FY 2018 SCHOOL BOARD BUDGET QUESTIONS

#	QUESTION	DEPT.	RECEIVED	RESPONSE	DISTRIBUTED
1	Part of the budget deficit is due to an increased requirement for the VRS contribution. Is there cost sharing that occurs now for the VRS contribution? If so, can we alter the ratio of employee contribution vs APS contribution? If not, can we share the total burden of that increase (or the total VRS contribution) with the workforce, like we do with healthcare costs? Can we see the effects of different cost-sharing percentages on the budget deficit?	Finance	2/14/17	3/2/17	3/10/17
2	What is the budgetary effect of the FLES program? What would be the impact of eliminating it? What would be the impact of making it an opt-in program, assuming 25, 50 and 75% of students opt-in?	Finance/ Instruction	2/14/17	3/2/17	3/10/17
3	What is the budgetary impact of our various pre-K programs broken out into staff costs, materials costs, transportation costs and classrooms used? Which, if any, are mandated by the state or Federal gov'ts? What would the budgetary impact be of not offering pre-K classes to rising pre-K students in Sept 2017, but continuing to offer pre-K to those students who are already in pre-K today?	Finance/ Instruction	2/14/17	3/3/17	3/10/17
4	Last year's budget increased school psychologists and social workers by 6 FTE's each – 12 FTE's total. Please provide an evaluation – how did services provided change due to this increase?	DSSSE	2/28/17	3/16/17	3/17/17
5	If we add the 1 FTE for central registration, how does this affect the workload at our schools? Can clerical staffing at our schools be reduced?	DSSSE	2/28/17	3/16/17	3/17/17
6	In which office will the JFAC support planner sit?	Facilities	2/28/17	3/2/17	3/10/17
7	MCMM was $12M in the 2016 budget but went down to $6.5M in 2017 and 2018. What is the reason for this change?	Finance	2/28/17	3/3/17	3/10/17
8	There is an addition of 3 FTE's for a planning office. Some of the positions haven't necessarily changed in terms of the work; they've just moved offices. Are these FTE's subtracted elsewhere in the budget or are they true additions?	Finance	2/28/17	3/2/17	3/10/17
9	Please provide more details about the accounts and amounts in Employee Benefits (p. 301) and Other Administrative Accounts (p. 306).	Finance	2/28/17	3/3/17	3/10/17
10	Gifted Services has over $900,000 in "purchased services" each year. What have these funds been spent on in 2016 and 2017? What is the spending plan for 2018?	Finance	2/28/17	3/15/17	3/17/17
11	The technology budget is being increased by $3.5M this year with additional planned increases of $2.5M next year and $3.3M the following year. This totals over $9M in additional on-going expenditures. What would be the impact of reducing the technology budget addition this year from $3.5M to 2.5M?	Information Services	2/28/17		
12	Please provide before and after organizational charts and explain the proposed changes to the	Instruction	2/28/17	3/7/17	3/17/17

FY 2018 SCHOOL BOARD BUDGET QUESTIONS

#	QUESTION	DEPT.	RECEIVED	RESPONSE	DISTRIBUTED
	Dept of Instruction. For example, the tiered cuts include reduction of our two STEM specialists, as well as 4 administrative assistants. A K-12 curriculum specialist is added. What is the vision for the Dept of Instruction going forward?				
13	In the spirit of better targeting resources, are there elementary schools that have performed well across the board in math and no longer require a math coach? Could we pilot the idea of reducing math coaches in schools that no longer need the support?	Instruction	2/28/17	3/6/17	3/10/17
14	What are the next steps for the Compensation Study and how does that relate to "flat staffing" and possible X scale exploration?	Human Resources	2/28/17	3/15/17	3/17/17
15	What is the number of APS employees at the top of the scale or on longevity ('flat steps')?	Finance	2/28/17	3/8/17	3/10/17
16	How many hourly employees have multiple assignments that makes them essentially a full-time employee? What is the scope of the issue with employees who work multiple assignments?	Human Resources	2/28/17	3/15/17	3/17/17
17	How many people get Live Where You Work grants each year and what is the range of grant amounts awarded? Perhaps provide data for the last 3-4 years. Please differentiate between the LWYW grants for home-buying and those for rental assistance, which I believe the LWYW program was amended to include beginning this SY.	Human Resources	3/9/17	3/15/17	3/17/17
18	How are crossing guards funded and assigned to schools (process)?	Administrative Services	3/13/17	3/17/17	3/22/17
19	Please provide the percentage growth for the overall adopted budget and cost per pupil for the last 5 years in relation to student enrollment growth.	Finance	3/15/17	3/17/17	3/22/17
20	How did the recent high school boundary changes increase bus routes? Can I get details on what specific boundary changes caused the need for additional busses and/or routes and what is the cost that reflects transportation additions due to HS boundaries changes.	Facilities	3/22/17	3/27/17	3/31/17
21	On page 71 it states that the ratio of 1:1650 for both psychologists and social workers noted on page 54 of proposed budget is for the 2015-2016 school year. What is the 2016-2017 school year ratio since we added the 12 FTE positions funded in FY2017 and have all of these positions been filled? Please confirm that the 1:1650 ratio combines the psychologists and social workers - in other words this ratio reflects that we have 1 psychologist or social worker per 1650 students not one of each per 1650. Is this correct?	DSSSE	3/22/17	3/23/17	3/24/17
22	On page 68 it is stated that the State SOQ standards require that we have one technician for every 1000 students to support technology and devices in schools. What is our current ratio?	Information Services	3/22/17	3/22/17	3/24/17

FY 2018 SCHOOL BOARD BUDGET QUESTIONS

#	QUESTION	DEPT.	RECEIVED	RESPONSE	DISTRIBUTED
23	How many i-pads have been lost or damaged each year at each level -- elementary, middle, and high school? Who pays for replacement when a device is lost or damaged? Do we pay an insurance fee as part of the cost of the 1-1? Do classroom assistants currently receive i-pads? If not, when will they receive them? Or would this have to be a budget add?	Information Services	3/22/17	4/24/17	4/28/17
24	How many disciplinary incidents have been recorded related to the devices – sexting, cyber-bullying? Do we have a plan or curriculum to address these issues?	Administrative Services	3/22/17	3/23/17	3/24/17
25	What have we done to solicit teacher feedback on the 1-1? What have we found? In which grades do students write essays on paper versus on i-pads? How do 8th graders take the writing SOL on their i-pads?	Instruction	3/22/17	4/20/17	4/21/17
26	Do we know how extensively the iPads are being used in elementary school, particularly grades 2-3? Have we identified a measure of effectiveness for the devices? If so, how effective are they, i.e., are we delivering instruction more effectively with the devices than without them? How many 2nd and 3rd graders take the device home regularly?	Instruction	3/23/17	4/20/17	4/21/17
27	Are there cheaper 1:1 device alternatives to using Apple iPads?	Information Services	3/23/17	4/24/17	4/28/17

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 2, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: Part of the budget deficit is due to an increased requirement for the VRS contribution. Is there cost sharing that occurs now for the VRS contribution? If so, can we alter the ratio of employee contribution vs APS contribution? If not, can we share the total burden of that increase (or the total VRS contribution) with the workforce, like we do with healthcare costs? Can we see the effects of different cost-sharing percentages on the budget deficit?

RESPONSE: There is a cost sharing for the current VRS contribution – employees pay 5% and APS pays the mandated contribution rate which is currently 14.66%, rising to 16.32% in FY18. The contribution rates for both employee and employer are set by the General Assembly and cannot be changed by individual localities.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 2, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson
           Dr. Tara Nattrass

BUDGET QUESTION: What is the budgetary effect of the FLES program? What would be the impact of eliminating it? What would be the impact of making it an opt-in program, assuming 25, 50 and 75% of students opt-in?

RESPONSE:

Budgetary impact: The table below shows the budgetary impact of FLES based on the FY 2017 Adopted budget which includes FLES teachers as well as the additional art and music teachers allocated because of FLES.

FY 2017 FLES Budget		
	FTE	Cost
FLES Teachers	70.00	$6,475,000
Art Teachers (Additional due to FLES)	18.40	$1,702,000
Music Teachers (Additional due to FLES)	18.40	$1,702,000
Total	106.80	$9,879,000
Note: Based on average salary.		

Instructional Impact:

Depending on intent, there are three different impacts possible:
- If the intent was to return to the early-release Wednesday model, then:
  - the actual amount of instructional time would decrease by approximately 2 hours
  - there would be a decrease in FLES, Art, and Music staffing (see the table above)
- If the intent was to not offer FLES but continue with the current full-day schedule, then
  - Instructional time would remain the same as in the current model
  - there would be a decrease in FLES staffing, but likely some increase in other staffing based on individual schools' master schedules
- If the intent was to offer FLES as an opt-out, then
  - the current master schedule would still need to be in place
  - staffing would be similar to or slightly less than current levels as the actual instructional blocks would still need to be in place

In addition, there would be the larger policy discussion as to how changes to the current FLES model would impact the 2010 School Board value (below) and the School Board commitment to a K-12 continuum of world language programs in APS.

All APS students should be proficient in at least two languages upon graduation and should have access to world language proficiency programs regardless of school of attendance. (December 2010)

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 3, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson
                    Dr. Tara Nattrass

BUDGET QUESTION: What is the budgetary impact of our various pre-K programs broken out into staff costs, materials costs, transportation costs and classrooms used? Which, if any, are mandated by the state or Federal govt's? What would the budgetary impact be of not offering pre-K classes to rising pre-K students in Sept 2017, but continuing to offer pre-K to those students who are already in pre-K today?

RESPONSE: The attached table indicates the budget for the Montessori 3-4-5-year-old program and the VPI program.

- Pre-K is not required by federal or state law. (Kindergarten is also not required by VA law). This does not include Special Education pre-K.
- The VPI Pre-K program in APS receives state grant funds from VDOE. It is a one-year program for four-year old at-risk children. Currently enrolled VPI students will be in kindergarten in APS next year.
- The VPI program has shown significant impacts both academically and socio-emotionally in preparing students for kindergarten who would otherwise have no pre-K experience. The program specifically targets those who come from low socio-economic backgrounds and those who speak a language other than English. Many of the VPI students begin the year with limited exposure to language and social skills as well as experiences with school and routines. Nearly all VPI students have at least one risk factor to include trauma, homelessness, military deployment, parent incarceration, divorce, etc. The Early Childhood program evaluation report from December 2016 provides data demonstrating the gains for APS from having the VPI program available to families.
- The Primary Montessori program is funded completely with APS funds which are partially offset by tuition fees. Students remain in this program for three years to include the kindergarten year. This program is open to all APS families regardless of income.
- Impact of not offering classes in Sept. 2017:
  - If we were to not have VPI next year, we could eliminate 35 VPI classrooms and we would not apply for state grant funds.
  - If we kept Montessori classrooms and did not take new students in those classrooms, it would be considered an uneven Montessori classroom and each

class would have around 14 students. The Montessori philosophy is based on a balance of students, ages 3, 4 and 5, in the same classroom.

- o If the concern is capacity, it should be noted that some classrooms being used for VPI are smaller than the regulation size for K-5 as the class cap for VPI is smaller at 18 students and could not be converted to K-5 classrooms. (For example, the two VPI classrooms at Claremont are too small to become two kindergarten classrooms.) APS could move VPI classrooms based on capacity needs.

Attachment: Pre-K Budget Question

	Montessori 3-4-5 year olds			VPI				
	Teachers	Assistants	Funds	Teachers	Assistants	Coordinator	Clerical	Funds
Operating Funds: Staff, materials, supplies	19.00	19.00	$ 2,646,813	30.00	23.00			$ 3,879,660
Operating Funds: Transportation			$ 80,202					$ 139,299
Grant Funds: Staff, materials, supplies				5.00	12.00	1.00	0.50	$ 1,677,000
TOTAL	19.00	19.00	$ 2,727,015	35.00	35.00	1.00	0.50	$ 5,695,959
Revenue (Tuition for Mont 3/4 year olds)			$ (1,144,000)					
TOTAL (less any revenue)	19.00	19.00	$ 1,583,015	35.00	35.00	1.00	0.50	$ 5,695,959
Number of Classes			19					35

Notes:

Positions/Revenue/Grant amounts are based on FY 2017 Adopted budget.

Average costs are used for salary and benefits calculations.

Analysis includes direct costs--not costs associated with other classroom teachers that serve pre-K students such as art, music, and physical education teachers.

Funds include FTE staff, hourly staff, materials, and supplies.

Transportation costs are calculated based on eligible riders and the average per-pupil cost for regular school transportation (from January 2016 Early Childhood Program Evaluation Report).

Montessori classes include Montessori 3, 4, and 5 year old students. The teachers and assistants shown in this analysis are for the entire Montessori program inclusive of 5 year olds. Approximately two-thirds of the students in the program are 3-4 year olds and one third are 5 year olds.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Brenda Wilks

BUDGET QUESTION: Last year's budget increased school psychologists and social workers by 6 FTE's each – 12 FTE's total. Please provide an evaluation – how did services provided change due to this increase?

RESPONSE: Statistics from the National Center for Mental Health and Juvenile Justice (NAMI) indicate that over 20% of Virginia students are experiencing a mental disorder at a level that will impair academic functioning and performance; less than half will receive mental health treatment.

Data from the 2015 Assets survey conducted by the Arlington Partnership for Children, Youth and Families (APCYF) of nearly 1,600 APS 6th, 8th, 10th, and 12th graders indicated that 33% of 6th graders and 17% of 8th, 10th, and 12th graders reported feeling sad or depressed in the last month. Data from the most recent (2013) Centers for Disease Control's Youth Risk Behavior Survey of approximately 2,300 APS 6th, 8th, 10th, and 12th graders indicated that the number of students who reported attempting suicide ranged from 50-85 students, depending on the grade.

The FY 2017 budget provided for six additional school psychologists and six additional social workers for a total of 12 positions. The increased positions aligned with Strategic Plan Goal 5 as well as School Board FY 2017 Priorities on Meeting the Needs of the Whole Child and Student Achievement and Success. Providing a higher ratio of school psychologists and social workers at schools improves and increases social and emotional supports for students, families, and teachers. APS psychologists and social workers have multiple schools for which they are responsible, thus limiting their availability to provide additional support and services to students and families in need.

Due to the additional positions, the Office of Student Services was able to allocate additional help at each of the comprehensive high schools and middle schools resulting in increased mental, social, and emotional support and services to students and families. The table below provides a comparison in services between FY 2015-16 and FY 2016-17 showing a significant increase in services for students and their families.

Activity	FY 2015-16	FY 2016-17	% Increase
Psychological Assessments	442	583	32%
Social Histories	370	473	28%
Special Education Eligibility Meetings	2057	2537	23%
Counseling - As a Related Service Number of Active Cases	509	682	34%
Counseling - As a Related Service Number of Sessions	1309	1883	44%
Counseling: Individual Number of Active Cases	570	732	28%
Counseling: Individual Number of Sessions	1592	2072	30%
Counseling: Groups Number of Sessions	284	371	31%
Observations	553	722	31%
504 Meetings	404	518	28%
Risk Assessments	63	92	46%
Residency Checks	99	131	32%
Referrals to District/Community Resources	748	902	21%

The chart below shows how additional school psychologists and social worker positions were allocated to support schools:

Psychologists (6 positions)*	Social Workers (6 positions)**
Wakefield HS (1 position)	H-B Woodlawn Secondary Program (1 position)
Washington-Lee HS (1 position)	1 position distributed across 3 schools: Career Center (2.5 days) Arlington Community High School (0.5 day) Hoffman-Boston ES (2 days)
Yorktown HS (1 position)	Child Find (1.2 positions)
H-B Woodlawn Secondary Program (1 position)	Distributed among middle schools to create a full time position at each school (1.2 positions)
Distributed across middle schools to create 1 full time position at each school (1.4 positions)	Distributed across high schools for additional days (1.6 positions) Wakefield HS (3 days) Washington-Lee (3 days) Yorktown (2 days)
Multicultural Assessment Team (0.6 position)	

*An additional full-time psychologist at Wakefield, Washington-Lee, and Yorktown high schools (each comprehensive high school now has two full-time psychologists). Each middle school now has one full-time psychologist. Additional staffing was added to support multicultural assessments.

**Each middle school now has a full-time social worker. Increased social worker time at Wakefield and Washington-Lee high schools from 1.0 FTE to 1.6; Yorktown HS increased from 1.0 FTE to 1.4. Additional staffing was also added to support Child Find.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Brenda L. Wilks

BUDGET QUESTION: If we add the 1 FTE for central registration, how does this affect the workload at our schools? Can clerical staffing at our schools be reduced?

RESPONSE: The Department of Student Services and Special Education (DSSSE) gained a 1.0 FTE 12-month registrar to assist in the expansion of central registration services.

Currently, the Language Service Registration Center (LSRC) is the only site in which the central registration process takes place. For the upcoming 2017-18 school year, Virginia Preschool Initiative (VPI) registration will take place at Syphax for the first time in lieu of at various sites across the district. The anticipated enrollment will be approximately 600 VPI students.

The duties assigned to the new 12-month registrar include: reviewing all VPI applications, income verification forms, residency verification (both LSRC and VPI), immunization and physical records, and identification of students and parents/guardians.

School-based registrars are 10-month employees. During the summer, the LSRC experiences a higher number of registrations for international students. The 12-month registrar is able to assist families with enrollment during these months.

There will be no change to clerical staffing at the school level for the FY 2018 school year.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 2, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: John Chadwick

BUDGET QUESTION: In which office will the JFAC support planner sit?

RESPONSE: The JFAC Support Planner will be in the Facilities & Operations office.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 3, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: MCMM was $12M in the 2016 budget but went down to $6.5M in 2017 and 2018. What is the reason for this change?

RESPONSE: Over the past four years, the budget for MC/MM has remained relatively flat, not including the funding for relocatables which changes from year to year depending on the need (see the table below).

	FY 2015 Adopted	FY 2016 Adopted	FY 2017 Adopted	FY 2018 Proposed
Budget	$6,912,903	$5,617,929	$6,438,495	$6,458,495

The $12.2 million for FY 2016 that appears in the FY 2018 proposed budget is the total FY 2016 **actual** expenditures for the MC/MM account which comprises the FY 2016 budgeted funding plus additional funding resulting from FY 2015 encumbrances and carry-forward as well as transfers made to the MC/MM account for various projects.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 2, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: There is an addition of 3 FTE's for a planning office. Some of the positions haven't necessarily changed in terms of the work; they've just moved offices. Are these FTE's subtracted elsewhere in the budget or are they true additions?

RESPONSE: The 3.0 FTEs included in the budget for an Integrated Project Planning Team in the Superintendent's office are additions to the budget. The team will comprised a Demographer, a Project Planner, and a Communications & Engagement Specialist. This team will report directly to the Superintendent and assist with providing and analyzing large amounts of data which will allow for a well-informed decision making process.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 3, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: Please provide more details about the accounts and amounts in Employee Benefits (p. 301) and Other Administrative Accounts (p. 306).

RESPONSE:

The Employee Benefits Office includes funding for retiree health premiums ($6.2M), separation pay ($2.8M), worker's and unemployment compensation ($1.6M), and benefits consultant ($0.1M). In addition, funding for non-employee specific benefits, such as Live Where You Work grants, Parental Leave, Transit Subsidy, and Flexible Spending Accounts, totaling $1.1 million, are also budgeted in this office. In the FY 2018 proposed budget, all central office stipend accounts ($1.2M) were consolidated into the Employee Benefits office. The benefits specialist is also budgeted here ($0.2M).

Other Administrative Accounts includes funding for the market rate compensation adjustment ($2.4M), OPEB and enrollment adjustment reserves ($3.5M), capital lease purchases ($2.4M), and legal fees ($0.3M). Also included are funds for equipment and furniture for new classrooms and relocatables resulting from increased enrollment ($1.9M).

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: Gifted Services has over $900,000 in "purchased services" each year. What have these funds been spent on in 2016 and 2017? What is the spending plan for 2018?

RESPONSE: The $962,355 proposed in the Gifted Services Office's purchased services accounts includes primarily the funding for Thomas Jefferson High School Science and Technology tuition as well as smaller amounts for the State Governor's School tuition and the Summer Laureate Program costs.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 7, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Tara Nattrass, Assistant Superintendent, Instruction

BUDGET QUESTION: Please provide before and after organizational charts and explain the proposed changes to the Department of Instruction. For example, the tiered cuts include reduction of our two STEM specialists, as well as 4 administrative assistants. A K-12 curriculum specialist is added. What is the vision for the Department of Instruction going forward?
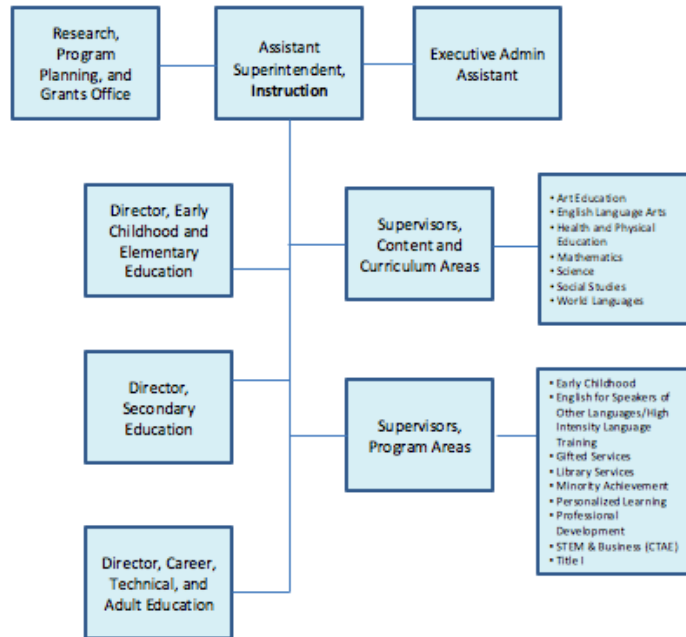
RESPONSE:
Baseline Budget: The shifts in the Department of Instruction baseline budget include the replacement of two vacant positions with an *Executive Director of Curriculum and Instruction* position. The two vacant positions that will not be filled are the *Assessment Data Analyst* and *Personalized Learning Specialist.* The *Executive Director* will support teaching and learning through the coordination of content and program offices in the ongoing writing and revision of curriculum, including assessments and resource alignment. The specifics of the position are described below.
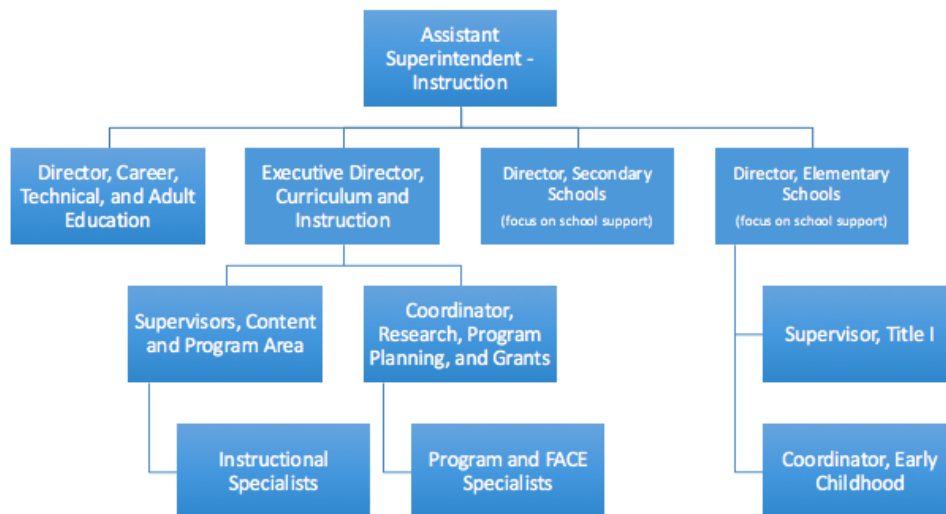
Essential Functions
- Works with content supervisors to ensure successful completion of all phases of the curriculum review and revision processes that align with personalized learning including: curriculum framework, formative and summative assessments, alignment of resources, creation and posting of parent documents, website alignment, and report card updates
- Provides leadership in the planning and implementation of professional learning activities for instructional personnel
- Keeps up to date on developments in curriculum and instruction and determines their appropriateness for inclusion in the district education program
- Participates in ongoing professional growth opportunities and shares effective instructional strategies with colleagues at schools and district wide as appropriate
- Attends, facilitates and coordinates instructional supervisor meetings
- Attends district, principal, and assistant principal meetings, facilitating when appropriate
- Communicates the approved curriculum to the professional staff, parents, and community members
- Facilitates the evaluation and recommends adoption of new instructional materials, methods and programs
- Acts as a resource person to district personnel on issues related to curriculum
- Provides support and guidance to teachers in the handling of day-to-day problems of instruction and implementation of curriculum
- Observes teachers in their classrooms upon request of teachers or administrators and offers insights for the enhancement of the teaching-learning situation

With the addition of this position, a few shifts will be made in the Department of Instruction organizational chart as captured below:

Department of Instruction
June 2016

Research, Program Planning, and Grants Office	Assistant Superintendent, **Instruction**	Executive Admin Assistant

Director, Early Childhood and Elementary Education	Supervisors, Content and Curriculum Areas	• Art Education • English Language Arts • Health and Physical Education • Mathematics • Science • Social Studies • World Languages
Director, Secondary Education	Supervisors, Program Areas	• Early Childhood • English for Speakers of Other Languages/High Intensity Language Training • Gifted Services • Library Services • Minority Achievement • Personalized Learning • Professional Development • STEM & Business (CTAE) • Title I
Director, Career, Technical, and Adult Education		

Department of Instruction
Proposed 2017-18

- Assistant Superintendent - Instruction
  - Director, Career, Technical, and Adult Education
  - Executive Director, Curriculum and Instruction
    - Supervisors, Content and Program Area
      - Instructional Specialists
    - Coordinator, Research, Program Planning, and Grants
      - Program and FACE Specialists
  - Director, Secondary Schools (focus on school support)
  - Director, Elementary Schools (focus on school support)
    - Supervisor, Title I
    - Coordinator, Early Childhood

Tiered Reductions: While it is our hope that reductions would not need to be made, in the event that this would occur, the recommendations for Tier 1 reductions include several positions: elementary STEM specialist, secondary STEM specialist, four administrative assistants, and the Professional Development School Coordinator position. As we continue to work across offices within the Department of Instruction and embed STEM into many curricular areas, the roles and responsibilities of the STEM specialists would be integrated into the daily operations of the math, science, ESOL/HILT, Title I, early childhood, gifted services, and personalized learning offices. This will allow for a streamlined and clearly defined alignment of STEM integration across all grade levels and content areas. Additionally, three of the administrative assistant positions that are proposed in the reductions are vacant positions, two of which are in adult education. With the reduction of these positions, the Department of Instruction will reorganize administrative assistants to support key areas of focus as well as individual offices.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 6, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Tara Nattrass, Assistant Superintendent, Instruction

BUDGET QUESTION: In the spirit of better targeting resources, are there elementary schools that have performed well across the board in math and no longer require a math coach? Could we pilot the idea of reducing math coaches in schools that no longer need the support?

RESPONSE: Arlington Public Schools has elementary and middle schools that have performed well across the board in math. We would need to do a comprehensive analysis to try to determine if these increases have occurred with the assignment of the math coach to the schools or if this can be attributed to other factors. As we know, in education, it is challenging to isolate a particular variable to determine the causal impact. Therefore, if we were to consider reducing math coaches, we would want to complete observations in all of our schools to determine the capacity of classroom teachers to continue the work without the coach in the school. As a key member of the instructional team, the loss of the math coaches would be felt within our schools.

Currently, within the operating budget, the majority of schools have 0.5 math coach. The support of coaches is so well-received that many principals have utilized their funding to expand their 0.5 to a 1.0. Also, the Math Office feels that all schools will continue to benefit from the support of a math coach; in fact, the Math Advisory Committee seeks to increase the allocation to 1.0 FTE per school.

As this option is considered, it is important to note that a school-based math coach improves student achievement through improvement of instruction. John Hattie's latest research indicates that the collective efficacy of teaching teams is the most positively impactful factor on student learning. The primary purpose of math coaches is to build the capacity of classroom teachers, elevating both the individual and collective efficacy of faculty in their building. Responsibilities of the math coaches include:
- Co-planning differentiated and individualized lessons using research-based best practices
- Collaboratively planning long and short-range units and lessons based on the Virginia Standards of Learning and a variety of national standards for mathematics
- Co-planning units, lessons, assessments with grade-level teams
- Directly building the capacity of teachers to develop powerful, differentiated resources for student instruction
- Supporting Professional Learning Communities and individual teachers in collecting and analyzing data and using resources to implement the Arlington Tiered System of

Support. The goal is to ensure that all students meet grade-level expectations or make at least a minimum of one year of growth each school year. This is done by:
  - o providing high-quality systematic content interventions for struggling students
  - o implementing high-quality enrichment experiences for advanced learners
  - o differentiating content delivery methods for English Learners and for students receiving special education services
- Developing high-quality curriculum resources that will meet the needs of diverse levels of learners
- Collaborating with other support personnel, including Resource Teachers for the Gifted, Special Education teachers and ESOL/HILT teachers to provide tailored instruction to meet the needs of various populations
- Collecting data on instructional practices across math classrooms in order to provide feedback
- Facilitating collegial dialogue, peer coaching and reflection of instructional practices
- Providing individualized, ongoing, job-embedded professional learning for teachers targeted to specific needs of teachers and grade levels
- Facilitating Content Academies for both teachers and parents
- Collaboratively analyzing student work and data with teachers to plan future instruction
- Guiding data-focused learning conversations
- Supporting teachers in evaluating the suitability of assessments and developing them when needed

Finally, it is important to note that next year will be a "crosswalk year" for new VA Mathematics SOLs; coaches will be integral in helping teachers design lessons to meet revised standards. They can facilitate education about the standards and support teachers with implementation.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Kristi Murphy

BUDGET QUESTION: What are the next steps for the Compensation Study and how does that relate to "flat staffing" and possible "X" scale exploration?

RESPONSE: The FY17 Compensation Study was a diagnostic study on the market rate of APS salaries of graded positions and benefits analysis. The next steps for the compensation study:

1. Develop a 3-5 Compensation Philosophy that will guide the HR work in reviewing and assessing a total compensation package, which includes but not limited to compensation, benefits, career advancement, for employees that has a direct impact on APS' ability to recruit and retain talent. This work may include future conversations to address the "flat staffing" on certain pay scales but to date, there has not been a recommendation that it needs to be adjusted.
2. Reexamine previous support scale positions and added benchmark positions for Maintenance (M-Scale), Food Services (C-Scale), and Extended Day (X-Scale) to bring all positions within those scales in line with the market rate.
3. Extend the classification analysis of Exempt (E-Scale) and Professional (P-Scale) employees to make market rate adjustments if needed, ensure appropriate alignment and internal consistency of positions, and assure compliance with federal regulations such as the Fair Labor Standards Act.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 8, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: What is the number of APS employees at the top of the scale or on longevity ('flat steps')?

RESPONSE: The table below provides the number and percentage of employees on each scale who are either at the top of the scale or on a longevity step.

Scale	Scale Description	Total FTE	# of FTE at Top of Scale	% of FTE at Top of Scale	# of FTE on Longevity Step	% of FTE on Longevity Step
A	Assistants	672.10	192.50	28.6%	N/A	N/A
C	Food Service	89.00	43.00	48.3%	N/A	N/A
D	Bus Drivers and Attendants	200.00	38.00	19.0%	N/A	N/A
G	Clerical/Technical	287.55	137.05	47.7%	N/A	N/A
M	Maintenance/Custodial	328.00	116.00	35.4%	N/A	N/A
X	Extended Day	51.00	12.00	23.5%	N/A	N/A
E	Exempt	208.06	8.00	3.8%	90.06	43.3%
P	Professional	147.00	3.00	2.0%	49.00	33.3%
T	Teachers	2,820.42	62.45	2.2%	737.40	26.1%
Total		**4,803.13**	**612.00**	**12.7%**	**876.46**	**27.6%**

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Dr. Kristi Murphy

BUDGET QUESTION: How many hourly employees have multiple assignments that make them essentially a full-time employee? What is the scope of the issue with the employees who work multiple assignments?

RESPONSE:

Background
APS does not currently define "full-time" status for employees who are hourly. Instead, we rely upon the "full-time" definition mandated by the Affordable Care Act ("ACA"), which requires that we offer health insurance benefits to any employee who works an average of either 30 hours per week or 130 hours per month.

The table below shows the total number of hourly employees, as well as those who held multiple assignments for the 2014-15, 2015-16, and 2016-17 school years (year to date). The last column shows the average hours worked per month. The table demonstrates that 10-13% of hourly employees hold more than one hourly assignment at APS, but even with those multiple assignments falls well below the 30 hour per week threshold for health coverage.

Year	Total number of Hourly Employees	Number of Employees with Multiple Assignments	Average total hours worked for the year (Employees with Multiple Assignments)	Average Monthly hours of Employees Holding Multiple Assignments (assuming 10-month position)
FY15 2014-15	1,428	140	597	59.7 (49.7 if 12 mo.)
FY16 2015-16	1,532	203	573	57.3 (47.8 if 12 mo.)
FY17 2016-17	1,326	174	417	52 (July – Feb)

Per the ACA, each year during Open Enrollment season in October, the Benefits Team runs a "lookback" report to identify all hourly employees who worked the required average of 130 hours per month during the prior year to qualify them for health insurance. Any hourly employee who works at least an average of 130 hours per month during the previous year is offered health insurance coverage at the full-time employee rate. The number of hourly employees who qualify for an offer of health insurance coverage is relatively low. For example, in 2016, 48 offers of coverage were made to hourly employees for the 2017 coverage year. Of those, 29 offers were for employees working in multiple assignments.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 16, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Dr. Kristi Murphy

BUDGET QUESTION: How many people get Live Where You Work grants each year and what is the range of grant amounts awarded?

RESPONSE: Any full-time permanent employee working 30 or more hours per week is eligible for both the housing grant and rental grant. There are no limits regarding income or type of housing. No credit checks are conducted. The housing grant is equal to 1% of the full-purchase price for a maximum of $6,000. To date, each employee that has applied has received the maximum amount of $6,000. Each rental grant applicant has been approved to receive the flat rental grant rate of $500. The table below provides the numbers of housing and rental grants that have been provided each year.

Live Where You Work Grant Program
15 Year Lifetime Snapshot

Year	Purchase Count	Rental Count
2002-2003	22	N/A
2003-2004	18	N/A
2004-2005	16	N/A
2005-2006	20	N/A
2006-2007	17	N/A
2007-2008	13	N/A
2008-2009	20	N/A
2009-2010	17	N/A
2010-2011	14	N/A
2011-2012	15	N/A
2012-2013	21	N/A
2013-2014	23	N/A
2014-2015	19	N/A
2015-2016	24	N/A
2016-2017 (as of 2/24/17)	13	20

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 17, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Cintia Z. Johnson

BUDGET QUESTION: How are crossing guards funded and assigned to schools (process)?

RESPONSE: All Arlington Public Schools (APS) crossing guards are funded through the County.

FY 2017 – School Crossing Guard Salary Scale

Class	Title	Grade	Hourly Minimum	Hourly Midpoint	Hourly Maximum	Annual Minimum	Annual Midpoint	Annual Maximum
5061	I	MAR 10-3	$14.98	$18.94	$22.90	$31,158.40	$39,395.20	$47,632.00
5062	II	MAR 10-4	$16.63	$21.02	$25.40	$34,590.40	$43,711.20	$52,832.00

The annual salary does not include health benefits.

ALLOCATION: For the 2016-17 school year, Arlington County has allocated 44 crossing guards. School assignment, specific location, and assigned hours are detailed in the yearlong calendar for each crossing guard.

PROCESS: Crossing guards are provided for schools that are "Walking Schools" – that is, students that live in a specific neighborhood and walk to school.

The number of school crossing guards and establishing or eliminating the locations (posts) for school crossing guards is based on a specific process. The superintendent of APS or a school official, usually the principal, will contact the school crossing guard supervisor and request a school crossing guard be assigned to a particular location. The crossing guard supervisor will then monitor the location to determine the number of students using the location, the volume and speed of vehicular traffic, number of turning vehicles, width of intersection, physical terrain, existence or absence of traffic control devices, and the number and ages of children utilizing the crossing. The crossing guard supervisor then makes a recommendation to the Special Operations Section commander on whether or not to staff a particular school crossing. The Special Operations Section commander forwards the recommendation to the Deputy Chief for final approval. (Policy Number SP 93-01).

School crossings are provided only for elementary and middle schools during the school year. School crossings staffed by an adult crossing guard are designated by one of the following:

international school crossing signs, flashing lights, and/or wink-o-matic signs that warn motorists that the speed limit is reduced in the school zone.

School crossings are established prior to the school year and are subject to ongoing review by the crossing guard supervisor. The supervisor determines whether school crossings are created or eliminated based on these reviews. Temporary school crossings are established as the need arises to handle such situations as construction and street and sidewalk repairs.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM
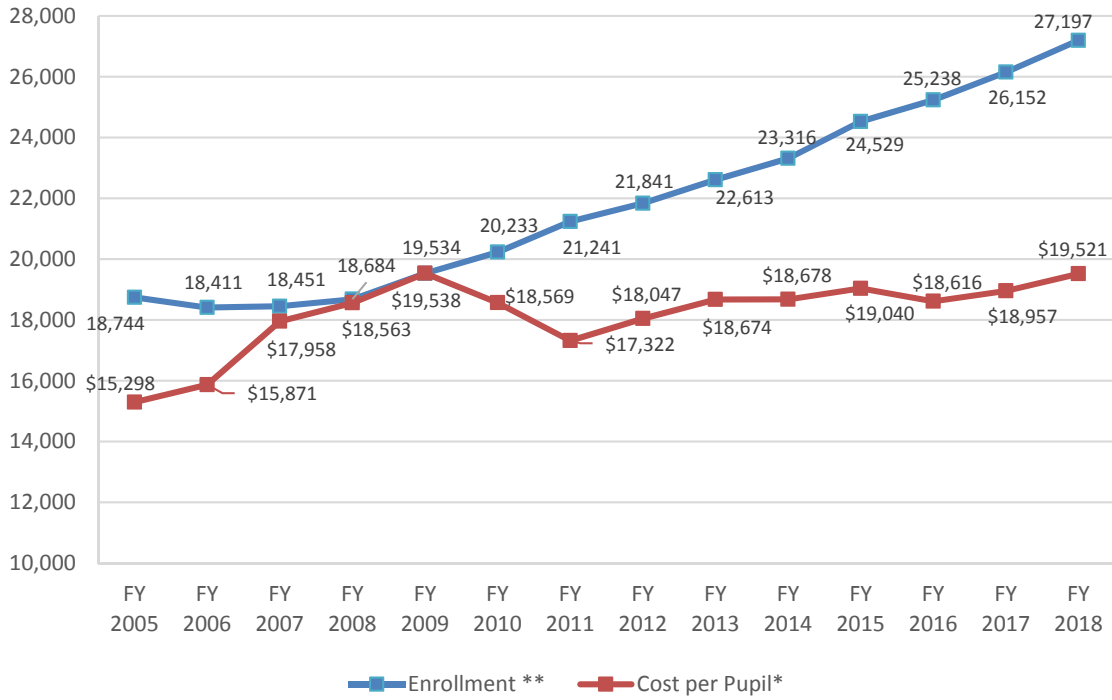
DATE: March 17, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Leslie Peterson

BUDGET QUESTION: Please provide the percentage growth for the overall adopted budget and cost per pupil beginning at the point when student enrollment began to increase.

RESPONSE: The chart below provides historical data in regards to student enrollment, cost per pupil, and the overall adopted budget from FY 2004 to FY 2018. It also shows percentage growth for those variables in the same period of time. The data reflects actuals with the exception of FY 2018 which represents projected enrollment as well as the proposed budget, assuming full funding by the County, and proposed cost per pupil. FY 2007 is the point in time when enrollment and the overall budget starts to increase and continues to increase in each subsequent year.

Student Enrollment & APS School Budget Growth						
Actual and Percentage						
(FY 2004 - 2018)						
Year	Enrollment **	Enrollment Growth Percentage	Cost per Pupil*	Cost Per Pupil Growth Percentage	Adopted Budget $ In Millions	Budget Growth Percentage
FY 2004	19,120		$ 13,950		$ 329.7	
FY 2005	18,744	-1.97%	$ 15,298	9.66%	$ 355.1	7.70%
FY 2006	18,411	-1.78%	$ 15,871	3.75%	$ 363.8	2.45%
FY 2007	18,451	0.22%	$ 17,958	13.15%	$ 394.3	8.39%
FY 2008	18,684	1.26%	$ 18,563	3.37%	$ 411.2	4.28%
FY 2009	19,534	4.55%	$ 19,538	5.25%	$ 432.6	5.20%
FY 2010	20,233	3.58%	$ 18,569	-4.96%	$ 438.6	1.39%
FY 2011	21,241	4.98%	$ 17,322	-6.72%	$ 442.0	0.78%
FY 2012	21,841	2.82%	$ 18,047	4.19%	$ 475.1	7.49%
FY 2013	22,613	3.53%	$ 18,674	3.47%	$ 501.4	5.54%
FY 2014	23,316	3.11%	$ 18,678	0.02%	$ 523.0	4.31%
FY 2015	24,529	5.20%	$ 19,040	1.94%	$ 539.4	3.14%
FY 2016	25,238	2.89%	$ 18,616	-2.23%	$ 557.4	3.34%
FY 2017	26,152	3.62%	$ 18,957	1.83%	$ 581.9	4.40%
FY 2018	27,197	4.00%	$ 19,521	2.98%	$ 616.9	6.01%
2007 - Inflection Point for Accelerated Enrollment Growth						
* Data obtained from WABE Guide Annual Reports						
** Data obtained from APS Annual Enrollment Projections Report (December 2016)						

Enrollment vs Cost Per Pupil

Enrollment ** — Cost per Pupil*

Enrollment: 18,744 (FY 2005), 18,411 (FY 2006), 18,451 (FY 2007), 18,684 (FY 2008), 19,534 (FY 2009), 20,233 (FY 2010), 21,241 (FY 2011), 21,841 (FY 2012), 22,613 (FY 2013), 23,316 (FY 2014), 24,529 (FY 2015), 25,238 (FY 2016), 26,152 (FY 2017), 27,197 (FY 2018)

Cost per Pupil: $15,298 (FY 2005), $15,871 (FY 2006), $17,958 (FY 2007), $18,563 (FY 2008), $19,538 (FY 2009), $18,569 (FY 2010), $17,322 (FY 2011), $18,047 (FY 2012), $18,674 (FY 2013), $18,678 (FY 2014), $19,040 (FY 2015), $18,616 (FY 2016), $18,957 (FY 2017), $19,521 (FY 2018)

Growth Percentage
Enrollment/Budget/Cost Per Pupil

Enrollment Growth Percentage — Cost Per Pupil Growth Percentage — Budget Growth Percentage
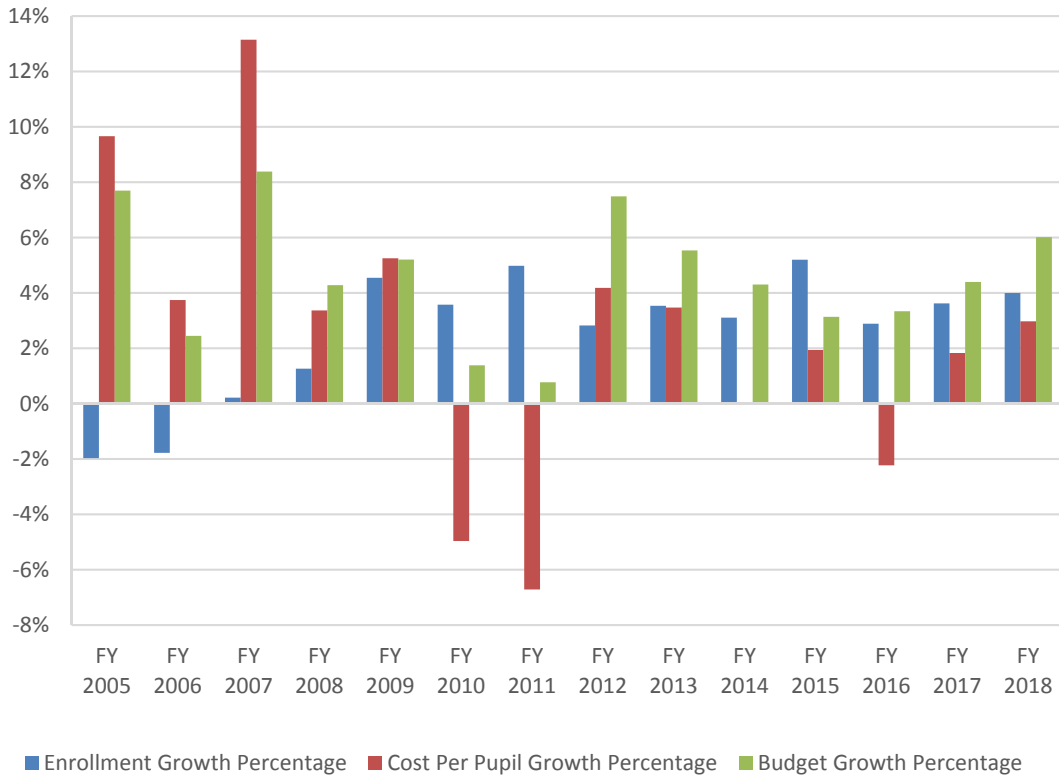
ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 27, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: John Chadwick

BUDGET QUESTION: How did the recent high school boundary changes increase the number of bus routes? Please provide details on what specific boundary changes caused the need for additional busses and/or routes and what additional costs will be incurred by Transportation because of the high school boundary changes?

RESPONSE: The recent high school boundary changes provided grandfathering for younger siblings to attend Washington-Lee if their older siblings attend Washington-Lee. This creates the need to increase our fleet by approximately five buses since students will now be eligible to attend either of two neighborhood high schools and we do not know how many students will take advantage of the grandfathering and remain at Washington-Lee. We estimate that approximately half of the students will attend Washington-Lee and half will attend Yorktown or Wakefield, hence the need for additional buses.

The approximate one-time cost to add the five new buses is $525,000 at $105,000 per bus. Recurring annual costs for contract drivers with benefits for the five buses is approximately $245,000 per year at $49,000 per driver. Routine annual maintenance costs for the five buses are approximately $41,500 at $8,300 per year per bus. These costs are included in the FY 2018 proposed budget.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 23, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Dr. Brenda Wilks

BUDGET QUESTION: On page 71 it states that the ratio of 1:1650 for both psychologists and social workers noted on page 54 of proposed budget is for the 2015-2016 school year. What is the 2016-2017 school year ratio since we added the 12 FTE positions funded in FY2017 and have all of these positions been filled? Please confirm that the 1:1650 ratio combines the psychologists and social workers - in other words this ratio reflects that we have 1 psychologist or social worker per 1650 students not one of each per 1650. Is this correct?

RESPONSE: In the FY 2017 Adopted Budget, 12.0 FTE positions were allocated to fill six school psychologist and six school social worker positions. All six new social worker positions have been filled and there is a 0.5 FTE vacancy that remains for a school psychologist position.

The table below provides the ratio for each type of position.

	2015 – 2016	2016 – 2017 with vacancy	2016 – 2017 without vacancy
Psychologists	1:1650	1:1148	1:1124
Social Workers	1:1650	1:1124	1:1124

The 1:1650 ratio does not combine both positions and in the 2015-16 school year, the ratio was 1:1650 for each psychologist and each social worker.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 22, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Raj Adusumilli

BUDGET QUESTION: On page 68 it is stated that the State SOQ standards require that we have one technician for every 1000 students to support technology and devices in schools. What is our current ratio?

RESPONSE: Currently, APS has 10 technician positions. Information Services (IS) also uses other staff in the department, such as network analysts, to provide support for technology and devices in our schools. The combination of technicians and other IS staff totals 26.0 FTE which results in a ratio of 1:1000. The 2.0 additional technician positions requested are needed not only to provide services to schools but to continue to meet the SOQ requirements in the face of our growing enrollment.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: April 24, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Raj Adusumilli

BUDGET QUESTION: How many iPads have been lost or damaged each year at each level -- elementary, middle, and high school? Who pays for replacement when a device is lost or damaged? Do we pay an insurance fee as part of the cost of the 1-1? Do classroom assistants currently receive iPads? If not, when will they receive them? Or would this have to be a budget add?

RESPONSE:

1. How many iPads and MacBook Airs have been lost or damaged each year at each level -- elementary, middle, and high school?

    The following table includes the cost of lost, stolen, and damage repairs incurred by APS.

	FY16 Lost Devices	**FY16 Damaged**	**FY17 Lost Devices**	**FY17 – thru April 2017 Damaged**
Elementary	13	$8,464	14	$7,900
Middle School	27	$48,800	40	$42,300
High School	20	$83,700	23	$80,300
Total	**60**	**$140,964**	**77**	**$130,500**

    An important additional consideration is that a very small number of students have had repeated incidents of significant device damage.

2. Who pays for replacement when a device is lost or damaged?

    Information Services pays for the replacement from the hardware repair budget.

3. Do we pay an insurance fee as part of the cost of the 1-1?

    Parents don't pay an insurance fee as a part of the 1-1.

4. Do classroom assistants currently receive i-pads? If not, when will they receive them? Or would this have to be a budget add?

   We have issued iPads to teacher assistants supporting grades 2-8 as identified by the principal. If the decision is made to provide teacher assistants at the high school level with devices, additional funding will be required.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: March 23, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Cintia Z. Johnson

BUDGET QUESTION: How many disciplinary incidents have been recorded related to the devices – sexting, cyber-bullying? Do we have a plan or curriculum to address these issues?

RESPONSE: The table below shows the disciplinary incidents associated with cyberbullying over the last three years. No sexting incidents were reported over this same timeframe.

2014 – 2015	2015 – 2016	2016 - 2017
6	4	5

Yes, we do have a plan or curriculum to address these issues. The iSafe program/curriculum and other resources are used at middle and high school in grades 6-10.   The iSafe curriculum is designed to address the positive and negative impacts of social networking – cyber harassment (bullying and stalking online), cyber predators, and cyber security. The focus is on:
- Understanding online communications and the impact of negative networking,
- Understanding the various types of online relationships that can occur from online communication,
- Describing risks and dangers associated with online social networking,

Cyberbullying and sexual harassment are covered in specific APS Second Step Bullying unit lessons as a component of the counseling program. Additionally, there are specific digital citizenship lessons out of the Department of Instruction. Sexual harassment is also covered.

The Personalized Learning Device Handbook addresses responsible ethical use of technology. It serves as a resource to guide students, staff and parents in this area of responsibility.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: April 20, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Tara Nattrass

BUDGET QUESTION: What have we done to solicit teacher feedback on the 1-1? What have we found? In which grades do students write essays on paper versus on iPads? How do 8th graders take the writing SOL on their iPads?

RESPONSE: We have not completed a formal process to solicit teacher feedback on the 1-1. As we continue with the Personalized Learning Device Initiative, we are planning strategies for evaluating both the implementation as well as the impact and effectiveness of this work. In the area of implementation, we will be evaluating the impact on instructional practices as well as student engagement. We have already begun this work through the practice of classroom walk-throughs. We will continue to focus on implementation as we thoroughly analyze resources for classroom use and support collaboration and communication through the Learning Management System. This may also include a formal process for gathering feedback from our teachers.

There is not a specific grade at which students write essays on paper versus iPads. Depending on the purpose and learning targets, there is variation in the tools used across all grade levels.

Currently, 8th graders have access to computers to take the writing SOL.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: April 20, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Tara Nattrass

BUDGET QUESTION: Have we identified a measure of effectiveness for the devices? If so, how effective are they, i.e., are we delivering instruction more effectively with the devices than without them? Do we know how extensively the iPads are being used in elementary school, particularly grades 2-3? How many 2nd and 3rd graders take the device home regularly?

RESPONSE: The Personalized Learning Device Initiative is intended to provide the resources necessary to ensure equitable access to authentic learning experiences for all students. The devices are the resources used to:
*   deliver and explore content related to primary instructional needs;
*   provide for differentiated resources for small groups and individual instruction;
*   support personalized learning progressions through mastery learning, goal setting, adaptive resources, and real-time data; and
*   engage students in learning experiences that build creativity, collaboration, critical thinking, and communication skills.

The devices allow for these practices to occur within our classrooms. Additionally, staff are able to implement instructional strategies that have the greatest impact on student learning, including:
*   **Individualized Instruction:** providing instruction that is direct, explicit, and closely aligned with students' needs and prior knowledge
*   **Assessment and feedback:** using formative assessments to inform instruction and provide immediate, explanatory feedback
*   **Practice:** providing opportunities and time for guided and independent practice
*   **Active Learning**: facilitating self-regulated and intrinsically-motivated learning in which students have some control over and responsibility for setting and committing to relevant learning goals, pathways, and pace
*   **Mastery Learning:** learning objectives that focus on mastery of competencies rather than recall of knowledge; scaffolded instruction in which students are engaged at their current level

John Hattie, 2008

Previously, we relied on textbooks which are static, do not meet the needs of all students, and cannot adapt for personalized learning progressions. The devices provide educational benefit because of the access they provide that cannot otherwise be obtained. This access expands

beyond the school day to include anytime, anywhere learning for all students ensuring equal access. Without the devices, this work would not be possible.

When asked how the iPads have changed teaching and learning, responses from staff have included:

- There is no comparison between how instruction was delivered before versus after the 1:1 devices were deployed. We have so many more capabilities now for teachers in terms of planning, delivery, and assessment. The ability to truly differentiate, let alone personalize learning for a classroom of 25+ students has been possible through 1:1 devices. For students, it has changed the entire way they approach learning. This tool has allowed for increased instructional time between students and each of their teachers, specialists and administrators...Students are constantly contacting their teachers with questions and comments. Students are able to continue meaningful discussions outside of the classroom with their peers. Technology has increased the students' capacity to use critical and creative thinking skills to a much broader range than ever before. Parent connections have not only been increased, but this has helped us to close the economic barriers that kept parents from participating in their student learning before.
- Specific to the nature of the iPads, having curated and professionally-selected applications…individual student work can be created, edited, manipulated, collaborated upon, shared, assessed, and archived or added to a portfolio utilizing cloud-based technology that provides a facility and a wider range of modalities that is not possible without educational technology. For students without devices, gaining access to the Internet and its robust research, exploration, and content-related resources is profound. For students with and without devices at home, ready access to the devices during the school day provides enrichment and extension opportunities, remedial and fact fluency resources that provide a form of guided practice that was previously unavailable, and an elimination of barriers (access, accountability mechanisms, etc.) that wasn't available in a traditional milieu. Interactive resources, instantaneous feedback in stations and individual exploration learning scenarios, consistency of experience and the elimination of redundant "technology overhead" training.
- Students are able to engage in real world skills such as research, writing, data collection and analysis and building projects…They are able to collaborate with their teacher and classmates in real time in school or at home at any time of the day. They also have the ability to put their work on display for literally the entire world. Students can stay motivated and work independently. Most of all, students are creating content as opposed to consuming it. It also benefits children with special needs and second language learners by letting them find their own unique voice and to work at their own appropriate level. It provides teachers with efficient and organized ways to assess students in real time and get immediate feedback. It also allows them to connect and work with parents to improve student learning in the same manner. It also allows teachers to share data and other information regarding students quickly in order to improve make changes in lesson planning or assessments.
- I am able to react in real time to student learning needs by pushing something helpful out through Google classroom immediately vs. wait to make copies. Having the technology seems to also be a real time-saver as well – we are able to do more in less time. They are being used throughout the entire curriculum…They have changed my teaching dramatically-much more focus on application and personalized learning. Makes it easy to differentiate for students…easy to pass along information and students can drive instruction. Individual learning projects in real time.

- As someone who is "technology-challenged" and was anxious about working with 1:1, I can say I'm a convert. It would be hard to go back to carts and sharing computers with a grade level.
- The 1:1 initiative has completely transformed my classroom. As a music teacher who only sees students once a week, I now feel connected to my students throughout the week because we use Google Classroom. They are able to ask questions about songs we are learning and I am able to answer them in real time- not just in a rushed way in the 10 minutes before school begins. In addition, I have flipped my recorder classroom and it has become a truly successful model for teaching recorder. Instead of having kids lined up to play a song for me, students are able to watch a video of me teaching (as many times as they need to based on their level), practice on their own, and then upload a video of their work. I can then give feedback immediately. In grades 2nd-5th I have numerous projects that involve the iPads. Whether it be using Google Classroom, GarageBand, ThingLink, ChatterPix, or some other great tool, my students are able to create, perform, and engage using the iPads as tools. I use them almost every day in grades 3rd-5th and involve them throughout the year during 2nd. I have also noticed a change in the way that I communicate with the parents because of the iPads. I have had numerous parent meetings to explain how I use the iPads in my classroom and the expectations for their use at home.

Parents have also provided feedback that includes:
- I am writing in support of the iPad use for our elementary school children in the existing format. As a parent I limit the use of the iPads at home but I support the use because I know there are many children in our school system that do not have access to this technology and I think it is a positive thing to allow children access to this technology. Bravo APS! I have 3 sons all in K-5 grade.
- Please keep the iPad in K-5. My daughter has been lucky enough to have use of an iPad since 3rd grade. The work she has done on the iPad is amazing. The stories, the reading and teachers are even using them for the children's showcases have been extraordinary. Technology is our future and our kids should continue to have use of the technology K- five.
- The iPads in middle school have been great for my now 8th grader. He can seamlessly connect to his teachers, get feedback and turn in homework. When he was sick, he could follow along with assignments and make up work when he felt better without having to pick up work from the school. He gets grades and other feedback from teachers more quickly than before and he has fewer physical papers to worry about keeping organized. All the work is there for me to review easily in google classroom. I am excited about further developments with the use of technology. Keep up the good work and please keep the iPads in schools!
- …has a great and knowledgeable staff that knows how to use technology and uses it in a way that is beneficial to the students. For example, in 5th grade they do "backwards" classroom. The students take a pre-test in whatever unit they are studying and based on what they know they go home and watch lessons on the subject. They come to class and do small group work based on where they are in the unit. This allows the kids to work at their own pace. It allows the kids who know more about a particular subject to study more in-depth and gain a better knowledge of a subject while also allowing kids who might not know the unit as well time and opportunity to understand it without slowing the whole class down. In the younger grades it has become a great tool for parent, student and teacher communication. In 2nd grade they use an app called See-Saw where my son will post his work that he is working on that day. I immediately get a notification so I can see what he is doing in class. I can comment on the work if I want to but I can also see the teachers' comments so I know what areas he is struggling with and what areas he is doing well in, in real time.

- I find the technology programs in the county excellent and the assigned iPad for elementary level students is no exception. They have grown up around technology so this is a natural extension of that. My children are more engaged in math specifically on the iPad as it can be made more dynamic that a static work book thanks to the technology.
- I LOVE the technology push APS has been responsible for in recent years - I feel it is very valuable to our students to prepare them for not only middle and high school, but their lives beyond. I wish I'd had these benefits growing up! Perhaps the iPad program needs some enhancements and clarification, but to remove this technology outright would be doing a great disservice to our students.

As we continue with the Personalized Learning Device Initiative, we are planning strategies for evaluating both the implementation as well as the impact and effectiveness of this work. In the area of implementation, we will be evaluating the impact on instructional practices as well as student engagement. We have already begun this work through the practice of classroom walk-throughs. We will continue to focus on implementation as we thoroughly analyze resources for classroom use and support collaboration and communication through the Learning Management System. Measuring the impact and effectiveness of the Personalized Learning Device Initiative on student learning and achievement will be more challenging. In order to directly measure the impact, we would need to isolate this practice from all others implemented within our schools (for example, after school and summer programs, problem-based learning, guided reading, etc.) to conclude that increases in student learning can be directly attributed to the Personalized Learning Device Initiative. Overall measures of effectiveness will include: levels of student engagement, usage of evidence-based digital tools, and student achievement measures (noting that we cannot isolate the effectiveness of the iPads as additional instructional changes have been made at the same time).

In second and third grades, iPad use varies by school with the majority of schools using the iPads with students between 1 to 2 hours per day with usage varying by day based on instructional needs. The use of iPads is balanced with opportunities for students to engage in outdoor learning, problem-based projects and hands-on experiments, reading tradebooks and responding with post-it notes and reading response journals, cooperative learning, exploration and building conceptual understanding with math manipulatives, etc.

Currently, 57% of second graders and 71% of third graders take their iPads home.

ARLINGTON PUBLIC SCHOOLS

MEMORANDUM

DATE: April 24, 2017

TO: Members of the School Board

VIA: Patrick K. Murphy

FROM: Raj Adusumilli

BUDGET QUESTION: Are there cheaper 1:1 device alternatives to using Apple iPads?

RESPONSE: While there are less expensive tablets available, the total cost of ownership for APS would likely have increase significantly if we had selected the Android platform.

Instructional findings from the 2013-14 pilots were used to determine the specific hardware to be used for the Personalized Learning Device initiative. Teachers, school administrators, and technical staff looked closely at Chrome books, Android devices, Windows tablets, and iPads among others in these pilots before making a decision to adopt iPads for the district.

The following criteria was used to ensure that the total cost of ownership of the devices was factored into the decision to select the devices:

- Instructional requirements at the time the device was selected, e.g., the devices had to allow teachers to provide flipped instruction to students even when no internet access was available.

- The device was certified for SOL testing.

- The device could be managed effectively using a robust device management system that would allow efficient and effective management of devices using limited human resources allowing staff to focus on instructional tasks.

- The device needed to be in alignment with APS, federal and state data privacy policies.