

## Appendix F: FAC Future Facilities Needs Report

### INTRODUCTION

The FAC invites all of Arlington to discuss how to address the growing needs of our school system in a way that incorporates a long-range vision and an understanding of how each capacity generating solution impacts both the entire school system and the Arlington County community, while at the same time acknowledging that our budget and available space are limited.

This report presents a broad, high-level view of the Arlington Public School (APS) system as a whole to illustrate what our future facilities needs would look like if APS continues to grow to a system with 35,000 students, 37,500 students, or 40,000 students. This report aims to provide the entire Arlington community with an understanding of the future school facilities needs at these various stages of student population growth. As shown below, system-wide changes will be necessary as we continue to grow, including the potential need for facilities located on properties not currently owned by APS.

This report is intended to provide information for all residents of Arlington, as the growth of our school system will have an impact beyond APS, the School Board and APS families. Student enrollment growth has increased pressure to make decisions that account for future growth and increasingly relevant constraints. The twenty-six square miles of Arlington has to serve a populous and growing community, so our goal is for this report to be reviewed, considered and discussed by all residents – the Arlington School Board, Arlington County Board, parents, parks-users, residents without children, and Arlington County businesses and their employees. We are entering a period in which a school siting or capital building decision must be made with a more thorough understanding and appreciation of its broader impact on the entire County.

As our school system grows, our community would be well-served to find ways to address our enrollment growth and limited budget and space in a collaborative and creative way. The best solutions for how we manage this growth will most likely be found through a coordinated effort between APS and the County that is geared towards planning for all of our needs in an integrated and forward-thinking manner.

We have reached a point where our way of thinking about how to best handle enrollment growth will inevitably change. However, with planning and creativity we may be able to find innovative and forward-thinking solutions that will put us in a better position to face the future while maintaining the high quality of life we enjoy in Arlington. Without prescribing specific actions, this report presents overall context and lists potential tools for a community conversation about planning for enrollment growth.

### BACKGROUND

Student enrollment in the APS system is growing. Since September 2006, APS has grown from 18,451 PreK-12 students<sup>1</sup> to 26,941 students in September 2017<sup>2</sup>. That is a 46% increase from September 2006 to September 2017, or 8,491 students, which is an average annual increase in student

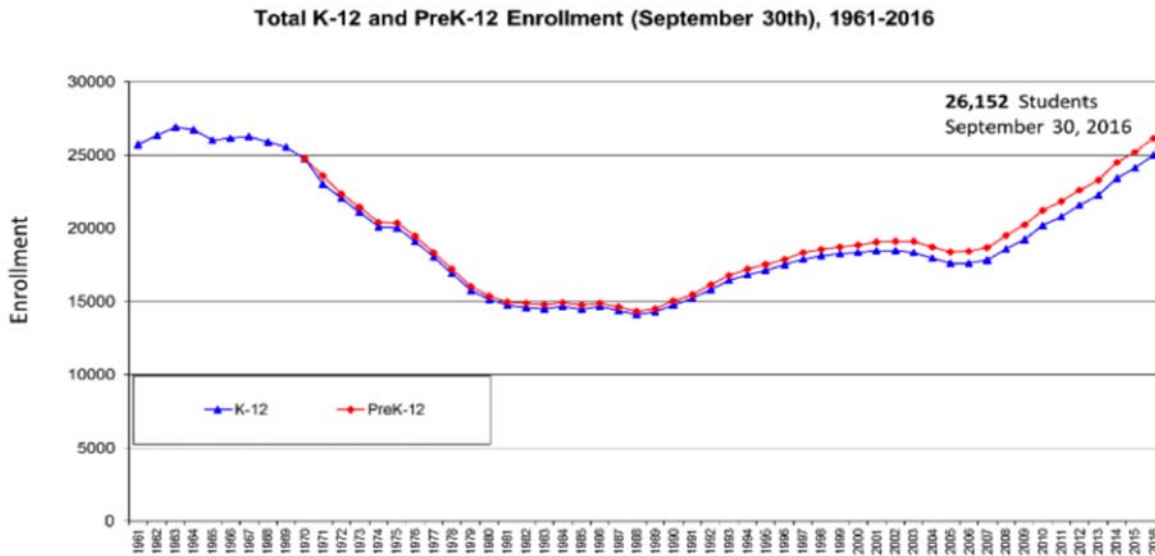
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<sup>1</sup> [https://www.apsva.us/wp-content/uploads/2015/04/APS-Enrollment-Report-Final SY, page 5](https://www.apsva.us/wp-content/uploads/2015/04/APS-Enrollment-Report-Final%20SY%20page%205.pdf)

<sup>2</sup> [https://www.apsva.us/wp-content/uploads/2017/12/FallProjections18-27\\_Official\\_Web.pdf](https://www.apsva.us/wp-content/uploads/2017/12/FallProjections18-27_Official_Web.pdf)

population of just over 4 percent. In the next ten years our school system is projecting continued growth with an estimated enrollment of 32,666 in fall 2027<sup>3</sup>.

## Historical Annual Enrollment Change



## PURPOSE AND METHOD

This report presents a broad, high-level view of the APS system as a whole to illustrate the future facilities needs if APS continues to grow to a system with 35,000 students, 37,500 students, or 40,000 students.

This report does not constitute a definitive conclusion that we will actually reach a 35,000 to 40,000 student school system. We are not making assumptions about a particular year or date when we might reach these student population scenarios. This report is simply meant to illustrate the possible needs for our school system if those scenarios were attained.

The potential future needs identified in this report are intended to:

- Inform Capital Improvement Plan (CIP) decisions;
- Encourage APS staff, County staff and all Arlington residents to engage in the important discussion of finding potential solutions; and
- Establish and strengthen an integrated partnership between APS and Arlington County regarding long-range planning.

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<sup>3</sup> Ibid.

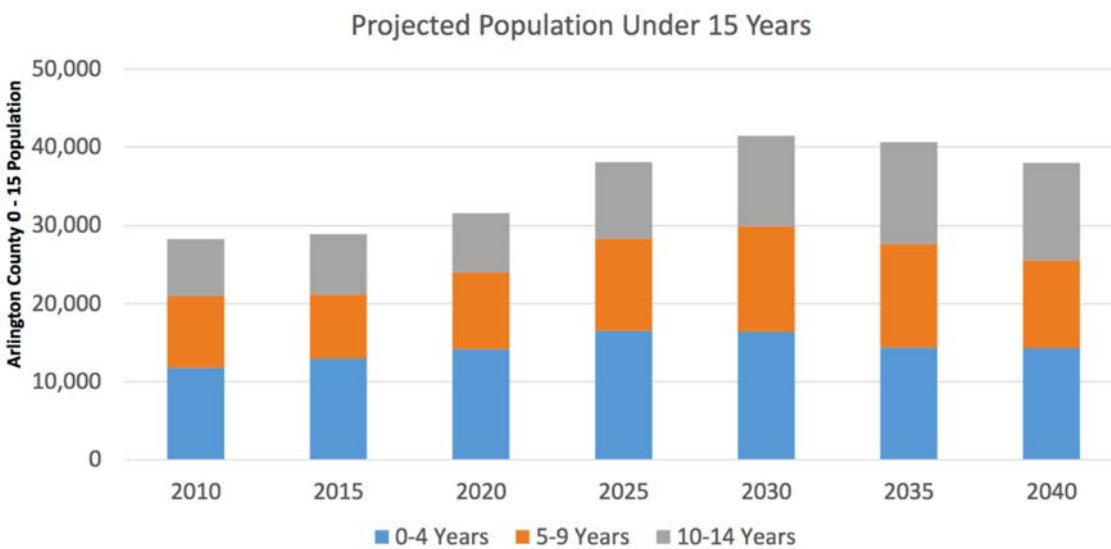
Planning for the possible growth to these specific student population scenarios will enable us to use land and budget resources efficiently. Targeted planning to accommodate growth will minimize costly delays and emergency measures. In the event that we do not reach a 35,000, a 37,500 or a 40,000-student school system, efficiently using our space and funding now will be to the advantage of Arlington taxpayers.

### Supporting Projections

We consider the student population scenarios credible possibilities based on corroborating County data. In January 2017, the Arlington County Government presented a “CFS Phase II Consultant Report” through the Community Facilities Study (CFS), which showed that the Arlington population under the age of 15 was expected to continue to grow from approximately 29,000 to peak at roughly 42,000 in 2030. If we reach these peak estimates, and APS continues in a growth pattern, we could reach the estimated student population numbers of 35,000 to 40,000 within the next 12-15 years.

## COMPONENT MODEL: POPULATION UNDER 15 YEARS

The population under the age of 15 is predicted to peak in 2030.



Arlington  
**Community Facilities Study**  
*A resource and facilities plan for our future*



<sup>4</sup> [https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/5/2017/01/CFS\\_WorkSession\\_Phase2Presentation\\_20170124.pdf](https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/5/2017/01/CFS_WorkSession_Phase2Presentation_20170124.pdf)

## FUTURE SEAT NEEDS SCENARIOS

The table below summarizes the projected capacity deficit for each of the three student population scenarios. Capacity deficits are presented as number of seats (“Deficit” column) and number of schools (“# of Schools Req’d” column). Further detail about our assumptions and calculations underlying the data below may be found in the index at the end of the report.

Scenario:				35,000 Students			37,500 Students			40,000 Students		
School Level	Typical School Size <sup>5</sup>	% Students <sup>1</sup>	Capacity <sup>3</sup> (2024)	# Students	Deficit <sup>4</sup>	# Schools Req'd <sup>6</sup>	# Student <sup>2</sup>	Deficit <sup>4</sup>	# Schools Req'd <sup>6</sup>	# Students <sup>2</sup>	Deficit <sup>4</sup>	# Schools Req'd <sup>6</sup>
ES	725	46%	13,809	16,154	(2,345)	3.2	17,308	(3,499)	4.8	18,462	(4,653)	6.4
MS	1,000	23%	6,368	8,077	(1,709)	1.7	8,654	(2,286)	2.3	9,231	(2,863)	2.9
HS	2,200	31%	9,565	10,769	(1,204)	0.5	11,538	(1,973)	0.9	(2,743)	2200	1.2

1 - The student population used for the analysis includes 13 grade levels K-12. The elementary school level contains six grades; middle school level contains three grades whereas the high school level contains four grades. The percentage of total students for the elementary school level is 46% or six grades (six ES) divided by 13 total grades for the system (K-12). The percentage of total students for the middle school level is 23% or three grades (three MS) divided by 13 total grades for the system (K-12). The percentage of total students for the high school level is 31% or four grades (four HS) divided by 13 total grades for the system (K-12).

2 - The number of students by level is a product of the percentage of students by level and the various numbers of total student populations.

3 - The capacity per elementary, middle and high school levels was sourced from the Current and Projected Capacity Utilization - School Years 2016-17 thru 2026-27. [https://www.apsva.us/wp-content/uploads/2015/04/Capacity\\_Utilization\\_FallProjections17-26\\_Final\\_Web.pdf](https://www.apsva.us/wp-content/uploads/2015/04/Capacity_Utilization_FallProjections17-26_Final_Web.pdf)  
PreK capacity was determined to be approximately 990 as a result of the APS - Room use inventory conducted during the fall of SY 2016-17. The reported capacity does not include relocatable classrooms.

4 - The gap by level is calculated as the deficit or surplus when comparing the number of students by level and the capacity by level.

5 - The School Board recommendation of school size by level.

6 -The potential number of schools per level according to the three total student populations is derived by the gap level divided by the typical school size.

## CURRENT OPTIONS

APS biannually produces the Arlington Facilities and Student Accommodation Plan (AFSAP) report<sup>5</sup> that serves as a planning tool that outlines steps to address enrollment growth for the following school year and suggests changes to be implemented for future school years. The AFSAP report outlines the tools available for APS for short-term and long-term capacity as:

*Short-term capacity adjustment tools include:*

- *Adding relocatable classrooms*
- *Offering transfers to neighborhood schools that have space for additional students*
- *Increasing the number of students (classes) accepted via the lottery at each of the option schools*
- *Moving programs*
- *Changing how classrooms are used (i.e., converting computer labs to classrooms)*

*Long-term capacity adjustment tools include:*

- *Increasing class size*

<sup>5</sup> <https://www.apsva.us/wp-content/uploads/2018/03/AFSAP-Decision-Points-FINAL-03-06-19.pdf>

- *Adjusting school attendance zone boundaries*
- *Capital improvement projects, including:*
  - *Making internal modifications to create additional space*
  - *Creating planning space for teachers and freeing up classrooms for more periods per day*
  - *Adding space to existing schools or building new schools<sup>6</sup>*

APS currently makes use of all the short-term and long-term tools; we add relocatable classrooms, we move programs and change boundaries, we have made internal modifications to our schools to add capacity and we build new schools.

With planning, APS can creatively explore a full range of solutions to efficiently preserve the quality of our education and continue to provide the best possible learning environments for all students.

## **CONSIDERATIONS FOR EVALUATING FUTURE SOLUTIONS**

In seeking solutions to the growth-driven needs outlined above, we recognize:

1. APS and the Arlington community derive great value from our high-quality school system. In planning for growth, we should plan to maintain our high educational standards which contribute to the high quality of life in Arlington.
2. Arlington County, and by extension APS, has limited available building sites (either open space or vacant/underutilized buildings), a limited budget, and limited bonding capacity.
3. Arlington County Government and APS agree that we should expect significant growth in the student population in the coming 10 years and beyond.
4. By law, APS must accommodate all residents of school age in our K-12 system.

The FAC further believes the following:

### **No Silver Bullet**

Arlington and APS have neither the land nor the funding to simply build all the schools indicated in the above table. Ultimately, we will combine multiple options to arrive at acceptable solutions. This inability to “build our way out” of the capacity crunch will result in the need to consider options we may have avoided until now.

The Facilities Advisory Council can address various facilities-related solutions. However, the Arlington community, along with the Department of Instruction and Learning, may consider non-capital, non-facilities options (see appendix) with careful consideration of what is acceptable within our expectations of high standards and perceptions of equity.

### **Balancing Needs**

The School Board weighs many factors when deciding to site an addition or new school, including traffic, walkability, greenspace preservation or availability, equity, proximity to need, existing

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<sup>6</sup> Ibid. page 6.



property ownership, and community support. Furthermore, every decision must be considered within the context of how it impacts all of Arlington. Not building in one location requires a solution be found elsewhere. These broader impacts may or may not be at odds with the perspective of individual neighborhoods.

Recent examples of decisions resulting in not building or potentially underbuilding are at least partially the result of parents reasonably and rationally advocating on behalf of their family and local community self-interest. While APS must always consider the impact that changes can have on local neighborhoods, it must also balance those impacts with needs across the entire County.

### **Changing Current Assumptions and Planning Factors**

One example of changing current assumptions would be to build larger schools. The School Board has target sizes for each level of school, but building fewer, larger schools may be more practical in terms of land available, budget cost and green space. This possibility must also be balanced with issues of equity within the system. Equity does not require exact duplication throughout the system, but that is a topic requiring active community input.

### **Build Adaptable and Agile New Schools**

If new schools are built, we recommend that they be built as adaptable and agile spaces, making use of additional floors, where possible, to preserve green space. The buildings should be built to readily accommodate future phases and capacity in the event they are needed.

As we are seeking solutions to accommodate enrollment growth, we should be mindful of the possibility of future demographic changes and student population decline, and design our solutions accordingly.

Because the planning and construction of new schools is a multi-year process, relocatable classrooms will continue to offer a bridge. Should the anticipated growth not materialize, we can decide not to proceed with planned construction. The planning and design costs invested early in anticipation of growth would be marginal when compared to actual construction. Planning expense needs to be weighed against the considerably higher cost of not adequately planning for future growth in the event it ultimately occurs.

### **Use of Relocatable Classrooms on School Sites**

APS does not consider or account for relocatable classrooms as permanent capacity, so they are therefore not part of the calculations in our capacity tables and building counts. Relocatable classrooms are an important and valuable tool for the school division to address temporary and localized instances of overcapacity. They allow for flexibility during periods of either intense localized growth or decline. Redistricting and new facilities are solutions which require more time and planning, but relocatable classrooms are a useful bridge in the interim.

Further, the permanent addition of a theoretical maximum number of relocatable classrooms is not desirable as it would result in the loss of a large portion of green space for fields and play at each

school, increased runoff and inefficient energy costs. Sole or even extreme reliance on the use of relocatable classrooms system-wide would put enormous pressure on the common spaces in schools, including cafeterias, gymnasiums, libraries and even hallways. Relocatable classrooms placed on outdoor spaces such as parking lots and tennis courts not only impacts school use but, also restricts community access to those facilities. Finally, relocatable classrooms must continue to be properly evaluated in the context of security and safety.

If relocatable classrooms are not designed to be permanent there should be a transparent understanding of their context within the overall plan and when they are going to no longer be needed.

### **Collaborative Approach and Innovative Ideas**

As our community examines ways to add or grow capacity, it will be important to think creatively and collaboratively. All assumptions should be subject to review and we should be open to new and innovative ideas to address our seat needs within our budget and space constraints. Ideas such as centralized facilities for Career & Technical Education (CTE), music or art could be explored, as well as further exploration of joint use facilities.

We could explore the idea of sharing existing sports facilities and re-envision them as APS facilities for all secondary students maximizing their efficient use and perhaps providing facilities for new schools that may lack the space to accommodate them on site (in this scenario, additional facilities will be needed, perhaps not on school sites). Many community centers already double as school facilities, particularly in athletics. Perhaps this model could be extended.

As APS and the County plan for growth, the County Department of Parks and Recreation must continue to work with APS to add facilities, fields, and other recreational facilities which serve both students and the general community. We note that it is easier for a school to be “dual purpose” – used by students and also by the broader community – than it is for community facilities to be used for school purposes. This report has not examined outdoor athletic requirements or parking needs, but we would hope the community would support the County in working with APS on these issues in future planning.

There are also many instructional options that are beyond the scope of this report and committee, but we note that other possibilities do exist, some of which may be considered an improvement to current options. Please see the appendix for a list of and links to non-facilities related considerations.

### **Robust Community Conversation**

We will need to work together to find solutions to the growing APS enrollment. As the County grows, school decisions will impact all of Arlington. It is important that as we plan, we engage as one community understanding that we are all in this together, and money and space required for projects needs to be balanced across the needs for all of Arlington; our schools and the broader community.

## **FAC STATEMENT/CONCLUSION**

APS is an exceptional school system that sets high standards for student achievement and prioritizes optimal learning environments for all students. Arlington County's award winning and forward-thinking planning policies, have earned it acclaim and established Arlington "as one of the region's most desirable locations to do business, live and visit."<sup>7</sup> Arlington County has a Comprehensive Plan that is an important decision-making and priority-setting tool, which has at its core a vision for Arlington where people unite to create a diverse and sustainable community for all Arlington residents. Currently, schools and long-range planning for schools are not a part of this Comprehensive Plan. We believe this must change if we are going to address the growing needs of our school system and maintain the high quality of life and education we currently enjoy in Arlington.

We need to further strengthen and integrate long-range planning, establishing a greater partnership between APS and Arlington County. This report has identified potential APS seat needs in a growing school system. The solutions for how we manage this growth will be found in planning: planning for new school seats as well as a growing need for field space and common spaces for all of our schools and community members. It is important to begin to identify potential sites now, and to understand how we as a community can position ourselves to make forward-thinking decisions.

The FAC urges the School Board and County Board to invest in the important work of long-range planning for our schools, and we look forward to collaborating with the Joint Facilities Advisory Commission (JFAC), the Long-Range Planning Committee and other community groups and members in support of this vision.

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<sup>7</sup> <https://projects.arlingtonva.us/planning/>



## APPENDIX

### Assumptions

This report provides estimates of potential future APS facilities needs at the elementary school (ES), middle school (MS) and high school (HS) levels for three scenarios: 35,000 student school system, 37,500 student school system and 40,000 student school system. This section summarizes the assumptions used in this analysis to estimate potential future facilities' needs.

The student population used for the analysis includes 13 grade levels (K-12) and was distributed based on the number of grades within each level (elementary, middle and high school). The number of students by level is a product of the percentage of students by level multiplied by the respective number of total projected student populations as follows:

- Elementary school (six grades): 46% (six ES grades divided by 13 total system grades)
- Middle school (three grades): 23% (three MS grades divided by 13 total system grades)
- High school (four grades): 31% (four HS grades divided by 13 total system grades)

The assumption is that the distribution of students at each level is the same as the distribution of grades at each level. An alternate way to estimate this is to take percentages of the grade levels based on an average of the past five years from September 30<sup>th</sup> enrollment numbers. However, this method gave us a distorted perspective, because our larger student cohorts are still in the elementary and middle school levels and have not yet reached high school. We also concluded that since our report was meant to be a broad view without making predictions, the standard calculation seemed appropriate. We decided to use the K-12 model instead of Pre-K-12 because our Pre-K program is not compulsory and is therefore not subject to the same percentages of growth as the rest of the system.

The capacity per elementary, middle and high school levels was sourced from the Current and Projected Capacity Utilization - School Years 2016-17 thru 2026-27<sup>8</sup>. The capacity used to estimate potential future facility needs assumes the following:

- School capacity does not include Pre-K seats. Pre-K seats (capacity) were estimated to be approximately 990, based on the APS room use inventory conducted during the fall of SY 2016-17. Because Pre-K takes up capacity in our current ES but was not included in our K-12 estimates, we subtracted the current Pre-K capacity from the current ES capacity. We wanted to avoid making predictions about what will happen to Pre-K as our school system grows.
  - ES Capacity in 2024: 14,799 - 990 Pre-K seats = 13,809 (the number used for our comparison)
- The reported capacity does not include relocatable classrooms.

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<sup>8</sup> [https://www.apsva.us/wp-content/uploads/2015/04/Capacity\\_Utilization\\_FallProjections17-26\\_Final\\_Web.pdf](https://www.apsva.us/wp-content/uploads/2015/04/Capacity_Utilization_FallProjections17-26_Final_Web.pdf)

- The capacity includes seats from the current CIP that are planned for and have identified sites approved by the School Board. This includes the new ES at TJ (Fleet), the new MS at Stratford, and the new HB program building at Wilson.
- This analysis does not include the 725 ES seats that are currently proposed in 2025. Although these seats were included in the CIP, the School Board has not approved a site or specific funding.

Using these capacities, the deficit by level was calculated both as number of students and number of schools required:

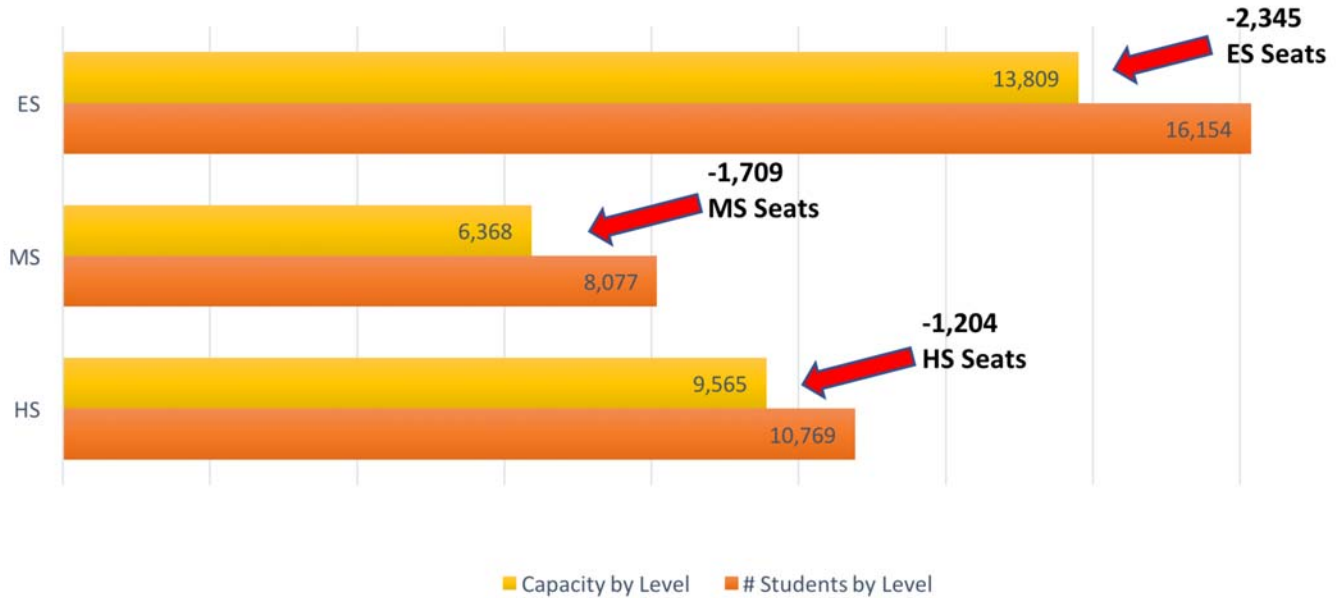
- Deficit by Level: This represents the deficit or surplus from the difference between estimated student population at each level and the school capacity at each level.
- Deficit Expressed as Number of Schools Required: Using the gap by level described above and the School Board recommended typical school size for each level, the estimated number of schools required is the gap level divided by the typical school size.

## **NON-FACILITIES RELATED CONSIDERATIONS/LINKS**

APS has the following reports which should be considered in the context of a larger non-facilities conversation:

- Nov 2017 report "A Plan for Managing APS' Growing Enrollment" (<https://www.apsva.us/wp-content/uploads/2017/11/AFSAP-Decision-Points-v8-FINAL.pdf>)
- The Arlington Facilities and Student Accommodation Plan (AFSAP) ([https://www.apsva.us/wp-content/uploads/2014/07/AFSAP-Report1.8-Web\\_Revised.pdf](https://www.apsva.us/wp-content/uploads/2014/07/AFSAP-Report1.8-Web_Revised.pdf))
- Annual Update defined by June 2017 revisions to APS Options & Transfer Policy (25-2.2)
- The Master Planning Committee Report ([https://www.apsva.us/wp-content/uploads/legacy\\_assets/www/c58b5d32a8-Master\\_Planning.pdf](https://www.apsva.us/wp-content/uploads/legacy_assets/www/c58b5d32a8-Master_Planning.pdf))

## 35,000 Student School System Scenario



Deficit by Level	Typical School Size by Level	Deficit Expressed as Number of Schools Req'd
-2,345	725	3.2
-1,709	1000	1.7
-1,204	2200	0.5

**Number of ES that may be required (725 capacity)**



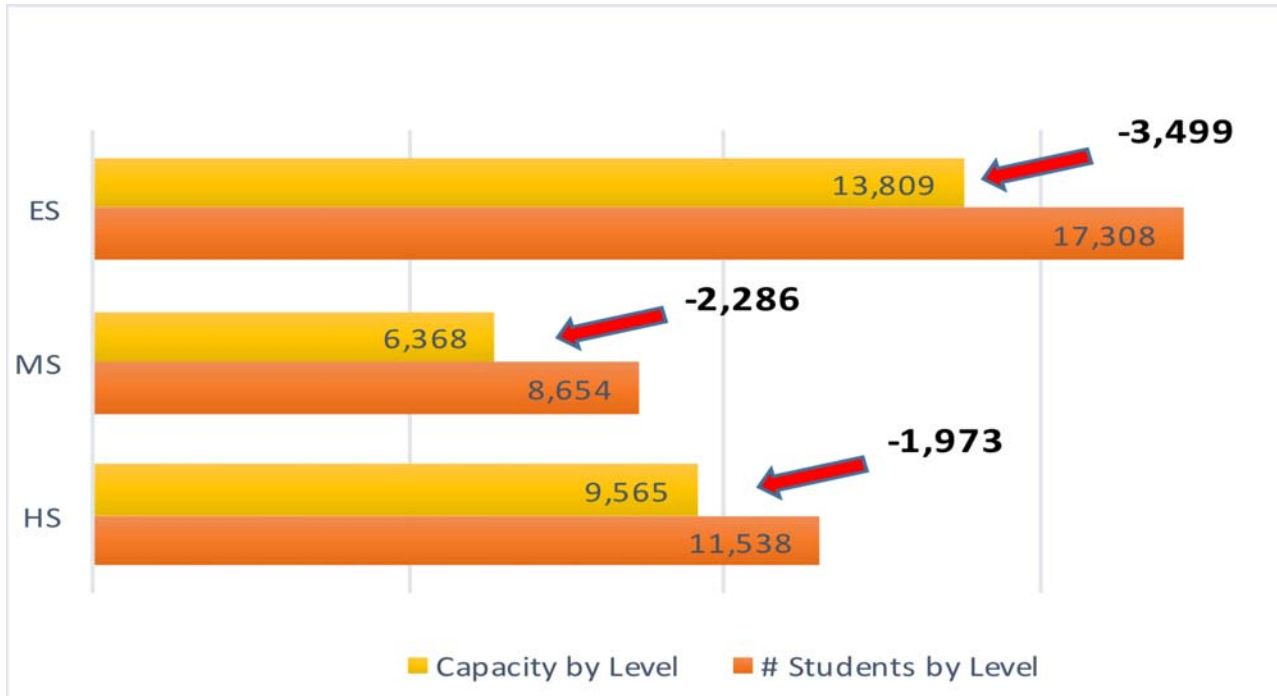
**Number of MS that may be required (1000 capacity)**



**Number of HS that may be required (2200 capacity)**



# 37,500 Student School System Scenario



**Number of ES that may be required (725 capacity)**



**Number of MS that may be required (1000 capacity)**

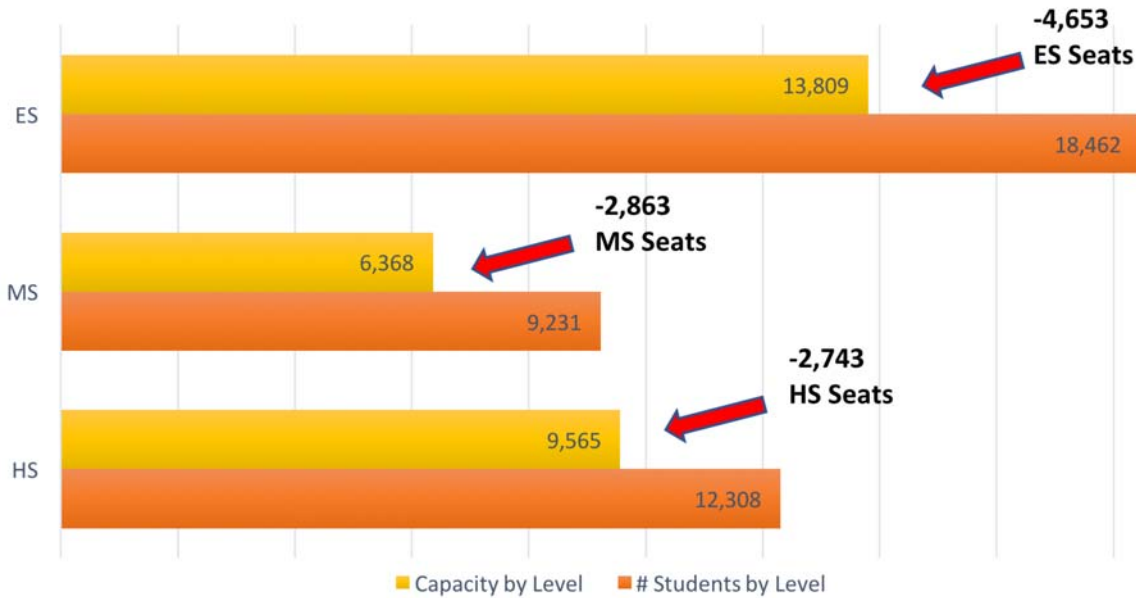


**Number of HS that may be required (2200 capacity)**



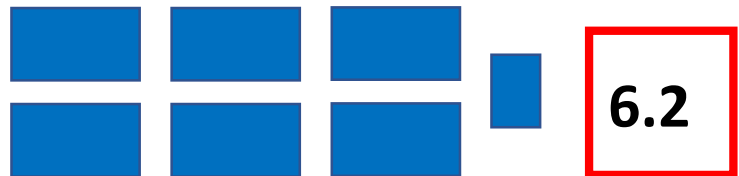
Deficit by Level	Typical School Size by Level	Deficit Expressed as Number Schools Req'd
-3,499	725	4.8
-2,286	1000	2.3
-1,973	2200	0.9

# 40,000 Student School System Scenario



Deficit by Level	Typical School Size by Level	Deficit Expressed as Number Schools Req'd
-4,653	725	6.2
-2,863	1000	2.9
-2,743	2200	1.2

**Number of ES that may be required (725 capacity)**



**Number of MS that may be required (1000 capacity)**



**Number of HS that may be required (2200 capacity)**

