![FLO Analytics logo] MEMORANDUM

To:	Mike Stromme Interim Superintendent Lynden School District	Date: Project:	February 28, 2022 F2146.01.001
From:	Tyler Vick Managing Director	Benjamin Maloney Demographer/Data Analyst	
RE:	2022–23 to 2031–32 Enrollment Forecasts Report—Lynden School District		

At the request of the Lynden School District (District/LSD), FLO Analytics (FLO) has 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 Forecast Perspectives section below). Districtwide enrollment forecasts represent the total number of students living both within and outside the district boundary and attending district schools. These forecasts are provided as a district total and per grade group. More granular residence-based and building/program attendance forecasts have also been prepared, which provide the number of students by individual grade and grade group who are anticipated to reside within and attend each of the District's elementary-, middle-, and high-school attendance areas (AAs) and schools/programs.

STUDENT ENROLLMENT ASSESSMENT

To better understand recent enrollment trends, FLO analyzed historical and current fall membership included within the Monthly Enrollment Reports (P223 Headcount) provided by the District as well as the LSD October 2021–22 Student Information System (SIS). We 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 versus building attendance (i.e., transfer rates). All students contained within the Monthly Enrollment Report (P223 Headcount) and LSD SIS data, except for students attending preschool (PS) and full-time Running Start (RS), were included in our analyses and enrollment forecasts. This task also included mapping the existing AA configurations (Figure 1) and the distribution of the student body across the district and surrounding area based on student residences (Figure 2).

Student Enrollment Assessment

Figure 3 shows the district-wide enrollment per individual grade based upon the Monthly Enrollment Report (P223 Headcount) provided to FLO by the District. Prior to the 2020–21 school year, enrollment had steadily increased, expanding by 303 students from 2016–17 to 2019–20. Primarily due to the effects of COVID-19, enrollment declined markedly between the 2019–20 and 2020–21 school years, decreasing by 224 students. Grades K–8 and grade 10 all experienced a contraction in enrollment from the prior year. Grades experiencing a decline in 2020–21 averaged 29 fewer students compared

to enrollment in 2019–20. In comparison, grade 9 enrolled 29 additional students in 2020–21, which is an increase over 2019–20 enrollment that can be directly attributed to a relatively large cohort of grade 5 students in 2016–17. Districtwide enrollment expanded in 2021–22 (78 additional students) with grades K–1, 3–4, 6, 8, and 10–12 experiencing an increase. Grades experiencing an increase in 2021–22 enrollment averaged 18 additional students. Grades 2, 5, 7, and 9 declined in enrollment in 2021–22 (an average of 22 fewer students). However, all grades that experienced a decline in 2021–22 enrollment are associated with cohorts that experienced a comparatively large contraction in 2020–21 enrollment.

Figure 4 tabulates enrollment by grade group and school. From 2016–17 to 2019–20, elementary school (ES; grades K–5) enrollment increased by 106 students. At the same time, middle schools (MS; grades 6–8) contributed 103 additional students, and high school (HS; grades 9–12) enrollment expanded by 52 students. Concerns regarding COVID-19 likely contributed to enrollment declines at ES (340 fewer students) and MS (95 fewer students) from 2019–20 to 2020–21. HS enrollment expanded by 21 students over the same period primarily due to the aforementioned 2016–17 grade 5 cohort entering the HS grade group. From 2016–17 to 2020–21, ES enrollment declined by 234 students, whereas MS and HS enrollment increased (8 and 73 students, respectively).

Despite further uncertainty due to the continuing COVID-19 pandemic, students began to return to the District in 2021–22, with all grade groups experiencing an increase in enrollment since the 2020–21 school year. ES enrollment increased by 119 students, while MS and HS enrollment increased by 26 and 9 students, respectively. Due to the pandemic, only one ES realized growth in enrollment over the past five years; Fisher ES grew by 28 students since 2016–17. Over the same period, Lynden MS enrollment increased by 34 students and Lynden HS enrollment increased by 82 students. In response to the pandemic, enrollment at the Lynden Academy, a non-AA K–12 program, increased by 190 students in 2020–21, followed by a modest decline of 76 students in 2021–22. The contraction in 2021–22 enrollment at Lynden Academy can be correlated to enrollment increases at LSD AA schools.

Based on our analysis of district-wide transfers (Figure 5), a total of 314 students who live outside the district boundary transferred into district schools, representing 9.6 percent of enrollment. Overall, 321 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 intradistrict transfer rate of 10.9 percent. Transfers occur within all grade groups, but the largest percent of transfers occurs within the K–5 grade group, with a transfer rate total of 20.8 percent.

As depicted in the residence-attendance matrices (Figures 6 through 8) per grade group, transfer rates also differ per school/program. For instance, transfer-out rates for ES AAs range from 9.6 percent to 15.6 percent. From the perspective of building attendance, ES transfer-in rates range from 6.3 percent to 13.1 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 district policies. For instance, if a particular school with a high transfer-in rate began to experience overcrowding, the District may reconsider transfer policies or programming in order to alleviate enrollment issues. Lynden MS experiences a transfer-in rate of 4.9 percent (from out-of-district) and a transfer-out rate of 9.2 percent (to Lynden Academy). Similarly, the transfer-in rate at Lynden HS is 5.9 percent, whereas the transfer-out rate is 9.1 percent.

DEMOGRAPHIC AND LAND USE ANALYSIS

In order 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. For

these efforts, land use data (e.g., construction permits, zoning, comprehensive plans) and demographic information (e.g., births, female population of childbearing age) are gleaned from a variety of sources, chief of which are the regional, county, and municipal planning departments that manage and track land use in the district. For more details, see the Data Sources section below.

To better understand current land use based on the aforementioned data as well as the potential for change, we conducted interviews with planners from Whatcom County and the municipality of Lynden 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 single-family and multifamily categories per the next two five-year periods, based on available data from the City of Lynden and Whatcom County. Figure 10 depicts the locations of SF and MF developments that are currently in construction or are expected to be built 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 notes.

Certified April 1, 2021, population estimates prepared by the Washington Office of Financial Management (OFM) report the City of Lynden population to be 15,930, an increase of 32.1 percent over the 2011 population estimate (12,060). Over the past three years, the population of Lynden has increased at a rate of 4.1 percent per year. In response, housing development within the district has continued at a vigorous rate, despite any momentary delay of construction activities due to COVID-19 during the spring of 2020. Whatcom County, where growth has been significantly slower, and City of Lynden planners concurred that while there is some construction planned throughout the unincorporated portion of the district, Lynden is where most of the construction activity is occurring. Lynden planners expect to see steady SF and MF development throughout the city, particularly on the east and west side, whereas residential construction within unincorporated Whatcom County will remain light, with most planned projects being sporadic SF development and some MF development along the southern boundary of the school district (near the intersection of Hannegan Road and Pole Road). Significant residential developments that are expected to begin and/or conclude during the forecast period include 1,350 to 1,700 SF units on the west side of town in the Pepin Creek subarea, 134 SF units at the intersection of Guide Meridian Road and Main Street, 100 MF units near the intersection of Line Road and Aaron Drive, and 100 MF units near Riverview Road and S 1st Street While there is significant SF construction within Lynden, planners continue to see an intense demand for MF construction, and more recently, townhouses with two to three bedrooms.

Based on overarching population and housing trends, as well as current and projected rates of development, we estimate the number of housing units by type that may be constructed within the 2021 to 2026 and 2026 to 2031 periods (Figure 9). Within the first five-year period, we anticipate residential development amounting to 964 units, followed by 1,056 units in the second five-year period. These estimates are the result of the rate of development witnessed over the past five years, forecasted population growth within the district, and sentiment conveyed by planners from the City of Lynden and Whatcom County.

Housing type is an important indicator of the number of students who can be expected to be yielded from a housing unit. 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 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, 88.3 percent reside in SF housing units, 11.6 percent in MF housing units, and 0.1 percent in unspecified housing units that we are unable to immediately 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. MF housing is defined as residential buildings containing two or more housing units that do not have a ground-to-roof wall and/or have common facilities (attic, basement, heating, plumbing, etc.).

Average student generation rates vary by geographic location in the district and by housing subtypes (e.g., SF detached, townhome, duplex, multiunit apartments). We determine student generation rates for district subregions, typically U.S. Census block groups, which contribute to district-wide averages per SF and MF housing units. Based on currently available residential housing data, average student generation rates in the district were estimated to be 0.55 students per SF housing unit and 0.29 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 county. We compare Washington State Department of Health's historical 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 enroll with the District divided by the number of live births within 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 within Whatcom County, K class sizes that include all enrolled students, and resulting ratios of kindergarteners to births, including both historical values and our forecasts. Similar to surrounding counties, births within Whatcom County steadily increased from 2012 (2,251) to 2015 (2,367). Since then, county births have gradually declined every year through 2019 (1,989 births). While official Whatcom County 2020 birth data is unavailable at the time of this writing, it is estimated that there were 77 fewer births in 2020. K enrollment increased from 251 in 2017 to 297 in 2019 then declined significantly in 2020 (71 fewer students) in response to the effects of COVID-19 before increasing slightly (235 students) in 2021. K enrollment forecasts are further discussed in the Births to Kindergarten section.

The progression of students from one grade to the next is a significant determinant of future enrollment, and therefore plays a significant role in our forecasting process. We assess 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 (public or private). 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 students not advancing to the next grade.

Figure 14 depicts the GPRs for all students enrolled in the District from 2016–17 to 2021–22. The two- and three-year GPR averages shown incorporate the 2020-21 and 2021-22 GPRs and were not used in the forecasting process. In order to mitigate the irregular effect of COVID-19 on the grade transitions from 2019–20 to 2020–21 and 2020–21 to 2021–22, a set of forecasted GPRs was

developed. These are also included in Figure 14. While the average GPR in 2017–18 was 0.98, grade transitions in 2018–19 and 2019–2020 were typically at or above 1.00 leading to district-wide averages of 1.03 and 1.01, respectively. When compared to other grade transitions, GPRs are lower in the grade 10–11 transition. This is primarily caused by the availability of Running Start and other alternative programs and is consistent with other districts throughout Washington. The contraction in enrollment due to COVID-19 is the likely reason that GPRs—for all transitions K–1 through 11–12—decreased in 2020–21. The largest contractions were within the K–5 and 6–8 grade groups. As a result of new enrollments and students returning to the District, the GPRs for 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 preferred medium-growth scenario assume a return to the 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 3,260 to 4,015, or by 23.2 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 our analysis. The COVID-19 Assumptions section discusses relevant assumptions for this year's low-, medium- (preferred), and high-growth scenarios.

- Figure 16 disaggregates the annual district-wide building attendance forecasts by grade group.

  - K–5 enrollment from 1,495 to 1,729 (15.7 percent increase)

  - 6–8 enrollment from 754 to 967 (28.2 percent increase)

  - 9–12 enrollment from 1,011 to 1,319 (30.5 percent increase)

- In comparison to the previous two figures, Figure 17 provides annual district-wide *residence-based* forecasts per individual grade. These forecasts represent the number of students expected to reside in the district (for more details, see the Forecast Perspectives section below). The individual grade forecasts are summed to form grade group totals and adding the students who reside outside the district produces annual building attendance forecasts per grade group. Building attendance is expected to increase at a fairly even rate over the forecast period, with 350 additional students by 2026–27 and 405 additional students by 2031–32.

- Based on the geographic distribution of students, the residence-based forecasts are aggregated to grade group attendance areas. Figure 18 provides annual forecasts of students residing in each of the ES, MS, and HS AAs, respectively.

- Building/program attendance forecasts are derived from the residence-based forecasts, using an analysis of the rates of intradistrict transfer for specific grades (e.g., Figures 5–8), rates of out-of-district student enrollment, and district policies concerning transfers and student placement. Figure 19 provides annual district-wide building attendance forecasts per individual grade (for the preferred, aka medium-growth, scenario). Figure 20 provides annual forecasts of students attending each of the ES, MS, and HS buildings/programs, respectively.

- Figures 21 and 22 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

As previously mentioned, 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. County births gradually increased from 2012 to 2015 (2,251 to 2,367). In response, K enrollment increased from 251 students in 2017–18 to 297 students in 2019–20. While births again increased in 2015 (2,367), 2020–21 K enrollment declined by 71 students, a contraction that is mainly due to concerns regarding COVID-19. While births declined in 2016 (2,275), K enrollment recovered modestly in 2021–22, leading to nine additional K students in 2021–22 than in 2020–21.

County births continued to regress in 2017 (115 fewer births than in 2016) through 2019 (1,989 births). However, we are expecting a gradual return to pre-pandemic K percent of births, leading to the expectation that K enrollment will increase in 2022–23 (257 students) and 2023–24 (261 students). While we expect the K percent of births to continue to climb through 2026–27, K enrollment is forecasted to moderately decline in 2024–25 then remain steady in 2025–26 (247 students). As a result of the economic uncertainty surrounding COVID-19 and the overall downward regression in births since 2016, we expect births to decline more steeply in 2021. While offset by a higher K percent of births, this will likely lead to continued contraction of K enrollment in 2026–27 (242 students). With indications that the impacts surrounding COVID-19 may continue to gradually alleviate, along with an expanding population of women of childbearing age, we anticipate that births will steadily increase between 2022 (1,949) and 2026 (2,141). This will lead to a steady expansion of K enrollment between 2027–28 and 2031–32.

Districtwide Enrollment Forecasts

As noted in Figures 15, 16, and 19, district-wide enrollment is forecasted to increase from 3,260 in 2021–2022 to 4,015 in 2031–32. While there is some year-to-year variation in forecasted enrollment, we expect the enrollment increase (350 additional students) between 2021–22 and 2026–27 to be slightly slower than the forecasted increase (405 additional students) over the latter half of the forecast period. This growth is due in part to the expectation that the population of the City of Lynden and the surrounding area will continue to expand at recent rates for the foreseeable future. The other key underlying factor is that as the population of the area increases, the population of women of childbearing age is expected to expand as well. While age-specific fertility rates may not rebound to a significant degree, preceded by the expectation of a more marked decline in 2021, the increasing presence of women of childbearing age is expected to act to offset a tepid fertility rate to some degree and lead to a gradual increase in births through 2026 and, ultimately, the aforementioned K enrollment expansion.

Over the second half of the forecast period, we expect building attendance to grow at a more accelerated pace, from 3,610 in 2026–27 to 4,015 in 2031–32. The more vigorous growth is primarily

attributed to our projection that county births will steadily expand after the expected lull in 2020 and 2021. As noted in the Demographic and Land Use Analysis section (Figure 9), we do not expect residential development to slow; 964 units are forecasted between 2022–23 and 2026–27 followed by 1,056 units over the latter half of the forecast period. The expectation of a more robust K enrollment between 2027–28 and 2031–32, along with forecast GPRs representing a steady increase in cohort size, is expected to counteract any slowing due to smaller forecasted K classes (2024–25 through 2026–27).

From the grade group perspective, ES enrollment is anticipated to increase by 234 students (Figure 16). Much of this gain can be attributed to a series of more robust K classes entering the District next year and in 2023–24, along with a steady increase in K enrollment after the expected lull in 2024–25 through 2026–27. ES enrollment is expected to increase by 44 students next year then gradually expand each subsequent year through the end of the forecast period. ES enrollment is forecasted to increase by 129 students over the first half of the forecast, followed by an increase of 105 students between 2026–27 and 2031–32.

Similarly, enrollment at the MS level is expected to steadily increase (Figure 16) between 2021–22 and 2026–27 (101 additional students) followed by a slightly more accelerated pace over the latter half of the forecast period (112 additional students). Enrollment gains are expected to slow in 2026–27 and 2027–28 in response to a series of smaller cohorts (now in grades 1 and 2) matriculating through the grade group. As these cohorts exit the grade group, larger cohorts are expected to enroll, allowing for more robust year-to-year enrollment increases in both 2028–29 and 2029–30. MS enrollment is then expected to slow in 2030–31 then potentially contract slightly in 2031–32 as these larger cohorts exit the grade group and are then followed by a series of smaller cohorts.

Most of the enrollment gains over the forecast period will be realized in the HS grades (Figure 16). While HS enrollment is expected to expand by 120 students through the first half of the forecast, a more rapid expansion is anticipated between 2026–27 and 2031–32 (188 additional students). The increase over the latter half of the forecast can be attributed to the current year and the forecasted 2022–23 K cohorts. Due to the brisk pace of residential construction in conjunction with forecast GPRs above 1.00, both cohorts will continue to steadily expand, leading to comparatively larger cohorts entering the grade group in both 2030–31 and 2031–32. Similarly, the 2021–22 grade 3 cohort is relatively large compared to surrounding cohorts. This class will also generally continue to expand as it matriculates through the system and will be entering grade 12 by 2030–31.

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/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, intradistrict 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 intradistrict 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 14 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 intradistrict 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

Our 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 our 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-olds living within the district boundary in the 2021–22 school year who were enrolled in K at district schools. This is referred to as the K enrollment (or "capture") rate. Separate enrollment rates are similarly computed for each of the other age/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-olds 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, our forecasts apply the average of the K–5 capture rates for the 2021–22 cohorts to new cohorts matriculating into K in the 2022–23 school year and later.

Projecting Net Migration

Another way historical enrollment data is used is by leveraging knowledge of the geographic distribution of the 2021–22 student population in order to calculate enrollment rates at the subdistrict level. To do this, FLO divided the district into regions, 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, 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 dataset is prepared using recent growth trends derived from U.S. Census and state/local sources and, in tracking growth, 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 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 Forecasts (ten-year)

Our ten-year forecasts assume that recent trends in migration patterns, 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 the district boundaries.

2020 to 2026 births, which inform K classes beginning with the 2025–26 school year, were projected based on a review of historic live births to mothers residing within the district boundary, forecasted population of women of childbearing age throughout Whatcom County, and state trends in fertility.

In terms of capture rate, the grade-specific rates computed from the 2021–22 student enrollment assessments are used. Also, as with the shorter-term projections, a set of forecast GPRs is enforced at the district level. It is important to note that the forecast GPRs used do not incorporate 2020–21 and 2021–22 data due to the irregular effects of COVID-19.

COVID-19 Assumptions

While the District has already felt the effects of enrollment declines in 2020–21, we expect additional impacts from COVID-19 to surface over the coming years (i.e., a decline in 2021 births/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, additional births, and students that did not enroll in 2020–21 and 2021–22 gradually return to the District to some degree. The low-growth scenario assumes the opposite of the high-growth scenario (i.e., fewer births, a steeper 2021 birth decline, etc.). The low-growth scenario represents the least likely forecast outcome, but it still remains a possibility, especially if births continue to lag past the forecasted downturn in 2021.

One contributing factor to fewer returning 2020–21 students may have been the absence of vaccine availability for school-age children at the time. This might have been a particularly important consideration for parents during registration for the upcoming school year, as the highly contagious delta variant had been dominant in the U.S. since early July and the timeframe for vaccine rollout for children was still unknown. Vaccines were not available for children ages 5–11 until early November.

There simply is not data available to tell us where all these students went, or why. As reported by the National Education Association (https://www.nea.org/advocating-for-change/new-from-nea/finding-lost-students-pandemic), national research estimates that as many as 3 million students disappeared between March 1 (just before most districts nationally closed school buildings and switched to remote learning) and October 1, 2020. While comparable research has not yet been completed regarding October 1, 2021, enrollment, based on FLO's conversations with other districts of comparable size in the Pacific Northwest, the tepid return, if at all, of 2020–21 missing students thus far is not unique.

Some of the missing students may also have been lost to alternative pathways of education. One such path is homeschooling, with the possibility that in the stress and confusion of the pandemic some parents may not have properly notified LSD of this decision. Another option is online public schools that were established pre-pandemic and may have been more appealing than Lynden Academy. A potential example includes the Washington Virtual Academy. Private schools such as Lynden Christian Academy and Cornerstone Christian School represent yet another alternative path that families may have chosen, especially in cases where they may have returned to in-person instruction before public schools in the surrounding area.

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. This is the case both nationally as well as locally in Oregon and Whatcom County. While January and February 2021 monthly totals nationally were significantly lower than the same months in 2020, the March through June 2021 monthly totals have been higher than in 2020. However, as Brookings noted, data are not yet available on births that would have been conceived during the 2020/21 winter wave of the COVID-19 pandemic. While we forecasted a drop in total County births from 1,953 in 2020 to 1,876 in 2021 (3.9 percent decline), we assume little to no impact from COVID-19 on 2022 births and on. More importantly, we have considered births in the context of the sustained, substantial decline in general fertility rates in Washington since the Great Recession (2008). The modest growth in annual births we forecasted is due only to our projection that the growth rate of the population of women of childbearing age in the district will offset continued declines in fertility rate for the foreseeable future.

Data Sources

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

- LSD SIS (October 2021), AAs, district boundary, and school locations
- LSD Monthly Enrollment Report P223 Headcount (2016–2017 to 2021–22)
- Washington State Department of Health birth data
- Washington State Office of Financial Management forecasts
- U.S. Census and American Community Survey enumerations and estimates
- Esri 2021/2026 U.S. Demographics
- FLO-conducted interviews with planners from Whatcom County and the municipality of Lynden
- County and/or municipal parcels, zoning, comprehensive plans, specific area plans, and building permits
- 2020 Statewide Urban Growth Areas and 2020 City Limits from Washington State Department of Ecology

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 some degree of variation from the anticipated values is likely. It is important that stakeholders monitor and manage the changing conditions that will affect future populations, and it is important 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.

District Overview

LYNDEN SCHOOL DISTRICT
Tradition + Pride + Excellence
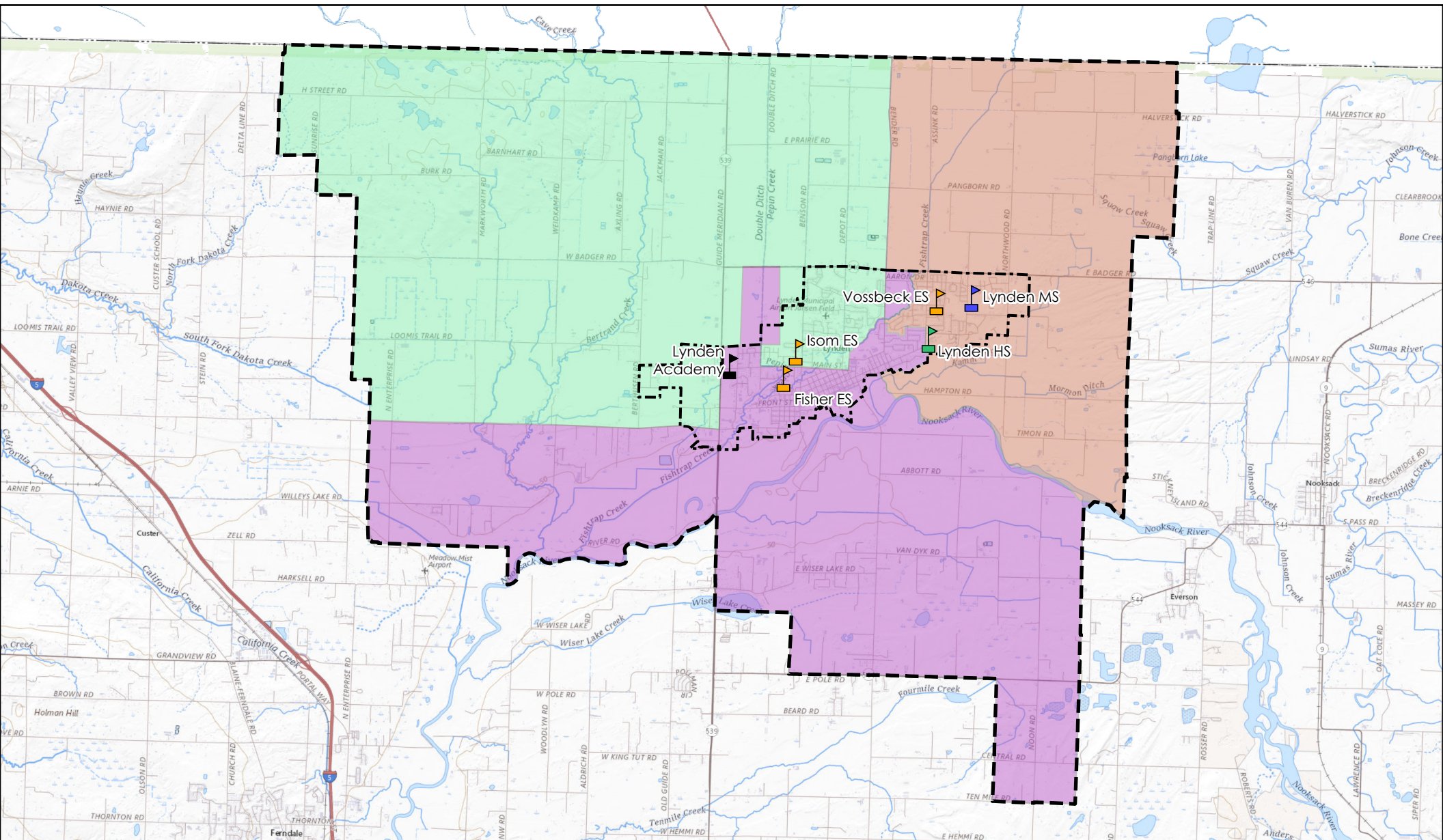
School Locations
- ES
- MS
- HS
- Other

Lynden City Limits
District Boundary

Elementary School Attendance Areas
- Fisher ES
- Isom ES
- Vossbeck ES

Figure 1

2022-23 to 2031-32 Enrollment Forecasts:
Based on October 2021 Enrollment

Lynden MS and Lynden HS serve the entire district.

FLO Analytics

N   0   0.5   1   2   Miles

Student Density

LYNDEN SCHOOL DISTRICT
Tradition + Pride + Excellence
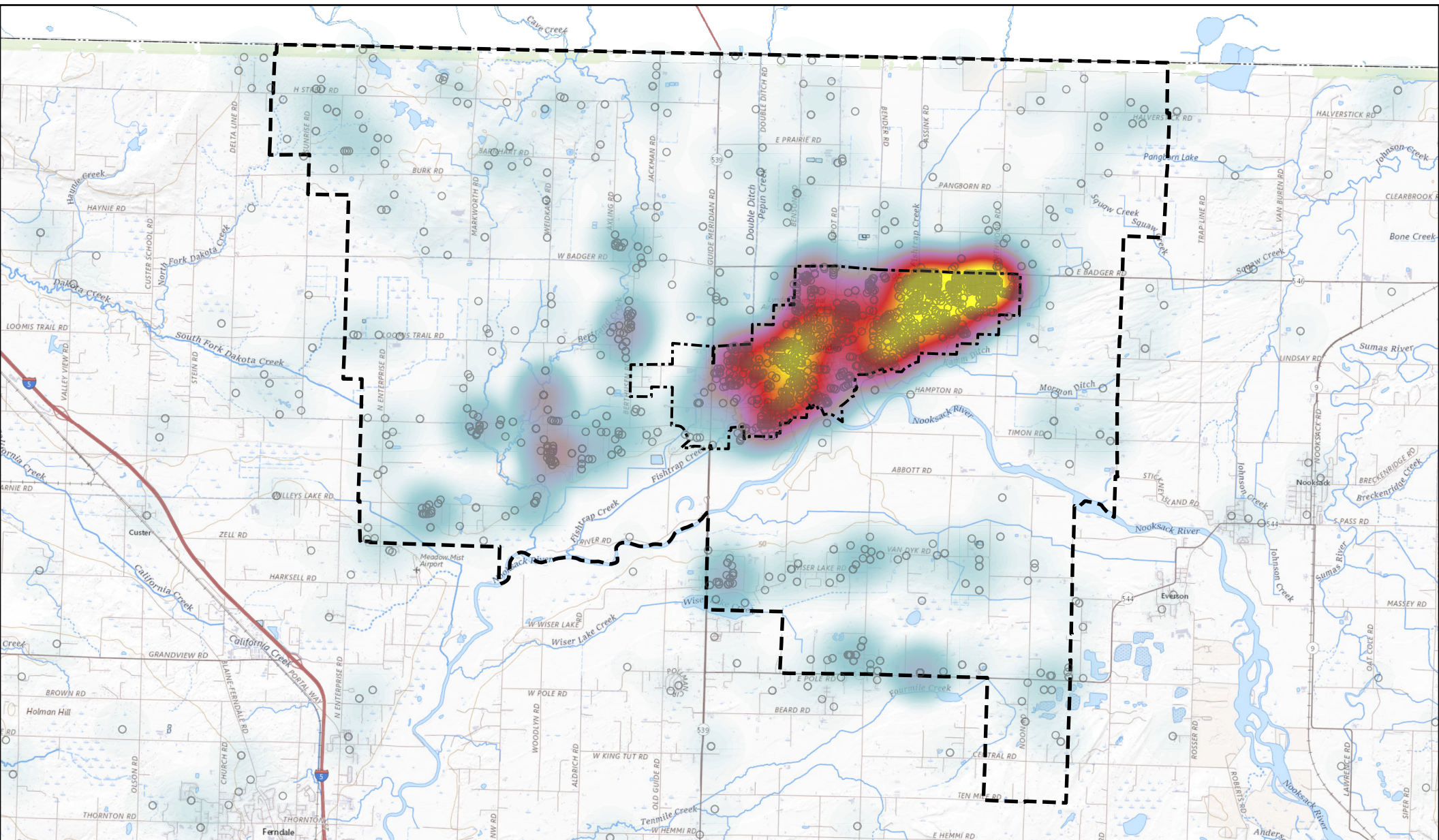
District Boundary
Lynden City Limits
○ Student Household

Student Density
Sparse
Dense

FLO Analytics
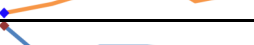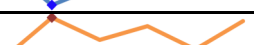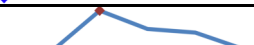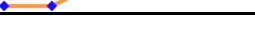
Figure 2
2022-23 to 2031-32 Enrollment Forecasts:
Based on October 2021 Enrollment

N
0 0.5 1 2
Miles

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	279	251	271	297	226	235		-44
1	262	270	268	278	242	244		-18
2	263	260	283	274	263	245		-18
3	252	258	274	277	240	263		11
4	241	248	259	272	250	257		16
5	279	237	257	257	252	251		-28
6	224	271	245	261	234	267		43
7	228	225	282	256	251	228		0
8	224	231	236	295	242	259		35
9	220	234	281	271	300	254		34
10	258	214	246	279	261	301		43
11	189	224	183	216	232	234		45
12	184	180	195	173	189	222		38
District Total	**3,103**	**3,103**	**3,280**	**3,406**	**3,182**	**3,260**		**157**

Lynden SD Monthly Enrollment Report (P223 Headcount) October 2016–17 to 2021–2021 enrollment per grade. Enrollment values omit students attending full-time Running Start and PS. 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. Note that the summation of grade values to create a district-wide total may not exactly match the stated District Total.

Figure 4: Historical and Current Enrollment per School and Grade Group

Elementary School (K-5)

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22	
Vossbeck ES	467	461	509	540	444	442		-25
Fisher ES	444	435	472	470	353	472		28
Lsom ES	530	524	521	537	410	412		-118
ES Total	1,441	1,420	1,502	1,547	1,207	1,326		-115

Middle School (6-8)

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22	
Lynden MS	620	667	691	723	628	654		34
MS Total	620	667	691	723	628	654		34

High School (9-12)

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22	
Lynden HS	788	785	816	840	861	870		82
HS Total	788	785	816	840	861	870		82

Non-attendance Area (AA) Schools/Programs

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22	
Lynden Academy	254	231	268	296	486	410		156
Non-AA Total	254	231	271	296	486	410		156

Totals

School Name	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2016-17 to 2021-22	
District Total	3,103	3,103	3,280	3,406	3,182	3,260		157

Lynden SD Monthly Enrollment Report (P223 Headcount) October 2016–17 to 2021–2021 enrollment per school and grade group. Enrollment values omit students attending full-time Running Start and PS. The lowest and highest enrollment values per school are highlighted blue and orange, respectively. Sparklines are colored blue, gray, or orange to illustrate 5-year decline, stasis, or growth, respectively. Abrupt changes in enrollment are most 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
K-5	1,360	135	1,495	176	311	12.9%	9.0%	20.8%
6-8	685	69	754	63	132	9.2%	9.2%	17.5%
9-12	901	110	1,011	82	192	9.1%	10.9%	19.0%
District-wide	**2,946**	**314**	**3,260**	**321**	**635**	**10.9%**	**9.6%**	**19.5%**

Lynden School District October 2021–22 SIS enrollment. Enrollment values omit full-time Running Start and PS.

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

Attendance Area \ School of Attendance	Residence Count	Fisher ES	Isom ES	Vossbeck ES	Lynden Academy	Capture Rate	Transfer Out Student Total	Transfer Out Rate
Fisher ES	488	412	30	14	32	84.4%	76	15.6%
Isom ES	414	16	358	3	37	86.5%	56	13.5%
Vossbeck ES	458	10	11	414	23	90.4%	44	9.6%
K-5 Subtotals	1,360	438	399	431	92	87.1%	176	12.9%
Out of District	135	34	13	11	77	--	--	--
K-5 Totals	1,495	472	412	442	169	--	--	--
Transfer In Student Total	311	60	54	28	169	--	--	--
Transfer In Rate	20.8%	12.7%	13.1%	6.3%	100%	--	--	--

Lynden School District October 2021–22 SIS enrollment. Enrollment values omit full-time Running Start and PS. Residence counts are based on current attendance area boundaries, as of the 2020–21 school year.

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

School of Attendance / Attendance Area	Residence Count	Lynden MS	Lynden Academy	Capture Rate	Transfer Out Student Total	Transfer Out Rate
Lynden MS	685	622	63	90.8%	63	9.2%
6-8 Subtotals	685	622	63	--	--	--
Out of District	69	32	37	--	--	--
6-8 Totals	754	654	100	--	--	--
Transfer In Student Total	132	32	100	--	--	--
Transfer In Rate	17.5%	4.9%	100%	--	--	--

Lynden School District October 2021–22 SIS enrollment. Enrollment values omit full-time Running Start and PS. Residence counts are based on current attendance area boundaries, as of the 2020–21 school year.

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

School of Attendance / Attendance Area	Residence Count	Lynden HS	Lynden Academy	Capture Rate	Transfer Out Student Total	Transfer Out Rate
Lynden HS	901	819	82	90.9%	82	9.1%
9-12 Subtotals	901	819	82	--	--	--
Out of District	110	51	59	--	--	--
9-12 Totals	1,011	870	141	--	--	--
Transfer In Student Total	192	51	141	--	--	--
Transfer In Rate	19.0%	5.9%	100%	--	--	--

Lynden School District October 2021–22 SIS enrollment. Enrollment values omit full-time Running Start and PS. Residence counts are based on current attendance area boundaries, as of the 2020–21 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	559	670	1,229
Multifamily	291	121	412
Unspecified	114	265	379
Total	964	1,056	2,020
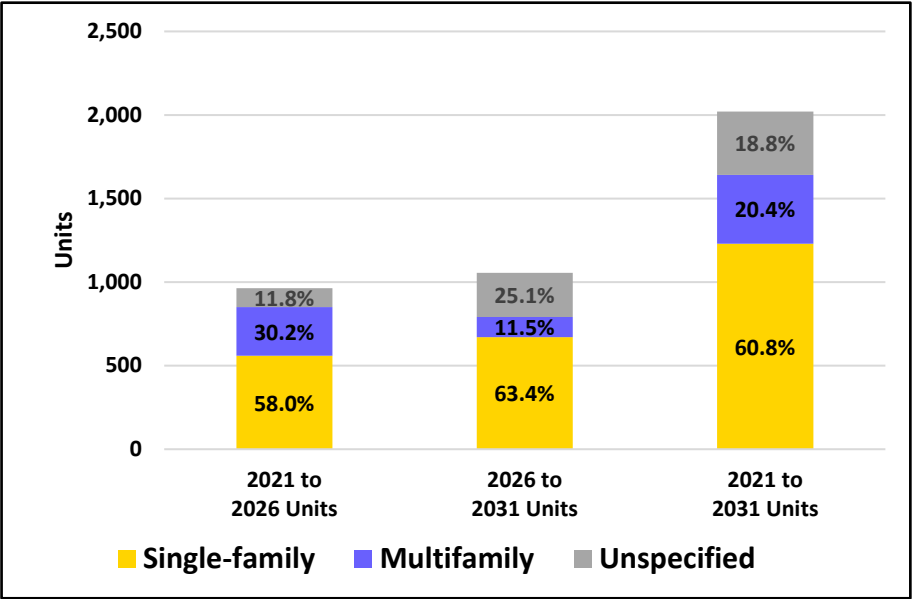
Total number of anticipated housing units by type within the enrollment forecast horizon. Percentages represent each housing type's proportion of the total number of units.

Development Data

Figure 10

2022-23 to 2031-32 Enrollment Forecasts Report:
Based on October 2021 Enrollment
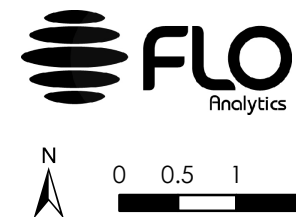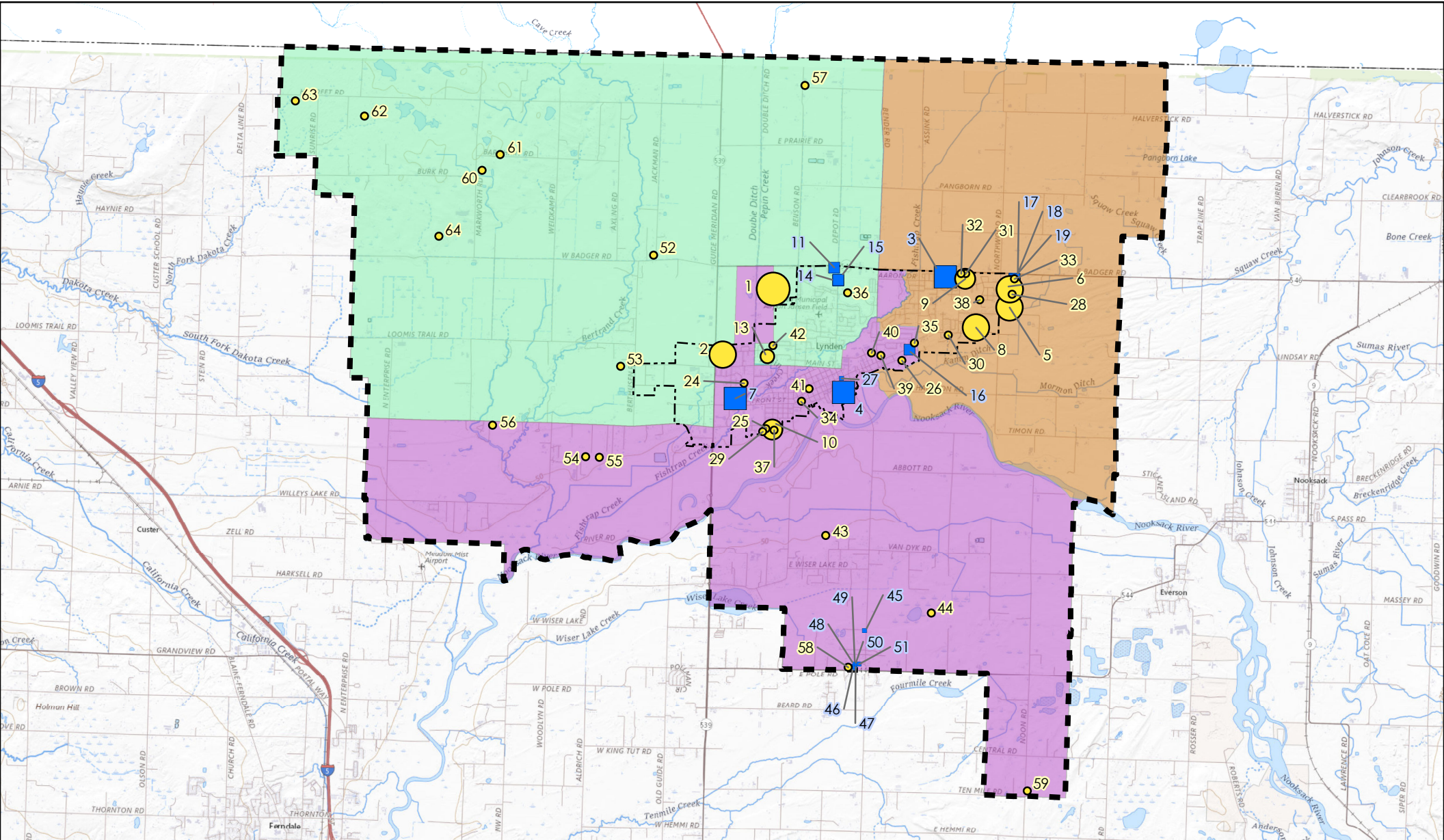
Single Family Development

- 0 - 5
- 6 - 25
- 26 - 75
- 76 - 200
- > 200

Multi-Family Development

- 0 - 5
- 6 - 25
- 26 - 50
- 51 - 100

Lynden City Limits

District Boundary

Fisher ES

Isom ES

Vossbeck ES

Label # corresponds to Map IDs on Figure 11.

Figure 11: Land Use Development Data

Map ID	Jurisdiction	Source	Type	Total Units	Current to 5-Year Units	5-Year to 10-Year Units	Current Year to 10-Year Units	Beyond 10-Year Units	Notes
1	Lynden	Long-range Planner	SF	1,350	202.5	472.5	675	675	Pepin Creek Subarea; 1350-1700 units in the next 20 years
2	Lynden	Long-range Planner	SF	134	40.2	93.8	134	0	Proposed; 110 SF and 24 duplex units.
3	Lynden	Long-range Planner	MF	100	60	40	100	0	100-110 MF units; preliminary approval
4	Lynden	Long-range Planner	MF	100	60	40	100	0	100-150 rental or townhome units in next 15 years
5	Lynden	Long-range Planner	SF	100	70	30	100	0	Approx 100 SF units in next 5 years
6	Lynden	Long-range Planner	SF	93	65	28	93	0	93 SF; currently under construction
7	Lynden	Long-range Planner	MF	80	64	16	80	0	80 condos; currently under construction
8	Lynden	Long-range Planner	SF	80	48	32	80	0	80-120 SF units in next 20 years
9	Lynden	Long-range Planner	SF	45	45	0	45	0	12 duplex and 33 SF units; currently under construction
10	Lynden	Long-range Planner	SF	34	30.6	3.4	34	0	34 SF in next 3 years, currently under construction; potentially 12 ADUs
11	Lynden	Long-range Planner	MF	24	19.2	4.8	24	0	New 4-Story 24 unit apartment building: 21,398 sf
12	Lynden	Long-range Planner	MF	24	16.8	7.2	24	0	3 Story 24 unit apartment building at 8878 Depot Road Units 101-108, 201-208, 301-308: 27,262 sf living area (8850 sf main fl, 9548 sf 2nd floor, 8864 sf 3rd Floor). 3 & 2 Bdrm/2 Bath each unit. Electric heat. 1st Fl ea unit: 2 @ 1350sf & 254sf carports.
13	Lynden	Long-range Planner	SF	20	10	10	20	0	20-25 SF in next 10 years
14	Lynden	Long-range Planner	MF	12	8.4	3.6	12	0	New 12 unit apartment building: 13,330 sf total living area (6164 sf main fl, 7166 sf upper fl) - Electric heat
15	Lynden	Long-range Planner	MF	12	8.4	3.6	12	0	New 12 unit apartment building - Depot Estates (Bldg #2): 13,330 sf total living area (6164 sf main fl, 7166 sf upper fl). Duplicate plan review same as 8874 Depot Rd BP2021013.
16	Lynden	Long-range Planner	MF	10	4	6	10	0	10-15 MF units in next 3 years
17	Lynden	Long-range Planner	MF	7	7	0	7	0	New 7 plex Pacific Edge Bldrs (Future Currant St address will be assigned after development)

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

Figure 11: Land Use Development Data

Map ID	Jurisdiction	Source	Type	Total Units	Current to 5-Year Units	5-Year to 10-Year Units	Current Year to 10-Year Units	Beyond 10-Year Units	Notes
18	Lynden	Long-range Planner	MF	6	6	0	6	0	New 6 plex Pacific Edge Bldrs (Future Currant St address will be assigned after development)
19	Lynden	Long-range Planner	MF	4	4	0	4	0	New 4-plex Pacific Edge Bldrs 3 Bdrm/2 Bath each unit: 5016 sf living area (2936 sf main fl, 2080 sf upper fl). 560 sf patio.
20	Lynden	Long-range Planner	MF	4	4	0	4	0	New 4-plex Pacific Edge Bldrs 3 Bdrm/2 Bath each unit: 5016 sf living area (2936 sf main fl, 2080 sf upper fl). 560 sf patio.
21	Lynden	Long-range Planner	MF	4	4	0	4	0	New 4-plex 3 Bdrm/2 Bath ea unit: 5016 sf living area (2936 sf 1st floor, 2080 sf 2nd floor) Duplicate plan review
22	Lynden	Long-range Planner	MF	4	4	0	4	0	New 4-plex 3 Bdrm/2 Bath ea unit: 5016 sf living area (2936 sf 1st floor, 2080 sf 2nd floor) Duplicate plan review
23	Lynden	Long-range Planner	MF	4	4	0	4	0	New 4-plex 3 Bdrm/2 Bath ea unit: 5016 sf living area (2936 sf 1st floor, 2080 sf 2nd floor) Duplicate plan review
24	Lynden	Long-range Planner	SF	3	3	0	3	0	Single unit records grouped by block; point on map is block centroid
25	Lynden	Long-range Planner	SF	3	3	0	3	0	Single unit records grouped by block; point on map is block centroid
26	Lynden	Long-range Planner	SF	3	3	0	3	0	Single unit records grouped by block; point on map is block centroid
27	Lynden	Long-range Planner	MF	3	3	0	3	0	Forge Fitness Townhouses: Demolish portion of existing steel commercial building to construct 3 new townhouses - 3 Bdrm/2.5 Bath each.
28	Lynden	Long-range Planner	SF	2	2	0	2	0	Single unit records grouped by block; point on map is block centroid
29	Lynden	Long-range Planner	SF	2	2	0	2	0	Single unit records grouped by block; point on map is block centroid
30	Lynden	Long-range Planner	SF	2	2	0	2	0	New Duplex with 3 Bdrm/2.5 Bath each unit: 4164 sf total living area. Units A & B

Record represents a unique single-family (SF) or multifamily (MF) residential developments, unless noted as sum of developments with < 5 units.

Map IDs correspond to labels depicted on Figure 10.

Figure 11: Land Use Development Data

Map ID	Jurisdiction	Source	Type	Total Units	Current to 5-Year Units	5-Year to 10-Year Units	Current Year to 10-Year Units	Beyond 10-Year Units	Notes
31	Lynden	Long-range Planner	SF	2	2	0	2	0	New duplex - 3 Bdrm/2.5 Bath per unit: Total living area 3516 sf - 1758 sf living area per unit (1167 sf main fl, 591 sf upper fl), 492 sf garage ea unit, 126 sf patio ea unit.
32	Lynden	Long-range Planner	SF	2	2	0	2	0	New Duplex 3 Bdrm/2.5 Bath each unit: Total living area 3964sf.
33	Lynden	Long-range Planner	SF	2	2	0	2	0	New Duplex 2-Story w/garages: 2508 sf total living area and 960 sf total garages - Units A & B
34	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR 4 Bdrm/3 Bath with Daylight Basement: 2698 sf living area (1389 sf main fl, and 1309 sf basement), 507 sf garage, 25 sf porch, 210 sf patio, 210 Deck
35	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR with attached ADU (Unit B): Total living area 2653 sf - 1644 sf main unit (1291 sf main fl, 363 sf upper fl), and 999 sf ADU (approved recorded covenant required), 444 sf attached garage, 22 sf porch.
36	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR 2 Story 4 Bdrm/3 Bath: 2694 sf living area (2420 sf main fl, 1274 sf upper fl), and 1368 sf attached garage. Lot 1 - Homestead Maberry Plat Dive 7
37	Lynden	Long-range Planner	SF	1	1	0	1	0	New 2 story SFR and attached Shop with ADU (Unit B):
38	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR 3 Bdrm/3 Bath: 2374 sf living area (1798 sf main fl, 576 sf upper fl), 499 sf attached garage, 96 sf porch/patio
39	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR- 5 bedroom/2 full baths & 2 half baths: 2371 sf living area (1157 1st floor; 1214 2nd floor) ,602 sf attached garage
40	Lynden	Long-range Planner	SF	1	1	0	1	0	New detached residential building on parcel with one existing residence: New 2-Story building with 2 Bdrm/2 Bath - 1452 sf living area on main floor, and 1452 sf storage area on 2nd floor.

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

Figure 11: Land Use Development Data

Map ID	Jurisdiction	Source	Type	Total Units	Current to 5-Year Units	5-Year to 10-Year Units	Current Year to 10-Year Units	Beyond 10-Year Units	Notes
41	Lynden	Long-range Planner	SF	1	1	0	1	0	Construct a 2nd living unit on to the existing residence on multi-family parcel. Moving from Single Family use to Multi-Family use.
42	Lynden	Long-range Planner	SF	1	1	0	1	0	New SFR 3 Bdrm/2.5 Bath: 2848 sf living area (1769 sf main fl, 1079 sf upper fl), 654 sf attached garage, 134 sf porch, 296 sf patio.
43	Whatcom County	Whatcom County	SF	3	3	0	3	0	Single unit records grouped by block; point on map is block centroid
44	Whatcom County	Whatcom County	SF	2	2	0	2	0	Single unit records grouped by block; point on map is block centroid
45	Whatcom County	Whatcom County	MF	2	2	0	2	0	
46	Whatcom County	Whatcom County	MF	2	2	0	2	0	
47	Whatcom County	Whatcom County	MF	2	2	0	2	0	
48	Whatcom County	Whatcom County	MF	2	2	0	2	0	
49	Whatcom County	Whatcom County	MF	2	2	0	2	0	
50	Whatcom County	Whatcom County	MF	2	2	0	2	0	
51	Whatcom County	Whatcom County	MF	2	2	0	2	0	
52	Whatcom County	Whatcom County	SF	1	1	0	1	0	
53	Whatcom County	Whatcom County	SF	1	1	0	1	0	
54	Whatcom County	Whatcom County	SF	1	1	0	1	0	
55	Whatcom County	Whatcom County	SF	1	1	0	1	0	
56	Whatcom County	Whatcom County	SF	1	1	0	1	0	
57	Whatcom County	Whatcom County	SF	1	1	0	1	0	
58	Whatcom County	Whatcom County	SF	1	1	0	1	0	
59	Whatcom County	Whatcom County	SF	1	1	0	1	0	
60	Whatcom County	Whatcom County	SF	1	1	0	1	0	
61	Whatcom County	Whatcom County	SF	1	1	0	1	0	
62	Whatcom County	Whatcom County	SF	1	1	0	1	0	
63	Whatcom County	Whatcom County	SF	1	1	0	1	0	
64	Whatcom County	Whatcom County	SF	1	1	0	1	0	

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

Figure 12: Student Generation Rates

Summary of Generation Rates Used for New Development	K-12 Students per Single-Family (SF) Unit	K-12 Students per Multifamily (MF) Unit
Overall Average Rates	*0.55*	*0.29*
Highest Rate Used for a Development	0.64	0.31
Lowest Rate Used for a Development	0.33	0.26

While overall average student generation rates used in preparing the forecasts were 0.55 K-12 students/SF unit and 0.29 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

									Forecasts →						
Birth Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
County Births	2,251	2,235	2,282	2,367	2,275	2,160	2,153	1,989	1,953	1,876	1,949	2,017	2,089	2,116	2,141

						Forecasts →									
K Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K Total	251	265	297	226	235	257	261	247	247	242	251	260	268	272	276
K % of Births	11.2%	11.9%	13.0%	9.5%	10.3%	11.9%	12.1%	12.4%	12.6%	12.9%	12.9%	12.9%	12.9%	12.9%	12.9%

Birth Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
K Enrollment	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031

— County Births   — Kindergarten Enrollment (Advanced 5 years, e.g., 2016 Births to 2021 Kindergarten)

WA DOH 2010 to 2019 historical live births to mothers residing in Whatcom County, as well as historical district K totals 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). 2020–26 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	2016-17	2017-18	2018-19	2019-20	2020-21	3-year Avg	2-year Avg	Fcst GPR
K-1	0.97	1.07	1.03	0.81	1.08	0.97	0.95	1.03
1-2	0.99	1.05	1.02	0.95	1.01	0.99	0.98	1.02
2-3	0.98	1.05	0.98	0.88	1.00	0.95	0.94	1.01
3-4	0.98	1.00	0.99	0.90	1.07	0.99	0.99	1.01
4-5	0.98	1.04	0.99	0.93	1.00	0.97	0.97	1.00
5-6	0.97	1.03	1.02	0.91	1.06	1.00	0.99	1.03
6-7	1.00	1.04	1.04	0.96	0.97	0.99	0.97	1.01
7-8	1.01	1.05	1.05	0.95	1.03	1.01	0.99	1.03
8-9	1.04	1.22	1.15	1.02	1.05	1.07	1.03	1.08
9-10	0.97	1.05	0.99	0.96	1.00	0.99	0.98	1.00
10-11	0.87	0.86	0.88	0.83	0.90	0.87	0.86	0.87
11-12	0.95	0.87	0.95	0.88	0.96	0.93	0.92	0.94

2016–17 to 2020–21 Grade Progression Ratios (GPR) based on Lynden School District Monthly Enrollment Report (P223 Headcount) 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: High, Preferred, and Low Scenarios
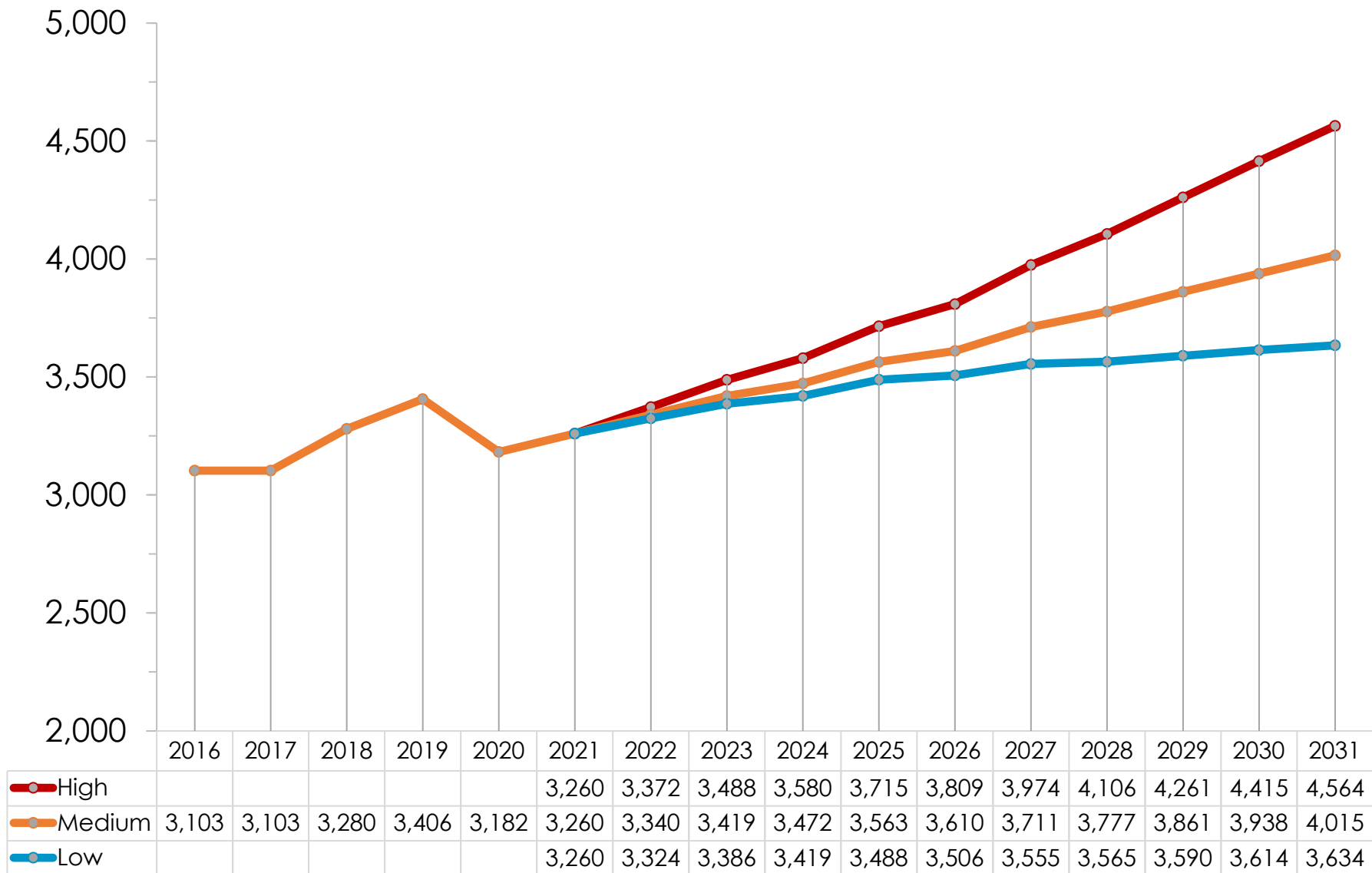
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
High						3,260	3,372	3,488	3,580	3,715	3,809	3,974	4,106	4,261	4,415	4,564
Medium	3,103	3,103	3,280	3,406	3,182	3,260	3,340	3,419	3,472	3,563	3,610	3,711	3,777	3,861	3,938	4,015
Low						3,260	3,324	3,386	3,419	3,488	3,506	3,555	3,565	3,590	3,614	3,634

Lynden SD Monthly Enrollment Report (P223 Headcount) October 2016–17 to 2021–22 and 2022–23 to 2031–32 FLO enrollment forecasts. All enrollment values include all students living within and outside the district boundary, except for students attending full-time Running Start and PS.

Figure 16: Building Attendance Enrollment Forecasts by Grade Group: Preferred Scenario
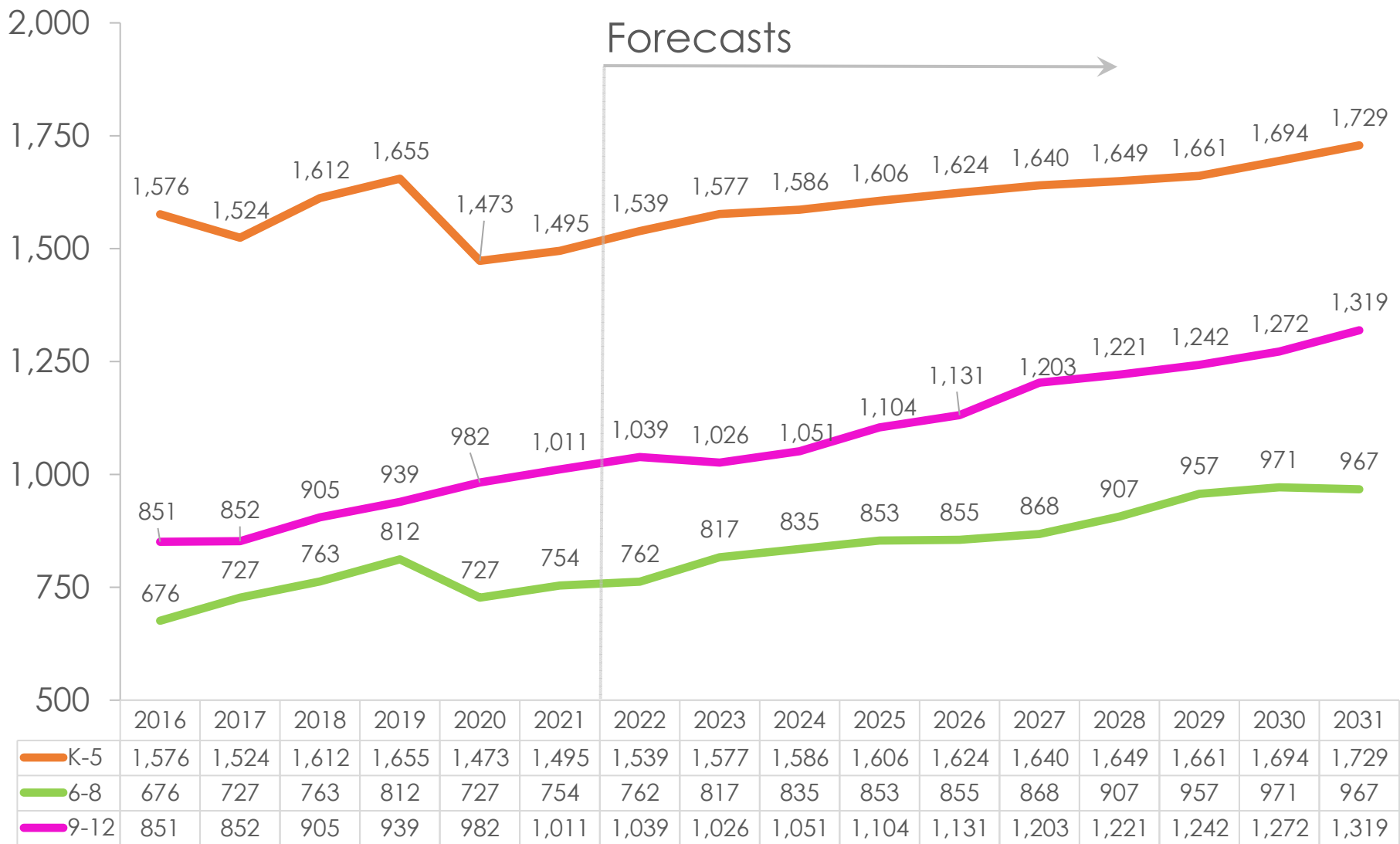
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K-5	1,576	1,524	1,612	1,655	1,473	1,495	1,539	1,577	1,586	1,606	1,624	1,640	1,649	1,661	1,694	1,729
6-8	676	727	763	812	727	754	762	817	835	853	855	868	907	957	971	967
9-12	851	852	905	939	982	1,011	1,039	1,026	1,051	1,104	1,131	1,203	1,221	1,242	1,272	1,319

Lynden SD Monthly Enrollment Report (P223 Headcount) October 2016–17 to 2021–22 and 2022–23 to 2031–32 FLO enrollment forecasts. All enrollment values include all students living within and outside the district boundary, except for students attending full-time Running Start and PS.

Figure 17: District Grade Totals, Attendance Area Residence-Based Forecasts

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K	223	234	238	223	223	217	226	235	243	247	250
1	212	233	245	249	234	234	230	239	248	257	261
2	225	219	240	253	257	241	243	239	249	258	268
3	242	232	226	247	260	265	250	252	248	258	268
4	233	246	236	232	252	265	272	258	260	255	266
5	225	236	248	240	236	255	270	277	263	265	261
6	242	234	246	259	250	247	267	284	292	277	279
7	203	247	239	251	263	256	254	273	292	300	285
8	240	211	257	249	262	274	268	266	286	306	315
9	224	262	231	281	272	286	299	294	293	314	337
10	264	227	265	234	285	276	291	303	300	299	320
11	217	232	199	234	206	251	244	258	268	266	265
12	196	205	219	189	221	196	238	232	246	255	253

	Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Residing in District (Residence-Based)	K-5	1,360	1,400	1,434	1,443	1,461	1,477	1,492	1,500	1,511	1,541	1,573
	6-8	685	692	742	758	775	777	789	824	869	883	879
	9-12	901	926	914	937	984	1,008	1,072	1,088	1,107	1,134	1,176
	K-12	2,946	3,018	3,091	3,138	3,220	3,262	3,353	3,412	3,488	3,558	3,627
Out-of-District	K-5	135	139	142	143	145	147	148	149	150	153	156
	6-8	69	70	75	76	78	78	79	83	88	89	89
	9-12	110	113	112	114	120	123	131	133	135	138	144
	K-12	314	322	329	334	343	348	358	365	373	380	388
Total Attendance (Building Attendance)	K-5	1,495	1,539	1,577	1,586	1,606	1,624	1,640	1,649	1,661	1,694	1,729
	6-8	754	762	817	835	853	855	868	907	957	971	967
	9-12	1,011	1,039	1,026	1,051	1,104	1,131	1,203	1,221	1,242	1,272	1,319
	K-12	3,260	3,340	3,419	3,472	3,563	3,610	3,711	3,777	3,861	3,938	4,015

Lynden Monthly Enrollment Report (P223 Headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–31 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and PS.

Figure 18: Residence-Based Forecasts by Attendance Area

Attendance Area	Students Residing*						
	2021	2022	2023	2024	2025	2026	2031
Fisher ES	559	568	564	558	556	552	546
Lsom ES	411	421	443	450	450	463	554
Vossbeck ES	390	411	427	435	455	462	473
Lynden MS	685	692	742	758	775	777	879
Lynden HS	901	926	914	937	984	1,008	1,176
K-12	*2,946*	*3,018*	*3,091*	*3,138*	*3,220*	*3,262*	*3,627*

314 students residing out-of-district.

Lynden Monthly Enrollment Report (P223 Headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–31 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and PS.

Figure 19: Building Attendance Enrollment Forecasts by Individual Grade

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K	235	257	261	247	247	242	251	260	268	272	276
1	244	257	269	273	258	258	255	264	273	283	287
2	245	242	264	276	281	266	268	264	274	284	294
3	263	255	250	271	284	289	275	277	273	284	294
4	257	269	260	256	276	290	297	282	285	281	292
5	251	259	272	263	260	279	295	302	288	291	287
6	267	258	271	284	276	273	293	312	321	306	309
7	228	270	264	277	289	282	280	301	321	329	314
8	259	235	282	274	288	300	294	294	315	336	344
9	254	290	259	309	302	317	331	328	327	349	373
10	301	255	293	263	315	306	324	336	334	334	356
11	234	260	227	262	236	282	277	291	302	301	301
12	222	233	247	217	251	226	271	266	280	289	289

Total Attendance (Building Attendance)		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	K-6	1,495	1,539	1,577	1,586	1,606	1,624	1,640	1,649	1,661	1,694	1,729
	7-8	754	762	817	835	853	855	868	907	957	971	967
	9-12	1,011	1,039	1,026	1,051	1,104	1,131	1,203	1,221	1,242	1,272	1,319
	K-12	3,260	3,340	3,419	3,472	3,563	3,610	3,711	3,777	3,861	3,938	4,015

Lynden Monthly Enrollment Report (P223 headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–31 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and PS.

Figure 20: Building Attendance Enrollment Forecasts by School/Program

Building/Program	Building Attendance →						
	2021	2022	2023	2024	2025	2026	2031
Fisher ES	472	484	487	486	488	489	499
Isom ES	412	405	426	436	435	447	535
Vossbeck ES	442	469	482	484	502	507	514
Lynden MS	654	666	721	739	757	759	871
Lynden HS	870	918	906	931	984	1,011	1,199
Lynden Academy ES	169	181	181	181	181	181	181
Lynden Academy MS	100	96	96	96	96	96	96
Lynden Academy HS	141	120	120	120	120	120	120
K-12	*3,260*	*3,340*	*3,419*	*3,472*	*3,563*	*3,610*	*4,015*

Lynden Monthly Enrollment Report (P223 Headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–32 enrollment forecasts (medium-growth, or preferred, scenario). Enrollment values exclude students attending full-time Running Start and PS. 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 21: Building Attendance Enrollment Forecasts by Individual Grade: Low Scenario

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K	235	257	260	244	243	232	235	240	244	245	248
1	244	256	267	270	254	253	241	244	249	254	256
2	245	240	262	273	276	260	258	246	250	255	260
3	263	253	246	267	280	282	265	264	252	256	261
4	257	269	257	249	271	283	286	269	268	255	260
5	251	258	271	259	251	273	285	288	271	270	257
6	267	257	268	281	269	261	284	298	303	285	283
7	228	269	261	272	285	273	264	288	303	307	288
8	259	233	279	270	281	294	281	273	299	313	316
9	254	289	256	304	295	307	324	309	300	326	342
10	301	254	290	258	307	298	309	324	311	302	329
11	234	259	225	258	230	273	264	272	285	277	269
12	222	232	245	214	245	219	258	249	257	269	263

Total Attendance (Building Attendance)

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K-6	1,762	1,789	1,831	1,844	1,844	1,843	1,855	1,849	1,835	1,820	1,826
7-8	487	502	540	542	566	567	545	562	602	619	604
9-12	1,011	1,034	1,016	1,033	1,078	1,097	1,155	1,154	1,153	1,175	1,204
K-12	3,260	3,324	3,386	3,419	3,488	3,506	3,555	3,565	3,590	3,614	3,634

Lynden Monthly Enrollment Report (P223 Headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–31 enrollment forecasts (low-growth scenario). Enrollment values exclude students attending full-time Running Start and PS.

Figure 22: Building Attendance Enrollment Forecasts by Individual Grade: High Scenario

Grade	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
K	235	257	266	255	259	258	270	282	294	298	302
1	244	260	273	281	270	274	277	289	302	315	320
2	245	245	271	284	293	281	290	292	305	319	333
3	263	258	255	282	295	305	297	305	308	322	336
4	257	273	266	263	291	305	319	310	319	322	336
5	251	262	280	273	269	298	316	330	321	331	334
6	267	261	277	296	289	285	319	339	357	347	357
7	228	272	270	286	306	298	296	332	355	372	361
8	259	236	287	283	300	321	315	314	354	376	395
9	254	293	263	317	314	334	358	354	353	397	423
10	301	257	298	269	325	322	343	366	365	365	411
11	234	262	231	268	243	293	292	310	330	332	333
12	222	235	251	222	259	235	284	282	298	319	323

Total Attendance (Building Attendance)		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	K-6	1,762	1,816	1,888	1,935	1,968	2,007	2,086	2,148	2,206	2,254	2,318
	7-8	487	509	556	569	606	618	611	647	709	748	756
	9-12	1,011	1,047	1,043	1,076	1,141	1,183	1,277	1,311	1,346	1,413	1,490
	K-12	3,260	3,372	3,488	3,580	3,715	3,809	3,974	4,106	4,261	4,415	4,564

Lynden Monthly Enrollment Report (P223 Headcount) October 2021–22 enrollment and FLO 2022–23 to 2031–31 enrollment forecasts (high-growth scenario). Enrollment values exclude students attending full-time Running Start and PS.