

# Library Services Evaluation

Prepared for Arlington Public Schools

October 2014



In the following report, Hanover Research analyzes data collected by Arlington Public Schools from its school librarians about the library programs offered and the A/V equipment ordered during the 2013-2014 school year.

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# EXECUTIVE SUMMARY AND KEY FINDINGS

## INTRODUCTION

In this report, Hanover Research analyzes data gathered by Arlington Public Schools (APS) from its school librarians about the library programs offered and the A/V equipment ordered during the 2013-2014 school year. **Section I** describes the methodology used to aggregate and analyze the program and the technology resources submissions from librarians, **Section II** presents the analysis of the program data, and **Section III** presents the analysis of the technology resources data. This report includes both quantitative and qualitative analysis to provide a holistic picture of respondents' submissions.

## KEY FINDINGS

### *PROGRAM ANALYSIS*

- **In the 2013-2014 school year, librarians noted 291 student- and family-centered programs, accounting for more than 2,000 hours of contact time with students and families.** The most common programs seek to include families in reading and literacy (n=48), to provide students opportunities to explore or celebrate literacy in structured ways (n=39) or to promote recreational reading (n=39). Librarians also frequently engage students in book clubs at all levels — elementary, middle, and high school (n=36).
- **Elementary school libraries appear more actively involved in providing extracurricular programming than either middle school or high school libraries.** School librarians reported anywhere from one to 28 programs in the 2013-2014 school year, with the mean number of programs per school varying by level from 11 per elementary school, seven per middle school, and four per high school. Program data was collected from 32 APS schools.<sup>1</sup>
- **Recreational reading was a significant focus of library programs at all levels of schooling.** Activities in this category included a range of incentive programs, book giveaways and swaps, and school-wide initiatives to read a certain number of books or for certain number of minutes.
- **At the elementary level, family programs (n=46), literacy activities (n=35), recreational reading programs (n=32), and book clubs (n=29) were the most commonly reported activities.** In particular, family programs included a range of literacy, cultural, and arts programming, generally held during the evenings. In addition, literacy activities at elementary schools included dedicated literacy celebrations, student presentations, and writing workshops.

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<sup>1</sup> At APS's request, for the purposes of this analysis, the Stratford Program was coded at the elementary level and H-B Woodlawn was coded at the high school level. This analysis presents program data collected from 23 elementary, five middle, and four high schools.

- **At the middle school level, recreational reading (n=5), literacy activities (n=4), book clubs (n=4), and social activities (n=4) were the most commonly reported programs.** Literacy activities at the middle school level included reading challenges, group reading events, and opportunities for students to share their writing in front of an audience of their peers. Social activities generally celebrated student participation in school reading clubs and public library summer reading programs.
- **At the high school level, books clubs (n=3), author visits (n=3), recreational reading (n=2), and technology and literacy programs (n=2) were the most commonly reported activities.** These events aimed to promote student engagement with books through ongoing club meetings, discussions with authors, writing workshops, and a drawing for Barnes & Noble gift cards.
- **APS library programs vary dramatically in duration and participation/impact as they seek to fully integrate into the life of the school and its greater community.** Overall, programs lasted between 15 minutes and 75 hours, with a median duration of 3 hours and mean duration of 8 hours. They impacted between one and 1,750 students, with median participation at 90 students and mean participation at 234.
  - The longest-duration programs were multi-day programs such as book fairs and year-long technology and literacy programs such as daily news shows or reading blogs. Mid-duration programs included many types of book clubs and recreational reading activities that met either once for a full day or met weekly for several months. Short-duration programs include family programs, author visits, and other guest speakers.

### *TECHNOLOGY RESOURCES ANALYSIS*

- **Overall, schools placed an average of five A/V equipment orders over the course of the 2013-2014 school year.** Middle schools ordered A/V equipment somewhat more frequently, placing an average of eight orders per school over the year, compared to four and five orders per school at the high school and elementary school levels, respectively. Technology resources data was collected from 28 APS schools.<sup>2</sup>
- **The most frequently ordered items were batteries (15 percent of all orders), bulbs (15 percent), and equipment classified as “Other” (13 percent).** Document cameras, LCD projectors, and speakers also comprised a significant portion of total orders, at 8 percent, 7 percent, and 6 percent of total records, respectively. Notable “Other” equipment items included eReaders, charging/adapting equipment, and external data storage drives.

<sup>2</sup> At APS’s request, for the purposes of this analysis, the Stratford Program was coded at the elementary level and H-B Woodlawn was coded at the high school level. This analysis presents technology resources data collected from 20 elementary, five middle, and three high schools.

- **The average waiting period during the 2013-2014 school year for A/V equipment was slightly over three weeks and the median waiting period was two weeks.** Waiting periods reported by elementary schools averaged 2.3 weeks, while waiting periods for middle schools and high schools average 3.1 weeks and 9 weeks, respectively. However, the small number of orders from high schools (n=8) caused this group's average wait time to be vulnerable to an outlier case, which greatly inflated this statistic.
- **Eighty-four percent of orders were processed through the librarians' respective schools and these orders had an average waiting period of slightly over three weeks.** In addition, orders purchased using school funds (which comprised 60 percent of orders) had an average waiting period of three weeks, whereas orders purchased using "Other" funding sources had an average waiting period of closer to four weeks and orders purchased using Library Services funding had an average waiting period of over five weeks. "Other" funding sources were generally associated with the A/V equipment or replacement budget.

## SECTION I: METHODOLOGY

At the end of each marking period in the 2013-2014 school year, Arlington Public Schools (APS) administered a survey to all librarians in the division gathering information on library programming, services, and resources. The resulting submissions were aggregated by Hanover Research in August 2014.

### PROGRAM METHODOLOGY

The program dataset – the collection of all submissions from participating librarians regarding library programming in each marking period – contained 487 entries. The aggregated and preliminarily coded dataset was returned to APS for feedback. Based on discussions with division contacts through October 2014, Hanover then finalized its coding of the program dataset through several phases of work:

- First, we re-coded the dataset to better target the work of library staff and the services designed for student- and family-centered literacy programming, the result of which is demonstrated in the revised categories found in Section II of this report.
- Second, we reviewed entries across the dataset and within each site’s submissions to standardize the way that certain activities and opportunities appeared. This step was necessary to account for the way that different submission approaches might impact findings related to duration, frequency, and student participation. This resulted in the collapsing of certain entries that reflected redundant submissions related to ongoing programming like book clubs, or reflected multiple aspects of a single initiative such as a book fair. During this review, we considered all aspects of a submission, including the title, description, student levels, and duration, to determine whether or not “collapsing” entries was appropriate.
- Third, we reviewed the duration, frequency, student participation, and other quantitative aspects of program entries to standardize the way that these were represented in the dataset after re-coding and collapsing certain submissions.

In reviewing, recoding, and collapsing original submissions, we established the following rules to help standardize program submissions within the dataset:

- **Rules for Collapsing Submissions**
  - Multiple instances of a single ongoing program (e.g., Caldecott Club) across the marking periods were treated as one entry
    - Exception: Multiple instances of a single ongoing program for separate targeted students (e.g., Caldecott Club 4th grade vs. Caldecott Club 5th grade) were retained as separate entries
  - Multiple instances of same-type programs (e.g., Author Visit, Library Night, Career Café) regardless of marking period were treated as separate entries, unless related to a book fair

- Book fair-related entries were treated as a single entry
- **Rules for Modifying Duration Entries**
  - Wherever possible, we converted the given duration to time in hours based primarily on textual or numerical commentary. However, in cases where respondent commentary was insufficient, we relied on the assumptions listed below, rounding as needed (e.g., 70 minutes = 1.2 hours)
    - “One day” = 6 hours
    - “An evening” = 2 hours
    - “Lunch” = 35 minutes
    - “Assembly” = 1 hour
    - One marking period estimated to have nine weeks, with four marking periods per year<sup>3</sup>
    - Each month assumed to have four weeks, but one week subtracted each for submissions that span November and/or December (thus October-January contains 14 weeks, not 16)
    - School year estimated to be 180 days in length, or nine months
    - For durations that were given as a range, e.g., “8-10 hours per day for four days,” we used the middle value wherever possible (e.g., “8-10” became “9”)
  - Program entries that lacked any duration information were marked as “None given” for the duration indicator
  - Durations that were ongoing were marked “Ongoing: year” or similar notation
- **Rules for Modifying Participation Entries**
  - In general, it was necessary to modify participation entries when “collapsing” program entries, taking into account the likelihood of redundancy, unique participants, and other considerations. Where appropriate, we used the average of the number of participants provided across “collapsed” entries.
  - For book clubs, program entries were most appropriately described in terms of frequency (e.g., weekly or monthly) rather than duration. We created a supplemental coding category for frequency to include in our analysis.

For illustrative examples of each coding category provided at each school level, please refer to Appendix A of this report.

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<sup>3</sup> Based on calendar information provided by APS.

## TECHNOLOGY RESOURCES METHODOLOGY

The technology resources dataset – the collection of all A/V equipment order submissions from participating librarians in each marking period – contained 148 entries. We then removed entries that did not specify an equipment type ordered (n=3), resulting in a dataset of 145 entries. The following bulleted items further describe the data cleaning process that was carried out on the technology resources dataset prior to analysis:

- First, we appended the dataset to include additional A/V equipment orders, as well as associated quantity, dates of order and receipt, and budget/order channels, listed in open-ended comments. Please note that the equipment types listed in open-ended comments did not always correspond to the predetermined “Equipment Type” response options. To accommodate items that did not appear to fall into one of these predetermined response options, we created new category items as appropriate (e.g., “Toner”) as well as an “Other” Equipment Type category.
- Next, we treated as “N/A” blank, incomplete, or otherwise unusable dates of order and receipt. Examples of unusable entries include blank entries, “tbd,” or “Received 1.” Please note that both “Date ordered” and “Date received” values needed to be present in order to calculate the time between order and receipt. A total of 91 entries included both dates of order and receipt.
- Lastly, Hanover treated as “unspecified” cases where respondents did not indicate the quantity, the budget source, or the order channel. For example, of the 145 A/V equipment order entries, 19 entries had “Budget source” values that we classified as “unspecified.”



## SECTION II: LIBRARY PROGRAMS EVALUATION

**In Arlington Public Schools (APS) in the 2013-2014 school year, librarians noted 291 student- and family-centered programs, accounting for more than 2,000 hours of contact time with students and families.** The most common programs seek to include families in reading and literacy (n=48), to provide students opportunities to explore or celebrate literacy in structured ways (n=39), or to promote recreational reading (n=39). Librarians also frequently engage students in book clubs (n=36) at all levels — elementary, middle, and high school (Figure 2.1). The full range of program types is also represented in Appendix A in Figures A.1, A.2, and A.3, which summarize the overall frequency of programming and provide illustrative examples drawn from librarian submissions for each school level.

Librarians also noted a number of uses of library space to support additional, non-library-related curricular and planning needs, which do not appear in this analysis as these entries do not reflect library programming specifically. These *excluded* submissions (n=62) describe the use of library space for student clubs, adult meetings, and additional activities such as science fairs, presentations, and standardized testing. Such activities are not directly linked to the mission of these libraries but nevertheless demonstrate the centrality of the APS libraries as a site for learning and engagement for the whole school community.

### PROGRAM FREQUENCY, DURATION, AND PARTICIPATION/IMPACT

Considering the complete set of included programs, the aggregated dataset of library programs includes information from 23 elementary schools, five middle schools, and four high schools.<sup>4</sup> **Elementary school libraries appear to be much more actively involved in providing extracurricular programming than either middle school or high school libraries.** Figure 2.1 lists the number of programs by type and level. School librarians reported anywhere from one to 28 programs in the 2013-2014 school year, with the mean number of programs per school varying by level from four per high school, seven per middle school, and 11 per elementary school (Figure 2.2).

We further note that **different school levels appeared to focus on different forms of programming.** In particular, family programs are the most frequent program type reported by elementary schools by a considerable margin (n=46), followed by literacy activities (n=35). In contrast, middle and high schools demonstrated a smaller range in the frequency of commonly offered library programming. Middle schools most frequently reported recreational reading programs (n=5), though literacy activities and book clubs were also common (n=4 each). High schools most frequently reported book clubs and author visits (n=3 each). Illustrative examples of each coding category at each school level are included in Appendix A of this report.

<sup>4</sup> At APS's request, for the purposes of this analysis, the Stratford Program was coded at the elementary level and H-B Woodlawn was coded at the high school level.

Overall, programs lasted between 15 minutes and 75 hours, with a median duration of 3 hours and mean duration of 8 hours (Figure 2.3). These programs impacted between one and 1,750 students, with median participation at 90 students and mean participation at 234 students (Figure 2.4). Most programs were shorter than 10 hours (most often lasting the equivalent of approximately one school day) and served a population smaller than that of the whole school. **The high variability in these statistics underscores the way in which APS libraries attempt to serve their communities through a rich variety of programming.** Family programs, for example, tend to last about two hours and involve a mean of 105 participants per program. Book fairs, on the other hand, are much longer affairs, with a mean duration of 28 hours and a mean participation/impact of 610 students and teachers. We discuss such variations by program type in subsequent analyses in this section.

**Figure 2.1: Frequency of Programming by Type and Level**

| PROGRAM TYPE  | ELEMENTARY<br>(N=23) | MIDDLE<br>(N=5) | HIGH<br>(N=4) | OVERALL (N=32)<br>BY TYPE |
|---|----------------------|-----------------|---------------|---------------------------|
| Family programs   | 46                   | 2               | -             | 48                        |
| Literacy activities   | 35                   | 4               | -             | 39                        |
| Recreational reading programs                                       | 32                   | 5               | 2             | 39                        |
| Book clubs  | 29                   | 4               | 3             | 36                        |
| Author visits   | 19                   | 3               | 3             | 25                        |
| Technology and literacy programs                                    | 18                   | 3               | 2             | 23                        |
| Book fairs  | 16                   | 3               | -             | 19                        |
| Social activities   | 13                   | 4               | 1             | 18                        |
| Public library collaborations (except visits to the public library) | 13                   | -               | 1             | 14                        |
| Library aide/assistant programs, or librarian-for-a-day             | 6                    | 3               | -             | 9                         |
| Guest speakers (not authors)  | 7                    | 1               | -             | 8                         |
| Field trips   | 5                    | 1               | 1             | 7                         |
| Adults discussing the library or planning activities                | 2                    | 1               | 1             | 4                         |
| Other orientations or activities                                    | 1                    | -               | 1             | 2                         |
| <b>Overall by Level</b>   | <b>242</b>           | <b>34</b>       | <b>15</b>     | <b>291</b>                |

**Figure 2.2: Frequency of Programming by School and Level**

| STATISTIC             | ELEMENTARY<br>(N=23) | MIDDLE<br>(N=5) | HIGH<br>(N=4) | OVERALL<br>(N=32) |
|-----------------------|----------------------|-----------------|---------------|-------------------|
| <b>Minimum</b>        | 1                    | 2               | 1             | 1                 |
| <b>Median</b>         | 10                   | 7               | 3             | 7                 |
| <b>Mean</b>           | 11                   | 7               | 4             | 9                 |
| <b>Maximum</b>        | 28                   | 12              | 6             | 28                |
| <b>Total Programs</b> | <b>242</b>           | <b>34</b>       | <b>15</b>     | <b>291</b>        |

**Figure 2.3: Mean Duration per Program by Type and Level, in Hours**

| PROGRAM TYPE  | ELEMENTARY<br>(N=23) | MIDDLE<br>(N=5) | HIGH<br>(N=4) | OVERALL (N=32)<br>BY TYPE |
|---|----------------------|-----------------|---------------|---------------------------|
| Family programs   | <b>1.93</b>          | 3.00*           | -             | <b>1.97</b>               |
| Literacy activities   | <b>4.60</b>          | 1.95*           | -             | <b>4.30</b>               |
| Recreational reading programs                                       | <b>9.46</b>          | 9.50*           | 1.50*         | <b>8.90</b>               |
| Book clubs  | <b>10.12</b>         | 18.56*          | 10.67*        | <b>11.19</b>              |
| Author visits   | <b>2.81</b>          | 2.25*           | 2.60*         | <b>2.70</b>               |
| Technology and literacy programs                                    | <b>26.58</b>         | 17.33*          | -             | <b>24.27</b>              |
| Book fairs  | <b>27.83</b>         | 29.00*          | -             | <b>28.03</b>              |
| Social activities   | <b>8.36</b>          | 1.45*           | 30.00*        | <b>7.99</b>               |
| Public library collaborations (except visits to the public library) | <b>4.91</b>          | -               | 0.50*         | <b>4.54</b>               |
| Library aide/assistant programs, or librarian-for-a-day             | 10.89*               | 19.33*          | -             | 13.70*                    |
| Guest speakers (not authors)  | 1.80*                | 4.00*           | -             | 2.17*                     |
| Field trips   | 2.60*                | 1.00*           | 3.00*         | 2.43*                     |
| Adults discussing the library or planning activities                | 7.25*                | 6.00*           | 8.00*         | 7.13*                     |
| Other orientations or activities                                    | -                    | -               | 4.50*         | 4.50*                     |
| <b>Overall by Level</b>   | <b>8.13</b>          | <b>10.47</b>    | <b>6.83</b>   | <b>8.38</b>               |
| <b>Minimum per Program</b>  | 0.25                 | 0.30            | 0.50          | 0.25                      |
| <b>Median per Program</b>   | 3.00                 | 4.00            | 4.50          | 3.00                      |
| <b>Maximum per Program</b>  | 75.00                | 52.00           | 30.00         | 75.00                     |

(\*) Indicates fewer than 10 programs contributing to the mean.

**Figure 2.4: Mean Participation/Impact per Program by Type and Level**

| PROGRAM TYPE  | ELEMENTARY<br>(N=23) | MIDDLE<br>(N=5) | HIGH<br>(N=4) | OVERALL (N=32)<br>BY TYPE |
|---|----------------------|-----------------|---------------|---------------------------|
| Family programs   | 105                  | 93*             | -             | 105                       |
| Literacy activities   | 169                  | 31*             | -             | 158                       |
| Recreational reading programs                                       | 432                  | 333*            | 68*           | 399                       |
| Book clubs  | 64                   | 84*             | 11*           | 62                        |
| Author visits   | 290                  | 120*            | 108*          | 248                       |
| Technology and literacy programs                                    | 144                  | 57*             | 13*           | 119                       |
| Book fairs  | 573                  | 812*            | -             | 610                       |
| Social activities   | 370                  | 63*             | 1,750*        | 378                       |
| Public library collaborations (except visits to the public library) | 458                  | -               | 10*           | 426                       |
| Library aide/assistant programs, or librarian-for-a-day             | 4*                   | 13*             | -             | 7*                        |
| Guest speakers (not authors)  | 329*                 | 583*            | -             | 361*                      |
| Field trips   | 195*                 | 44*             | -             | 170*                      |
| Adults discussing the library or planning activities                | 362*                 | 45*             | 6*            | 194*                      |
| Other orientations or activities                                    | 225*                 | -               | 130*          | 178*                      |
| <b>Overall by Level</b>   | <b>244</b>           | <b>188</b>      | <b>172</b>    | <b>234</b>                |
| <b>Minimum per Program</b>  | <b>1</b>             | <b>5</b>        | <b>6</b>      | <b>1</b>                  |
| <b>Median per Program</b>   | <b>100</b>           | <b>55</b>       | <b>31</b>     | <b>90</b>                 |
| <b>Maximum per Program</b>  | <b>800</b>           | <b>835</b>      | <b>1,750</b>  | <b>1,750</b>              |

(\*) Indicates fewer than 10 programs contributing to the mean.

## TITLE I STATUS

At APS's request, our analysis of Title I and non-Title I elementary schools focuses on the two most common forms of programming reported by librarians: family programs and literacy activities.<sup>5</sup> In this subsection we examine the frequency, duration, and participation of programming for these two school categories.

**APS's Title I schools reported a similar amount of library programming in these two program types compared to non-Title I schools**, with both school categories reporting a mean of three family programs per school. In addition, Title I schools reported a mean of two literacy activities per school, close to the mean of three literacy activities per school reported by non-Title I schools (Figure 2.5).

<sup>5</sup> Hanover classified the following nine elementary schools as Title I: Abingdon Elementary, Barcroft Elementary, Barrett Elementary, Campbell Elementary, Carlin Springs Elementary, Drew Elementary, Hoffman-Boston Elementary, Patrick Henry Elementary, and Randolph Elementary.

The remaining 13 elementary schools were classified as non-Title I: These schools are: Arlington Science Focus Elementary, Arlington Traditional Elementary, Ashlawn Elementary, Claremont Elementary, Glebe Elementary, Jamestown Elementary, Key Elementary, Long Branch Elementary, McKinley Elementary, Nottingham Elementary, Oakridge Elementary, Taylor Elementary, and Tuckahoe Elementary. For the purposes of this analysis, the Stratford Program was also coded at the elementary level as a non-Title I school. Thus there are 14 non-Title I schools included in this portion of the analysis.

The percentage distribution of program types further reveals that **Title I schools are devoting a greater percentage of their library programming to family programs (24 percent at Title I schools versus 16 percent at non-Title I schools)**. However, the percentage of library programming dedicated to literacy activities is comparable across both school categories, at 14 to 15 percent (Figure 2.6).

Family programs are comparable across Title I and non-Title I schools in terms of both duration and impact, lasting around two hours each and involving on average slightly over 100 students. In contrast, literacy activities are somewhat longer in duration at non-Title I schools compared to Title I schools (5.72 hours versus 2.45 hours respectively). In addition, participation rates in literacy activities are higher among students at non-Title I schools (Figure 2.7). However, please note these numbers do not take into account the size of these schools' student population.

**Figure 2.5: Frequency of Programming per School by Type and Title I status**

| PROGRAM TYPE               | STATISTIC | TITLE I (N=9) | NON-TITLE I (N=14) | ALL ES (N=23) |
|----------------------------|-----------|---------------|--------------------|---------------|
| <b>Family Programs</b>     | Minimum   | 1             | 1                  | <b>1</b>      |
|                            | Median    | 2             | 3                  | <b>3</b>      |
|                            | Mean      | 3             | 3                  | <b>3</b>      |
|                            | Maximum   | 5             | 7                  | <b>7</b>      |
| <b>Literacy Activities</b> | Minimum   | 1             | 1                  | <b>1</b>      |
|                            | Median    | 2             | 2                  | <b>2</b>      |
|                            | Mean      | 2             | 3                  | <b>2</b>      |
|                            | Maximum   | 4             | 2                  | <b>10</b>     |

**Figure 2.6: Frequency of Programming by Type and Title I Status (Percentage of Total Programming)**

| PROGRAM TYPE               | TITLE I (N=9) | NON-TITLE I (N=14) |
|----------------------------|---------------|--------------------|
| <b>Family programs</b>     | 24%           | 16%                |
| <b>Literacy activities</b> | 14%           | 15%                |

**Figure 2.7: Mean Duration and Participation per Program by Type and Title I Status**

| PROGRAM TYPE               | TITLE I (N=9) | NON-TITLE I (N=14) | ALL ES (N=23) |
|----------------------------|---------------|--------------------|---------------|
| <b>Duration (in hours)</b> |               |                    |               |
| <b>Family programs</b>     | 1.90          | 1.94               | <b>1.93</b>   |
| <b>Literacy activities</b> | 2.45          | 5.72               | <b>4.60</b>   |
| <b>Participation</b>       |               |                    |               |
| <b>Family programs</b>     | 110           | 103                | <b>105</b>    |
| <b>Literacy activities</b> | 90            | 210                | <b>169</b>    |

## PROGRAMS ANALYSIS BY TYPE

The following section presents findings on programs by type and level, drawing upon submissions from participating librarians to illustrate the range of programming implemented in APS schools in 2013-2014.

### *FAMILY PROGRAMS*

APS librarians identified 48 programs that we classified as “family programs.” These events involved students, parents, and families and included back-to-school nights, cultural events around books, presentations about graphic novels and technological tools, as well as family-oriented literacy activities to help students share their love of learning and reading with siblings and parents. Forty-six of these programs were held at APS elementary schools, and two in one APS middle school; there were no family programs noted at the high school level.

Those schools that held *any* family programs (n=17) held between one and seven programs in 2013-2014 each, with a median of two programs per school and a mean of three. The mean total duration of family programs was about two hours; programs ranged in duration from approximately 20 minutes to 11 hours. The mean participation/impact was 105 students, with a median of 58; programs ranged in impact from 10 to 800 students (Figure 2.8a). Figure 2.8b provides illustrative examples of responses across all three school levels.

Three elementary school sites reported more than 10 hours dedicated in the 2013-2014 school year to family activities. Some of the events at these schools offered **a space for community and arts programming**, such as the event in which an African storyteller and musician from Wolf Trap for the Performing Arts performed for families, sponsored by an Arlington Community Foundation Grant. Other elementary school library activities blended **literacy and cultural programming**, providing tours of the library and its resources for parents of current and incoming students and a space for parents to watch their children perform skits and other presentations. Others provided more focused literacy activities. For example, one elementary school site offered a **family book club** one evening each in the first and fourth marking periods inviting parents of 3rd through 5th graders to school. An additional family event at this school included an evening Winter Festival, which incorporated a storyteller and book giveaway.

At the one middle school site reporting two programs in this category, activities included reading games for students’ younger siblings (offered during Back to School Night) and a family book club geared toward English for Speakers of Other Language/High Intensity Language Training families.

**Figure 2.8a: Statistics on Reported Family Programs in APS Schools, 2013-2014**

| MEASURE                                 | STATISTIC    | ELEMENTARY<br>(N=16) | MIDDLE<br>(N=1)* | HIGH<br>(N=0) | OVERALL<br>(N=17) |
|---|--------------|----------------------|------------------|---------------|-------------------|
| <b>Frequency</b>                        | <b>Count</b> | <b>46</b>            | <b>2</b>         | <b>-</b>      | <b>48</b>         |
| <b>Frequency per School</b>             | Minimum      | 1                    | 2                | -             | <b>1</b>          |
|   | Median       | 3                    | 2                | -             | <b>2</b>          |
|   | Mean         | 3                    | 2                | -             | <b>3</b>          |
|   | Maximum      | 7                    | 2                | -             | <b>7</b>          |
| <b>Duration (Hours) per Program</b>     | Minimum      | 0.30                 | 2.00             | -             | <b>0.30</b>       |
|   | Median       | 2.00                 | 3.00             | -             | <b>2.00</b>       |
|   | Mean         | 1.93                 | 3.00             | -             | <b>1.97</b>       |
|   | Maximum      | 11.00                | 4.00             | -             | <b>11.00</b>      |
| <b>Participation/Impact per Program</b> | Minimum      | 10                   | 19               | -             | <b>10</b>         |
|   | Median       | 58                   | 93               | -             | <b>58</b>         |
|   | Mean         | 105                  | 93               | -             | <b>105</b>        |
|   | Maximum      | 800                  | 166              | -             | <b>800</b>        |

\*Please interpret summary statistics for this level with caution (n<10).

**Figure 2.8b: Illustrative Examples**

| SAMPLE RESPONSES  |  |
|---|--|
| <ul style="list-style-type: none"> <li>Hispanic Heritage Read in (ES): <i>Parents and teachers shared books selected by the librarian, in celebration of Hispanic Heritage month.</i></li> <li>Graphic Novels (ES): <i>Presentation to PARENTS by the APCL librarians on graphic novels. Ten is number of adult attendees.</i></li> </ul> | <ul style="list-style-type: none"> <li>Library Night (ES): <i>An [evening] literacy event. Parents and students returned to school at night to hear a story and then become an author and write and illustrate their own picture book</i></li> <li>Back-to-School Night @ the Library (MS): <i>Provided reading related games and activities for the younger siblings of our students, during back to School Night.</i></li> </ul> |

**LITERACY ACTIVITIES**

APS librarians identified 39 programs that we classified as student-centered “literacy activities,” including cultural events around books for students, poetry slams and writers’ cafes, school newspapers, and other celebrations of literature.<sup>6</sup> Thirty-five of these programs were held at APS elementary schools, and four in middle schools; there were no activities in this category noted at the high school level.

Those schools that held *any* literacy activities (n=17) held between one and 10 programs in 2013-2014 each, with a median and a mean of two programs per school. The mean duration of literacy activities was about 4 hours and 20 minutes, with a median of two hours; programs ranged in duration from approximately 20 minutes to 30 hours. The mean participation/impact was 158 students, with a median of 60; programs ranged in impact

<sup>6</sup> Please note that our analysis coded school *newspaper* submissions as “literacy activity” because they represent a text-based engagement. However, school *news programs* that involved filming segments on TV were coded as “technology and literacy” because of the technological aspects of programming.

from five to 750 students (Figure 2.9a). Figure 2.9b provides illustrative examples of responses across elementary and middle school levels.

Three elementary school sites each identified more than 15 hours dedicated in the 2013-2014 school year to literacy activities. Some of these events represent larger **district or national initiatives**, such as Poem in Your Pocket Day. In one elementary school’s celebration of this day, “students and staff members carry a poem in their pocket all day and are encouraged to share their poems with others. At lunchtime, there is a Poetry Cafe, where students can come up to the open microphone to read their poems out loud to the students in the cafeteria.” Another elementary school site **dedicates an entire week as Literacy Week**, hosting guest authors, a book swap, and fun social activities such as “dress as your favorite book character day.” On the other hand, the third elementary school site hosts many smaller programs throughout the year, ranging from **presentations** by pre-kindergarteners of “There Once Was An Old Woman Who Lived in a Shoe” to **non-fiction workshops** for 5th-graders.

At the two middle school sites reporting a total of four programs in this category, activities included reading challenges, group reading events, and opportunities for students to share their writing in front of an audience of their peers.

**Figure 2.9a: Statistics on Reported Literacy Activities in APS Schools, 2013-2014**

| MEASURE                                 | STATISTIC    | ELEMENTARY (N=15) | MIDDLE (N=2)* | HIGH (N=0) | OVERALL (N=17) |
|---|--------------|-------------------|---------------|------------|----------------|
| <b>Frequency</b>                        | <b>Count</b> | <b>35</b>         | <b>4</b>      | <b>-</b>   | <b>39</b>      |
| <b>Frequency per School</b>             | Minimum      | 1                 | 1             | -          | <b>1</b>       |
|   | Median       | 2                 | 2             | -          | <b>2</b>       |
|   | Mean         | 2                 | 2             | -          | <b>2</b>       |
|   | Maximum      | 10                | 3             | -          | <b>10</b>      |
| <b>Duration (Hours) per Program</b>     | Minimum      | 0.30              | 0.30          | -          | <b>0.30</b>    |
|   | Median       | 2.00              | 2.25          | -          | <b>2.00</b>    |
|   | Mean         | 4.60              | 1.95          | -          | <b>4.30</b>    |
|   | Maximum      | 30.00             | 3.00          | -          | <b>30.00</b>   |
| <b>Participation/Impact per Program</b> | Minimum      | 5                 | 6             | -          | <b>5</b>       |
|   | Median       | 60                | 18            | -          | <b>60</b>      |
|   | Mean         | 169               | 31            | -          | <b>158</b>     |
|   | Maximum      | 750               | 70            | -          | <b>750</b>     |

\* Please interpret summary statistics for this level with caution (n<10).

**Figure 2.9b: Illustrative Examples**

| SAMPLE RESPONSES  |  |
|---|--|
| <ul style="list-style-type: none"> <li>Spanish Language Day (ES): <i>Schoolwide. Students visited the library to hear about this month's library contest on Spanish poetry and tongue-twisters.</i></li> <li>Poetry Slam (ES): <i>5th graders compete in a poetry slam led by a renowned poet.</i></li> </ul> | <ul style="list-style-type: none"> <li>Native American Folktales (ES): <i>Read-alouds of different folk tales from Native American tribes.</i></li> <li>Writers Café (MS): <i>In anticipation of National Writing Month in November, students were invited to share their original writings. This event was held before school in front of an audience of the authors' peers.</i></li> </ul> |



### *RECREATIONAL READING*

APS librarians identified 39 programs that we classified as “recreational reading,” including incentive programs, book giveaways and swaps, and school-wide initiatives to read a certain number of books or for a certain number of minutes. Thirty-two of these programs were held at APS elementary schools, five in middle schools, and two in high schools.

Those schools that held *any* recreational reading activities (n=20) held between one and four programs in 2013-2014 each, with a median and a mean of two programs per school. The mean total duration of recreational reading activities was just under 9 hours, with a median of 6 hours; programs ranged in duration from approximately 15 minutes to 48 hours. The mean participation/impact was 399 students, with a median of 440; programs ranged in impact from 12 to 750 students (Figure 2.10a). Figure 2.10b on the following page provides illustrative examples of responses across all three school levels.

Two elementary sites identified 36 or more hours dedicated in the 2013-2014 school year to recreational reading activities. Exemplifying **incentive programs**, one of these elementary schools administered a program where “students who read 8 books in 8 days received a free book from Barnes and Noble.” At the other elementary school, students participated in **friendly competitions** such as the Otis “reading for the record” activity in the first marking period, and a **read-a-thon fundraiser** in the third marking period in which “students lined-up sponsors and then recorded their reading time for the week. More than \$14,000.00 was raised.”

One middle school site identified 36 or more hours dedicated in the 2013-2014 school year to recreational reading activities. Students at this middle school site benefited from two **book giveaways** that appear quite common throughout the district, known as the Reading Is Fundamental (RIF) Book Distribution program. Additional programs at the middle school level involved a summer reading initiative and a motivational reading program that provided books to students in need.

One high school reported two programs related to recreational reading, a book talk given by the librarian to 9<sup>th</sup> graders to encourage independent reading and the promotion of books by NoVA Teen Festival authors for students who planned to attend the festival in March.

**Figure 2.10a: Statistics on Reported Recreational Reading in APS Schools, 2013-2014**

| MEASURE                                 | STATISTIC    | ELEMENTARY<br>(N=15) | MIDDLE<br>(N=4)* | HIGH<br>(N=1)* | OVERALL<br>(N=20) |
|---|--------------|----------------------|------------------|----------------|-------------------|
| <b>Frequency</b>                        | <b>Count</b> | <b>32</b>            | <b>5</b>         | <b>2</b>       | <b>39</b>         |
| <b>Frequency per School</b>             | Minimum      | 1                    | 1                | 2              | <b>1</b>          |
|   | Median       | 2                    | 1                | 2              | <b>2</b>          |
|   | Mean         | 2                    | 1                | 2              | <b>2</b>          |
|   | Maximum      | 4                    | 2                | 2              | <b>4</b>          |
| <b>Duration (Hours) per Program</b>     | Minimum      | 0.25                 | 2.50             | 1.50           | <b>0.25</b>       |
|   | Median       | 6.00                 | 5.00             | 1.50           | <b>6.00</b>       |
|   | Mean         | 9.46                 | 9.50             | 1.50           | <b>8.90</b>       |
|   | Maximum      | 48.00                | 18.00            | 1.50           | <b>48.00</b>      |
| <b>Participation/Impact per Program</b> | Minimum      | 12                   | 45               | 45             | <b>12</b>         |
|   | Median       | 460                  | 400              | 68             | <b>440</b>        |
|   | Mean         | 432                  | 333              | 68             | <b>399</b>        |
|   | Maximum      | 750                  | 90               | 90             | <b>750</b>        |

\* Please interpret summary statistics for these levels with caution (n<10).

**Figure 2.10b: Illustrative Examples**

| SAMPLE RESPONSES  |  |
|---|--|
| <ul style="list-style-type: none"> <li>Book Swap (ES): All students were able to select one book to keep or bring in up to five books to exchange for equal amount [paraphrasing of entries]</li> <li>Read for the Record (ES): <i>The library supplied multiple copies of the book Otis for the day - long Read for the Record project.</i></li> </ul> | <ul style="list-style-type: none"> <li>RIF (MS): <i>Motivational reading program that provides books to students in need.</i></li> <li>Book talk (HS): <i>Promoted books by NoVA Teen Festival authors to students in an English 12 class and a reading class who will be attending the festival in March</i></li> </ul> |

### BOOK CLUBS

APS librarians identified 36 programs that we classified as “book clubs,” which comprise regular opportunities for students to discuss a shared book or theme, usually under the guidance of library staff. Twenty-nine of these book club programs were held at APS elementary schools, four in middle schools, and three in high schools.

Those schools that held *any* book clubs (n=20) held between one and five programs in 2013-2014 each, with a mean of two programs per school and a median of one. The mean total duration of book clubs was just over 11 hours, with a median of 12 hours; programs ranged in duration from approximately 50 minutes to 27 hours. Note that for purposes of analysis, book club programs’ duration was assumed to be the *sum of all meetings*, as best calculated by the notes provided in librarians’ submissions. The duration of single meetings was thus not usually 11-12 hours; this time was distributed over a longer period. The mean participation/impact was 62 students, with a median of 21; programs ranged in impact from six to 660 students (Figure 2.11a). In addition, the vast majority of these programs were held weekly (n=17) or more specifically at lunchtime (n=10), though there were programs

that met less frequently and those that met only once or twice (Figure 2.12). Figure 2.11b provides illustrative examples of responses at the elementary and high school levels.

Three elementary school sites identified more than 30 hours dedicated in the 2013-2014 school year to book clubs. All three of these schools run **Caldecott Committees**, a reading club that reviews the Caldecott Award books (either nominees or past winners). These clubs meet during lunch or recess, and often target 4<sup>th</sup> and/or 5<sup>th</sup> graders – sometimes with separate clubs by grade level. In addition, one of these schools hosts a **Virginia Readers Choice Award book club** for 5<sup>th</sup> graders, centered on a different book award program. Exemplifying programming for younger students, one elementary school hosts a **lunchtime reading group for kindergarteners** during which “4-5 students eat their lunch in the library while listening to a read aloud of a new picture book.”

At the middle school level, all four middle schools reporting programs in this category host **Teen Advisory Board (TAB) book clubs**, which is a collaborative initiative between APS and the Arlington Public Library. In total, APS has six TAB groups, one at each middle school and one at H-B Woodlawn.<sup>7</sup> Two high schools reported programs in this category, including a **Generals All About Books (GAAB) book club** and **Book Talk**, an opportunity for avid readers to share what they have been reading on a regular basis.

**Figure 2.11a: Statistics on Reported Book Clubs in APS Schools, 2013-2014**

| MEASURE                                 | STATISTIC    | ELEMENTARY<br>(N=14) | MIDDLE<br>(N=4)* | HIGH<br>(N=2)* | OVERALL<br>(N=20) |
|---|--------------|----------------------|------------------|----------------|-------------------|
| <b>Frequency</b>                        | <b>Count</b> | <b>29</b>            | <b>4</b>         | <b>3</b>       | <b>36</b>         |
| <b>Frequency per School</b>             | Minimum      | 1                    | 1                | 1              | <b>1</b>          |
|   | Median       | 2                    | 1                | 2              | <b>1</b>          |
|   | Mean         | 2                    | 1                | 2              | <b>2</b>          |
|   | Maximum      | 5                    | 1                | 2              | <b>5</b>          |
| <b>Duration (Hours) per Program</b>     | Minimum      | 0.80                 | 12.00            | 5.00           | <b>0.80</b>       |
|   | Median       | 9.00                 | 18.00            | 9.00           | <b>12.00</b>      |
|   | Mean         | 10.12                | 18.56            | 10.67          | <b>11.19</b>      |
|   | Maximum      | 27.00                | 26.25            | 18.00          | <b>27.00</b>      |
| <b>Participation/Impact per Program</b> | Minimum      | 6                    | 44               | 7              | <b>6</b>          |
|   | Median       | 20                   | 72               | 11             | <b>21</b>         |
|   | Mean         | 64                   | 84               | 11             | <b>62</b>         |
|   | Maximum      | 660                  | 148              | 16             | <b>660</b>        |

\* Please interpret summary statistics for these levels with caution (n<10).

<sup>7</sup> Information provided by APS. Please note that only four of APS’s five middle schools reported book clubs as part of the data collection process, indicating that two schools did not report TAB as a library program or activity even though they have TAB programs at their sites.

**Figure 2.11b: Illustrative Examples**

| SAMPLE RESPONSES   |   |
|--|---|
| <ul style="list-style-type: none"> <li>Caldecott Club (ES): <i>A lunchtime group for 4th graders. Students read and discuss potential 2014 Caldecott winners. Meets once a week September 20 through mid-January.</i></li> </ul> | <ul style="list-style-type: none"> <li>Student Book Talk (HS): <i>This event is designed to inspire reading. Students enjoy reading the same books their classmates have found worthwhile. Thus, I have selected avid readers who connect well with others and love sharing what they've read. They will present 3 or 4 of the books they have read. The Booktalk will be offered during both lunches.</i></li> </ul> |

**Figure 2.12: Book Clubs' Meeting Frequency**

| FREQUENCY        | COUNT     |
|------------------|-----------|
| <b>Weekly</b>    | <b>17</b> |
| <b>Lunchtime</b> | <b>10</b> |
| Semiweekly       | 1         |
| Biweekly         | 1         |
| Monthly          | 1         |
| Quarterly        | 1         |
| Twice            | 2         |
| Once             | 2         |
| Special          | 1         |
| <b>Total</b>     | <b>36</b> |

*OTHER PROGRAMS AND ACTIVITIES*

In the remainder of this section we summarize overall statistics on other programs and activities for which we coded at least 10 submissions overall.

In the 2013-2014 school year, APS schools hosted 25 noted author visits, 23 technology and literacy programs, 19 book fairs, 18 social activities, and 14 public library collaborations. Among these types of programs, author visits and social activities were the shortest duration — median two hours and three hours, respectively — and book fairs were the longest — median 30 hours.

These programs were relatively infrequently hosted, with a median frequency per school of just one, meaning schools that hosted *any* instance often hosted *only* one instance. However, these programs impacted a relatively large number of students, with median participation ranging from 45 (technology and literacy) to 619 (book fairs), as shown in Figure 2.13. From the librarians' submitted program descriptions, many of these programs seem intended to serve entire grades or special student populations, if not the entire school, hence the large impact numbers. Furthermore, in addition to direct program time, duration estimates may include hours for preparation or administrative duties, such as organizing books or offering special pre-program opportunities.

Overall, programming in these areas is diverse. Several elementary and middle schools and one high school hosted **blogs** in connection to book clubs or recreational reading activities, providing one way to link technology and literacy. In addition, elementary and middle

schools hosted book talks or broader **school news programs**. For example, one middle school site showed an “author’s webcast (13 Reasons why by Jay Asher) about his book and bullying.”

At the elementary level, there were a notable number of programs in each of these four areas: author visits (n=19), technology and literacy (n=18), book fairs (n=16), and public library collaborations (n=13). For example, one elementary school site hosted three **author visits**, including the following experiences:

- *Picture book author visited K-2 students. Students heard the about the writing process.*
- *Laura Overdeck shared her book Bedtime Math. She presented mathematical and engineering skills. Students created 3D shapes and structures using these skills.*
- *Researcher and author, Marc Nobleman, presented to students the research process and introduced students to the creators of Batman and Superman. He shared his research process uncovering the stories behind these creations.*

In addition, elementary school programming emphasized **technology and literacy** by hosting blogs and interactive websites, administering school news programs, and incorporating software like Shutterfly and iMovie into library activities. Further, public library collaborations were common at elementary schools, and infrequent at middle and high schools (n=0 at middle schools, n=1 at high schools). Many of these activities involved visits from public librarians regarding the summer reading program and efforts to ensure that all students have library cards.

At the middle school level, we observe that **social activities** represented one of the most commonly reported kind of programming (n=4). These programs included activities to celebrate student participation in school reading clubs and public library summer reading programs. Author visits, technology and literacy programs, and book fairs also represented commonly reported programming at this level (n=3 each). In particular, technology and literacy programs often used blogs to encourage student engagement with books and authors.

At the high school level, author visits represented one of the most commonly reported kinds of programming (n=3). For example, one high school site hosted three “YA” (young adult) authors for discussions and questions with students as a precursor to a book fair. One notable social activity at the high school level involved a **National Library Week celebration** involving “daily drawing of Barnes & Noble \$20 gift cards, announcements on dailies and scrolling announcements, National Library Week bookmarks distributed.”

**Figure 2.13: Statistics on Other Programs and Activities (overall frequency >10)  
in APS Schools, 2013-2014**

| MEASURE                                 | STATISTIC    | AUTHOR VISITS<br>(N=19) | TECHNOLOGY &<br>LITERACY<br>(N=14) | BOOK<br>FAIRS<br>(N=18) | SOCIAL<br>ACTIVITIES<br>(N=13) | PUBLIC LIBRARY<br>COLLABORATIONS<br>(N=12) |
|---|--------------|-------------------------|------------------------------------|-------------------------|--------------------------------|--|
| <b>Frequency</b>                        | <b>Count</b> | <b>25</b>               | <b>23</b>                          | <b>19</b>               | <b>18</b>                      | <b>14</b>                                  |
| <b>Frequency per School</b>             | Minimum      | 1                       | 1                                  | 1                       | 1                              | 1  |
|   | Median       | 1                       | 1                                  | 1                       | 1                              | 1  |
|   | Mean         | 1                       | 2                                  | 1                       | 1                              | 1  |
|   | Maximum      | 3                       | 6                                  | 2                       | 3                              | 3  |
| <b>Duration (Hours) per Program</b>     | Minimum      | 0.50                    | 0.75                               | 1.00                    | 0.30                           | 0.50                                       |
|   | Median       | 2.00                    | 12.00                              | 30.00                   | 3.00                           | 6.00                                       |
|   | Mean         | 2.70                    | 26.20                              | 28.03                   | 7.99                           | 4.54                                       |
|   | Maximum      | 6.00                    | 75.00                              | 50.50                   | 30.00                          | 7.00                                       |
| <b>Participation/Impact per Program</b> | Minimum      | 12                      | 9                                  | 150                     | 3                              | 10   |
|   | Median       | 170                     | 45                                 | 619                     | 155                            | 498  |
|   | Mean         | 248                     | 119                                | 610                     | 378                            | 426  |
|   | Maximum      | 750                     | 600                                | 835                     | 1,750                          | 750  |

## SECTION III: TECHNOLOGY RESOURCES EVALUATION

**During the 2013-2014 school year, APS librarians from 28 schools reported a total of 145 A/V equipment orders, an average of five orders per school.<sup>8</sup>** Respondents represented 20 elementary, five middle, and three high schools.

This section examines differences in the technology resources ordered and the waiting periods experienced by APS librarians. The first subsection presents an overview of the orders, including the types of A/V equipment librarians requested, by school level. The second subsection examines waiting periods by school level, order channel, and budget source. Furthermore, Appendix B includes a summary table of “Other” equipment types (Figure B.1), in addition to a comprehensive presentation of open-ended responses regarding “Other” budget sources, the purchasing process for particular orders, and A/V equipment ordering in general (Figures B.2-B.4).

### OVERVIEW OF ORDERS

Overall, schools placed an average of five A/V equipment orders over the course of the 2013-2014 school year. Middle schools ordered A/V equipment somewhat more frequently, placing an average of eight orders per school over the year, compared to four and five orders per school at the high school and elementary school levels, respectively (Figure 3.1).

The most frequently ordered items were batteries (15 percent of all orders), bulbs (15 percent), and equipment classified as “Other” (13 percent). Document cameras, LCD projectors, and speakers also comprised a significant portion of total orders, at 8 percent, 7 percent, and 6 percent of total records, respectively (Figure 3.2). “Other” equipment items included eReaders, charging/adapting equipment, and external data storage drives, among others (Figure 3.4).

In terms of quantity, the 145 orders were associated with a total of 1,988 items, the most high-volume of which were battery sets, headphones, equipment classified as “Other” (primarily eReaders), and bulbs (Figure 3.3).

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<sup>8</sup> At APS’s request, for the purposes of this analysis, the Stratford Program was coded at the elementary level and H-B Woodlawn was coded at the high school level.

**Figure 3.1: Frequency of Orders of Equipment per School by Level**

| MEASURE                           | STATISTIC | ELEMENTARY<br>(N=20) | MIDDLE<br>(N=5)* | HIGH<br>(N=3)* | OVERALL<br>(N=28) |
|-----------------------------------|-----------|----------------------|------------------|----------------|-------------------|
| Frequency                         | Count     | 95                   | 39               | 11             | 145               |
| Frequency of Orders<br>Per School | Minimum   | 1                    | 2                | 3              | 1                 |
|                                   | Median    | 3                    | 7                | 4              | 4                 |
|                                   | Mean      | 5                    | 8                | 4              | 5                 |
|                                   | Maximum   | 16                   | 17               | 4              | 17                |

\* Please interpret summary statistics for these levels with caution (n<10).

**Figure 3.2: Frequency and Percentage Distribution of Equipment Types by Level**

| EQUIPMENT TYPE                   | ORDERS (FREQUENCY)   |                 |               |                 | ORDERS (PERCENTAGE DISTRIBUTION) |                 |               |                 |
|----------------------------------|----------------------|-----------------|---------------|-----------------|----------------------------------|-----------------|---------------|-----------------|
|                                  | ELEMENTARY<br>(N=20) | MIDDLE<br>(N=5) | HIGH<br>(N=3) | TOTAL<br>(N=28) | ELEMENTARY<br>(N=20)             | MIDDLE<br>(N=5) | HIGH<br>(N=3) | TOTAL<br>(N=28) |
| Batteries                        | 15                   | 6               | 1             | 22              | 15.8%                            | 15.4%           | 9.1%          | 15.2%           |
| Bulbs                            | 12                   | 8               | 1             | 21              | 12.6%                            | 20.5%           | 9.1%          | 14.5%           |
| Document Camera                  | 9                    | 3               | --            | 12              | 9.5%                             | 7.7%            | --            | 8.3%            |
| LCD projector                    | 5                    | 5               | --            | 10              | 5.3%                             | 12.8%           | --            | 6.9%            |
| Speakers                         | 5                    | 4               | --            | 9               | 5.3%                             | 10.3%           | --            | 6.2%            |
| Camera (still)                   | 5                    | 1               | 1             | 7               | 5.3%                             | 2.6%            | 9.1%          | 4.8%            |
| Camera (video)                   | 5                    | 1               | 1             | 7               | 5.3%                             | 2.6%            | 9.1%          | 4.8%            |
| CD player                        | 5                    | 1               | --            | 6               | 5.3%                             | 2.6%            | --            | 4.1%            |
| Headphones                       | 4                    | 2               | --            | 6               | 4.2%                             | 5.1%            | --            | 4.1%            |
| Toner                            | 5                    | --              | --            | 5               | 5.3%                             | --              | --            | 3.4%            |
| Microphone                       | 2                    | 1               | --            | 3               | 2.1%                             | 2.6%            | --            | 2.1%            |
| Television                       | 3                    | --              | --            | 3               | 3.2%                             | --              | --            | 2.1%            |
| Cassette Player/Tape<br>Recorder | 2                    | --              | --            | 2               | 2.1%                             | --              | --            | 1.4%            |
| Laptop Computer                  | 1                    | --              | 1             | 2               | 1.1%                             | --              | 9.1%          | 1.4%            |
| Memory Cards                     | 2                    | --              | --            | 2               | 2.1%                             | --              | --            | 1.4%            |
| SMARTBoard                       | 1                    | --              | 1             | 2               | 1.1%                             | --              | 9.1%          | 1.4%            |
| USB Card Readers                 | 1                    | --              | 1             | 2               | 1.1%                             | --              | 9.1%          | 1.4%            |
| Camera (flip)                    | --                   | 1               | --            | 1               | --                               | 2.6%            | --            | 0.7%            |
| Desktop computer                 | --                   | --              | 1             | 1               | --                               | --              | 9.1%          | 0.7%            |
| DVD player                       | 1                    | --              | --            | 1               | 1.1%                             | --              | --            | 0.7%            |
| Laptop Charging Cart             | --                   | 1               | --            | 1               | --                               | 2.6%            | --            | 0.7%            |
| Listening Center                 | 1                    | --              | --            | 1               | 1.1%                             | --              | --            | 0.7%            |
| Other                            | 11                   | 5               | 3             | 19              | 11.6%                            | 12.8%           | 27.3%         | 13.1%           |
| <b>Total</b>                     | <b>95</b>            | <b>39</b>       | <b>11</b>     | <b>145</b>      | <b>100.0%</b>                    | <b>100.0%</b>   | <b>100.0%</b> | <b>100.0%</b>   |



**Figure 3.3: Quantity of Equipment Types by Level**

| EQUIPMENT TYPE                | QUANTITY REQUESTED   |                 |               |                 |
|-------------------------------|----------------------|-----------------|---------------|-----------------|
|                               | ELEMENTARY<br>(N=20) | MIDDLE<br>(N=5) | HIGH<br>(N=3) | TOTAL<br>(N=28) |
| Batteries                     | 814                  | 183             | 100           | 1,097           |
| Headphones                    | 249                  | 45              | --            | 294             |
| Bulbs                         | 32                   | 18              | 8             | 58              |
| Camera (still)                | 54                   | 1               | 2             | 57              |
| Document camera               | 46                   | 4               | --            | 50              |
| CD player                     | 29                   | 10              | --            | 39              |
| Cassette player/tape recorder | 35                   | --              | --            | 35              |
| LCD projector                 | 7                    | 20              | --            | 27              |
| Camera (video)                | 6                    | 1               | 1             | 8               |
| Memory Cards                  | 8                    | --              | --            | 8               |
| Laptop computer               | 1                    | --              | 6             | 7               |
| Memory Cards                  | 5                    | --              | --            | 5               |
| Microphone                    | 4                    | 1               | --            | 5               |
| Listening center              | 4                    | --              | --            | 4               |
| Camera (flip)                 | --                   | 2               | --            | 2               |
| Desktop computer              | --                   | --              | 2             | 2               |
| DVD player                    | 1                    | --              | --            | 1               |
| Laptop Charging Cart          | --                   | 1               | --            | 1               |
| SMARTBoard                    | 1                    | --              | 0             | 1               |
| Speakers                      | 10                   | 26              | --            | 36              |
| Television                    | 5                    | --              | --            | 5               |
| Toner                         | 6                    | --              | --            | 6               |
| USB card readers              | 1                    | --              | 15            | 16              |
| Other                         | 49                   | 19              | 156           | 224             |
| <b>Grand Total</b>            | <b>1,367</b>         | <b>331</b>      | <b>290</b>    | <b>1,988</b>    |

**Figure 3.4: “Other” Equipment Types (n=19)\***

| SUB CATEGORIES                        | NUMBER OF ORDERS | RESPONSES   |
|---------------------------------------|------------------|---|
| Charging/Adapting Equipment (ES, MS)  | 3                | <ul style="list-style-type: none"> <li>AC Adapter charger</li> <li>Stereo 1/8 Inch to Dual RCA Adapter Cable - 6 Foot</li> <li>VGA cable adaptor for iPad mini</li> </ul> |
| eReaders (ES, HS)                     | 6                | <ul style="list-style-type: none"> <li>Nooks</li> <li>iPads</li> <li>eReaders</li> <li>iPad minis</li> </ul>  |
| External Data Storage Drives (ES, MS) | 2                | <ul style="list-style-type: none"> <li>Portable External Hard Drive USB 3.0</li> <li>Flash drives</li> </ul>  |
| Laminate (MS)                         | 3                | <ul style="list-style-type: none"> <li>GBC laminate rolls</li> <li>Laminating film rolls</li> <li>Laminate</li> </ul>   |
| Online Learning Programs (ES)         | 2                | <ul style="list-style-type: none"> <li>Learning A-Z online program</li> <li>Typing Club online program</li> </ul>   |
| Miscellaneous (ES, HS)                | 3                | <ul style="list-style-type: none"> <li>Flatbed scanner</li> <li>Book Drop (Freestanding Book Return)</li> <li>Presentation Remote Control</li> </ul>                      |

\*Figure B.1 provides an inventory analysis of “Other” equipment types by level.

## WAITING PERIODS

Of the 145 total orders reported in the 2013-2014 school year, 91 orders (63 percent) included dates for both order and receipt of the equipment. Figure 3.5 presents data from this subset of orders, broken down by level, order channel, and budget source.

**The average waiting period during the 2013-2014 school year for A/V equipment was slightly over three weeks and the median waiting period was two weeks.** Waiting periods reported by elementary schools averaged 2.3 weeks, while waiting periods for middle schools and high schools average 3.1 weeks and 9 weeks, respectively. However, the small number of orders from high schools (n=8) caused this group’s average wait time to be vulnerable to an outlier case, which greatly inflated this statistic.

**Eighty-four percent of orders were processed through the librarians’ respective schools and these orders had an average waiting period of slightly over three weeks.** When segmenting these cases by order channel, we observe that equipment ordered through Library Services had an average waiting period of nine weeks. However, only three of the 91 orders were processed through Library Services, two of which (for laptop and desktop computers) took 13 weeks to complete.

The two most common funding sources were school budgets and “Other” sources. The majority of “Other” budget sources were associated with the A/V equipment or replacement budget, with a notable number of orders that were funded through the PTA (Figures 3.6 and B.2). Orders purchased using school funds (which comprised 60 percent of

these orders) had an average waiting period of three weeks, while orders purchased using “Other” funding sources had an average waiting period of closer to four weeks and orders purchased using Library Services funding had an average waiting period of over five weeks.

Figures B.3 and B.4 in Appendix B present open-ended responses about the A/V equipment ordering process. Respondents were asked to share comments they had about purchasing processes for particular orders (Figure B.3). Of the 32 entries responding to this prompt, five mentioned the involvement of the Instructional Technology Coordinator (ITC). Several specified the purpose of the equipment order (i.e. “for Grade 1 ESOL students to take home for year”), while others noted that they had not received their orders by the close of the marking period.

In addition, 17 respondents used the space in Question 20 to communicate general comments about the A/V equipment ordering process (Figure B.4).<sup>9</sup> Notable themes include respondents explaining that they do not have an A/V budget or purchasing authority or that they did not order any items within that marking period.

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<sup>9</sup> Question 20 read: “If you received any A/V equipment not listed in the answer options above, please enter the information here.”

**Figure 3.5: Waiting Period by School Level, Order Channel, and Budget Source**

| SEGMENT                      | N*        | AVERAGE WAIT PERIOD** | MEDIAN WAIT PERIOD ** |
|------------------------------|-----------|-----------------------|-----------------------|
| <b>Level</b>                 |           |                       |                       |
| Elementary                   | 48        | 2.30                  | 2.00                  |
| Middle                       | 35        | 3.14                  | 1.43                  |
| High                         | 8         | 8.98                  | 5.36                  |
| <b>Order Channel</b>         |           |                       |                       |
| School                       | 76        | 3.17                  | 2.00                  |
| (unspecified)                | 12        | 1.93                  | 1.86                  |
| Library Services (Ed Center) | 3         | 9.48                  | 13.10                 |
| <b>Budget Source</b>         |           |                       |                       |
| School                       | 55        | 2.98                  | 2.00                  |
| Other                        | 19        | 3.66                  | 2.00                  |
| (unspecified)                | 10        | 2.20                  | 1.43                  |
| Library Services (Ed Center) | 7         | 5.24                  | 2.00                  |
| <b>Total</b>                 | <b>91</b> | <b>3.21</b>           | <b>2.00</b>           |

\*Number of orders. Fifty-four order reports from 18 schools did not specify dates of both order and receipt, and therefore could not be included in this analysis.

\*\*Weeks between order and receipt

**Figure 3.6: Illustrative Examples of “Other” Funding Sources (n=29)\***

| SAMPLE RESPONSES  |   |
|---|---|
| <ul style="list-style-type: none"> <li>• A/V Equipment Budget</li> <li>• Equipment budget</li> <li>• Library AV replacement budget</li> </ul> | <ul style="list-style-type: none"> <li>• Book fair profits</li> <li>• PTA Funds</li> <li>• Tech Budget</li> <li>• Title I Office</li> </ul> |

\*All “Other” responses are reproduced in Figure B.2 in Appendix B

## APPENDIX A: SUMMARY OF PROGRAM TYPES

### ELEMENTARY SCHOOL PROGRAMS - EXAMPLES

Figure A.1: Categories of Library Programs – Elementary Schools

| CODE                                    | FREQUENCY | ILLUSTRATIVE EXAMPLES – ELEMENTARY SCHOOLS  |
|---|-----------|---|
| <b>Family programs</b>                  | 46        | <ul style="list-style-type: none"> <li>Hispanic Heritage Read-in: <i>Parents and teachers shared books selected by the librarian, in celebration of Hispanic Heritage month.</i></li> <li>Graphic Novels: <i>Presentation to PARENTS by the APCL librarians on graphic novels. Ten is number of adult attendees.</i></li> <li>Library Night: <i>An [evening] literacy event. Parents and students returned to school at night to hear and story and then become an author and write and illustrate their own picture book</i></li> </ul>  |
| <b>Literacy activities</b>              | 35        | <ul style="list-style-type: none"> <li>Spanish Language Day: <i>Wednesday April 23rd, Spanish Language Day school wide. Students visited the library to hear about this month's library contest on Spanish poetry and tongue-twisters.</i></li> <li>Poetry Slam: <i>5th graders compete in a poetry slam led by a renowned poet.</i></li> <li>Native American Folktales: <i>Read-alouds of different folk tales from Native American tribes.</i></li> </ul>   |
| <b>Recreational reading programs</b>    | 32        | <ul style="list-style-type: none"> <li>Book Swap: <i>All students were able to select one book to keep or bring in up to five books to exchange for equal amount</i></li> <li>Read for the Record: <i>The library supplied multiple copies of the book Otis for the day - long Read for the Record project.</i></li> <li>Book Nook: <i>I have organized a section called the Book Nook. The books are donated. The students are allowed to take books to keep and if they have some at home, they can donate. The books are marked with an orange sticker to differentiate them from the regular collection.</i></li> </ul> |
| <b>Book clubs</b>                       | 29        | <ul style="list-style-type: none"> <li>Caldecott Club: <i>A lunchtime group for 4th graders. Students read and discuss potential 2014 Caldecott winners. Meets once a week September 20 through mid-January.</i></li> <li>Lunch Bunch: <i>Fourth graders meet once a week to eat lunch and listen to a great book.</i></li> </ul>   |
| <b>Author visits</b>                    | 19        | <ul style="list-style-type: none"> <li>Author Night: <i>An evening literacy event called Poems and Pajamas. Poet and author Kwame Alexander presented his book Acoustic Rooster and shared poetry.</i></li> <li>Author Visit: <i>Picture book author visited K-2 students. Students heard the about the writing process.</i></li> </ul>   |
| <b>Technology and literacy programs</b> | 18        | <ul style="list-style-type: none"> <li>Back to School Night outreach: <i>Parents and students could visit a library station and check out our online resources such as Tumblebook Library, PebbleGo, eBooks and databases on iPads. They could also pick up information including passwords to show them how to access these resources from home.</i></li> <li>Morning News: <i>I work on the morning news before school every day. Once or twice a week, I have students do book talks or literacy related talks.</i></li> </ul>   |
| <b>Book fairs</b>                       | 16        | <ul style="list-style-type: none"> <li>Book fair: <i>Our annual book fair gets students excited about books! I have worked hard to make sure the book selection is appropriate and of the highest quality. Students practice curricular concepts including computation, consumer/service and wants vs needs. Grants provide low income students with vouchers to purchase one book if their family cannot afford one. Families have the chance to browse and purchase quality books to build their home libraries.</i></li> <li>Book Fair: <i>PTA-sponsored book fair in the Library</i></li> </ul>                         |

| CODE   | FREQUENCY  | ILLUSTRATIVE EXAMPLES – ELEMENTARY SCHOOLS   |
|--|------------|--|
| <b>Social activities</b>   | 13         | <ul style="list-style-type: none"> <li>• Rollerina: <i>I dress up in a costume and roller skate into an assembly to pass out books that relate to our community theme (i.e. respect, responsibility...). I do this once per month</i></li> <li>• Reading Carnival: <i>On October 18 our school celebrated our summer reading achievement with our Reading Carnival. Students participated in activities both here and at Bluemont Park. Activities included gardening, fitness, illustrator presentation, nature activities, and healthy food activities.</i></li> </ul>                               |
| <b>Public library collaborations (except visits to the public library)</b> | 13         | <ul style="list-style-type: none"> <li>• Public Library Summer Reading Program: <i>Desiree Fairouz, librarian at Columbia Pike Public Library, came to [our school] to talk about the summer reading program</i></li> <li>• Library Cards: <i>Secured Library cards for all new [Kindergarteners] for the Arlington Public Library</i></li> </ul>  |
| <b>Library aide/assistant programs, or librarian-for-a-day</b>             | 6          | <ul style="list-style-type: none"> <li>• Librarian for the Day: <i>3rd grade student won the contest to come to the library for the day and work as the librarian, reading aloud to students and assisting with library duties.</i></li> </ul>   |
| <b>Guest speakers (not authors)</b>  | 7          | <ul style="list-style-type: none"> <li>• Women’s History Read-In: <i>Volunteers read books in the classrooms featuring famous women in history.</i></li> <li>• Guest speakers and activities: <i>To reinforce their study of colonial times and geography, I invited a quilter and author for an afternoon of fun! The quilter connected quilts to colonial times and the underground railroad. We read The Tamale Quilt and the students them made their own quilt square. The guest author connected their study of geography to her book The Penguin Lady.</i></li> </ul>                           |
| <b>Field trips</b>   | 5          | <ul style="list-style-type: none"> <li>• Library Field Trip : <i>1st grade students visited the Aurora Hills Library to meet Ms. Kim, the children's librarian, listen to stories, and an activity</i></li> <li>• Field Trip to public library: <i>Walked with students to Glencarlyn library to get library cards, hear a story, and check out books. We went 3 times, taking only 2 classes each time.</i></li> </ul>  |
| <b>Adults discussing the library or planning activities</b>                | 2          | <ul style="list-style-type: none"> <li>• Literacy meeting: <i>Met twice a month after school with a literacy team to plan programs, incentives, RIF, etc.</i></li> <li>• Public Library Cards: <i>Visited Central Library, set up visit, field trip and program (future)</i></li> </ul>  |
| <b>Other orientations or activities</b>                                    | 1          | <ul style="list-style-type: none"> <li>• Science Fair resources and project support: <i>In preparation for the school-wide mandatory science fair, we reserved an extensive collection of resources in the library, and invited students and classes to come and find experiments and resources they needed to complete their projects at home. We copied directions, explained the process , and facilitated with other teachers and the science lead the after school sessions to help students complete science fair entries. We helped with supplies, construction, and technology.</i></li> </ul> |
| <b>Total programs</b>  | <b>242</b> | -  |

## MIDDLE SCHOOL PROGRAMS - EXAMPLES

Figure A.2: Categories of Library Programs – Middle Schools

| CODE  | FREQUENCY | ILLUSTRATIVE EXAMPLES – MIDDLE SCHOOLS   |
|---|-----------|--|
| Family programs   | 2         | <ul style="list-style-type: none"> <li>Back-to-School Night @ the Library: <i>Provided reading related games and activities for the younger siblings of our students, during back to School Night.</i></li> </ul>  |
| Literacy activities   | 4         | <ul style="list-style-type: none"> <li>Writers Café: <i>In anticipation of National Writing Month in November, students were invited to share their original writings. This event was held before school in front of an audience of the authors' peers.</i></li> <li>World Book Night distribution and reading: <i>Distributed Ruins of Gorlan (Bk 1, Ranger's Apprentice) to students in [redacted]'s reading classes and read with them</i></li> </ul>   |
| Recreational reading programs                                       | 5         | <ul style="list-style-type: none"> <li>RIF: <i>Motivational reading program that provides books to students in need.</i></li> <li>Summer reading: <i>created, promoted and maintain a summer reading initiative</i></li> </ul>   |
| Book clubs  | 4         | <ul style="list-style-type: none"> <li>TAB Luncheon: <i>TAB Book Club - Students eat lunch in library and discuss books they have read.</i></li> </ul>   |
| Author visits   | 3         | <ul style="list-style-type: none"> <li>African-American Read In: <i>author visit with Rena Roberts Shipp during lunches</i></li> </ul>   |
| Technology and literacy programs                                    | 3         | <ul style="list-style-type: none"> <li>13 Reasons why broadcast: <i>Showed recorded author's webcast (13 Reasons why by Jay Asher) about his book and bullying</i></li> </ul>  |
| Book fairs  | 3         | <ul style="list-style-type: none"> <li>Scholastic Book Fair: <i>All English Classes came to lib for book fair: kids dropped in at TA &amp; lunch. We had an evening event with the PTA International Night. I coordinated with Scholastic &amp; parent volunteers, promoted the book fair via website, flyers &amp; announcements, setup book fair with parents &amp; students, worked the book fair daily, managed the financials &amp; daily deposits &amp; coordinated breakdown and financial wrap up. I helped ELA specialist order books using profits.</i></li> </ul> |
| Social activities   | 4         | <ul style="list-style-type: none"> <li>TAB End-of-Year Celebration: <i>Celebration of reading club. Announced TAB Top 10 list and presented awards for reading and attendance at TAB Club meetings. Pizza party</i></li> <li>Summer reading breakfast: <i>Appreciation Breakfast for students who reached their summer reading goal with the Public Library Summer Reading Program</i></li> </ul>  |
| Public library collaborations (except visits to the public library) | -         | -  |
| Library aide/assistant programs, or librarian-for-a-day             | 3         | <ul style="list-style-type: none"> <li>Library Aide Training: <i>Training for students who want to help in the library</i></li> </ul>  |
| Guest speakers (not authors)  | 1         | <ul style="list-style-type: none"> <li>African-American Read-In: <i>Special guests read aloud to students in celebration of Black History Month and in recognition of the contributions of African American writers.</i></li> </ul>  |
| Field trips   | 1         | <ul style="list-style-type: none"> <li>Public Library Field Trip: <i>Planned field trip for HILT students and went with them to Central Library.</i></li> </ul>  |
| Adults discussing the library or planning activities                | 1         | <ul style="list-style-type: none"> <li>IB Library Meeting: <i>IB MYP Library Networking Session--opportunity for librarians at IB MYP schools in the region to learn and share about library's role in International Baccalaureate Program.</i></li> </ul>   |
| Other orientations or activities                                    | -         | -  |
| <b>Total programs (Middle Schools)</b>                              | <b>34</b> | -  |

## HIGH SCHOOL PROGRAMS - EXAMPLES

Figure A.3: Categories of Library Programs – High Schools

| CODE  | FREQUENCY | ILLUSTRATIVE EXAMPLES – HIGH SCHOOLS   |
|---|-----------|--|
| Family programs   | -         | -  |
| Literacy activities   | -         | -  |
| Recreational reading programs                                       | 2         | <ul style="list-style-type: none"> <li>Book talk: <i>Promoted books by NoVA Teen Festival authors to students in an English 12 class and a reading class who will be attending the festival in March</i></li> </ul>  |
| Book clubs  | 3         | <ul style="list-style-type: none"> <li>Student Book Talk: <i>This event is designed to inspire reading. Students enjoy reading the same books their classmates have found worthwhile. Thus, I have selected avid readers who connect well with others and love sharing what they've read. They will present 3 or 4 of the books they have read. The Booktalk will be offered during both lunches.</i></li> <li>GAAB Book Club: <i>This group of students meet once a month to discuss the books they have read.</i></li> </ul> |
| Author visits   | 3         | <ul style="list-style-type: none"> <li>NOVA TEEN BOOK FAIR: <i>3 YA Authors visited and talked to students about their books and answered questions. This was a precursor to the Book Festival the following day</i></li> <li>Author Visit: <i>Three authors who were participating in the NOVA teen book fair, Lamar Giles, Ellen Oh and Jessica Spottswood, made presentations and answered student questions.</i></li> </ul>  |
| Technology and literacy programs                                    | 2         | <ul style="list-style-type: none"> <li>Blog: <i>Contains publisher and librarian publications, reviews of books, individual profiles, and dates of interest</i></li> </ul>   |
| Book fairs  | -         | <ul style="list-style-type: none"> <li>-</li> </ul>  |
| Social activities   | 1         | <ul style="list-style-type: none"> <li>NLW celebration: <i>Daily drawing of Barnes &amp; Noble \$20 gift cards, announcements on dailies and scrolling announcements, National Library Week bookmarks distributed</i></li> </ul>   |
| Public library collaborations (except visits to the public library) | 1         | <ul style="list-style-type: none"> <li>NaNoWriMo: <i>Nico Piro from Arlington Public Library hosts a writing workshop centered around National Novel Writing Month.</i></li> </ul>   |
| Library aide/assistant programs, or librarian-for-a-day             | -         | -  |
| Guest speakers (not authors)  | -         | -  |
| Field trips   | 1         | <ul style="list-style-type: none"> <li>Library of Congress Speaker: <i>Took students to the Mary Pickford Theater at the Library of Congress to hear a panel discussion led by author Robin Wiseman about the making of "Masterminds and Wingmen: Helping Our Boys Cope with Schoolyard Power, Locker-Room Tests, Girlfriends, and the New Rules of Boy World".</i></li> </ul>   |
| Adults discussing the library or planning activities                | 1         | <ul style="list-style-type: none"> <li>Books for the Beast 2013: <i>An all-day young adult literature conference sponsored by the Enoch Pratt Free Library in Baltimore, MD. Programming included a keynote speech from Robin Wasserman, discussion groups centered around 10 themed books that the students read, and a presentation "Teens on the Outside" by Sharon Flake and Rainia Telgemeier.</i></li> </ul>   |
| Other orientations or activities                                    | 1         | <ul style="list-style-type: none"> <li>Library Orientations: <i>several entries involving evening orientations for night students</i></li> </ul>   |
| Total programs (High Schools)                                       | 15        | -  |



## APPENDIX B: TECHNOLOGY RESOURCES

**Figure B.1: Summary of Open-Ended Responses by General Category, “Other” Equipment Types**

| GENERAL CATEGORY                     | NUMBER OF ORDERS | QUANTITY   |
|--------------------------------------|------------------|------------|
| <b>Elementary School</b>             | <b>11</b>        | <b>49</b>  |
| eReaders                             | 4                | 37         |
| External Data Storage Drives         | 1                | 6          |
| Online Learning Programs             | 2                | 2          |
| Charging/Adapting Equipment          | 2                | 2          |
| Flatbed scanner                      | 1                | 1          |
| Presentation Remote Control          | 1                | 1          |
| <b>Middle School</b>                 | <b>5</b>         | <b>19</b>  |
| External Data Storage Drives         | 1                | 1          |
| Charging/Adapting Equipment          | 1                | 2          |
| Laminates                            | 3                | 16         |
| <b>High School</b>                   | <b>3</b>         | <b>156</b> |
| eReaders                             | 2                | 155        |
| Book Drop (Freestanding Book Return) | 1                | 1          |
| <b>Total</b>                         | <b>19</b>        | <b>224</b> |

## OPEN-ENDED RESPONSES

**Figure B.2: Responses to Questions 15-19: "You selected "other" for the budget source for A/V Equipment (#1-5). Please specify the budget source." (n=29)**

| LEVEL | BUDGET SOURCE                         |
|-------|---------------------------------------|
| ES    | Title I Office                        |
| ES    | AV account for library purchases.     |
| ES    | ITC placed order                      |
| ES    | PTA Funds                             |
| ES    | PTA paid                              |
| ES    | AV Budget                             |
| ES    | PTA funds                             |
| ES    | Purchased with AV replacement account |
| ES    | PTA                                   |
| ES    | PTA                                   |
| ES    | PTA                                   |
| ES    | PTA                                   |
| ES    | Tech Budget                           |
| ES    | AV equipment budget                   |
| ES    | AV Budget                             |
| ES    | Tech budget                           |
| ES    | AV Replacement                        |
| ES    | District AV Replacement Budget        |
| ES    | AV Replacement                        |
| ES    | AV replacement                        |
| ES    | AV replacement                        |
| ES    | AV Budget                             |
| ES    | AV Budget                             |
| ES    | AV Budget                             |
| MS    | Library AV                            |
| MS    | Paid through book fair profits.       |
| MS    | Library AV replacement budget         |
| MS    | Library AV replacement budget         |
| MS    | Library AV replacement budget         |
| HS    | A/V Equipment Budget                  |
| HS    | Equipment budget                      |

**Figure B.3: Responses to Question 14a-e: “Please Share Any Comments You Have About This Purchasing Process (A/V Equipment 1-5).” (n=32)**

| LEVEL | COMMENTS   |
|-------|--|
| ES    | Title I Office donated Nooks for VRC Club  |
| ES    | I purchased these myself.  |
| ES    | Sound system for PE  |
| ES    | ITC and I looked at equipment needs for staff and library to begin the year and placed order with other items using ITC's account.   |
| ES    | These were purchased for grade1 ESOL students to take home for year  |
| ES    | I have not been able to get a budget amount for av supplies or equipment from either my school or library services   |
| ES    | [Name redacted] through School   |
| ES    | This was ordered for Reach for reading meetings as well as by music dept.  |
| ES    | These are HD televisions to go with the iPad 1:1 Pilot in the classrooms to support AppleTV.   |
| ES    | This is actually a projection station to be used by all teachers/PTA at the school   |
| ES    | Purchased by the ITC to see if it is an option for the flip camera   |
| ES    | For morning news   |
| ES    | For morning news   |
| ES    | For morning news   |
| ES    | Still waiting  |
| ES    | Still waiting  |
| ES    | Personal players for student use   |
| ES    | STEM TV studio   |
| ES    | Note: [School's] AV account is used by the ITC and front office to purchase items. When I asked for first quarter purchases for the first report, they did not give me the 10/29/13 purchases.   |
| ES    | LCD bulb for projection  |
| ES    | The last \$2000 of my AV Repair budget was combined with the remaining ITC budget to order LCD projectors, document cameras, a variety of Apple chargers and adapters. The ITC placed the order and items are still coming in, so I don't have the specific information about dates. |
| ES    | Purchased via our admin assistants to replace 3 projectors that died.  |
| ES    | Have not received yet  |
| MS    | Ordered for classrooms   |
| MS    | Ordered with ITC for classrooms  |
| MS    | Ordered through ITC for circulating digital camera   |
| MS    | Instructional Technology Coordinator   |
| MS    | Backordered  |
| MS    | Purchased in store and reimbursed  |
| HS    | We stock batteries to support the Math Department  |
| HS    | TOOK TOO LONG -- we nearly ran out of LCD lamps  |
| HS    | This item is equipment, but not A/V, except that A/V material may be returned to it. This is a one-time purchase; the book drop could last 50 years.   |

**Figure B.4: General Open-ended Responses to Question 20: “If you received any A/V equipment not listed in the answer options above, please enter the information here.” (Unrelated to a particular order)<sup>10</sup> (n=17)**

| LEVEL | COMMENT  |
|-------|--|
| ES    | I did not purchase new equipment start of the year but rather handed out projectors and listening centers already in library.  |
| ES    | No equipment received in September and October   |
| ES    | I ordered a projection station/cart for all types of media to be used by all teachers and the community. Many of my orders for batteries were not able to be filled so I bought them out of my own pocket.   |
| ES    | My last A/V order was received over the summer. No items were delivered in September or October.   |
| ES    | Did not place any A/V orders during this period but did submit a HEAT ticket because our ACORN stations are not properly installed and students are unable to check their Millennium accounts at school.   |
| ES    | None.  |
| ES    | Ordering through my school secretary is helpful and seamless. The issue w/ purchasing is the quality of items available on the Frequently Purchased List. They often break and IT does not fix A/V equipment under \$300. Note that this purchase was made with school funds but allocated specifically for A/V purchases. |
| MS    | My A/V Library budget was taken by my principal this year to order SmartBoards and LCD projectors for classrooms. I hope I will regain control (or at least be involved in the spending) of my budget so I can purchase other necessary AV items to support the curriculum next year.                                      |
| MS    | My AV Library Budget had been taken by my principal earlier this year to order SmartBoards and LCD projectors for classrooms. I *just* was given the remainder of the budget back, but I have not had time to purchase any of the AV items we need to support the middle school curriculum.                                |
| MS    | MY AV Library budget had been taken by my principal earlier this year to order SmartBoards and LCD projectors for classrooms. I was given the remainder of my budget back, and I have submitted one big order, but those items have not yet been received.   |
| HS    | Purchasing A-V equipment is not one of my responsibilities.  |
| HS    | No equipment was ordered or received. I don't have an AV budget.   |
| HS    | -- Ordered six LCD Projector bulbs in December through my school office, have not yet received them.<br>-- Ordered an extensive amount of eBooks and eAudio in December through my school office. Have received both.  |
| HS    | I do not have an A/V account.  |
| HS    | Just FYI -- I do the bulk of my A/V ordering, sans bulbs, in June and August.  |
| HS    | I do not have a budget for equipment.  |
| HS    | We ordered LCD lamps in April that never arrived. We spent more than \$5000, wiping out AV account, on eBooks.   |

<sup>10</sup> We removed responses that pertained to the prompt and referred directly to orders and incorporated them into the overall equipment inventory. We present remaining open-ended responses for APS's review.

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