



MEMORANDUM

To: Select Committee on School Finance Recalibration

From: Scott Price, Allan Odden and Larry Picus

Re: **Model Element 12: Librarians and Librarian Media Technicians**

Date: August 26, 2015

The January 2015 Desk Audit discussed library resources on pages 55 and 56 and called for a recalibration. The 2010 Evidence-Based (EB) recommendation and Legislative Model for library resources are shown below.

Table 1. Library Resources: Comparison of 2010 EB Recommendation and Legislative Model

2010 EB Recommendation	Legislative Model	Cost Difference
<p><u>Librarian and Library Clerk Positions:</u> For districts with 0-300 ADM, provide funding for 1 librarian and 1 library clerk. For districts with 301-630 ADM, prorate from the 300 ADM level up to 2 librarians, but retain the 1 librarian clerk for the 630 ADM. Above 630 ADM, 1 librarian for every 288 elementary ADM and 1 librarian and 2 library clerks for every 630 secondary ADM, with a minimum of 2 librarians and 1 library clerk.</p>	<p><u>Librarian Positions:</u> For non-alternative schools and small schools, provide 1 librarian for the prototypical elementary schools (288 ADM) prorate up and down, below and above 288 ADM. For middle or high schools with ADM between 105 and 630 ADM, 1 librarian. Below 105 prorate down and above 630 prorate.</p>	<p>\$3,474,482</p>
<p><u>Computer Technician Position:</u> For districts with 500 or fewer ADM, a 0.50 FTE position. For districts with ADM greater than 500, provide 1 FTE position for every 1,000 ADM.</p>	<p><u>Library Media/Computer Technician Position:</u> For non-alternative schools and small schools, provide 1 library media technician for every 315 middle and high school ADM, prorated up and down.</p>	<p>\$3,034,238</p> <p>Total Cost Difference \$6,508,720</p>

The major differences between the two formulas are:

- The 2010 EB recommendation provided resources at the district level rather than the school level;
- The 2010 EB recommendation prorated two librarians between 630 and 105 ADM while the Legislative Model provides a full librarian between those two student counts;
- The 2010 EB recommendation provides library clerks (which this memo calls library aides below), while the Legislative Model does not; and
- The Legislative Model provides library media/computer technicians at the rate of one for every 315 middle and high school students, whereas the 2010 EB recommendation provided a minimum of 0.50 position for district with 500 or fewer ADM or one position for every 1,000 ADM (Note: these positions are meant to provide schools with individuals who can provide first line computer technical assistance).

The 2010 EB recommendation has been modified by a *revised* EB recommendation to better reflect Wyoming and national *library* staffing averages, both discussed below. The revised EB recommendation also renames the Legislative Model’s library media technician to a computer technician.

Current Wyoming Resource Use

Table 2 provides the historical use of library and computer technology staff as compared to allocations in the Legislative Model. The Legislative Model allocated 286.6 librarian positions in school year 2014-15. Districts employed 106.1 librarians, a difference of 180.5 FTEs. Districts employed 179.7 librarian aides, where the Legislative Model does not allocate library aide positions. One assumption for this difference in staffing is that some schools have replaced librarians with library aides (or clerks), and larger schools often staff libraries with a combination of one librarian and library aides, not multiple librarians. The Legislative Model allocated 135.3 library media/computer technicians for school year 2014-15 and districts employed 179.4 library media/computer technicians, a difference of 44.1 FTEs.

Table 2. Wyoming School District Librarians and Librarian Media/Computer Technicians

School Year	Legislative Model Librarian FTEs	Actual Librarian FTEs	Librarian Difference	Actual Librarian Aide FTEs	Legislative Model Computer Technician FTEs	Actual Computer Technician FTEs	Computer Technician Difference
2006-07	263.7	134.7	(129.0)	179.1	132.8	116.0	(16.8)
2007-08	265.0	134.5	(130.5)	184.1	131.6	142.3	10.7
2008-09	268.4	130.7	(137.7)	188.5	130.9	162.2	31.3
2009-10	271.6	127.8	(143.8)	191.0	130.9	168.3	37.4
2010-11	274.3	125.8	(148.5)	185.1	130.5	178.9	48.4
2011-12	277.0	124.2	(152.8)	190.8	132.5	177.8	45.3
2012-13	279.9	121.1	(158.8)	188.1	134.1	172.2	38.1
2013-14	283.8	110.6	(173.2)	184.0	135.0	179.9	44.9
2014-15	286.6	106.1	(180.5)	179.7	135.3	179.4	44.1

Overview

The following discusses library staffing in a manner that distinguishes library staff – librarians and library aides (what the 2010 EB recommendation termed clerks) – from computer technicians who provide computer technical help to schools. The memo further clarifies computer technicians (what the Legislative Model terms library media technicians) evolved from individuals who set up audio-visual equipment for teachers, to individuals who became the first line computer technical helpers, and should be considered a separate staff category, generally operating out of the district’s technology office and not the library, though often supervised by school principals.

The importance of the school library as a resource-rich learning center has developed and evolved with the addition of technology. In libraries, students can explore and individualize their learning experience, using all modalities of learning, through access to both electronic and print materials that enhance the curriculum.

Librarians act as a partner in student achievement, assisting students to hone their 21st Century skills and preparing them to be successful in the post-secondary environment and the workplace. The library experience becomes more valuable to students and staff when libraries are staffed with certificated librarians and library aides that can help students effectively search, cull, and synthesize information found in the many books, magazines, and myriad sources available on the Internet.

There is much anecdotal data about how librarians may enhance student learning and achievement; however, the empirical data are limited. Some studies demonstrate positive benefits; yet many of these benefits could be attributed to other sources as well. It is difficult to establish direct causality (American Association of School Librarians, 2014). Despite these challenges, various research sources cited in the Desk Audit report that libraries, and librarians, can play a role in increasing student achievement.

For libraries to be effective, they must be adequately staffed. Research is silent on the number of staff members required to provide useful service to school staff and students. Because of the lack of literature on library staffing numbers, it is appropriate to examine general practices in a large number of districts and states to understand what is working in school libraries across America.

Librarians and Librarian Media Aides: The Revised EB Recommendations

The revised EB recommendations allocate library staff to more closely align to general practices throughout the country. The revised EB recommendation begins with school site ADM counts to allocate library staff. The basic revised formula provides one librarian for each prototypical 288 ADM elementary school and one librarian each prototypical 315 ADM middle or high school. Below the prototypical levels, 288 elementary and 315 secondary, prorate the librarian position down, but to a minimum of 0.5 FTE position. Prorate down the 0.5 FTE position once elementary ADM falls below 96 and secondary ADM falls below 105. For small districts, the revised EB recommendation is to provide a minimum of a 1.0 librarian position for each district.

Library aides would be generated at the rate of one for the first additional 288 ADM and then one library aide for every additional 630 ADM after the first 576 ADM (Note: it is highly unlikely an elementary school will have more than 576 ADM). For secondary schools, library aides would be generated at the rate of one for the first additional 315 ADM and then one library aide for every additional 630 ADM after the first 630 ADM. This staffing level ensures libraries are staffed by one full time librarian and library aides, not multiple librarians. This recommendation also is more reflective of national and Wyoming practice.

Table 3. Revised EB Model Staffing Formula for Librarians and Library Aides

Elementary Level - School Site		Secondary Level - School Site	
Librarians – minimum of 1.0 FTE for each district			
ADM	FTE	ADM	FTE
< 96	0.5 Librarian prorated down	<105	0.5 Librarian Prorated down
96-143	0.5 Librarian	105-157.5	0.5 Librarian
288-144	1 Librarian Prorated down to 0.5	315-157.5	1 Librarian prorated down to 0.5
Library Aides			
576	1 Library Aide prorated up from 288	630	1 Library Aide prorated up from 315
1,206	1 Library Aide prorated up from 288 and 1 prorated up from 576	1,260	1 Library Aide prorated up from 315 and 1 prorated up from 630

Table 3 shows the revised EB recommendations. At the elementary level, 1 librarian is allocated for every 288 ADM at a school site. If the number of ADM falls below the 288 level, the 1.0 librarian position is prorated down to a minimum of 0.5 at 144 ADM. The 0.5 librarian position is maintained between 144 and 96 ADM, after which it is prorated down below 96 ADM. Above 288 ADM at the elementary level, library aide positions are prorated up at the rate of 1.0 library aide position for the first additional 288 ADM and then prorated up at the rate of 1 for every additional 630 students. So an elementary school twice the size of the prototype would receive 1 librarian and 1 library aide staff, and not two librarians. The secondary level follows the same pattern replacing the elementary target level of 288 ADM with 315 secondary ADM and library aides are provided for the first 315 additional students, and then above that at the rate of 1.0 position for every additional 630 ADM, prorated up. The revised EB recommendation uses the school level to determine librarian staffing. However, to accommodate small districts, the revised EB Model provides a minimum of 1.0 FTE librarian position per district.

Librarians: Staffing Comparisons Using Different Models

In analyzing library staffing totals, it is instructive to compare the staffing levels of the Legislative Model, the revised EB Model, and national school library staffing averages.

In 2011-12, through an extensive survey of school libraries, the National Center for Educational Statistics (NCES) calculated average library staff in school libraries at both the elementary and secondary levels (NCES, 2015). To represent all staff working in the library, NCES categorized library personnel into three categories; librarians/media (aide) specialists, other professional staff, and other paid staff.

The Legislative Model on the other hand, allocates two types of personnel to the library; librarians and library media/computer technicians. Library media/computer technicians provide computer support and other general library media center services and tasks, and are discussed later in this memo and not considered in the following comparisons of library staffing.

Librarians: The Elementary Level

NCES Averages

For elementary schools with between 150 to 500 students, NCES found the average **total** school library staff was 1.66 FTE, consisting of .86 FTE of school librarians/media specialists, 0.18 FTE of other professional staff, and 0.61 FTE of other paid employees. As the number of students in an elementary school increases to 750 students and higher, the number of **total** library staff grows modestly to 1.87 FTE, consisting of .92 FTE school librarians/media specialists, 0.16 FTE of other professional staff and .79 FTE of other paid employees.

The NCES data described above demonstrate that as school size increases, total library staff increase at a disproportionately smaller rate when compared with the rate of increases in student population. This makes evident that once a library has sufficient staff to meet the basic demands such as opening the doors and running the counter, additional personnel are hired at a much slower rate and in many cases not at all. For example, when elementary schools of 150 to 500 students were compared to schools with 750 or more students, the total library staffing only increased from an average of 1.66 total FTE to an average of 1.87 FTE, respectively. This is an increase in student population of at least 50% compared to an increase in total library staffing of approximately 13%.

NCES Averages and the Wyoming Legislative Model

To compare the Legislative Model to NCES data, prorated Legislative Model FTE staffing ratios can be used to calibrate school size to approximate NCES school size ranges. Using the Legislative Model's staffing proration with an elementary school of 500 students, the Legislative Model allocates 1.74 FTE of school librarians/media specialists. This FTE amount is twice the NCES national average of .86 FTE of librarian/media specialists for a school of similar size.

However, at the elementary level, the Legislative Model does not provide for "other professional" staff [aides] and/or "other paid employees" as does the NCES averaged data. If **total** staffing were considered when comparing the Legislative Model and the NCES average data, the two would be comparable for a school of 500 students (1.74 FTE of librarian/media specialist to 1.66 FTE of total staffing respectively).

As elementary school size increases, however, the Legislative Model staffs higher than the national averages. For example, with an elementary school of 750 students, the Legislative Model would staff at 2.60 FTE librarians/media specialists while the NCES average school of this size would provide only 1.87 FTE of total staffing.

The Legislative Model does not stop or throttle allocating staff after a particular site staffing ratio or basic staffing has been met, but instead continues to provide additional library staffing based on the increasing numbers of students at any particular school site.

NCES Averages, the Legislative Model and the Revised EB Recommendation

In the same elementary school of 500 students, the revised EB recommendation provides less librarian staffing (1.0 FTE) than the Legislative Model (1.74 FTE), but more than the national average (.86 FTE). When comparing **total** library staff – librarians and library aides – at the 500 student elementary school, the revised EB recommendation provides the same as the Legislative Model (1.74 FTE) but the EB recommendation provides 1.0 librarian and 0.74 library aides while the Legislative Model provides 1.74 librarians. The NCES average provides 1.66 total library FTE.¹

Librarians: Secondary Level

NCES Averages

At the secondary level for schools up to 500 students, NCES estimated total average library staffing at 1.58 FTE, consisting of school librarians/media specialists at 0.78 FTE, other professional staff at 0.21 FTE, and other paid employees at 0.59 FTE. As the secondary school increases in size to between 750 to 1,499 students, total staffing increases to 2.07 FTE, comprised of 1.10 FTE librarian/media specialists, 0.14 FTE of other professional staff and 0.84 FTE of other paid employees.

NCES Averages, the Legislative Model and the Revised EB Recommendation

The revised EB recommendation calls for 1.0 FTE of school librarian/media specialist for a 315 ADM or greater secondary school. This is consistent with NCES averages for the librarian/media specialist that generate between 0.78 FTE (500 students) and 1.10 FTE (750 students).

As the secondary student count rises to 1,260 students, the revised EB recommendation still generates 1.0 FTE librarian/media specialist, but adds 2.0 FTE library media aides for a total of 3.0 library staff FTE. NCES school respondents report 1.10 librarians at this number of students and 0.98 FTE of other library staff (2.07 total FTE). Under the Legislative Model the same 1,260 student school would be provided 2.0 FTE library/media specialists and 4.0 FTE library media/computer technicians, a total of 6.0 FTE.

¹ We note that the library media/computer technicians were included in the NCES surveys on *library* staff, because the “old” library media technician position has generally been dropped across the country.

In the example above, the Legislative Model provides almost three times the total number of staff than the NCES average. Significantly higher staffing resources in larger school settings might account for one of the primary reasons for why Wyoming districts as a whole are not using all of the staff resources allocated for library personnel under the current policy model.

Library Media/Computer Technicians: Staffing Comparisons Using Different Models

The school library media/computer technician position has evolved. The Legislative Model resources library media/computer technicians at a rate of one for every 315 middle and high school ADM, prorated up and down, for all non-alternative schools and small schools. Our revised EB recommendation for this element resources school library media/computer technicians at the rate of 1 FTE for every 630 elementary, middle and high school ADM, prorated up and down, but with a minimum of 0.5 FTE position for each district.

As the number of computers continues to increase at the school site and online testing and curriculum become more prevalent, it becomes imperative for districts to deliver quick and efficient technology support to teachers and students. Districts can provide this support through the school library media/computer technician. The school library media/computer technician offers all “first level” support, including, solutions to basic break-and-fix issues, connectivity difficulties, configuration errors, and printing concerns. The school library media/computer technician can set up an LCD projector for the principal, install software for a teacher, reset email and student administration accounts, and clearly explain and demonstrate the proper use of computer hardware and devices from ergonomic mice to electronic Smartboards.

When the library was the sole source for multimedia materials, school library media/computer technician would wheel filmstrip projectors into classrooms to create multimedia experiences for students. Because of the nexus to multimedia, as computers entered the schools, the first computer laboratories were traditionally in or close to libraries. Many school library media/computer technicians learned how to troubleshoot the machines based on their technical prowess and proximity to the lab environment.

As schools acquire more technology, using carts of laptops and banks of computers in classrooms, the “computer lab” function of the library is being distributed throughout the school. The library is no longer the only hub of multimedia resources and the sole keeper of the multimedia experience. Libraries now assist in directing students to resources.

For teachers and other staff to take full advantage of the benefits that technology can provide, they need to feel that support is close by and available. Having a school library media/computer technician on campus can generate a sense of technological security.

General support for computers and for their maintenance and configuration has traditionally been district-based. School sites submit service requests to the district and wait to see when a technician will come. In the revised EB recommendation, district technicians still handle the more difficult issues, while school library media/computer technicians have most of their time scheduled to be at specific campuses. They participate at the sites like a staff member and can be directed during their scheduled time by the principal and/or other site administrators.

Estimated Impact

Table 4 provides an estimated impact of the revised EB recommendations as compared to the Legislative Model for school year 2015-16, using preliminary data. The estimated impact reduces total funding by \$749,913, but provide 22.40 more FTE

Table 4. Estimated Impact of Revised EB Recommendation Compared to Legislative Model

Staffing Category	Revised EB Recommendation		Legislative Model		Difference	
	FTE	Cost (\$)	FTE	Cost (\$)	FTE	Cost (\$)
Librarians	234.30	\$18,781,291	286.87	\$22,970,537	-52.57	(\$4,189,245)
Library Aides	65.13	\$2,600,692	0.00	\$0	65.13	\$2,600,692
Computer Technicians	145.47	\$10,877,486	135.63	\$10,038,845	9.84	\$838,641
Total	444.90	\$32,259,469	422.50	\$33,009,382	22.40	(\$749,913)

Decision Items:

- 1. Adopt the revised Evidence-Based recommendation for library staff:** For non-alternative schools and small schools, provide one librarian for each 288-student prototypical elementary school and to each 315-student secondary school. Below those levels (288 elementary and 315 secondary), prorate the librarian position down but to a minimum of 0.5 positions. Prorate down that half-time position once elementary ADM falls below 96 and secondary enrollment falls below 105. For elementary schools, prorate up 1.0 library media aide position for the first additional 288 students. For secondary schools, prorate up 1.0 library media aide position for the first additional 315 students. Above 576 elementary students and 630 secondary students provide 1 library media aide for every 630 students. Provide a minimum of a 1.0 librarian position for each district. Provide school library media/computer technicians school library media/computer technicians at the rate of 1 FTE for every 630 elementary, middle and high school ADM, prorated up and down, but with a minimum of 0.5 FTE position for each district.
- 2. Continue with the current legislative policy for library staff:** For non-alternative schools and small schools, provide 1 librarian for the prototypical elementary schools (288 ADM) prorate up and down, below and above 288 ADM. For middle or high schools with ADM between 105 and 630 ADM, 1 librarian. Below 105 prorate down and above 630 prorate. For non-alternative schools and small schools, provide 1 library media/computer technician for every 315 middle and high school ADM, prorated up and down.

References

- American Association of School Librarians (AASL). (December, 2014). Causality: School Libraries and Student Success. White Paper. American Library Association. Available at: <http://www.ala.org/aasl/sites/ala.org.aasl/files/content/researchandstatistics/CLASSWhitePaperFINAL.pdf>. Last Retrieved August 18, 2015.
- National Center for Education Statistics (NCES). (2015). Table 701.20 : Selected Statistics on Public School Libraries/Media Centers. *Digest of Education Statistics – 2013*. NCES 2015-11:791. Available at: <http://nces.ed.gov/pubs2015/2015011.pdf> . Last retrieved August 16, 2015.