

Financial literacy resources in U.S. public libraries: Website analysis

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Abstract

Purpose: This article explores the financial literacy resources patrons can discover and/or access on the webpages of the largest 48 U.S. public libraries in order to assess the strength of public libraries' current support to patrons seeking assistance with personal financial matters.

Design/methodology/approach: The author completed a website analysis of the largest 48 U.S. public libraries, as defined by the four sets of criteria in the American Library Association (ALA) publication *The nation's largest public libraries*. Website analysis was completed via a standardized checklist assessment covering full-site searching, catalog content, the availability of relevant guides and/or workshops, and any other relevant online resources.

Findings: Public libraries provide many resources relevant to patrons searching for personal finance topics, but some of these resources are not ideally highlighted on libraries' websites. Site search tools are generally less efficient than catalog search tools. Only half of the studied libraries have relevant online guides, but all libraries have some relevant online resources.

Originality/value: While there are a number of research articles exploring how public libraries support financial literacy in their communities, there has not yet been an in-depth exploration of how public libraries support this literacy specifically through the materials highlighted and/or available via their websites. This research addresses this gap in the literature.

Keywords: financial literacy, personal finance, public libraries, website analysis

Paper type: Research

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Introduction

Public libraries have long supported patrons with their financial information needs. This could be a reflection of financial literacy as a subset of information literacy, part of the public library's eternal commitment to self-directed learning on any and all topics, or a reflection of an ever-growing need for individuals in the United States (and indeed around the world) to manage their own financial futures. While public libraries have always had books that may be relevant for a wide range of personal finance needs, in the past decade they have frequently grown their support in the form of business databases, online guides, programming (both in-person and virtual) and through partnerships with other community organizations to offer one-on-one counseling, or links to information on partner organizations' websites.

The coronavirus pandemic emphasized the need for public libraries to have well-curated online support for personal finance topics in two ways: firstly, that the pandemic caused frequent restrictions on individuals' abilities to access resources and programming in person, and secondly, that the pandemic resulted in economic stressors that may emphasize the need for patrons to make well-informed financial choices. While there have been articles in the past which have assessed the support public libraries provide to patrons seeking greater financial literacy, this research focuses specifically on the resources discoverable and/or accessible via the websites of the largest 48 public libraries in the United States.

Moving forward into an increasingly hybrid world, library personal finance offerings as they are discoverable via library websites are likely to be increasingly important. While library patrons have, and will continue to come back into library spaces, the library website is an important public access and service point. Using both the search terms of 'personal finance' and 'financial literacy' the researcher hopes to explore the ways public libraries are currently connecting to and supporting patrons online, and any possible avenues for expansion or improvement of these offerings.

Literature review

In the library sciences, research into financial literacy topics really began to advance around 2010. Early articles with notable impact include “Financial literacy and education: an environmental scan” by Molly A. Wolfe-Hayes, “Libraries and financial literacy: perspectives from emerging markets” by Sonja Špiranec, Mihaela Banek Zorica and Gordana Stokić Simončić, and “Public libraries in an age of financial complexity: toward enhancing community financial literacy” by Catherine Arnott Smith and Kristin Eschenfelder (2010, 2012, 2013). Wolfe-Hayes discussed how the 2007-2010 financial crisis may have provided a “teachable moment’ of heightened motivation to improve knowledge about personal money matters” and that increasing individuals’ financial literacy may help families to weather economic storms (2010, p. 105). The author also discussed the growing number of organizations involved in supporting financial literacy but pointed out that most adult literacy programs focused on the products of the organization offering the programming, and that most existing programs were envisioned at a national level while true improvement was likely to take place at a community level (2010, p. 110). Špiranec, Zorica and Simončić argued broadly that financial literacy had a place in library settings mainly due to the conceptual connections between financial literacy and information literacy and because libraries have always “played important social roles and striven to meet the needs of all the members of society” (2012, p. 270).

Smith and Eschenfelder conducted a qualitative field study to explore the role public libraries were already playing in financial literacy education, though they found a large percentage of librarians were either unaware of resources, and/or felt anxiety around assisting patrons in navigating those resources. Smith and Eschenfelder’s study also included a brief analysis of the relevant hyperlinks on library websites. This analysis, however, was only one part of their project and was limited to discussing hyperlinks on the websites of libraries in

Wisconsin (2013, pp. 311-313). This current research expands significantly on this limited coverage and addresses website upgrades over the past ten years.

The American Library Association (ALA) has focused a significant amount of effort on supporting financial literacy, following roughly the same timeline as the emergence of research in the field. In 2007, ALA partnered with the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation to fund a grant program encouraging public libraries to design public programming, train staff, and connect with community partners to support financial literacy in their communities. The program is still supporting libraries today (ALA and FINRA, 2022). In 2013-2014 the Association of College & Research Libraries (ACRL) made financial literacy their presidential focus culminating in the 2014 Annual Conference President's Program being focused on the topic. In 2014, the Reference and User Services Association (RUSA) approved a document called "Financial literacy education in libraries: guidelines and best practices for service" and in 2017 RUSA formed the Financial Literacy Interest Group (RUSA, 2014; RUSA, 2017). Both ALA and the Public Library Association (PLA) continue to maintain online resources pages focused on supporting financial literacy; PLA has a page for *Teen financial literacy* specifically, as well as a page for general financial literacy tools (ALA Office of Research and Evaluation, 2021; PLA, 2022a, 2022b).

The January-June 2015 issue of the *Journal of Business & Finance Librarianship* was focused on a financial literacy theme wherein researchers: discussed a systematic review of the term 'financial literacy' in library science literature, explored a peer-to-peer teaching approach in an academic library, and considered current online government resources to support financial literacy, among other things (Faulkner; Reiter; Rustomfram and Robinson). Research into financial literacy in library contexts has only grown over the subsequent seven years, though much of it has focused on academic library contexts. Lauren Reiter and Bronson Ford surveyed librarians at large academic institutions regarding financial literacy support, for instance, and concluded that librarians generally considered financial literacy important for college students

but that at the time only about half the surveyed libraries were directly supporting financial literacy (2019, p. 628). In 2021, Alyson Vaaler, Lauren Reiter and Ash E. Faulkner studied the search strategies and capabilities of college students as regards their financial information needs and concluded that while college students were interested in seeking reliable information they were still most likely to begin by consulting the internet, family and friends (p. 276).

The author knows of no research thus far that has analyzed public library websites for their financial literacy content in the United States, but there have been studies conducting website analyses on library websites in attempts to analyze other content. The website survey checklist used as a website evaluation tool for this study (See Appendix B), for instance, was modeled after John Gottfried's "Protocol for business website survey" checklist conveyed in his 2010 article, "Access to business research resources through academic library websites: a survey", which analyzed the databases, catalog offerings, research guides and access to business librarians highlighted on academic library websites. Katherine Yorke also used an evaluation checklist to assess public libraries' websites in her 2021 article "Leveling up: a checklist comparison of Pennsylvania public libraries' web presence in 2010 and 2018", replicating a 2010 study that used the same methodology, though this research was focused more generally on what was termed the 'web presence' of the libraries studied.

A majority of other library website analyses in the United States have focused on academic library websites. In 2014, Barbara Blummer and Jeffrey M. Kenton assessed the proliferation of 'Web 2.0 tools' (blogs, chat reference, LibGuides) on 100 community college libraries' websites, finding that almost all of the sites were employing at least one such tool. In 2017, Ayoung Yoon and Teresa Schultz analyzed the research data management services evidenced on academic libraries' websites. The most recent website analyses of U.S. libraries' websites have focused on specific issues with academic library sites. Eric Ely assessed the prevalence of diversity, equity and inclusion statements on library websites and how these statements might help to position libraries as agents of social change (2021). In "Accessibility is

not a feature: an analysis of common accessibility errors on academic library websites” Shawn McCann and Rebeca Peacock used WAVE software to assess the accessibility of academic libraries’ websites and discussed the five most common errors, suggesting libraries might want to develop processes for soliciting feedback from users with disabilities to improve their sites (2021).

The closest similar research to the current project was an article wherein the author used a similar methodology to analyze the content on U.S. public library websites applicable to entrepreneurial patrons, concluding that most libraries had discoverable services relevant to these patrons but that partnership programming could be an area for growth and site search-all boxes could likely be improved (Faulkner, 2018). There was also a recent study which examined specifically the financial literacy resources most widely available in large public libraries’ collections, but this was a content analysis focused very specifically on analyzing the content of the ten resources which appeared most frequently in the collections (Faulkner, 2021). It is hoped that this current research will provide further insight into how public library websites are succeeding in serving their patrons with personal finance information needs, and how they might improve what services they highlight on their sites.

Methodology

The researcher for this study compiled a list of the nation’s largest public libraries from the American Library Association publication of the same name: *The nation’s largest public libraries*. The ALA publication ranks the largest U.S. public libraries by four different metrics: “Top 25 public libraries by size of population served with total collection expenditures”, “Top 25 public libraries by holdings”, “Top 25 public libraries by circulation”, and “Top 25 public libraries by library visits” (American Library Association, 2016). The most recent publication available at the time of this research was compiled from the public libraries survey fiscal year 2016 data. The author combined these four 25-library lists and de-duplicated the results to obtain a

combined list of the largest 49 public libraries in the U.S., as measured by any of the four metrics (See Appendix A). Though it was included on the ALA publications lists, the 'Orange County Public Library District, NY' had no identifiable unified website for a large number of public libraries located in Orange County, NY and therefore this library was dropped from study, leaving a total list of 48 public libraries for website analysis.

Website analysis was guided by the questions on the "Checklist for financial literacy resources in U.S. public libraries". The Checklist included items to evaluate the site search box, the catalog search, the presence or absence of a relevant library guide or other online resources, any relevant programming and the presence or absence of one-on-one counseling and/or a business librarian (See Appendix B). The evaluative checklist tool served to guide the analysis of the websites in a uniform and efficient manner. The researcher completed the website checklist evaluation of all libraries' sites between July 27, 2021 and August 10, 2021. The intention was that the short data collection period (15 days) would both control for and limit any site changes over the course of the evaluations.

Limitations

One of the main limitations of this study is the unique circumstances faced by libraries in 2021. The researcher ended up dropping the checklist distinction regarding whether financial literacy programs were offered in person or virtually, for instance, because programs were almost universally virtual due to COVID restrictions or caution. Some programs noted in their descriptions if they were previously in-person, but others did not, and the researcher concluded that there could be no meaningful conclusions drawn from the current state of programs' mediums, given the unique circumstances.

At times, there were other assumptions that needed to be made in answering Checklist items. These were made systematically throughout the assessment of all websites in order to

allow for accurate comparison. If no community partner was explicitly listed for a program, it was assumed that this program was led by library personnel, for example.

It was also necessary to systematically determine when resources 'counted' as relevant or not. There is no perfect way to judge relevancy in search results. Most of the research in this area focuses on the relevancy of search engine results and has shown that individuals' assessments of relevancy tend to change over time. One common alternative to individual assessments of relevancy is to rely on the "wisdom of crowds" either through user studies or via click-through rates, which appears to improve the stability of relevancy judgements (Zhitomirsky-Geffet, Bar-Ilan and Levene, 2016; Zhitomirsky-Geffet, Bar-Ilan and Levene, 2018). Studies evaluating the information retrieval of library discovery tools have often relied on user observation in laboratory settings, log analysis, or comparison of search results to student citations in particular projects or courses (Behnert and Lewandowski, 2017; Galbreath, Merrill and Johnson, 2021). None of these options were feasible for this study. Instead, relevancy of results was judged by the researcher in a systematic manner across all evaluated websites; if a resource could be utilized for a financial literacy/personal finance purpose by a layman, it was determined to be relevant (aka. resources did not need to be exclusively focused on personal finance, but things such as investment research products, etc. would be considered relevant as well). This is a limitation of this study, and perhaps an area for future research could be to further analyze library website search results based on information retrieval frameworks.

Three other limitations are important to note. The first is that this study is strictly limited to a U.S. context. Financial literacy itself is very dependent on one's location as financial products available, national social programs, and many other things, differ around the world. But this does limit the applicability of any conclusions drawn to libraries in the United States. In addition, in choosing the largest U.S. public libraries for analysis, the researcher must acknowledge that these are not necessarily the libraries doing the best, or most innovative, work around financial literacy. There may be small and/or rural libraries with very different support for

financial literacy. There are also a number of public libraries with service agreements with local academic libraries; this research does not consider these libraries specifically. Lastly, in using website analysis as the methodology for this study, there may be financial literacy support programs and resources that are not assessed, as they are not readily apparent on libraries' websites. If there are such support resources, however, the researcher believes it would be best practice for libraries to highlight these resources on their sites.

As one final note, this research was undertaken by an academic librarian researcher and therefore questions about and suggestions for public library improvements are coming from an outsider's perspective. This has both benefits and drawbacks as the researcher may more closely approximate the experience of an outsider exploring the libraries' websites, but may also fail to understand nuances involved in what offerings public libraries currently provide to their patrons, and what can realistically be adjusted moving forward.

Results

SITE SEARCH

There was a wide range in the number of results from the libraries' search-all boxes when one typed in 'financial literacy' from no results to 365 results with an average of 26 results per library. This average was skewed by a few outliers, however. Only four libraries had more than 100 search results. The median number of search results was two, indicating that many libraries had very few results when one searched their websites for the term 'financial literacy'. Removing the outliers brought the average number of results per webpage to six. Nine websites of the forty-eight had no ability to search the website as a whole, while an additional ten websites had no results when one searched for 'financial literacy', making it more than a

third of the total sites that either had no ability to search the site, or had no results when one searched for the term 'financial literacy'.

Unfortunately, even for those websites that did have search results, the majority of the results were not relevant. When the researcher assessed the relevance of search results, only four websites had search results that were more than 50% relevant. Many of the libraries' search results focused on things like news announcements for past events (often years in the past) or minutes from various meetings (Board of Directors, library committees, and strategic directions discussions). The relevant search results included databases which could be used for investment research, blog articles, online learning workshops, and one result for a 'Business & Finance' LibGuide.

In general, searching libraries' webpages for 'personal finance' resulted in many more results than searching for 'financial literacy'. Results ranged from a minimum of none to a maximum of 3,141 results. The average number of results was 154, but again the median number of results was two! This is explained by two extreme outliers; the vast majority of databases had less than 500 results and many had less than two results. Additionally, along with the same nine websites that did not allow for site searching, there were thirteen websites with no search results for 'personal finance', which is actually greater than the number with no search results for 'financial literacy'. However, in contrast to the search results for 'financial literacy', removing the outliers to the 'personal finance' search results indicates a more accurate average of twenty-four results per webpage, which is four times more results than those on average for searching for 'financial literacy' on the same websites.

Unfortunately, these results did not tend to be any more relevant than those for 'financial literacy' searches; only six websites had results which were more than 50% relevant. Again, irrelevant results tended to be items for which the currency of information was important: past event announcements, old reading list recommendations, etc. Relevant results tended to focus more on libraries' resources, like social services offered in the library, databases filtered by

subject and LibGuides. Some of the LibGuides highlighted included one for 'Finance', a 'College and Career Planning' Guide, a guide for small business resources, a 'Dollars and Sense' Guide and a 'Personal Finance' Guide.

CATALOG SEARCH

If one searched the libraries' catalogs for 'financial literacy', the number of results ranged from five to 1,050 with an average of 111 titles per library. The median value was 78 though, in this case indicating the extreme 1,050 results outlier; the next highest number of catalog search results was 275 results. If we remove the outlier, the average number of search results for a catalog search of these libraries was 91 titles.

The year range of the first 25 catalog results was as far back as 1996 and up to 2021. On average, date ranges started around 2007 and the vast majority of libraries (27) had publications from 2021 in the first 25 catalog search results. For the most part, results were relevant (on average 21 out of the first 25 titles were relevant) and for 15 libraries all 25 of the first 25 search results in the catalog search were considered highly relevant. It was often the case, however, that many of the relevant search results were government documents (such as Congressional hearings transcripts). If one removed government documents from the list of relevant results, the average total relevant, non-government document catalog search results was 13.

One important thing to acknowledge in relation to government document search results is the fact that 35 of the total 48 libraries studied are members of the Federal Depository Library Program (FDLP). As members of this program, it is one of the missions of these libraries to connect patrons to government information. As such, a large number of government document results in their catalog searches is appropriate to this mission. Of the 20 libraries which had a large number of government document catalog search results for 'financial literacy', all 20 were

in fact FDLP libraries, indicating that this skew in resource types was appropriate in these cases.

Most libraries had unique first titles, but six libraries had “Financial literacy: finding your way in the financial markets” (a course, whether by DVD, CD or streaming) by Connel Fullenkamp as their first title, making it notably the most common first result in libraries’ catalog searches for ‘financial literacy’. These first results titles skewed heavily towards adult titles, with 31 being adult publications, nine being juvenile books, and eight being government documents. For the most part these first titles were relatively recent publications, with the majority being published after 2011, though most frequently first titles in the results list were published 2011-2013, so they weren’t as recent as they could be. The oldest first search result title was from 1991.

If one typed ‘personal finance’ into the libraries’ catalog searches instead of ‘financial literacy’ the number of results ranged from 40 to 3,120 with an average of 853 search results. Again, the median value was notably lower at 606 titles, indicating a general right skew to the distribution of title counts. Thirty of the forty-eight studied libraries had between 40-810 titles in the search results, while six libraries had notably much higher search results; more than 1,810 titles!

In this case, the first results for this catalog search showed a much stronger skew towards one title in particular; thirteen of the forty-eight public libraries had ‘Personal Finance’ by Eric Tyson as their first search result. These first results again skewed heavily towards adult publications with 34 titles for adults and only five for children (with nine unknown). Again, these first search results were usually recent publications, with 21 of the 48 libraries having first result titles published 2019-present and a firm majority published 2012-present. Of the first 25 catalog results, almost all of the results were relevant for all studied libraries; 44 of the 48 libraries had search results wherein all 25 first results were relevant. In contrast to the catalog results for

'financial literacy', none of these results, for any of the studied libraries, were government documents.

The year range of the first 25 catalog search results for 'personal finance' was as far back as 1930 to 2021. The date ranges for the personal finance books (as opposed to those found by searching for 'financial literacy) tended to skew to slightly older publications with 37 libraries having at least one book in the first 25 results published prior to 2000, though almost all the libraries also had books published in the past two years in their results list (34 had 2021 titles and 43 had titles published in 2020-2021).

SUBJECT GUIDES AND OTHER RESOURCES

Beyond books, most of the studied libraries had limited further resources focused on personal finance topics. The libraries were split exactly in half regarding whether or not they had an online guide focused on personal finance topics; 24 did and 24 didn't. The keywords/titles associated with these guides varied widely. The researcher considered them relevant to personal finance if the resources could reasonably be used for personal finance research or guidance (not necessarily that the resources were exclusively focused in this area). Some of the more common topics covered were job searching, small business and entrepreneurship resources, tax assistance, and investing. Only two guides were actually titled 'Financial literacy', with two additional guides focused on 'Financial empowerment' and 'Financial planning'. Three libraries had guides titled 'Personal finance'. Rather than guides focused broadly on financial literacy or personal finance, most libraries that had relevant guides seemed to focus on particular areas of personal finance, or broader business research areas that could have personal finance implications.

Almost all the libraries studied had some online databases that might be helpful to patrons with personal finance needs. Only three libraries had none of these resources. The

rest of the libraries had the ability to pull down a list of all e-resources by at least some relevant subject area, though generally these subject areas were not specifically related to personal finance, but instead focused on areas like general business databases, job search resources, finance and investing. As well as library databases, most library websites also linked out to open internet resources such as local government services, the Consumer Financial Protection Bureau (CFPB), the Financial Industry Regulatory Authority (FINRA), the U.S. Securities and Exchange Commission (SEC), the AARP, public records access, U.S. Census sites, MyMoney.gov, the Jump\$tart website, small business reference centers, United States Patent and Trademark Office (USPTO) sites, the Internal Revenue Service (IRS) sites, Federal Reserve bank websites and more.

The vast majority of libraries did not have a business librarian; 45 of the 48 libraries did not and even of those three libraries whose websites did indicate a business librarian, only one had contact information available.

WORKSHOPS AND OTHER PROGRAMMING

In assessing whether or not libraries had programming for personal finance topics in the month of August 2021, the researcher ultimately dropped the distinction between 'in person' vs. 'online' programming because so many libraries were still holding the majority of their formerly in-person offerings online. It was impossible to tell which programs would/would not be in person in regular circumstances. It is also impossible to tell when or whether programming will return to an in-person format, or whether there will be certain programs that have been found to work better online, though they may have previously been in person.

A little more than half of the studied libraries (28) did not have any relevant programming offered during the time period studied. Those libraries that did have relevant programming generally had limited offerings, usually less than four programs currently scheduled and visible on their event calendars for the month in question. There was no clear pattern regarding

whether programs were scheduled during weekdays, weekday evenings, or weekends, though there was a slight preference for programs to be scheduled on weekdays over weekends. Programs were also relatively evenly split between those taught by library staff and those taught by partner organizations. Some of the partner organizations that paired up with libraries included local financial advisors/counselors, legal services organizations, Better Business Bureaus, FINRA, job assistance services, and local government organizations.

Keywords associated with relevant programming (aka how to search event calendars, or tags placed on events within those calendars) tended to be focused on broad areas. Often a user could filter calendars by subject areas such as 'Business, Career, & Finance', 'Money' or even 'Adulting'. Only six libraries had the ability to filter down their event calendar by topics that indicated they were specifically focused on financial literacy or personal finance. Popular subjects covered in programs included job searching, banking, investing, financing college, home buying and rental issues. Some of the more unique and interesting program titles included "Almost adulting 101: money matters for teens", "Managing money in a crisis", "Cyber safety, ID theft prevention, and cyber-smart online shopping", "NFT for beginners", "Do more good with sustainable, responsible investing" and a program on eviction record expungement. There is clearly a wide range of topics available at libraries across the country.

In addition to group programming, some libraries offered one-on-one counseling options to assist patrons with financial and related concerns. Eight of the studied libraries offered such counseling. These programs included: free legal consultations (two libraries), tax preparation services, social services and benefits navigation assistance, small business counseling, and career coaches. These programs are almost all facilitated through partnerships, namely with nonprofit organizations, university programs, local government organizations and legal services groups. One library offers small business counseling facilitated by a business librarian and focuses on research and serving as a connection point to other local assistance services.

Discussion

It is striking that nine of the libraries studied had no ability to search their sites at all, and an additional 13 libraries had no site search results when one searched for 'personal finance', while 10 libraries had no site search results when one searched for the phrase 'financial literacy'. More than a third of the studied libraries therefore had either no ability to search their websites, or no results when one searched for either search term. Exploring the reasons behind limited site searching capabilities and coverage may be an area to prioritize in future research.

It is also interesting to note how different a library patron's website experience would be if they were searching for the term 'financial literacy' or 'personal finance'. The number of results, types of results, and debatably the relevancy of results (or at least the focus on popular literature versus government documents) would differ widely based on the choice of search term. Excluding outliers, the average number of site search results for 'financial literacy' was six, versus 24 for 'personal finance', indicating there were, on average, many more site search results if one searched for 'personal finance'.

Unfortunately, regardless of search term, there seemed to be widespread issues with the relevancy of results overall. While it is possible that some patrons are interested in past library meetings minutes, or strategic directions documents, it seems unlikely that these are results relevant to the majority of patrons. Event announcements for events that occurred months, or often years, in the past seem unlikely to be relevant to any patrons. These kinds of results were very common on site searches.

Even search engines struggle to produce relevancy rankings that correspond to users' relevancy judgements, so this is a very difficult challenge to address, but it may be an aspect of libraries websites to consider improving, if possible (Zhitomirsky-Geffet, Bar-Ilan and Levene, 2016). Relevancy rankings for search results would ideally take into consideration the currency of a result as well as how closely it aligns with search terms. Especially with a topic like

personal finance, results that are years old, even if they are something like blog postings that may have contained relevant advice at the time, may well be out of date five years later.

Program announcements are almost certainly no longer relevant after their event date has passed. If program announcements are to be included in search results, perhaps there is a way to delete these announcements after their event date. If this is not possible, perhaps search results could emphasize resources over programming, with a general link to libraries' program calendars as a result, almost all of which include the ability to keyword search or limit events by categories. Research into the relevancy of libraries' discovery tools and online catalogs, and how to improve these results, may be a key area for future research.

Just as with site searching, patrons tend to get many more results in catalog searching when they search for 'personal finance' as opposed to 'financial literacy'. This holds true to a lesser degree even for the FDLP libraries, which presumably have more government documents that would tend to surface under a search for 'financial literacy'. It is interesting to note that as a percentage of the overall collections for the 25 libraries with the largest holdings, the search results for 'personal finance' account for an average of .03% of total holdings, while search results for 'financial literacy' account for an average of only .004% of total holdings. This indicates that personal finance resources are a very small percentage of libraries' holdings overall and that libraries may want to consider expanding these collections. It also suggests that resources categorized as 'personal finance' are more prevalent overall. This may be a reflection of the Dewey Decimal Classification System, which includes 332.024 'Personal finance', as opposed to 'financial literacy'.

One related area for future research might be to explore if patrons are generally interested in surfacing government documents in these kinds of catalog keyword searches and/or if there are certain types of government documents that are generally deemed more relevant than others (aka. are national standards documents generally considered more useful than Congressional hearings transcripts, etc.). A further nuance to explore might be whether

patrons who are more interested in policy literature tend to search for the term 'financial literacy' while those patrons who would exclude government documents from their desired search results tend to search more often for the term 'personal finance'. It may be that patrons already exclude or include more government documents by their choice of terminology. One possibility for catalog improvement could be the addition of an option to toggle on or off an interest in government documents and/or to suggest 'financial literacy' as a related keyword to 'personal finance' and vice versa, allowing users to choose if they would like to see the less populous items in the collection.

The relevancy of search results is impacted by the date of publication, and it may be worth considering in this particular field how recent publications must be for their counsel to remain relevant. This may, of course, vary by title with general advice remaining relevant longer than discussions of particular financial vehicles, or tax strategies, etc. It is likely impossible to adjust to this level of specificity within the catalog search results themselves, but perhaps a page could be built to highlight best bet titles, or a new acquisitions feed could focus on personal finance books.

The researcher also noted the strong prevalence of adult books compared to titles for children. Future research could explore if this is a result purely of publishers producing more adult content, or if this is also an impact of library purchasing preferences. Regardless of the cause, it may be worth pondering if there is a need for more child-friendly personal finance content. While personal finance might be a field we associate more with adult decision making, the argument has frequently been made that these are skills it would be beneficial for young adults to have before they start making their own financial decisions.

Half of the studied libraries had at least one relevant guide associated with personal finances. The lack of such a guide for the other 24 libraries may indicate the limited time of library employees, limited expertise, or the overall lack of comfort among librarians in creating such a guide. This is, however, a website enhancement that may be particularly impactful for

those sites currently without a guide. Having a single place to start one's exploration of the libraries' resources may help patrons feeling overwhelmed by a complex, and often emotional, topic.

For those libraries with more than one online guide associated with personal finance, these guides generally serve as a place for patrons to explore specific aspects of personal finances. The top titles in the library catalog searches were all very general introductions to financial literacy and personal finance, with top titles such as *Personal Finance for Dummies*, *Personal Finance 101*, and *Financial Literacy: Finding Your Way in the Financial Markets*. On the websites of libraries with multiple guides, in contrast, the guides tended to focus more narrowly on subjects such as "Researching mutual funds", "Student loans and debt repayment", "Business and investments" and "Tax resources". It could be impactful if future research undertook a more in-depth exploration of whether, through this combination of general and more specific resources, libraries are generally covering the five focus areas considered priorities in RUSA's "Financial literacy education in libraries: guidelines and best practices for service": Earning, Borrowing & credit, Saving and investing, Spending, and Protecting against risk (RUSA, 2014).

In an ideal world, an increase in the number of business librarians in public libraries would be wonderful, but this may not be possible. A librarian with an interest in business or financial topics, or even just a librarian willing to handle these questions, would also be a positive improvement. To have so few websites with contact information for a particular individual who may be able to help patrons with these needs could be discouraging to patrons with little idea where to start their search. Past research indicated that a large percentage of librarians might be uncomfortable providing personal finance resources guidance (Smith and Eschenfelder, 2013). It could be an area for future research to determine if this is still the case, and, if so, if there are ways to address this challenge moving forward.

Conclusions to be drawn from currently available programming in public libraries is limited due to the pandemic. There is no way to tell if current offerings are truly reflective of regular practice. If it is the case that the programming offerings discoverable on library websites for August 2021 are reflective of what is generally available in libraries, then it may be worth noting that only about half of the displayed programs were taught by partner organizations. Perhaps programming offerings could be expanded through the further development of community partnerships, though libraries would need to exercise caution in avoiding possible bias. Such partnerships might also allow for the expansion of one-on-one counseling services, which were only available in eight of the studied libraries. Such services allow libraries to evidence their value as physical spaces, while facilitating the exchange of expertise between partner organizations and patrons. Further research might explore if the diversity of programming and counseling topics displayed in libraries across the country match up with the needs of particular communities and if libraries are in fact providing the programming that best serves the unique needs of their patrons.

Conclusion

Public libraries have long been supporters of their patrons' financial literacy, even before the term itself came into popular usage. The past decade has seen notable growth beyond collections, to libraries expanding into programming, partnerships to provide one-on-one counseling, e-resources, online guides, and more. There are still areas for growth and enhancement, however, and one area of particular focus moving forward might be on the materials and services highlighted via libraries websites. The coronavirus pandemic has not only created new financial strains on many patrons, but it has also shifted the habits of many to more strongly emphasize online interactions, a shift that may or may not alter in the coming years, but is unlikely to fade entirely.

This study was undertaken to understand support for personal finance education currently visible on the websites of the largest 48 U.S. public libraries to search for trends in services and design, and possibly to suggest areas for further refinement. While catalog searching appears to be an area of strength for library websites, for instance, site searching seems unlikely to help patrons effectively navigate to desired resources. While there was some available programming for the month studied herein, libraries might look into expanding their financial literacy programming in the future, either through cautiously increasing community partnerships, or through more librarian-mediated events. E-resources, whether library databases or links to other relevant sites, might see increased utilization through the creation of library guides, for those sites that don't yet have them.

Ultimately, what a library provides for its patrons, both through its website and in person, should be curated to their own population. There will be no one-size-fits-all approach to supporting personal financial education, just as there is no singular prescription for collections and programming more generally. It is the intent of the researcher only to provide an overview of trends at a national level, so individual librarians might consider any adjustments or improvements that may work to better serve their own populations. Especially over the past decade, the need for financial literacy education has only increased. It seems reasonable to expect the trend may continue, and libraries should be ready.

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Appendix A

1. Maricopa County Library District, AZ
2. Los Angeles Public Library, CA
3. New York Public Library, NY
4. County of Los Angeles Public Library, CA
5. Chicago Public Library, IL
6. Brooklyn Public Library, NY
7. Houston Public Library, TX
8. Miami-Dade Public Library System, FL
9. Queens Borough Public Library, NY
10. Harris County Public Library, TX
11. Broward County Libraries Division, FL
12. San Antonio Public Library, TX
13. Orange County Public Libraries, CA
14. Las Vegas-Clark County Library District, NV
15. Phoenix Public Library, AZ
16. Free Library of Philadelphia, PA
17. King County Library System, WA
18. Hawaii State Public Library System, HI
19. Sacramento Public Library, CA
20. San Diego Public Library, CA
21. Tampa-Hillsborough County Public Library, FL
22. Dallas Public Library, TX
23. San Bernardino Public Library, CA
24. Riverside County Library System, CA

25. Hennepin County Library, MN
26. Public Library of Cincinnati and Hamilton County, OH
27. Boston Public Library, MA
28. Dayton Metro Library, OH
29. Detroit Public Library, MI
30. Cleveland Public Library, OH
31. Cuyahoga County Public Library, OH
32. Allen County Public Library, IN
33. City of St. Louis Municipal Library District, MO
34. San Francisco Public Library, CA
35. Atlanta Fulton Public Library System, GA
36. Multnomah County Library, OR
37. Columbus Metropolitan Library, OH
38. Indianapolis-Marion County Public Library, IN
39. Saint Louis County Library, MO
40. Salt Lake County Library System, UT
41. Fairfax County Public Library, VA
42. Orange County Public Library District, NY
43. Sno-Isle Libraries, WA
44. Baltimore County Public Library, MD
45. Seattle Public Library, WA
46. Wake County Public Libraries, NC
47. San Jose Public Library, CA
48. Pima County Public Library, AZ
49. Montgomery County Public Libraries, MD

Appendix B

Checklist for Financial Literacy Resources in U.S. Public Libraries

1. What happens if you type 'financial literacy' into the search-all box from the homepage?
(Describe.)
2. What happens if you type 'personal finance' into the search-all box from the homepage?
(Describe.)
3. Does the library have a relevant research guide or subject page?
 - a. What term(s) are used for this guide's subject ('personal finance', 'financial literacy', 'financial education', etc.)?
4. Does the library have a business librarian or subject specialist?
 - a. Is their contact information readily available?
 - b. Ways to contact (phone, email, etc.):
5. What happens when you type 'financial literacy' into the catalog search box with no modifications?
 - a. How many results total?
 - b. Of the first 25 results, how many items are truly relevant?
 - c. Date range (among first 25 results):
6. What happens when you type 'personal finance' into the catalog search box with no modifications?
 - a. How many results total?
 - b. Of the first 25 results, how many items are truly relevant?
 - c. Date range (among first 25 results):
7. Are there relevant tutorials/workshops available? (for August 2021)
 - a. Online?
 - i. Format(s)/Source(s):

- b. In person?
 - c. How many events are currently scheduled?
 - i. Scheduled weekday, day:
 - ii. Scheduled weekday, night:
 - iii. Scheduled weekend:
 - iv. Taught by library staff:
 - v. Taught by partner:
 - d. What keywords are associated overall with these events?
 - e. What are the topics covered?
 - f. List of partners:
8. Does the library provide access to one-on-one counseling services?
- a. Which organizations does the library partner with to provide these services?
9. Are there other relevant electronic resources? (Describe.)
- a. Does the library link to any other relevant community/local government organizations for further support? List:
10. Note any other relevant website attributes: