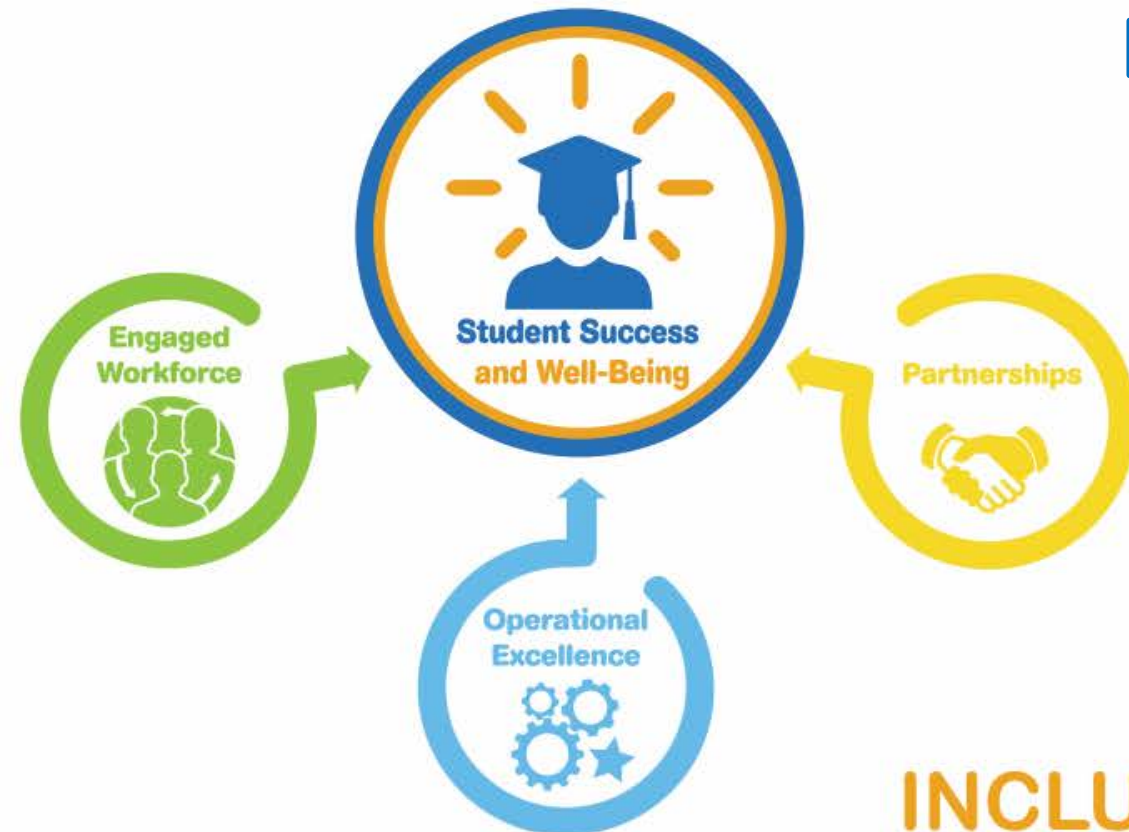


## APS Strategic Plan 2018-2024

# Draft Fall 2019 10-Year Enrollment Projections Preview

December 11, 2019



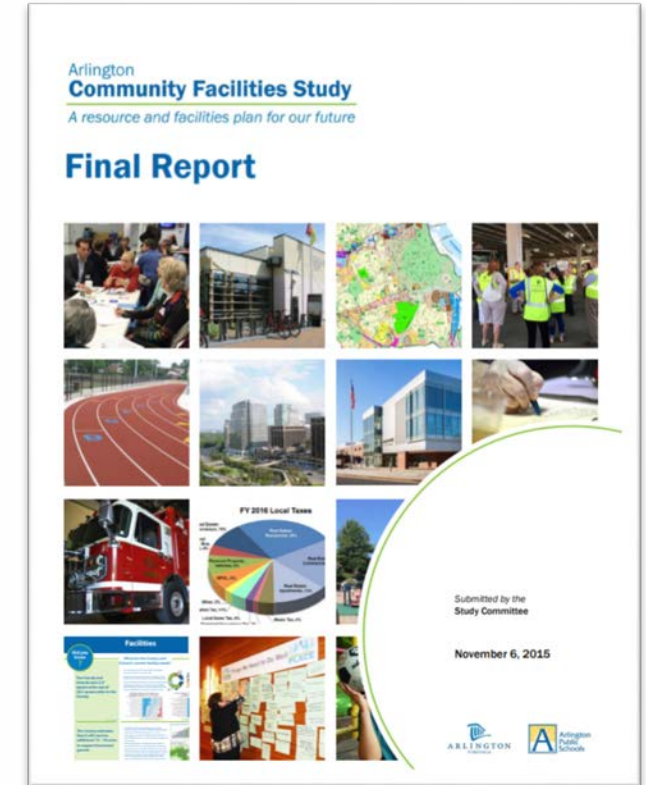
**INCLUSION \* EXCELLENCE \* INNOVATION**

## Community Facilities Study (CFS), 2015 – 2017

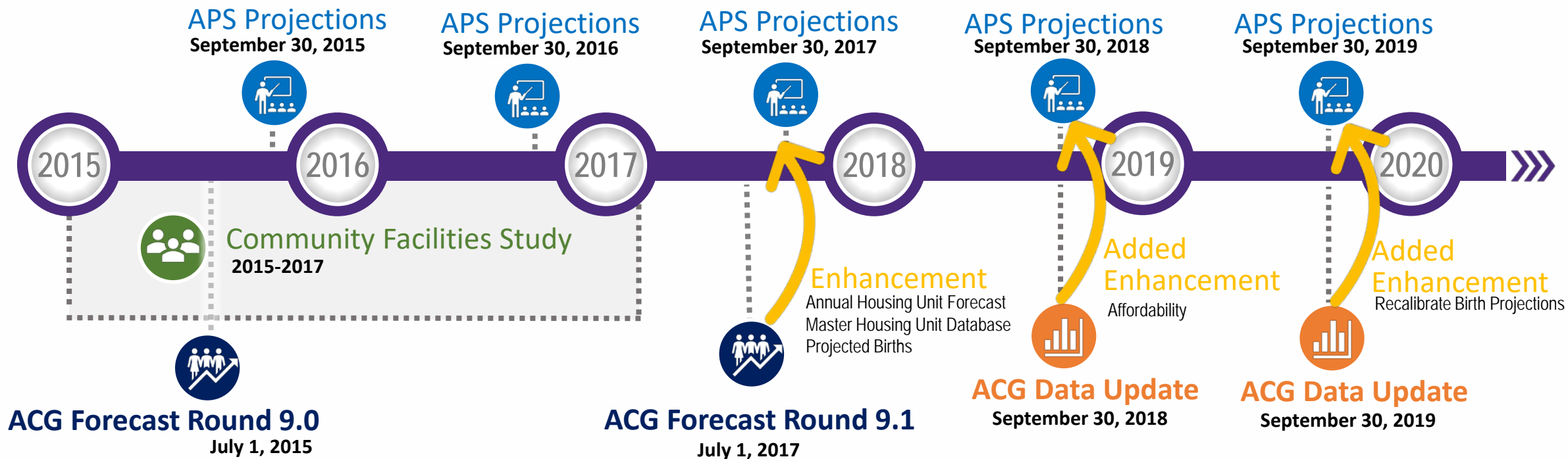
<https://commissions.arlingtonva.us/community-facilities-study/>

The CFS reviewed the ACG Forecast and APS Projections Methods:

- ✓ Consultants reviewed County population and employment forecasts and APS student projections
- ✓ The review reinforced validity of methods
- ✓ This confirmed the need for two different methodologies and projections for two different purposes
- ✓ **Recommended short and long-term improvements for data sharing, collaboration, trend monitoring, and methodology**



# Collaboration between APS and ACG



# Factors Contributing to Enrollment Growth

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# Factors Contributing to Enrollment Growth



Larger kindergarten cohorts entering APS elementary schools



Smaller 12<sup>th</sup> grade cohorts graduating from APS high schools



Projected Arlington County "resident" births



Residential housing growth



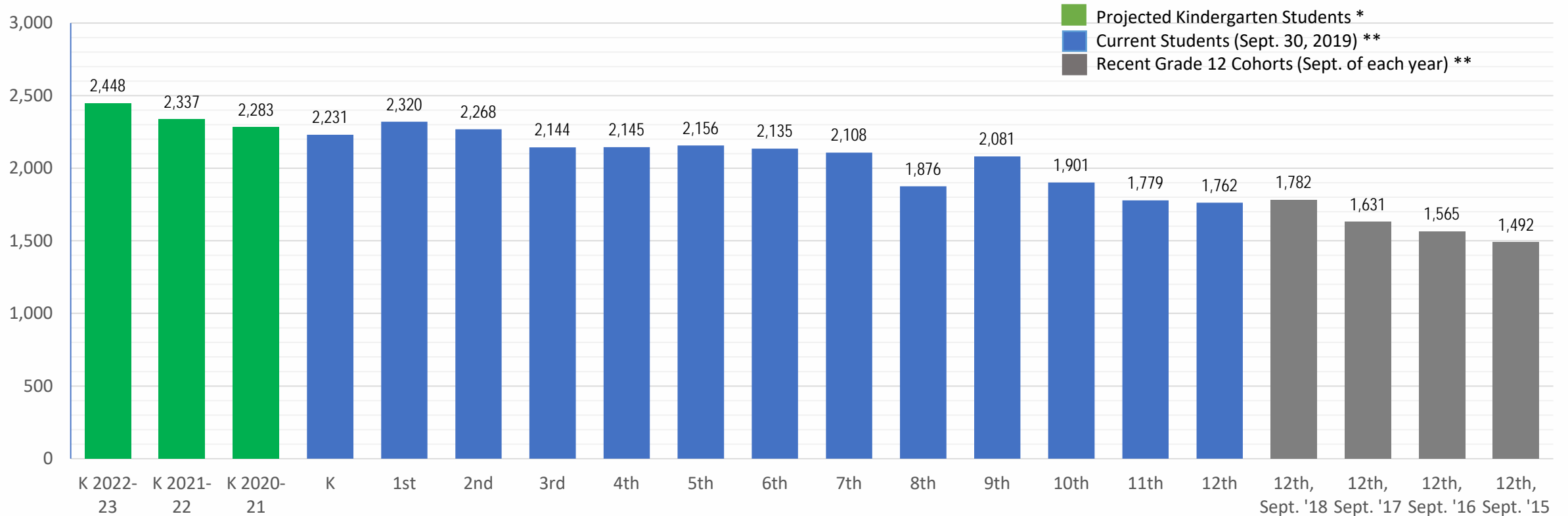
Migration of families into and out of Arlington County



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# Factors Contributing to Enrollment Growth

## APS Student Enrollment Snapshot Fall 2019



\* Source: Fall 2018 10-Year Projections

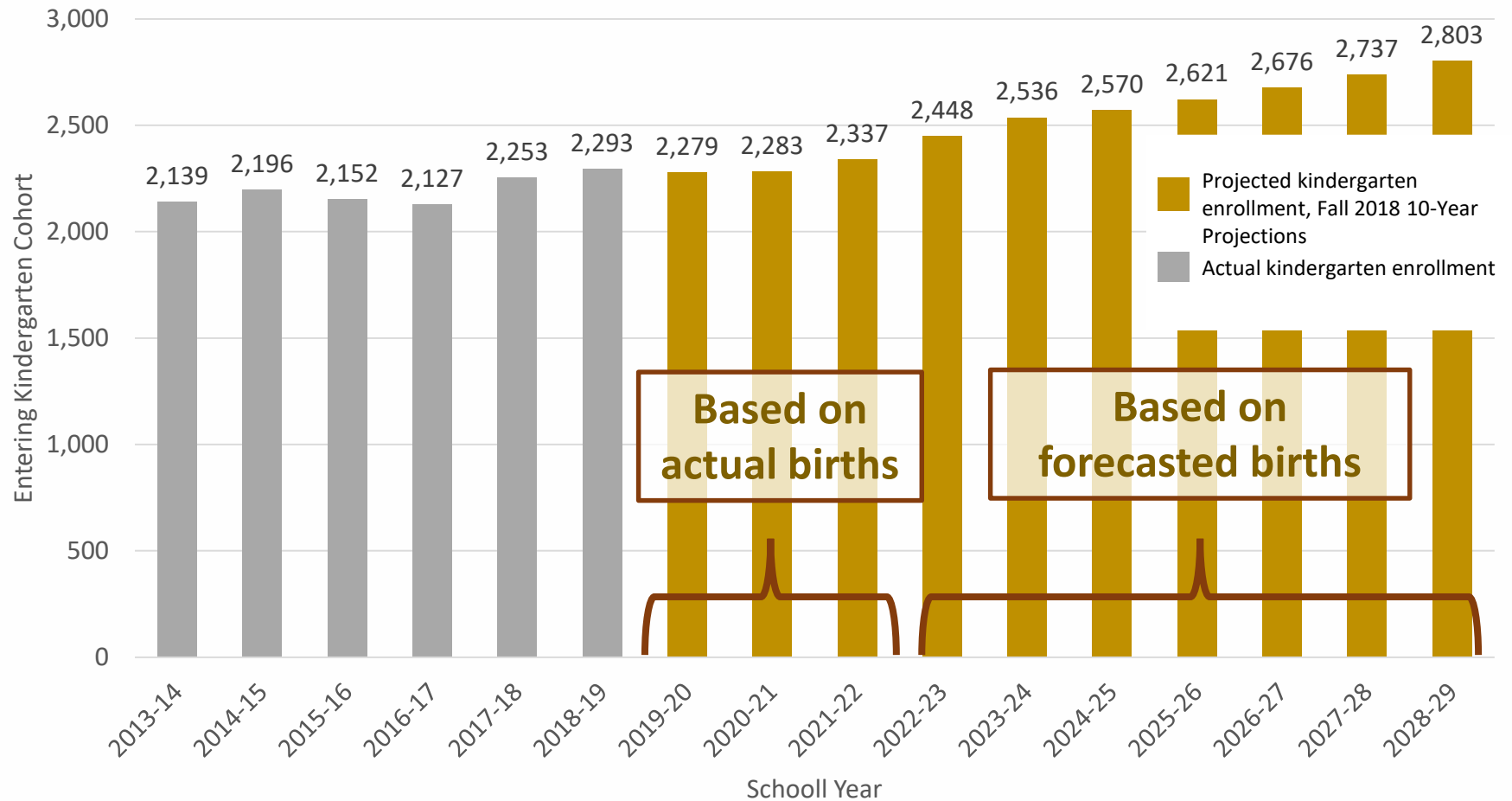
\*\* Source: Membership reports for 2019 and previous years [www.apsva.us/statistics/monthly-enrollment/](http://www.apsva.us/statistics/monthly-enrollment/)

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# Factors Contributing to Enrollment Growth

Enrollment projections rely on assumptions for future kindergarten students:

- Kindergarten projections from 2019-20 to 2021-22 are based on actual births from 2014 to 2016
- Kindergarten projections starting in 2022-23 are based on county birth forecasts



Source: Fall 2018 10-Year Projections

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- In Fall 2019, RLS Demographics was contracted to update the Arlington County births forecast model, the *Cohort Projection System*, last updated in 2016
- Comparisons of forecasted and actual births for 2017 and 2018 showed that births were over-estimated in the forecast model
- RLS Demographics' update of the birth forecasts includes:
  - The latest AGC population forecast (Round 9.1)
  - Updated analysis of age-specific fertility rates using 2010 to 2018 historical birth data and US Census bureau estimates of the distribution of the female population by age
  - Updated analysis of age-specific migration using US Census Bureau estimates up to July 1, 2018
- Some key findings that informed the updated births model:
  - It was found that the Total Fertility Rate (TFR) from 2010 to 2015 was 1.44 and is estimated to decline to 1.34 in the 2015 to 2020 period\*
  - There is a reduced level of in-migration for the 20 to 24 and 25 to 29 age groups, compared with the 2016 model

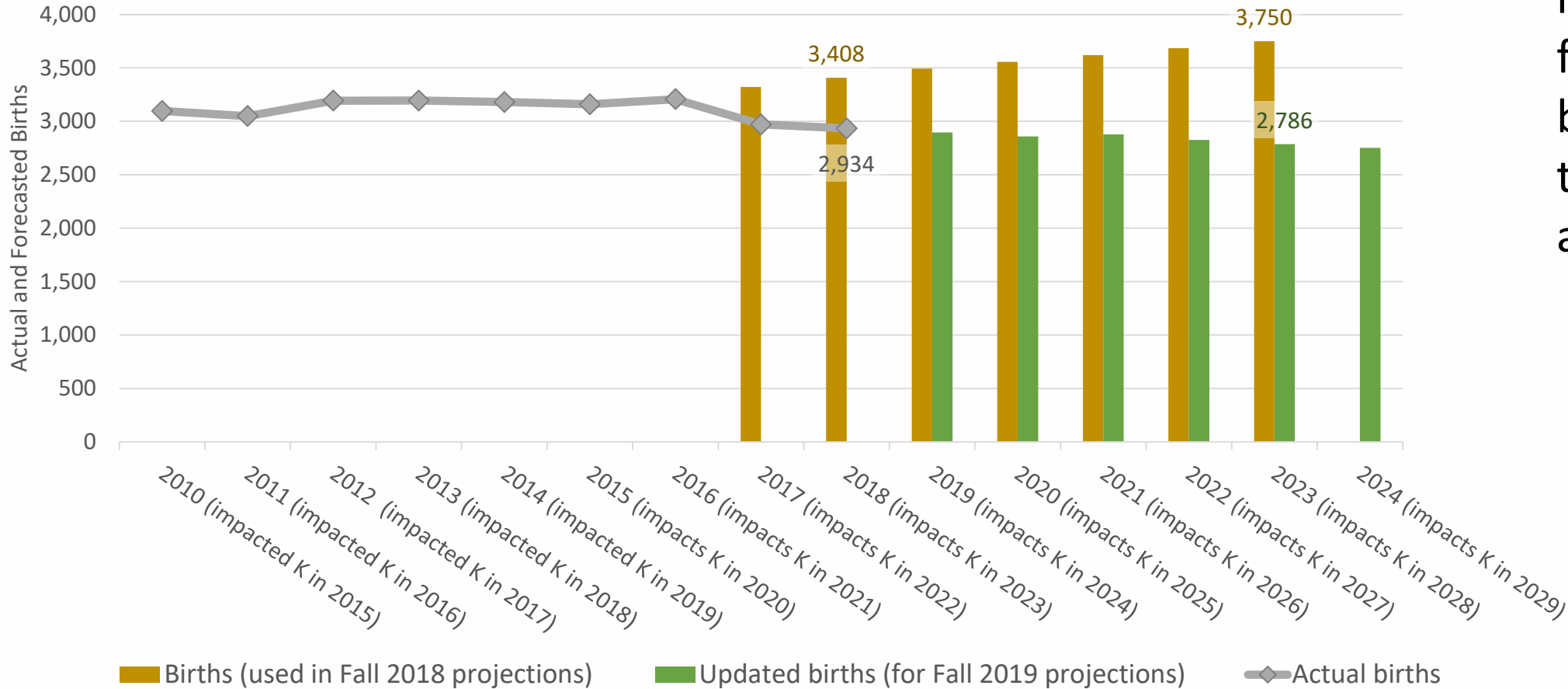
\* The updated migration uses the latest Census estimates extrapolated to 2020

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# Factors Contributing to Enrollment Growth

## Comparison of Actual Births and Births Used in the Fall 2018 and Fall 2019 10-Year Enrollment Projections



By 2023, the latest birth forecast is 964 births lower than previously assumed

Source: APS, Planning & Evaluation. RLS Demographics, Oct. 2019. ACG, CPHD, Sept. 2018 and Sept. 2019.

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# Factors Contributing to Enrollment Growth

- Enrollment projections also rely on assumptions of future residential construction from the county
- Future housing accommodates new households and students

## Net New Housing Unit Forecast for 2019 to 2029

Projection Year	Multi-family Garden	Multi-family Highrise	Single-family Detached	Townhome	Total Net New Units
2019		1,275			1,275
2020	12	2,188		3	2,203
2021	36	1,230			1,266
2022*		1,273		27	1,300
2023	172	1,167	3	57	1,400
2024	12	1,325		86	1,423
2025*	97	1,324		43	1,464
2026		1,379			1,379
2027		1,379			1,379
2028	85	1,232			1,317
2029	99	1,178			1,277
<b>Total</b>	<b>513</b>	<b>14,950</b>	<b>3</b>	<b>216</b>	<b>15,683</b>

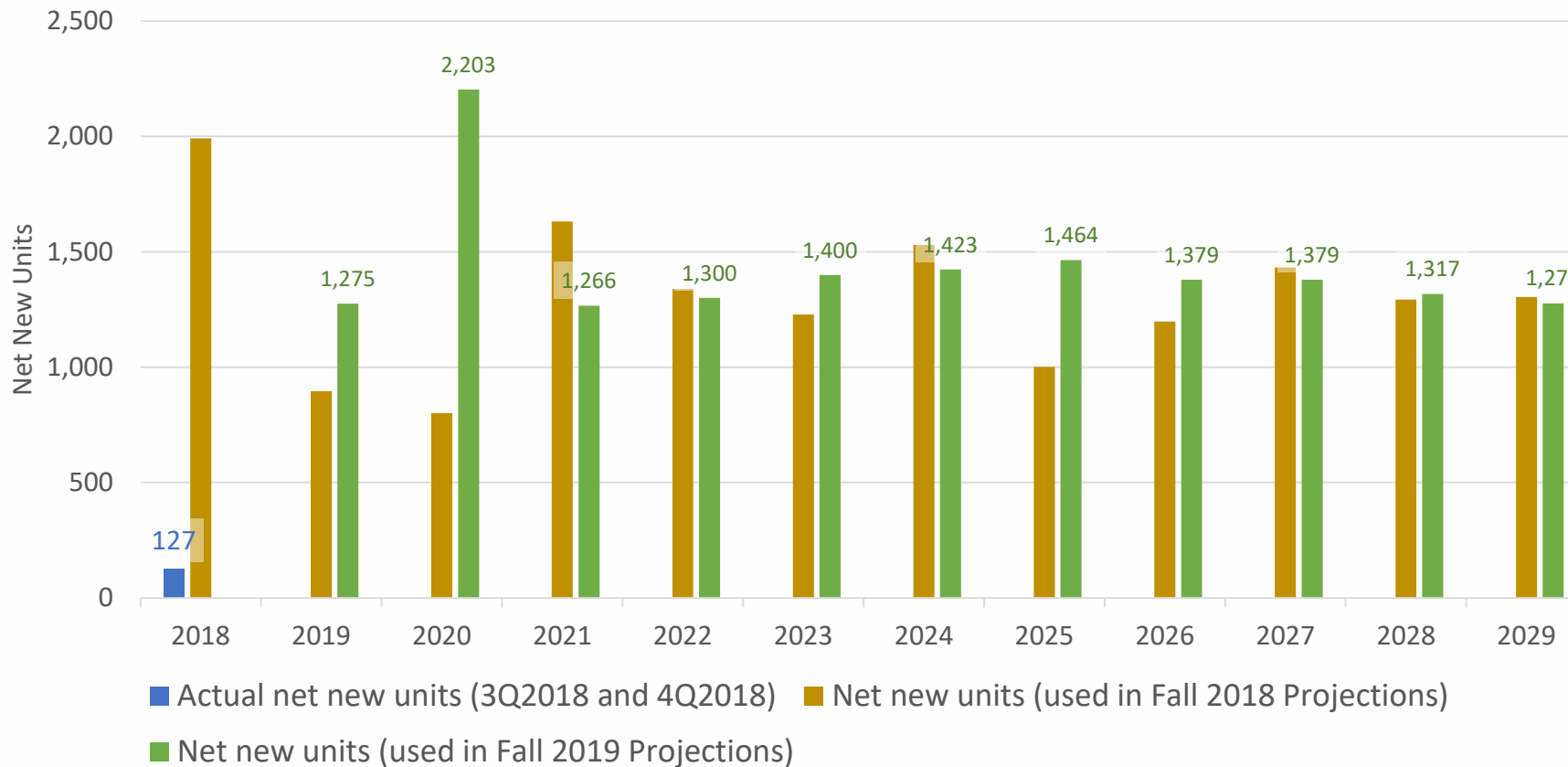
\*The Sept. 2019 net new unit information for two residential projects was adjusted by APS staff in Dec. 2019.

Source: ACG, CPHD, Sept. 2019.

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# Factors Contributing to Enrollment Growth

Comparison of Future Residential Units Assumed in the 10-Year Fall 2018 and Fall 2019 Enrollment Projections



- The greatest number of residential units are delivered in 2020
- Unit deliveries are evenly distributed from 2021 to 2029

Source: ACG, CPHD, Housing Unit Forecast, Sept. 2018 and Sept. 2019, Development Tracking Report, 3Q2018 and 4Q2018, <https://projects.arlingtonva.us/data-research/development/quarterly-tracking-report/>.

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# Factors Contributing to Enrollment Growth

To each new unit is applied a **Student Generation Rate (SGR)** to estimate the number of students from new residential development.

## Comparison of Draft Fall 2019 and Fall 2018 SGR

Grades K to 12	Single Family Detached	Single Family Detached with Accessory Dwelling	Townhome	Duplex	Multi-family Elevator			Multi-family Garden			Condo		Total by School
					Market Rate	Mixed Income	CAF Only <sup>1</sup>	Market Rate	Mixed Income	CAF Only	Elevator	Garden	
<b>DRAFT - Fall 2019</b> Student Generation Rates *	0.498	N/A	0.214	0.345	0.066	0.127	0.656	0.254	0.383	0.632	0.055	0.113	0.232
<b>Fall 2018</b> Student Generation Rates **	0.497	N/A	0.194	0.358	0.061	0.126	0.617	0.258	0.380	0.584	0.054	0.110	0.229
<b>Difference</b>	0.001	N/A	0.020	(0.013)	0.005	0.001	0.039	(0.004)	0.003	0.048	0.001	0.003	0.003

<b>2019 Master Housing Unit Database (MHUD) housing by type shares<sup>1</sup></b>	24.09%	0.03%	3.77%	2.27%	25.24%	7.86%	0.53%	8.55%	1.88%	2.99%	12.78%	10.00%	100.00%
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<sup>1</sup> Excludes Apartment Elevator Senior Housing

Source:

\* Rates are based on September 30, 2019 APS Enrollments (Grades K-12) and July 1, 2019 Master Housing Unit Database (MHUD) from Arlington County Government, CPHD, Planning Division.

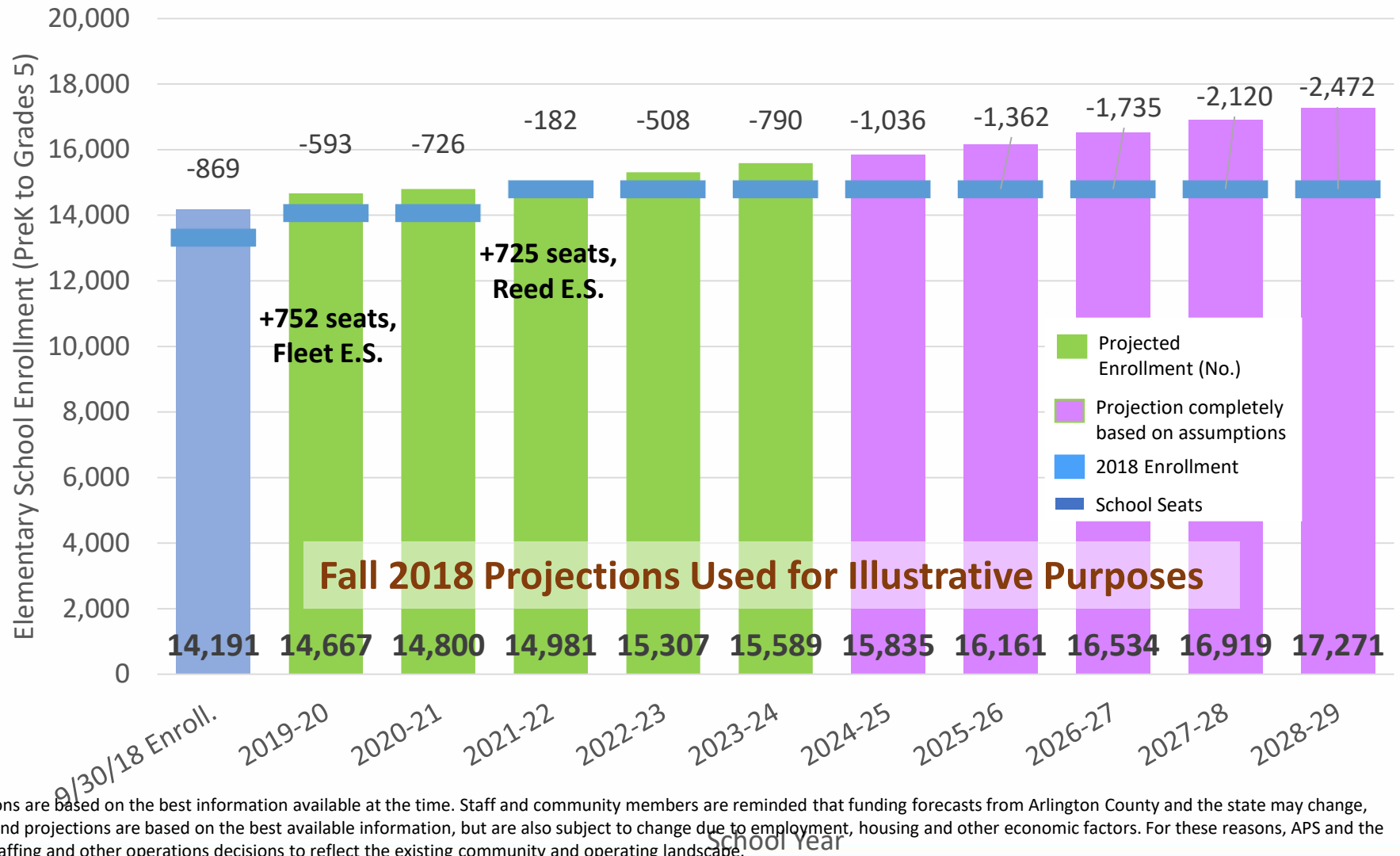
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# Factors Contributing to Enrollment Growth – Elementary School

Starting in 2024-25, the Kindergarten to Grade 5 elementary school enrollment projections are completely based on assumptions from:

- Births
- Future construction
- Past cohort transition rates continuing into the future

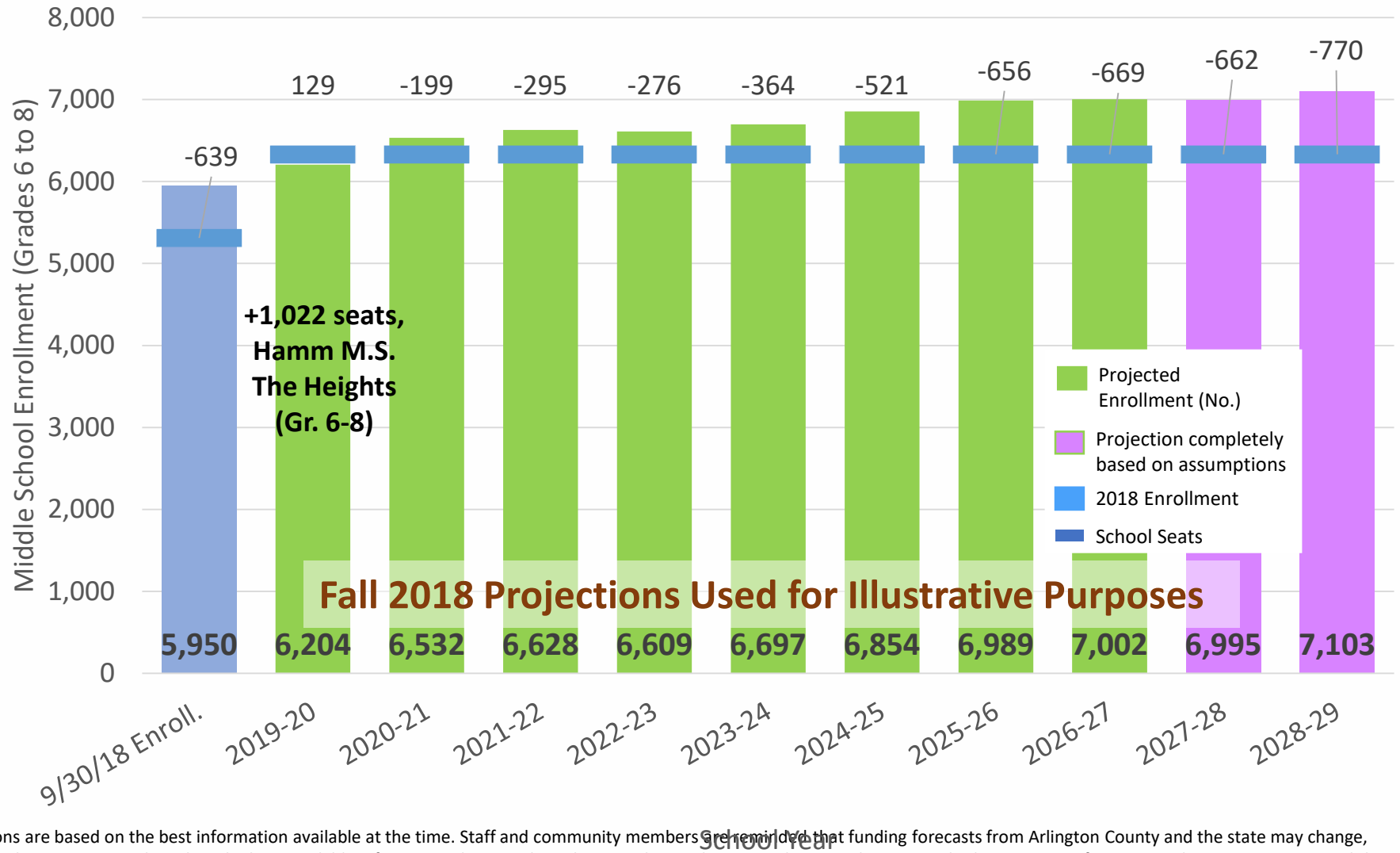


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# Factors Contributing to Enrollment Growth – Middle School

Starting in 2027-28, the Grade 6 to 8 middle school enrollment projections are completely based on assumptions from:

- Births
- Future construction
- Past cohort transition rates continuing into the future

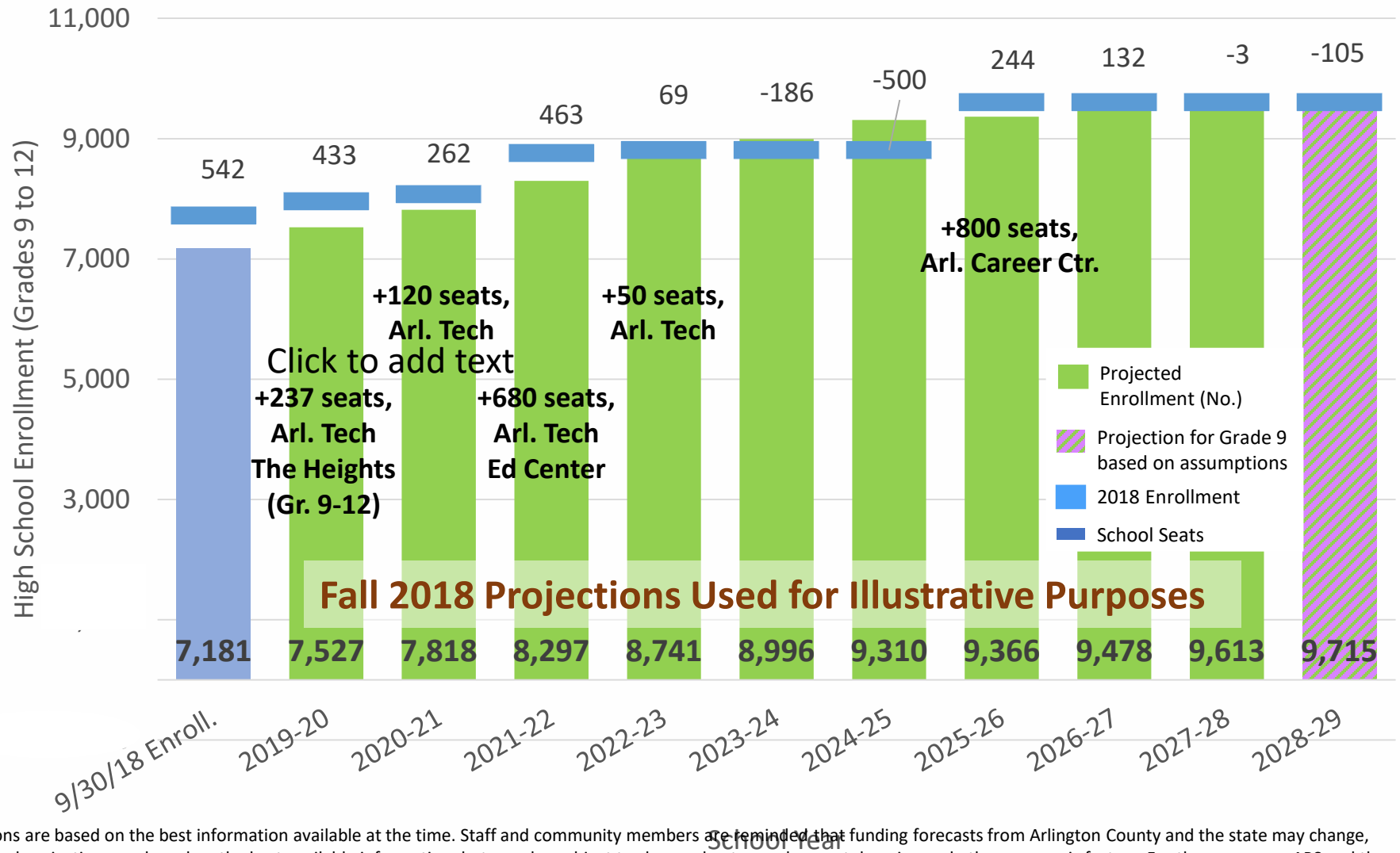


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# Factors Contributing to Enrollment Growth – High School

Starting in 2028-29, the Grade 9 high school enrollment projections are completely based on assumptions from:

- Births
- Future construction
- And past cohort transition rates continuing into the future



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# Enrollment Projections Comparisons

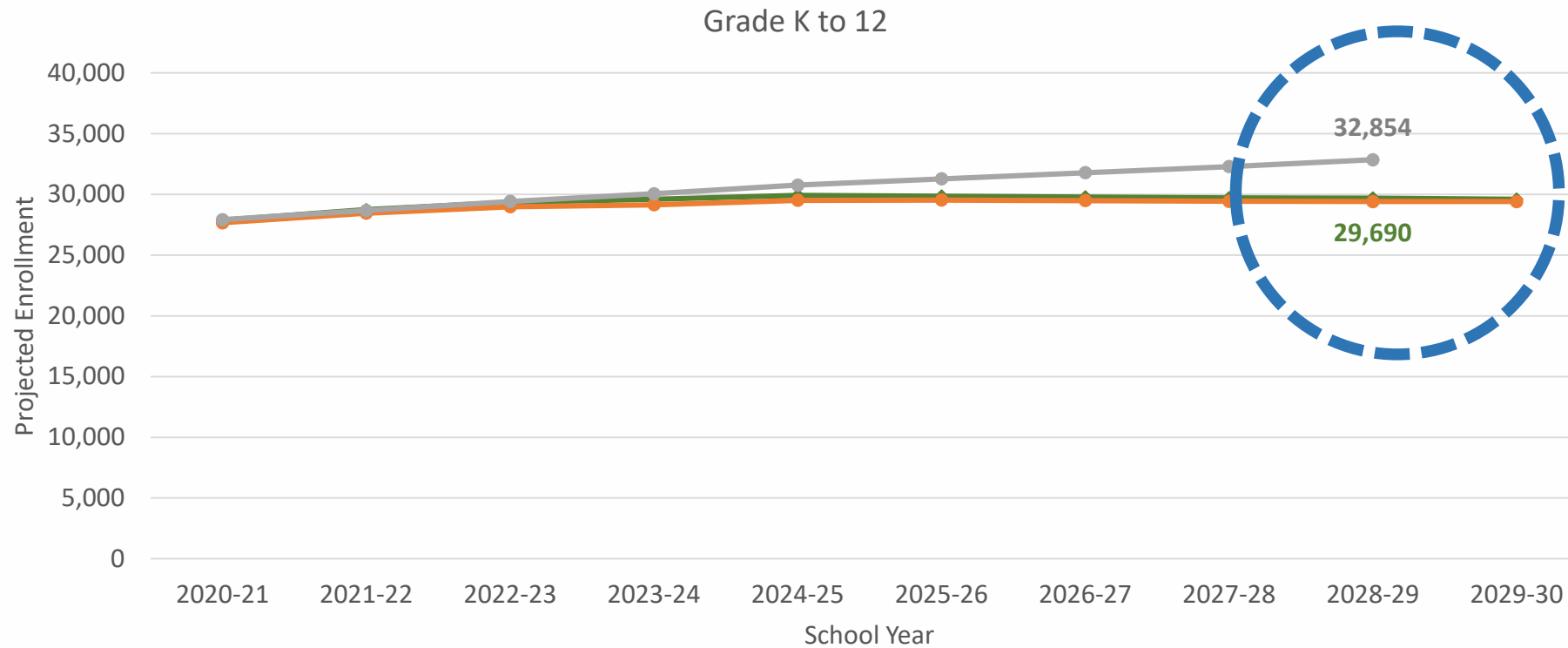
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Since the Fall 2018 10-Year Projections, APS has produced two 10-Year enrollment projections:

- Bottom-up projections
  - Done school-by-school; these projections are shared publicly
  - Factors and assumptions used are unique to each school
- Top-down projections
  - Calculated to test the reasonableness of the bottom-up projections; these projections are for internal use only
  - Factors and assumptions used are APS system-wide (in the aggregate)

# Draft Projections Comparisons – Grades K to 12



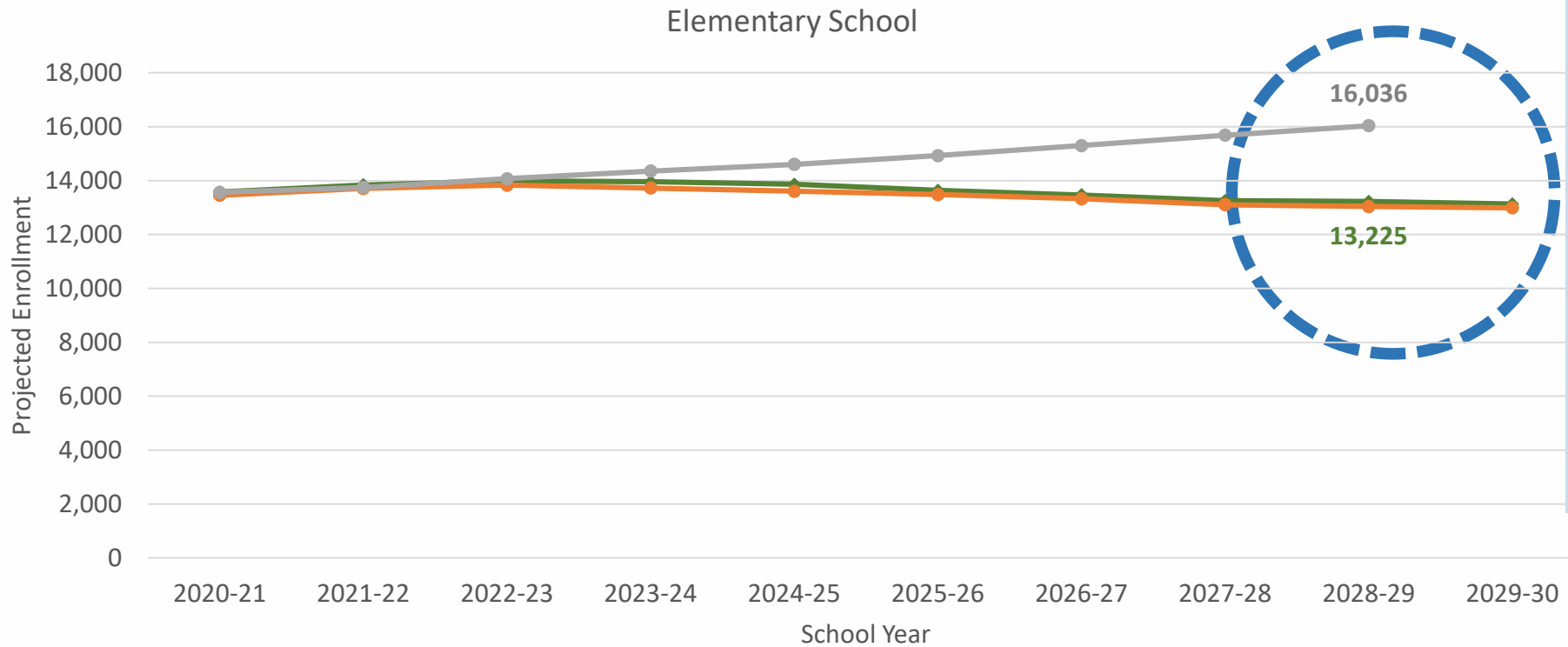
The draft Fall 2019 10-Year Projections anticipates just under 3,200 fewer Grade K to 12 students for 2028-29 than were projected in Fall 2018

- ◆ Draft Fall 2019 Projections for Grades K to 12 (Bottom-Up)
- Fall 2019 Projections for Grades K to 12 (Top-Down)
- Fall 2018 Projections for Grades K to 12 (Old)

Source: APS, Planning & Evaluation, Fall 2018 and Fall 2019.

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# Draft Projection Comparisons – Grade K to 5



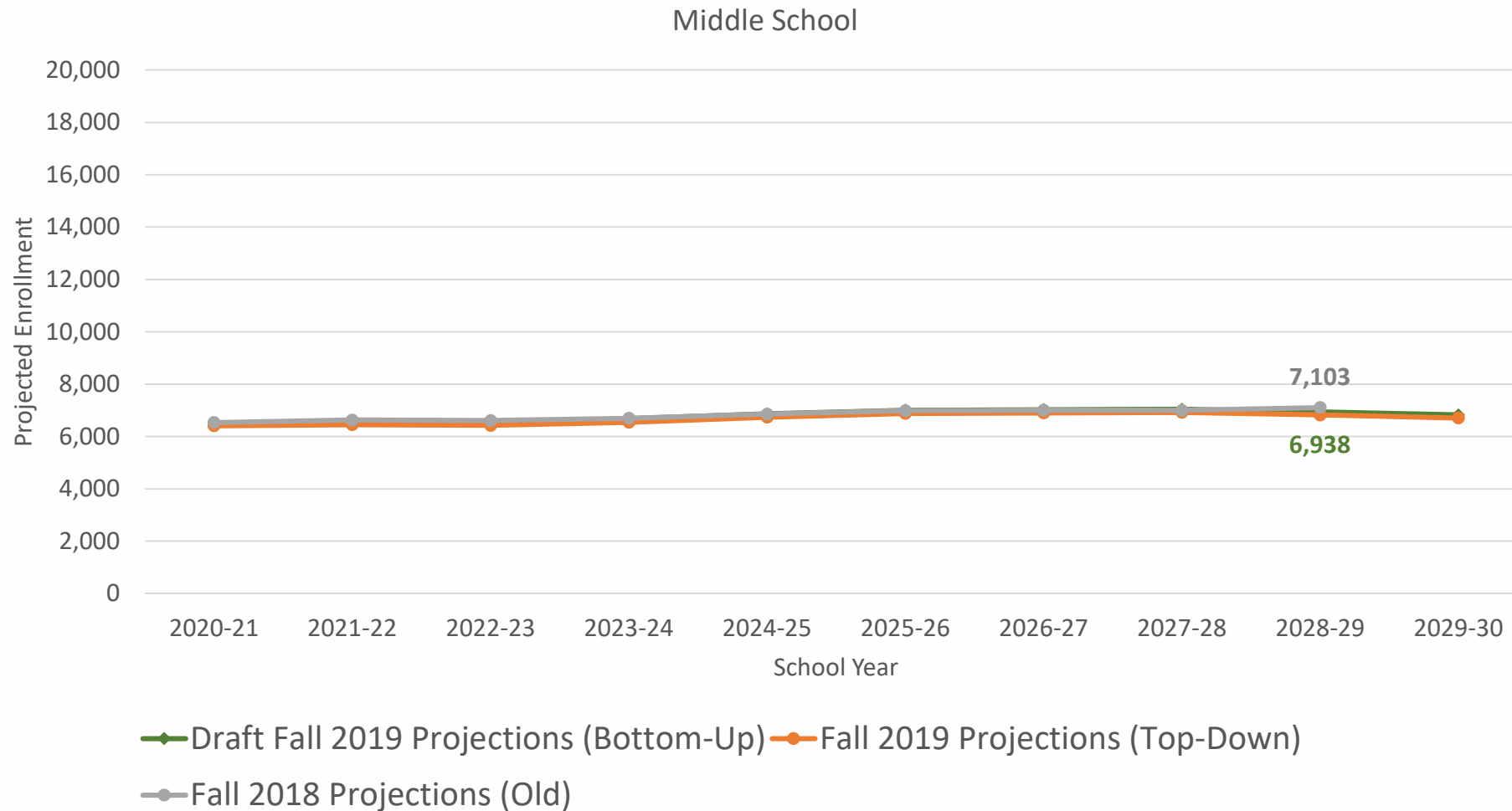
The draft Fall 2019 10-Year Projections anticipates about 2,800 fewer Grade K to 5 students for 2028-29 than were projected in Fall 2018

- ◆ Draft Fall 2019 Projections for Grades K to 5 (Bottom-Up)
- Fall 2019 Projections for Grades K to 5 (Top-Down)
- Fall 2018 Projections for Grades K to 5 (Old)

Source: APS, Planning & Evaluation, Fall 2018 and Fall 2019.

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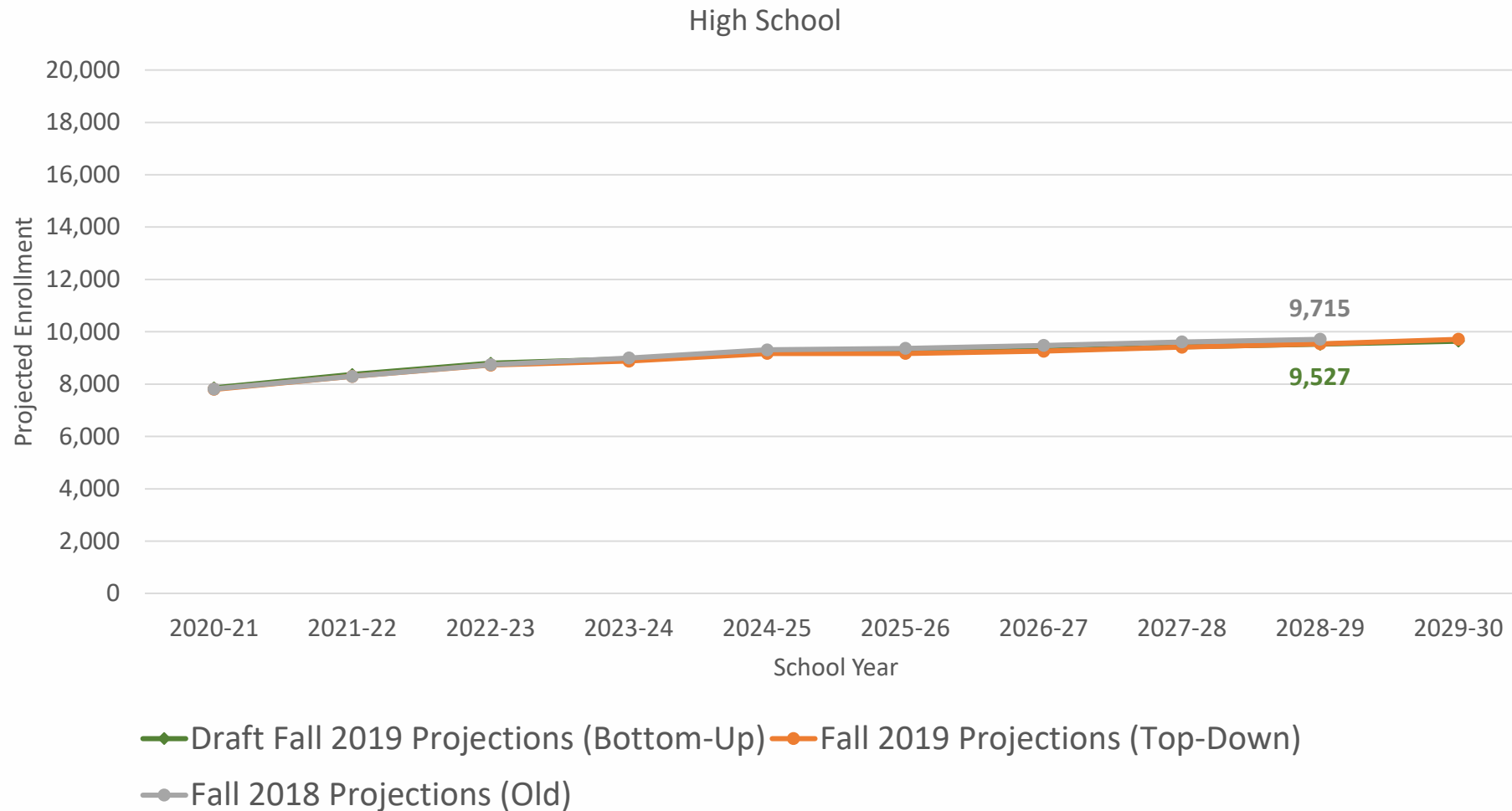
# Draft Projection Comparisons – Grade 6 to 8



Source: APS, Planning & Evaluation, Fall 2018 and Fall 2019.

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# Draft Projection Comparisons – Grade 9 to 12



Source: APS, Planning & Evaluation, Fall 2018 and Fall 2019.

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# **1. What are your thoughts on communicating the different trends observed when comparing the Fall 2019 and Fall 2018 10-Year Projections?**

# APS Enrollment Projections Timeline

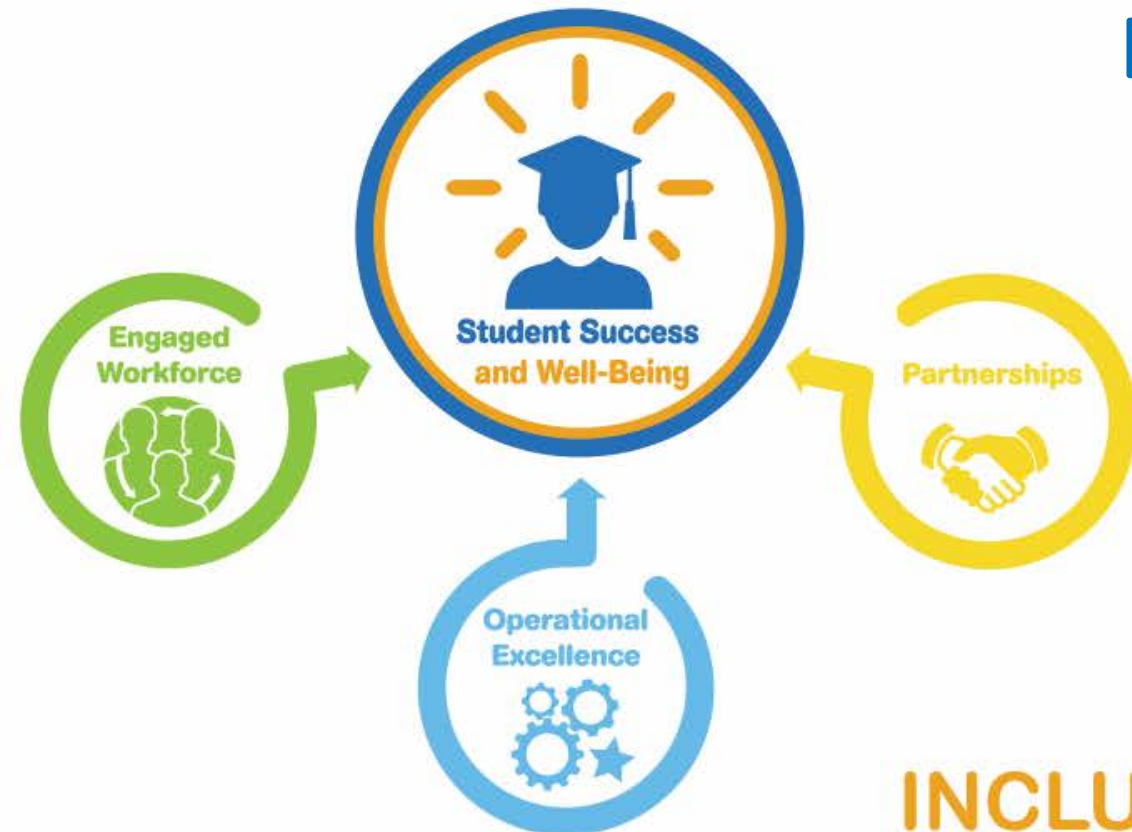
Timeframe	Topic
Mid December 2019	APS publishes Fall 2019 10-Year Projections for 2020-21 through 2028-29
January 2020	Update to Capacity Utilization Tables reflecting refinements to schools' permanent seat capacity and the Fall 2019 10-Year Projections
February 11, 2020	School Board Work Session: 10-Year Projections update for the 2021-30 Capital Improvement Plan (CIP)

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## APS Strategic Plan 2018-2024

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December 11, 2019



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