Developing California School Library Media Program Standards

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Abstract
California is developing outcome standards for school library students and quantitative standards for library program factors that provide the conditions for students to meet library outcomes. In an effort to make those program standards empirically based, the researchers analyzed three 2007–8 reputable data sets: California’s school library data set, AASL’s School Libraries Count data set, and a national School Library Journal data set. The researchers clustered the standards into two sections: (1) baseline factors and (2) statistical standards for resources. Findings revealed that school libraries that met the baseline standard were significantly different from libraries that did not. Once the baseline set of factors were determined, the researchers applied descriptive and correlational statistics to the data sets, with the resultant figures based on the average figures supplied by those libraries that met the baseline factors.

Introduction
School library media programs (SLMPs) support the school’s mission, and more specifically, they have their own aligned mission: to help students and staff become effective users of ideas and information (AASL 1998). The 2009 AASL Empowering Learners: Guidelines for School Library Media Programs focuses on developing a flexible learning environment in which students can become competent in twenty-first-century learning skills.

AASL, and many states, have defined what learning skills are under the prevue of the teacher librarian—or at least what skills teacher librarians can address in collaboration with the rest of the school community. Moreover, AASL and states also have created standards for twenty-first-century learning: what students should know and be able to do. The AASL standards include inquiry and critical thinking, application and creation of knowledge, ethical and productive sharing, and the pursuit of personal and esthetic growth. Each standard is composed of skills, dispositions, responsibilities, and self-assessment strategies.
For those standards to be implemented, teacher librarians are responsible for providing the optimal conditions for learning. Thus, not only are there standards for students, but there are standards for library media programs. These standards describe the resources and the services that the library can provide, the supports and interventions that facilitate student learning.

In March 2009, the California legislation permitted the state Department of Education to develop library standards. A steering committee was then established to develop student learning outcome standards and SLMP standards. California wanted to ensure their standards were data-based, data that are now easier to derive because dozens of studies have demonstrated that staffing, collections, services, and facilities affect student learning. This research was conducted to provide that data.

**Literature Review**

Numerous studies since the 1950s have established that SLMPs contribute significantly to student academic success. Some practices are straightforward, such as teaching students how to strategically find and evaluate needed information. Likewise, providing a rich collection of curriculum-supportive resources helps students comprehend academic subject matter better. It should be noted that not only do teacher librarians *directly* affect student success, but they contribute *indirectly* by helping classroom teachers succeed in developing and delivering curriculum more effectively because of the library’s resources and services (Lance 2002). (It should be noted that the official term for school librarians in California is “teacher librarian,” so that term is used in this study.) Parsing the SLMP’s elements, several variables have been identified as contributing to student academic achievement: staffing; the library facility as a physical learning environment; library collections; instruction, collaboration, reading-related, and other services; and program administration.

The single most important variable is the value-added service of a full-time credentialed teacher librarian. More than twenty separate studies with a wide variety of populations attest to this vital factor, noting teacher librarian’s positive impact on student academic achievement, reading performance, information competency and study skills (Farmer 2003; Scholastic 2008). Such teacher librarians should not have nonlibrary teaching duties, although they do need to instruct *in* the library (Houston 2008). Farmer’s 2003 literature review identified several specific characteristics of an effective teacher librarian, such as technological competency, communication skills, and trustworthiness. The other significant aspect of staffing is the value-added service of a full-time paraprofessional librarian as a team member alongside a full-time teacher librarian (Achterman 2008; Lance, Rodney, and Russell 2007; Scholastic 2008).

Another obvious factor is the library facility itself, which needs to be accessible throughout the day for both classroom and individual use (Callison 2004; Farmer 2003; Lance, Rodney, and Hamilton-Pennell 2007). To facilitate access, particularly for relevant learning moments, flexible scheduling is necessary—although some fixed scheduling can be offered (Shannon 2007).

The school community usually thinks of the school library in terms of its collection. However, that variable has to be parsed into several aspects to be meaningful. For instance, the collection should support the curriculum (Farmer 2006; Small 2008). The larger the collection, the better
(Farmer 2003) with the proviso that materials are current (Burgin and Bracy 2003; Lance 2001, 2005) and diverse (Farmer 2006; Small 2008).

Another necessary type of necessary resources these days is technology. The school media center needs to provide students with access to Internet-connected computers, online subscription database aggregators, an online library catalog, and a library web portal (Farmer 2003; Roberson, Schweinle, and Apalin 2003; Lance, Rodney, and Russell 2007; Scholastic 2008). Several variables are clustered under the heading of services. The teacher librarian needs to regularly instruct the school community (Achterman 2008; Ireland 2001; Farmer 2003; Lance, Rodney, and Russell 2007; Scholastic 2008). This activity can be further divided into audience (Farmer 2003; Lance, Rodney, and Hamilton-Pennell 2007), content matter (Achterman 2008; Farmer 2003; Lance, Rodney, and Russell 2007; Scholastic 2008), and delivery method (Farmer 2003).

Linked with instruction as well as other services is collaboration, although this term could be further refined in terms of degrees of interaction (e.g., communication, cooperation, and coordination). Nevertheless, collaboration implies interdependent planning and implementation. Because it enables resources to be used more effectively and facilitates student learning, collaboration is identified in dozens of studies as a key variable in academic achievement (Farmer 2003; Houston 2008; Lance, Rodney, and Russell 2007; Scholastic 2008). Less obvious is the means to quantify such collaboration: the frequency, extent, and quality of such collaboration.

Service quality, although hard to quantify as such, has been identified as a contributing factor to student academic success from the 1960s (McMillen 1965; Thorne 1967) to this decade (Achterman 2008; Farmer 2006).

Reading-related service is a subset of actions that constitute a significant variable in student academic success (Achterman 2008; Farmer 2003; Lance, Rodney, and Russell 2007; McCulloch 2006; Scholastic 2008). Some of the supportive services for both academic and recreational reading mentioned in studies include materials selection, reading guidance, reading promotion (e.g., booktalks, displays, and author visits), direct instruction, and support of school community efforts. As with collaboration, the quality and extent of reading services needs to be ascertained to validly measure their impact on student learning.

A number of other services also are mentioned in studies as contributing to student academic achievement: reference service (Achterman 2008), interlibrary loan (Baumbach 2002), and community outreach (Faucette 2000; Lance 2002). For instance, when teacher librarians work with parents, students improve academically (Faucette 2000). In general, teacher librarian expertise ensures that students can use library resources more effectively.

It makes sense that running the library efficiently would impact student learning because, for instance, resources would be organized for easier retrieval (Callison 2004; Farmer 2006). However, the attributes of efficient operations have been seldom systematically studied relative to student academic achievement. The one indicator that has been identified is the presence of documented library policies and procedures and a plan that included assessment (Farmer 2006).
Financial support of SLMP has been identified more often as a significant factor, with studies giving quantitative values (Farmer 2003; Lance, Rodney, and Russell 2007; Scholastic 2008). For example, having a bigger budget enables the teacher librarian to purchase more resources, so students have a greater variety of reading materials to choose from and are more likely to improve their reading (Baxter and Smalley 2003; Indiana 2006; Lance 2002).

Another source of power comes from administrative support. When SLMPs have such backing, they gain value and prestige that can translate into more resource allocations and a greater chance for collaboration with the rest of the school community. These factors provide the support that offers a rich learning environment that can impact student achievement (Farmer 2006; Lance, Rodney, and Russell 2007).

Goals and Objectives
The goal of the project was to develop baseline standards as well as service and quantitative resource standards for SLMP factors that provide the conditions for students to meet library outcomes, with a focus on California. Several relevant research questions emerged.

- Do SLMPs that meet baseline variable standards differ significantly from SLMPs that do not?
- What are the service and quantitative resource standards that significantly differentiate SLMPs that meet the baseline variable standards?
- Are California SLMPs significantly different from SLMPs nationally?

Method
To answer the research questions, the investigators used a mixed methods approach: (1) a content analysis of relevant literature and (2) statistical analyses to determine significant differences between populations.

We culled potentially significant variables from a thorough review of the literature pertaining to SLMP factors that contribute to student academic achievement. We used the variables that emerged from the content analysis as a tentative set of baseline SLMP standards.

To further validate the variables, we consulted a national school library survey sponsored by the School Library Journal (SLJ) (Shontz and Farmer 2009). SLJ e-mailed the survey to a sample of more than 2,000 of its subscribers. We validated 250 responses elementary, 168 middle school, 318 high school, and 103 other combination of grades. In comparing the demographics of those responses with the most recent available statistics about school library collections by the National Center for Education Statistics, we found that the sample was representative of schools that have professional librarians. To be established as a baseline standard for our study, at least half of the survey respondents had to meet that standard.

Once the baseline set of factors were determined, we examined the California Department of Education library data set. The California State Education Code directs local governing boards to report on the condition of school libraries. Each year the library services department collects site-based data. We had access to the 2007–8 data set for the purposes of the study. California’s data set consisted of 4,832 responses (3,312 elementary, 842 middle school, 595 high school, and 83
other), which represented a response rate of 49 percent of all California school libraries. We performed a t-test on the SLJ and California data sets to determine whether a significant difference existed between the two; none was found.

Next, we divided the two data sets into two sets: one that met all the baseline variable standards (CA1 and SLJ1) and one that did not (CA0 and SLJ0). A t-test was conducted to determine whether a significant difference exists between sets 1 and 2 relative to resource and service standards. A follow-up logistic regression statistical analysis determined the relative significance of the baseline variables, using a sideways process to generate the best model.

We then examined the two data sets that met the baseline standards to determine the quantity of other SLMP variables. For the SLJ 2009 study, the standards were based on the average resources and services of the set of respondents. For statistical standards (e.g., collection size), the standards were based on the average figures for the “baseline” set of respondents. For the California Department of Education 2007–8 school library survey, the standards were based on the average resources and services of the “baseline” set of respondents. We used findings to generate service and quantitative resource standards.

**Findings**

The following tentative set of standards for school libraries emerged from the meta-analysis and survey data set:

- One full-time teacher librarian (AASL 2008; Achterman 2008; Farmer 2003; Lance, Rodney, and Russell 2007; Library Research Service 2010; Scholastic 2008; Shontz and Farmer 2009)
- One full-time paraprofessional (AASL 2008; Achterman 2008; Farmer 2003; Scholastic 2008; Shontz and Farmer 2009; Sinclair and Tarr 2004)
- An integrated library management system (cataloging and circulation), including online public access catalog (OPAC) (Lance, Rodney, and Russell 2007; Scholastic 2008; Shontz and Farmer 2009)
- Internet access for students (AASL 2008; Achterman 2008; Scholastic 2008; Shontz and Farmer 2009)
- The library must be open 36 hours or more per week (AASL 2008; Achterman 2008; Farmer 2003; Library Research Services 2010; Shontz and Farmer 2009; Sinclair and Tarr 2004)
- At least some flexible scheduling (AASL 2008; Farmer 2003; Scholastic 2008; Shontz and Farmer 2009)
- A library webpage/web portal (Scholastic 2008; Shontz and Farmer 2009)
- Facilities: room and seating for one class and additional individuals, and the collection (AASL 2008; Scholastic 2008; Shontz and Farmer 2009)
- One class set of computers—at least 10 computers at the elementary level, 15 computers at the middle school level, and 25 computers at the high school level (AASL 2008; Shontz and Farmer 2009)
- At least two online subscription databases—one video/image based and at least one periodicals aggregator (AASL 2008; Lance, Rodney, and Russell 2007; Scholastic 2008; Shontz and Farmer 2009); model baseline for text databases is one for elementary, two for middle school, three for high school (Shontz and Farmer 2009)
- Regular planning with at least two grades or department of teachers (20 percent or more) (AASL 2008; Farmer 2003; Scholastic 2008; Shontz and Farmer 2009)
- Required services: readers’ advisory/guidance, information literacy instruction, and Internet and database instruction, even at elementary (AASL 2008; Achterman 2008; Farmer 2003; Scholastic 2008; Shontz and Farmer 2009; Sinclair and Tarr 2004)
- A current set of policies and procedures, and a yearly strategic plan that includes assessment (Farmer 2003; Shontz and Farmer, 2009)

A significant difference at the .01 level existed between CA1 and CA0, and between SLJ1 and SLJ0. The number of SLMPs that met all the baseline standards (SLJ1) was 209 (see Table 1).

### Table 1. SLJ Data Set of SLMPs Meeting Baseline Standards (SLJ1)

<table>
<thead>
<tr>
<th>Level of School</th>
<th>Total N</th>
<th>N Meeting Baseline Standard</th>
<th>% Meeting Baseline Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>250</td>
<td>37</td>
<td>14.8</td>
</tr>
<tr>
<td>Middle School</td>
<td>168</td>
<td>49</td>
<td>29.2</td>
</tr>
<tr>
<td>High School</td>
<td>318</td>
<td>114</td>
<td>44.0</td>
</tr>
<tr>
<td>Combination</td>
<td>103</td>
<td>9</td>
<td>8.7</td>
</tr>
</tbody>
</table>

The number of SLMPs that met all the baseline standards (CA1) was 352 (see Table 2). The main variable separating those SLMPs meeting the baseline standards and those not meeting the standards was the presence of a full-time teacher librarian.

### Table 2. California Data Set of SLMPs Meeting Baseline Standards (CA1)

<table>
<thead>
<tr>
<th>Level of School</th>
<th>Total N</th>
<th>N Meeting Baseline Standard</th>
<th>% Meeting Baseline Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>3,250</td>
<td>13</td>
<td>0.4</td>
</tr>
<tr>
<td>Middle School</td>
<td>841</td>
<td>69</td>
<td>8.2</td>
</tr>
<tr>
<td>High School</td>
<td>595</td>
<td>267</td>
<td>44.9</td>
</tr>
<tr>
<td>Combination</td>
<td>83</td>
<td>3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

A follow-up logistic regression analysis revealed more nuanced differences. For the SLJ data set, the only factors that were significantly different from those libraries that did not meet the baseline standards were having two or more databases, instruction on Internet use, and flexible scheduling (see Table 3).
Table 3. National-Based Logistic Regression Analysis of Significant Variables Differentiating SLJ1 and SLJ0

<table>
<thead>
<tr>
<th>National Variable</th>
<th>B</th>
<th>S.E.</th>
<th>WALD</th>
<th>df</th>
<th>SIG.</th>
<th>EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2+ Databases</td>
<td>.108</td>
<td>.052</td>
<td>4.403</td>
<td>1</td>
<td>.036</td>
<td>1.115</td>
</tr>
<tr>
<td>Internet instruction</td>
<td>.634</td>
<td>.270</td>
<td>5.516</td>
<td>1</td>
<td>.019</td>
<td>1.885</td>
</tr>
<tr>
<td>Flexible scheduling</td>
<td>.963</td>
<td>.189</td>
<td>26.016</td>
<td>1</td>
<td>.000</td>
<td>2.620</td>
</tr>
</tbody>
</table>

(B = coefficient; S.E. = standard error; Wald = test statistics; df = degrees of freedom; Sig. = significance; Exp(B) = odds ratio)

In contrast, for the California data set, not only were those factors significantly different, but the following additional factors were also significant: having a library website/web portal, information literacy instruction, and planning with teachers. In sum, “baseline” standard school libraries were significantly different from those libraries that did not meet the baseline standards (see Table 4).

Table 4. California Logistic Regression Analysis of Significant Variables Differentiating CA1 and CA0

<table>
<thead>
<tr>
<th>California Variable</th>
<th>B</th>
<th>S.E.</th>
<th>WALD</th>
<th>df</th>
<th>SIG.</th>
<th>EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2+ Databases</td>
<td>.957</td>
<td>.157</td>
<td>37.133</td>
<td>1</td>
<td>.000</td>
<td>2.603</td>
</tr>
<tr>
<td>Internet instruction</td>
<td>1.666</td>
<td>.283</td>
<td>34.612</td>
<td>1</td>
<td>.000</td>
<td>5.292</td>
</tr>
<tr>
<td>Flexible scheduling</td>
<td>.195</td>
<td>.096</td>
<td>4.090</td>
<td>1</td>
<td>.043</td>
<td>1.215</td>
</tr>
<tr>
<td>Information literacy instruction</td>
<td>.632</td>
<td>.157</td>
<td>16.145</td>
<td>1</td>
<td>.000</td>
<td>1.881</td>
</tr>
<tr>
<td>Library web portal</td>
<td>.404</td>
<td>.185</td>
<td>4.776</td>
<td>1</td>
<td>.029</td>
<td>1.497</td>
</tr>
<tr>
<td>Planning with teachers</td>
<td>.757</td>
<td>.143</td>
<td>27.900</td>
<td>1</td>
<td>.000</td>
<td>2.132</td>
</tr>
</tbody>
</table>

Taking the average figure for the variables in data sets CA1 and SLJ1, we generated the following resource standards. When figures were significantly different relative to grade level, each set of figures was noted. When a discrepancy occurred between the two sets, both set of figures were noted. Figures were rounded to two significant figures for ease of reporting. The variables and figures were also validated by several research studies and the 2008 AASL survey of SLMPs (see Table 5).

Table 5. Resource Standards for California SLMPs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Elementary</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Current print collection (2/3 newer than 1995)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>2. Base collection size (in volumes)</td>
<td>13,000</td>
<td>15,000</td>
<td>20,000</td>
</tr>
<tr>
<td>3. Book collection ratio to number of students</td>
<td>20</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>4. Number of books to add each year</td>
<td>1/student</td>
<td>1/student</td>
<td>0.5/student</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>5. Yearly book budget</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>6. Yearly nonbook budget (including databases)</td>
<td>$4,000</td>
<td>$4,000</td>
<td>$4,000</td>
</tr>
<tr>
<td>7. Print periodicals budget</td>
<td>$500</td>
<td>$500</td>
<td>$500</td>
</tr>
<tr>
<td>8. Total collection budget per student</td>
<td>$13/student</td>
<td>$8.50/student</td>
<td>$4.50/student</td>
</tr>
</tbody>
</table>

Bases for figures and notes for table 5:
1. AASL 2008; Achterman 2008; California 2008; Scholastic 2008; Shontz and Farmer 2009.
3. AASL 2008; California 2008; Shontz and Farmer 2009.
5. California 2008; note that on the national level the baseline amount was $8,000 (AASL 2008; Scholastic 2008; Shontz and Farmer 2009).9
6. California 2008; note that on the national level all grades would be $4,000 (AASL 2008; Shontz and Farmer 2009).

## Discussion

The California and national data sets confirmed the findings of dozens of studies correlating school library variables and student academic achievement.

### Base Standards

The two linked base standard variables most likely to be absent were staffing: having both a full-time teacher librarian and a librarian paraprofessional. In general, about three-quarters of California high school libraries have teacher librarians; national and state percentages of school libraries that met base standards were about the same: 44. That percentage of teacher librarians drops to about half in middle schools and 17 percent in elementary settings. Therefore it is no surprise that less than 0.5 percent of California elementary school libraries met all the base standards as opposed to almost 15 percent of counterparts nationwide. That situation also differentiates California and national school libraries at the middle school level; less than 10 percent statewide versus almost 30 percent nationwide. Indeed, the California teacher-librarian-to-student ratio is the lowest in the nation, largely due to lack of professional staff at lower levels. Furthermore, teacher librarians are less likely to have a paraprofessional librarian on staff in California.

Almost every school library in the national data set had an integrated library management system and adequate facility. Statewide licenses enabled most school libraries to have subscription databases; California is one of the few states not to have such agreements (Fuller 2006). Concurrently, most libraries had computers, at least for the staff. Internet-connected computers and student access to online information were also the norm nationwide, although less likely in elementary than in middle and high schools. Similarly, California SLMPs were less likely to have library web portals than the general population nationwide.
Because several of the base standards were consistently present in the nationwide sample, the differentiation between those that did or did not meet the standard for both state and national data sets—at all school levels—dealt with access (flexible) and instruction. This finding held, regardless of the school enrollment. With more resources, more instruction existed for students to know how to use those resources. Having more resources could also imply that more management was required, thus the need for qualified and trained professionals.

California libraries were more uneven in terms of the presence of base standard variables, so more differentiated factors emerged when comparing CA1 and CA0 item by item. Some California schools have a limited web presence along with no online subscription databases, so their school library would be less likely to have a website or portal. According to the California Education Code, technology specialists are not required at each school either, so webpage development also can be affected. A few years ago, a state “digital high school” initiative assisted schools in cabling, but that project did not extend fully to middle schools and did not touch elementary sites. Along with library staff possibly not having web design training, it is not surprising that library portals would be a differentiating variable. A greater proportion (usually elementary) had only fixed scheduling. This situation sometimes arose because the teacher librarian was the supervising teacher when the regular classroom teacher had a preparation period (such as Long Beach Unified School District’s union contract). The same situation also could explain why teacher librarians were less able to plan with classroom teachers: little common time existed to plan together. Because California library funding is usually site- or district-determined rather than state-mandated, library budgets also varied significantly between CA1 and CA0. According to follow-up anecdotal evidence, some teacher librarians were wary of thorough weeding of materials, fearing that the shelves would look barren, so older books remain, making the collection less current.

Quantitative Resource Standards
Other school library variables represented a range of values (e.g., periodical budget) rather the existence of a variable or lack thereof (e.g., library web portal). Thus, to generate valid quantitative figures that would represent base standards, we used the average figure of SLJ1 and CA1 data points. These figures were triangulated with data generated by the 2008 AASL survey of SLMPs. Each variable was handled independently, although correlations between variables did exist. However, we made the assumption that if half of the sample had the variable, it was a reasonable expectation. Nevertheless, a cumulative effect did exist. The standards were meant to be achievable, yet even with average figures, no elementary SLMP, and only six middle and twelve high California SLMPs met both base and resource standards. A preliminary investigation found that all but one of the SLMPs that met both base and resource standards were either in the top 20 percent or performed more highly than demographically-comparative schools based on the state’s Academic Performance Index.

In determining the currency of the collection, several percentages and cut-off dates were tried. A 50 percent mark at 1995 (fifteen years ago) worked well. This figure applied at all school levels because different types of books differ in shelf life. For example, picture books and adult literature “canon” may be old but still worthwhile. On the other hand, science and travel usually need to be up-to-the-minute. It should be noted, however, that the average copyright date for elementary books in California SLMPs was 1998, 1995 for middle schools, and 1993 for high schools. This difference might be accounted for by the degree of physical handling of books at each age.
In terms of collection size, elementary SLMPs had the fewest number of volumes, and high school SLMPs had the greatest number. However, when the book-collection-to-student ratio was calculated, the reverse was the result, with elementary SLMPs having 20 books per student, as opposed to 18 books per student at the middle school level and 12 books per students at the high school level. These figures show that elementary schools have the lowest enrollment, and that children’s books are usually shorter, so more are needed per child.

For that same reason, elementary and middle SLMPs should add one book per child while senior SLMPs should add a half book per student. Senior high schoolers are apt to borrow fewer school library books (Bauerlein 2010). At the same time, they are more likely than younger students to conduct research using online databases. To pay for that growth, $8,000 would be needed at all school levels, according to national book collection average expenditures. In California, the average book budget for CA1 SLMPs was about $5,000 at the high school level, and usually ranged between $3,000 and $5,000 at the other levels. While adult titles tend to cost more than youth books (Publishers Weekly 2009), if more books are being added to the collection of elementary and middle schools, the total book budget would likely end up about the same at all levels. Furthermore, since the cost of books is about the same throughout the United States, California book budgets should rise to national levels: $8,000.

We divided the budget for periodicals into print and nonprint. The average spent for print periodicals at all levels was $500. This figure represents a decrease in print subscriptions over the years as more periodicals have gone digital or have been accessed electronically (Publishers Weekly 2009).

The average budget in California for total nonbook materials was $2,000 for elementary SLMPs. Middle and senior high SLMPs spent $4,000, of which about half was for online subscription databases. As was mentioned above, 90 percent of states have statewide licenses for such databases. Because elementary SLMPs in California seldom had such subscriptions, they would need to add $2,000 to their periodical budget as part of their total collection expenses. With this adjustment, the nonbook budget figures for all levels would be the same: $4,000, which is the national average at all levels. Interestingly, no significant correlation was found between (1) the collection size and the number of databases subscribed to or (2) the number of books and nonbook items.

Taking into consideration all material formats, a realistic total materials budget per annum for California SLMPs would be $10,000 (taking into consideration rising cost of materials since 2007–8). The 2007–8 figures showed much lower budgets for elementary, but part of that difference can be linked to the lack of online database subscriptions. The national budget average in 2007–8 was consistently $8,000 at all levels, regardless if the SLMP met baseline standards; this figure does not include the cost of online database subscriptions, which California SLMPs would need to add. Indeed, no significant correlation existed between total materials budget and meeting baseline standard; this finding was probably because of the perception that the school library is a place for resources, regardless if other services exist.

When calculating the budget in terms of cost per student, the resultant figure is highest for elementary SLMPs and lowest for high school SLMPs, largely because of enrollment averages at each level. A base number of materials are needed, regardless of the number of students in the
school. As with the total materials budget, the national per-student budget was the same regardless of whether the SLMP met baseline standards. Nevertheless, compared with national figures, California’s per student materials budget has a much greater discrepancy between elementary and high school levels. One reason for that difference might be parent donations and book fairs, which are more prevalent at the elementary level, and were not calculated in the SLJ budget figures.

Conclusions
The study’s research questions led to the following conclusions:

Do SLMPs that meet baseline variable standards differ significantly from SLMPs that do not meet those standards?
Yes, at both the national and state level, SLMPs that meet baseline standards differ significantly from those that do not. A little less than half of national and state high school libraries met the baseline standard for all of the identified variables. A little more than a quarter of the nation’s middle school libraries and about a twelfth of California’s middle school libraries met the standard. Only fifteen percent of national, and less that a half percent of California, school libraries met the standard. The one factor that singled out the groups was the presence of a full-time teacher librarian. There appears to be a perception that teacher librarians are more important at higher grades, a hypothesis that could be further studied.

What are the service and quantitative resource standards that significantly differentiate those SLMPs that meet the baseline variable standards?
A regression analysis found that a cluster of variables differentiated those SLMPs meeting all of the baseline standards from those that did not:
- National level: having at least two subscription databases, Internet instruction, flexible scheduling
- California level: number of subscription databases, Internet instruction, flexible scheduling, library web portal, information literacy instruction, planning with teachers, book and nonbook budget size, currency of collection, having a library website/web portal, information literacy instruction, and planning with teachers.

Are California SLMPs significantly different from SLMPs nationally?
Yes, California SLMPs tend to lag behind SLMPs nationally, as noted above. The simple answer is that high-quality and low-quality SLMPs exist at both state and national level, but a lower percentage of California SLMPs in comparison with SLMPs nationally have the services and resources that mark effective programs, particularly at elementary and middle schools. These differences cannot be accounted for by demographics.

California state has a long way to go to insure that its school libraries provide the conditions needed to enable students can succeed academically. However, this study has already contributed to the efforts of the California State Department of Education and state teacher librarians to establish library standards to be approved by state legislators. Even though the final figures varied a little in the final draft, most recommendations from the study were accepted by the drafters of the state library standards. It should be noted that one legislator wanted the book–student ratio to be 28:1 to give schools a high target to aim for; this figure was accepted for the
state standards draft. The standards drafters also wanted two-thirds of any SLMP collection be to current (i.e., since 1995). With those two stipulations, only one California school library, a reputable middle school site in a well-to-do county, met all of the base standards and adjusted quantitative values.

The strength of the study was its basis on actual library practice, both at the state and national level. Determining the independent variables via a thorough literature review, the study found a significant difference in resources and services of SLMPs that met the baseline standards and those that did not. The study also revealed that the baseline standards clearly differentiated achieving California SLMPs. Nevertheless, the national and state data sets were enough alike that California could be fairly compared with other states and held to national SLMP practices.

A couple of other useful statistics would further strengthen the study’s implications. More in-depth statistical analysis could determine whether a significant difference exists between CA1 and CA0 data sets relative to the California Academic Performance Index. Calculating the library budget as a percentage of a school’s total school budget, relative to CA1 and CA0, could also reveal significant differences. The study also could be extended to newer data and compared with AASL data sets.

In any case, teacher librarians should base library program standards on best-practice, empirically based statistics, and use these data to examine their validity in light of student academic achievement.

**Works Cited**


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