

**Lesley Farmer**

California State University

[Lesley.Farmer@csulb.edu](mailto:Lesley.Farmer@csulb.edu)

**Librarians: Bridges to College Readiness**

**Abstract**

Teacher librarians often have to show their value in order to continue to provide their services, so being able to demonstrate how they help prepare students to be college-ready would reinforce the importance of professionally-led school libraries. This situation led to the research question: what relationship exists between the presence of a high school teacher librarian and freshmen college students' academic success? To answer this question, this study examined five years of a large comprehensive university's freshmen data about their course load, their first semester GPA, and characteristics of the high school from which they graduated. Findings revealed the impact of the high school librarian and students' economic status.

**Keywords:** high school, teacher librarian, college freshmen, impact study, college readiness

**Introduction**

As a high school librarian, I wanted to make sure that all graduating students would be information literate. To that end, I collaborated with the school's faculty to ascertain students' existing information literacy skills and opportunities to practice them. Then the entire faculty developed and approved a curriculum mapping of information literacy skills to ensure that students would get information literacy training in various academic domains and would be able to demonstrate their competence. In the process of doing this research, I wanted to determine the baseline information literacy level of incoming freshmen, so I contacted the feeder school library workers to find out what information literacy skills students were expected and were taught. Two of the five feeder schools have full-time librarians, who had higher information literacy standards. Knowing the situation, my school retrieved the first semester grades of the freshmen and matched them to the relevant feeder school. Findings indicated that students who graduated from the middle schools with librarians averaged a full grade point average (GPA) than students from schools without a teacher librarian.

Now as a professor coordinating the teacher librarian program, I wanted to know if the same findings applied to incoming college freshmen. Especially as teacher librarians often have to show their value in order to continue to provide their services, being able to demonstrate how

---

they help prepare students to be college-ready would reinforce the importance of professionally-led school libraries.

### **Statement of the Research Problem**

From these experiences and expectations, the research question emerged: what relationship exists between the presence of a high school teacher librarian and freshmen college students' academic success, specifically in terms of their first semester grade point average (GPA)?

The study also wanted to take into account students' socio-economic status. To that end, additional research questions were posed:

- What relationship, if any, exists between the presence of a high school librarian and the percentage of students eligible for free/reduced lunches at their high school?
- What relationship, if any, exists between the percentage of students eligible for free/reduced lunches at their high school and their college first semester GPA?

### **Literature Review**

To examine existing studies about the impact of high school librarians on their graduates' academic success in college, I accessed Ebsco's collection of databases: ERIC, Library Abstracts, and Academic Search Elite. I also used WorldCat to identify relevant resources. Key words included "higher education" and its equivalent, "high school" and its equivalent, "librarians/libraries" and their equivalent, "impact" and its equivalent, "academic success" and its equivalent.

### **Librarians' Overall Academic Impact**

Several studies demonstrate the impact of school libraries on student academic achievement (e.g., Farmer, 2003; Kachel, 2013; Lance & Kachel, 2018; Oakleaf, 2010; Scholastic, 2016). Whitmire's 2001 three-year study found that high school library use was one of three predictors for college library use, and college library use predicted college academic success (Soria, Fransen & Nackerud, 2013). The most significant factor in the library program found in the literature has been the presence of a full-time teacher librarian (e.g., Farmer & Safer, 2019; Kachel, 2013; Lance & Kachel, 2018; Scholastic, 2016). Pasquini and Schultz-Jones' 2019 synthesis of three independent meta-syntheses reveals several contributing factors: systematic information literacy instruction with hands-on experience, supportive learning environment with access to a rich collection of resources in various formats, and collaboration with classroom teachers. At the high school level, that impact is strongest in humanities (Achterman, 2008; Lance & Kachel, 2018). At the same time, high school librarians may be stymied in providing information literacy curriculum in selected core courses; Nix, Hageman and Kragness (2011) identified several obstacles: lack of faculty support, librarian lack of curriculum and assignment knowledge, and lack of flexible scheduling.

---

Likewise, several studies demonstrate the impact of academic librarians on student academic achievement (Brown, 2017; Gaha, Hinnefield & Pelligrino, 2018; Lance, 2016; Oakleaf, 2010; Soria, Fransen & Nackerud, 2013). Major factors included early information literacy instruction, collaborating with classroom faculty and campus services, and library use. Nevertheless, obtaining rigorous, generalizable data that demonstrates significant positive impact on college overall student success by academic librarians can be challenging (Mathuews & Pulcini, 2017).

### **Transitioning from High School to College**

As early as 1998, the American Association of School Librarians (AASL) and the Association of College and Research Libraries jointly examined the educational roles of libraries with the intent of collaborating between K-12 and post-secondary institutions and their librarians. To that end, they developed a blueprint for collaboration, which include association activities, continuing education, and outreach (2000).

That need continues. To this day, less effort has been made to determine the high school library services and college students' overall academic success. Smalley's 2004 study focused on close transfer of high school information literacy to a freshmen library research course, comparing districts with and without a high school librarian; however, generalizing from one course to overall academic success is harder to extrapolate.

Several studies demonstrated that pre-existing information literacy is a predictable factor for college research skills and overall academic success (e.g., Head, 2013; Lanning & Mallek, 2017; Salisbury & Karasmanis, 2011). However, Goodin's 1991 study discovered limited transferability of library research skills from high school to college. Teacher librarians have been shown to contribute to high school students' academic success, academic librarians have tended to disparage incoming students' information literacy performance (Islam & Munro, 2006; Hufford, 2010; Lanning & Mallek, 2017). Likewise, graduating senior students may also have unrealistically positive self-images about being prepared for college research, which did not reflect their eventual academic career (Gustavson & Nall, 2011; Owen, 2010).

One reason for the gap between high school and college is the distinction between the information literacy skills expected of high schoolers and college students (Salisbury & Karasmanis, 2011; Schofield, 2012). For instance, post-secondary education usually expects students to construct effective search strategies, locate and critique scholarly journals, use a variety of database aggregators and reference sources, accurately interpret data and statistics, and navigate complex libraries (Donham, 2014; Head, 2013; Oakleaf & Owen, 2010). Unlike the 2017 American Association of School Librarians (AASL) standards, the 2015 Association of College and Research Libraries (ACRL) framework for information literacy for higher education emphasizes the contextual nature of authority and the importance of scholarly communication (Burns, Gross & Latham, 2019).

---

Another major difference between high school and college is the resource collection itself, which impacts research strategies. That concept played out in Olen's 2005 study, which found no association between frequent high school library use and college academic success. This study noted the difference in the resources found in college libraries, which underscored the different information literacy skills needed, such as analyzing scholarly journals and using high-level reference sources. As a way to bridge that gap, Pearson and McNeil (2002) reviewed the University of Nebraska-Lincoln outreach program to high schoolers, which provided access to the university library's resources, which far outstripped any high school library's collection. The students were given opportunities to attend an orientation tour and a basic research session, although attendance was uneven. Few students who entered the university as freshmen could pass the library research test-out exam, but they did gain some insights into the rigorous research needed in college.

The Nebraska project pointed out the need to address this gap between K-12 and post-secondary information literacy expectations and supporting resources through outreach and collaboration. More specifically, several studies point out the need for collaboration between academic and high school librarians (Burhanna & Jensen, 2006; Donham & Rehmke, 2016; Schofield, 2012). Oakleaf and Owen (2010) asserted that such collaboration can build professional partnerships, sharing workload and exchanging information can improve instruction and increase college students' success. Courtney (2009) and Burhanna (2013) collected several examples of librarians' efforts to help high schoolers transition to college: articulation between K-12 and higher education information literacy curriculum and standards; access to college collections; cross-level campus visits, presentations and information literacy workshops; college-led information literacy and research skills courses for high school communities; and academic research promotional guides and toolkits for high schoolers.

Burhanna and Jensen (2006) also identified barriers to collaboration: budget constraints, difficulties collaborating with classroom teachers. Islam and Murno (2006) noted several barriers to such collaboration even when a common set of skills could be identified: lack of time, perceived lack of need to teach these skills, few opportunities for consistent information literacy instruction, lack of collaboration with classroom teachers, and the school's practice of delegating information literacy instruction to classroom teachers.

In short, the picture painted about librarian impact on student academic success is complicated, and the extrapolation of high school library impact to college freshman success is problematic. Nevertheless, the research question remains viable and worthy of data collection and analysis.

---

## Methodology

The study sought to answer the following research questions:

- What relationship, if any, exists between the presence of a high school librarian and college freshmen's first semester grade point average (GPA)?
- What relationship, if any, exists between the presence of a high school librarian and the percentage of students eligible for free/reduced lunches at their high school?
- What relationship, if any, exists between the percentage of students eligible for free/reduced lunches at their high school and their college first semester grade point average (GPA)?

To answer these questions, this study examined five years of a large comprehensive university's freshmen data about their course load, the first semester GPA, and the name of the high school from which they graduated. High school data were then collected about the percentage of students eligible for free/reduced lunch and the presence of a teacher librarian.

The population consisted of all freshmen enrolled at a large diverse comprehensive university in California, entering between 2015 and 2019. The university was able to provide an anonymized dataset of the entire freshmen population, with each freshmen's number of course units attempted, number of course units completed, first semester GPA, and the name of their graduating high school. While the ethnicity and gender of each student were not captured, overall demographics were available through the university's internal research office.

To determine the percent of students who were eligible for free/reduced lunch, the California Ed-Data database was used to look up each public and charter school. If the percentage of students who were eligible for free/reduced lunch was 40 percent or more, then the school was labelled as Title 1 Eligible. To determine the presence (including percentage of time) of the teacher librarian, three large districts were consulted, and the data from the state school library survey were accessed. For the remaining schools, each school's website was examined, followed by checking each library worker's credential as accessed by using the California Commission on Teacher Credentialing website's public search feature. All names and credentials were anonymized.

For each year, the number of students from each school was tallied, and each student's GPA was calculated. Then the total number of students from each school was calculated, along with the five-year average for the course units and GPA. Likewise, the five-year average percentage of free/reduced lunch students and the teacher librarian presence was calculated. The generated figures did not change significantly over time, so the five-year average was used for the final analysis. Descriptive and correlational statistics were applied to answer the research questions.

A separate field for teacher librarians was generated: if the teacher librarian was employed at the school at least half-time, then that school was assign a Y(es) value; if the teacher librarian was

employed less than half-time (or not present at all), then that school was assigned a N(o) value. ANOVA statistics were applied to determine a possible significant relationship between students' GPA and the co-occurrence of a teacher librarian and school's Title I status. To determine possible significant relations between the subgroups, least difference significance statistic was calculated.

## Findings

Several basic descriptive statistics capture the picture of the university's freshmen over the five years.

- 23,105 Students graduated from 1207 schools within the state, ranging in number of student per school from 1 to 981, averaging 18 students per school and having a mode of 1.
- The average GPA was 3.12, with a range of 0.00 to 4.00.
- The average course number of units attempted was 14, with a range of 0 to 18.5.
- The average course number of units completed was 13.5, with a range of 0 to 18.
- The racial distribution averaged <1% Amerindian, 23% Asian, 3% Black, 38% Latinx, 2% Oceanic/Pacific Islander, 18% White, 15% other answers.

Several basic descriptive statistics capture the picture of the graduating schools (typically high schools) of the university's freshmen over the five years.

- The average percent of percent of schools' free/reduced lunch students was 57%, with a range from 0 to 100 (Figure 2). 680 (56.3 percent) schools were Title 1 eligible.
- About an eighth of graduating schools were charter, a sixth were independent/not public, and seventy percent were public.
- The average number of teacher librarians per school was .32, with a range from 0 to 2 and having a mode of 0.

**Table 1**

***Type of graduating school and number of teacher librarians, including presence of a half-time or more teacher librarian***

SCHOOL TYPE	% of Type	TL 0	TL .03	TL .1	TL .2	TL .3	TL .5	TL 1	TL 2	TL Missing	TL Total	TL Y.5+
Charter	12.56	122	0	0	0	0	14	10	0	4	150	25
Independent	17.25	188	0	0	0	0	0	3	0	15	206	3
Public	70.19	450	1	1	6	3	54	319	1	3	838	377
<b>TOTAL</b>	<b>100.00</b>	<b>760</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>71</b>	<b>344</b>	<b>1</b>	<b>7</b>	<b>1194</b>	<b>405</b>

---

Several correlational statistics were employed to determine possible significant relationships between the variables:

- No significant positive relationship was found to exist between the presence of a high school librarian and the type of school.
- A significant positive relationship ( $p < .001$ ) was found to exist between the presence of a high school librarian and a school's Title 1 eligibility.
- A significant relationship was found to exist between the presence of a high school librarian (employed at least half-time) and college freshmen's first semester grade point average (GPA), regardless if the school had Title 1 status or not. An even stronger significance was found when the cutoff point was one full-time teacher librarian or more. When proportionate librarians were accounted for, the significance disappeared.
- A significant negative relationship was found to exist ( $p < .001$ ) between the percentage of students eligible for free/reduced lunches at their high school and the number of course units completed as well as their college first semester GPA.

## **Discussion**

The short answers to the research questions follow.

- What relationship, if any, exists between the presence of a high school librarian and college freshmen's first semester grade point average (GPA)? Students earned significantly higher GPAs if they graduated from schools with a teacher librarian employed at least half-time; that correlation was even stronger if the cutoff point was set at full-time librarian employment.
- What relationship, if any, exists between the presence of a high school librarian and college freshmen's first semester course load, both the number of units attempted and the number of units achieved? none
- What relationship, if any, exists between college freshmen's first semester course load and GPA? The greater the course load, the better the GPA.
- What relationship, if any, exists between the presence of a high school librarian and the percentage of students eligible for free/reduced lunches at their high school? Significantly positive
- What relationship, if any, exists between the percentage of students eligible for free/reduced lunches at their high school and their college first semester grade point average (GPA)? Significant negative correlation.

The connection between a high school librarian presence and college freshmen's academic success is complicated. The easy answer of "yes" was not forthcoming in this study, partly as schools employed librarians for various portions of the school day. This finding reflects the variety of prior studies' findings (e.g., Goodin, 1991; Head, 2013; Lanning & Mallek, 2017; Olen, 2005; Salisbury & Karasmanis, 2011). While a close transfer of learning might occur, as

---

Smalley's study demonstrated, generalizing to overall academic effort (such as number of course units attempted) and achievement is subject to many possible intervening variables at both the high school and college levels:

- The quality of the librarian's expertise and instruction
- The degree and quality of librarians' collaboration with classroom teachers
- The quality of administrative support for librarians and collaboration
- Scheduling structure to facilitate class and individual use of the library and library instruction
- Opportunities for shared time to enable librarians and classroom teachers to collaborate and plan
- The nature of the curriculum, instructional approach, and opportunities for students to learn and practice information literacy skills
- Budgets for collection development
- The location of the library relative to classrooms
- Technology infrastructure and capacity to facilitate access to digital resources and online librarian instruction.

The one significant measured variable that impacted both high school and college was student free/reduced lunch eligibility. Regardless of the presence of a librarian, students from Title 1 students earned significantly lower GPAs than their counterparts from non-Title 1 schools. Basically, economic status impacts GPA. As Krashen's 2011 study found, students living in poverty are less likely to have reading materials in the home and have less access to libraries compared with their more affluent peers. Therefore, they have fewer opportunities to read or to use reading material in their education, again compared with their more affluent peers. Their status is unlikely to change between high school and college, so it is reasonable that they might not have as high of grades as their more affluent peers. Nevertheless, regardless of Title 1 status, when schools employ a librarian at least half-time, their graduates earn significantly higher GPAs as college freshmen than their peers who did not have a librarian at least half time.

Another positive note is that Title I schools (where forty percent or more of students are eligible for free/reduced lunch) were more likely to have a librarian than non-Title I schools, which may be due to categorical funds being available to hire a librarian. Krashen maintained that school libraries managed by professional teacher librarians can help mitigate the disadvantages of economic challenges, although in this study it did not level the academic playing field. Schools with students and families with more income might not see the need for a librarian since their communities have more financial power to acquire reading material and digital resources as well as easier access to public libraries, bookstores and other literacy-rich environments (Krashen, 2011). As one interesting result, schools with International Baccalaureate programs, which require a capstone research project, were not more likely to employ a librarian than their counterparts.

---

## **Implications and Conclusions**

Stakeholders agree that information literacy contributes to student academic success and think that librarians contribute to information literacy. This study found a positive significant relationship between college freshmen's GPA and the presence of a high school librarian who was employed at least half-time, regardless of the school's Title I status. However, the articulated contribution of information literacy and other skills is less apparent, specifically between high school and college. As noted before, the information literacy skills needed – and the resources encountered – in college differ significantly from high school settings. It is not enough to have a high school librarian on staff; that person must actively collaborate with classroom teachers to provide information literacy instruction and opportunities to practice those skills, and then collaborate with academic counterparts to provide a seamless articulation of library resources and services. On a positive note, hiring a knowledgeable, collaborative high school librarian full time has the strong potential to help all students transition to college academically.

It is heartening to see that Title 1 schools are hiring high school librarians because those librarians can help toward leveling the informational literacy playing field for disadvantaged students. Nevertheless, their effectiveness depends on administrative and faculty support, including fiscal and time allocations.

## **Limitations**

This study examined the freshmen of one comprehensive, diverse university, which attracts many first-generation collegians. That university has a strong relationship with its feeder schools, as reflected in the sources of applications. Nevertheless, the findings might not be applicable to other settings. On a more logistical basis, data about high schools was incomplete, and some cases needed to be omitted for different analyses. One significant limitation was the fact that non-public schools did not disclose their students' economic status. Furthermore, most non-public schools did not employ librarians for a possible variety of reasons that were not pursued.

## **Further Research**

This study provides a basis for deeper, more nuanced investigation. As noted in the discussion, the quality of the high school librarian was not determined. Research is needed to investigate the school's community perceptions and use of the librarian and the library program's resources and services. Concurrently, data need to be gathered about the presence and quality of collaboration efforts between high school and academic librarians, being mindful of the varying proximity of post-secondary institutions and their relationships with feeder schools.

Another area of investigation could focus on information literacy curriculum at both the high school and post-secondary first-year levels. Content analysis of syllabi and associated assignments can reveal information literacy pre-requisite expectations and anticipated outcomes

---

(even not if stated in librarian terms), which can then be mapped and articulated across academic levels (e.g., Farmer, 2001). Part of the analysis could include determining which academic domains teach and incorporate information literacy and who serves as the instructor and evaluator.

As discussed above, many intervening variables can impact students' academic success, so each of these variables could be explored in depth. For instance, what are students' family backgrounds, employment record, access to digital resources, and career plans? Likewise, what are the support mechanisms such as resource and staff allocation, facilities configurations and infrastructure, and instructional expectations for library programs?

### **A Final Note**

K-12 schools, particularly at the high school level, try to help their students become college-career ready. Information literacy is part of that picture, although librarians continue to vanguard that element. Broader-based awareness and support are needed to ensure that students gain information skills in K-12 education, and stronger collaborative articulation is needed to bridge the information literacy transition to higher education. In the process, more explicit attention and support needs to be given to students in less affluent situations.

### **References**

- AASL/CARL Task Force on the Educational Role of Libraries. (2000). *Blueprint for collaboration*. American Library Association.  
<http://www.ala.org/acrl/publications/whitepapers/acrlaasblueprint>
- Achterman, D. (2008). *Haves, halves and have-nots: School libraries and student achievement*. [Doctoral dissertation. University of North Texas.]  
<https://digital.library.unt.edu/ark:/67531/metadc9800/m1/1/>
- Brown, K. (2017). *Academic library impact on student learning and success*. American Library Association.
- Burhanna, K. (Ed.). (2013). *Informed transitions*. Libraries Unlimited.
- Burhanna, K., & Jensen, M. (2006). Collaboration for success. *Reference Services Review*, 34(4), 509-519. DOI: 10.1108/00907320610716413
- Burns, E., Gross, M., & Latham, D. (2019). The information literacy continuum. *School Libraries Worldwide*, 25(1), 1-20.
- Courtney, N. (Ed.). (2009). *Academic library outreach*. Libraries Unlimited.
- Donham, J. (2014). College ready--what can we learn from first-year college assignments? *School Library Research*, 17. <https://files.eric.ed.gov/fulltext/EJ1022552.pdf>
- Donham, J., & Rehmke, D. (2016). High school to college transition: Sharing research with teachers. *Teacher Librarian*, 44(2), 13-17.  
[https://www.academia.edu/30542598/High\\_School\\_to\\_College\\_Transition\\_Sharing\\_Research\\_with\\_Teachers](https://www.academia.edu/30542598/High_School_to_College_Transition_Sharing_Research_with_Teachers)

- 
- Farmer, L. (2003). *Student success and library media programs*. Libraries Unlimited.
- Farmer, L. (2001). Building information literacy through a whole school reform approach. *Knowledge Quest*, 29(3), 20-24.
- Farmer, L., & Safer, A. M. (2019). Trends in school library programs 2007–2012. *Journal of Librarianship and Information Science*, 51(2), 497-510. DOI: 10.1177/0961000617726128
- Foote, C. (2016). Building success beyond high school with career-and college-ready literacies. *Knowledge Quest*, 44(5), 56-60. <https://files.eric.ed.gov/fulltext/EJ1099504.pdf>
- Gaha, U., Hinnefeld, S., & Pellegrino, C. (2018). The academic library's contribution to student success. *College & Research Libraries*, 79(6), 737-746. <https://crl.acrl.org/index.php/crl/article/viewFile/16824/18414>
- Goodin, E. (1991). The transferability of library research skills from high school to college. *School Library Media Quarterly*, 20(1), 33-41.
- Gustavson, A., & Nall, H. (2011). Freshman overconfidence and library research skills. *College & Undergraduate Libraries*, 18(4), 291-306. DOI: 10.1080/10691316.2011.624953
- Head, A. J. (2013). Learning the ropes. *Project Information Literacy*, 1-48. <https://files.eric.ed.gov/fulltext/ED548262.pdf>
- Hufford, J. R. (2010). What are they learning? *College & Research Libraries*, 71(2), 139-158. <https://crl.acrl.org/index.php/crl/article/viewFile/16068/17514>
- Islam, R., & Murno, L. (2006). From perceptions to connections. *College & Research Libraries*, 67(6), 491-514. <https://crl.acrl.org/index.php/crl/article/download/15830/17276>
- Kachel, D. (Ed.). (2013). *School library research summarized*. Mansfield University. <http://cesdlibrary.pbworks.com/f/ImpactStudy.pdf>
- Krashen, S. (2011). Protecting students against the effects of poverty: Libraries. *New England Reading Association Journal*, 26(2), 17-21, 102.
- Lance, K. C. (2016). Community college libraries and librarians and student success. *Community & Junior College Libraries*, 22(3-4), 103-124. DOI: 10.1080/02763915.2017.1376569
- Lance, K. C., & Kachel, D. E. (2018). Why school librarians matter. *Phi Delta Kappan*, 99(7), 15-20. <https://www.jstor.org/stable/pdf/26552375.pdf>
- Lanning, S., & Mallek, J. (2017). Factors influencing information literacy competency of college students. *The Journal of Academic Librarianship*, 43(5), 443-450. <https://www.sciencedirect.com/science/article/pii/S0099133317301970>
- Mathuews, K., & Pulcini, B. (2016). *Academic libraries' impact on community college student success*. Association of Research Libraries.
- Nix, D. E., Hageman, M., & Kragness, J. (2011). Information literacy and the transition from high school to college. *Catholic Library World*. [https://ir.stthomas.edu/lib\\_staffpub/6/](https://ir.stthomas.edu/lib_staffpub/6/)
- Oakleaf, M. (2010). *The value of academic libraries: A comprehensive research review and report*. American Library Association.
- Oakleaf, M., & Owen, P. (2010). Closing the 12-13 gap together. *Teacher Librarian*, 37(4), 52-58.

- 
- Olen, S. (1995). Academic success and school library use. *School Libraries Worldwide*, 1(1), 69-79.
- Owen, P. (2010). A transition checklist for high school seniors. *School Library Monthly*, 26(8), 20-23. <http://www.infowen.info/checklist.pdf>
- Pasquini, L., & Schultz-Jones, B. (2019). Causality of school libraries and student success. *Qualitative & Quantitative Methods in Libraries*, 8(3), 411-423. <http://www.qqml-journal.net/index.php/qqml/article/download/569/532>
- Pearson, D., & McNeil, B. (2002). *From high school users college students grow*. Faculty Publications, UNL Libraries. <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1066&context=libraryscience>
- Salisbury, F., & Karasmanis, S. (2011). Are they ready? Exploring student information literacy skills in the transition from secondary to tertiary education. *Australian Academic & Research Libraries*, 42(1), 43-58. DOI: 10.1080/00048623.2011.10722203
- School libraries work!* (2016). Scholastic.
- Schofield, C. K. (2012). An examination of the information literacy expectations and practices of librarians in Connecticut state colleges and universities and Connecticut public high schools. [Doctoral dissertation, University of Bridgeport.] <https://www.proquest.com/docview/1435584653>
- Smalley, T. (2004). College success: High school librarians make the difference. *Journal of Academic Librarianship*, 30(3), 193-198. <https://www.sciencedirect.com/science/article/pii/S0099133304000473>
- Soria, K. M., Fransen, J., & Nackerud, S. (2014). Stacks, serials, search engines, and students' success: First-year undergraduate students' library use, academic achievement, and retention. *Journal of Academic Librarianship*, 40(1), 84-91. <https://www.sciencedirect.com/science/article/pii/S0099133313001560>
- Whitmire, E. (2001). The relationship between undergraduates' background characteristics and college experiences and their academic library use. *College and Research Libraries*, 62, 528-540. <http://crl.acrl.org/index.php/crl/article/download/15485/16931>