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The Impact of High School Library Staffing on College Success

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Abstract

Numerous studies establish a relationship between the presence of a school librarian in K–12 schools with increases in reading and information literacy skills (Lance & Kachel, 2018; Lance & Maniotes, 2020; Library Research Service, 2013). A school librarian is a teacher who is credentialed specifically to teach library and information science and to manage the school library. The evidence that those improvements translate to success in college is less established. Farmer and Phamle (2021) found a correlation between the presence of at least a half-time school librarian in high school and students' grade point averages (GPA) in their first year at the university. This study examines the impact of high school library staffing at any level on GPA, and also on college credits earned, which measures timely progress to a degree. We limited our data to first-time, first-year students at our university ages 21 and under, excluding students from out of state and from private schools. The independent variable of interest was the staffing at the student's high school library, including school librarians and other staff. Other control variables included eligibility for Pell Grants, the student's gender, whether the student's ethnic group has been traditionally underserved in higher education, and whether the student is the first generation in their family to attend college. Our analysis found that the presence of library staff in students' high school resulted in statistically significant improved GPA and number of credit hours earned in their first semester. This impact of any librarian or library staff is larger than the impact of ethnicity, gender, family income or family educational achievement on both GPA and credits earned in the first semester.

Introduction

In 2011 the California Department of Education (CDE) adopted the Model School Library Standards (MSLS) developed by the California Department of Education "to help students prepare for success in the hypercompetitive global economy that is powered by information and knowledge" (p. v). In 2018 the American Association of School Librarians (AASL), published the National School Library Standards for Learners, School Librarians, and School Libraries along with crosswalks for how those standards could be integrated with other national and content area standards, such as the Next Generation Science Standards, through collaboration between classroom teachers and school librarians. Presumably, adoption of these standards would prioritize and facilitate equity in access to information literacy instruction for all students from kindergarten through college in the United States. However, at the same time as these standards and frameworks were being developed and adopted, there was a decline in staffing and funding for school libraries (Lance & Kachel, 2021, p.5). Credentialed school librarians, the jobs of the only credentialed educators (referred to by the state of California as "teacher librarians") authorized to teach the MSLS, were eliminated in many school districts in California (California Commission on Teacher Credentialing, 2026).. This harsh reality was seen most dramatically in courtroom trials of school librarians in the Los Angeles Unified School District, the largest district in California, during which attorneys for the district attempted to prove that librarians did not teach and could therefore be dismissed despite contractual protections (Tobar, 2011). As a result, at the time of this writing, California is ranked last in school librarian-to-student ratio, lower than all other U.S. states and the District of Columbia (Kachel & Lance, 2024).

Despite these cuts, expectations for K–12 library education continue to grow. State legislation passed in 2023 and 2024 requires media literacy and AI (artificial intelligence) literacy be included in content area frameworks by incorporating the MSLS into frameworks when written or updated (California Legislature, 2023 a, 2023b, 2023c, 2024). However, most schools do not have a school librarian to teach to those standards (Kachel & Lance, 2024). According the 2022–23 CDE library evaluation survey, 373 schools reported having no library on campus, while 5,947 schools did not provide any survey data about their school libraries (California Department of Education, n.d.). Of those surveyed, 754 reported having credentialed library staff and 3,141 reported having classified library staff, with an overlap of 477 that reported having both (California Department of Education, n.d.). (In California "classified" workers in schools are support personnel without teaching or administrative certification, though they often work directly with students, depending on the job holder's classification.) These numbers indicate a majority of students in California do not have access to staffed school libraries—or any school library. This situation raises the important question of the impact of these cuts on the information literacy necessary for student success at college: Can any library staffing, even if school librarians are not funded, support student success at college?

Literature Review

The California State University's (CSU) Council of Library Deans' (COLD) resolution to develop information competency programs on all campuses signifies both the severity of the information literacy gap and the long history of this gap (Curzon, 1998). In the resolution, COLD

asserted information competency as "essential for academic success, for vocational success and for lifelong learning" (Curzon, 1998). In a report for a pilot class focused on information competency skills within this CSU program Dr. Elizabeth Coonrod Martínez (1999) noted that motivations for creating this pilot were the lack of information competency skills demonstrated in students' final papers and an awareness of a need to include development and reinforcement of information literacy skills after basics are introduced in the freshmen year. Since the resolution, CSUs have implemented various programs to fill the gaps in students' information competency skill set. According to CSU Northridge's Education Information Competence Courses page on the University Catalog's website (2025b), students must take "two IC [information competency] designated courses, one course in the Basic Skills section and one course in the Subject Explorations section." The objectives for students in these information competence classes include foundational information literacy skills such as identifying information needs, accessing and evaluating information effectively, and analyzing and using information accurately, legally, and ethically (California State University, Northridge, 2025b). Addressing information competency at the college level is important as colleges cannot ignore students' lack of knowledge they need. When students graduate from high school, their gaps in information literacy skills do not suddenly disappear.

This gap is not unique to this state university system and persists today. Studies in higher education raise concerns that students are arriving at colleges without needed information literacy skills (Boyer & Dziedzic-Elliott, 2023, Katz, 2007; Matthews, 2022; Varlejs et al., 2014).

The Educational Testing Service's (ETS) iSkills tests, developed to evaluate if these concerns were valid, have shown that, though students were increasingly tech savvy, they did not have the critical thinking skills and mindsets needed for college level research (Katz, 2007; Katz et al., 2008; Katz et al., 2018). However, at Purdue University researchers found that students over-estimated their information literacy skills in relation to the actual demands of college level research tasks (Somerville, 2008).

A finding from Northwestern University, based on interviews with undergraduate students, revealed that only a minority display strong information literacy skills in their access of news media and ability to consider bias (Matthews, 2022).

In a survey of first-year college students, students self-reported an information literacy gap between what they learned in high school when compared to what was expected in college (Valenza et al., 2022). Valenza et al. (2022) grouped students based on their either having experiences with school librarians or library materials (that is, students who have library experience) and those who have not had any library experience. Students without any library experience in high school reported an even greater gap than those with library experience in their ability to handle college level research tasks, leading the researchers to conclude "Information literacy experiences have been inequitably distributed among high school students" (Valenza et al., 2022). Boyer and Dziedzic-Elliott's subsequent analysis in 2023 of the qualitative data from the Valenza et al. 2022 surveys confirmed the gap in necessary information literacy skills of students making the transition from high school to college was greater for students who had no interactions with a high school librarian or library materials than for those who had such

interactions. (The Valenza et al. study grouped students into novices and non-novices respectively.)

School Libraries Linked to Student Achievement

The nature of school librarianship and libraries presents challenges for quantifying the role of the school librarian and library program in student achievement. School librarians are not tied to one class or one discipline, but serve the school holistically through program development, collection development, collaboration, and formal and informal instruction. It is hard to pinpoint exactly when and where the library and library staff affect student achievement and to quantify what it means, for example, when a school librarian or classified library staff member helps a student find the "just right" book or article between classes. Despite the obstacles to quantifying school librarians' impact, numerous studies spanning decades link the presence of school librarians to increases in student performance on reading and information literacy tests (Achterman, 2008; Lance & Kachel, 2018; Lance & Loertscher, 2005; Lance & Maniotes, 2020; Library Research Service, 2013; Scholastic Library Publishing, 2016; Sinclair-Tarr & Tarr, 2004).

Lance and Kachel (2018) examined studies from 26 states that compared student performance data from the National Center for Education Statistics (NCES), state tests, and state staffing information to demonstrate a correlation between student achievement and the presence of school librarians.

The Library Research Service (2013) compiled school library impact studies from twenty-two states, including Achterman's (2008) study of California school libraries. These impact studies showed a strong correlation between staffed school libraries and student achievement. Achterman found that the services provided by the library were dependent on staffing levels of both certificated and classified staff. Staffing levels created a positive correlation with student success based on standardized test performance. Additionally, Achterman's study highlighted the inequality of students' access to these resources for achievement because a minority of schools in California have fully staffed school libraries.

Sinclair-Tarr and Tarr (2004) grouped California schools with similar scores on the School Characteristics Index (SCI) (developed by the CDE) and found positive relationships between the presence of school libraries with any level of professional staffing – that is any staffing of school librarians and/or paraprofessional staff, either full-time or part-time, in any combination -- and student scores on the California Content Standards Test (CST) and the California Achievement Test, 6th Edition Survey (CAT-6) at the elementary and middle school levels. The researchers found no significant correlations at the high school level. When looking at library services offered that might account for this difference at the elementary level, the researchers found that library instruction that is integrated into curriculum had positive impact on student scores on the English Language Arts Content Standards Test (Sinclair-Tarr & Tarr, 2004).

Lance & Kachel (2018) similarly noticed that while the presence of a school librarian positively impacted overall test scores, specific types of engagement or programming—such as direct instruction of students, collaborative planning, professional development for colleagues, taking on leadership roles, being a leader in technology, and creating reading incentives— increased the

impact of school librarians. School librarians have been shown to make independent inquiry projects more feasible by collaborating with classroom teachers who would otherwise find the task of guiding students through independent research daunting and unwieldy (Lance & Maniotes, 2020). In their 2020 research Lance and Maniotes also studied how school librarians impact learning by grouping data into two categories relating to school librarians who taught inquiry sessions at least once a week and relating to those who do not. Those researchers found that school librarians who taught student-led inquiry lessons at least once a week were more likely to include a breadth of information literacy skills such as using a variety of sources, evaluating credibility of sources, using critical thinking and technology in research and reporting of findings, applying collaboration, and practicing ethical use of information. This exposure to regular library instruction "dramatically improves" students' access to instruction in information literacy skills (Lance & Maniotes, 2020, p. 49). This finding suggests that if differences in instructional frequency and depth are accounted for the impact of school librarians could be greater than studies show.

Access to High School Library as Predictor of College Readiness

Whether skills acquired through instruction from a school librarian translate to meeting the expectations for college research and learning is harder to track. Due to the lack of studies looking at the transition from high school to college, there is only tenuous evidence that information literacy learned in high school can carry over to college. Students in a specific high school's senior class do not move as a cohort to one college. This is one of the reasons that after they get to college it is difficult to track learners' performance and challenging to assess what exposure students had to information literacy instruction or library instruction in their high schools.

Oakleaf and Owen (2010) proposed replicating a study of syllabi, conducted in 2008 by VanScoy and Oakleaf at North Carolina State University, to identify the information literacy skills required for incoming college students for the purpose of creating strong information literacy instruction programs in both high school and college. They recognized that the work of school librarians and college librarians are interdependent and share common goals.

Other studies correlate high library usage in college to increased GPA (grade point average) and more successful progress towards degree completion, though that high library usage in college has not been linked directly to library instruction in high school (Crawford & Irving, 2007; Farmer & Phamle, 2021).

A qualitative study of first-year college students found that students reported gaps between what they learned in high school—particularly the critical thinking required by the research process and deeper understanding of the information tools needed—in contrast to what was expected of them in college (Boyer & Dziedzic-Elliott, 2023). However, it must be noted that the majority of the students who participated in Boyer and Dziedzic-Elliott's study had been recruited by vetted school librarians in New Jersey who had participated in the study's phase one survey of school librarians, which aimed to identify specific instructional design modifications that could address specific gaps. Nonetheless, Boyer and Dziedzic's 2023 study emphasized the underlying question of the impact of school librarians' role in information literacy preparedness, having

noted in their conclusions that "these data could represent encouraging news and acknowledge that K–12 librarians are making strides in IL [information literacy] instruction" (p. 9) even while a need remains. Those researchers divided the student respondents into novice and non-novice groups based on answers to a set of questions about their exposure to school librarians and information literacy instruction or tools. When rating confidence levels on specific skills, novices ranked their confidence lower in the areas of information management, critical thinking, and metacognition. Fewer than 50% of the novices ranked themselves as confident for tasks like "reading a database record and understanding its components," "forming a thesis or research question," and "asking for help," (Boyer & Dziedzic-Elliott, 2023, pp. 6–7). To give more context, the percentage of novices with confident ratings in these areas is 10% lower or more than 10% lower than non-novices.

The study most relevant to our research, conducted recently at another public California university, finds a highly significant correlation between the presence of at least a half-time school librarian in high school and students' GPA in their first year at the university (Farmer & Phamle, 2021). However, that study had a number of limitations. The statistical analysis pooled together all the students at the university from a given high school over the course of five years, and as such was not able to take into consideration a variety of individual students' lived experiences known to impact their degree progress, such as family income (Erwin et al., 2020). Moreover, from our perspective the dependent variable GPA is not the most relevant measure of student success, as described in the next section.

Methods

Thus, this study builds and expands in several ways on Farmer and Phamle's 2021 research on the impact of high school libraries: 1) use of a more inclusive measure of high school libraries, including any staffing, not just school librarians; 2) consideration of multiple, correlated lived student experiences known to affect outcomes (Erwin et al. 2020) along with learners' access to high school libraries; and 3) use of two different measures of student success, one in a similar previous study and one new.

Our first expansion was motived by our awareness of the continuous slide in school librarian staffing (Lance et al., 2023). Therefore, we examined the impact of not just school librarians but any school library staffing on subsequent student success.

To eliminate one of the limitations of the Farmer and Phamle 2021 study, our second expansion looked at more variables than did that study. For example, we looked at whether students were the first in their family to attend college and whether the students qualified for Pell grants, indicating a below-average family income.

Thirdly, we expanded the measure of student success, including not only GPA, which confirms prior findings (Farmer & Phamle, 2021), but also the number of course credits earned. We considered the fact that at all colleges and universities, graduation is achieved after a fixed number of credits have been earned (in a major and in total). A student who drops all their courses but one and earns an A in that single course will technically have a perfect 4.0 GPA but will have made very little progress to their degree. In contrast, a student who earns Bs in all

courses that add up to their semester standard 15 credits is well on their way to a degree. Earning more credits per semester makes students much more likely to graduate within six years of enrollment (Attewell & Monaghan, 2016; California State University Northridge University Office of Student Success Initiatives and Office of Institutional Research. (n.d.).).

Therefore, measuring the impact of high school libraries on both of these potential outcomes, GPA and credits earned, is a more valuable determination of the importance of library access in high school and library staffing. Therefore, we designed the study to answer these questions:

- What difference, if any, is there in the **grade point average** of first semester college students who attended a high school with library staffing compared to students who attended a high school without any library staffing?

- What difference, if any, is there in the **number of course credit**s earned by first semester college students who attended a high school with library staffing compared to students who attended a high school without any library staffing?

Participants

Our population for this study was all 4,778 first-time, first-year students at California State University, Northridge (CSUN), entering in fall 2022. The CSUN Office of Institutional Research provided data on each individual student. We looked only at students under the age of 21, as we assumed that after 21, students' experiences would have attenuated the impact of their school library. We were able to gather data only about school libraries for graduates of California high schools, so international students and out-of-state students were not included in the study. However, international and out-of-state students were only 6% of CSUN's first-time, first-year class of 2022. Finally, only students who attended public high schools were included as data were unavailable on both library staffing, our key independent variable, and free lunch eligibility from private high schools, one of our control variables. Accounting for the ability to collect data on all variables (see below), a total of 3,036 students were included in the analysis.

Variables and Sources of Data

The statistical methodology was multivariate, including not only the important independent variable of the research questions, but also five other control variables. These variables are not central to the research questions but could possibly be alternative causes for the outcomes of interest. Accounting for them in the statistical analysis, particularly when they correlated with the independent variable of interest, allowed for the measurement of the specific impact of the independent variable of interest (in this study, high school library staffing) when the control variables are held constant (Brannick, 2018).

Including free lunch eligibility data was important to determine if library staffing could simply be a proxy for the overall resource level of the school. Prior research demonstrated that the larger the percentage of students who qualify for free school lunches, the less likely the school is to have a library (Klein, 2023; Lance et al, 2023). Our data came from the California Department of Education Free or Reduced Price (Student Poverty) data (2022), for the 2021–2022 year, to

capture the high school senior year of the students in this study. By including the percentage of students at a high school eligible for free lunch, we hoped to isolate the impact of library staffing distinct from the overall wealth or poverty of the student body.

Other control variables included other factors in students' lives known to impact timeliness of completion of degrees. These include gender, eligibility for Pell grants, identification as an ethnicity that has been traditionally underserved, and first-generation college student status. The importance of these variables is clear in both broad scholarly literature and data gathered by the Graduation Initiative 2025 of the entire statewide CSU system (California State University, 2025). For students who entered as first-years in 2018, CSU provides data on what percentage successfully graduated within six years. The data were reported based on these important factors. (At the time of our study, 2018 was the most recent year for which this data set was available). Pell grant eligibility provides information about the students' socioeconomic status since eligibility is based on income level. Students who come from low-income families are consistently less likely to graduate on time (Erwin et al., 2020) The majority of CSUN's student body qualify for Pell grants. Fifty-six percent of low-income students eligible for Pell Grants successfully graduated from the CSU system within six years, while 68% of students who came from higher-income families met that goal (California State University 2025).

We looked at whether the student was from a traditionally underserved racial or ethnic group—Black, Latine, or Native American students—for whom legacies of and ongoing systematic racism and bias can pose additional obstacles for students' progress (Causey et al., 2020; Erwin & Thomsen, 2021). Here at CSUN, this is a majority of our students: for this class, 67% were Latine, 7% were Black, and less than 0.01% were Native American. Fifty-six percent of students of under-represented minority ethnicities (Black, Latine, or Native American) successfully graduated within six years, while 69% of students who came from historically better served backgrounds (mostly White or Asian American) met that goal (California State University 2025). Additionally, the majority of students at CSUN are the first generation in their family to attend college, a circumstance that can prove a challenge for students in navigating the expectations and logistics of college. Nationwide, only 24% of first-generation students earn a bachelor's degree within six years, while 59% of continuing-generation students graduate in that timeframe (RTI International, 2024). Fifty-seven percent of first-generation college students successfully graduated at this campus within six years, while 71% of students with parents who attended college met that goal (California State University 2025).

Typically, male students struggle a little more in their transition to college. Nationwide, 57% of men earn a bachelor's degree within six years of entering college, while 64% of women succeed in that timeframe (Integrated Postsecondary Data Education System, 2025). In our university system, the gender difference is nearly identical; 58% of male college students successfully graduated within six years, while 65% of female students met that goal (CSU 2025). These CSU system-wide rates are largely consistent with national gaps as concerns to factor into analysis of other important variables.

The most important data is our measure of school library staffing. We used data from the California Department of Education's (CDE) 2021–2022 School Library Survey, a survey schools are required to complete each year. We obtained the data via email from the CDE. A

school librarian, school library staff member, or school or district administrator usually completes the survey. Because many schools do not complete the survey even though, in theory, completion is required, we had to obtain data independently for schools without a completed survey. We isolated schools representing a statistically significant number of students for which we were missing data. We called and emailed principals to fill in the missing data points as we could.

We initially recorded staffing information for each school as a percentage of FTE (i.e., 1= FTE, .5 = half FTE, 0 = no staffing). For the students for whom we could gather data, the average was approximately 26 hours per week of a school librarian plus 18 hours per week of a classified staff member working in high school libraries. For the variable of analysis, we looked at whether a school library had any staffing by a credentialed school librarian, a non-librarian staff member assigned to the library, or a combination of both, either part time or full time. The intent was to measure whether students had any supported access to a school library at all. After collecting data from as many high schools as possible, we were left with 3,036 students in the study.

Data Analysis

For each dependent variable, we first conducted a simple t-test to compare the group of students who had any library staffing, whether part-time or full time, librarian or other staff, versus those who had no library staffing of any kind at all. This is the simplest possible way to show the impact of library staffing on GPA and on credits earned.

Then, to account for the other factors which might also impact GPA and earned credits, we conducted a Tobit regression (Breen, 1996). This is appropriate statistical method because our data was constrained. Neither dependent variable could go below zero; there is no such thing as a negative GPA or negative number of credits earned. Also, each variable is limited at its maximum. A perfect grade point average is 4.0 at CSU and cannot be higher, and the maximum number of credits a first-year student can have (from high school Advanced Placement or other sources) after their first semester is capped at 29 or else they would be considered a sophomore (California State University, Northridge, n.d.-b). These upper and lower limits violate the underlying assumptions of basic ordinary least squares regression, and instead call for a different statistical method: Tobit (Smithson & Shou, 2020). Because of the limitations of the dependent variables, reports of Tobit regression (see Tables 1 and 2) include the independent and control variables with coefficients, standard errors of those coefficients (SE), and p values. Fortunately, we could interpret this the same way we would interpret an ordinary least squares regression (Smithson & Shou, 2020).

Findings

Most students did have some library staffing of some kind at their high schools; only 16% had no library staffing at all.

According to the t-test, students who had at least some library staffing at their California public high schools (M=2.65, SD=1.17) had significantly higher grade point averages, t(3,034) = 7.75,

p< .001, than did students who attended California public high schools with no library staffing at all (M=2.16, SD=1.30). In other words, students who attended a high school with no library staffing had a C average, and students who attended a high school with any library staffing had a C+ average, and the odds are less than 0.1% that this difference is due to random chance. Table 1 below shows the results of the Tobit analysis that considers the impact of library staffing on grade point average.

Table 1:
Impact of School Library Staffing on GPA

Variable	Coefficient (standard error)
Intercept	3.08*** (.098)
Traditionally underserved ethnicity	-0.253*** (.061)
Pell Eligible	-0.231*** (.053)
First Generation	-0.189** (.061)
Female	0.184*** (.045)
Percentage of Students at High School Eligible for Free Lunch	-.007*** (.001)
Any Library Staffing at High School	**0.308*** (.066)**

n=3036
**p<.005
***p<.001

We can see from the coefficient that the GPA increase from having no library staff at all to having any full or part time library teacher or staff member is worth about a 0.3 increase in GPA on the 4.0 scale. This is a bigger impact than the coefficients that show the difference between men and women, bigger than the difference between students from traditionally underserved ethnic groups and students from historically better served groups, and bigger than the difference between low-income Pell-eligible students and their higher-income classmates. Moreover, it is highly statistically significant.

Next, we looked at credit hours earned. Normatively, CSUN expects 15 credits to be earned each semester to graduate in four years. According to the t-test, students who had any library staffing at their California public high schools earned significantly more credit hours (M=11.65, SD=4.35) in their first semester, t(3,034) = 7.16, p< .001, than students who attended California public high schools with no library staffing (M=9.89, SD=5.09). In other words, students who attended high schools with no library support typically earned fewer than 10 credits in their first semester, while their classmates who attended a high school with at least some school librarian or library staff earned an average of just over eleven and a half. The odds are less than 0.1% that this difference is due to random chance.

Table 2 below shows the Tobit analysis for the dependent variable credit hours earned.

Table 2
Impact of School Library Staffing on Credit Hours Earned

Variable	Coefficient (standard error)
Intercept	12.932*** (.367)
Traditionally underserved ethnicity	-0.795*** (.230)
Pell Eligible	-0.731*** (.199)
First Generation	-0.628** (.231)
Female	0.505** (.169)
Percentage of Students at High School Eligible for Free Lunch	-.022*** (.004)
Any Library Staffing at High School	**1.164*** (.247)**

n=3036
**p<.010
***p<.001

We can see from the coefficient that the increase from having no library staff at all to having any full or part time school librarian or library staff member is worth about one additional credit out of the goal of fifteen. This is a bigger impact than the difference between men and women,

bigger than the difference between students from traditionally underserved ethnic groups and students from historically better served groups, and bigger than the difference between low-income Pell-eligible students and their higher-income classmates. Moreover, it is highly statistically significant.

In summary, the findings show that:

- Students who had any library staffing at their high school have a higher average GPA in their first semester of college than those with no library staffing at their high school, demonstrated both by a *t*-test and a Tobit analysis.
- Students who had any library staffing at their high school earn more course credits in their first semester of college than those with no library staffing at their high school, demonstrated both by a *t*-test and a Tobit analysis.
- The coefficient size of both these differences is bigger than that for gender differences, and between Pell-eligible students and our higher-income students, both which are considered significant concerns about how students' lived experiences determine academic success in college.
- Our findings reinforce the Farmer and Phamle (2021) study findings in showing a positive correlation between high school library staffing and student GPA, though not limited to school librarians only. We also extended this to find a positive relationship between high school library staffing and credits earned in the first semester.

Limitations

This study has several limitations. For a number of high schools the CDE has no data on library staffing. We did not attempt to fill in data for out-of-state or international students or students who attended private high schools. If they vary in a way from the students included in the study, that variance could bias the results. Thus, we are speaking only about students who attended California public high schools, which is a significant limitation. However, public education is also the area in which we, other educators, and parents can have the most influence by exerting pressure on makers of public policy.

Another limitation to be considered is CSUN's commitment to information competency. When students' enter CSUN, their current level of information competency is not directly measured. CSUN works to provide students with a variety of supports to bolster their information competency and to fill gaps in students' information literacy skills and knowledge. These supports include university library outreach and a new one-credit library course (California State University, Northridge, 2025a). Additionally, university librarians collaborate with University 100 classes, first-year freshmen classes designed for students to "learn and practice the skills necessary for success in college, life, and their career" (California State University, Northridge, n.d-a, para. 1). Faculty development offers many opportunities for professional development to support our diverse student body in transitioning to university, such as making syllabi and

assignments more transparent for first-generation students by making expectations more explicit, eliminating jargon from instructions, and not relying on assumptions that all student have equal access to information literacy instruction or experience with library research. Since the study was based only on existing data about student GPA and credits earned, it is possible there is a larger gap that is filled through these CSUN services for first-year students.

We also do not know if students who come from schools without librarians or other library staff are, due to other factors in their records, targeted for enrollment in these programs or courses like the first-year experience University 100, which might compensate for pre-existing gaps in information competency and literacy.

Also, the study does not account for varying levels of family-supported early literacy learners bring to their public school and for library instruction in early grades (K–8).

Discussion

As university administrators, professors, and librarians work to address new media and information literacy needs and address gaps, or perceived gaps, in incoming first-year students' information literacy skills, understanding all factors that might impact information literacy acquisition is important. Experience with and access to school libraries and the impact of that experience on student achievement in college has not been subject to many studies, though those that do exist establish a relationship between the two. As referenced in our literature review, many studies link improved scores on standardized tests in K–12 schools with school librarians. Our study found that any type of high school library staffing positively impacts the GPA and credits earned by students in their first semester at the university studied here.

The impact of school library staffing on GPA and credits earned is greater than the impact of gender, coming from a family with a higher socioeconomic status (beyond Pell-grant eligible), and not being the first generation in your family to attend college. When addressing issues of literacy and college preparedness, these lived experiences (gender, socioeconomic level, and education levels of a student's household) are common factors used to identify students for possible intervention (Causey et al., 2020; Erwin et al., 2020; Erwin & Thomsen, 2021). Our finding indicates that the staffing of the school library should also be highly considered when reaching out to students who might need extra support in transitioning to college and when considering how to improve freshmen GPA and credits earned.

As previous studies indicated (Boyer & Dziedzic-Elliott 2023; Valenza et al. 2022), the lack of high school library staff means students graduate not only with information literacy gaps, but also with limited confidence in the skills they do have—and that lack of confidence is another motive for outreach. Unlike gender or education levels of households, school staffing is something that communities, school administrators, and legislators can change through legislation, allocation of funding, and staffing to create equity for students in preparing them for college, careers, and civic participation.

The relationship between high school libraries and student achievement after high school is complex. Our findings could not definitively identify a precise number of hours or type of staff

at which school library staffing has a positive impact on student GPA and credits earned in college. Neither our study or Farmer and Phamle's 2021 study attempted to investigate if the presence of staffing of the school library is reflective of a school culture that is better at promoting and supporting college-readiness. Such a culture may, in turn, be a factor in the positive relationship between student GPA and school library staffing. If it is, school library staffing may be a proxy for a schoolwide culture of literacy and achievement that boosts students' performance after high school.

We believe that it is also important to challenge the perception that gaps in information literacy skills are necessarily a deficit rather than a natural part of learning in the transition from high school to colleges—a part of learning that can be addressed by colleges. Several studies challenge traditional negative depictions by focusing on students' strengths rather than their lack of experience with college research. In a systematic review of studies of the information literacy skills of first-year undergraduate students, Pashkova-Balkenhol et al. concluded that most studies characterize students' research skills negatively. They attributed this negativity to "the field's reliance on assessments that focus on conventions of the academic research and ignore learning strategies the students may have developed in other context" (2019, pp. 105–106). Shifting to an asset model when looking at first-year college students' information literacy skills would also help academic librarians and faculty recognize the "disconnect" between expectations in college versus high school and to recognize that these students are "already on a continuum of life-long information literacy" (Kocevar-Weidinger et al., 2019, pp. 172, 190).

Boyer and Dziedzic-Elliott's 2023 article indirectly questions if the challenges students report are more about the next level of growth as information users. For example, non-novices reported feeling appropriately challenged in college when they are asked to delve deeper into scholarship and research (Boyer and Dziedzic-Elliott, 2023; Valenza et al., 2022). Thus, another way to consider our findings in this study, and possibilities for future research, is to recognize how any type of library staffing in high school may contribute to students' preparation in information literacy to support engagement and success in their first semester in college.

Applications for Policy and Education

The findings of this study may be used in advocacy and accountability for school library staffing and more equitable school library access. Based on our findings, school library staffing should be a significant factor when considering how to improve information literacy in high schools. School library staffing is a variable that can be controlled through administrative decisions in schools and districts, and legislative decisions by state and federal governments. In contrast, other control variables, such as family education level and income levels, that often impact students' ease in transitioning to college, are beyond control through administrative or legislative actions. Legislators and policymakers should consider the presence and support for school libraries, including staffing, when making decisions and writing bills about literacy and curricular content such as media literacy, AI literacy, and information literacy in support of civic participation, work-readiness, and college-readiness.

In higher education, administrators, counselors, librarians, and faculty should consider students' access to staffed high school libraries when designing services, programs, and instruction for

first-year students. Universities could require library visits or introductory sessions for all freshmen courses, especially if the majority of their feeder schools do not have staffed libraries. Counselors could include discussion about students' previous library and research experience when advising. They could create course recommendations and service recommendations tailored for students who do not have experience with school libraries. This consideration might also prompt more intentional collaboration to fill information literacy gaps. This could be between faculty members and library staff and between library staff and campus writing and tutoring centers. If available on the campus, counselors might also recommend credit-bearing library courses focused on information literacy.

Awareness of the lack of library staffing for some students could also encourage faculty to include online library modules and/or library instruction sessions for freshmen classes. This awareness is also valuable to inform instruction for academic librarians, designing sessions that do not assume a particular level of library experience, and that acknowledge informal information literacy learning students may bring with them (Kocevar-Weidinger et al., 2019). This study could encourage academic librarians to learn more about high school library staffing and programs in their feeder schools to improve the transition to college. Expections that are more realist based on students' experiences in high school could inform college library programs and instruction. Outreach librarians might design programming for students who do not have school library experiences, overcoming an impression of the library as an unfamiliar, intimidating place to visit and leaving those students with a clear understanding of the relevance of the library to their coursework.

Recommendations for Further Research

Other researchers who would like to do similar studies for their students might also include the additional dependent variable of retention in college to see if there is any correlation between high school library staffing or high school library experiences and students' likelihood of returning for the sophomore year, transferring to another college or university, or dropping out. Such a study might also continue to track credits earned and GPA into a second year. Retention is the first step to timely graduation, measured as being within 4 to 6 years. If that measure could be enhanced by the presence of school librarians in high schools who can accustom students to reaching out to a wider range of faculty for support, and that retention could be shown to be enhanced, that finding could have a great impact on policies and practices for supporting school libraries in high schools.

Further research could also investigate why there is a positive correlation between high school library staffing, and GPA and credits earned in the first semester of college. One approach might be to examine what school librarians are doing on their own campuses through surveys, interviews, and/or observations.

Another approach might be a long-term study that assesses students' information literacy skills upon entering high school and upon entering college from schools with and without school library staff.

Also, it would be beneficial to all working in school library research to see the results of a study that investigates whether a correlation exists between the presence of school library staff on a high school campus and a larger culture of literacy and scholarship that provides students with skills and confidence that support successful transitions from high school to college.

Conclusions

The presence of school library staffing has been shown to significantly improve students' GPA and credits earned in their first year. In California, which is last in the nation in school librarian to student ratio, it is important to know that school library staffing has a measurable impact on students' success in college. In conjunction with other studies—though there are not many—about how students continue to develop information literacy skills from high school to college, we hope these findings shift the conversations in California education–and elsewhere– to supporting fully staffed school libraries. These discussions could include support for information literacy plans that include collaboration with school libraries, investment in school libraries through staffing and funding, and more realistic expectations for college freshmen based on new understanding of incoming first-year students' school library experiences.

By establishing a correlation between school library staffing and first-year college freshmen performance, this study also provides a basis for further study about the impact of school library staff and school libraries on students' success in work and college after high school.

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