



## MEMORANDUM

**To:** Dana Rosenbach  
Superintendent  
North Mason School District

**Date:** June 30, 2022

**Project No.:** F1771.01.003

**From:** Benjamin Maloney  
Project Manager/Senior Demographer

**Re:** 2022–23 to 2031–32 Enrollment Forecasts Report—North Mason School District

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At the request of the North Mason School District (NMSD/District), FLO Analytics (FLO) prepared forecasts of future student enrollment for grades kindergarten (K) through 12 for school years 2022–23 to 2031–32. The study was completed through three main tasks: (1) student enrollment assessment, (2) demographic and land use analyses, and (3) student enrollment forecasting. The resulting forecasts are reported at various levels of geography and from different perspectives of enrollment (see the Forecast Perspectives section). District-wide enrollment forecasts represent the total number of students living within and outside the district boundary and attending district schools and programs. These forecasts are provided as a district-wide total and per-grade group. FLO also prepared more granular building/program attendance forecasts that include district-wide totals per individual grade and the number of students anticipated to attend each of the district’s elementary, middle, and high schools/programs.

### Student Enrollment Assessment

To better understand recent enrollment trends, FLO analyzed historical (2016–17 to 2020–21) and current fall membership included within the enrollment reports (headcount) provided by the District as well as the NMSD October 2021–22 student information system (SIS). FLO evaluated historical grade progression ratios (GPRs), participation in special or nontraditional programs, demographic characteristics of the student body (e.g., residence in single-family [SF] or multifamily [MF] housing), and differences in enrollment based on residence compared to building attendance (i.e., transfer rates). All students in the NMSD SIS data (except for students attending preschool and full-time Running Start) were included in the analyses and enrollment forecasts. This task also included mapping the existing attendance area (AA) configurations (Figure 1) and the distribution of the student body across the district and surrounding area based on student residences (Figure 2).

Figure 3 shows the district-wide enrollment per individual grade based upon the enrollment reports provided to FLO by NMSD. District-wide enrollment steadily increased between 2016–17 (2,145 students) and 2019–20 (2,315 students). Primarily due to the effects of COVID-19, enrollment declined markedly in 2020–21, decreasing by 135 students. Grades K, 1, 5, 7, 9, and 11–12 all experienced a contraction in enrollment from the prior year. Grades experiencing a decline in 2020–21 averaged 25 fewer students. The largest declines were experienced in grades 5 and 9 with 44 and 46 fewer students, respectively. In contrast, enrollment in grades 2–4, 6, 8, and 10 increased modestly in 2020–21 (an average of 6 additional students). District-wide enrollment expanded in

2021–22 (68 additional students) with grades K–1, 3–5, 7, 9, and 11–12 experiencing an increase. Grades experiencing an increase in 2021–22 averaged 16 additional students, primarily due to relatively larger increases in middle (grade 7) and high school enrollment. Enrollment in grades 2, 6, 8, and 10 declined in 2021–22 (an average 19 fewer students) and are associated with cohorts that experienced a comparatively large contraction in 2020–21 enrollment.

Figure 4 tabulates enrollment by school. Elementary school (ES; grades K–5) enrollment increased between 2016–17 and 2019–20 with the addition of 78 students. Over the same period, enrollment at middle school (MS; grades 6–8) and high school (HS; grades 9–12) expanded by 65 and 25 students, respectively. Concerns regarding COVID-19 likely contributed to enrollment declines at ES (154 fewer students), MS (67 fewer students), and HS (149 fewer students) in 2020–21.

Despite further uncertainty due to COVID-19, students began to return to the District in 2021–22, with all grade groups experiencing an increase in enrollment over 2020–21. ES enrollment increased by 87 students, while MS and HS enrollment increased by 26 and 88 students, respectively. The substantial return of students to AA schools can be partially explained by North Mason Online (NMO)—a program that was in place for only the 2020–21 school year. The majority of NMO students (182 students) returning to District AA schools, along with an influx of new students, led to an increase of 201 students at District AA schools and a net gain of 68 students overall.

Based on FLO’s analysis of district-wide K–12 transfers during the 2021-22 school year (Figure 5), a total of 188 students who live outside the district boundary transferred into district schools, representing 8.4 percent of enrollment. Overall, 194 students residing within the district boundary transferred to a school or program different from their residence school, which is based on the AA in which they live. This amounts to a district-wide intra-district transfer rate of 9.4 percent. Transfers occur within all grade groups, but the largest percentage of total transfers occurs within the 9-12 grade group (25.5%).

As depicted in the residence-attendance matrixes (Figures 6 through 8) per grade group, transfer rates also differ per school/program. For instance, transfer-out rates for ES AAs range from 7.8 percent (Sand Hill ES) to 11.0 percent (Belfair ES). From the perspective of building attendance, ES transfer-in rates range from 12.2 percent (Sand Hill ES) and 10.7 percent (Belfair ES). The Hawkins MS transfer rates are fairly even with a transfer-out rate of 4.6 percent and a transfer-in rate (from out-of-district) of 4.8 percent. Similarly, North Mason HS exhibits a transfer-out rate of 12.9 percent and transfer-in rate (from out-of-district) of 13.3 percent. Schools with higher transfer-in rates are typically due to a preference in programming and/or location. These transfer rates can help reveal patterns of student choice or quantify NMSD policies. For instance, if a particular school with a high transfer-in rate began to experience overcrowding, NMSD may reconsider transfer policies or programming in order to alleviate enrollment issues.

## Demographic and Land Use Analyses

To incorporate overarching factors that underpin student enrollment, FLO reviewed and analyzed historical, current, and projected demographic characteristics of the region; trends of population change over time; current land use policies; and anticipated residential development.

To better understand current land use based on the aforementioned data, as well as the potential for change, FLO conducted interviews with planners from Mason County to discuss foreseeable residential growth (or decline) in the district through the 2031–32 forecast horizon. Key development data acquired through these meetings are presented in Figures 9–11. Figure 9 reports

the estimated number of housing units by SF and MF categories over the next two five-year periods, based on available data from Mason County. Figure 10 depicts the locations of SF and MF developments that are currently in active construction or expected to finalize construction by 2031. Figure 11 includes details of acquired residential development data such as data source, housing unit type, anticipated number of units per time period, and assorted planner notes where available.

Certified April 1, 2021 population estimates prepared by the Washington Office of Financial Management (OFM) report the unincorporated Mason County 2021 population to be at 55,340, an increase of 8.8 percent over the 2011 population estimate of 51,245. Over the past three years, the population of unincorporated Mason County increased at a rate of 0.9 percent per year on average. Over the same time period, the area of unincorporated Mason County that is located within the district, increased at an average of 1.5 percent per year. In response to the recent growth, County planners indicated that they expect a relatively substantial level of residential construction during the next ten years. Planned residential construction obtained from County planners include, but are not limited to, 145 SF units (Olympic Ridge) in Belfair off of NE WA-3, 126 SF units (Allyn Plat) near the intersection of E Stellegren Road and E Blackwell Street, and 268 MF units (Sunset View Apartments) in Belfair, near the Olympic Ridge SF development.

Housing type is an important indicator of the number of students a housing unit may yield. For instance, on average, SF housing units generate more students per unit than MF housing units. Factors that contribute to student generation rates (or yields) include the size of the housing units, the number of bedrooms, housing costs, and neighborhood demographics. We assessed residential housing units throughout the district and determined that, of students enrolled in district schools in 2021–22, 94.7 percent reside within SF housing units, 2.4 percent in MF housing units, and 2.9 percent in unspecified housing units that we were unable to classify as SF or MF.

FLO defines SF and MF housing in accordance with the U.S. Census American Community Survey Subject Definitions and other sources of demographic research and population forecasts (e.g., Portland State University Population Research Center). SF housing includes one-unit structures that are fully detached from other housing, as well as attached dwellings (e.g., row houses and townhouses). In the case of attached units, to be classified as an SF structure, each unit must be separated from the adjacent unit by a ground-to-roof wall, and units must not share heating/air-conditioning systems or utilities or utilities. MF housing is defined as residential buildings containing two or more housing units that do not have ground-to-roof wall and/or have common facilities (attic, basement, heating, plumbing, etc.). Average student generation rates (SGR) vary by geographic location in the district and by housing subtypes (e.g., SF detached, townhome, duplex, multiunit apartments). Depending on the granularity of information available, we estimate SGRs per residential development or municipality within the district. Based on currently available residential housing data, average student generation rates within the district were estimated to be 0.52 students per SF housing unit and 0.39 students per MF housing unit (Figure 12).

The number of students enrolled in a district is largely influenced by the number of school-aged children residing within the district. FLO compares historical Washington State Department of Health's (DOH) birth data (i.e., live births within the county) to historical K class sizes to determine annual K percent of births values (i.e., the number of kindergarteners who enrolled with the District divided by the number of live births in the county five years prior). These values, combined with age-group-specific population projections of childbearing-aged women residing in the county, allow us to forecast the number of anticipated births in the county, and thus the number of kindergarteners anticipated in future school years. Figure 13 depicts the number of live births in Mason County, K class sizes that include all enrolled students, and resulting ratios of kindergarteners to births,

including both historical values and FLO forecasts. Discussion of the birth and kindergarten forecast (Figure 13) is located in the Births to Kindergarten section of this report.

The progression of students from one grade to the next is a significant determinant of future enrollment, and therefore plays a significant role in FLO's forecasting process. FLO assesses how cohort sizes change over time by calculating GPRs—the ratio of enrollment in a specific grade in a given year to the enrollment of the same age cohort in the previous year. For instance, when 150 kindergarteners in 2017 become 140 1st graders in 2018, the GPR is 0.93. GPRs quantify how cohort sizes change as students progress to subsequent grades by considering that not all students advance to the next grade and that new students join existing cohorts. A GPR value greater than 1 indicates that the student cohort increased in size from one grade to the next. Such a result may be due to students moving into the district or students choosing to transfer into the district from other districts or nonpublic schools. Conversely, a GPR value less than 1 indicates that the student cohort decreased in size from one grade to the next. This may be due to students moving out of the district, students choosing to transfer to other districts or nonpublic schools, or students not advancing to the next grade.

Figure 14 depicts the GPRs for all K–12 students enrolled in the District from 2016–17 to 2021–22. With the exception of a handful of transitions (that is, from 2017–18 to 2019–20), the majority of GPRs were at or above 1.00, indicating an increase in cohort size as the class advanced from one grade to the next. The two- and three-year GPR averages incorporate the 2020–21 and 2021–22 GPRs and were not directly used in the forecasting process. In order to mitigate the irregular effect of COVID-19 on enrollment and the transition of students from one grade to another (2019–20 to 2020–21 and 2020–21 to 2021–22), a set of forecast GPRs was developed to incorporate into the district-wide forecasting process. District-wide GPRs remained stable between 2017–18 and 2019–20 with an average of 1.04; indicating steady growth in enrollment between 2016–17 and 2019–20. GPRs declined substantially in 2020–21 (an average of 0.95), in response to a contraction in district-wide enrollment, largely due to the effects of COVID-19. From the grade group perspective, the HS grade group experienced the largest decline in 2020–21, followed by MS. As a result of new enrollments and students returning to the District, the GPRs for nearly all transitions were higher in 2021–22 than in 2020–21, collectively looking more like pre-pandemic GPRs. As further discussed in the COVID-19 Assumptions section, the forecasted GPRs for the medium (preferred) forecast scenario assume a return to pre-pandemic levels as a starting basis and were then adjusted slightly to account for an expected increase in enrollment compared to recent years in response to an anticipated higher rate of in-migration due to new housing.

## Enrollment Forecasts

### Summary

- Between the 2021–22 and 2031–32 school years, District-wide enrollment (headcount) is forecasted to increase from 2,248 to 2,673, or by 18.9 percent. Figure 15 shows the annual district-wide building attendance forecasts for the low-, medium- (preferred), and high-growth scenarios. All subsequent figures focus on the medium-growth scenario, as it represents the most likely enrollment outcomes based on currently available data and the FLO analysis. The COVID-19 Assumptions section of this report discusses assumptions for the low-, medium- (preferred), and high-growth scenarios.

- Figure 16 disaggregates the annual district-wide building attendance forecasts by grade group.
  - K–5 enrollment from 953 to 1,104 (15.8 percent increase)
  - 6–8 enrollment from 499 to 586 (17.4 percent increase)
  - 9–12 enrollment from 796 to 983 (23.5 percent increase)
- Figure 17 provides annual district-wide building attendance per individual grade. Figure 18 provides annual forecasts of students attending each of the ES, MS, and HS buildings/programs. While there is expected to be some year-to-year variation, it is anticipated that district-wide enrollment will steadily increase through the forecast period. FLO expects 263 additional students by 2026–27 followed by 119 additional students over the latter half of the forecast period. The expectation of slower growth over the second half of the forecast period is primarily due to the expectation of a series of smaller cohorts (2022–23 through 2024–25) advancing through the district.
- Figures 19 and 20 provide annual district-wide building attendance forecasts per individual grade for the low- and high-growth scenarios, respectively. The COVID-19 Assumptions section of this report discusses assumptions for the low-, medium- (preferred), and high-growth scenarios.

## Detailed Results

### Births to Kindergarten

The relationship between the number of births occurring in the district and future K class sizes is vitally important to forecasting student enrollment. An increasing number of births will typically correlate to increases in enrollment and vice versa. Figure 13 shows the relationship between K enrollment and related births five years prior. Mason County births declined between 2012 (699 births) and 2013 (594 births) before steadily increasing through 2016 (669 births). After which, county births gradually declined through 2019 (620 births) before a stark increase in 2020 (669 births). In response, K enrollment remained stable between 2017 and 2019. K enrollment declined in 2020 (156 students), in response to concerns surrounding COVID 19, before a pronounced increase in 2021–22 (171 students). In response to the decline in births from 2017 to 2019, FLO expects a gradual decline in K enrollment between 2022 (170 students) and 2024 (164 students). K enrollment is expected to expand in 2025 (177 students), in response to an increase in births in 2020. As a result of the economic uncertainty surrounding COVID-19, FLO anticipates births to have declined again in 2021 (653), leading to the expectation of a decline in K enrollment (4 fewer students) during the 2026–27 school year. With the current indication that the impacts surrounding COVID-19 will continue to gradually alleviate, along with an expanding population of women of childbearing age, FLO anticipates that births will steadily increase between 2022 (664) and 2026 (699). This will lead to a steady expansion of K enrollment between 2027–28 (176 students) and 2031–32 (185 students).

### District-Wide Enrollment Forecasts

As noted in Figures 15 and 17, district-wide enrollment is forecasted to increase from 2,248 in 2021–2022 to 2,673 in 2031–32. While there is some year-to-year variation, primarily due to student cohorts entering and exiting the system, FLO expects an average of 42 additional students per year through 2031–32. This growth is due to the expectation that the population within NMSD will continue to expand at recent rates for the foreseeable future, in conjunction with forecast GPRs

that are generally above 1.00. At the same time, FLO anticipates that births within the county and district will steadily increase between 2022 and 2026, contributing to the expectation that incoming K cohorts will steadily increase in enrollment beginning in the 2027–28 school year and then continue through at least 2031–32.

From the grade group perspective (Figures 16, 17, and 18), ES enrollment is expected to increase by 79 students between 2021–22 and 2026–27 followed by 72 additional students between 2026–27 and 2031–32. ES enrollment growth over the second half of the forecast is primarily due to a series of smaller cohorts advancing through the grade group. Similarly, MS enrollment is expected to increase by 41 (2021–22 through 2026–27) and 46 (2026–27 through 2031–32) students, respectively. More substantial growth is expected within the HS grade group, particularly between 2021–22 and 2026–27 (143 additional students). This is primarily due to the expectation of a series of larger cohorts entering the grade group in both 2025–26 and 2026–27. Additional enrollment increases are expected over the second half of the forecast period; albeit at a slower rate, as FLO anticipates 44 additional HS students between 2026–27 and 2031–32.

## METHODS

### Demographic Terms

While both projections and forecasts represent future enrollment, the methods of prediction differ. Enrollment projections are based on past and current patterns of change and the expectation that these trends will continue. For example, historical enrollment data for an ES shows an increase from 250 students in 2017 to 265 students in 2018 and to 275 students in 2019. The average rate of change observed over the past three years could be used to prepare a projection of enrollment in 2020, assuming that the trend of growth continues into the future. In other words, a projection does not predict future trends or what will actually occur, but rather indicates what would happen if the past and current trends that underpin the projection continue into the future. In this sense, projections are strictly mathematical.

In comparison, forecasts are based on past and current patterns of change, but also incorporate predictions of how trends may change in the future. So that practitioners may evaluate a range of potential outcomes, it is common for multiple sets of projections to be prepared, capturing a range of scenarios, such as decreasing enrollment due to declining fertility rates or rapid enrollment growth due to residential development and in-migration. Sets of projections differ based on the modification of one or more variables, including birth rates, student generation or yield rates per housing type, and rates of residential housing development. Forecasts represent the set of projections that is deemed most likely to materialize, based on the analysis and decision-making of practitioners. In this sense, forecasts represent the art of the science of demography.

### Forecast Perspectives

There are two basic types of student enrollment forecasts:

1. Building/program attendance forecasts represent the number of students expected to attend a specific school building or program. Districts often refer to these values as “actual” enrollments or the number of “students in desks.” Building/program attendance forecasts account for out-of-district students, intra-district transfers, special programs, etc.

2. Residence forecasts represent the number of students expected to reside in a certain region, whether it be the district as a whole or individual attendance areas. Residence forecasts are generally more accurate than building/program attendance forecasts because the former are not subject to the variability of student choice, school district policies, movement of program locations, and constraints on inter- and intra-district transfers imposed by building capacities.

Residence forecasts are rooted in student location; thus, with the proper granularity, they can be allocated to boundaries other than the current attendance areas. For instance, FLO's residence forecasts are produced at the geographic level of U.S. Census block group, of which there are 21 in the District. These small-area forecasts can be accurately aggregated to larger geographies, such as prospective attendance area boundaries. Despite these advantages, residence forecasts do not always suit district needs.

Building/program attendance forecasts are often more useful, albeit less reliable, because they reflect realized enrollment by capturing the inter- and intra-district transfers. At the district-wide level, the building/program attendance forecasts are always higher than the forecast of students residing in the attendance areas. This is due to the segment of students who live outside the district boundary but attend district schools. When comparing building/program attendance and residence-based forecasts for an individual school, it is important to recognize that there will be some variation between each.

## Forecasting Methodologies

### Initial Steps

FLO's first step in preparing enrollment forecasts is to perform a detailed assessment of historical enrollment trends (i.e., 2016–17 to 2021–22), as well as the geographic distribution of the 2021–22 student body. The results of this enrollment assessment feed into FLO enrollment forecasts, which use a combination of the demographic cohort-component model and the enrollment rate method. In the former, the components of population change (i.e., births, deaths, and migration) are used to forecast population for the district by age and sex, while the latter advances each age cohort through successive grade levels.

### Enrollment Rate Method

In terms of linking historical enrollment trends to future enrollment forecasts, the enrollment rate method is first used to assess the percentage of five-year-old children living within the district boundary who were enrolled in K at district schools in the 2020–21 school year. This is referred to as the K enrollment (or capture) rate. Separate enrollment rates are similarly computed for each of the other age or grade cohorts present in 2021–22 (i.e., 1st through 12th grades). These cohort-specific enrollment rates—modified based on certain assumptions (e.g., dropout rates in HS)—are the primary basis for determining the rate at which each given cohort will be enrolled in the future and can be thought of as a means of calibrating the future enrollment forecasts. For example, the 2021–22 3rd grade enrollment rate of eight-year-old children heavily informs the 8th grade capture rate of the projected district population of 13-year-olds in 2026–27.

This is a widely prescribed forecasting method and is especially useful in one-year forecasts and districts without much year-to-year cohort variability. With minor refinements, FLO forecasts average the K–5 capture rates for the 2021–22 cohorts and apply this to new cohorts matriculating into K in the 2022–23 school year and later.

## Projecting Net Migration

Another way historical enrollment data are used is by leveraging knowledge of the geographic distribution of the 2021–22 student population to calculate enrollment rates at the subdistrict level. To do this, FLO divided the district into regions (i.e., subdistricts), each with a sufficient number of students at each grade level to permit statistical calculations. These subdistrict, cohort-specific enrollment rates were applied as a baseline to new district school-age children projected to be added because of net in-migration over the next five years. Note that the future migration rate and population projections used, which were largely informed by Esri's 2021/2026 U.S. Demographics data, were prepared at an even finer geographic resolution (U.S. Census block groups) and at units that are generally socioeconomically distinct from each other.

The Esri 2021/2026 U.S. Demographics data set is prepared using recent growth trends derived from U.S. Census and state/local sources. In tracking growth, the data set accounts for regional land use and comprehensive plans, publicly available development data (e.g., permits), housing inventory, and U.S. Postal Service carrier route additions. Prior to use, FLO reviews these data and confirms proper assumptions and incorporation of local data sources, particularly with respect to any publicly available residential development data, making modifications as warranted.

The benefit of this approach is that the geographic analysis performed allows for a granular forecasting of how many of the eligible new children in the district over the next five years will enroll in district schools, which is expected to be more accurate than simply using district-level rates to predict capture. This is key, as migration often plays a larger role in future enrollment levels than any other factor (such as gradual changes in birth rate) but migration can vary greatly within a region.

At the end of each five-year window, the attendance-area numbers are modified as needed to ensure that they are consistent with district-wide numbers, which are computed using only district-wide population and historical enrollment numbers. In this way, the district-wide numbers control the attendance-area-level numbers.

## Longer-Term (Ten-Year) Forecasts

FLO's ten-year forecasts assume that recent trends in U.S. Census-tract-level migration patterns, which are similar to those between 2021–22 and 2026–27, hold steady through the forecast period. Similar assumptions are estimated for the buildable land inventory, and their build-out rates within district boundaries.

Births from 2021 to 2026, which inform K classes beginning with the 2026–27 school year, were projected based on a review of historical live births to mothers residing within Mason County, the forecasted population of women of childbearing age throughout Mason County, and state trends in fertility.

For the capture rate, FLO used the grade-specific rates computed from the 2021–22 student enrollment assessments. Also, as with the shorter-term projections, FLO enforced a set of forecast GPRs at the district level.

## Assumptions Regarding the Effects of COVID-19

Though the District has already experienced the effects of enrollment declines in 2020–21, FLO expects additional impacts from COVID-19 to surface over the coming years (i.e., a decline in 2021 births and 2026–27 K enrollment). This is addressed through two additional forecast scenarios: a high-growth scenario and a low-growth scenario. Where the preferred (medium-growth) scenario

assumes a gradual increase in births, a K percent of birth ratio that is in line with pre-pandemic trends, a moderated decline in 2021 births, and is consistent with known housing construction, the high-growth scenario assumes an accelerated pace of housing construction, increased in-migration, additional 2021–26 births, elevated GPRs, and students who did not enroll in 2020–21 and 2021–22 gradually returning to the District to some degree. The low-growth scenario assumes the opposite of the high-growth scenario (i.e., lower in-migration, a steeper 2021 birth decline, fewer 2021–26 births, etc.). The low-growth scenario represents the least likely forecast outcome, but it remains a possibility, especially if births continue to lag past the downturn forecasted in 2021. The estimated SGRs of prospective residential developments are not altered during the preparation of the low- and high-growth scenarios.

Although many students returned to NMSD in 2021–22, enrollment remained lower than in 2019–20. While we can speculate, data are simply not available to tell where all these students went, or why. As reported by the National Center for Education Statistics, public student enrollment nationally declined by three percent in 2020–21

([https://nces.ed.gov/whatsnew/press\\_releases/06\\_28\\_2021.asp](https://nces.ed.gov/whatsnew/press_releases/06_28_2021.asp)). Some of the students who have not returned to the public school system may also have chosen alternative pathways of education including homeschooling, private schools, and virtual schools.

Finally, regarding 2021 births, as recently reported by the Brookings Institution (<https://www.brookings.edu/research/early-evidence-of-missing-births-from-the-covid-19-baby-bust/>), complete data for the year are not yet available. While national January and February 2021 monthly totals were significantly lower than the same months in 2020, the March through June 2021 monthly totals have been higher than in 2020. However, data are not yet available on births that would have been conceived during the 2020–21 winter wave of the COVID-19 pandemic. While FLO forecasted a drop in total Mason County births from 669 in 2020 to 653 in 2021 (a 2.5 percent decline), FLO assumes little to no impact from COVID-19 on births in 2022 births and future years. This assumption is influenced, in part, by the CDC's recent Vital Statistics Surveillance Report (<https://www.cdc.gov/nchs/data/vsrr/vsrr020.pdf>) that shows a 1 percent nationwide increase in 2021 general fertility rate. More importantly, FLO has considered births in the context of the sustained, substantial decline in general fertility rates since the Great Recession of 2008. FLO forecasted an increase in the number of births due to the anticipated growth in the population of women of child-bearing age in the district in conjunction with the expectation of a modest increase in fertility rates for most age groups between 15–44 (specifically, the 15–19, 24–29, and 35–39 age groups).

## Data Sources

FLO used the following data sources to inform student enrollment forecasts:

- NMSD 2016–17 to 2021–22 enrollment reports (headcount), SIS (October 2021), attendance areas, district boundary, and school locations
- Washington State Department of Health birth data
- Washington State Office of Financial Management population estimates
- ESRI 2021/2026 U.S. Demographics data
- FLO-conducted interviews with Mason County planning department
- County parcels, zoning, comprehensive plans, specific area plans, and building permits
- U.S. Census Bureau enumerations and estimates
- Washington State Department of Ecology Urban Growth Areas and City Limits




## Accuracy

Enrollment projections and forecasts are expected values based on assessment of current and past data, and as such, should be considered a planning tool, rather than steadfast numbers for the allocation of future resources. Unlike measurable data, such as the results of a survey, projections and forecasts do not allow for the estimation of a confidence interval to measure accuracy. The best way to measure error is to compare actual enrollment with previously prepared projections or forecasts that were conducted using similar data and methodologies. Finally, when considering confidence and accuracy, the appropriate use of projections and forecasts includes an understanding that there is likely to be some degree of variation from the anticipated values. It is important that stakeholders monitor the changing conditions that will affect future populations, and that projections or forecasts be updated either at a regular frequency, or when deviation of actual enrollment from the projections or forecasts is significant and/or develops into a sustained trend.



# North Mason School District

Fig 1 - District Overview



**School Location**

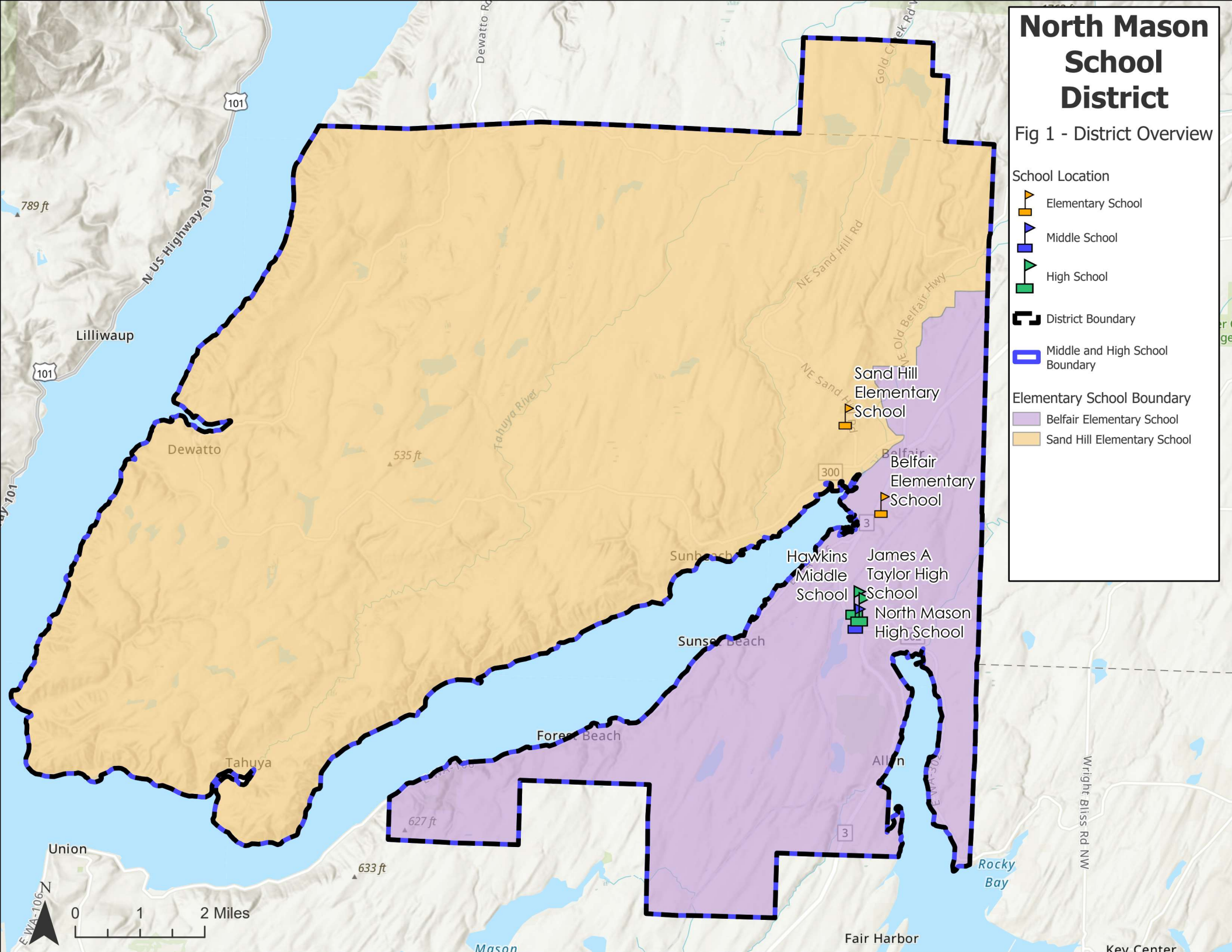
-  Elementary School
-  Middle School
-  High School

**District Boundary**

-  District Boundary
-  Middle and High School Boundary

**Elementary School Boundary**

-  Belfair Elementary School
-  Sand Hill Elementary School



# North Mason School District

Fig 2 - Student Density

**School Location**

- Elementary School
- Middle School
- High School

**District Boundary**

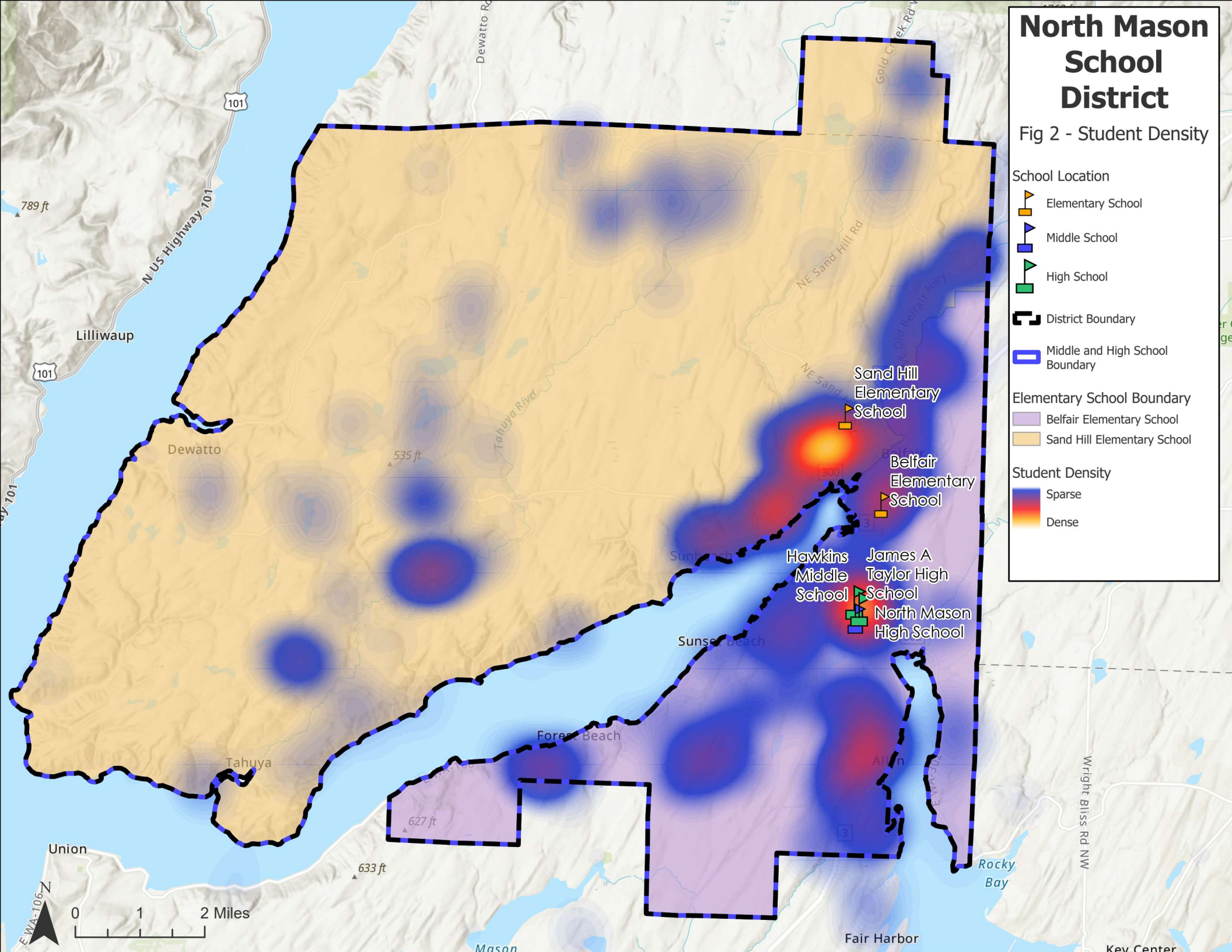
**Middle and High School Boundary**

**Elementary School Boundary**

- Belfair Elementary School
- Sand Hill Elementary School

**Student Density**

- Sparse
- Dense



**Figure 3: Historical and Current Enrollment per Grade**

**District-wide Totals**

Grade	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22
K	143	178	178	172	156	171	28
1	136	142	175	180	160	162	26
2	175	150	146	171	175	154	-21
3	153	168	154	152	159	162	9
4	154	154	172	143	147	159	5
5	155	157	160	176	132	145	-10
6	157	151	176	169	170	150	-7
7	153	160	156	186	155	182	29
8	143	152	165	165	176	167	24
9	185	185	187	222	176	210	25
10	206	197	205	201	212	187	-19
11	180	193	186	185	176	202	22
12	205	197	182	193	186	197	-8
<b>District Total</b>	<b>2,145</b>	<b>2,184</b>	<b>2,242</b>	<b>2,315</b>	<b>2,180</b>	<b>2,248</b>	<b>103</b>

North Mason School District October 2016–17 to 2021–22 enrollment (headcount) per grade. Enrollment values exclude full-time Running Start and preschool. The lowest and highest enrollment values per grade are highlighted blue and orange, respectively. Sparklines are colored blue, gray, or orange to illustrate 5-year decline, stasis, or growth. Abrupt changes in enrollment are likely due to deliberate student placement or attendance boundary changes.

**Figure 4: Historical and Current Enrollment per School**

**Building Attendance (K-12)**

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22
Belfair ES	453	487	504	468	380	428	-25
Sand Hill ES	463	462	481	526	460	499	36
Hawkins MS	452	462	494	517	450	476	24
James A Taylor HS	35	47	34	40	48	43	8
North Mason HS	728	718	711	748	591	684	-44
HomeLink	14	8	18	16	69	118	104
North Mason Online	0	0	0	0	182	0	0
<b>K-12 Total</b>	<b>2,145</b>	<b>2,184</b>	<b>2,242</b>	<b>2,315</b>	<b>2,180</b>	<b>2,248</b>	<b>103</b>

North Mason School District October 2016–17 to 2021–22 enrollment (headcount) per school. Enrollment values exclude full-time Running Start and preschool. The lowest and highest enrollment values per grade are highlighted blue and orange, respectively. Sparklines are colored blue, gray, or orange to illustrate 5-year decline, stasis, or growth. Abrupt changes in enrollment are likely due to deliberate student placement or attendance boundary changes.

**Figure 5: 2021–2022 District-wide Transfer Rates**

Grade Group	Enrollment In-District	Enrollment from Out-of-District	Enrollment Total	Transfers Intra-district	Transfers Total	Transfer Rate Intra-district	Transfer Rate from Out-of-District	Transfer Rate Total
<b>K-5</b>	904	49	953	84	133	9.3%	5.1%	14.0%
<b>6-8</b>	475	24	499	22	46	4.6%	4.8%	9.2%
<b>9-12</b>	681	115	796	88	203	12.9%	14.4%	25.5%
<b>District-wide</b>	<b>2,060</b>	<b>188</b>	<b>2,248</b>	<b>194</b>	<b>382</b>	<b>9.4%</b>	<b>8.4%</b>	<b>17.0%</b>

North Mason School District October 2021–22 SIS enrollment. Enrollment values exclude full-time Running Start and preschool. Residence counts are based on current attendance area boundaries, as of the 2021–22 school year.

**Figure 6: 2021–2022 Elementary School Enrollment Patterns  
Residence-Attendance Matrix**

<b>School of Attendance Attendance Area</b>	<b>Residence Count</b>	<b>Belfair ES</b>	<b>Sand Hill ES</b>	<b>HomeLink</b>	<b>Capture Rate</b>	<b>Transfer Out Student Total</b>	<b>Transfer Out Rate</b>
<b>Belfair ES</b>	429	382	33	14	89.0%	47	11.0%
<b>Sand Hill ES</b>	475	25	438	12	92.2%	37	7.8%
<b>K-5 Subtotals</b>	904	407	471	26	--	84	--
<b>Out of District</b>	49	21	28	0	--	49	--
<b>K-5 Totals</b>	953	428	499	26	--	133	--
<b>Transfer In Student Total</b>	133	46	61	26	--	--	--
<b>Transfer In Rate</b>	14.0%	10.7%	12.2%	100%	--	--	--

North Mason School District October 2021–22 SIS enrollment. Enrollment values exclude full-time Running Start and preschool. Residence counts are based on current attendance area boundaries, as of the 2021–22 school year.

**Figure 7: 2021–2022 Middle School Enrollment Patterns  
Residence-Attendance Matrix**

<b>School of Attendance Attendance Area</b>	<b>Residence Count</b>	<b>Hawkins MS</b>	<b>HomeLink</b>	<b>Capture Rate</b>	<b>Transfer Out Student Total</b>	<b>Transfer Out Rate</b>
<b>Hawkins MS</b>	475	453	22	95.4%	22	4.6%
<b>6-8 Subtotals</b>	475	453	22	--	22	--
<b>Out of District</b>	24	23	1	--	24	--
<b>6-8 Totals</b>	499	476	23	--	46	--
<b>Transfer In Student Total</b>	46	23	23	--	--	--
<b>Transfer In Rate</b>	9.2%	4.8%	100%	--	--	--

North Mason School District October 2021–22 SIS enrollment. Enrollment values exclude full-time Running Start and preschool. Residence counts are based on current attendance area boundaries, as of the 2021–22 school year.

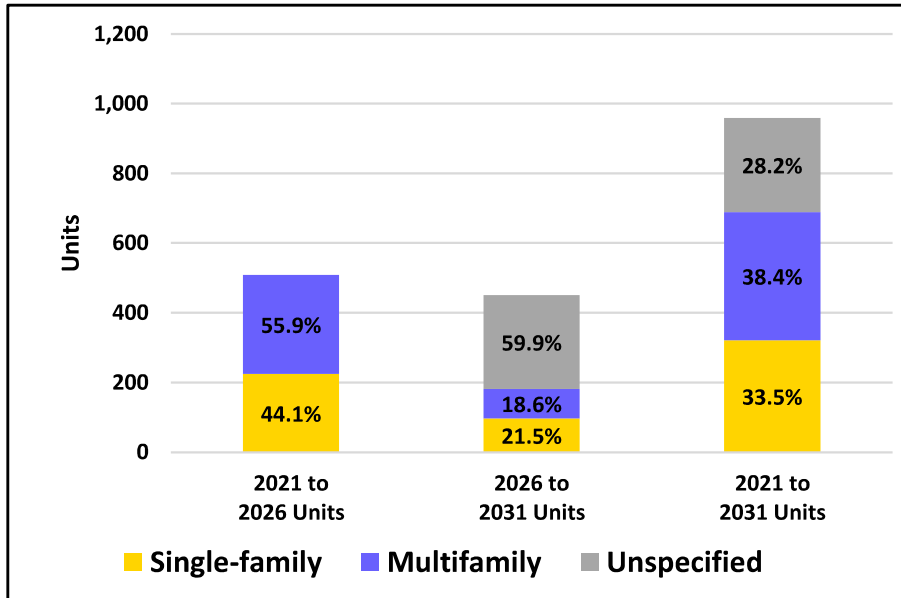
**Figure 8: 2021–2022 High School Enrollment Patterns  
Residence-Attendance Matrix**

<b>School of Attendance Attendance Area</b>	<b>Residence Count</b>	<b>North Mason HS</b>	<b>HomeLink</b>	<b>James A Taylor HS</b>	<b>Capture Rate</b>	<b>Transfer Out Student Total</b>	<b>Transfer Out Rate</b>
<b>North Mason HS</b>	681	593	55	33	87.1%	88	12.9%
<b>9-12 Subtotals</b>	681	593	55	33	--	88	--
<b>Out of District</b>	115	91	14	10	--	115	--
<b>9-12 Totals</b>	796	684	69	43	--	203	--
<b>Transfer In Student Total</b>	203	91	69	43	--	--	--
<b>Transfer In Rate</b>	25.5%	13.3%	100%	100%	--	--	--

North Mason School District October 2021–22 SIS enrollment. Enrollment values exclude full-time Running Start and preschool. Residence counts are based on current attendance area boundaries, as of the 2021–22 school year.

**Figure 9: 2021–2031 Residential Development Totals**

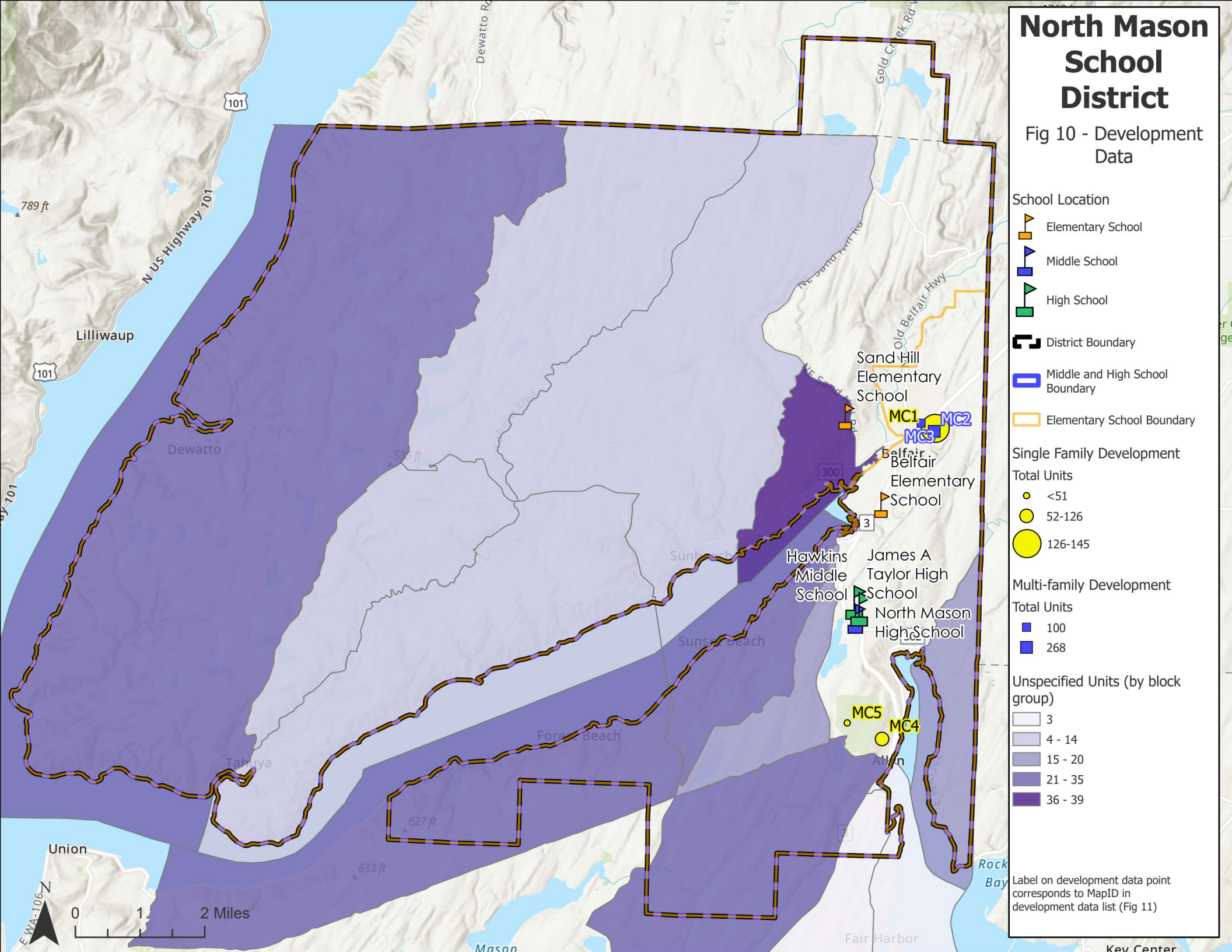
Housing Type	2021 to 2026 Units	2026 to 2031 Units	2021 to 2031 Units
Single-family	224	97	321
Multifamily	284	84	368
Unspecified	0	270	270
<b>Total</b>	<b>508</b>	<b>451</b>	<b>959</b>



Total number of anticipated housing units by type within the enrollment forecast horizon. Percentages represent each housing type's proportion of the total number of units.

# North Mason School District

Fig 10 - Development Data



**School Location**

- Elementary School
- Middle School
- High School

**District Boundary**

**Middle and High School Boundary**

**Elementary School Boundary**

**Single Family Development**

**Total Units**

- <51
- 52-126
- 126-145

**Multi-family Development**

**Total Units**

- 100
- 268

**Unspecified Units (by block group)**

- 3
- 4 - 14
- 15 - 20
- 21 - 35
- 36 - 39

Label on development data point corresponds to MapID in development data list (Fig 11)



Figure 11: 2021–2031 Residential Development Details

Map ID	Jurisdiction	Source	Type	Total Units	Current-year to 5-year Units	5-year to 10-year Units	Current-year to 10-year Units	Beyond 10-year Units	Notes
MC3	Mason County	Mason County	MF	100	70	30	100	0	No permits submitted to date. Applicant currently working w/ PUD to obtain power.
MC2	Mason County	Mason County	MF	268	214	54	268	0	First phase under construction. Second of two phases ready to be issued.
MC1	Mason County	Mason County	SF	145	116	29	145	0	Permits to do site work are active, Stock plans submitted end of April 2022
MC4	Mason County	Mason County	SF	126	88	38	126	0	construction has been on-going since 2017
MC5	Mason County	Mason County	SF	50	20	30	50	0	Pre-application meeting scheduled for 5/16/2022. Proposal is for 50 SFR or 20 SFR and 50 MF
E1	Mason County	ESRI	UN	35	0	35	35	0	
E2	Mason County	ESRI	UN	14	0	14	14	0	
E3	Mason County	ESRI	UN	9	0	9	9	0	
E4	Mason County	ESRI	UN	12	0	12	12	0	
E5	Mason County	ESRI	UN	39	0	39	39	0	
E6	Mason County	ESRI	UN	14	0	14	14	0	
E7	Mason County	ESRI	UN	19	0	19	19	0	
E8	Mason County	ESRI	UN	20	0	20	20	0	
E9	Mason County	ESRI	UN	35	0	35	35	0	
E10	Mason County	ESRI	UN	3	0	3	3	0	
E11	Mason County	ESRI	UN	3	0	3	3	0	
E12	Mason County	ESRI	UN	34	0	34	34	0	
E13	Mason County	ESRI	UN	33	0	33	33	0	
<b>TOTALS</b>				<b>959</b>	<b>508</b>	<b>451</b>	<b>959</b>	<b>0</b>	

Record represents a unique single-family (SF) or multifamily (MF) residential developments, unless noted as sum of developments with < 5 units or Unspecified (UN) developments sourced from Esri. Map IDs correspond to labels depicted on Figure 10.

**Figure 12: Student Generation Rates**

<b>Summary of Generation Rates Used for New Development</b>	<b>K-12 Students per Single-Family (SF) Unit</b>	<b>K-12 Students per Multifamily (MF) Unit</b>
<b><i>Overall Average Rates</i></b>	<b><i>0.52</i></b>	<b><i>0.39</i></b>
Highest Rate Used for a Development	0.62	0.40
Lowest Rate Used for a Development	0.38	0.38

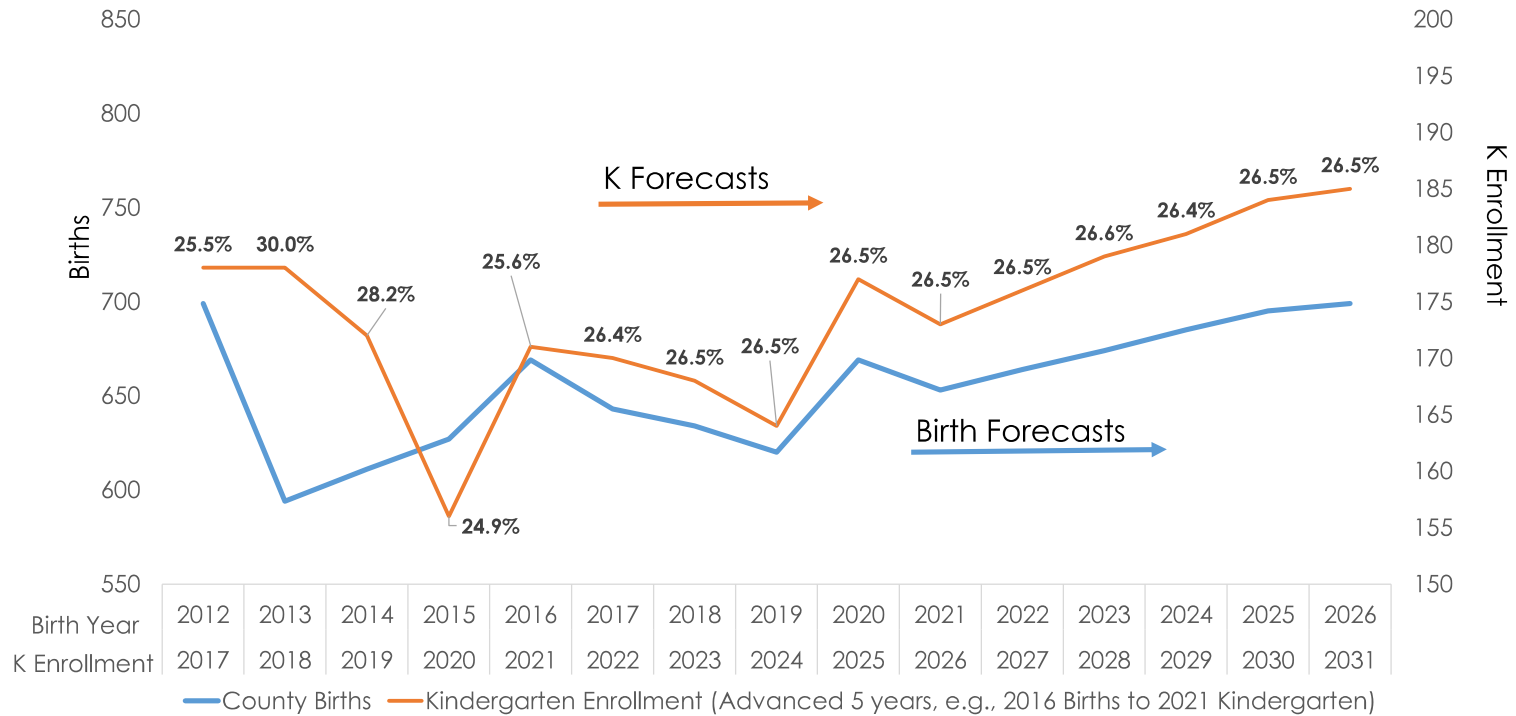
While overall average student generation rates used in preparing the forecasts were 0.52 K-12 students/SF unit and 0.39 K-12 students/MF unit, the specific rates used for each development were carefully determined on an individual basis. Broadly speaking, we merge as much information as possible when determining rates to apply to each development. Information considered includes:

- 1) existing students per housing unit for SF and MF within individual neighborhoods
- 2) development-specific expectations provided by planners (e.g., housing targeting families)
- 3) educated assumptions about new or changing housing development trends.

**Figure 13: County Birth Rates**

Birth Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
County Births	699	594	611	627	669	643	634	620	669	653	664	674	685	695	699

K Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K Total	178	178	172	156	171	170	168	164	177	173	176	179	181	184	185
K % of Births	25.5%	30.0%	28.2%	24.9%	25.6%	26.4%	26.5%	26.5%	26.5%	26.5%	26.5%	26.6%	26.4%	26.5%	26.5%



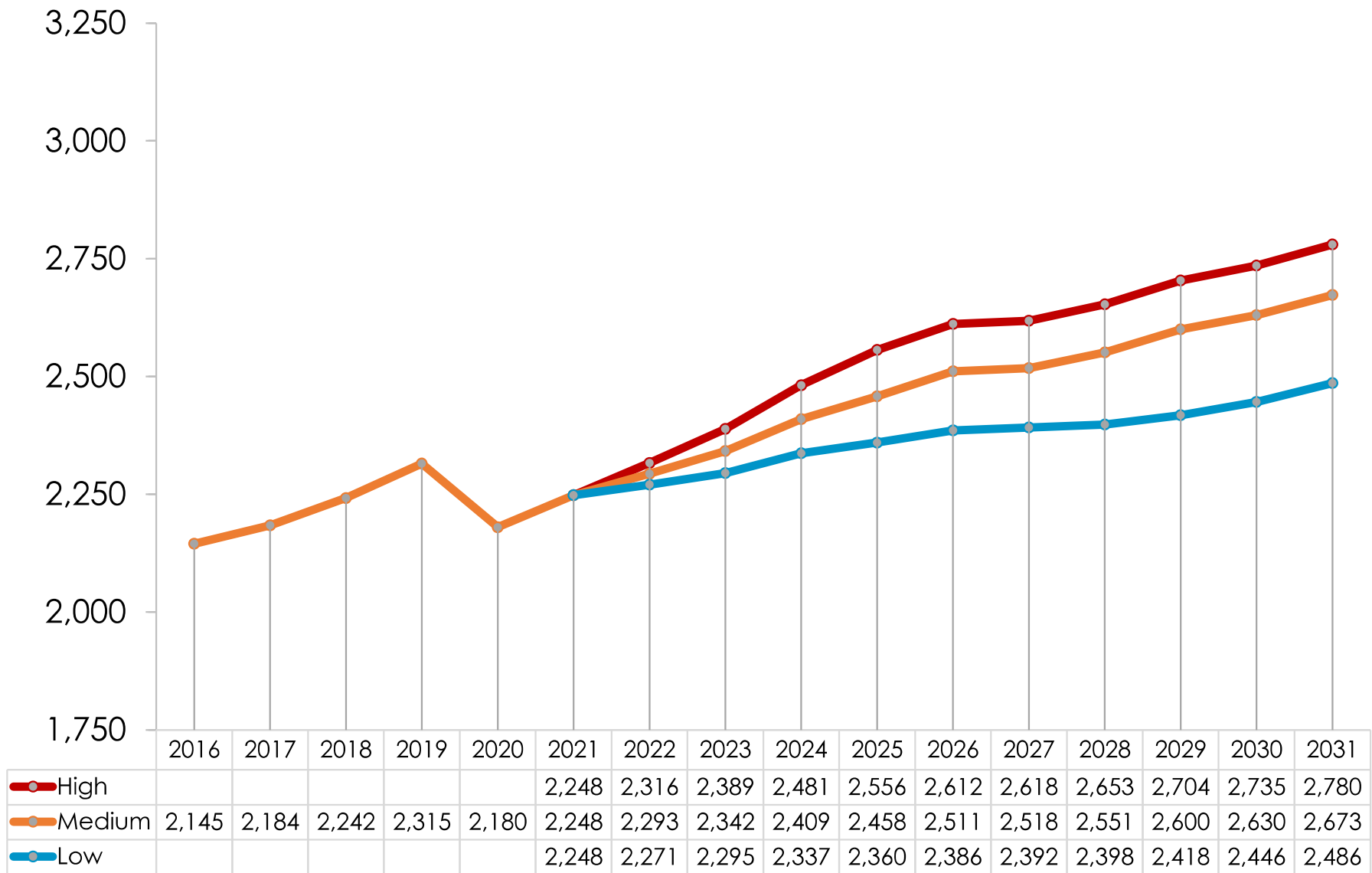
WA DOH 2012 to 2019 historical live births to mothers residing in Mason County, as well as North Mason School District October K enrollment for the 2017–18 to 2021–22 school years. The metric “K % of Births” is calculated by dividing each K class by the live birth total five years earlier (e.g., 2019 K class divided by 2014 births). 2020–25 births, which inform K classes beginning with the 2025–26 school year, were projected based on a review of the historical birth data. Forecasts of future K class sizes were then developed by employing forecasts of trends in “K % of Births”. Note that birth values reported by WA DOH represent the January 1st through December 31st calendar year, and therefore do not align directly with K enrollment 5 years later (i.e., August cutoff for being age 5 to enroll in K in the fall).

**Figure 14: Grade Progression Ratios**

Grade Progression	2017-18	2018-19	2019-20	2020-21	2021-22	3-year Avg	2-year Avg	Forecast GPR
<b>K-1</b>	0.99	0.98	1.01	0.93	1.04	0.99	0.98	1.00
<b>1-2</b>	1.10	1.03	0.98	0.97	0.96	0.97	0.97	0.99
<b>2-3</b>	0.96	1.03	1.04	0.93	0.93	0.97	0.93	0.99
<b>3-4</b>	1.01	1.02	0.93	0.97	1.00	0.97	0.98	1.00
<b>4-5</b>	1.02	1.04	1.02	0.92	0.99	0.98	0.95	1.02
<b>5-6</b>	0.97	1.12	1.06	0.97	1.14	1.05	1.05	1.05
<b>6-7</b>	1.02	1.03	1.06	0.92	1.07	1.01	0.99	1.06
<b>7-8</b>	0.99	1.03	1.06	0.95	1.08	1.03	1.01	1.05
<b>8-9</b>	1.29	1.23	1.35	1.07	1.19	1.20	1.13	1.14
<b>9-10</b>	1.06	1.11	1.07	0.95	1.06	1.03	1.01	1.10
<b>10-11</b>	0.94	0.94	0.90	0.88	0.95	0.91	0.91	0.92
<b>11-12</b>	1.09	0.94	1.04	1.01	1.12	1.05	1.06	1.05

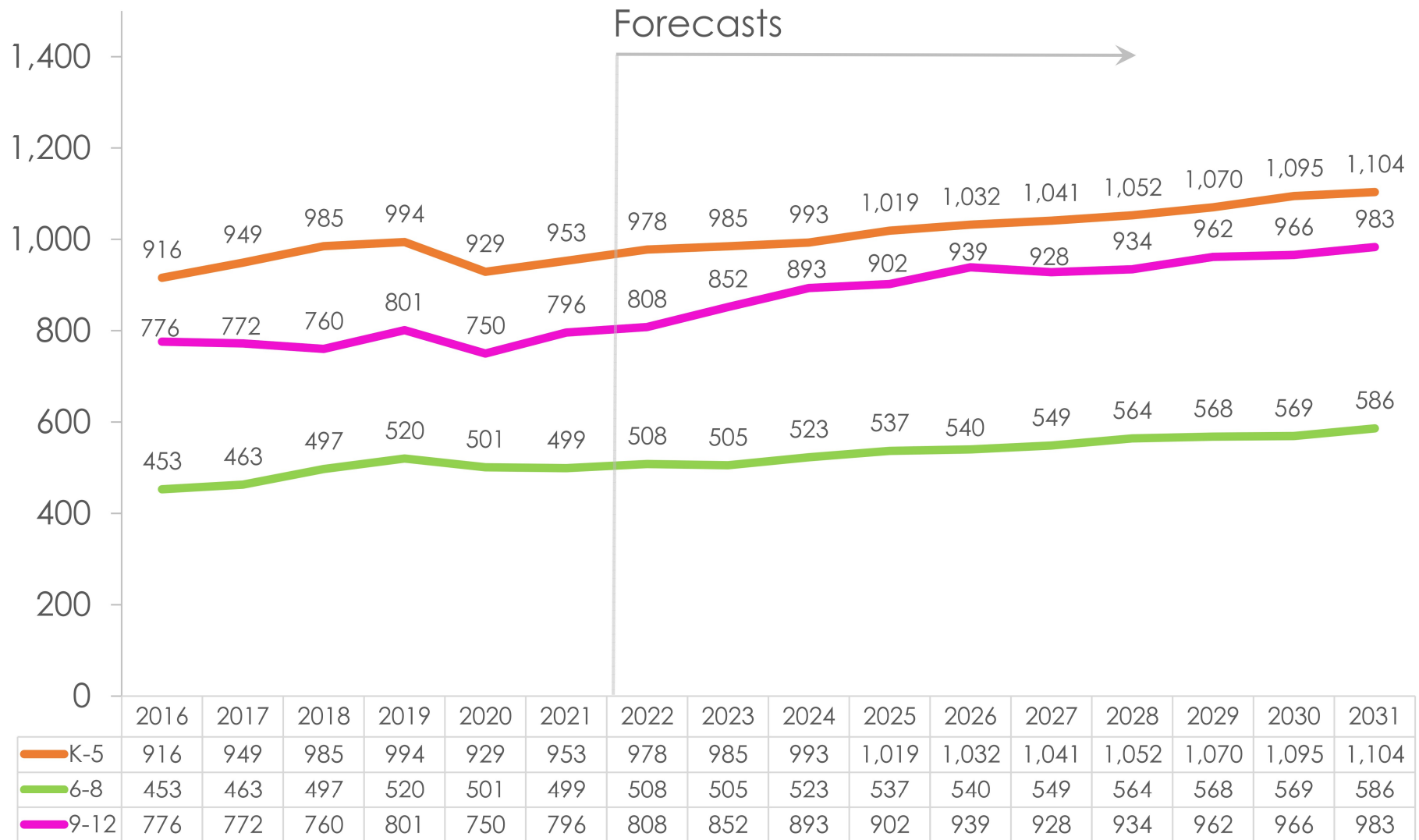
2017–18 to 2021–22 Grade Progression Ratios (GPR) based on North Mason School District October enrollment. GPRs are calculated as the ratio of enrollment in a specific grade in a given year, to the enrollment of the same age cohort in the previous year. For instance, when 150 kindergarteners in 2017 become 140 first graders in 2018, a GPR of 0.93 is yielded. GPRs quantify how cohort sizes change as students progress to subsequent grades by considering that not all students advance to the next grade and new students join existing cohorts. A GPR value greater than 1.0 indicates that the student cohort increased in size from one grade to the next. Such a result may be due to students moving into the district, students choosing to transfer into the district from other districts (public or private). Conversely, a GPR value less than 1.0 indicates that the student cohort decreased in size from one grade to the next. This may be due to students moving out of the district, students choosing to transfer to other districts, or students not advancing to the next grade.

**Figure 15: Districtwide Building Attendance Enrollment Forecasts:  
Low, Medium (Preferred), and High Scenarios**



North Mason School District October 2016–17 to 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts. Enrollment values include all students living within and outside the district boundary, except for students attending full-time Running Start and preschool.

**Figure 16: Building Attendance Enrollment Forecasts by Grade Group: Medium (Preferred) Scenario**



North Mason School District October 2016–17 to 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts. Enrollment values include all students living within and outside the district boundary, except for students attending full-time Running Start and preschool.

**Figure 17: Building Attendance Enrollment Forecasts by Individual Grade**

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>K</b>	171	170	168	165	178	174	177	180	182	185	186
<b>1</b>	162	167	171	169	166	179	175	178	181	183	186
<b>2</b>	154	163	167	171	170	166	179	176	180	182	183
<b>3</b>	162	155	162	166	171	170	165	179	177	180	182
<b>4</b>	159	158	156	163	167	172	169	166	181	179	182
<b>5</b>	145	165	161	159	168	172	174	173	170	186	184
<b>6</b>	150	156	173	169	167	178	179	182	181	179	197
<b>7</b>	182	160	164	183	178	176	186	188	191	191	190
<b>8</b>	167	192	169	171	192	186	183	194	196	199	200
<b>9</b>	210	207	239	216	217	242	235	230	243	245	250
<b>10</b>	187	223	226	261	235	236	260	253	249	262	265
<b>11</b>	202	180	207	210	242	221	216	239	233	229	242
<b>12</b>	197	198	179	207	208	241	218	212	237	230	226
<b>K-5</b>	953	978	985	993	1,019	1,032	1,041	1,052	1,070	1,095	1,104
<b>6-8</b>	499	508	505	523	537	540	549	564	568	569	586
<b>9-12</b>	<u>796</u>	<u>808</u>	<u>852</u>	<u>893</u>	<u>902</u>	<u>939</u>	<u>928</u>	<u>934</u>	<u>962</u>	<u>966</u>	<u>983</u>
<b>K-12</b>	2,248	2,293	2,342	2,409	2,458	2,511	2,518	2,551	2,600	2,630	2,673

**Total Attendance**  
(Building Attendance)

North Mason School District October 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and preschool.

**Figure 18: Building Attendance Enrollment Forecasts by School/Program**

Building/Program	Building Attendance →										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Belfair ES	428	442	451	464	491	503	520	532	544	557	557
Sand Hill ES	499	513	511	506	506	507	498	498	504	516	524
HomeLink ES	26	23	23	23	23	23	23	23	23	23	23
Hawkins MS	476	490	487	505	519	522	530	546	550	551	568
HomeLink MS	23	18	18	18	18	18	18	18	18	18	18
North Mason HS	684	724	768	810	818	855	844	851	878	882	899
HomeLink HS	69	39	39	39	39	39	39	39	39	39	39
James A Taylor HS	43	45	45	45	45	45	45	45	45	45	45
<b>K-12</b>	<b>2,248</b>	<b>2,293</b>	<b>2,342</b>	<b>2,409</b>	<b>2,458</b>	<b>2,511</b>	<b>2,518</b>	<b>2,551</b>	<b>2,600</b>	<b>2,630</b>	<b>2,673</b>

North Mason School District October 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and preschool. Slight differences may exist between the grade group total reported above and the value reported in the "Building Attendance Enrollment Forecasts by Individual Grade" figure. This is due to rounding during the allocation of students to schools/programs.

**Figure 19: Building Attendance Enrollment Forecasts by Individual Grade: Low Scenario**

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>K</b>	171	166	163	160	172	166	169	171	174	177	178
<b>1</b>	162	165	166	163	160	172	164	167	169	172	175
<b>2</b>	154	161	165	165	162	159	170	162	165	167	170
<b>3</b>	162	155	160	163	163	160	156	167	160	162	164
<b>4</b>	159	158	155	160	163	163	159	156	166	159	162
<b>5</b>	145	164	161	158	163	166	165	161	158	168	161
<b>6</b>	150	156	172	169	166	171	173	172	169	165	176
<b>7</b>	182	159	165	181	178	175	179	182	181	177	172
<b>8</b>	167	192	167	172	190	187	182	187	189	188	184
<b>9</b>	210	207	238	211	220	240	237	230	236	239	238
<b>10</b>	187	224	225	260	230	238	260	256	248	255	258
<b>11</b>	202	180	209	210	242	214	221	239	236	229	235
<b>12</b>	197	193	179	209	210	240	212	217	237	233	226
<b>K-6</b>	1,103	1,126	1,142	1,138	1,148	1,157	1,157	1,156	1,159	1,169	1,185
<b>7-8</b>	349	351	332	353	369	362	361	368	370	365	356
<b>9-12</b>	<u>796</u>	<u>804</u>	<u>851</u>	<u>891</u>	<u>902</u>	<u>933</u>	<u>930</u>	<u>942</u>	<u>956</u>	<u>956</u>	<u>956</u>
<b>K-12</b>	2,248	2,281	2,324	2,382	2,420	2,451	2,448	2,466	2,486	2,490	2,497

**Total Attendance**  
(Building Attendance)

North Mason School District October 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts (low-growth). Enrollment values exclude students attending full-time Running Start and preschool.

**Figure 20: Building Attendance Enrollment Forecasts by Individual Grade: High Scenario**

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<b>K</b>	171	176	175	171	184	184	187	189	192	196	197
<b>1</b>	162	167	177	175	171	184	183	187	189	192	195
<b>2</b>	154	162	167	177	175	171	183	182	185	188	191
<b>3</b>	162	156	162	166	176	175	170	182	181	184	186
<b>4</b>	159	159	157	163	167	178	175	170	182	181	184
<b>5</b>	145	165	163	161	167	172	181	178	173	185	184
<b>6</b>	150	157	174	172	170	176	180	190	187	182	195
<b>7</b>	182	160	167	185	183	180	186	190	200	197	192
<b>8</b>	167	193	168	175	195	192	188	195	199	210	206
<b>9</b>	210	209	242	215	224	248	245	240	248	252	265
<b>10</b>	187	226	229	265	235	245	268	266	261	269	274
<b>11</b>	202	181	212	214	246	220	227	249	247	242	250
<b>12</b>	197	195	182	212	213	246	218	226	248	245	240
<b>K-6</b>	1,103	1,143	1,174	1,185	1,211	1,240	1,260	1,278	1,289	1,307	1,331
<b>7-8</b>	349	352	335	360	378	372	374	385	399	407	398
<b>9-12</b>	<u>796</u>	<u>810</u>	<u>864</u>	<u>906</u>	<u>918</u>	<u>959</u>	<u>958</u>	<u>981</u>	<u>1,003</u>	<u>1,008</u>	<u>1,030</u>
<b>K-12</b>	2,248	2,306	2,373	2,451	2,507	2,571	2,592	2,644	2,692	2,722	2,759

**Total Attendance**  
(Building Attendance)

North Mason School District October 2021–22 enrollment (headcount) and FLO 2022–23 to 2031–32 enrollment forecasts (high-growth). Enrollment values exclude students attending full-time Running Start and preschool.