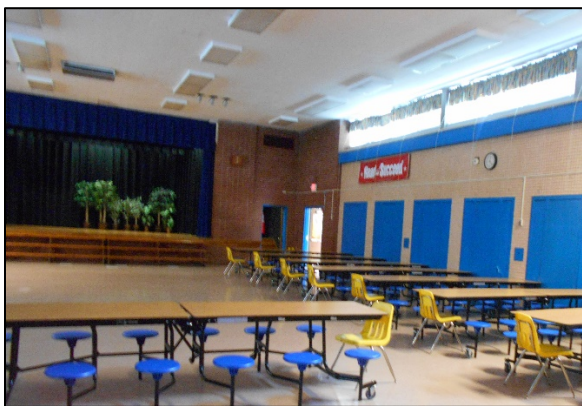
FACILITY PHOTOS

Emily N. Spong Preschool



FACILITY PHOTOS

Mt. Hermon Preschool



FACILITY PHOTOS

Olive Branch Preschool



FACILITY PHOTOS

Brighton Elementary School



FACILITY PHOTOS

Churchland Academy Elementary School



FACILITY PHOTOS

Churchland Elementary School



FACILITY PHOTOS

Churchland Primary and Intermediate Elementary School



FACILITY PHOTOS

Douglass Park Elementary School



FACILITY PHOTOS

Hodges Manor Elementary School



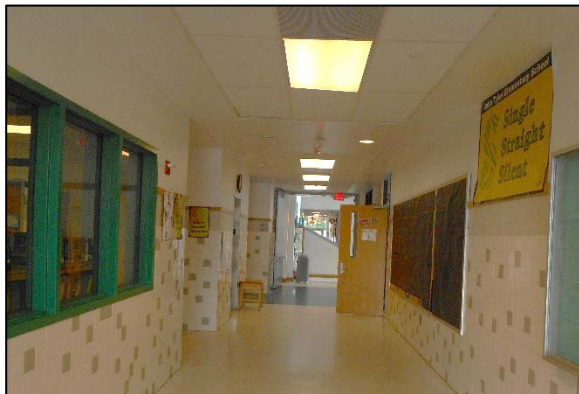
FACILITY PHOTOS

James Hurst Elementary School



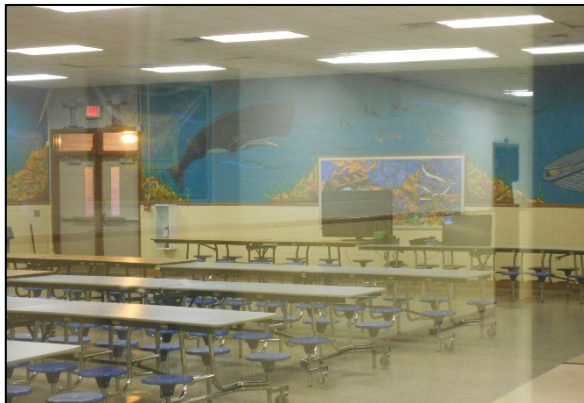
FACILITY PHOTOS

John Tyler Elementary School



FACILITY PHOTOS

Lakeview Elementary School



FACILITY PHOTOS

Park View Elementary School



FACILITY PHOTOS

Simonsdale Elementary School



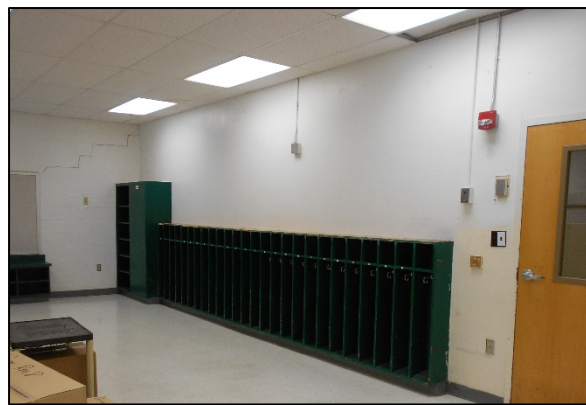
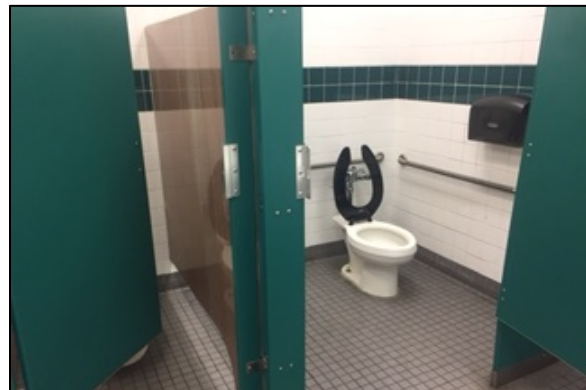
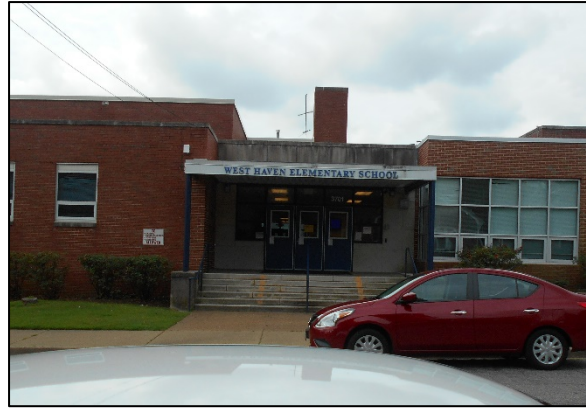
FACILITY PHOTOS

Victory Elementary School



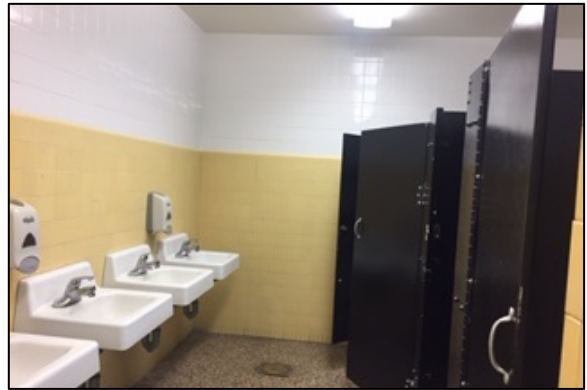
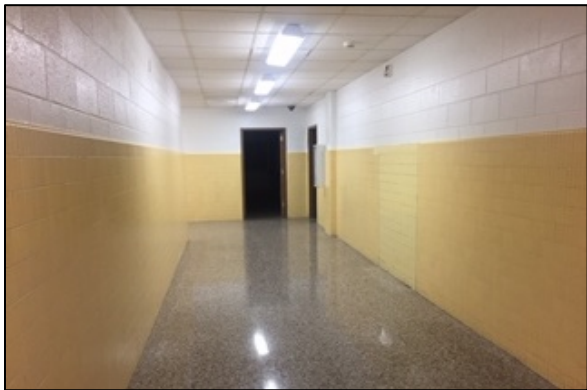
FACILITY PHOTOS

Westhaven Elementary School



FACILITY PHOTOS

Churchland Middle School



FACILITY PHOTOS

Cradock Middle School



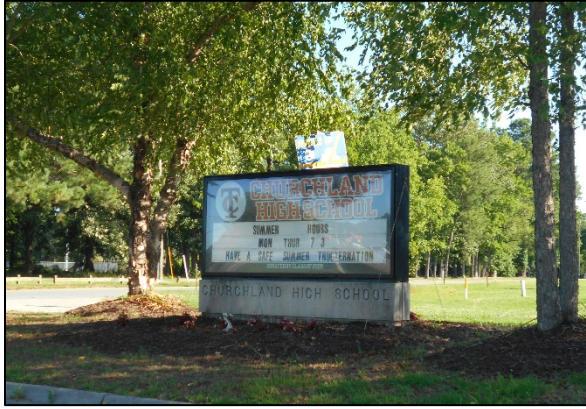
FACILITY PHOTOS

William E. Waters Middle School



FACILITY PHOTOS

Churchland High School



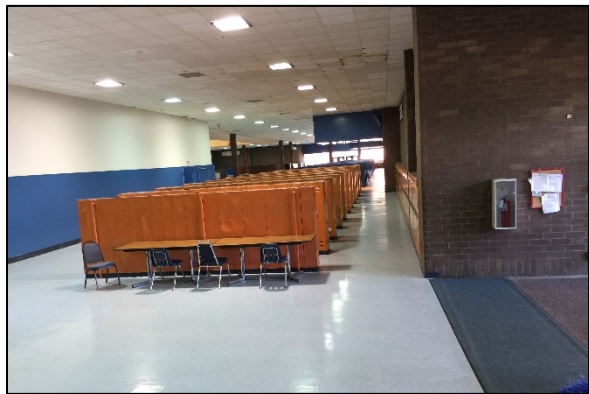
FACILITY PHOTOS

I.C. Norcom High School



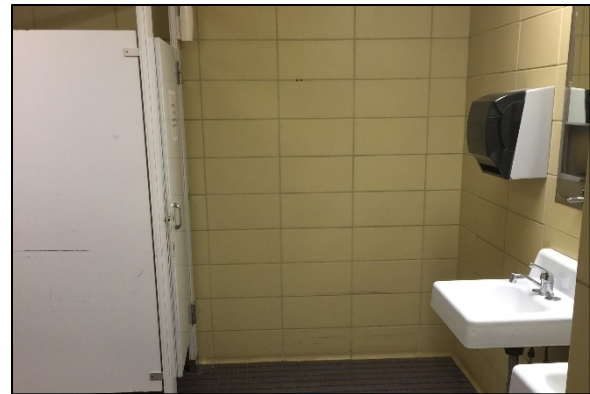
FACILITY PHOTOS

Woodrow Wilson High School



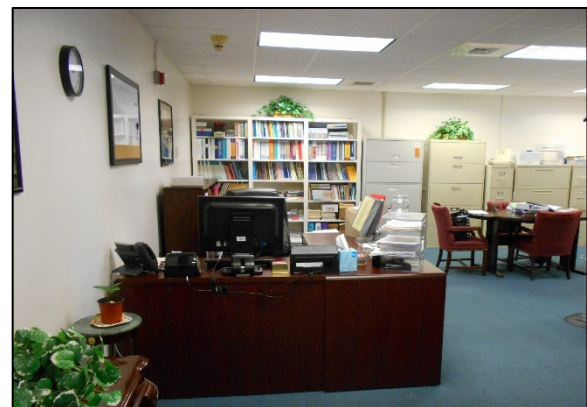
FACILITY PHOTOS

Diagnostic, Adjustive and Corrective Center for Learning (DAC)



FACILITY PHOTOS

Instructional Resource Center (IRC)




FACILITY PHOTOS

Stephen H. Clarke



FACILITY DATA SHEET

|  FACILITY DATA SHEET | | | | |
|--|-----------------------|--------------------------------|-------------------------|----------------------|
| SCHOOL/BUILDING | 2017-18 Enrollment | BUILDING SIZE (SQUARE FEET) | YEAR BUILT, ADDED TO | SITE SIZE (ACRES) |
| Emily N. Spong Preschool | 0 | 30,206 | 1957, 1966 | 2.3 |
| Mount Hermon Preschool | 256 | 36,317 | 1953 | 6.6 |
| Olive Branch Preschool | 227 | 32,700 | 1960 | 9.2 |
| Churchland Preschool* | 156 | 96,000 | 1986 | 12 |
| Brighton Elementary | 469 | 56,566 | 2004 | 8.8 |
| Churchland Academy* | 684 | 96,000 | 1986 | 12 |
| Churchland Elementary | 834 | 76,647 | 1958, 1969, 2005, 2012 | 19.1 |
| Churchland Primary & Intermediate | 543 | 71,150 | 1976, 2011 | 13.8 |
| Douglass Park Elementary | 683 | 73,775 | 1965, 2002 | 11.6 |
| Hodges Manor Elementary | 593 | 50,133 | 1956, 1969, 2005 | 15.1 |
| James Hurst Elementary | 589 | 75,105 | 1978, 2010 | 11.6 |
| John Tyler Elementary | 646 | 61,040 | 2002, 2005 | 24.2** |
| Lakeview Elementary | 439 | 60,009 | 1967, 2005 | 21.9 |
| Park View Elementary | 544 | 79,622 | 2009 | 10.91 |
| Simonsdale Elementary | 687 | 81,165 | 2011 | 23.06 |
| Victory Elementary | 598 | 78,142 | 1961, 1970, 1975, 2007 | 11.83 |
| Westhaven Elementary | 579 | 65,077 | 1954, 1956, 1969, 2002 | 11.2 |
| Churchland Middle | 863 | 136,937 | 1970 | 35.2 |
| Cradock Middle | 503 | 106,220 | 1966 | 18 |
| William E. Waters Middle | 543 | 104,601 | 1966 | 20.5 |
| Churchland High | 1,418 | 262,000 | 1992 | 89.4 |
| I.C. Norcom High | 1,092 | 280,812 | 1999 | 31.1 |
| Woodrow Wilson High | 1,393 | 261,665 | 1971 | 46.2 |
| DAC Center | 0 | 31,500 | 1971 | 24.2** |
| Instructional Resource Center (IRC) | 0 | 18,683 | 1967 | 24.2** |
| Stephen H. Clarke | 100 | 108,200 | 1957, 1962 | 18.7 |
| TOTAL | | 2,430,272 | | |
| *Combined facility | | | | |
| **Combined acreage | | | | |



UNIVERSITY OF VIRGINIA DEMOGRAPHICS REPORT

Begins on next page

A Demographic Analysis
of the School-Age Population
in Portsmouth City, Virginia

Prepared for M. B. Kahn Construction Co., Inc.
August 18, 2017



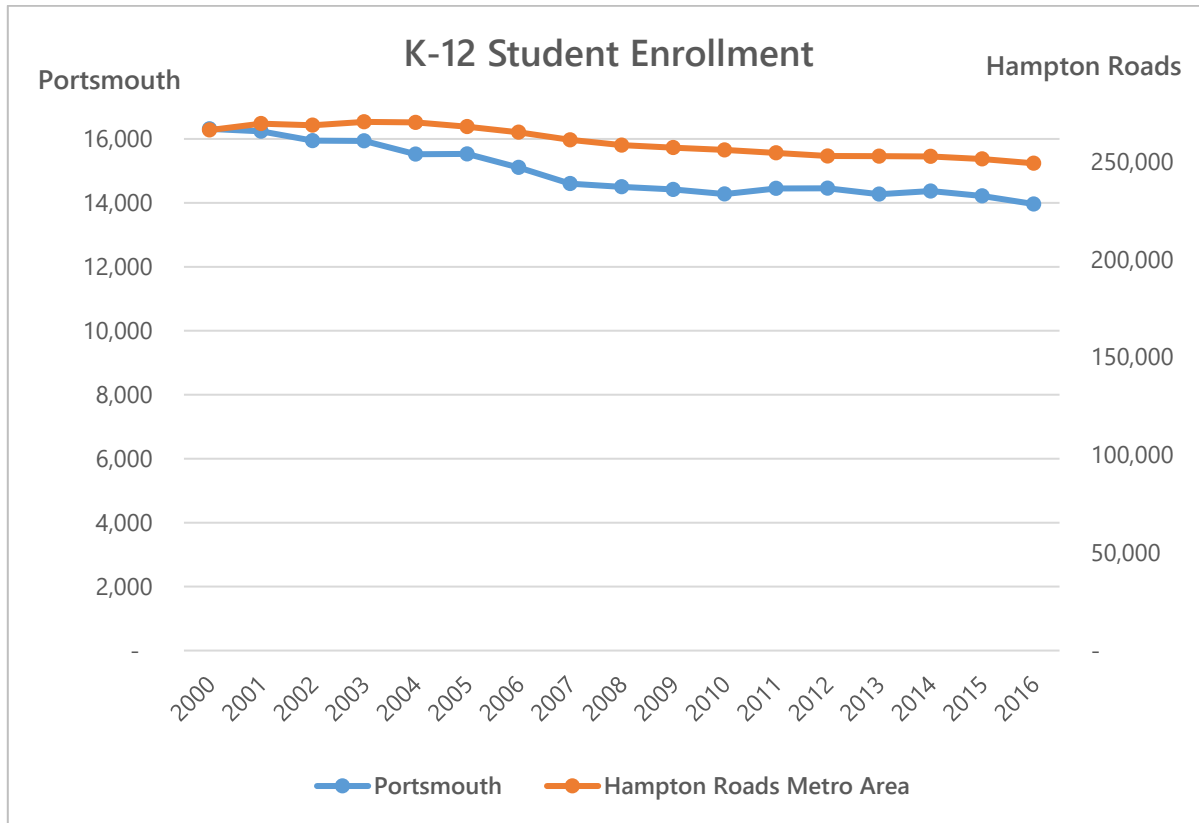
Weldon Cooper Center for Public Service
<http://demographics.coopercenter.org>
Charlottesville, Virginia

Part I: Demographic Analysis

| | |
|--|-------|
| Overview | 1-2 |
| Why is Portsmouth's student enrollment declining? | 3-7 |
| Will Portsmouth City's enrollment continue to decline? | 7-9 |
| Student Enrollment Projections Overview | 10-13 |
| 2016-2021 Projection | |
| 2021-2026 Projection | |
| 2026-2031 Projection | |

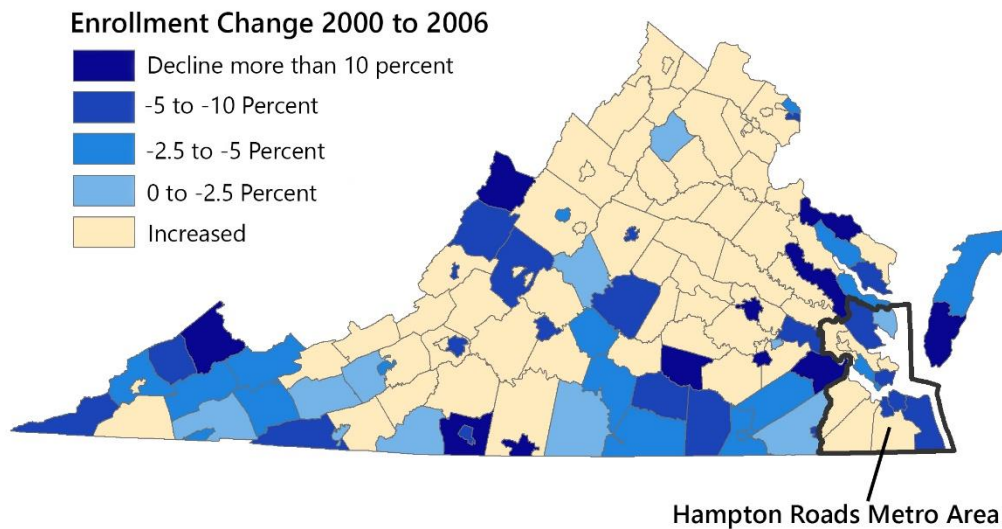
Overview

From 2000-2010, Portsmouth’s kindergarten to 12th grade student enrollment declined by over 12 percent, but between 2010 and 2014, Portsmouth’s student enrollment grew, in part, due to larger entering kindergarten classes. However, since 2014, student enrollment in Portsmouth has been declining in size.



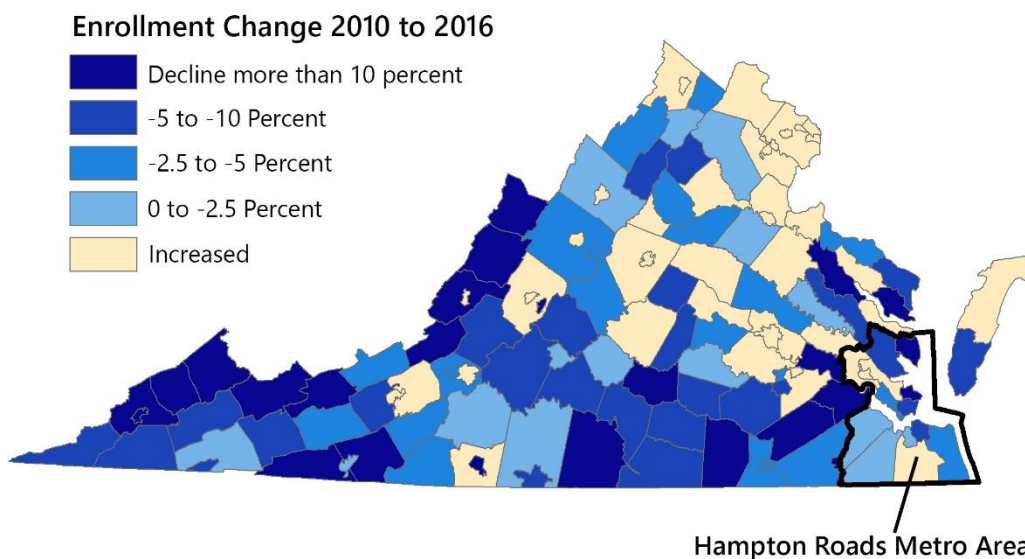
Source: Virginia Department of Education Fall Count

Many school divisions in the Hampton Roads Metropolitan Area have also experienced declines in student enrollment since 2000, though the total K-12 student enrollment in the metro area has only declined by 6 percent from 2000-2016. Most of the decline in student enrollment in the Hampton Roads Metro Area has occurred since 2006 when the housing boom ended.



Source: Virginia Department of Education Fall Count

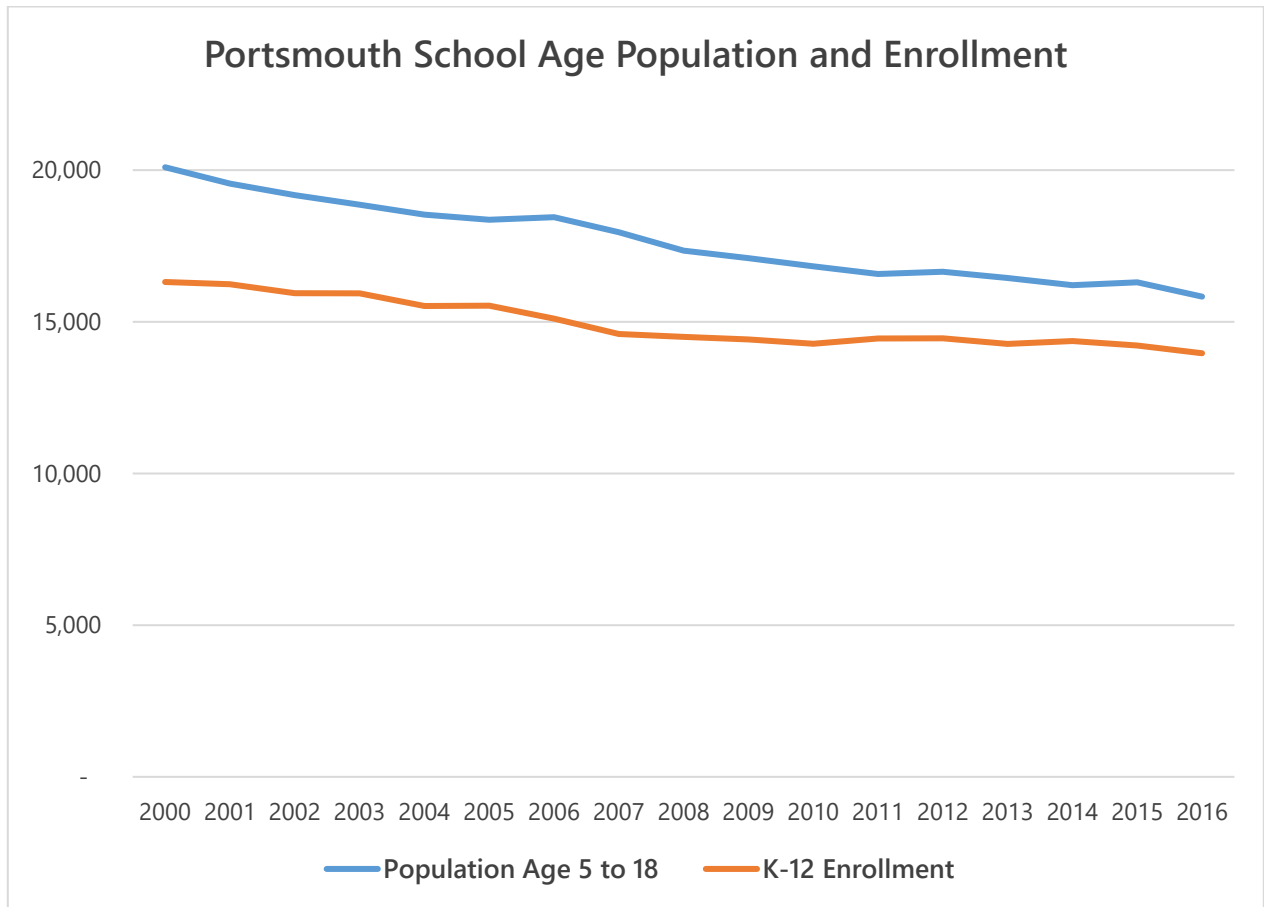
Prior to 2006, student enrollment was growing in many of the suburban school divisions near Portsmouth, including Chesapeake, Suffolk and Isle of Wight. Other urban school divisions in Hampton Roads: Hampton, Newport News and Norfolk also experienced declines in student enrollment from 2000-2016. Since 2010, the only metro area school division south of the James River still experiencing student enrollment growth has been Chesapeake, while 10 out of the 13 school divisions in Hampton Roads have experienced declines in their student enrollment.



Source: Virginia Department of Education Fall Count

Why is Portsmouth's student enrollment declining?

During the past two decades, the decline in public school enrollment in Portsmouth City has followed the decline in the city's school-age population. Public school enrollment has declined more slowly than Portsmouth's school-age population because the portion of Portsmouth children attending public school has risen to nearly 90 percent.



Source: Virginia Department of Education Fall Count, Census Bureau Age Estimates, and Decennial Census

Changes in the school-age population and, consequently, student enrollment are driven by a combination of family migration and birth rates. During the early 2000s, the school-age population in some school divisions in Hampton Roads declined as families moved out of the region, though most suburban school divisions, such as Chesapeake and Suffolk, attracted families and experienced growth in their school-age population.

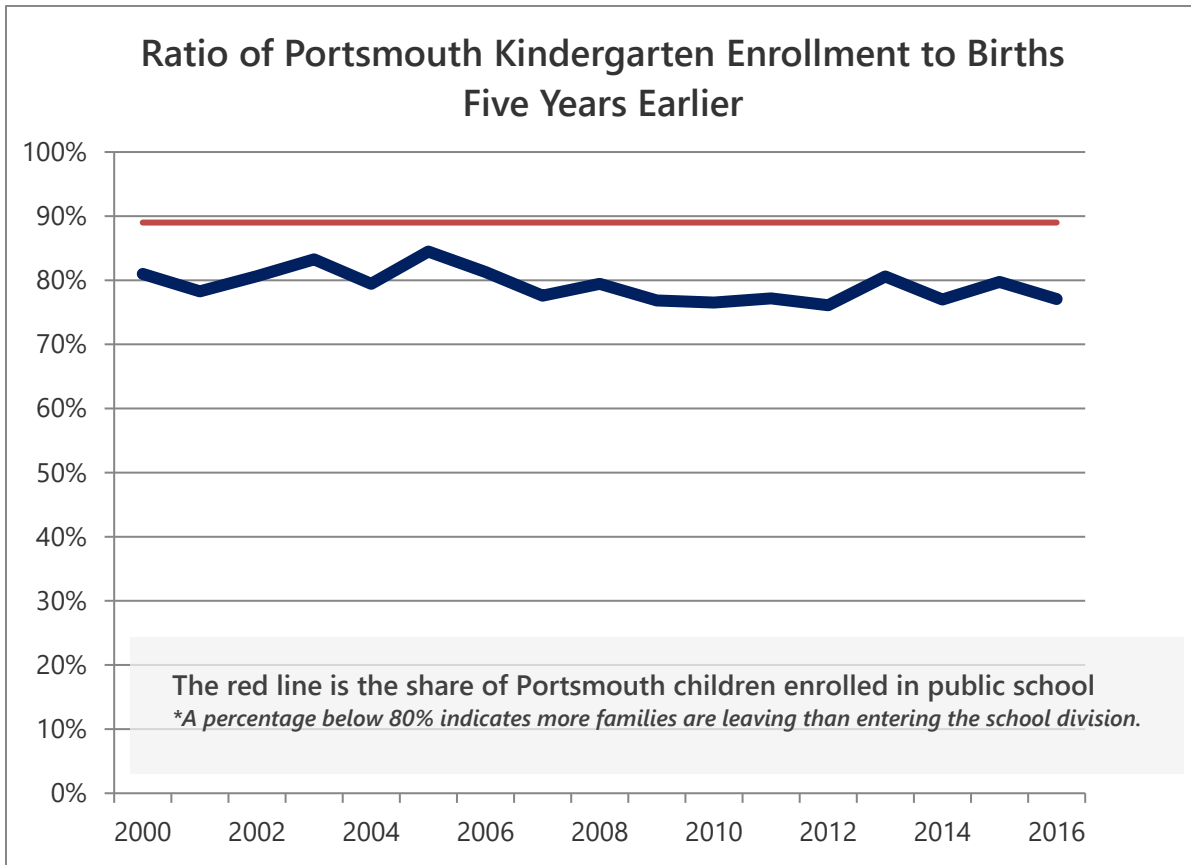
Since 2010, the school-age population has declined in nearly every school division within the Hampton Roads Metro Area. Virginia, overall, has experienced a small decline in its school-age population since 2010 as a result of families moving out of the state and the fall in births after the housing boom ended. The school-age population in Portsmouth was less affected by this trend because a large number of families had already moved out of the city.

| Change in School-Age Population | | |
|---------------------------------|--------------|--------------|
| | 2000 to 2006 | 2010 to 2016 |
| Chesapeake | 4% | -3% |
| Norfolk | -6% | -9% |
| Portsmouth | -8% | -6% |
| Suffolk | 21% | -4% |
| Virginia Beach | -6% | -8% |
| Hampton Roads | -2% | -8% |
| Virginia | 4% | -1% |

Sources: Census Bureau Age Estimates and Decennial Census

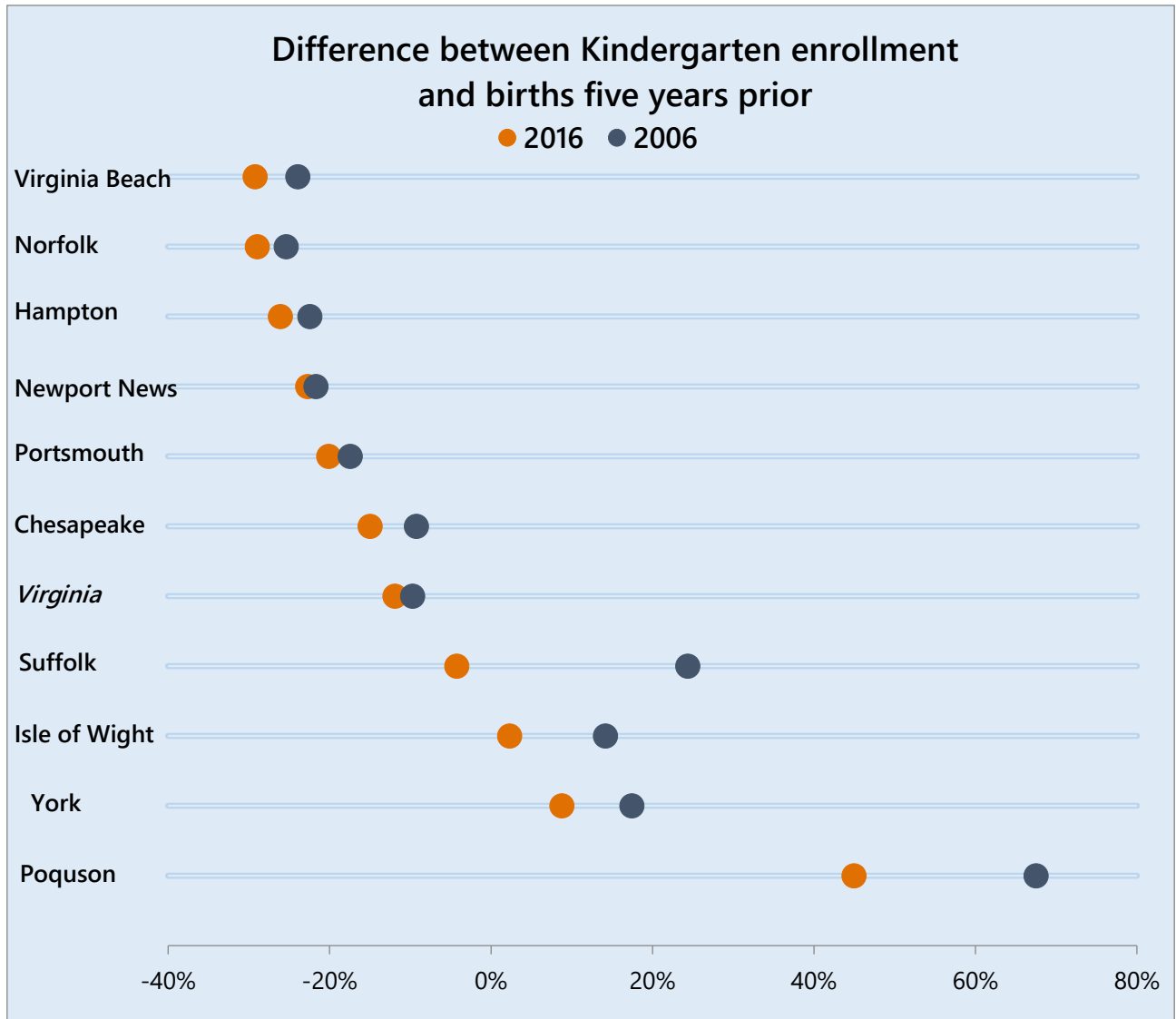
One of the best ways to track whether a school division is gaining or losing families is to look at the ratio of its kindergarten enrollment to births five years earlier. If all the children born in Portsmouth in a given year—and only those children—enrolled in Portsmouth City Public Schools for kindergarten five years later, the kindergartner-to-birth ratio would be 100 percent.

As the chart below shows, Portsmouth’s ratio of kindergartners to births has hovered around 80 percent since 2000. When you also take into consideration the fact that 90 percent of those born five years earlier would be expected to enroll in kindergarten—given that 90 percent of Portsmouth’s children attend public school—the kindergarten-to-birth ratio of around 80 percent indicates that 10 percent of Portsmouth’s families move out of the division before enrolling their children in school. This rate of out-migration has been fairly consistent since at least 2000.



Sources: Virginia Department of Education Fall Count and Weldon Cooper Center Annual Births Tabulations

Similar to Portsmouth, most urban school divisions in the region already had a large share of their families moving out of the division prior to the end of the housing boom. As a result, Hampton Road’s urban school divisions have not experienced a significant rise in families moving away in recent years. In contrast, suburban school divisions in the region, such as Suffolk and Isle of Wight, have attracted considerably fewer families in recent years, causing student enrollment in some suburban school divisions to decline.



A negative difference indicates that some kindergarteners are enrolled in private school or have moved away from the division. A positive difference indicates the division is attracting families with children.

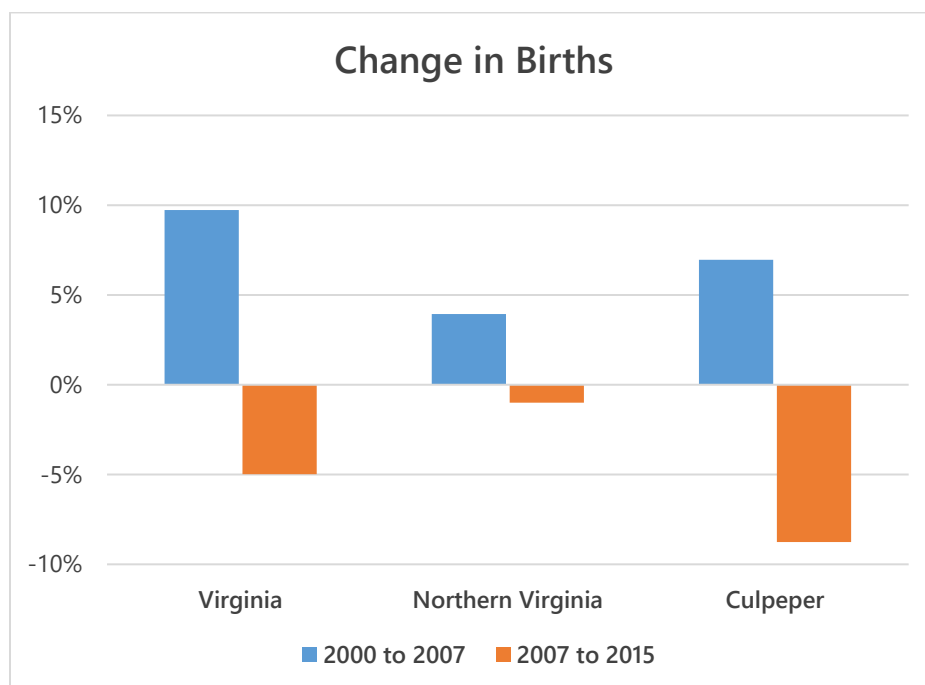
Source: Virginia Department of Education Fall Count and Weldon Cooper Center Annual Birth Tabulations

The decline in families moving to suburban school divisions in Hampton Roads is in large part tied to the end of the housing boom in 2007. Homeownership rates have fallen in the region and across the country as a result of the increased difficulty in obtaining mortgages. Since most of the suburban housing stock in Hampton Roads is owner occupied (rather than rental properties), fewer families have

been able to afford to move to them, which has resulted in a boost in urban school division enrollment in most of Virginia's metro areas. However, the region's relatively weak economy, likely due in part due to the Federal Budget Sequestration, has caused many families to move out of the region instead.

Will Portsmouth City's enrollment continue to decline?

From 2000-2010, Portsmouth's student enrollment declined because its school-age population also declined as many families moved out of the city. Then a rise in births during the housing boom temporarily boosted student enrollment during the early 2010s. Today, however, unless Portsmouth attracts more families or fewer of its families leave, student enrollment will likely continue to decline. In the coming years, the fall in births since 2007 may have an even larger impact on Portsmouth's student enrollment than families moving out of the school division.



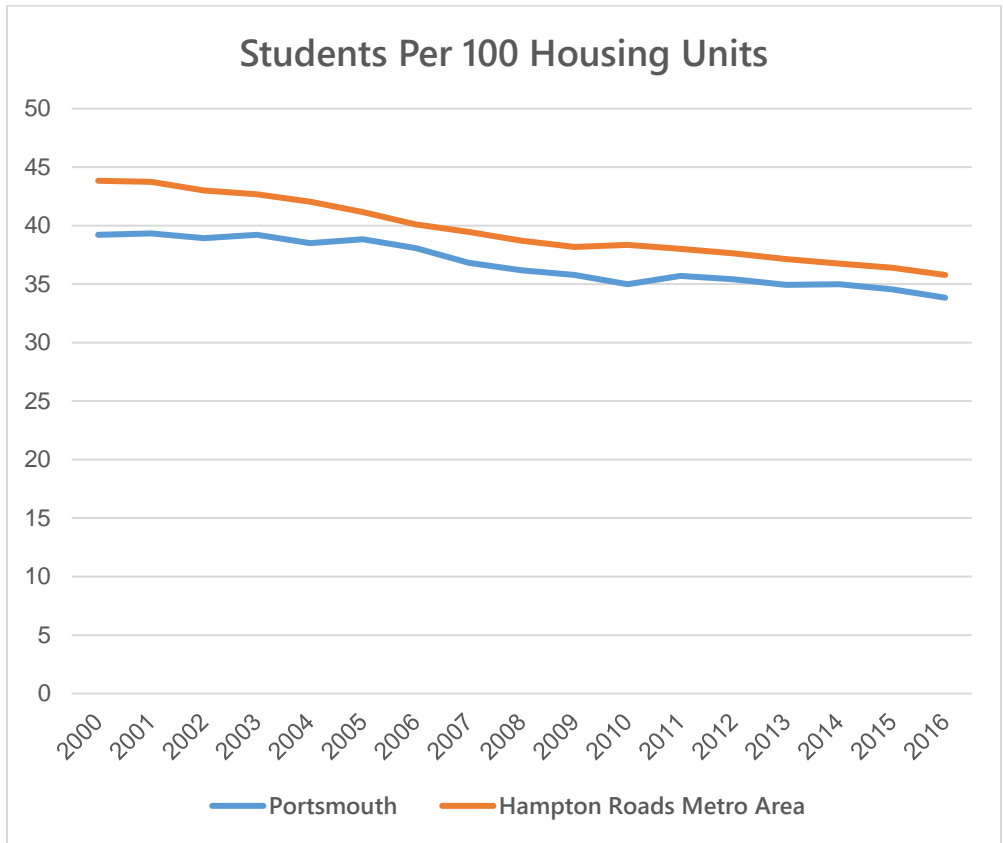
Source: Weldon Cooper Center Annual Births Tabulations

The number of births declined in Virginia and throughout the U.S. when the housing boom ended in 2007 and the last recession began. Births in Portsmouth declined more rapidly than in most school divisions, and like Virginia overall, birth rates have not rebounded in Portsmouth even though the recession ended before 2010. One possible explanation is that most of the decline in births since 2007 was concentrated among teenagers, which may be part of a long-term societal shift to having births later in life. In Portsmouth, the number of teen pregnancies has declined by over 75 percent since 2007.

The fall in Portsmouth's birth rate began to have an effect on student enrollment in 2012 when the entering kindergarten class sizes started to decline. Over the last five years, Portsmouth's kindergarten enrollment has fallen by 100 students. Because the number of births in Portsmouth has continued to decline, it is likely that the size of future kindergarten classes will also continue to decline, possibly to below 1,200 this decade and below 1,100 during the next decade.

Even if Portsmouth's birth rate does not rebound, student enrollment could stop declining if fewer families move away or more families move to the city. This has been the case for some urban school divisions in Virginia, like Richmond and Roanoke, where their school enrollment increased as a result of fewer families moving out of the city.

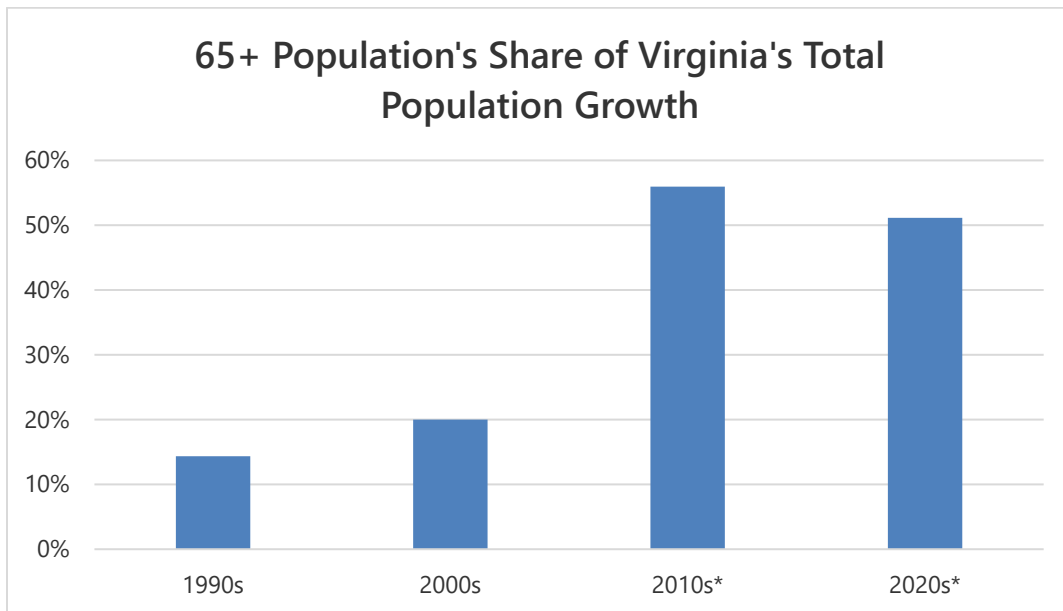
In recent decades, Portsmouth has attempted to retain more of its families by redeveloping large areas of the city. Though the redevelopment efforts may have helped stop the decline in Portsmouth's total population, the number of households with children in the city has declined by over 2,500 since the year 2000.



Source: Virginia Department of Education Fall Count, Census Bureau Decennial Housing Unit Counts and Weldon Cooper Center Housing Unit Estimates

The increase in housing stock in Portsmouth and Hampton Roads combined with a declining student enrollment has resulted in the number of students per housing unit to steadily fall since 2000. If the number of students per housing unit continues to shrink in Portsmouth, future housing developments will likely have even less of an impact on student enrollment than those built in recent decades (as depicted in the chart above). Since Portsmouth is largely built out, any planned housing developments large enough to impact enrollment would likely require rezoning from the city before building permits could be issued and construction started, providing Portsmouth City more time to prepare for the impact on student enrollment.

The reason that school-age populations in Portsmouth and Hampton Roads have declined while their total populations have grown is that their older adult populations (those outside the common age range to have children) have continued to grow, particularly their 65-and-older populations. The aging of Portsmouth's population means that more residents over age 65, instead of families with children, are moving into new homes.



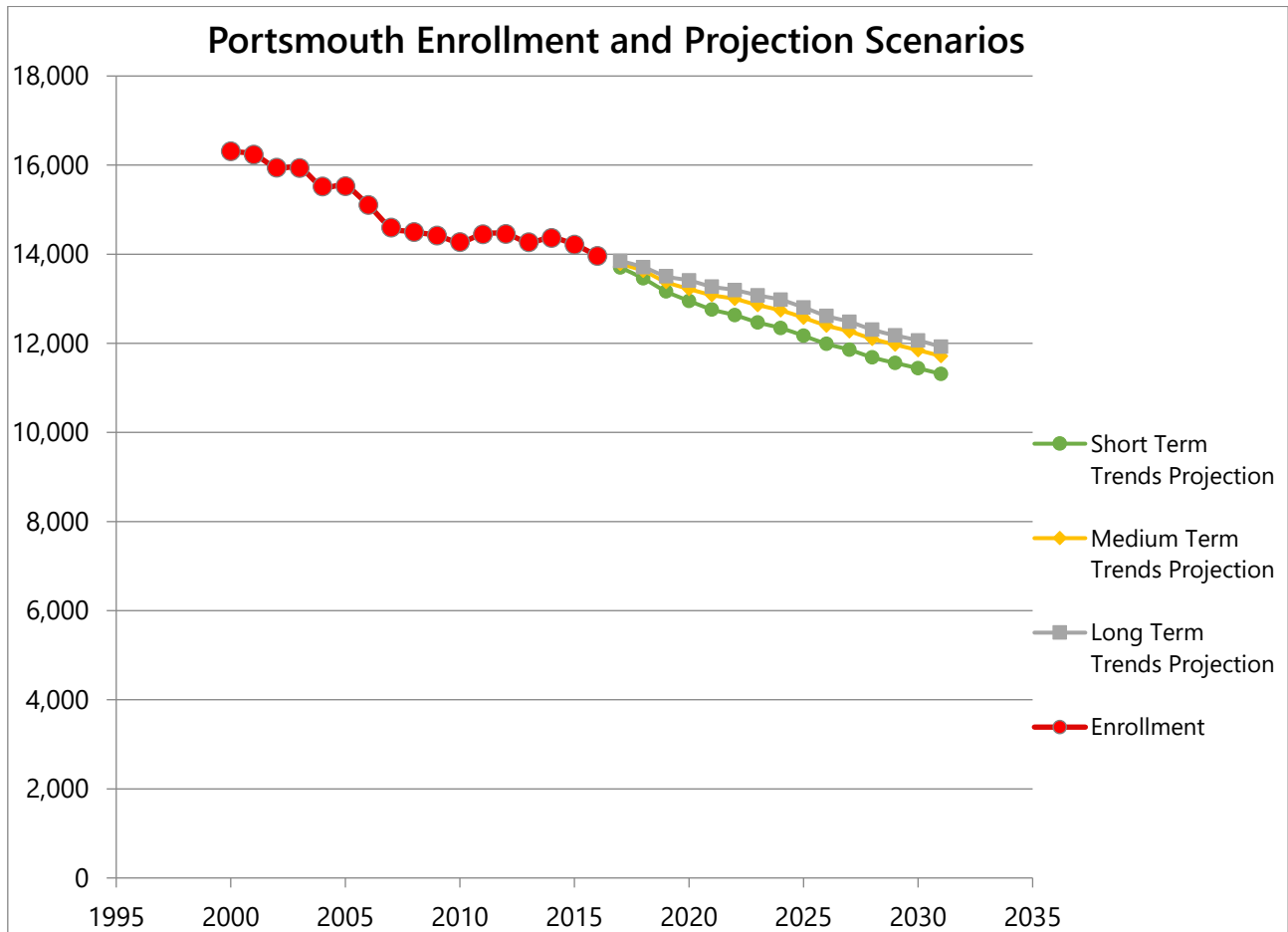
Sources: Decennial Census and Weldon Cooper Center Virginia Population Projections

Between now and 2030, the Weldon Cooper Center projects that Virginia's 65-and-older population is expected to account for the majority of the Commonwealth's population growth. In contrast, fewer births since the recession means that there will be less growth in the school-age population over the next five years. In the longer term, as the large Millennial generation continues to age, the Weldon Cooper Center projects that within many Virginia communities, including Portsmouth, there will be a decline in the size of the population likely to have children.

Student Enrollment Projections

The first step in producing the fifteen-year student enrollment projections for Portsmouth City was to project births in the city over the next ten years. As noted earlier, the number of births in Portsmouth should continue to gradually decline as the number of women of child-bearing age declines.

Three different projection scenarios were then developed based on short-, medium- and long-term student enrollment trends in Portsmouth City. All three projections show enrollment declining steadily by 2,000 or more students between the 2016-2017 school year and the 2031-2032 school year. Overall, there is fairly little difference between the three enrollment projections.

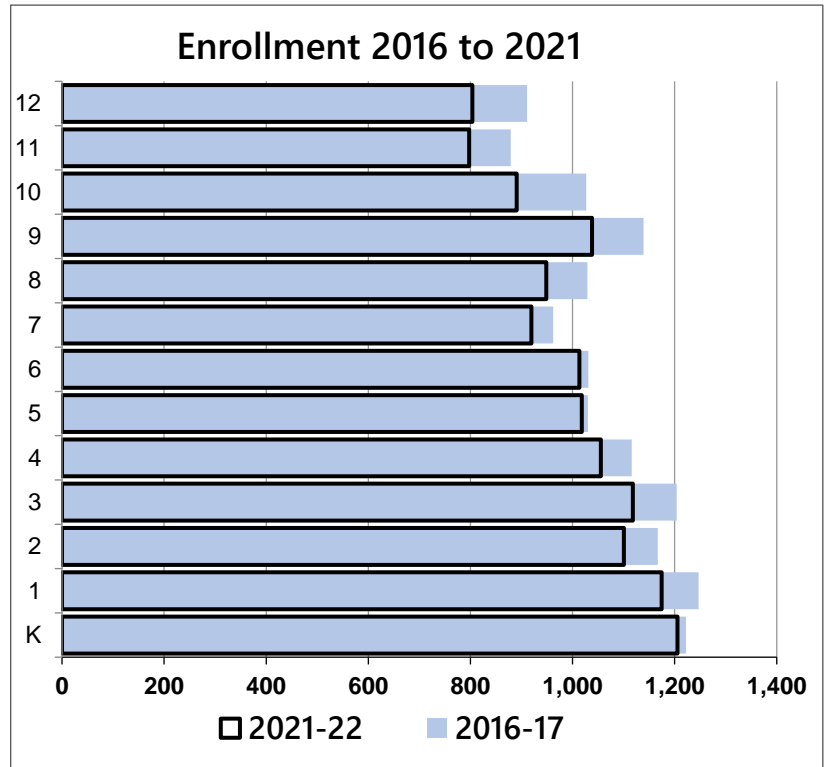


The medium-term trends scenario was used for the enrollment projection since it balances out longer term trends which project slightly less enrollment decline with short term trends which project more enrollment decline.

| Enrollment Projections by Grade | | | | | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-----|-----|------------|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Total K-12 |
| 2016-17 | 1,222 | 1,247 | 1,167 | 1,204 | 1,116 | 1,030 | 1,031 | 962 | 1,029 | 1,139 | 1,027 | 879 | 911 | 13,964 |
| 2017-18 | 1,210 | 1,198 | 1,214 | 1,134 | 1,136 | 1,067 | 995 | 980 | 936 | 1,135 | 1,004 | 882 | 895 | 13,786 |
| 2018-19 | 1,211 | 1,183 | 1,171 | 1,181 | 1,071 | 1,082 | 1,027 | 947 | 956 | 1,034 | 999 | 862 | 903 | 13,626 |
| 2019-20 | 1,157 | 1,176 | 1,151 | 1,140 | 1,106 | 1,018 | 1,036 | 966 | 921 | 1,053 | 909 | 859 | 885 | 13,377 |
| 2020-21 | 1,203 | 1,128 | 1,149 | 1,123 | 1,068 | 1,055 | 972 | 974 | 942 | 1,012 | 927 | 785 | 882 | 13,219 |
| 2021-22 | 1,205 | 1,175 | 1,100 | 1,118 | 1,055 | 1,018 | 1,013 | 919 | 949 | 1,038 | 890 | 797 | 804 | 13,083 |
| 2022-23 | 1,177 | 1,175 | 1,146 | 1,071 | 1,050 | 1,005 | 976 | 957 | 896 | 1,045 | 914 | 766 | 817 | 12,997 |
| 2023-24 | 1,149 | 1,146 | 1,146 | 1,116 | 1,005 | 1,000 | 963 | 920 | 932 | 986 | 919 | 787 | 786 | 12,858 |
| 2024-25 | 1,121 | 1,121 | 1,119 | 1,117 | 1,048 | 958 | 959 | 909 | 897 | 1,026 | 868 | 792 | 806 | 12,740 |
| 2025-26 | 1,094 | 1,093 | 1,093 | 1,089 | 1,049 | 998 | 919 | 905 | 885 | 988 | 903 | 747 | 811 | 12,575 |
| 2026-27 | 1,086 | 1,067 | 1,067 | 1,065 | 1,023 | 999 | 957 | 867 | 882 | 975 | 869 | 778 | 766 | 12,399 |
| 2027-28 | 1,078 | 1,059 | 1,041 | 1,039 | 1,000 | 975 | 958 | 903 | 845 | 971 | 858 | 748 | 797 | 12,269 |
| 2028-29 | 1,070 | 1,051 | 1,033 | 1,013 | 975 | 953 | 934 | 904 | 880 | 930 | 854 | 739 | 767 | 12,102 |
| 2029-30 | 1,062 | 1,043 | 1,025 | 1,006 | 951 | 929 | 913 | 881 | 880 | 969 | 818 | 736 | 757 | 11,971 |
| 2030-31 | 1,054 | 1,035 | 1,018 | 998 | 944 | 907 | 891 | 861 | 859 | 969 | 852 | 705 | 754 | 11,847 |
| 2031-32 | 1,046 | 1,027 | 1,010 | 991 | 937 | 900 | 869 | 840 | 839 | 946 | 853 | 734 | 722 | 11,715 |

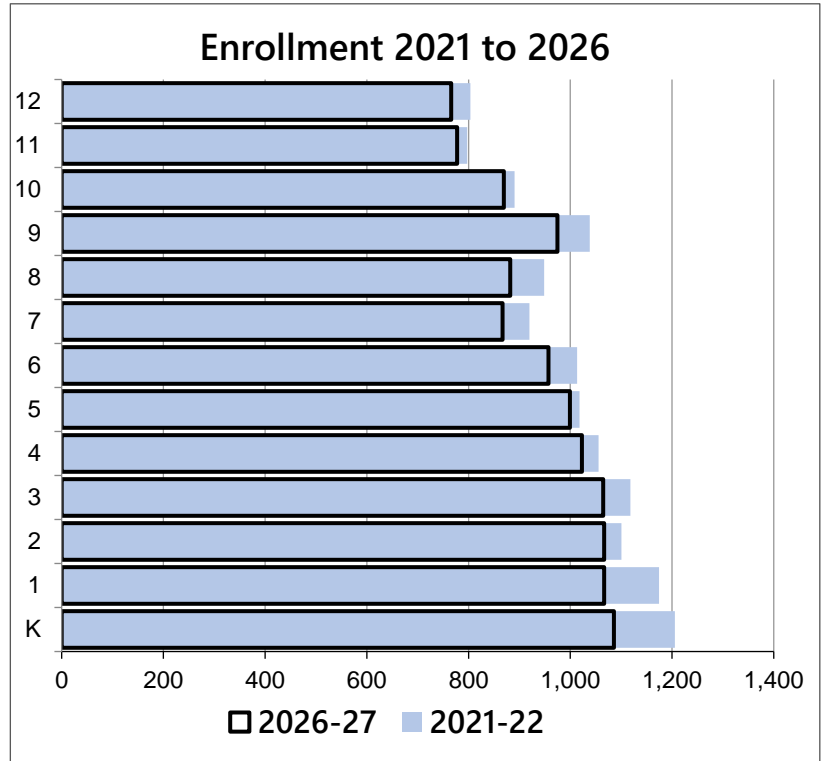
2016-2021 PROJECTION

During the next five years, Portsmouth is likely to experience its largest projected decline in enrollment. Total enrollment is projected to decline by 745 students by the fall of 2021. Nearly half the decline in enrollment should be concentrated in the high school grades as smaller student cohorts currently in the middle and upper elementary grades progress to high school.



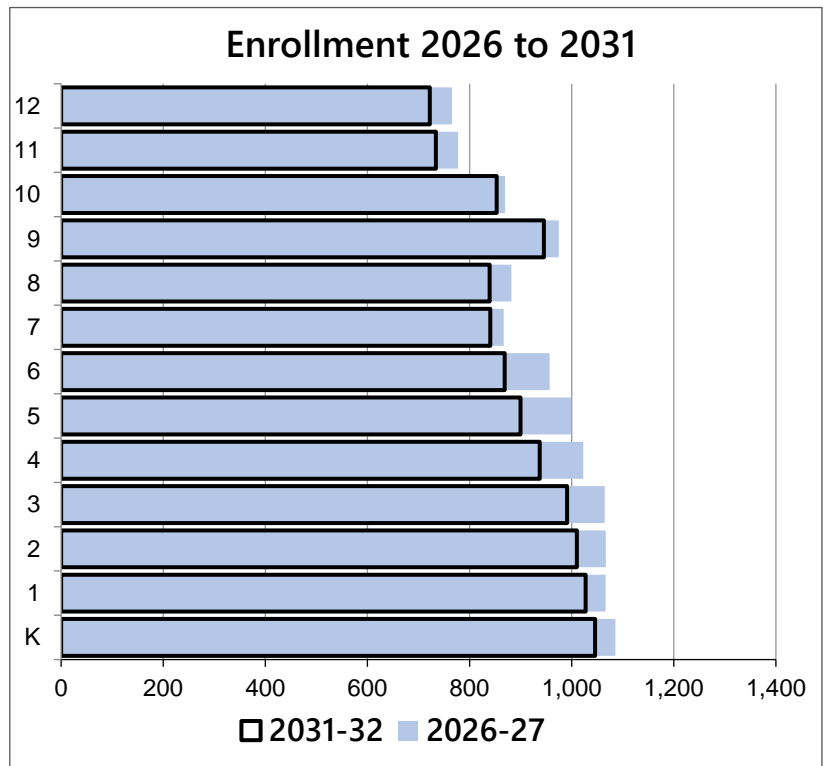
2021 – 2026 PROJECTION

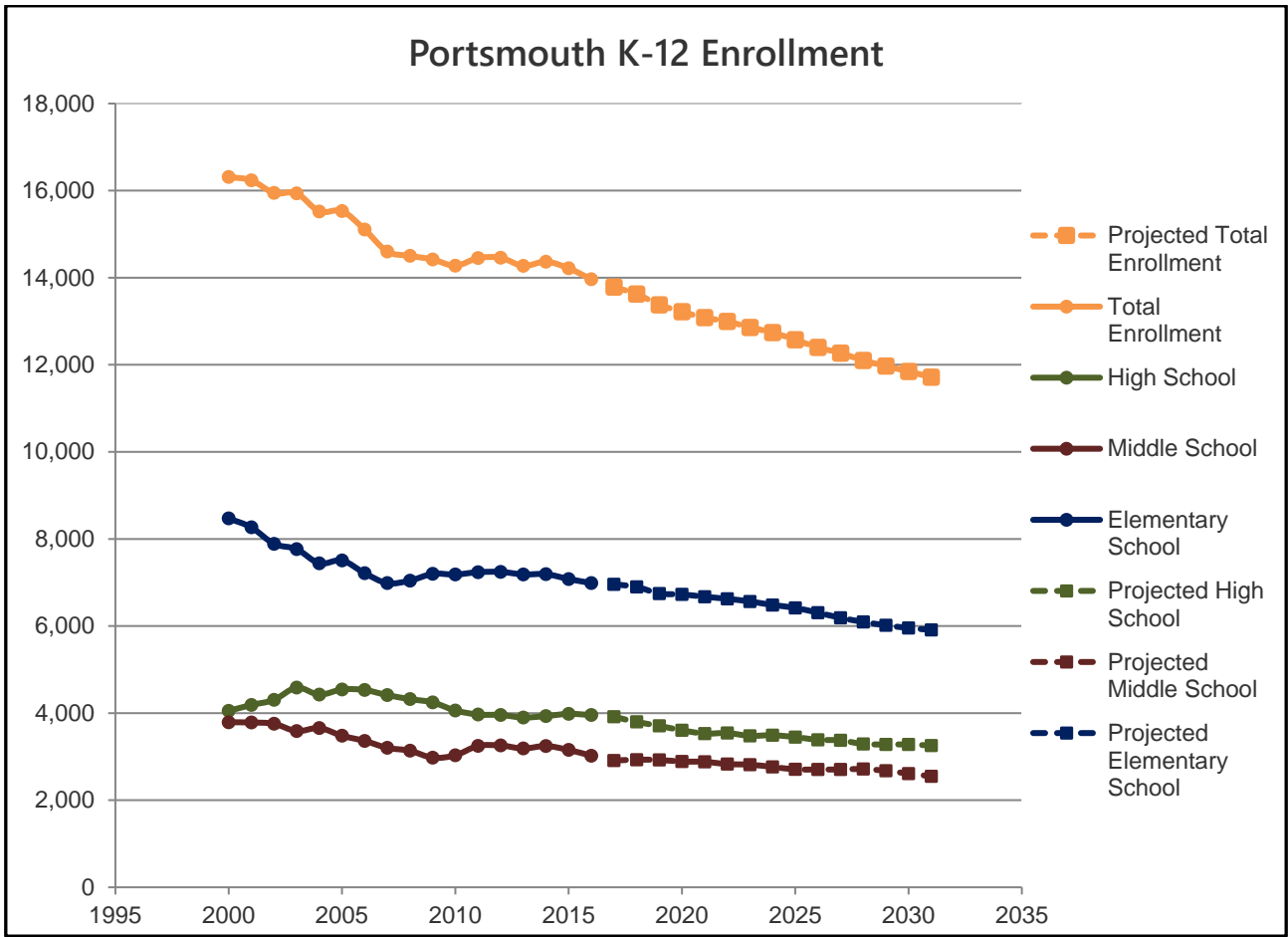
From the fall of 2021 until 2026, enrollment is projected to continue to fall by 685 students. Much of the projected decline in enrollment is expected to be concentrated in the lower elementary grades as a result of the expected decline in Portsmouth’s births.



2026-2031 PROJECTION

Between the fall of 2026 and 2031, student enrollment is projected to continue declining at a steady rate: 684 students. Enrollment decline is projected to spread throughout the grades, with some of the largest declines expected to be in the upper elementary grades as smaller student cohorts progress.





Since there is less than a six percent difference among the projected student enrollments in all three scenarios, the enrollment projections should have relatively low margins of error. The two factors mentioned earlier that could change enrollment trends—births and family migration—will need to be monitored by Portsmouth City Public Schools (note that Portsmouth can obtain birth data from the Weldon Cooper Center). If births began to increase after 2017 or if a large housing development is approved in Portsmouth City, these projections should be reexamined.

Part II: School Enrollment Projections

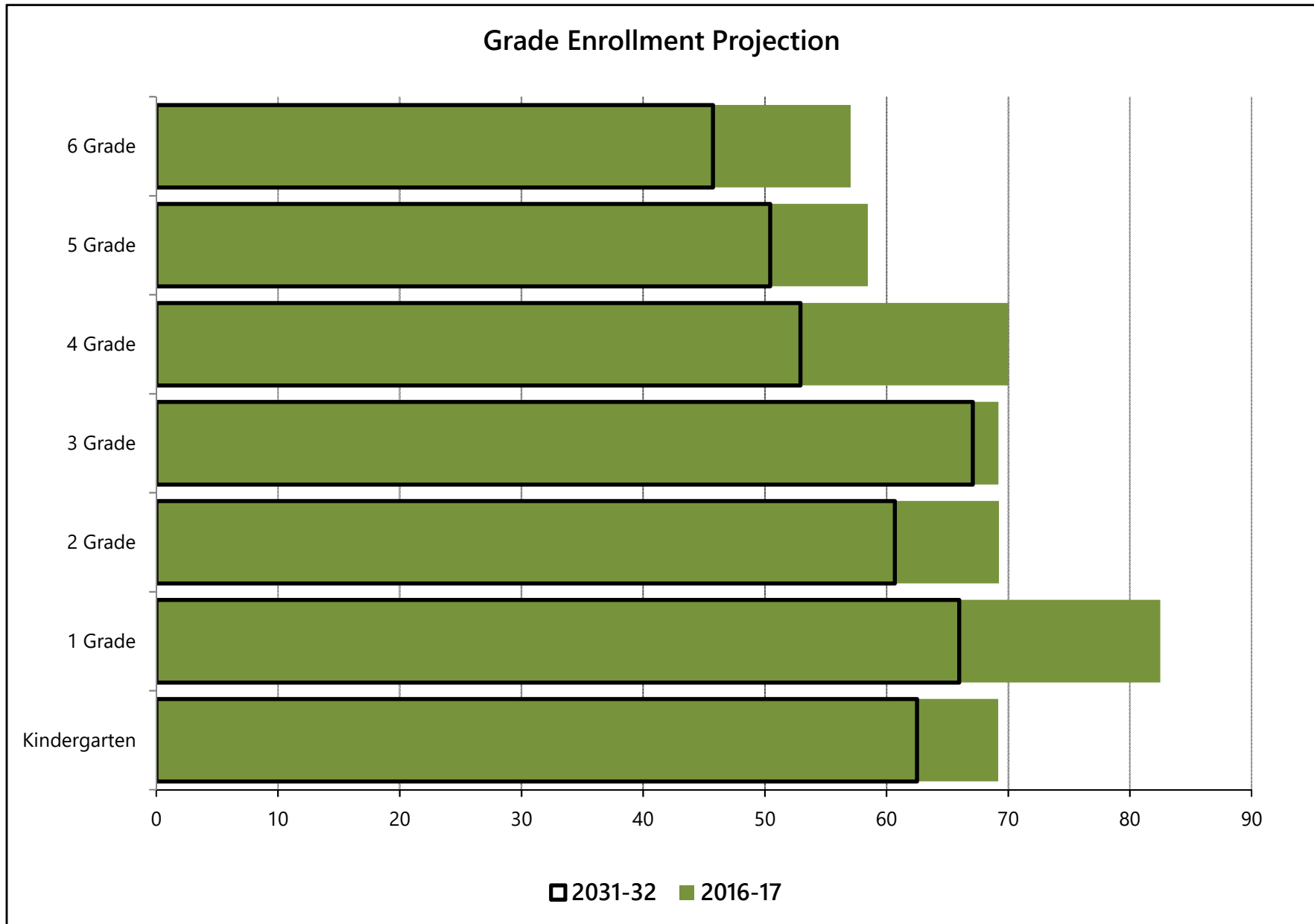
| | |
|---|-------|
| Brighton Elementary School | 1-3 |
| Churchland Academy | 4-6 |
| Churchland Elementary School | 7-9 |
| Churchland Primary and Intermediate School | 10-12 |
| Douglas Park Elementary School | 13-15 |
| Hodges Manor Elementary School | 16-18 |
| James Hurst Elementary School | 19-21 |
| John Tyler Elementary School | 22-24 |
| Lakeview Elementary School | 25-27 |
| Park View Elementary School | 28-30 |
| Simonsdale Elementary School | 31-33 |
| Victory Elementary School | 34-36 |
| Westhaven Elementary School | 37-39 |
| Churchland Middle School | 40-42 |
| Cradock Middle School | 43-45 |
| William E. Waters Middle School | 46-48 |
| Churchland High School | 49-51 |
| Norcom High School | 52-54 |
| Wilson High School | 55-57 |
| Methodology for School Enrollment Projections | 58 |

Brighton Elementary 2016-17 School Enrollment Projections

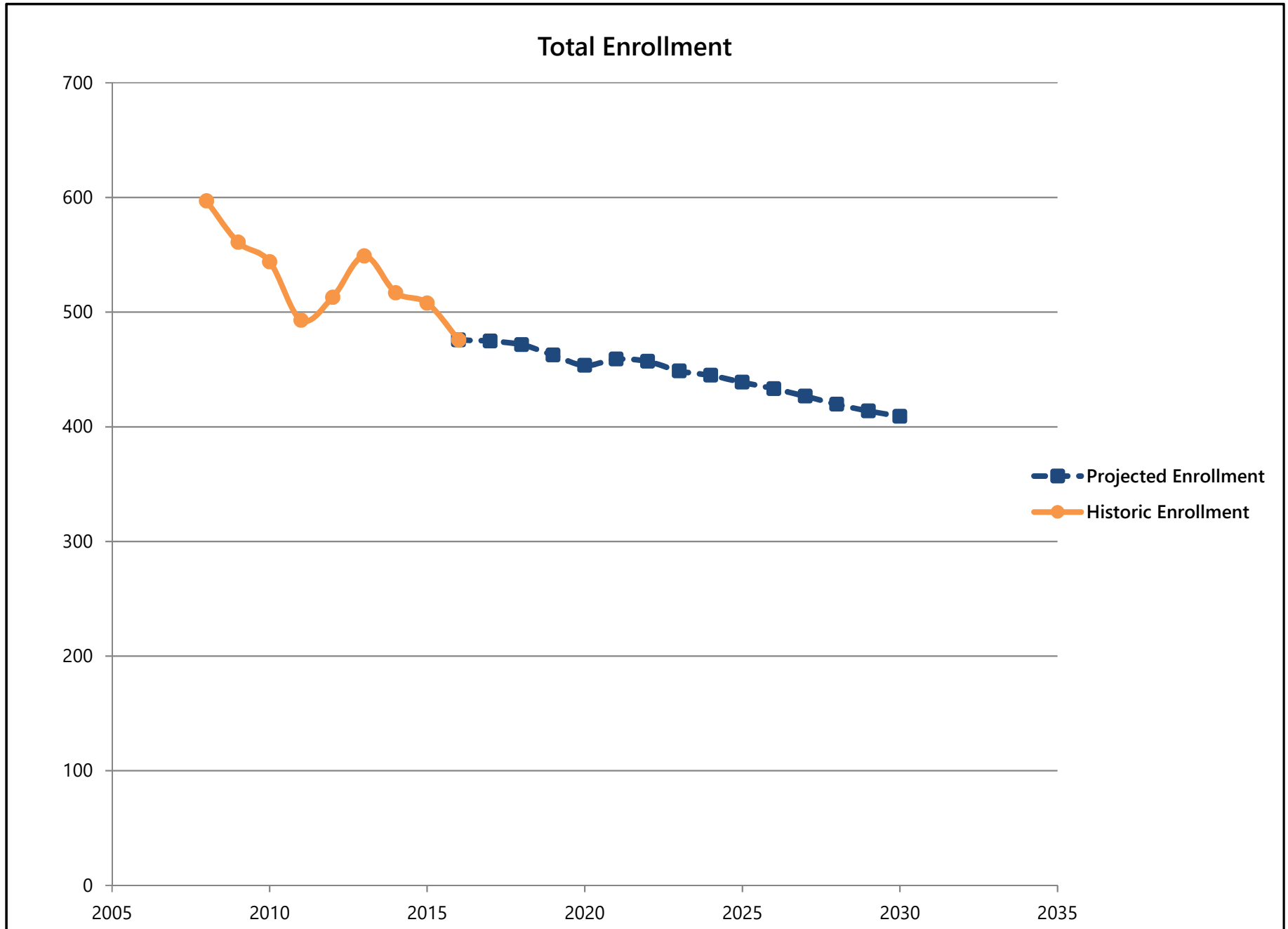
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 69 | 83 | 69 | 69 | 70 | 58 | 57 | 476 |
| 2017-18 | 69 | 82 | 69 | 69 | 70 | 58 | 57 | 475 |
| 2018-19 | 72 | 73 | 75 | 76 | 54 | 67 | 54 | 472 |
| 2019-20 | 70 | 75 | 67 | 82 | 59 | 51 | 58 | 462 |
| 2020-21 | 71 | 73 | 69 | 73 | 65 | 55 | 46 | 454 |
| 2021-22 | 72 | 75 | 67 | 76 | 57 | 62 | 50 | 459 |
| 2022-23 | 71 | 76 | 69 | 73 | 59 | 54 | 56 | 457 |
| 2023-24 | 69 | 74 | 69 | 75 | 57 | 56 | 49 | 449 |
| 2024-25 | 67 | 72 | 67 | 75 | 59 | 54 | 50 | 445 |
| 2025-26 | 65 | 70 | 66 | 74 | 59 | 56 | 49 | 439 |
| 2026-27 | 65 | 68 | 64 | 72 | 58 | 56 | 50 | 433 |
| 2027-28 | 64 | 68 | 63 | 70 | 56 | 55 | 50 | 427 |
| 2028-29 | 64 | 67 | 62 | 69 | 55 | 53 | 49 | 420 |
| 2029-30 | 63 | 67 | 62 | 68 | 54 | 52 | 48 | 414 |
| 2030-31 | 63 | 66 | 61 | 68 | 53 | 51 | 47 | 409 |
| 2031-32 | 62 | 66 | 61 | 67 | 53 | 50 | 46 | 405 |
| Change | -7 | -17 | -9 | -2 | -17 | -8 | -11 | (70) |

Brighton Elementary 2016-17 School Enrollment Projections



Brighton Elementary 2016-17 School Enrollment Projections

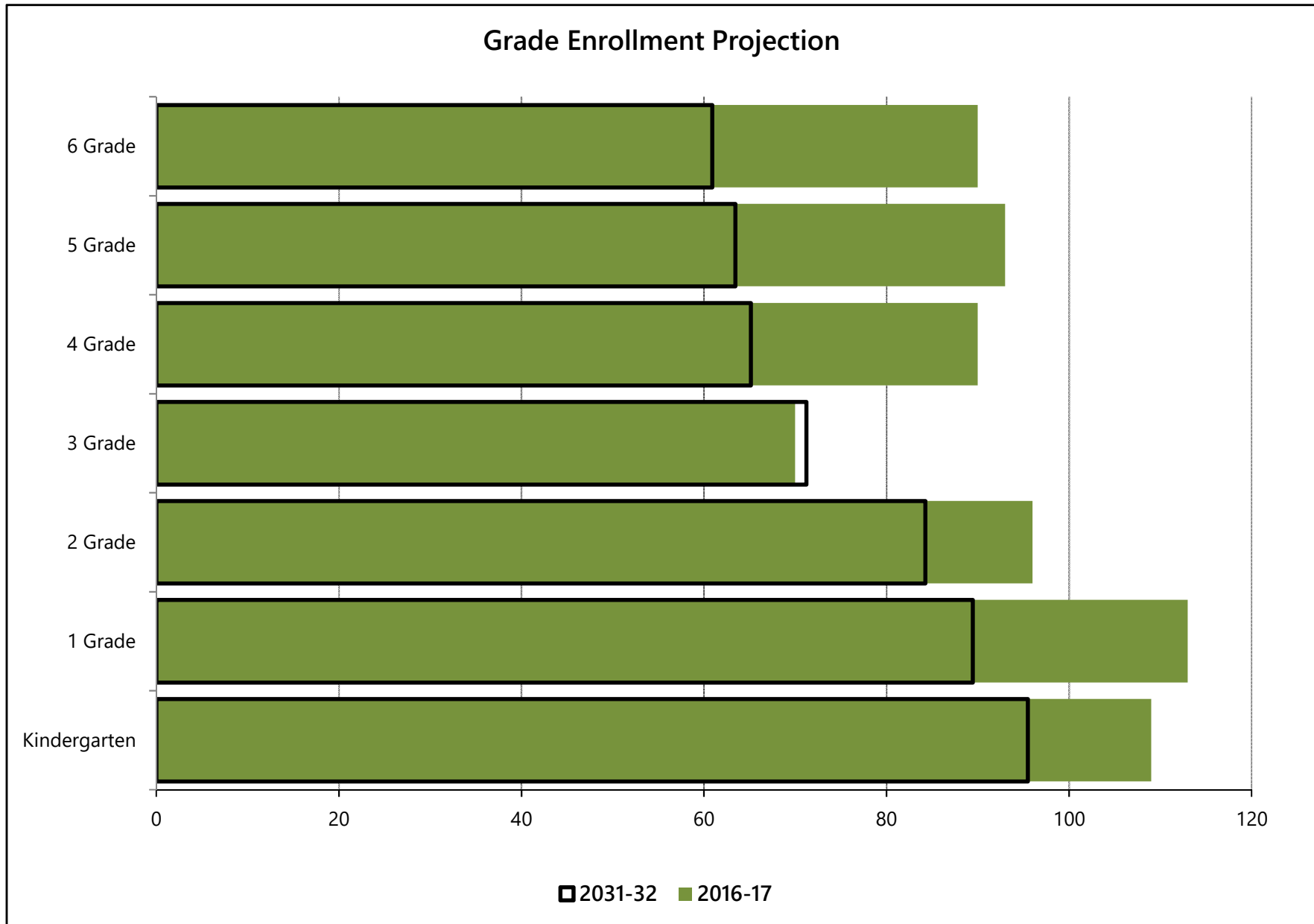


Churchland Academy 2016-17 School Enrollment Projections

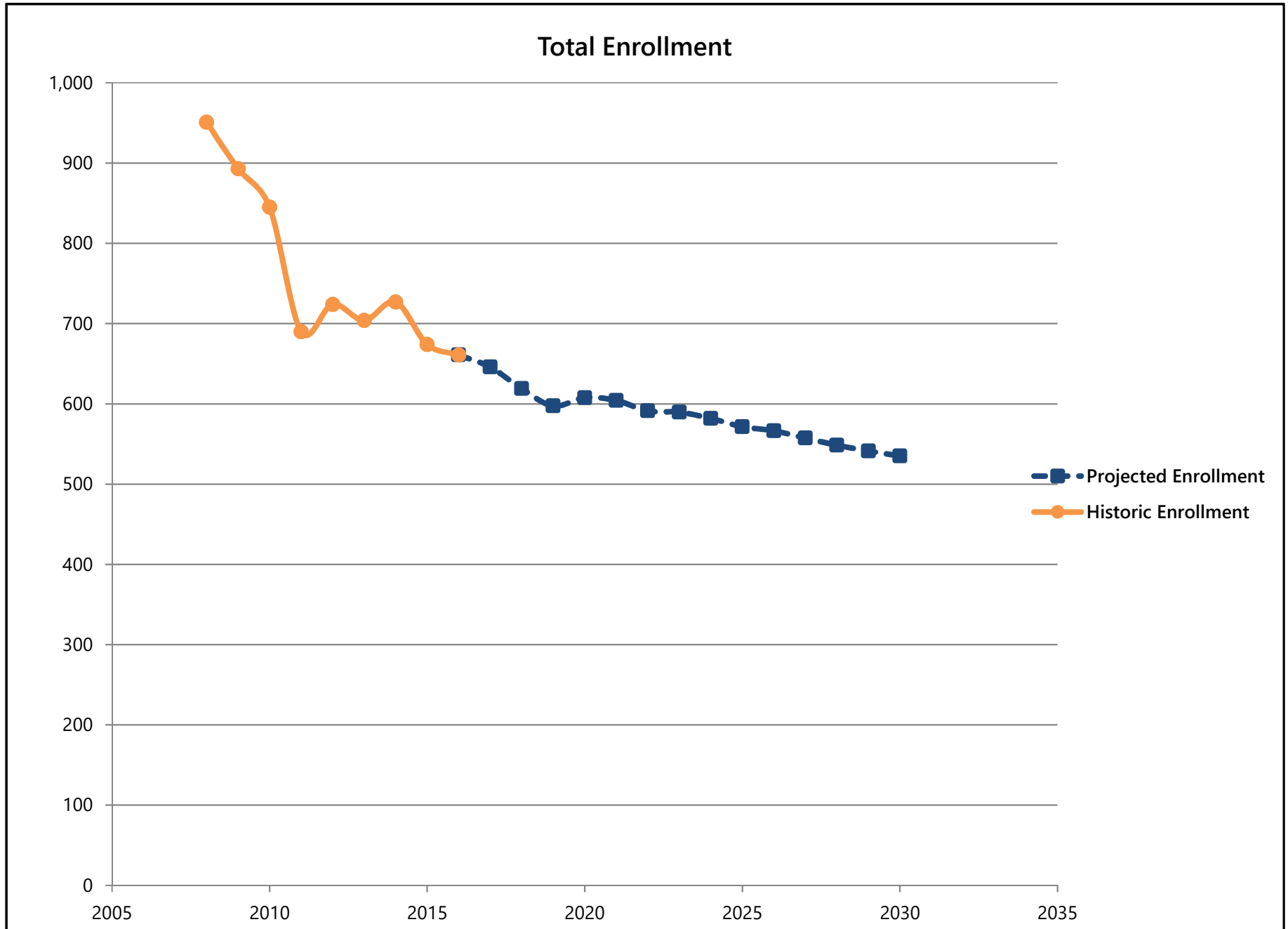
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 109 | 113 | 96 | 70 | 90 | 93 | 90 | 661 |
| 2017-18 | 111 | 102 | 111 | 84 | 64 | 87 | 88 | 646 |
| 2018-19 | 111 | 102 | 93 | 93 | 75 | 61 | 83 | 619 |
| 2019-20 | 105 | 104 | 96 | 77 | 85 | 73 | 59 | 597 |
| 2020-21 | 110 | 97 | 98 | 81 | 70 | 82 | 69 | 608 |
| 2021-22 | 110 | 102 | 91 | 82 | 73 | 67 | 78 | 604 |
| 2022-23 | 107 | 102 | 96 | 76 | 75 | 71 | 64 | 591 |
| 2023-24 | 105 | 100 | 96 | 81 | 69 | 72 | 68 | 590 |
| 2024-25 | 102 | 98 | 93 | 80 | 73 | 66 | 69 | 582 |
| 2025-26 | 100 | 95 | 91 | 78 | 73 | 71 | 63 | 571 |
| 2026-27 | 99 | 93 | 89 | 77 | 71 | 70 | 67 | 566 |
| 2027-28 | 98 | 92 | 87 | 75 | 70 | 69 | 67 | 557 |
| 2028-29 | 98 | 91 | 86 | 73 | 68 | 67 | 65 | 548 |
| 2029-30 | 97 | 91 | 86 | 72 | 66 | 66 | 64 | 541 |
| 2030-31 | 96 | 90 | 85 | 72 | 66 | 64 | 62 | 535 |
| 2031-32 | 95 | 89 | 84 | 71 | 65 | 63 | 61 | 530 |
| Change | -14 | -24 | -12 | 1 | -25 | -30 | -29 | (131) |

Churchland Academy 2016-17 School Enrollment Projections



Churchland Academy 2016-17 School Enrollment Projections

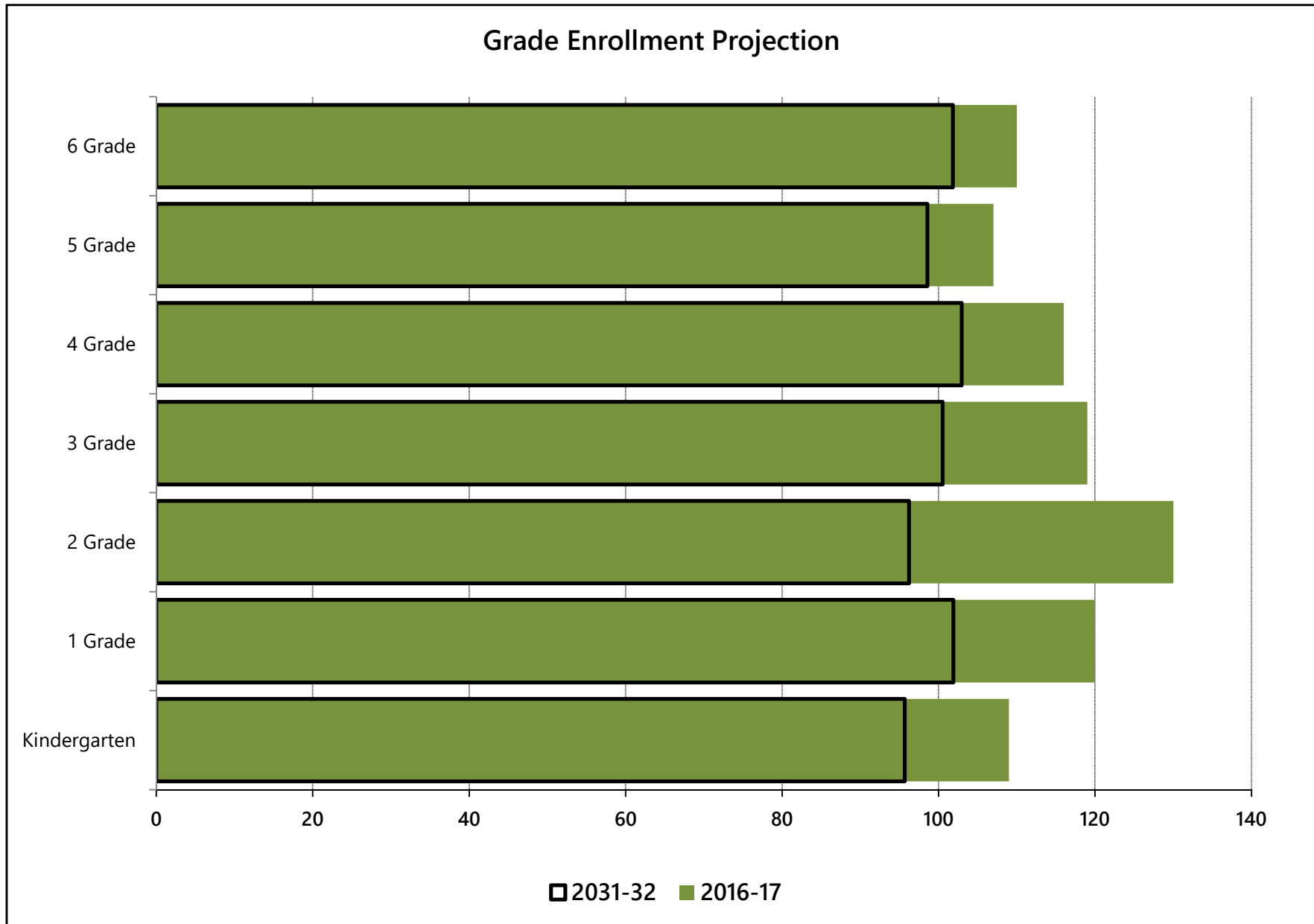


Churchland Elementary 2016-17 School Enrollment Projections

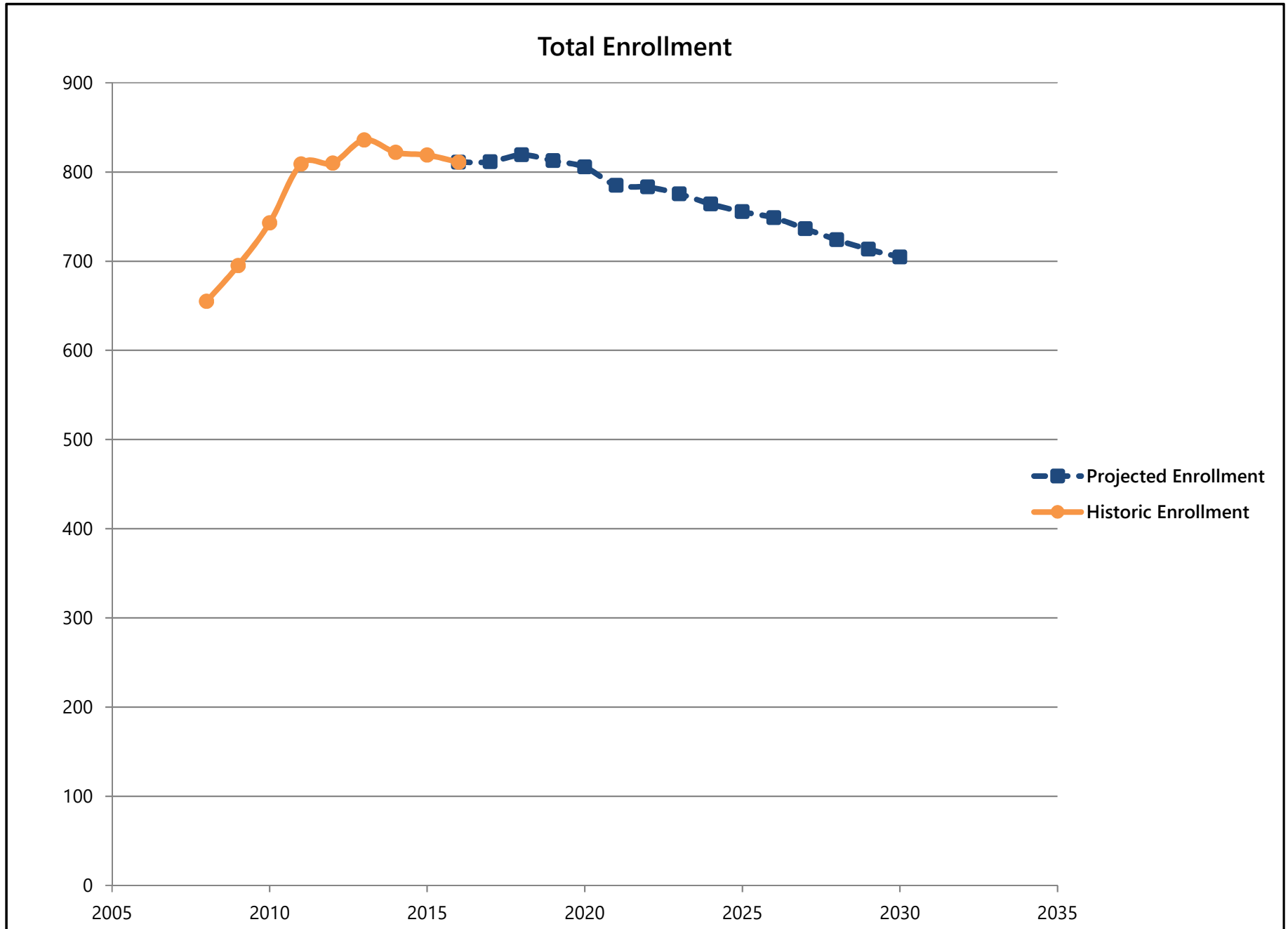
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 109 | 120 | 130 | 119 | 116 | 107 | 110 | 811 |
| 2017-18 | 112 | 116 | 110 | 133 | 122 | 109 | 108 | 811 |
| 2018-19 | 111 | 119 | 110 | 114 | 137 | 116 | 113 | 819 |
| 2019-20 | 105 | 116 | 112 | 114 | 115 | 131 | 119 | 813 |
| 2020-21 | 111 | 111 | 109 | 116 | 116 | 109 | 134 | 805 |
| 2021-22 | 110 | 117 | 104 | 113 | 118 | 111 | 112 | 785 |
| 2022-23 | 108 | 116 | 110 | 108 | 115 | 112 | 114 | 783 |
| 2023-24 | 105 | 114 | 109 | 114 | 110 | 109 | 115 | 775 |
| 2024-25 | 102 | 111 | 106 | 113 | 116 | 105 | 111 | 764 |
| 2025-26 | 100 | 108 | 104 | 111 | 115 | 110 | 107 | 755 |
| 2026-27 | 99 | 106 | 102 | 108 | 112 | 109 | 113 | 749 |
| 2027-28 | 99 | 105 | 99 | 105 | 110 | 107 | 112 | 736 |
| 2028-29 | 98 | 104 | 98 | 103 | 107 | 104 | 110 | 724 |
| 2029-30 | 97 | 103 | 98 | 102 | 104 | 102 | 107 | 713 |
| 2030-31 | 96 | 103 | 97 | 101 | 104 | 99 | 104 | 705 |
| 2031-32 | 96 | 102 | 96 | 101 | 103 | 99 | 102 | 698 |
| Change | -13 | -18 | -34 | -18 | -13 | -8 | -8 | (113) |

Churchland Elementary 2016-17 School Enrollment Projections



Churchland Elementary 2016-17 School Enrollment Projections

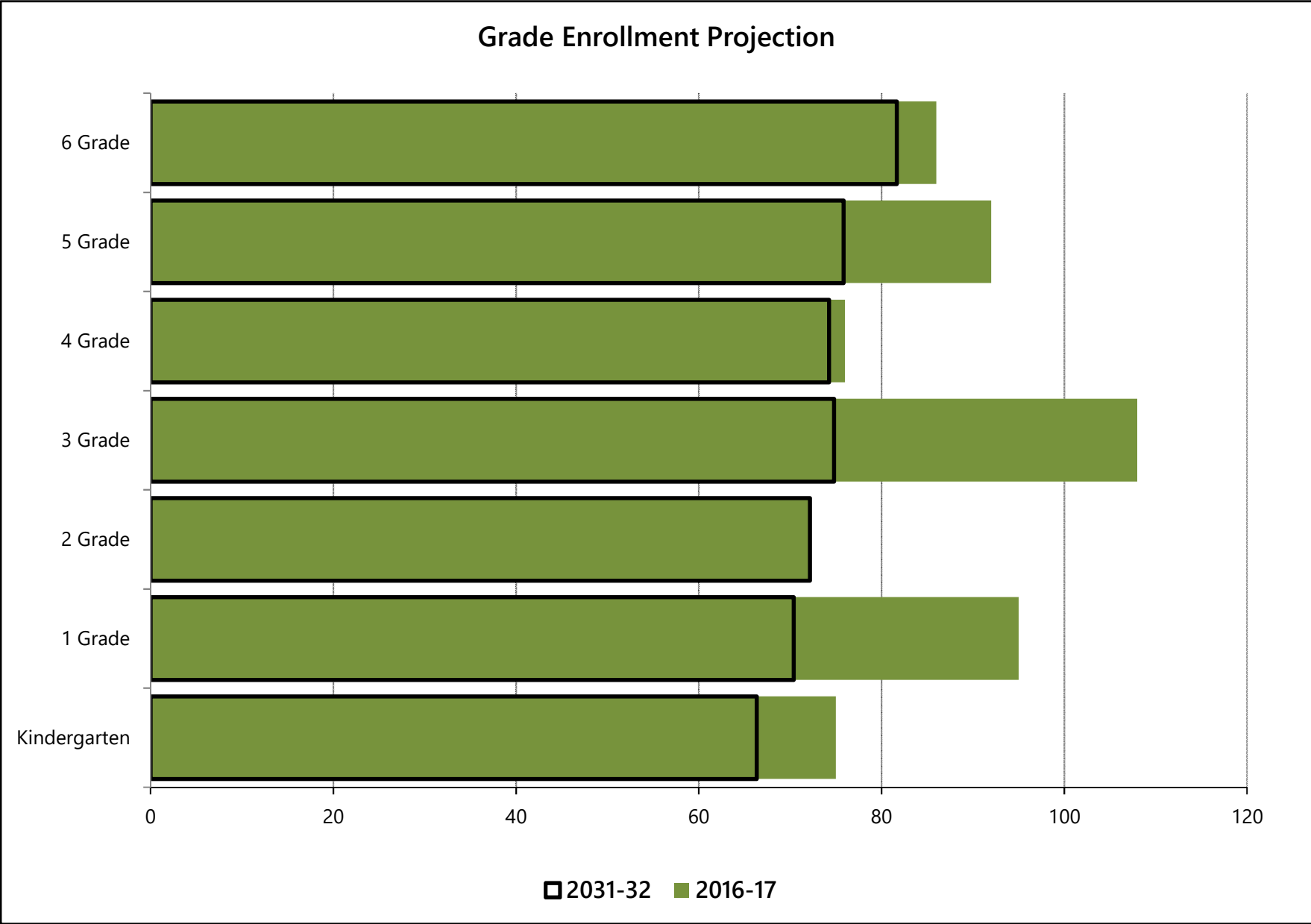


Churchland Primary and Intermediate 2016-17 School Enrollment Projections

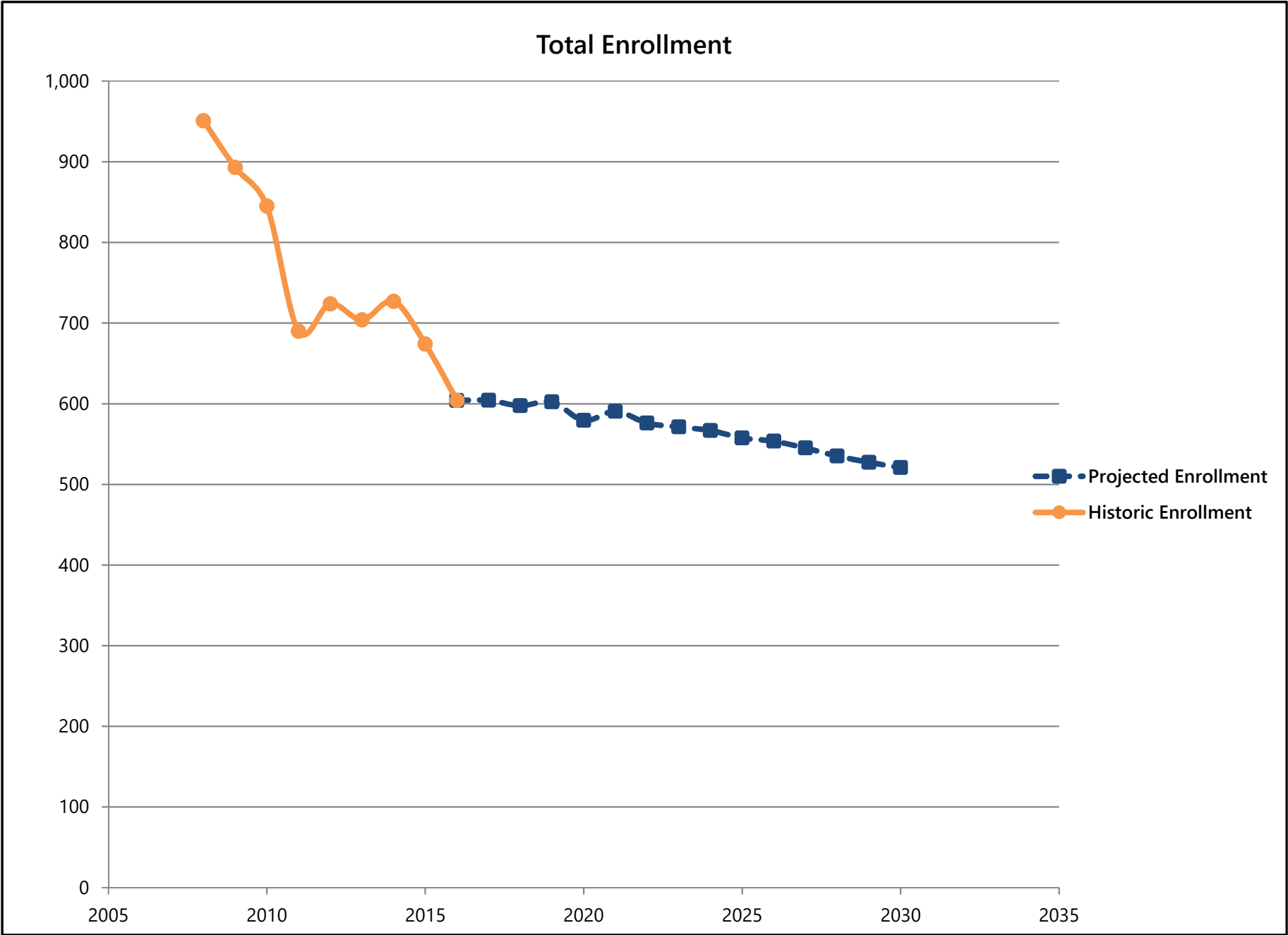
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 75 | 95 | 72 | 108 | 76 | 92 | 86 | 604 |
| 2017-18 | 74 | 79 | 96 | 74 | 106 | 76 | 99 | 604 |
| 2018-19 | 79 | 79 | 81 | 97 | 73 | 106 | 83 | 598 |
| 2019-20 | 72 | 83 | 80 | 85 | 95 | 75 | 112 | 602 |
| 2020-21 | 76 | 76 | 84 | 82 | 84 | 96 | 81 | 579 |
| 2021-22 | 77 | 80 | 78 | 87 | 81 | 85 | 103 | 591 |
| 2022-23 | 75 | 81 | 82 | 80 | 85 | 82 | 90 | 576 |
| 2023-24 | 73 | 78 | 82 | 84 | 79 | 86 | 88 | 571 |
| 2024-25 | 71 | 77 | 80 | 84 | 83 | 80 | 92 | 567 |
| 2025-26 | 69 | 75 | 78 | 82 | 83 | 84 | 86 | 558 |
| 2026-27 | 69 | 73 | 76 | 80 | 81 | 84 | 90 | 554 |
| 2027-28 | 68 | 73 | 74 | 78 | 79 | 82 | 90 | 545 |
| 2028-29 | 68 | 72 | 74 | 76 | 77 | 80 | 88 | 535 |
| 2029-30 | 67 | 71 | 73 | 76 | 75 | 78 | 86 | 527 |
| 2030-31 | 67 | 71 | 73 | 75 | 75 | 76 | 84 | 521 |
| 2031-32 | 66 | 70 | 72 | 75 | 74 | 76 | 82 | 515 |
| Change | -9 | -25 | 0 | -33 | -2 | -16 | -4 | (89) |

Churchland Primary and Intermediate 2016-17 School Enrollment Projections



Churchland Primary and Intermediate 2016-17 School Enrollment Projections

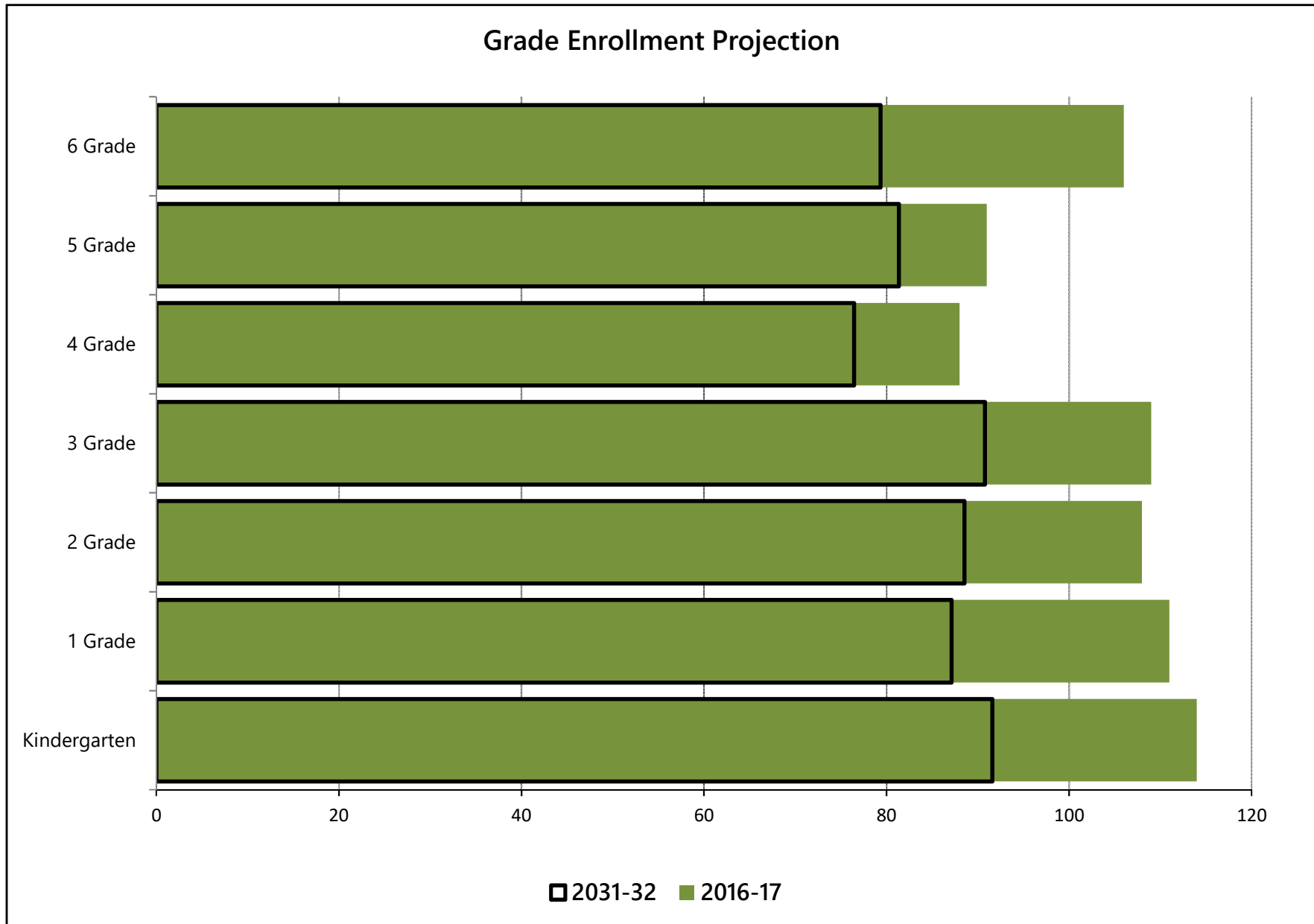


Douglas Park Elementary 2016-17 School Enrollment Projections

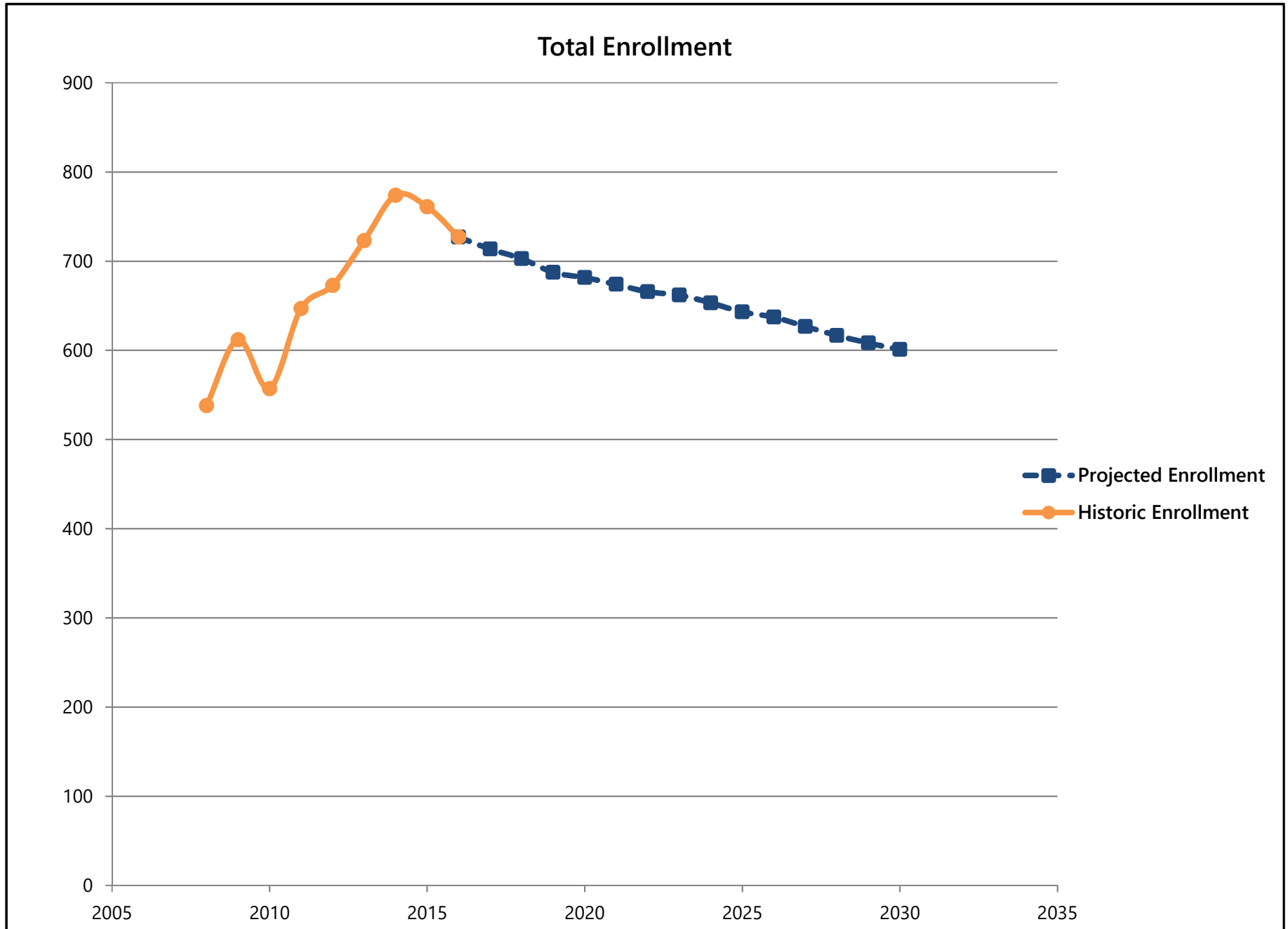
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 114 | 111 | 108 | 109 | 88 | 91 | 106 | 727 |
| 2017-18 | 111 | 110 | 110 | 110 | 96 | 90 | 87 | 714 |
| 2018-19 | 111 | 103 | 106 | 111 | 91 | 97 | 84 | 703 |
| 2019-20 | 102 | 101 | 102 | 106 | 91 | 94 | 92 | 687 |
| 2020-21 | 106 | 95 | 102 | 104 | 87 | 97 | 91 | 682 |
| 2021-22 | 105 | 100 | 96 | 103 | 85 | 92 | 93 | 674 |
| 2022-23 | 103 | 100 | 100 | 98 | 87 | 89 | 89 | 666 |
| 2023-24 | 101 | 98 | 101 | 103 | 82 | 92 | 86 | 662 |
| 2024-25 | 98 | 95 | 98 | 102 | 85 | 87 | 88 | 653 |
| 2025-26 | 96 | 93 | 96 | 100 | 85 | 90 | 84 | 643 |
| 2026-27 | 95 | 90 | 93 | 97 | 83 | 90 | 87 | 637 |
| 2027-28 | 94 | 90 | 91 | 95 | 81 | 88 | 87 | 627 |
| 2028-29 | 94 | 89 | 90 | 93 | 79 | 86 | 85 | 617 |
| 2029-30 | 93 | 88 | 90 | 92 | 78 | 84 | 83 | 608 |
| 2030-31 | 92 | 88 | 89 | 91 | 77 | 82 | 81 | 601 |
| 2031-32 | 92 | 87 | 89 | 91 | 76 | 81 | 79 | 595 |
| Change | -22 | -24 | -19 | -18 | -12 | -10 | -27 | (132) |

Douglas Park Elementary 2016-17 School Enrollment Projections



Douglas Park Elementary 2016-17 School Enrollment Projections

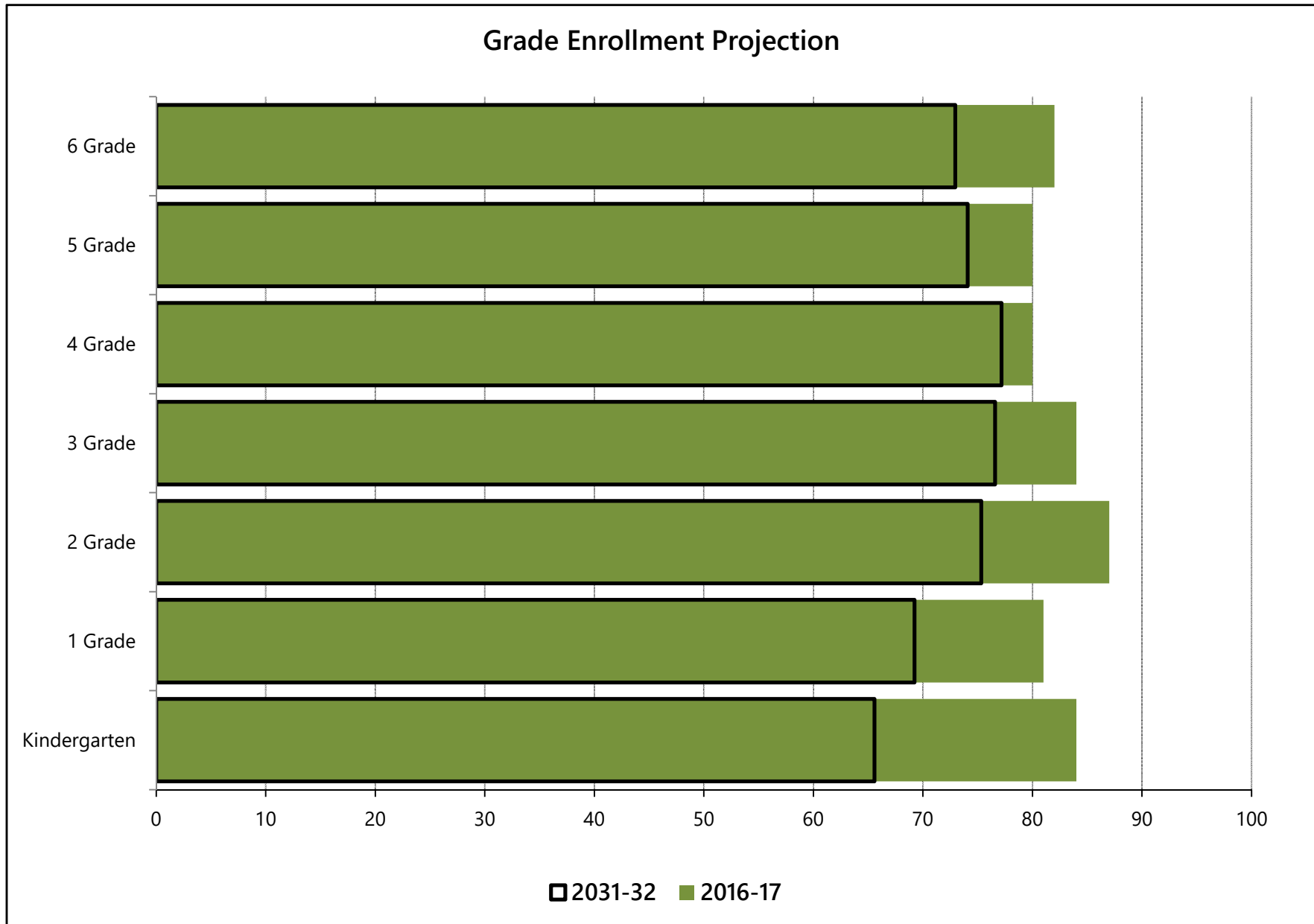


Hodges Manor Elementary 2016-17 School Enrollment Projections

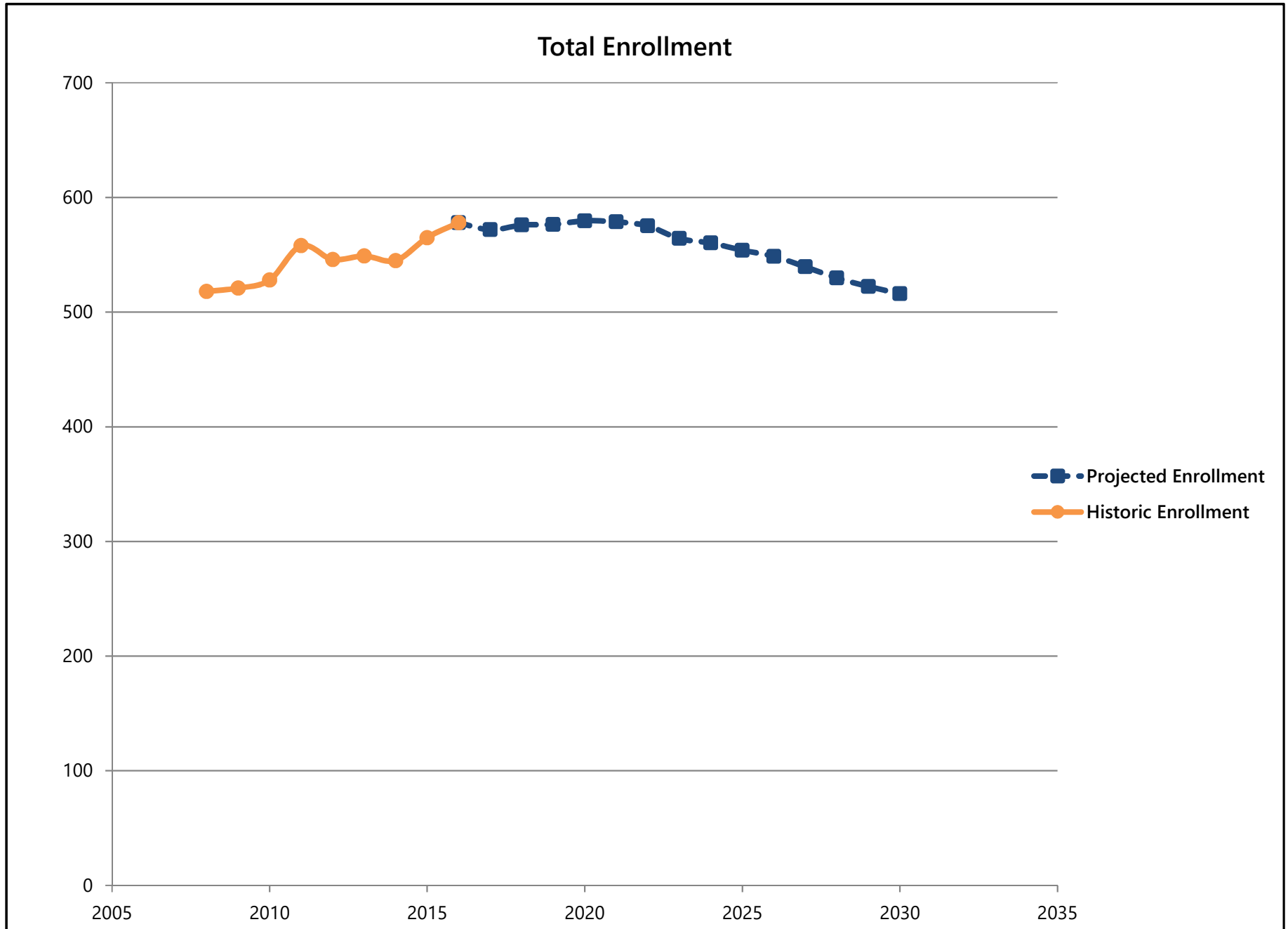
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 84 | 81 | 87 | 84 | 80 | 80 | 82 | 578 |
| 2017-18 | 72 | 86 | 87 | 88 | 83 | 77 | 78 | 572 |
| 2018-19 | 74 | 77 | 92 | 88 | 88 | 80 | 76 | 576 |
| 2019-20 | 72 | 79 | 83 | 93 | 88 | 84 | 78 | 576 |
| 2020-21 | 77 | 75 | 86 | 83 | 93 | 84 | 81 | 580 |
| 2021-22 | 76 | 79 | 82 | 86 | 84 | 89 | 82 | 579 |
| 2022-23 | 73 | 80 | 86 | 83 | 86 | 80 | 87 | 575 |
| 2023-24 | 72 | 77 | 86 | 86 | 83 | 82 | 78 | 564 |
| 2024-25 | 70 | 75 | 83 | 86 | 86 | 79 | 80 | 560 |
| 2025-26 | 69 | 74 | 82 | 84 | 87 | 82 | 77 | 554 |
| 2026-27 | 68 | 72 | 80 | 82 | 84 | 83 | 81 | 549 |
| 2027-28 | 67 | 71 | 78 | 80 | 82 | 80 | 81 | 539 |
| 2028-29 | 67 | 71 | 77 | 78 | 80 | 78 | 78 | 530 |
| 2029-30 | 67 | 70 | 76 | 78 | 78 | 77 | 77 | 522 |
| 2030-31 | 66 | 70 | 76 | 77 | 78 | 75 | 75 | 516 |
| 2031-32 | 66 | 69 | 75 | 77 | 77 | 74 | 73 | 511 |
| Change | -18 | -12 | -12 | -7 | -3 | -6 | -9 | (67) |

Hodges Manor Elementary 2016-17 School Enrollment Projections



Hodges Manor Elementary 2016-17 School Enrollment Projections

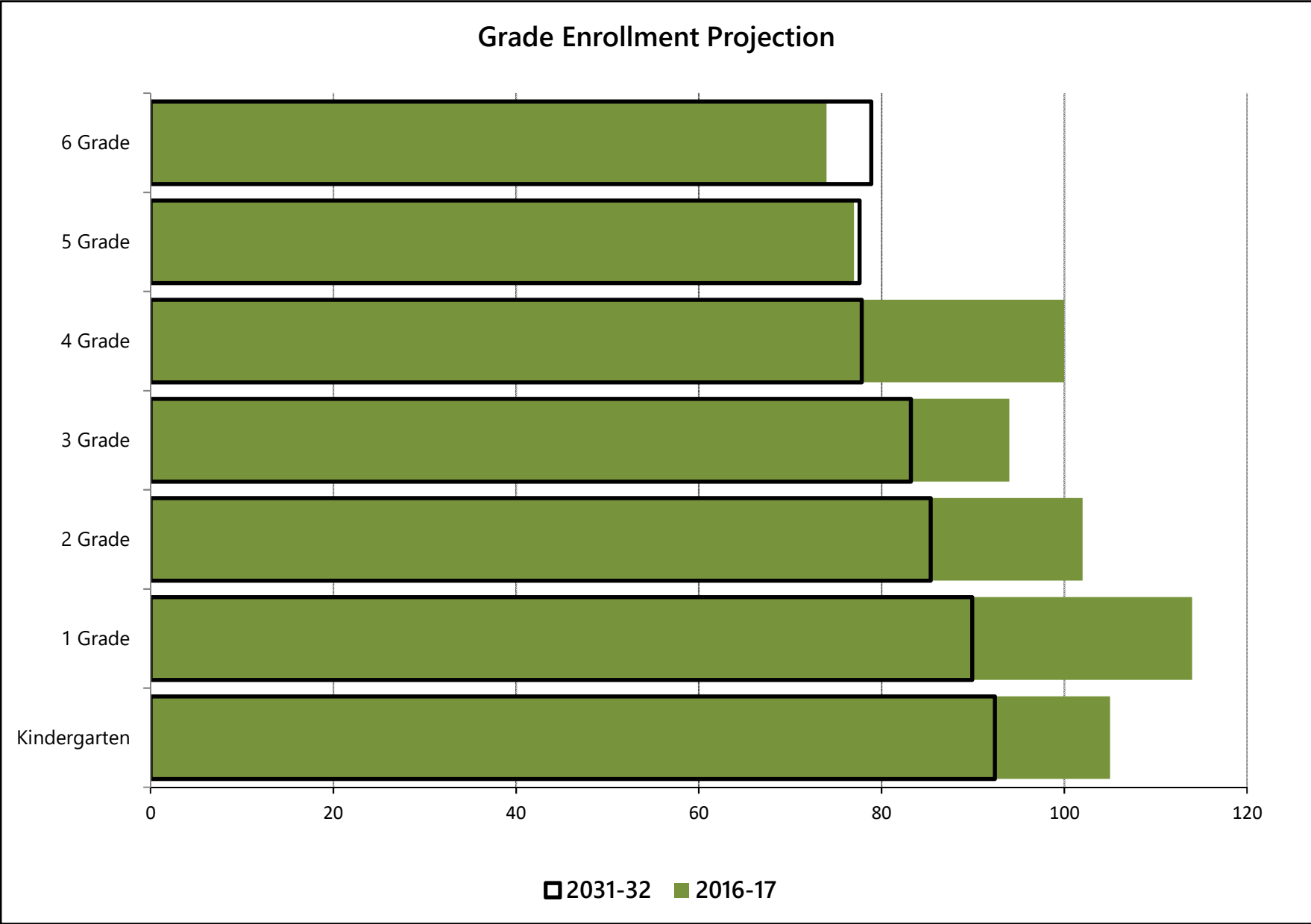


James Hurst Elementary 2016-17 School Enrollment Projections

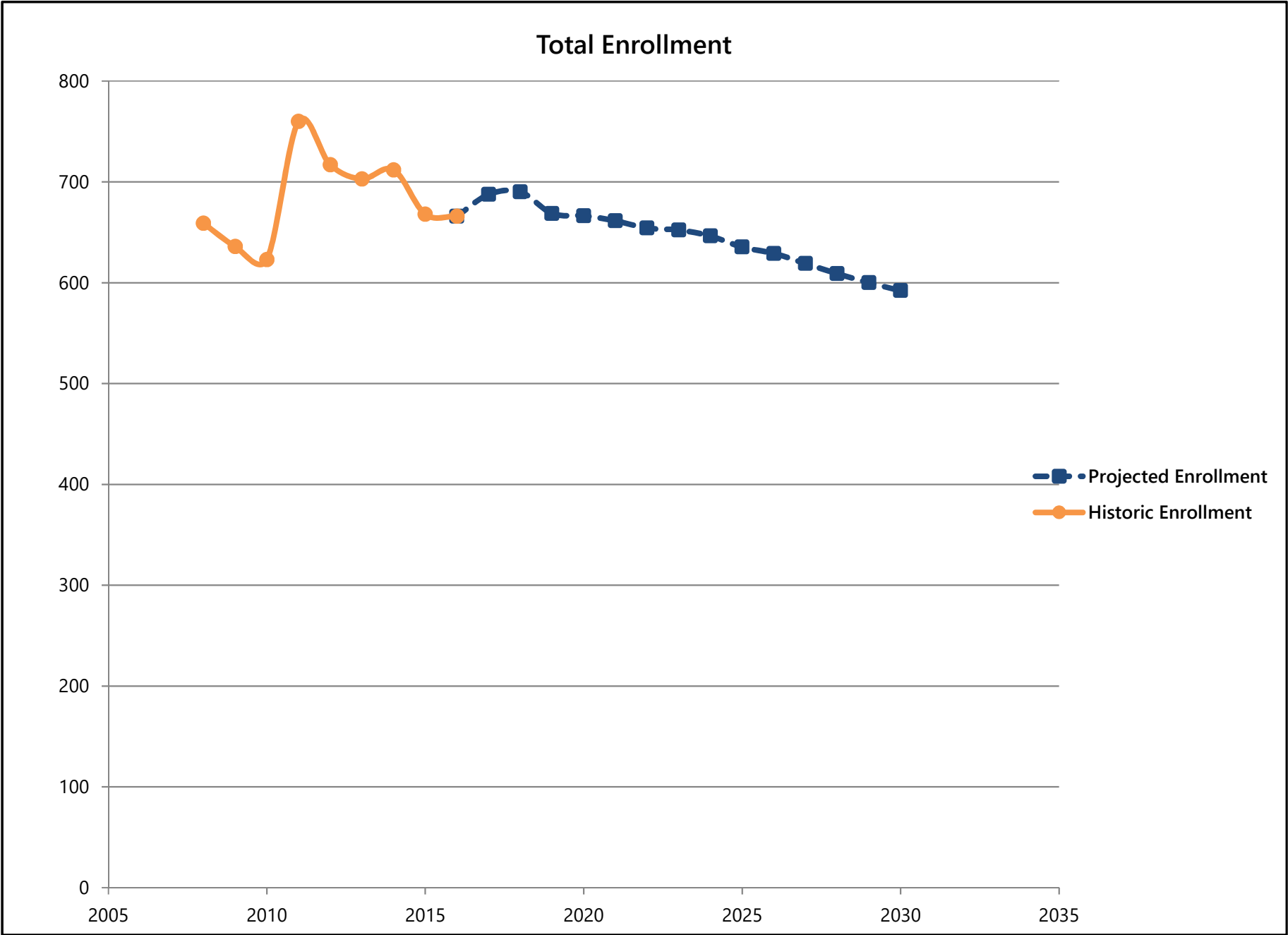
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 105 | 114 | 102 | 94 | 100 | 77 | 74 | 666 |
| 2017-18 | 108 | 118 | 105 | 97 | 103 | 80 | 76 | 688 |
| 2018-19 | 107 | 105 | 110 | 100 | 89 | 102 | 78 | 690 |
| 2019-20 | 105 | 98 | 96 | 99 | 90 | 85 | 96 | 669 |
| 2020-21 | 102 | 104 | 96 | 94 | 94 | 90 | 87 | 666 |
| 2021-22 | 106 | 98 | 97 | 92 | 86 | 94 | 89 | 661 |
| 2022-23 | 107 | 102 | 92 | 94 | 85 | 85 | 90 | 654 |
| 2023-24 | 104 | 104 | 98 | 90 | 89 | 85 | 83 | 652 |
| 2024-25 | 102 | 100 | 97 | 94 | 83 | 87 | 83 | 646 |
| 2025-26 | 99 | 97 | 94 | 93 | 86 | 82 | 85 | 635 |
| 2026-27 | 96 | 97 | 93 | 91 | 87 | 86 | 80 | 629 |
| 2027-28 | 95 | 92 | 90 | 89 | 84 | 85 | 83 | 619 |
| 2028-29 | 94 | 92 | 87 | 88 | 83 | 83 | 83 | 609 |
| 2029-30 | 94 | 91 | 87 | 84 | 81 | 82 | 81 | 600 |
| 2030-31 | 93 | 90 | 86 | 84 | 78 | 81 | 80 | 592 |
| 2031-32 | 92 | 90 | 85 | 83 | 78 | 78 | 79 | 585 |
| Change | -13 | -24 | -17 | -11 | -22 | 1 | 5 | (81) |

James Hurst Elementary 2016-17 School Enrollment Projections



James Hurst Elementary 2016-17 School Enrollment Projections



John Tyler Elementary 2016-17 School Enrollment Projections

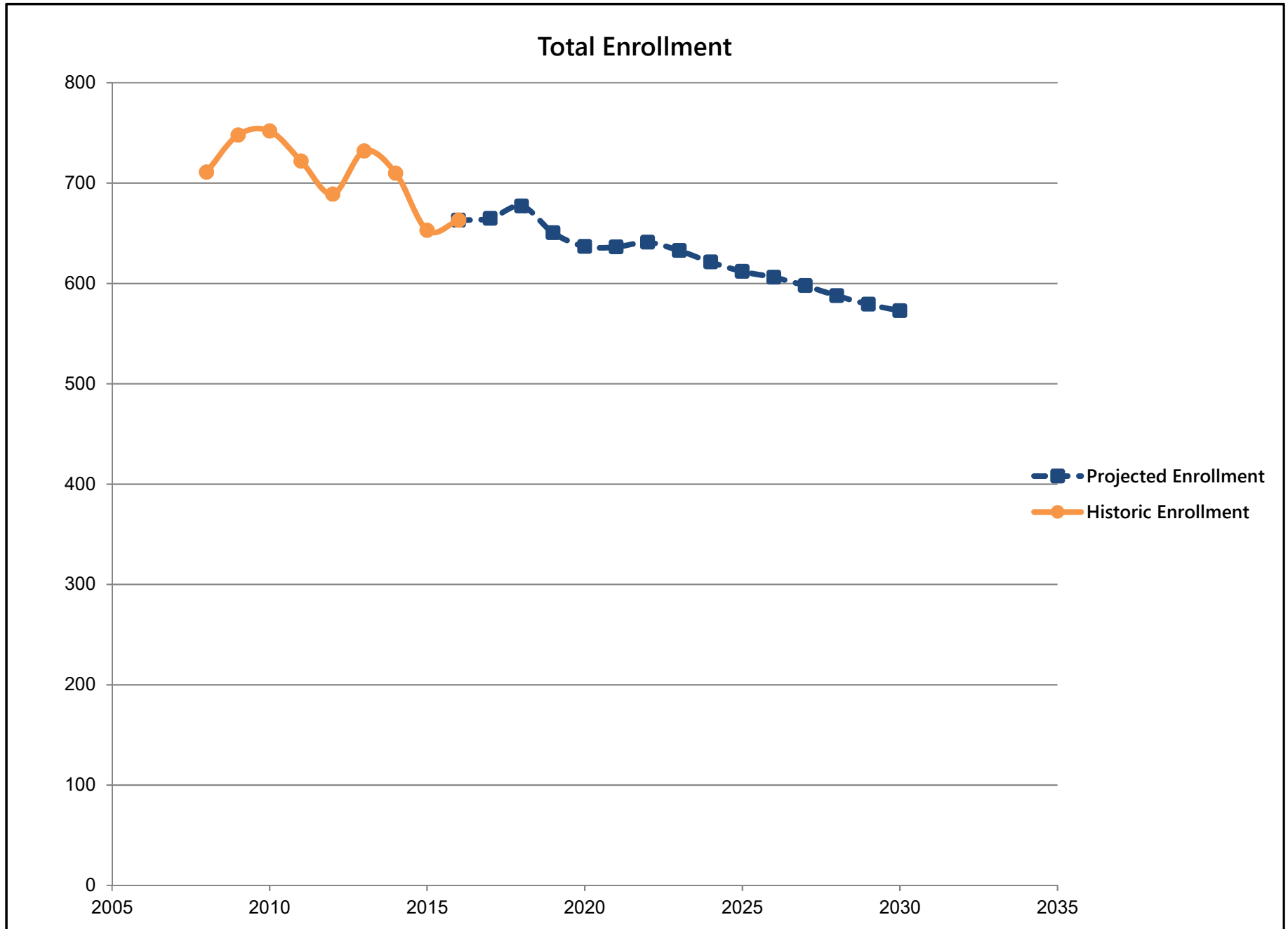
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 120 | 100 | 105 | 102 | 100 | 70 | 66 | 663 |
| 2017-18 | 119 | 110 | 87 | 98 | 95 | 94 | 62 | 665 |
| 2018-19 | 121 | 110 | 98 | 82 | 94 | 89 | 83 | 677 |
| 2019-20 | 114 | 107 | 97 | 92 | 77 | 86 | 77 | 650 |
| 2020-21 | 117 | 100 | 96 | 92 | 86 | 72 | 74 | 637 |
| 2021-22 | 119 | 105 | 91 | 92 | 87 | 81 | 62 | 636 |
| 2022-23 | 116 | 107 | 93 | 86 | 87 | 82 | 70 | 641 |
| 2023-24 | 113 | 104 | 95 | 88 | 81 | 81 | 70 | 633 |
| 2024-25 | 110 | 101 | 93 | 90 | 83 | 75 | 69 | 621 |
| 2025-26 | 107 | 98 | 90 | 88 | 85 | 78 | 65 | 612 |
| 2026-27 | 107 | 96 | 88 | 86 | 83 | 79 | 67 | 606 |
| 2027-28 | 106 | 96 | 86 | 83 | 81 | 78 | 68 | 598 |
| 2028-29 | 105 | 95 | 85 | 81 | 79 | 75 | 67 | 588 |
| 2029-30 | 104 | 94 | 85 | 81 | 77 | 73 | 65 | 579 |
| 2030-31 | 104 | 93 | 84 | 80 | 76 | 72 | 63 | 573 |
| 2031-32 | 103 | 93 | 83 | 80 | 76 | 71 | 62 | 568 |
| Change | -17 | -7 | -22 | -22 | -24 | 1 | -4 | (95) |

John Tyler Elementary 2016-17 School Enrollment Projections



John Tyler Elementary 2016-17 School Enrollment Projections

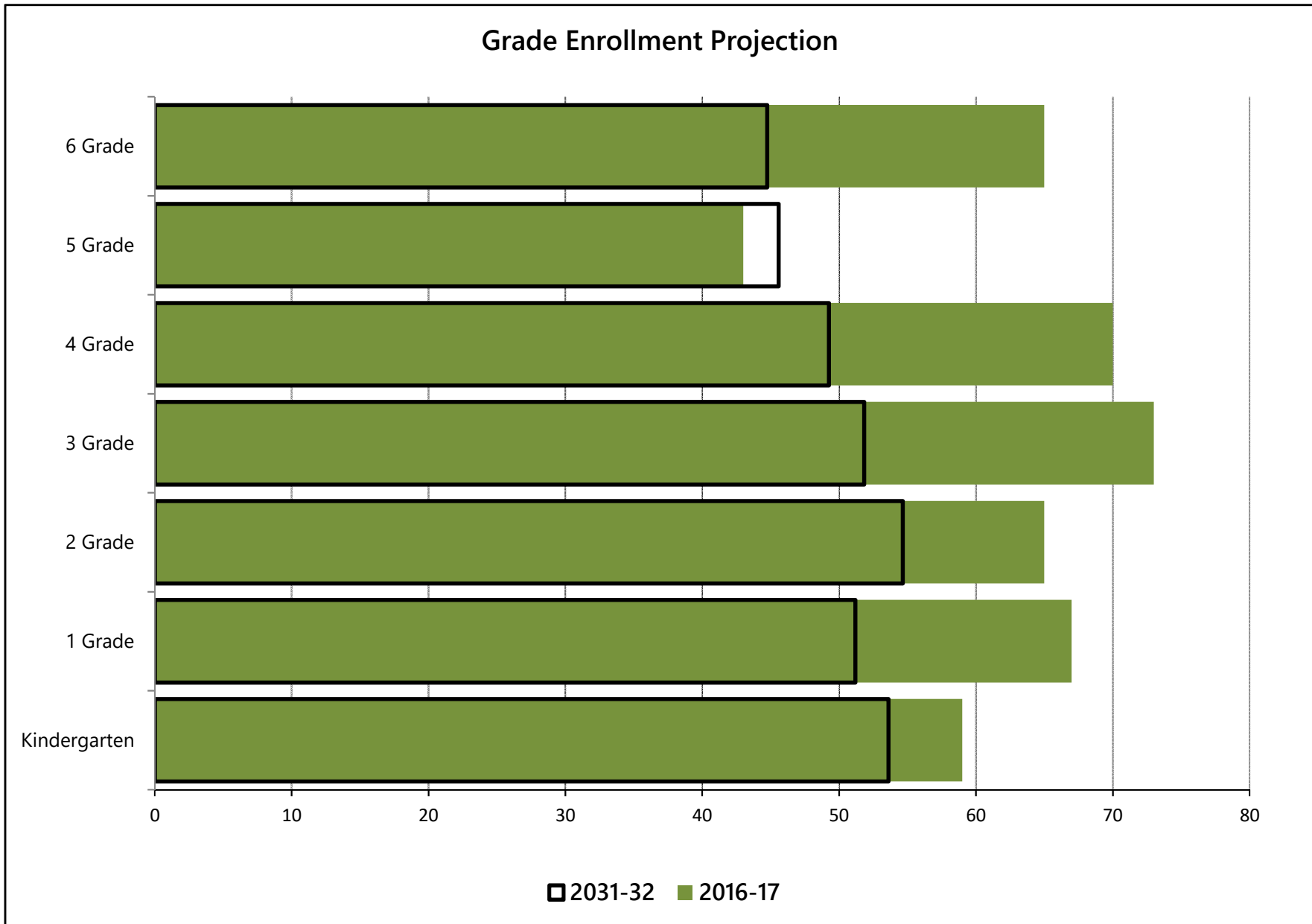


Lakeview Elementary 2016-17 School Enrollment Projections

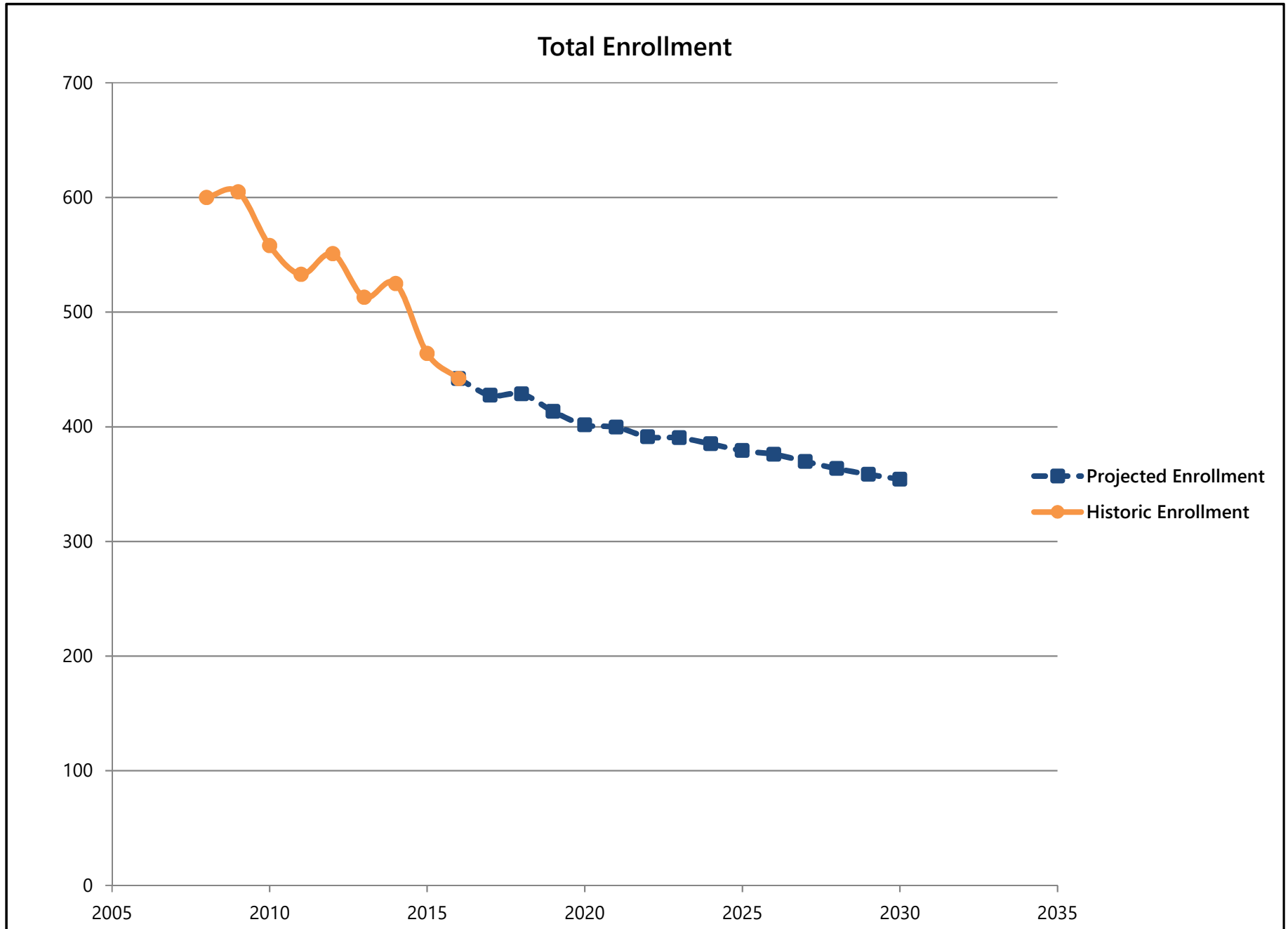
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 59 | 67 | 65 | 73 | 70 | 43 | 65 | 442 |
| 2017-18 | 64 | 56 | 71 | 60 | 70 | 65 | 42 | 427 |
| 2018-19 | 62 | 59 | 59 | 68 | 56 | 62 | 63 | 429 |
| 2019-20 | 58 | 60 | 63 | 56 | 64 | 52 | 61 | 413 |
| 2020-21 | 62 | 55 | 63 | 59 | 52 | 59 | 51 | 402 |
| 2021-22 | 62 | 59 | 58 | 60 | 56 | 48 | 57 | 400 |
| 2022-23 | 60 | 59 | 62 | 55 | 56 | 51 | 47 | 391 |
| 2023-24 | 59 | 57 | 62 | 59 | 52 | 52 | 50 | 390 |
| 2024-25 | 57 | 56 | 60 | 58 | 55 | 48 | 50 | 385 |
| 2025-26 | 56 | 55 | 59 | 57 | 55 | 51 | 46 | 379 |
| 2026-27 | 56 | 53 | 58 | 56 | 54 | 51 | 50 | 376 |
| 2027-28 | 55 | 53 | 56 | 54 | 53 | 49 | 49 | 370 |
| 2028-29 | 55 | 52 | 56 | 53 | 51 | 48 | 48 | 363 |
| 2029-30 | 54 | 52 | 55 | 53 | 50 | 47 | 47 | 359 |
| 2030-31 | 54 | 52 | 55 | 52 | 50 | 46 | 46 | 354 |
| 2031-32 | 54 | 51 | 55 | 52 | 49 | 46 | 45 | 351 |
| Change | -5 | -16 | -10 | -21 | -21 | 3 | -20 | (91) |

Lakeview Elementary 2016-17 School Enrollment Projections



Lakeview Elementary 2016-17 School Enrollment Projections

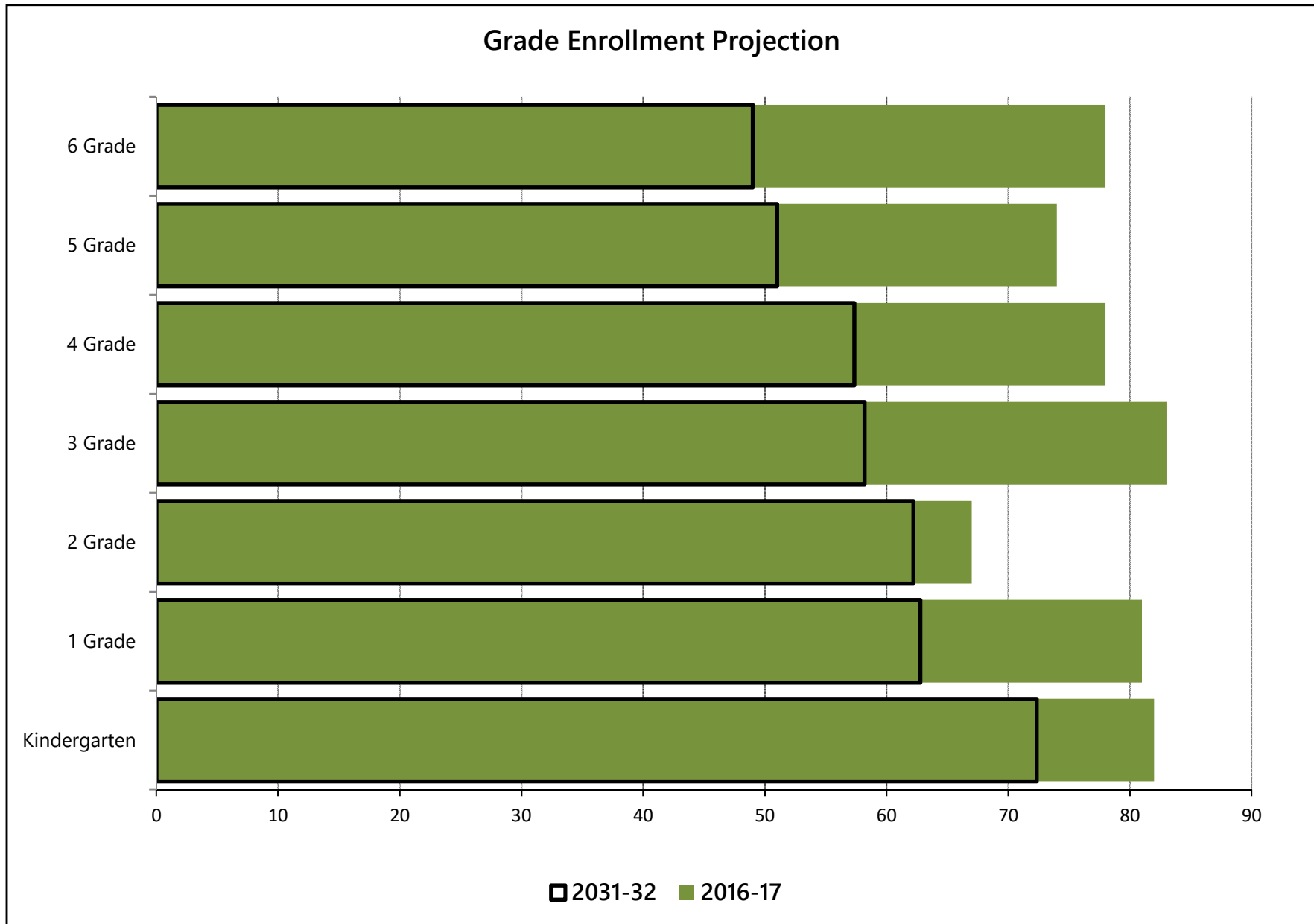


Park View Elementary 2016-17 School Enrollment Projections

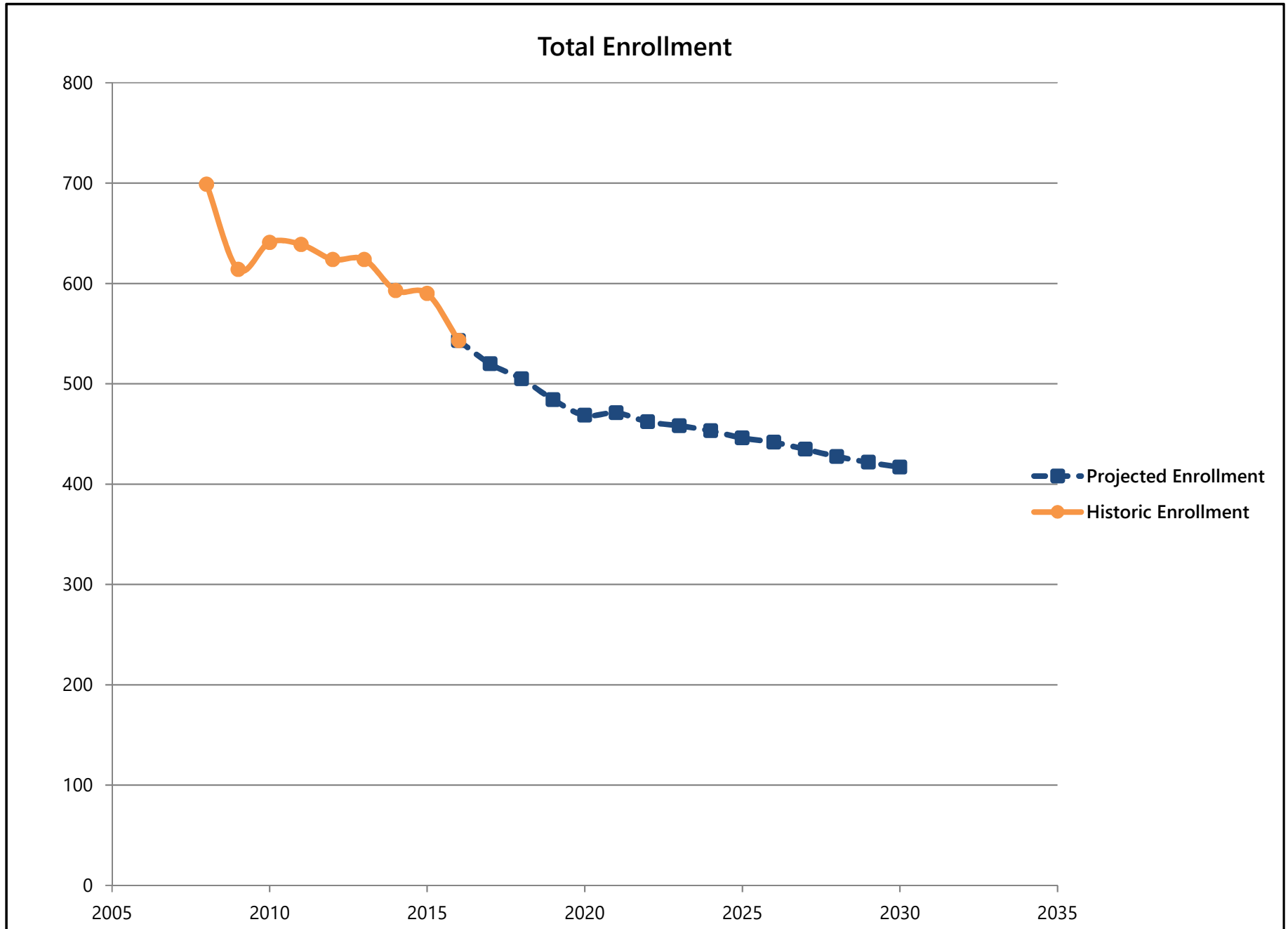
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 82 | 81 | 67 | 83 | 78 | 74 | 78 | 543 |
| 2017-18 | 84 | 71 | 79 | 63 | 82 | 71 | 70 | 520 |
| 2018-19 | 84 | 72 | 71 | 75 | 63 | 73 | 67 | 505 |
| 2019-20 | 79 | 73 | 70 | 65 | 72 | 54 | 70 | 484 |
| 2020-21 | 84 | 68 | 72 | 65 | 64 | 64 | 52 | 468 |
| 2021-22 | 83 | 72 | 67 | 67 | 64 | 56 | 61 | 471 |
| 2022-23 | 81 | 72 | 71 | 62 | 66 | 56 | 54 | 462 |
| 2023-24 | 80 | 70 | 71 | 66 | 61 | 58 | 53 | 458 |
| 2024-25 | 77 | 68 | 69 | 66 | 64 | 54 | 55 | 453 |
| 2025-26 | 76 | 67 | 67 | 64 | 64 | 57 | 51 | 446 |
| 2026-27 | 75 | 65 | 66 | 62 | 63 | 57 | 54 | 442 |
| 2027-28 | 75 | 65 | 64 | 61 | 61 | 55 | 54 | 435 |
| 2028-29 | 74 | 64 | 64 | 59 | 60 | 54 | 53 | 427 |
| 2029-30 | 73 | 64 | 63 | 59 | 58 | 53 | 51 | 422 |
| 2030-31 | 73 | 63 | 63 | 59 | 58 | 51 | 50 | 417 |
| 2031-32 | 72 | 63 | 62 | 58 | 57 | 51 | 49 | 413 |
| Change | -10 | -18 | -5 | -25 | -21 | -23 | -29 | (130) |

Park View Elementary 2016-17 School Enrollment Projections



Park View Elementary 2016-17 School Enrollment Projections

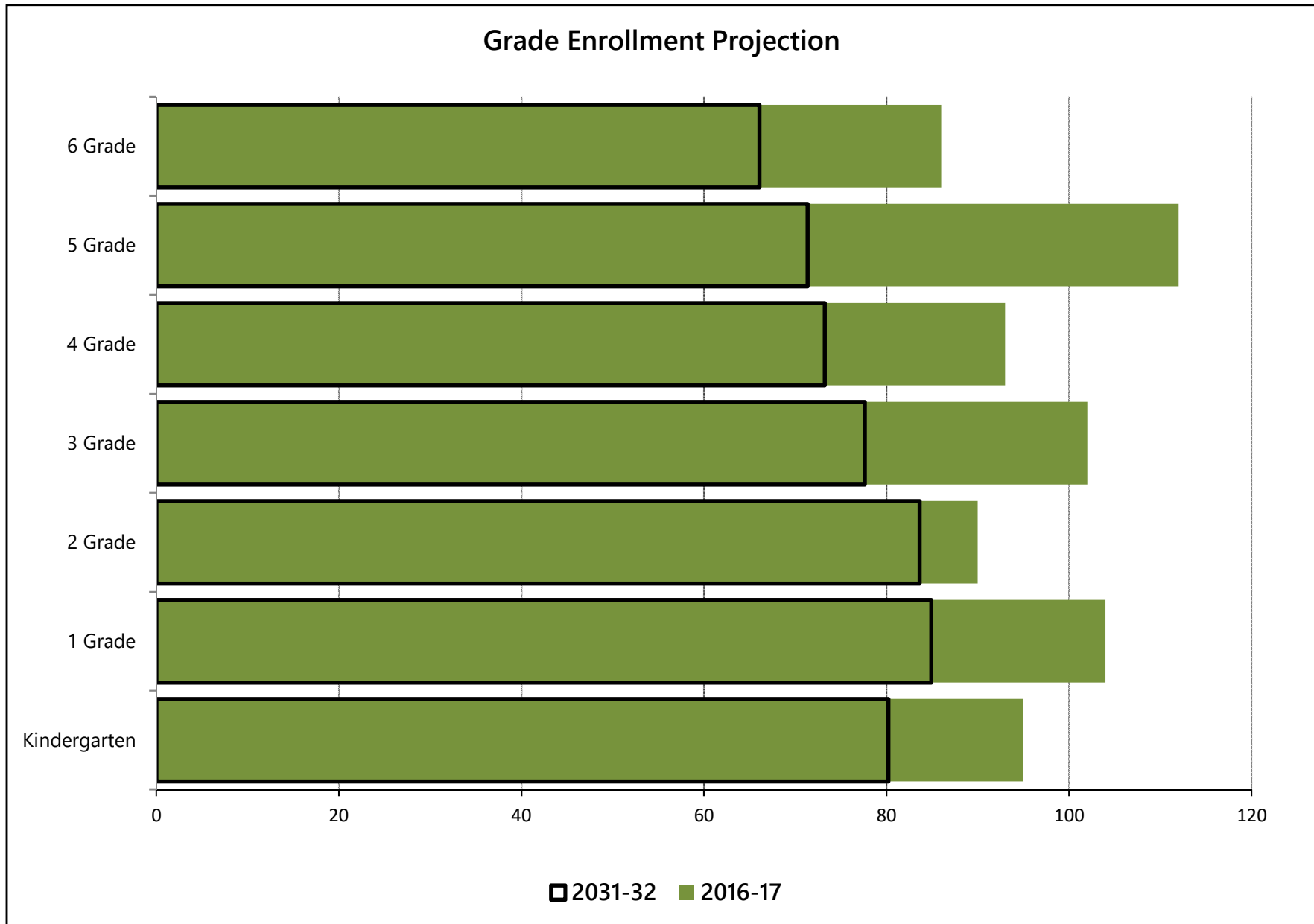


Simonsdale Elementary 2016-17 School Enrollment Projections

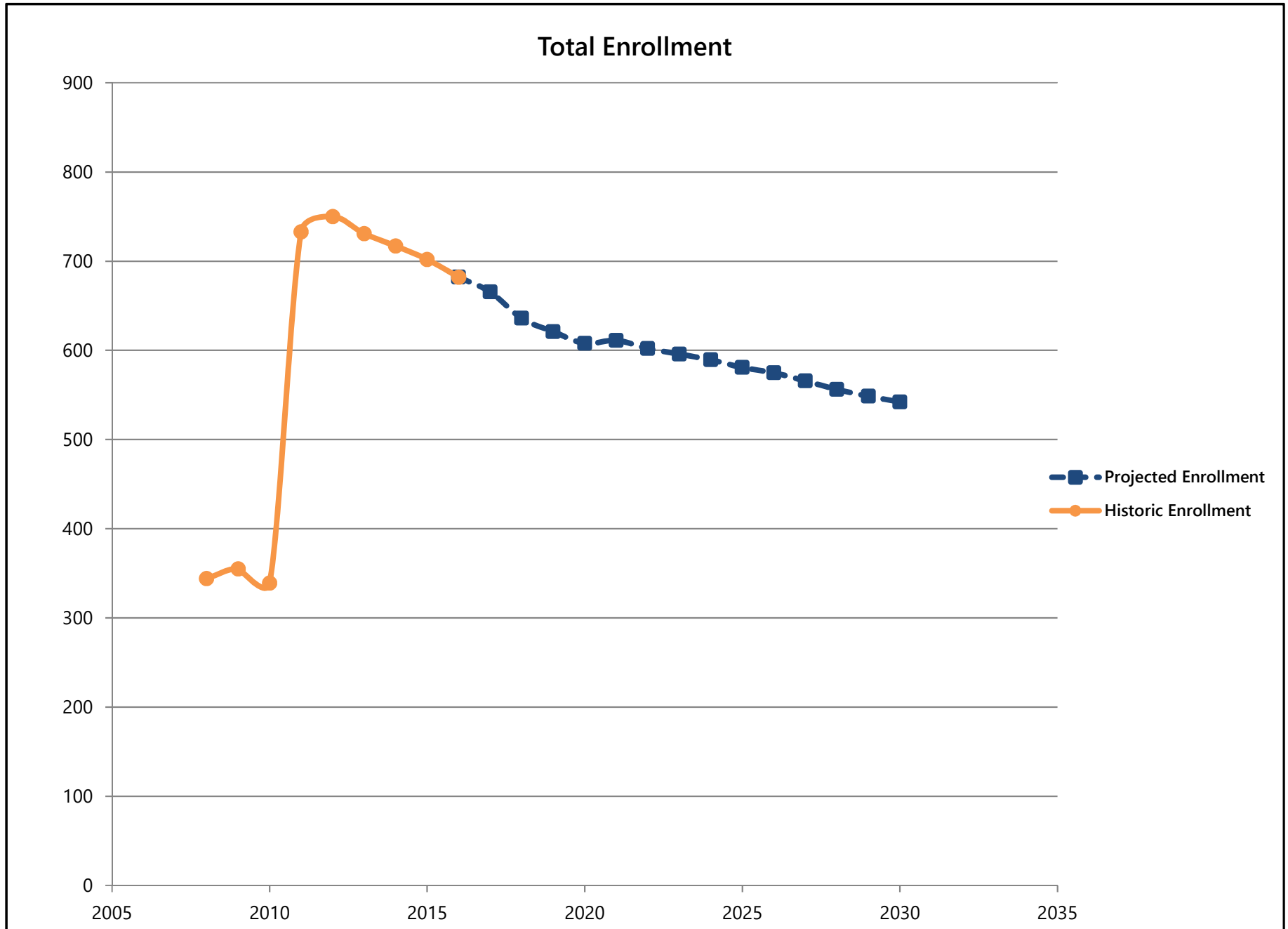
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 95 | 104 | 90 | 102 | 93 | 112 | 86 | 682 |
| 2017-18 | 92 | 98 | 106 | 83 | 96 | 88 | 103 | 665 |
| 2018-19 | 93 | 97 | 96 | 97 | 78 | 94 | 81 | 636 |
| 2019-20 | 88 | 98 | 93 | 89 | 91 | 76 | 86 | 621 |
| 2020-21 | 92 | 93 | 97 | 86 | 83 | 88 | 70 | 608 |
| 2021-22 | 92 | 97 | 90 | 89 | 81 | 81 | 81 | 611 |
| 2022-23 | 90 | 97 | 95 | 84 | 84 | 78 | 74 | 602 |
| 2023-24 | 88 | 95 | 95 | 87 | 78 | 81 | 72 | 596 |
| 2024-25 | 86 | 92 | 92 | 87 | 82 | 75 | 74 | 589 |
| 2025-26 | 84 | 90 | 90 | 85 | 82 | 79 | 69 | 581 |
| 2026-27 | 83 | 88 | 88 | 83 | 80 | 79 | 73 | 575 |
| 2027-28 | 83 | 87 | 86 | 81 | 78 | 77 | 73 | 566 |
| 2028-29 | 82 | 87 | 85 | 79 | 76 | 75 | 71 | 556 |
| 2029-30 | 81 | 86 | 85 | 79 | 74 | 74 | 69 | 549 |
| 2030-31 | 81 | 86 | 84 | 78 | 74 | 72 | 68 | 542 |
| 2031-32 | 80 | 85 | 84 | 78 | 73 | 71 | 66 | 537 |
| Change | -15 | -19 | -6 | -24 | -20 | -41 | -20 | (145) |

Simonsdale Elementary 2016-17 School Enrollment Projections



Simonsdale Elementary 2016-17 School Enrollment Projections

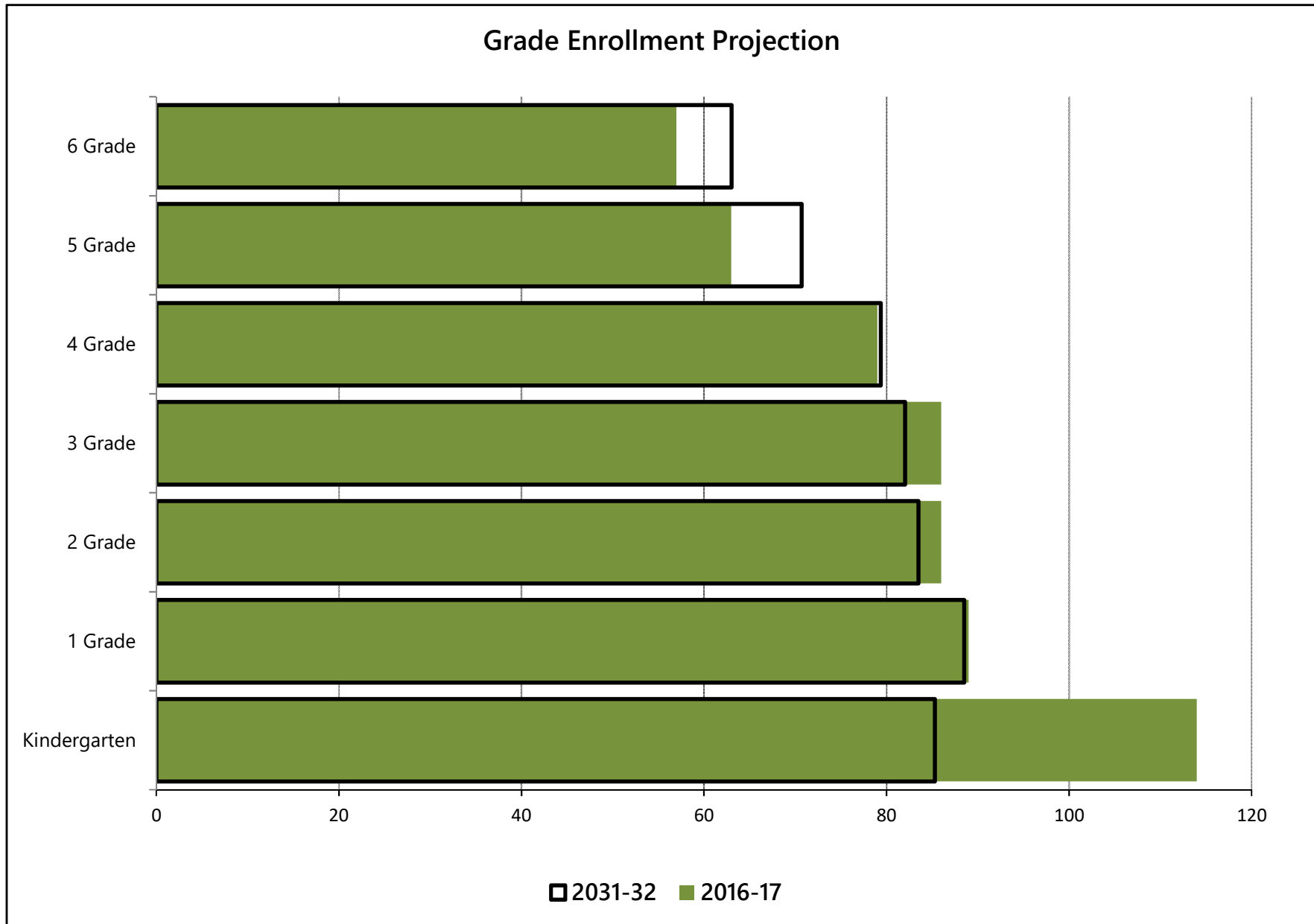


Victory Elementary 2016-17 School Enrollment Projections

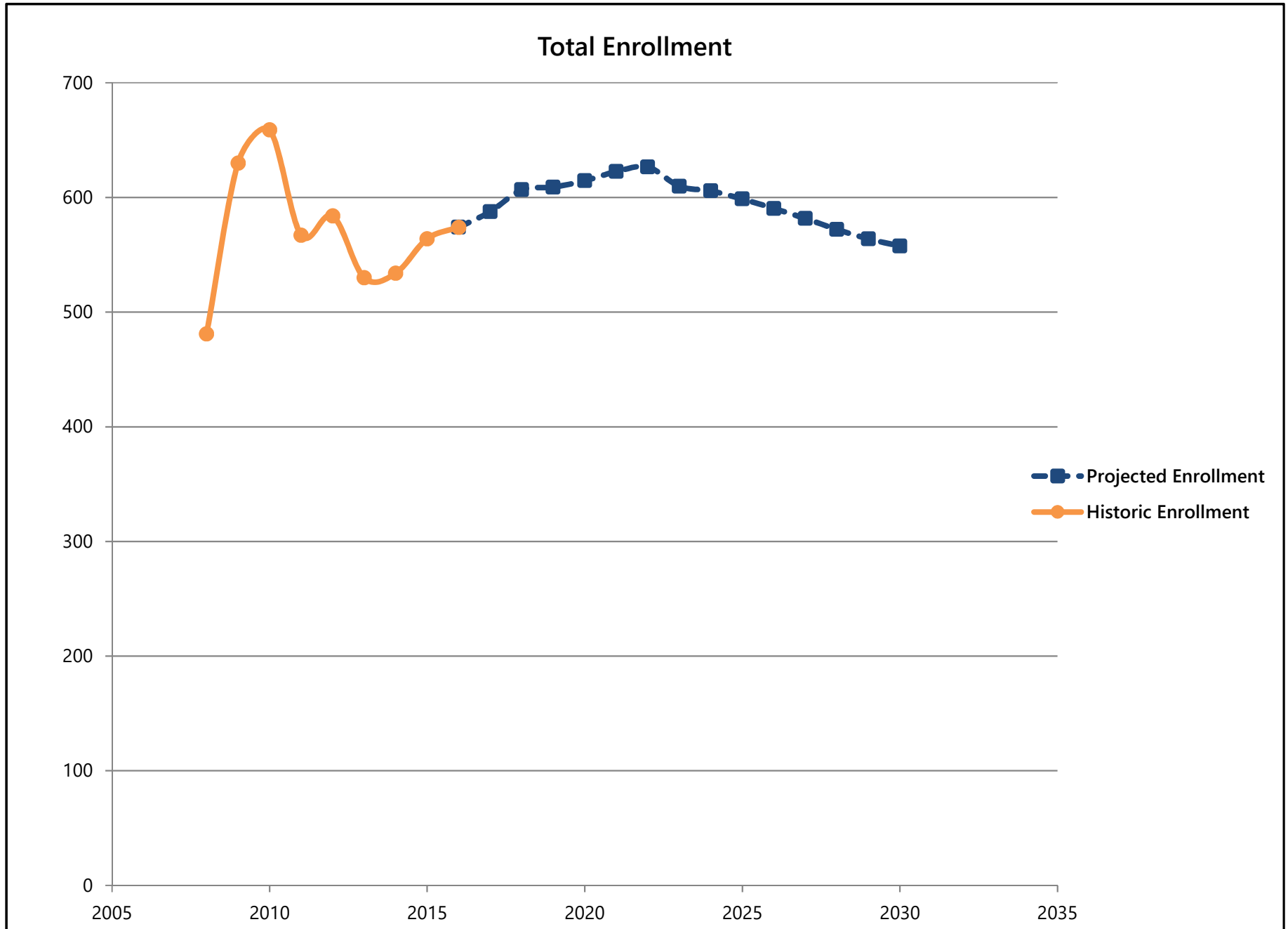
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 114 | 89 | 86 | 86 | 79 | 63 | 57 | 574 |
| 2017-18 | 93 | 117 | 85 | 83 | 83 | 70 | 56 | 588 |
| 2018-19 | 98 | 98 | 110 | 83 | 80 | 74 | 63 | 607 |
| 2019-20 | 96 | 100 | 91 | 108 | 79 | 70 | 65 | 609 |
| 2020-21 | 97 | 99 | 94 | 88 | 104 | 71 | 62 | 615 |
| 2021-22 | 98 | 100 | 93 | 91 | 85 | 92 | 63 | 623 |
| 2022-23 | 97 | 101 | 94 | 91 | 88 | 75 | 81 | 627 |
| 2023-24 | 93 | 99 | 95 | 91 | 87 | 78 | 66 | 610 |
| 2024-25 | 91 | 96 | 93 | 92 | 88 | 77 | 69 | 606 |
| 2025-26 | 89 | 94 | 90 | 91 | 89 | 78 | 68 | 599 |
| 2026-27 | 88 | 92 | 88 | 88 | 87 | 78 | 69 | 590 |
| 2027-28 | 88 | 91 | 86 | 86 | 84 | 77 | 69 | 582 |
| 2028-29 | 87 | 91 | 85 | 84 | 83 | 75 | 68 | 572 |
| 2029-30 | 87 | 90 | 85 | 83 | 81 | 73 | 66 | 564 |
| 2030-31 | 86 | 89 | 84 | 83 | 80 | 71 | 65 | 558 |
| 2031-32 | 85 | 89 | 84 | 82 | 79 | 71 | 63 | 552 |
| Change | -29 | 0 | -2 | -4 | 0 | 8 | 6 | (22) |

Victory Elementary 2016-17 School Enrollment Projections



Victory Elementary 2016-17 School Enrollment Projections

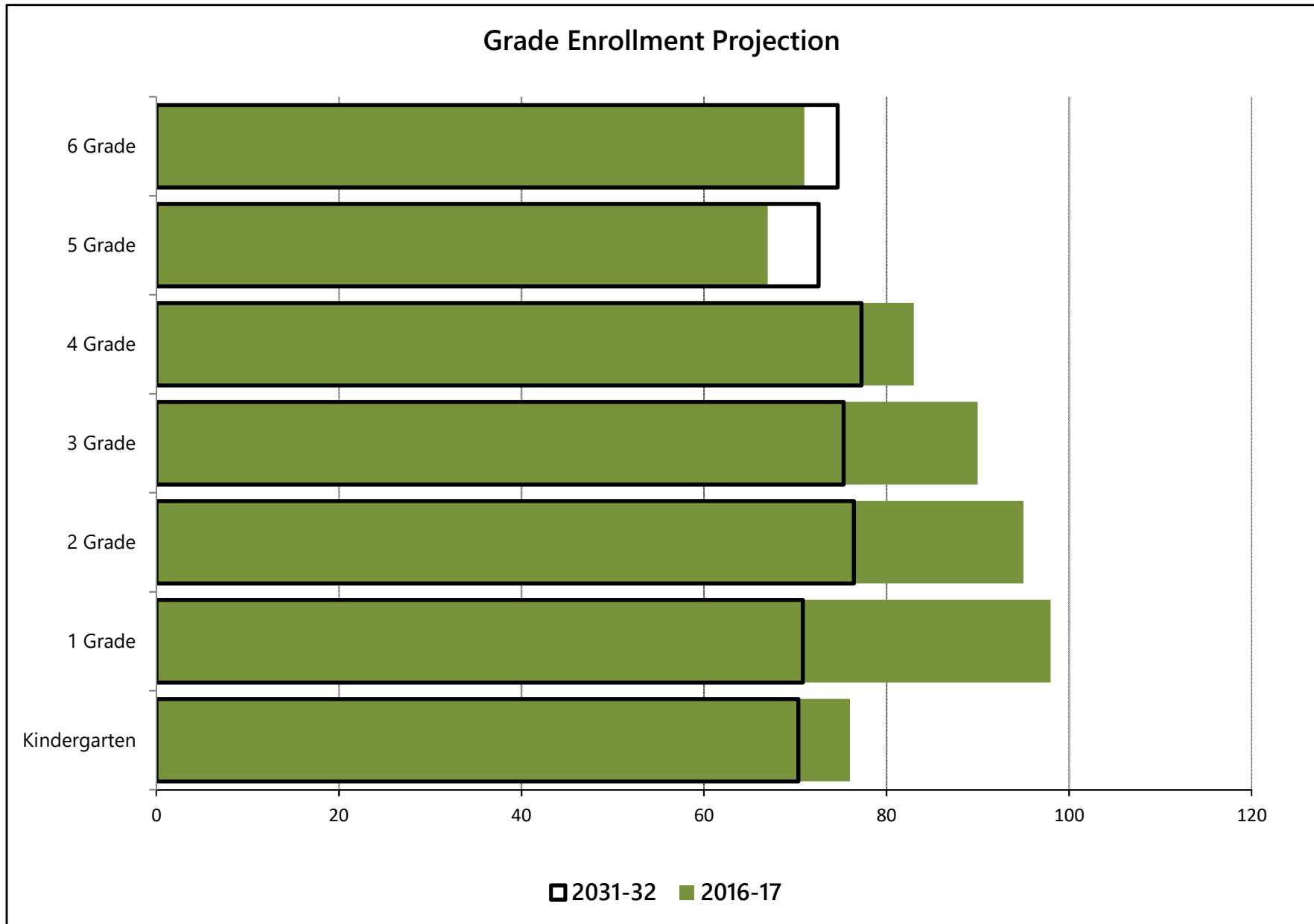


Westhaven Elementary 2016-17 School Enrollment Projections

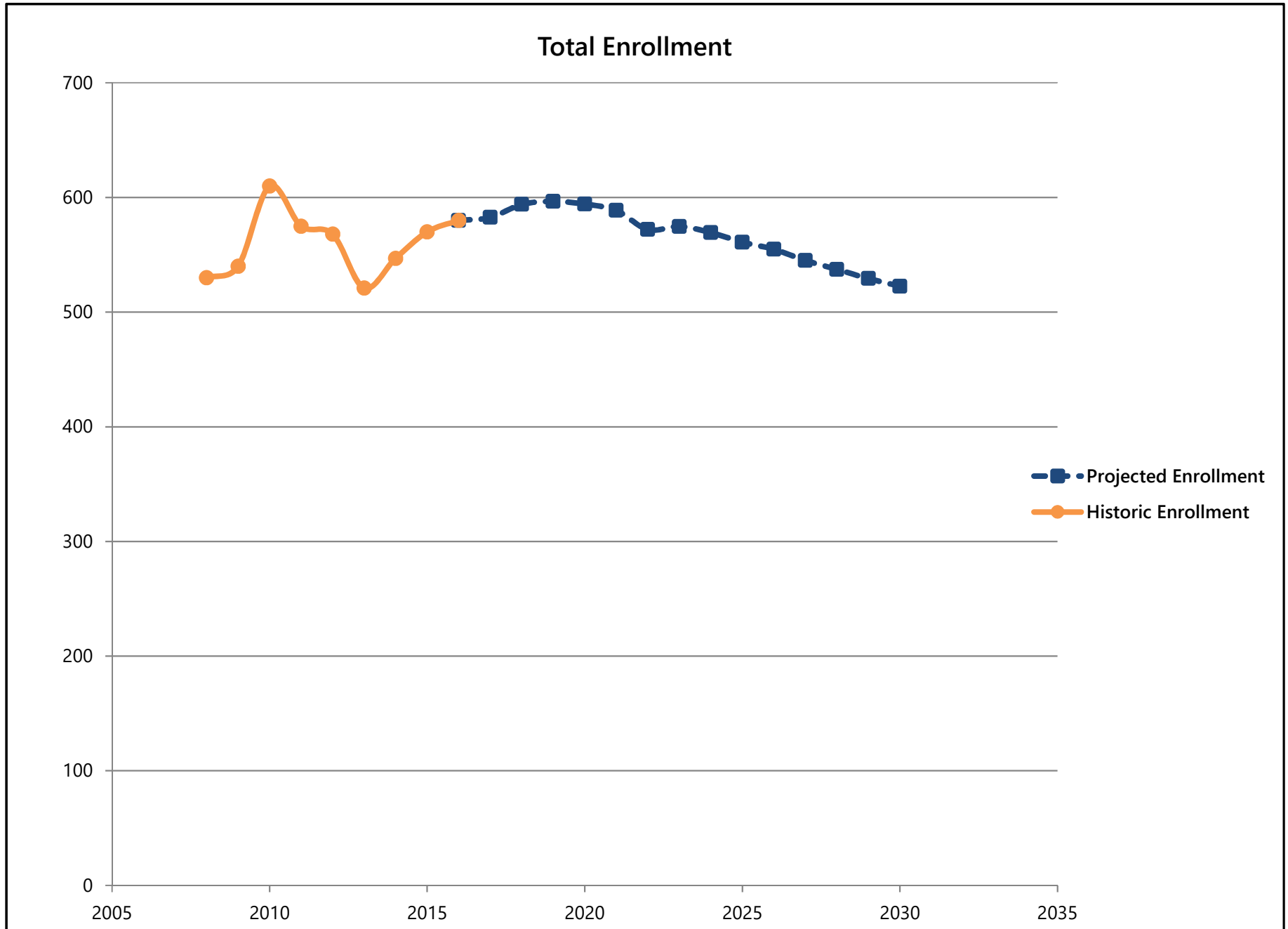
Grade Enrollment Projection

| | Kindergarten | 1 Grade | 2 Grade | 3 Grade | 4 Grade | 5 Grade | 6 Grade | Total |
|---------|--------------|---------|---------|---------|---------|---------|---------|-------|
| 2016-17 | 76 | 98 | 95 | 90 | 83 | 67 | 71 | 580 |
| 2017-18 | 79 | 75 | 103 | 92 | 87 | 79 | 68 | 583 |
| 2018-19 | 81 | 79 | 80 | 101 | 91 | 83 | 81 | 594 |
| 2019-20 | 79 | 82 | 85 | 77 | 103 | 87 | 85 | 597 |
| 2020-21 | 83 | 79 | 88 | 83 | 79 | 94 | 88 | 594 |
| 2021-22 | 80 | 82 | 84 | 87 | 86 | 73 | 96 | 589 |
| 2022-23 | 79 | 80 | 88 | 82 | 88 | 81 | 75 | 572 |
| 2023-24 | 77 | 79 | 85 | 86 | 83 | 82 | 82 | 575 |
| 2024-25 | 76 | 77 | 85 | 83 | 87 | 78 | 84 | 569 |
| 2025-26 | 74 | 76 | 83 | 83 | 85 | 81 | 80 | 561 |
| 2026-27 | 73 | 73 | 81 | 81 | 84 | 79 | 83 | 555 |
| 2027-28 | 72 | 73 | 79 | 79 | 83 | 79 | 81 | 545 |
| 2028-29 | 72 | 72 | 78 | 77 | 80 | 77 | 81 | 537 |
| 2029-30 | 71 | 72 | 78 | 76 | 78 | 75 | 79 | 529 |
| 2030-31 | 71 | 71 | 77 | 76 | 78 | 73 | 77 | 523 |
| 2031-32 | 70 | 71 | 76 | 75 | 77 | 73 | 75 | 517 |
| Change | -6 | -27 | -19 | -15 | -6 | 6 | 4 | (63) |

Westhaven Elementary 2016-17 School Enrollment Projections



Westhaven Elementary 2016-17 School Enrollment Projections

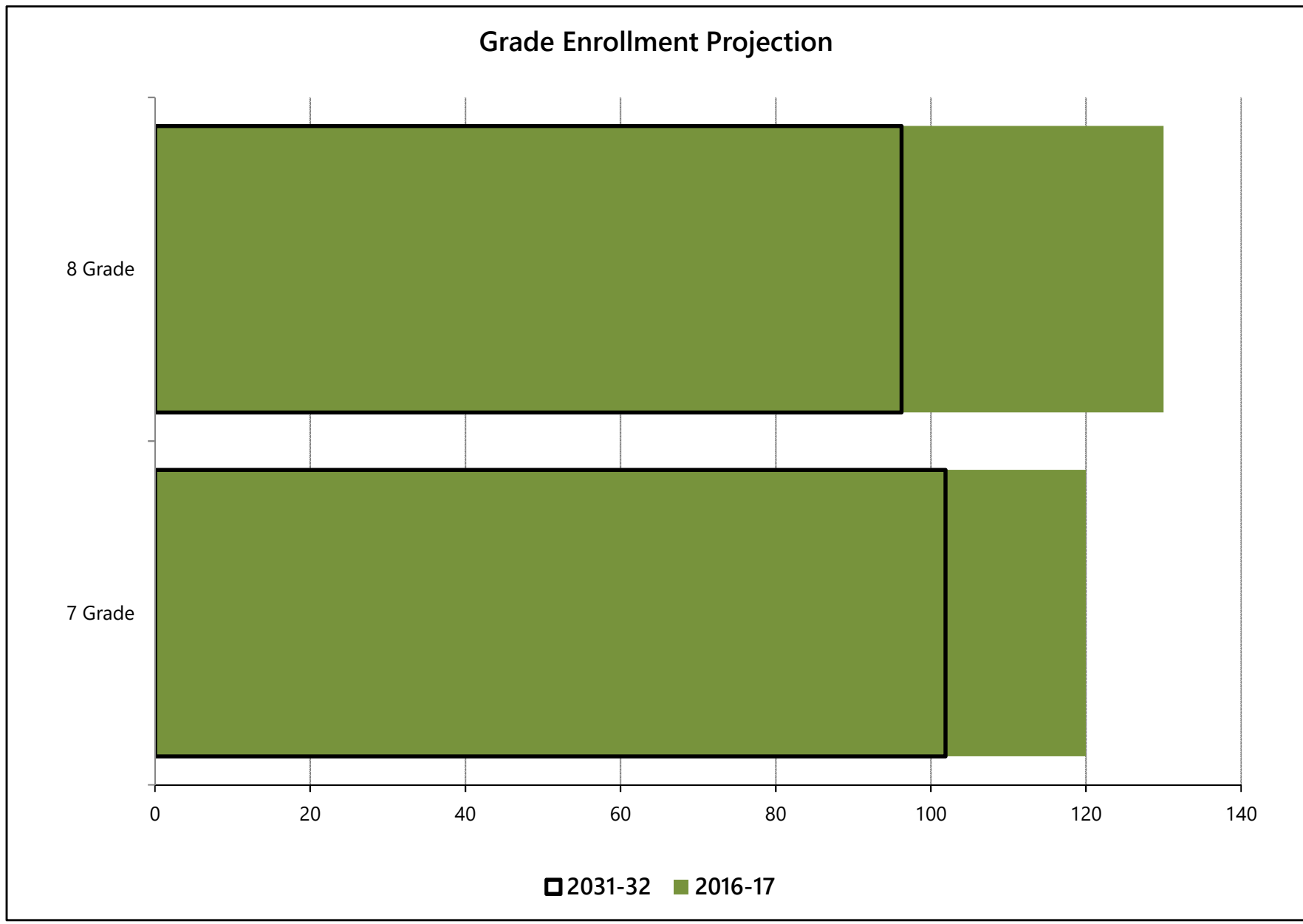


Churchland Middle 2016-17 School Enrollment Projections

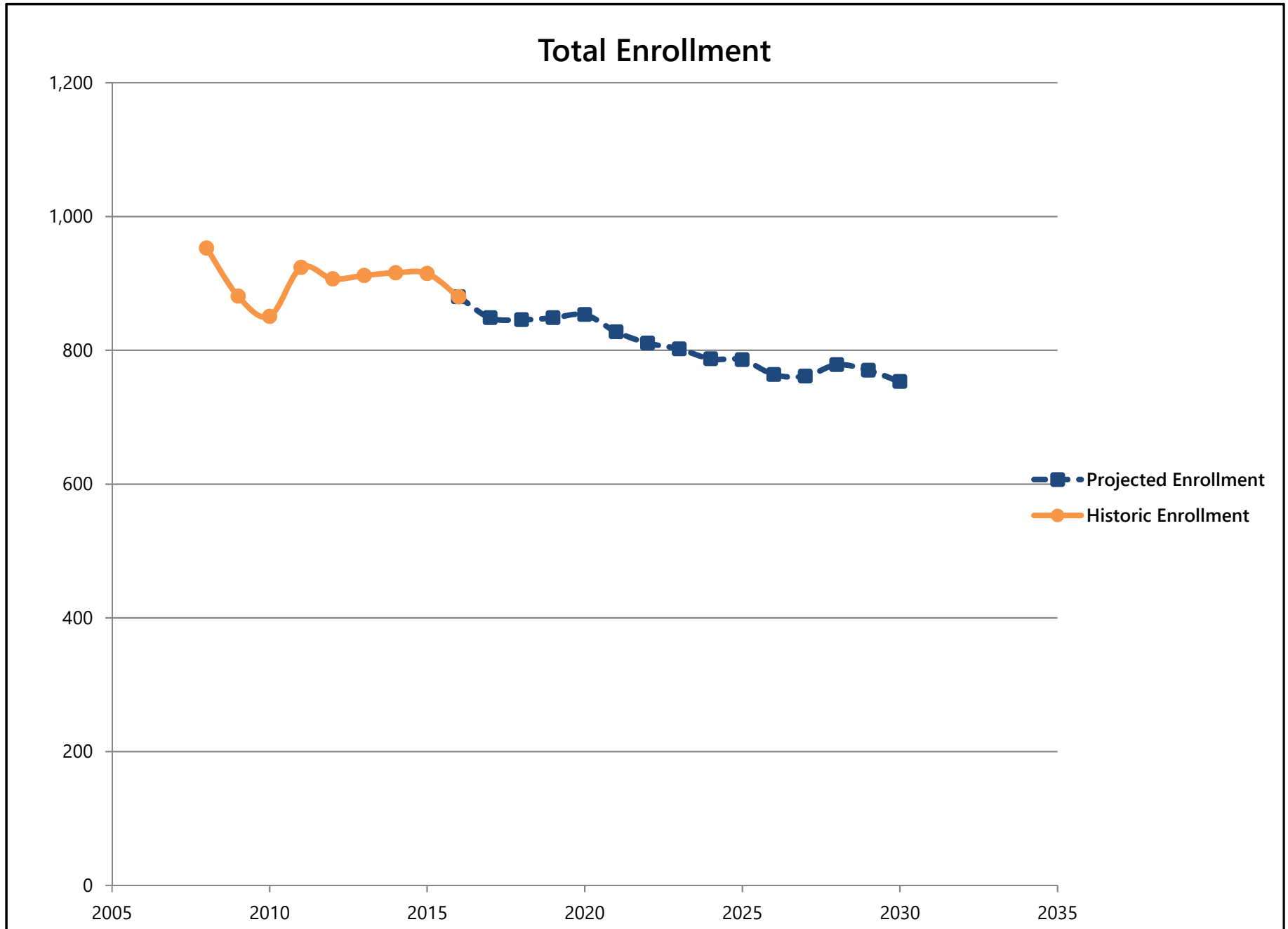
Grade Enrollment Projection

| | 7 Grade | 8 Grade | Total |
|---------|---------|---------|-------|
| 2016-17 | 120 | 130 | 250 |
| 2017-18 | 116 | 110 | 226 |
| 2018-19 | 119 | 110 | 228 |
| 2019-20 | 116 | 112 | 228 |
| 2020-21 | 111 | 109 | 220 |
| 2021-22 | 117 | 104 | 221 |
| 2022-23 | 116 | 110 | 226 |
| 2023-24 | 114 | 109 | 223 |
| 2024-25 | 111 | 106 | 217 |
| 2025-26 | 108 | 104 | 213 |
| 2026-27 | 106 | 102 | 207 |
| 2027-28 | 105 | 99 | 204 |
| 2028-29 | 104 | 98 | 203 |
| 2029-30 | 103 | 98 | 201 |
| 2030-31 | 103 | 97 | 200 |
| 2031-32 | 102 | 96 | 198 |
| Change | -18 | -34 | (52) |

Churchland Middle 2016-17 School Enrollment Projections



Churchland Middle 2016-17 School Enrollment Projections

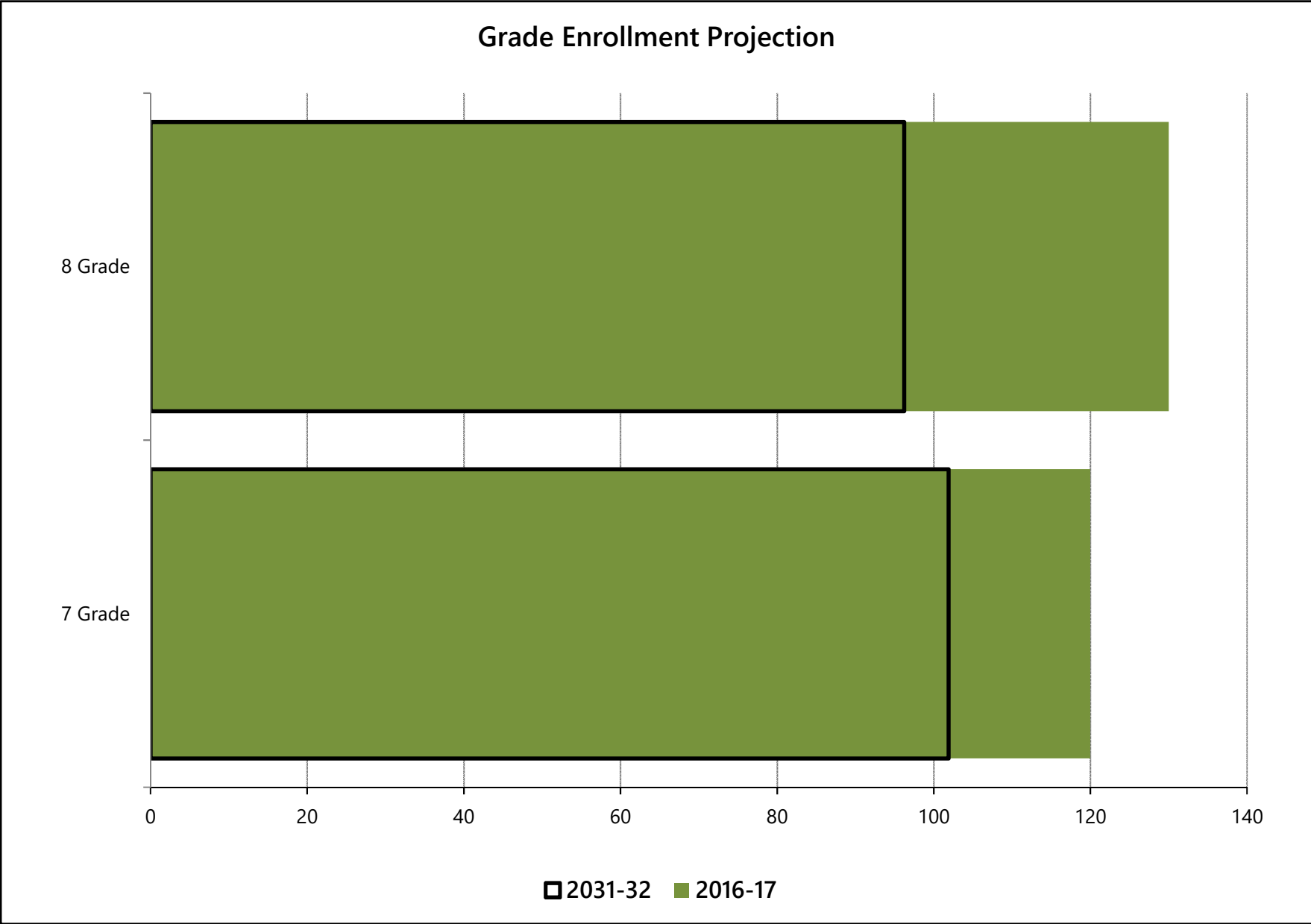


Cradock Middle 2016-17 School Enrollment Projections

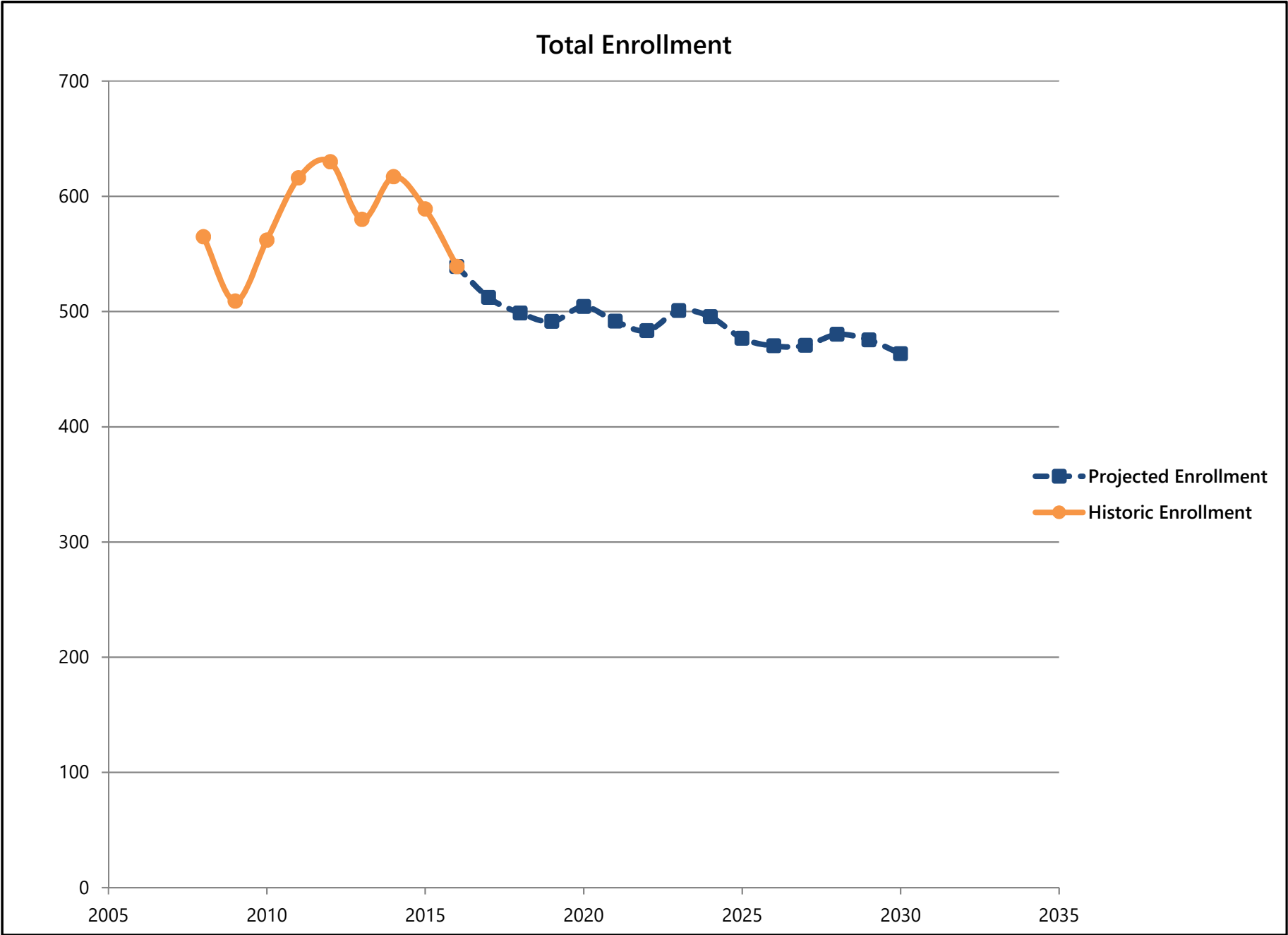
Grade Enrollment Projection

| | 7 Grade | 8 Grade | Total |
|---------|---------|---------|-------|
| 2016-17 | 120 | 130 | 250 |
| 2017-18 | 116 | 110 | 226 |
| 2018-19 | 119 | 110 | 228 |
| 2019-20 | 116 | 112 | 228 |
| 2020-21 | 111 | 109 | 220 |
| 2021-22 | 117 | 104 | 221 |
| 2022-23 | 116 | 110 | 226 |
| 2023-24 | 114 | 109 | 223 |
| 2024-25 | 111 | 106 | 217 |
| 2025-26 | 108 | 104 | 213 |
| 2026-27 | 106 | 102 | 207 |
| 2027-28 | 105 | 99 | 204 |
| 2028-29 | 104 | 98 | 203 |
| 2029-30 | 103 | 98 | 201 |
| 2030-31 | 103 | 97 | 200 |
| 2031-32 | 102 | 96 | 198 |
| Change | -18 | -34 | (52) |

Cradock Middle 2016-17 School Enrollment Projections



Cradock Middle 2016-17 School Enrollment Projections

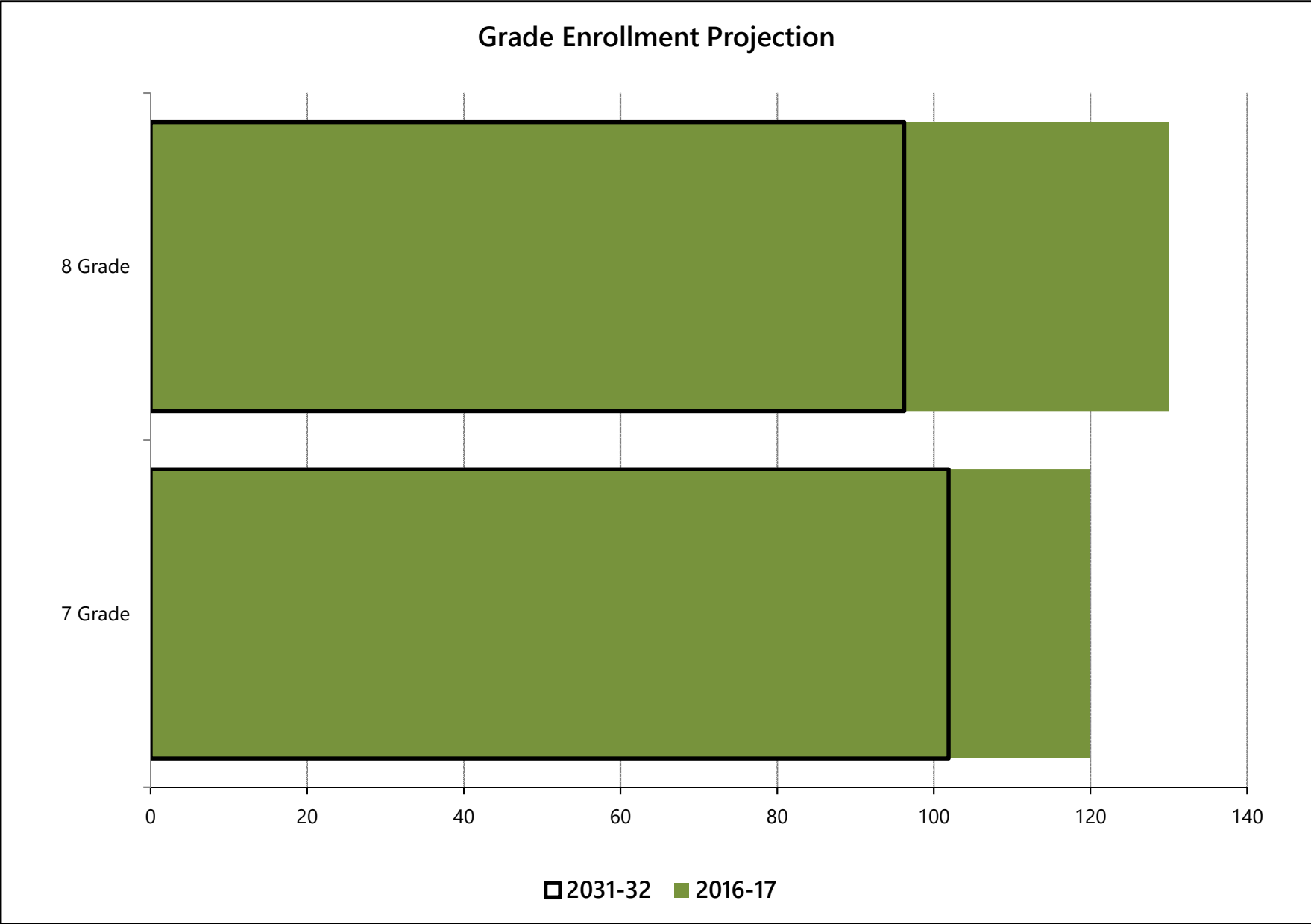


William E. Waters Middle 2016-17 School Enrollment Projections

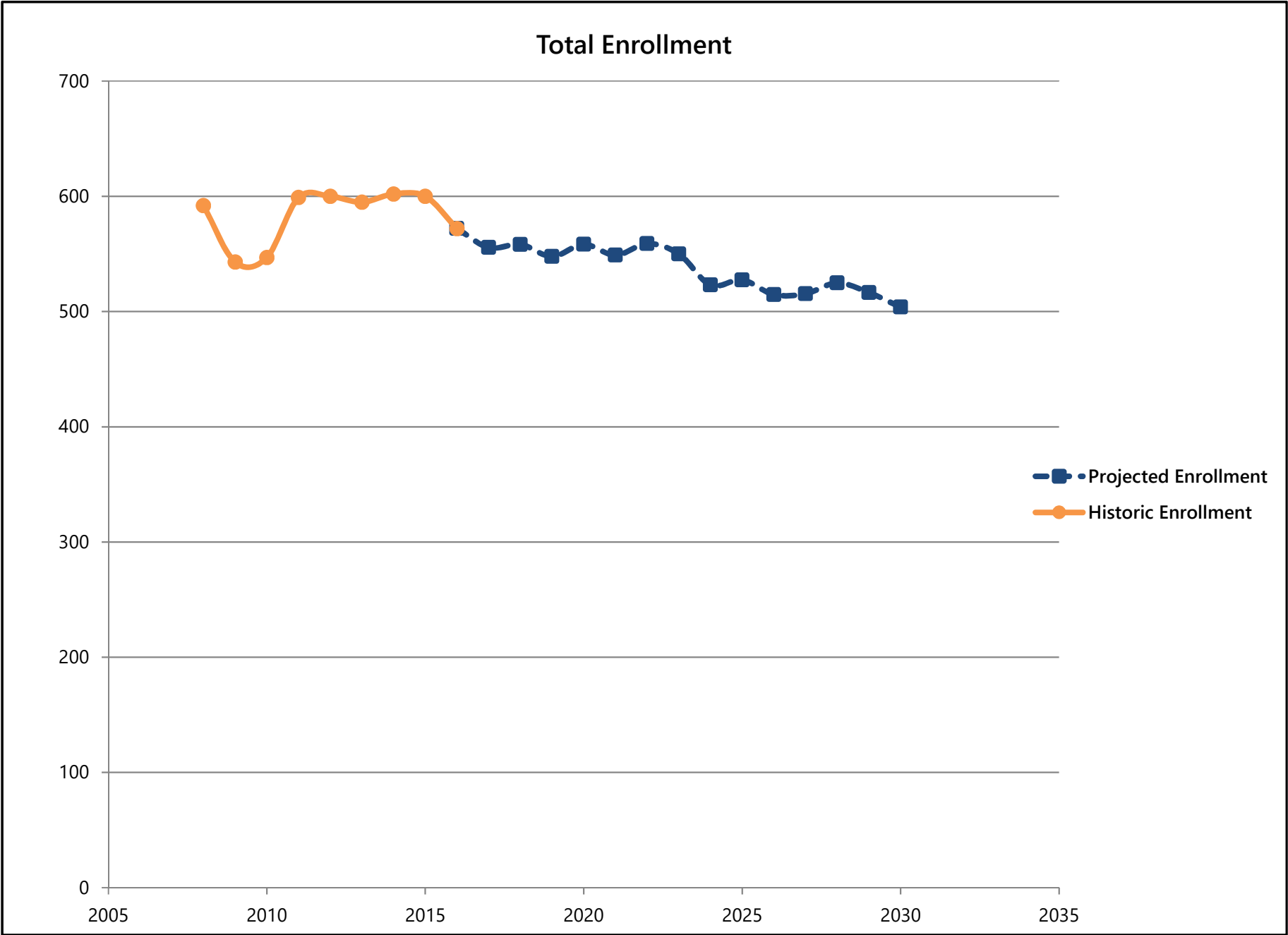
Grade Enrollment Projection

| | 7 Grade | 8 Grade | Total |
|---------|---------|---------|-------|
| 2016-17 | 120 | 130 | 250 |
| 2017-18 | 116 | 110 | 226 |
| 2018-19 | 119 | 110 | 228 |
| 2019-20 | 116 | 112 | 228 |
| 2020-21 | 111 | 109 | 220 |
| 2021-22 | 117 | 104 | 221 |
| 2022-23 | 116 | 110 | 226 |
| 2023-24 | 114 | 109 | 223 |
| 2024-25 | 111 | 106 | 217 |
| 2025-26 | 108 | 104 | 213 |
| 2026-27 | 106 | 102 | 207 |
| 2027-28 | 105 | 99 | 204 |
| 2028-29 | 104 | 98 | 203 |
| 2029-30 | 103 | 98 | 201 |
| 2030-31 | 103 | 97 | 200 |
| 2031-32 | 102 | 96 | 198 |
| Change | -18 | -34 | (52) |

William E. Waters Middle 2016-17 School Enrollment Projections



William E. Waters Middle 2016-17 School Enrollment Projections

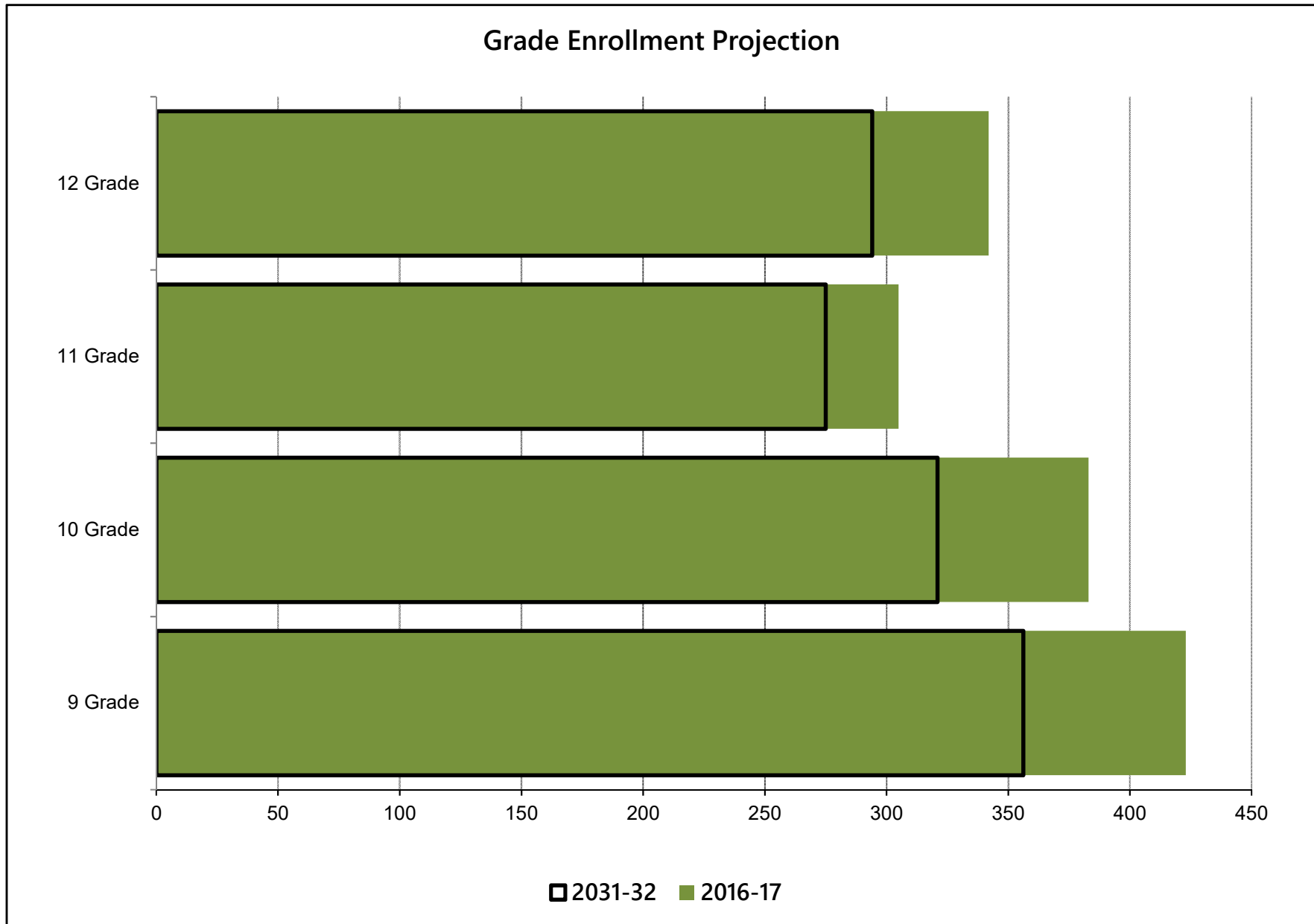


Churchland High 2016-17 School Enrollment Projections

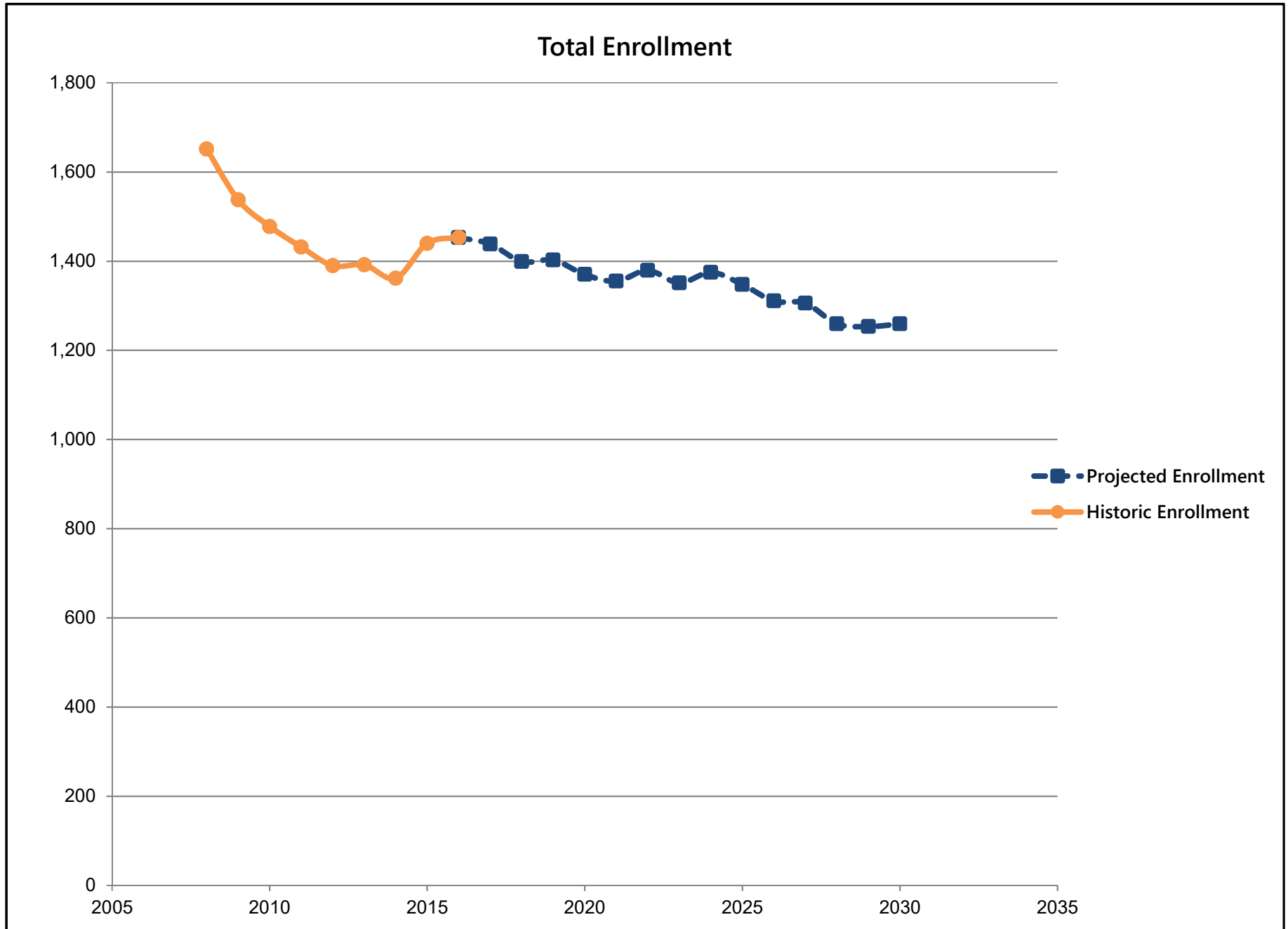
Grade Enrollment Projection

| | 9 Grade | 10 Grade | 11 Grade | 12 Grade | Total |
|---------|---------|----------|----------|----------|-------|
| 2016-17 | 423 | 383 | 305 | 342 | 1,453 |
| 2017-18 | 409 | 369 | 318 | 342 | 1,438 |
| 2018-19 | 383 | 356 | 307 | 353 | 1,399 |
| 2019-20 | 383 | 351 | 313 | 356 | 1,402 |
| 2020-21 | 389 | 337 | 297 | 347 | 1,370 |
| 2021-22 | 396 | 344 | 287 | 328 | 1,355 |
| 2022-23 | 400 | 356 | 297 | 327 | 1,379 |
| 2023-24 | 381 | 348 | 297 | 326 | 1,351 |
| 2024-25 | 396 | 342 | 300 | 337 | 1,375 |
| 2025-26 | 369 | 351 | 291 | 336 | 1,348 |
| 2026-27 | 369 | 323 | 296 | 322 | 1,311 |
| 2027-28 | 372 | 327 | 275 | 331 | 1,306 |
| 2028-29 | 349 | 328 | 277 | 306 | 1,259 |
| 2029-30 | 363 | 307 | 277 | 307 | 1,253 |
| 2030-31 | 362 | 323 | 263 | 311 | 1,259 |
| 2031-32 | 356 | 321 | 275 | 294 | 1,246 |
| Change | -67 | -62 | -30 | -48 | (207) |

Churchland High 2016-17 School Enrollment Projections



Churchland High 2016-17 School Enrollment Projections

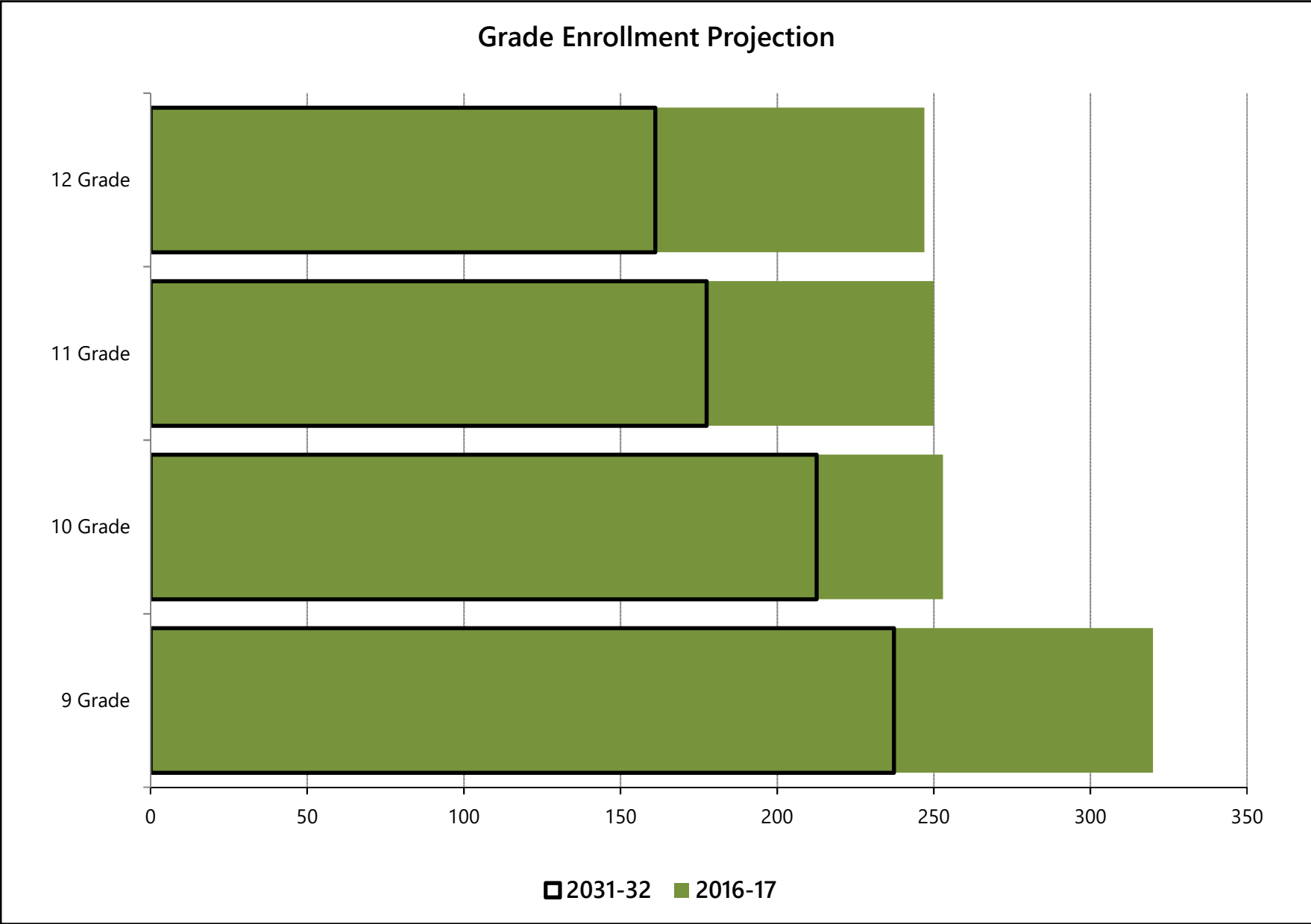


Norcom High 2016-17 School Enrollment Projections

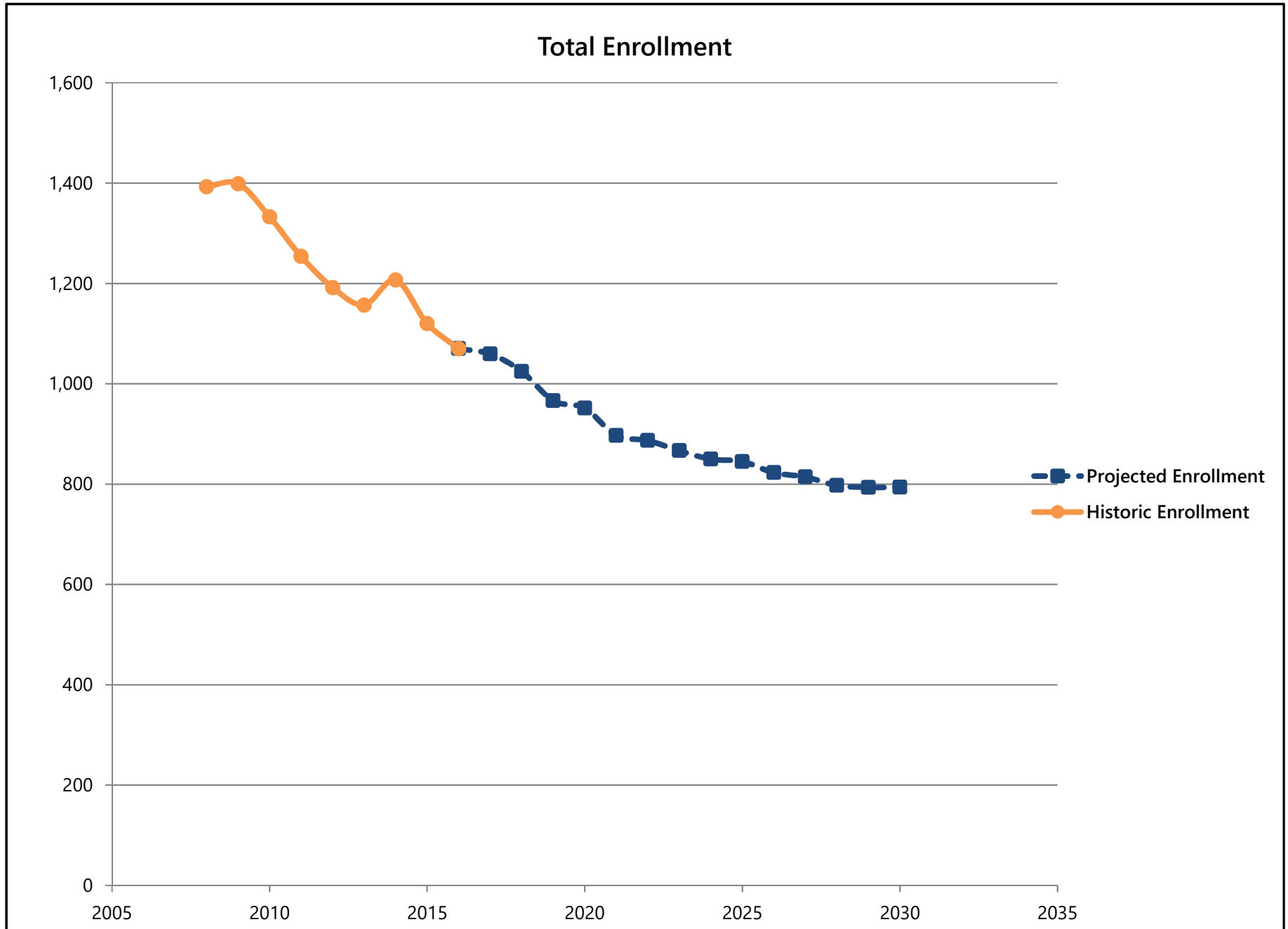
Grade Enrollment Projection

| | 9 Grade | 10 Grade | 11 Grade | 12 Grade | Total |
|---------|---------|----------|----------|----------|-------|
| 2016-17 | 320 | 253 | 250 | 247 | 1,070 |
| 2017-18 | 320 | 284 | 217 | 238 | 1,059 |
| 2018-19 | 282 | 289 | 244 | 209 | 1,025 |
| 2019-20 | 279 | 234 | 230 | 223 | 966 |
| 2020-21 | 254 | 259 | 208 | 230 | 951 |
| 2021-22 | 274 | 218 | 212 | 193 | 897 |
| 2022-23 | 270 | 238 | 180 | 199 | 887 |
| 2023-24 | 251 | 240 | 202 | 174 | 867 |
| 2024-25 | 258 | 213 | 194 | 185 | 850 |
| 2025-26 | 251 | 228 | 180 | 186 | 845 |
| 2026-27 | 243 | 219 | 191 | 171 | 823 |
| 2027-28 | 244 | 210 | 181 | 179 | 814 |
| 2028-29 | 233 | 215 | 177 | 173 | 797 |
| 2029-30 | 243 | 203 | 179 | 167 | 794 |
| 2030-31 | 243 | 212 | 169 | 170 | 794 |
| 2031-32 | 237 | 213 | 178 | 161 | 788 |
| Change | -83 | -40 | -72 | -86 | (282) |

Norcom High 2016-17 School Enrollment Projections



Norcom High 2016-17 School Enrollment Projections

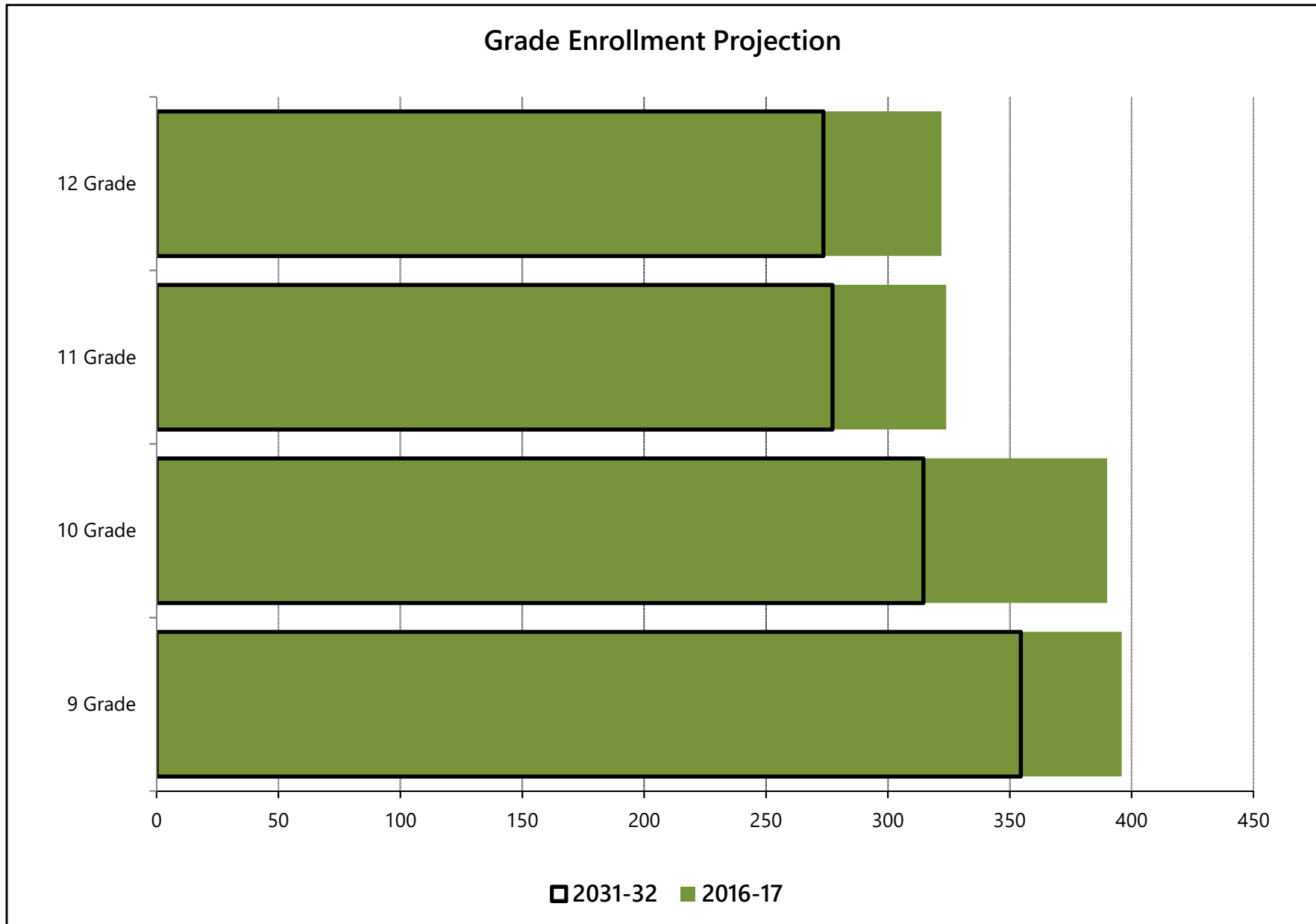


Wilson High 2016-17 School Enrollment Projections

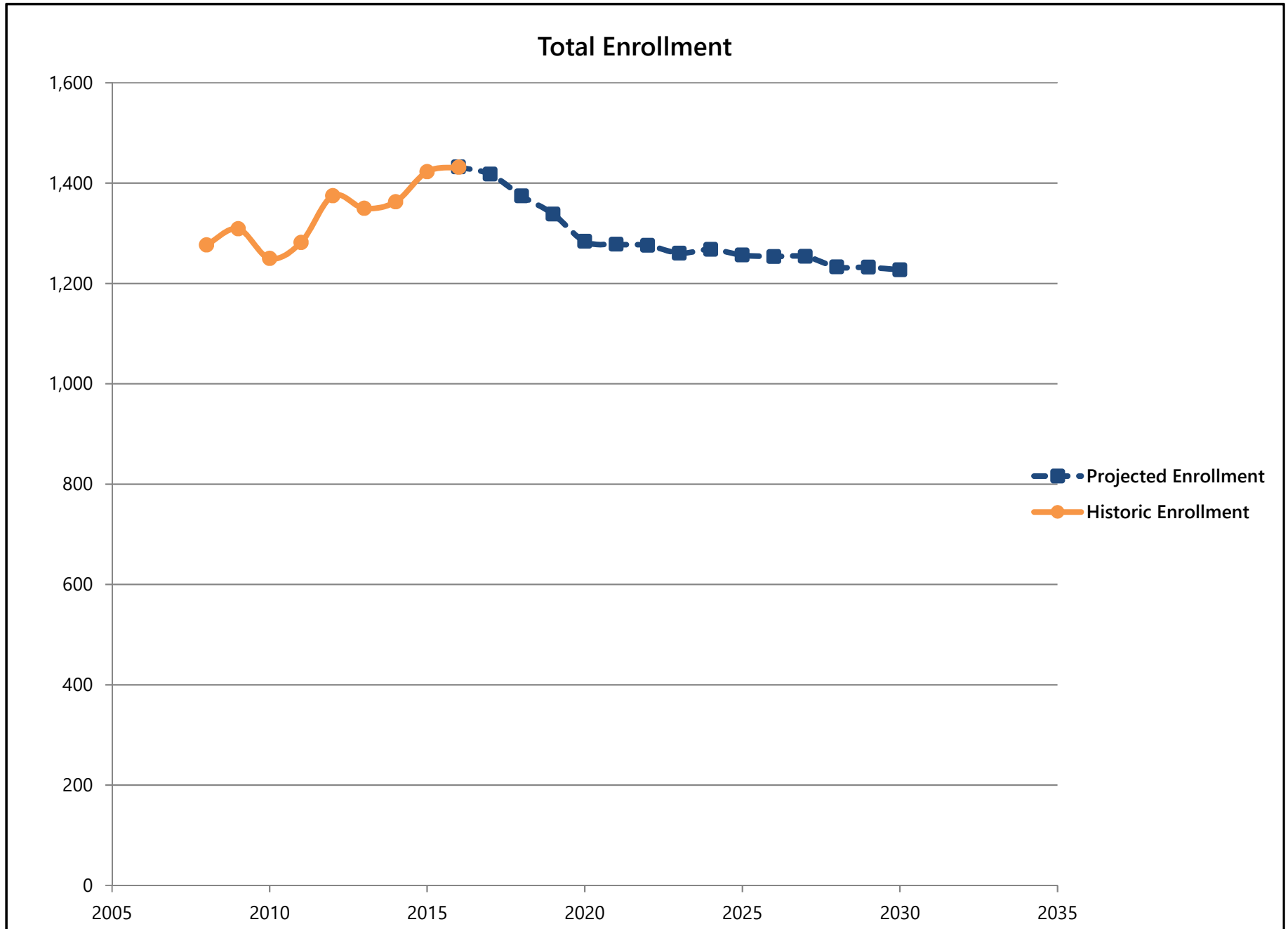
Grade Enrollment Projection

| | 9 Grade | 10 Grade | 11 Grade | 12 Grade | Total |
|---------|---------|----------|----------|----------|-------|
| 2016-17 | 396 | 390 | 324 | 322 | 1,432 |
| 2017-18 | 413 | 341 | 337 | 326 | 1,418 |
| 2018-19 | 365 | 359 | 301 | 349 | 1,374 |
| 2019-20 | 380 | 321 | 323 | 314 | 1,338 |
| 2020-21 | 365 | 321 | 275 | 323 | 1,284 |
| 2021-22 | 373 | 324 | 291 | 290 | 1,278 |
| 2022-23 | 377 | 320 | 284 | 296 | 1,276 |
| 2023-24 | 360 | 327 | 282 | 292 | 1,260 |
| 2024-25 | 380 | 311 | 288 | 289 | 1,268 |
| 2025-26 | 371 | 324 | 270 | 291 | 1,257 |
| 2026-27 | 357 | 326 | 290 | 281 | 1,254 |
| 2027-28 | 363 | 308 | 286 | 297 | 1,254 |
| 2028-29 | 347 | 316 | 273 | 296 | 1,233 |
| 2029-30 | 364 | 303 | 281 | 283 | 1,232 |
| 2030-31 | 362 | 313 | 265 | 287 | 1,227 |
| 2031-32 | 355 | 315 | 277 | 274 | 1,220 |
| Change | -41 | -75 | -47 | -48 | (212) |

Wilson High 2016-17 School Enrollment Projections



Wilson High 2016-17 School Enrollment Projections



Methodology for Standard 15-Year School Enrollment Projections

This document describes the grade-progression ratio method used by Cooper Center demographers in developing standard fifteen-year school enrollment projections.

Input Data

School enrollment projections require the use of birth data and fall membership counts. Birth data are obtained from the Virginia Center for Health Statistics, reported by county. To ensure that the birth data have been assigned to the correct localities, Cooper Center demographers geocode the residence address of each birth mother and then assign each birth to the locality of residence. Future birth counts are projected based on the division's current age specific fertility rate and the Cooper Center's projected child bearing aged population.

The second element of input data—historical and current fall membership counts—are obtained from the school division or from the Virginia Department of Education.

Grade-Progression Ratio Method

The grade-progression ratio captures the school enrollment patterns of a cohort of children as they move forward in time and progress from grade to grade. Grade progression ratios provide detail of how many students advance into the next grade from the lower grade one year before and are determined by dividing the number of students in a particular grade by the number of students from the previous grade in the previous school year. For example, the 2nd grade/1st grade-progression ratio is found by dividing the current number of 2nd grade students by last year's number of 1st grade students. (In the case of kindergarten, the ratio is the actual enrollment in kindergarten divided by births five years prior). A ratio larger than 1 means there are additional students coming in to the school who were not enrolled in the previous grade. A ratio smaller than 1 means students may be transferring to private school or home school, dropping out, or families with school children are moving away from the community, among other reasons.

Because grade-specific progression ratios can fluctuate considerably from one year to another, it is important to generate and evaluate multiple sets of grade-progression ratios to minimize the "noise". The Cooper Center does this by creating three- and five-year average ratios based on data from those most recent years, along with the single-year ratio of the latest year. All three grade-progression ratios are applied to the current school enrollment data to obtain forecasts for the following year, which then become the basis for projecting enrollment the year after. The projections based on single- and multiple-year grade progression ratios are compared, and the middle series is selected as most probable.

A Note about Projections

School enrollment projections are based in part on past student enrollment trends. Since student enrollment can change, enrollment projections should be updated annually to account for any changes in enrollment trends.

Please contact Hamilton Lombard at (434) 982-5698, or hl2qs@virginia.edu, if you have any questions.