Why is there not a forecasted increase in McKinney Vento funds, but EL growth is forecasted very high at 7.9%?

Because the funding is not distributed solely on the number of students identified as homeless, there is not a direct correlation to support an increase of funding when the enrollment fluctuates. Additionally, for grant considerations, the EL population is a subset of the total McKinney-Vento homeless population. Given the uncertainty in projected funding, the FY20 budget assumes the same level of funding as FY19.

What is the cost to implement a full class size reduction at all levels? Elementary implementation would be the priority.

Elementary
If we revised the staffing standards for “teacher (grades 1-3)” and “teacher (grades 4-5)” by referring to 22 students instead of 23 students, it would require 32.7 FTEs at a cost of $3,244,723. The 32.7 FTEs includes 28 classroom teacher FTEs and 4.7 art, PE, and music teacher FTEs. The approach to distributing FTEs to specific schools and grade levels is consistent with the approach used in developing the Superintendent’s Proposed Budget.

Variances in projections of number of students and teachers can occur which would lead to changes in actual staffing and actual class sizes.

Further breakdown of the projected average class size is provided by planning district in the following table.

<table>
<thead>
<tr>
<th>Planning District</th>
<th>FY19</th>
<th>FY20 Supt. Proposed</th>
<th>Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashburn</td>
<td>23.2</td>
<td>22.4</td>
<td>21.9</td>
</tr>
<tr>
<td>Central Loudoun</td>
<td>22.6</td>
<td>22.2</td>
<td>21.2</td>
</tr>
<tr>
<td>Dulles North</td>
<td>23.0</td>
<td>22.7</td>
<td>22.6</td>
</tr>
<tr>
<td>Dulles South</td>
<td>23.0</td>
<td>23.0</td>
<td>23.5</td>
</tr>
<tr>
<td>Eastern</td>
<td>21.8</td>
<td>21.2</td>
<td>20.9</td>
</tr>
<tr>
<td>Western</td>
<td>21.9</td>
<td>21.1</td>
<td>20.0</td>
</tr>
</tbody>
</table>
Middle
If the target class size in the staffing standard formula for middle school is reduced from 23.8 to 22.8, it would require 48 FTEs at a cost of $4,755,168.

High School
If the target class size in the staffing standard formula for high schools is reduced from 24.2 to 23.2, it would require 61.2 additional FTEs at a cost of $6,041,480.

The School Board may wish to include at least 16 additional high school teacher FTEs than were included in the Superintendent’s FY20 Proposed Operating Budget. This would cost $1,579,472.

After the presentation of the Superintendent’s FY20 Proposed Operating Budget, the September 30, 2019 projected enrollment for each high school was reassessed based on January enrollment data. Based on historical changes between second semester enrollment and September 30 enrollment, this recent analysis suggests that division-wide high school enrollment in FY20 may be higher than officially projected. This analysis is not sufficient to support an adjustment to the official division enrollment projection that would also change revenue projections. However, in order to decrease the possibility of larger than desired class sizes, the School Board may wish to add 16.0 additional high school teacher FTEs at a cost of $1,579,472. Staff would recommend that the 16.0 additional high school FTEs be added to high school contingency to allow flexibility in distributing the FTEs based on the latest data available.

An alternative approach would be to reduce the target average class size in the high school staffing standard formula from 24.2 to 23.9. This would also result in 17.8 additional high school FTEs at a cost of $1,757,162. Reducing from 24.2 to 23.9 yields additional FTE (17.8) that is closer to the 16 FTE referenced above than reducing from 24.2 to 24.0, which would yield 11.4 additional FTE at a cost of $1,125,373.

For reference, the FY19 WABE comparison of average class size is presented.

<table>
<thead>
<tr>
<th>FY2019 Average Class Size</th>
<th>Student Per Classroom Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elementary</td>
</tr>
<tr>
<td>Alexandria City</td>
<td>14.4</td>
</tr>
<tr>
<td>Arlington County</td>
<td>21</td>
</tr>
<tr>
<td>Fairfax County</td>
<td>22.6</td>
</tr>
<tr>
<td>Falls Church City</td>
<td>22.6</td>
</tr>
<tr>
<td>Loudoun County</td>
<td>22.7</td>
</tr>
<tr>
<td>Manassas City</td>
<td>21.8</td>
</tr>
<tr>
<td>Manassas Park City</td>
<td>21.5</td>
</tr>
<tr>
<td>Montgomery County</td>
<td>19.1</td>
</tr>
<tr>
<td>Prince George’s County</td>
<td>-</td>
</tr>
<tr>
<td>Prince William County</td>
<td>22.1</td>
</tr>
</tbody>
</table>
Please provide a breakdown of services for social emotional learning provided at each level, comparing how LCPS is addressing mental health at the three levels?

In supporting the academic, behavior, and social-emotional needs of students through a Multi-Tiered System of Supports, Loudoun County Public Schools (LCPS) has established a data-driven, service delivery framework to implement universal core strategies that are provided to all students, and targeted and intensive supports for students who are identified in need of intervention. To further support the LCPS mission to empower students to make meaningful contributions to the world and complement the current universal mental health and wellness initiatives at the middle and high school level, LCPS is seeking to increase universal comprehensive social and emotional learning resources for all elementary schools as part of LCPS’s Multi-Tiered System of Supports framework.

At the secondary level, the Unified Mental Health Teams meet on a monthly basis to provide universal, targeted, and intensive levels of support for students who need social-emotional interventions. At Tier 1, explicit prevention education is provided to students on suicide prevention, depression, substance use, and an overview of mental health. Additionally, universal strategies and programs such as Sources of Strength and Positive Experiences in Educational Relationships (PEER) are implemented to promote positive mental health and wellness and positive learning environments across the school community through collaborative approach led by members of the Unified Mental Health Teams. At Tier 2 and Tier 3, targeted and intensive interventions such as group or individual counseling, restorative circles and conferences, and check in/check out are available to students in need of additional support.

At the elementary level, explicit instruction is delivered to students via a comprehensive school counseling program, delivered by school-based school counselors, to reinforce knowledge and skills related to responsible citizenship and respect for self and others. Specifically, at Tier 1, we are proposing to implement social-emotional learning (SEL) as a school-wide universal prevention strategy in each classroom to promote healthy social and emotional development for all students that includes self-awareness, self-management, responsible decision-making, relationship skills, and social awareness. The addition of an evidence-based social-emotional learning curriculum would complement this work through explicit classroom lessons that are integrated across curricular areas such as math, reading, and other subjects and reinforced in project-based learning opportunities. SEL competencies could then be supported through targeted small group instruction delivered by school counselors. As with the secondary level, targeted and intensive interventions are available for students in need of additional small group or individual support.
The Multi-Tiered System of Support Pyramid of Interventions for Mental Health follows.
Please provide comparative data for staffing of security patrol positions.

The table below shows FY19 Security Patrol FTE count and staffing ratios for LCPS and surrounding jurisdictions. LCPS’ FY20 Proposed is shown below the table.

<table>
<thead>
<tr>
<th>Schools</th>
<th>FY19 Security Patrol</th>
<th>FY19 Enrollment</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loudoun County Public Schools</td>
<td>4</td>
<td>83,105</td>
<td>1 : 20,776</td>
</tr>
<tr>
<td>Fairfax County Public Schools</td>
<td>17</td>
<td>190,168</td>
<td>1 : 11,186</td>
</tr>
<tr>
<td>Prince William County Public Schools</td>
<td>16</td>
<td>91,054</td>
<td>1 : 5,691</td>
</tr>
<tr>
<td>Alexandria City Public Schools</td>
<td>12</td>
<td>15,928</td>
<td>1 : 1,327</td>
</tr>
<tr>
<td>Falls Church City Public Schools</td>
<td>1</td>
<td>2,574</td>
<td>1 : 2,574</td>
</tr>
<tr>
<td><strong>Loudoun County Public Schools FY20 PROPOSED</strong></td>
<td><strong>8</strong></td>
<td><strong>83,762</strong></td>
<td><strong>1 : 10,470</strong></td>
</tr>
</tbody>
</table>

What metrics are LCPS using to measure or evaluate the effectiveness of utilizing technology to deliver instruction and how does LCPS determine the impact to student learning?

The positive impact of technology on student learning is realized when teachers leverage the power of technology to shift their instructional practices. One way that LCPS measures the impact of technology on classroom practice is through an annual Brightbytes data collection. This survey of teachers, students, and parents helps us measure the gains that are being made across four domains: Classroom, Access, Skills, and Environment.

In the Classroom domain, LCPS has made consistent gains over the past three years in each of the success indicators. The success indicators are:

- Teacher Use of the 4 Cs,
- Student Use of the 4 Cs,
- Teacher Digital Citizenship,
- Student Digital Citizenship,
- Assessment, and
- Assistive Technology
Below is a summary chart of our gains in these areas over the past three years.

Over the past three years, we have continued to emphasize Bring Your Own Technology (BYOT), implemented personalized learning in 40 schools (with devices and access to digital content included with implementation), and begun to roll out individual learning devices (Chromebooks) to all students in grades 3-12. When correlated with the increased access students have to digital tools, LCPS saw an increase across all domains as measured by our annual Brightbytes data collection. After our next Brightbytes data collection in the spring of 2019, we will have the first set of survey results since deploying individual learning devices to students grades 3-12. We will then be able to compare the results to schools that have not yet been refreshed. Our expectation is that we will see even more dramatic growth in some of these indicators as a result of the increased access to technology.

Research has repeatedly demonstrated that simply layering technology on top of existing instructional practices does not result in better learning outcomes for students. However, access to technology is critical to the success of our efforts to shift teacher instructional practices to support our emphasis on Deeper Learning. Access to technology provides the tools and resources that amplify the impact of student work, connects students with an authentic audience beyond the classroom, and provides flexibility that allows teachers to create personalized experiences for students. As an example of the increase in use of technology in the classroom, the chart that follows illustrates the average number of Google files students have created and collaborated in this year.
The success of our efforts to provide ubiquitous and equitable access to technology for all students is linked to our success in helping teachers shift to a focus on instructional practices that promote and support deeper learning. Last year only 40% of students reported that they had access to technology when they needed it within school. Additionally, about 8% of students reported that they did not have access to a computer at home and another 8% reported that they do not have internet access outside of school. Digital equity is a priority for LCPS, as we strive to meet the needs of all our learners and empower all students to make meaningful contributions to the world.

You previously have provided a spreadsheet on bandwidth expansion plans. Can you provide a plan that includes projections extending out further, since we are near the end of the original plan?

LCPS currently has 20 Gbps of total internet bandwidth with all secondary schools and large elementary schools connecting at WAN speeds of 1 Gbps per school. During peak internet usage for the FY19 school year, internet bandwidth demand topped out at 10.5 Gbps. Based on these numbers and previous trends, DDI believes that the current 20 Gbps of internet bandwidth will sustain internet demand through the end of December 2019.
During the FY20 school year, DDI will address additional bandwidth needs by securing fiber connectivity for all LCPS locations. Fiber to all locations is a project that will take between 18 and 36 months to deploy depending on the solution selected but once in place will allow for DDI to provide a standard WAN connection speed of 10 Gbps to every school. The fiber design will also allow for improved resiliency to ensure outages are minimized due to fiber cuts. Future upgrades would not require additional fiber cabling as bandwidth could be updated by changing electronics at LCPS’ discretion.

DDI is also in the process of securing data center services and will be migrating core infrastructure services to a carrier neutral data center during the FY20 school year. DDI is in the process of securing dual 40 Gbps connections to the carrier neutral data center which would allow for a total initial bandwidth of 80 Gbps. Multiple internet service providers would be available at the data center and could provide LCPS internet bandwidth for reduced costs. This plan would allow LCPS to be more flexible and agile as upgrades to internet services could be done quickly and inexpensively when needed versus the current network design that requires expensive upgrades and longer duration project plans.

48 Marshall Ellis 1/24/2019

Explain how DDI’s department technology initiatives are enhancing project based learning? How does LCPS evaluate or measure the success of those initiatives?

The success of our technology implementation is measured by the impact that we see on instructional practices. One way that we measure the impact of technology on classroom practice is through the annual Brightbytes Technology and Learning Survey. We can look specifically at indicators that tie closely to Project-Based Learning (PBL) strategies and look for growth in the frequency with which teachers and students are engaging in those practices in the classroom. It is important to keep in mind that technology is simply a tool that can magnify the impact of students learning; however, it does not take the place of quality instruction. Teachers must be very intentional about how they are using technology tools when engaging students in authentic learning experiences. PBL makes use of eight essential “design elements” that support student learning. Each of these design elements is enhanced by ensuring students have access to technology. Below is a brief description of some of the ways technology supports student learning inside of each design element.

**Challenging Problem or Question:** Students can use technology to research problems that are impacting their world and make decisions about the kinds of problems that they can work to solve. Students can use technology to connect with important resources related to these goals as they begin to understand the issues and brainstorm ways that they can make a positive impact on their world.
48 Cont.

**Sustained Inquiry:** Technology supports sustained inquiry by giving students anytime, anywhere access to the tools and information that they need to find answers to challenging problems or questions. Having access to technology places the decision-making about where and how to find additional information in the hands of the students solving the problems, and opens up a world of resources beyond what the student may have access to inside the walls of their school.

**Authenticity:** In order for an experience to be authentic, students need to understand how the work that they are doing connects to their world. Technology can help amplify the authenticity of a learning experience by connecting students with tools, information, and people beyond the classroom. Using tools and data that mimic the tools that are used by professionals in a field enhances the authenticity of a learning experience, as does connecting student work to experts and an audience beyond the classroom.

**Student Voice and Choice:** Technology provides options for the way that students can consume information, process their learning, and present their learning to others. This makes it easier for teachers to provide “voice and choice” to students throughout the learning process. Even when resources are more limited, technology provides flexibility in ways that static resources cannot. For example, text-to-speech tools can be used to read text in a file or document. This kind of flexibility places the control of how information is consumed and used into the hands of the students.

**Reflection:** Technology can help students reflect on their learning and growth during a learning experience by providing them tools to track the progress being made on their project and their learning. Students can use technology tools to reflect on their work, take “snapshots” of their work and thinking at particular points in time, then go back and review their progress over the course of a learning experience or project.

**Critique and Revision:** Technology can enhance the reflective process by providing new ways for students to get feedback on their work. They can use collaborative tools to give feedback to and receive feedback from teachers and peers in ways that wouldn’t be possible without technology. They can also get feedback from a world of experts by using technology to reach out beyond the walls of the school to solicit that feedback.

**Public Product:** Technology provides opportunities to create public products that can be accessed by the entire world. Because of the flexibility and variety of technology tools that are available to them, students can have choice in the kinds of products they create and the tools that they use to create them.
Can you provide your vision of a plan that shows the migration of data storage to the Cloud for LCPS?

LCPS uses several cloud service providers to meet district storage and compute needs. Many staff and students have migrated to Google G-suite for file storage reducing the need for DDI to upgrade on premise storage solutions. Over the next 2 years, DDI will phase out on premise server shares and will align most storage needs to free cloud solutions.

DDI is also working with Amazon Web Services to migrate compute power to the cloud to maximize performance by allocating elastic resources which expand to meet peak loads but shrink when services are not needed to reduce costs. DDI has implemented several systems in AWS during the FY19 school year including the Qlik data visualization platform, in-house web development environment, enterprise database environments, cloud based backups, application virtualization pilots, and teams have migrated several SIS environments utilized for test, development, and training. Our largest system, the SIS production system, is scheduled to be fully migrated to AWS in the first quarter of 2019.

Next year DDI plans to migrate additional systems to AWS including device management systems, core infrastructure active directory servers, and expand application virtualization to allow students on any device to access the applications and resources needed.

How will the teachers be trained to use the new technology and available aggregated data so they are able to share relevant student data with parents?

The enterprise data analytics project has a charter with 3 phases:

For phase 1, the project team will identify the top 10 QLIK reports to create and deliver reports periodically throughout the 18-19 school year.
For phase 2, the project team will identify the top public requests and deliver enhanced public facing dashboards.
For phase 3, the project team will identify the top teacher and student requests and deliver secure dashboards. Phase 3 addresses teacher and student use (and parents by proxy).

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Board Member</th>
<th>Assignment</th>
<th>Date of Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>Morse</td>
<td>Scheivert</td>
<td>1/24/2019</td>
</tr>
<tr>
<td>50</td>
<td>Croll</td>
<td>Scheivert</td>
<td>1/24/2019</td>
</tr>
</tbody>
</table>
The professional development plan for stakeholders in phases 2 and 3 has not yet been created. However, DDI intends to follow similar approaches for enterprise solutions training and professional learning:

- Professional development delivered by Enterprise Support Specialists through Google site, Skype/Webinars, quick tips, videos, classroom delivery, site based at schools
- Embedded coaching at CLT meetings, augmented with Instructional Facilitators of Technology and Instructional Facilitators on school improvement teams
- Cohort models for 2 hours a week for a month for 8 total hours of professional development with continuing education credit
- Peer support groups with facilitated guiding/framing questions to put data analysis in context of the application

51 Hornberger Hough 1/24/2019

Regarding the national average of the ratio of substitute pools and substitute fill rate, does LCPS know what those ratios are for other divisions in N. Virginia?

The national average ratio of teachers to substitutes is 1:1.7. The ratio in LCPS is currently 1:2.2. LCPS is increasing its number of substitutes and working towards the national average. The sources for this data are Frontline Data Analytics and local data. We do not have this ratio for other Northern Virginia school divisions.

52 Marshall Hough 1/25/2019

What is the number of Psychologist and Social Worker positions budgeted for FY20? How many current Psychologist and Social Worker vacancies are there?

The table below shows the total number of Psychologists and Social Workers in FY19 and FY20.

<table>
<thead>
<tr>
<th></th>
<th>FY19</th>
<th>FY20</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychologist</td>
<td>51.0</td>
<td>52.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Social Worker</td>
<td>49.0</td>
<td>53.0</td>
<td>4.0</td>
</tr>
</tbody>
</table>

As of January 2019, LCPS has 12.5 Psychologist vacancies and 1.0 Social Worker vacancy.
Please provide a breakdown by ethnic group for what makes up the 23% increase in diverse new hires.

The breakdown of diverse new hires by ethnic group is on the following page.
Performance Measure 4: Achievements

HY October 1, 2017 – September 30, 2018

HY17-18 to HY18-19:
23% increase in diverse new hires based on race and ethnicity
I am interested in getting some additional information about the design school concept. Specifically, I am looking to see what some of the alternative “design school” options would be and would like an estimate of possible budgetary requests associated with these other options. If we pursue the design school option I think piloting the same program in 3 schools would be a good way to start, so please include the price per school and for 3 schools – if there is a budgetary savings for implementing in 3 schools vs 1. How might we get stakeholder input in the implementation of design schools?

An LCPS Design School is a school that engages in the work of deeper learning through authentic project based learning (PBL) and a particular focus or design. The concept of a network of three design schools with the same focus could benefit the teachers and leaders in those schools as well as allow for efficiencies in professional development and support provided throughout the year. This approach would create a network of design schools to learn from and support each other. Regardless of the design focus, considerations to ensure proper support of a design school include the following:

- Initial professional development for school leadership and staff, including project based learning and the design focus (i.e. computer science basics or STEM instructional methodology),
- Curriculum development and/or revision,
- Ongoing capacity building for school staff provided by the Department of Instruction,
- Capacity of Department of Instruction to support school-based staff in implementation,
- Materials and supplies associated with the specific “design,”
- Planning time throughout the year for teachers to plan activities, reflect on work done to date, and maintain momentum as a school team, and
- Additional or specialized school staff in some specific cases (i.e. performing arts or foreign language immersion).

In addition to the Theater Arts Design School described in budget presentations, other possible design school options might be:

- **STEM Design School**: In a STEM Design School, students learn content and competencies and engage in deeper learning through PBL experiences focused on STEM. Students have access to a STEM lab and technology, and lessons emphasize the STEM design process.
- **Leadership Design School**: In a Leadership Design School, students learn content and competencies through deeper learning and PBL, with a focus on social emotional learning and student leadership. Leadership skills are incorporated in instruction throughout the curriculum.
As an example, the following table outlines the potential costs for three STEM design schools or three Leadership design schools:

<table>
<thead>
<tr>
<th>Item</th>
<th>Three STEM Design Schools</th>
<th>Cost</th>
<th>Three Leadership Design Schools</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff per 3 Schools</strong></td>
<td>1.0 FTE Design School Specialist</td>
<td>$124,216</td>
<td>1.0 FTE Design School Specialist</td>
<td>$124,216</td>
</tr>
<tr>
<td><strong>Initial Professional Learning (Year 1)</strong></td>
<td>PBL for all staff and ongoing planning and PD throughout the year*</td>
<td>$82,500</td>
<td>PBL for all staff and ongoing planning and PD throughout the year*</td>
<td>$82,500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Leader in Me Training**</td>
<td>$210,000</td>
</tr>
<tr>
<td><strong>Instructional Materials</strong></td>
<td>STEM equipment, professional learning and supplies</td>
<td>$105,000</td>
<td>Leader in Me curriculum and materials</td>
<td>Included in cost of training</td>
</tr>
<tr>
<td><strong>Implementation Year Total Three Schools:</strong></td>
<td></td>
<td>$311,716</td>
<td><strong>Implementation Year Total Three Schools:</strong></td>
<td>$416,716</td>
</tr>
<tr>
<td><strong>Ongoing Professional Learning Beyond Year 1 (Sustainability)</strong></td>
<td>PBL Sustained Support and New Teacher Training</td>
<td>Cost included in Professional Learning Budget</td>
<td>Leader in Me Annual Membership and Training</td>
<td>$30,000 annually</td>
</tr>
<tr>
<td><strong>Annual costs beyond implementation year:</strong></td>
<td></td>
<td>$124,216</td>
<td><strong>Annual costs beyond Year 3:</strong></td>
<td>$154,216</td>
</tr>
</tbody>
</table>

*This training is most beneficial when staff participates as a school team, through the lens of their design focus.

** Leader in Me is endorsed by CASEL as an evidence-based social-emotional learning process (K-6).
Staff believes there would be benefits to more than one design school with the same focus. Additionally, staff would seek a variety of schools, including less affluent schools and schools from across the county to become design schools. Not only will students be engaged in integrated experiences in their learning, but a design school will also provide ways to engage parents and families with their school and honor the unique identity of each school.

Communication and stakeholder input is key to the success of design school implementation. School leaders and all staff must be passionate about and committed to a certain design for it to be successful. Therefore, schools would opt in through an extensive application process and planning conversations with DOI staff. Plans and supports would be mutually designed. Communication plans for families and community members would be developed with support from DOI staff.

**55 Maloney Willoughby 1/30/2019**

**What would the cost be to increase the classified salary scale by 11.6%?**

The cost to increase the classified scale by 11.6% is $21,759,317. This change would also have a cost impact to overtime and possible implications for standardized rates.