# Enrollment Forecasts

SOMERVILLE PUBLIC SCHOOLS APRIL 3, 2023



## About FLO



Rebecca Wright
Project Manager
& Project Planner



Kate Doiron Senior GIS Analyst



Benjamin Maloney Demographer & Senior Data Analyst



Charles Rynerson Demographer & Senior Data Analyst

#### **How We Help School Districts**

- Student Enrollment Forecasting
- Demographic and Socioeconomic Analyses
- Enrollment Modeling (e.g., grade group reconfiguration)
- Attendance Area Boundary Reviews
- Long-range Facility
   Plans
- Transportation and Walkability Studies

#### **Demographic and Mapping Specialists**

- Team of applied demographers and population geographers using industry-standard methods
- Experience with national, state, and local data sources
- Expertise in geospatial data analysis and visualization
- Great communicators and presenters to school district professionals and non-technical audiences



# Project Goal & Process

1. Develop ten-year student enrollment forecasts for Somerville Public Schools reported annually 2023–24 to 2032-33.

- GIS Data
- Historical Enrollment Data
- SIS Enrollment Data

Student Enrollment Assessment

## Demographic and Land Use Analysis

- Residential development data
- Interviews with planners
- Historical births
- Female population of childbearing age

- Births-to-kindergarten
- Modified Grade Progression Ratio (GPR) Method
- Cohort Component Method

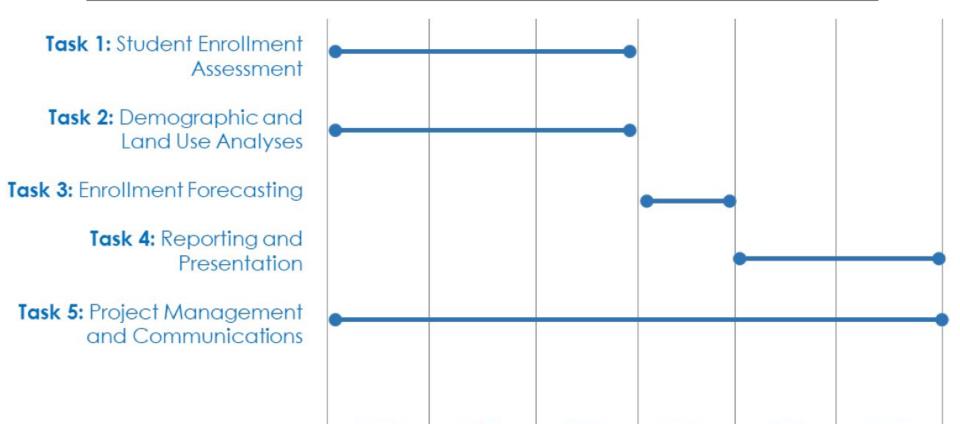
Enrollment Forecasting



# Project Timeline

OCT

2022



NOV

2022

DEC

2022

JAN

2023



MAR

2023

FEB

2023





## District Overview

East Somerville K-8

Healey K-8

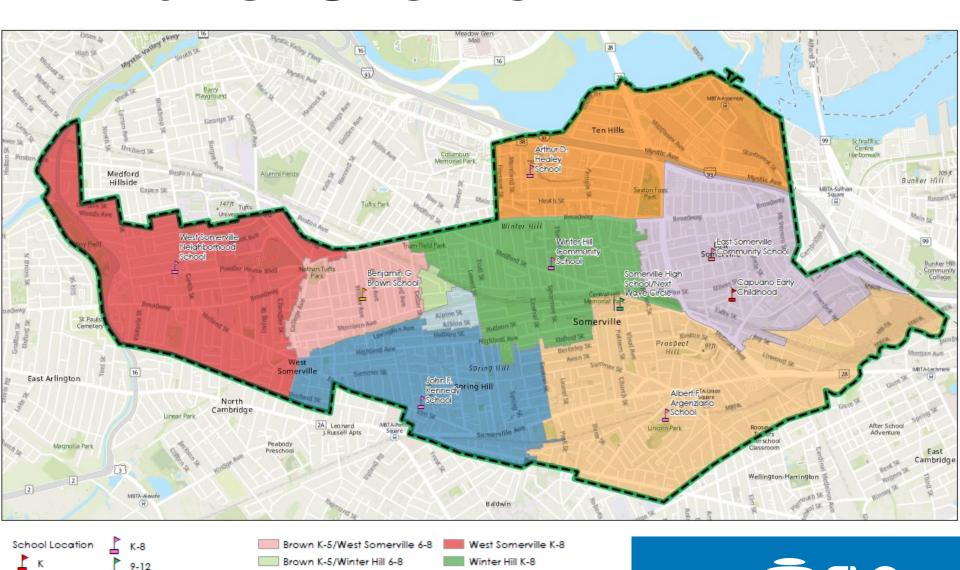
Kennedy K-8

K-8 Attendance Area

K-5

Argenziano K-8

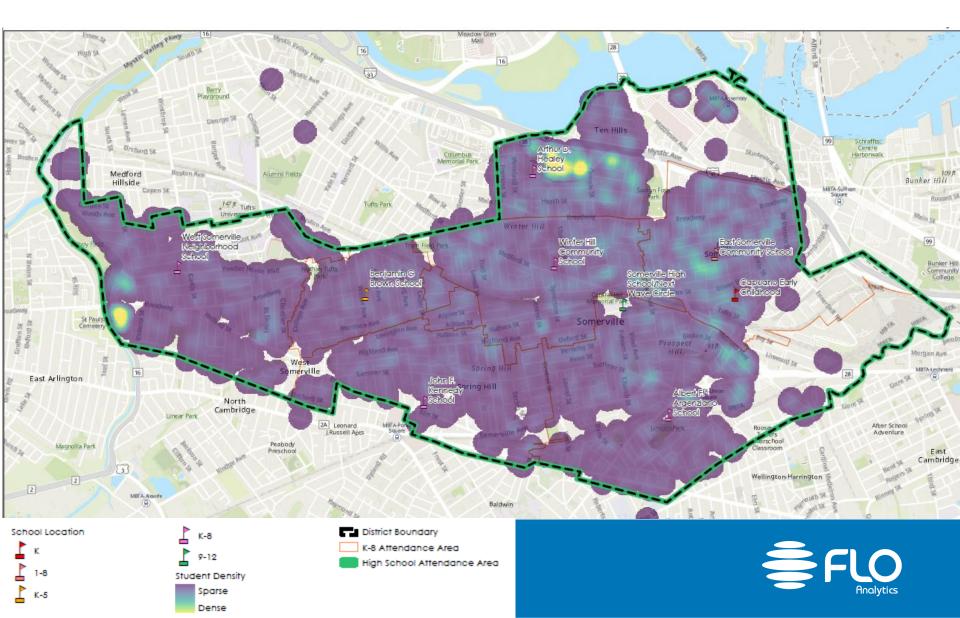
Brown K-5/Kennedy 6-8



High School Attendance Area

District Boundary

# Student Density



### Historical and Current Enrollment

#### District-wide Totals

Grade	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2012-13 to 2022	-23
PK	287	328	330	323	339	344	343	324	245	245	289		2
K	480	452	467	447	420	430	424	436	396	353	367		-113
1	442	455	419	422	429	389	419	416	400	362	397		-45
2	363	425	427	407	424	411	380	380	385	391	385		22
3	379	345	405	423	371	405	404	367	343	362	399		20
4	369	377	332	377	402	350	381	385	334	305	362	<b>\\\\\</b>	-7
5	375	351	346	313	374	378	346	372	365	325	297		-78
6	356	356	333	332	299	355	358	341	350	358	335		-21
7	276	337	345	303	336	300	347	353	322	343	357	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	81
8	339	263	338	348	297	327	287	346	338	321	341		2
9	379	378	322	378	383	332	342	333	350	399	360	\ \ \	-19
10	340	340	367	308	366	349	324	337	309	345	401	<b>\</b>	61
11	315	318	313	327	283	337	334	306	342	292	327		12
12	326	316	325	298	316	281	322	331	288	335	294	~~~\\	-32
SP	5	9	8	16	15	15	21	21	21	19	9		4
District Total	5,031	5,050	5,077	5,022	5,054	5,003	5,032	5,048	4,788	4,755	4,920		-111







## Land Use & Planning

#### Statewide

# City of **Somerville**

City Limits

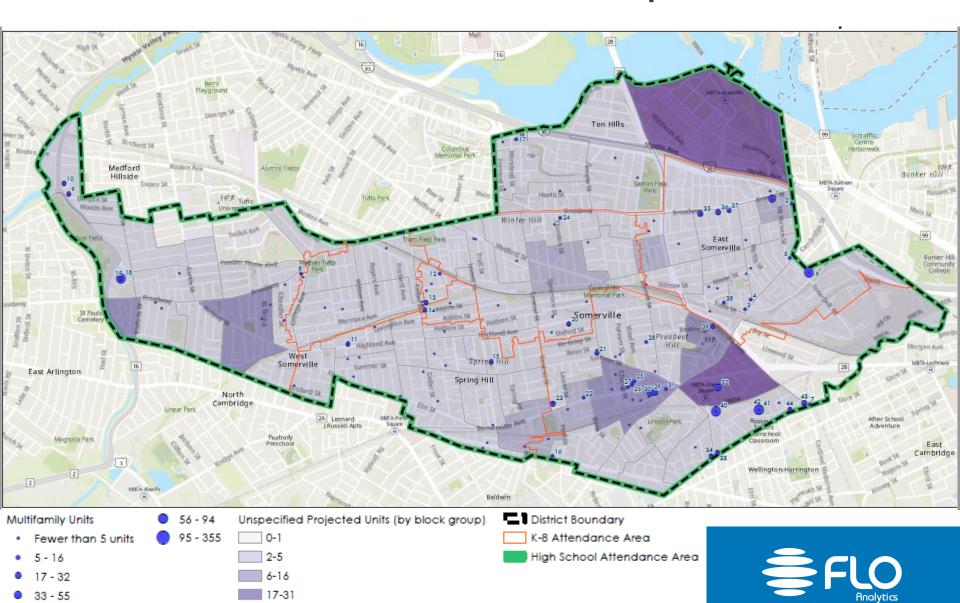
#### **County & Municipal Planning Departments**

- o Parcels
- o Zoning
- Comprehensive Plans
- Permits
- Future Developments
- Interviews with Planners





## Residential Development



32-133





## Source Data

- SPS October Enrollment
- Massachusetts Dept. of Public Health (DOPH) births
- US Census (2010 & 2020) & American Community Survey
- Esri Demographics

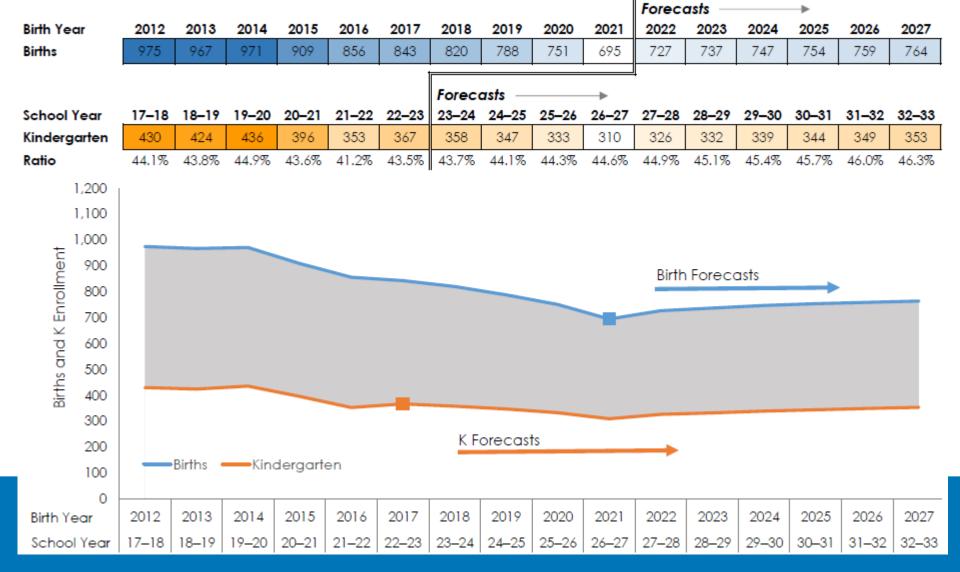








## Births & Kindergarten

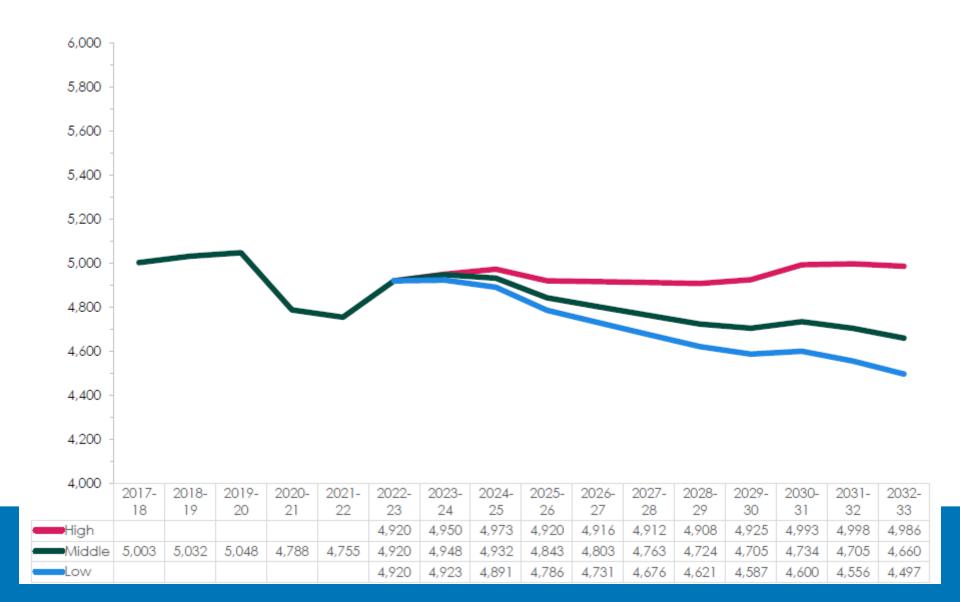


# Grade Progression Ratios

Grade Progression Ratios	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23	3-year pre-COVID Average	Forecast GPR
K-1	0.93	0.97	0.98	0.92	0.91	1.12	0.96	0.98
1–2	0.96	0.98	0.91	0.93	0.98	1.06	0.95	0.99
2–3	0.96	0.98	0.97	0.90	0.94	1.02	0.97	0.97
3–4	0.94	0.94	0.95	0.91	0.89	1.00	0.95	0.95
4–5	0.94	0.99	0.98	0.95	0.97	0.97	0.97	0.98
5–6	0.95	0.95	0.99	0.94	0.98	1.03	0.96	0.97
6-7	1.00	0.98	0.99	0.94	0.98	1.00	0.99	0.99
7–8	0.97	0.96	1.00	0.96	1.00	0.99	0.98	0.99
8–9	1.12	1.05	1.16	1.01	1.18	1.12	1.11	1.13
9–10	0.91	0.98	0.99	0.93	0.99	1.01	0.96	1.00
10–11	0.92	0.96	0.94	1.01	0.94	0.95	0.94	0.94
11-12	0.99	0.96	0.99	0.94	0.98	1.01	0.98	0.97
Average	0.97	0.97	0.99	0.95	0.98	1.02	0.98	-



## District-wide Forecasts



## SPS Enrollment Forecasts

- Between the 2022–23 and 2032–33 school years, District-wide K–12 enrollment (October headcount) is forecasted to decrease by 260 students, from 4,920 to 4,660, or by 5.3 percent.
  - K–5 enrollment from 2,207 to 1,974 (10.6 percent decrease)
  - 6–8 enrollment from 1,033 to 904 (12.5 percent decrease)
  - 9–12 enrollment from 1,382 to 1,506 (9.0 percent increase)
- The decline is in response to an expected decline in PK and K enrollment as a result of the sustained decline in births occurring within the District and forecast GPRs that are generally below 1.00.
- While residential construction will act to moderate the decline, it will likely not be enough to completely offset the expected contraction.



## Feedback?



# Thank you!

