



Recruitment Techniques for LIS Internship Applicants of Color: Case Study of a Paid Medical Data Internship Program

Justin de la Cruz
Program Specialist
National Center for Data Services
Network of the National Library of
Medicine
New York, NY
justin.delacruz@nyulangone.org

Genevieve Milliken
Research & Data Services Librarian
Health Sciences Library
NYU Langone Health
New York, NY
genevieve.milliken@nyulangone.org

Nicole Contaxis
Head of Data Sharing and Metadata
Management
Health Sciences Library
NYU Langone Health
New York, NY
nicole.contaxis@nyulangone.org

Miguel Juárez
Lecturer
Department of History
The University of Texas at El Paso
El Paso, TX
mjuarez6@utep.edu

Peace Ossom
Associate Director
National Center for Data Services
Network of the National Library
of Medicine
New York, NY
peace.ossom@nyulangone.org

Abstract

Background: The recruitment of Black, Indigenous, and People of Color (BIPOC) has been an ongoing effort for specialized libraries and library programs, especially as they try to fill technical roles while combatting internalized biases and candidates' potential self-deselection by not applying or otherwise removing themselves from the recruitment process. **Introduction:** This case study examines the recruitment efforts of

the National Center for Data Services (NCDS) for a paid internship program for BIPOC graduate students interested in data librarianship in health sciences settings. **Methods:** To enhance recruitment efforts and support applicants, NCDS met with consultants on equity, diversity, inclusion, and accessibility. The recruitment process included reaching out directly to graduate programs, hiring an independent application coach who was available to consult with anyone interested in applying, holding informational sessions about the internship opportunity, and limiting the required components of the application, which included removing the need for letters of recommendation or support. **Results:** Although the target group was a very small pool of Library and Information Science (LIS) BIPOC students interested in medical and data librarianship, we received applications from all United States (U.S.) racial groups, except Native Hawaiian or Other Pacific Islander. The recruitment efforts led to 38 applications for 8 positions in 2022 and 59 applications for 12 positions in 2023. **Conclusions:** The resultant number of applications showed an interest and need for specialty programs for BIPOC LIS students and highlighted how recruitment methods impact participation in specialized programs. Further research is necessary to assess the impact of various recruitment styles for this target group and the impact of these recruitment methods.

Keywords: Diversity, Internships, Library and information science, LIS, Recruitment, Retention, Specialized programs

Recommended Citation:

de la Cruz, J., Milliken, G., Contaxis, N., Juárez, M., & Ossom, P. (2024). Recruitment techniques for LIS internship applicants of color: Case study of a paid medical data internship program. *Issues in Science and Technology Librarianship*, 105.
<https://doi.org/10.29173/ist12798>

Background

Racism is ingrained in modern American librarianship and its history. For instance, Melvil Dewey, who discriminated against Jewish and Black people ([Albanese, 2019](#)), co-founded the oldest and largest library association in the world ([American Library Association, 2023a](#)), developed the Dewey Decimal Classification system that is still widely used today, and started the first library school in the United States (U.S.) at Columbia University ([Kendall, 2014](#)). From these inauspicious beginnings, the profession of librarianship in the U.S. has had a history of enforcing the racial segregation of public spaces, which for decades excluded Black people from accessing the resources and services of public, academic, and government libraries and often restricted and oppressed people from other minority groups ([Brady & Abbott, 2015](#); [Jones, 2004](#); [Knott, 2015](#)).

Current diversity, equity, and inclusion efforts must contend with this ongoing and historical culture. According to the most recent comprehensive ALA report of librarian demographics available from 2017, of all credentialed librarians in the U.S., 86.7% of respondents self-identified as non-Latino White ([Rosa & Henke, 2017](#)), and findings from within the Association of Research Libraries (ARL) libraries found Black and Latinx librarians are most severely underrepresented ([Chang, 2013](#)). Meanwhile,

diverse workforces have been found to be better at analysis, finding potential problems in their work, and developing creative solutions than those of homogenous groups ([Phillips et al., 2009](#)). As awareness and motivation to address this issue have grown, programs in areas of equity, diversity, inclusion, and accessibility (EDIA) have surged, mostly focused on diversity of patrons and users, rather than library staff ([Kung et al., 2020](#)). Efforts to diversify the profession were most prolific in the 1990s with internships, in the late 2010s with residency programs, and again in the 2020s as a general topic of discussion, but resulted in limited change due to an unwillingness to specifically target sources of inequity, such as a bias toward white professionals in recruitment and retention ([Damasco & Hodges, 2012](#); [Ossom-Williamson et al., 2021](#); [Rutledge et al., 2019](#); [Velez et al., 2021](#)).

In health sciences and academic librarianship, including data librarianship, Black, Indigenous, and People of Color (BIPOC) are largely absent and do not represent the diversity of the communities being served ([Jones & Murphy, 2019](#); [Kung, et al., 2020](#); [Pionke, 2020](#)), particularly in specialized, technical, or leadership areas; however, information on data librarianship alone has not been published. Furthermore, initiatives for external skill development for BIPOC Library and Information Science (LIS) students are limited. Some examples of these programs include the ARL Kaleidoscope Program, which was developed in 2000 – initially as “Initiative to Recruit a Diverse Workforce” – to provide scholarship, leadership training, and networking opportunities for BIPOC LIS students and the American Library Association (ALA) Spectrum Scholarship. The Spectrum Scholarship also includes leadership training and, for those interested in health sciences librarianship, additional support from the Medical Library Association (MLA) and the National Library of Medicine (Medical Library Association, n.d.). Additionally, there are more local opportunities, such as the Oregon State University Libraries Diversity Scholars Program ([Fernández & Filar Williams, 2020](#)).

Yet, these programs do not provide data librarian skills, although the ability to provide data services is now part of many job descriptions and new opportunities in health sciences and academic libraries. Data librarian positions are lucrative opportunities, as they often pay more than other introductory librarian positions and can lead to career advancement within and outside libraries: According to ZipRecruiter, the average data librarian salary was \$74,164 (or \$36/hour) in comparison with \$65,193 for the academic librarian (or \$28/hour) ([2023a](#); [2023b](#)). We developed an internship to help train BIPOC individuals in data librarianship so they can have a better chance pursuing these job opportunities.

Introduction

To help address recruitment and training issues specifically in data services, the National Center for Data Services (NCDS) of the Network of the National Library of Medicine (NNLM) developed a paid internship program for BIPOC graduate students interested in data librarianship in health sciences settings ([National Center for Data Services, 2022](#)). The NCDS was established in 2021 to support libraries and librarians as they engage in data-centric research and services. Equity, diversity, inclusion, and accessibility are core values for NCDS, and these values played a role in all aspects of

the internship, including host selection; applicant recruitment, coaching, and support; application processes; and outreach.

As stated by Hudson in 2017, diversity is often defined in a “maddeningly vague” way ([p. 6](#)), but we focused on racial and ethnic minority groups due to their underrepresentation in technical roles, such as data librarianship, as mentioned above. We designed the internship to give participants the opportunity to gain practical experience while working with a mentor in a guided environment on structured, data-related projects. To be eligible for the internship, applicants must be (a) a U.S. citizen or permanent resident, (b) currently enrolled in an accredited LIS graduate program – including master’s or doctoral, (c) a member of a marginalized racial or ethnic group as specified by the U.S. Office of Management and Budget, which includes “American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander” racial groups and “Hispanic or Latino” ethnicity ([U.S. Department of Health and Human Services Office of Minority Health, n.d., para. 2](#)).

Graduate LIS students who graduate with soft and hard skills are in high demand for data librarian positions, since, for LIS students, “internships are important experiences or even graduation requirements, serving as a bridge between an abstract LIS curriculum and a concrete professional experience” ([Juarez & Blackwood, 2022, p. 82](#); [Thielen & Neeser, 2020](#)). Preferred skills, such as working on a team, understanding the data lifecycle, and working with data are best developed using “real life” data in mentored environments ([Federer, 2018](#)). BIPOC LIS students, when surveyed, have shown interest in financial support and work opportunities ([Kim & Sin, 2008](#)). In addition, once in the profession, BIPOC librarians are typically in service roles, such as reference and instruction, rather than more technical roles, such as data and systems ([Damasco & Hodges, 2012](#)), which could limit the scope of options in terms of positions, promotions, and career advancement. Therefore, we ensured that the internship would provide BIPOC LIS students with opportunities to develop these skills to increase their job prospects and improve potential career outcomes. In recognition of the imbalance unpaid internships can cause due to some students being unable to take advantage of volunteer work ([Farkas, 2019](#); [Wildenhaus, 2018](#)), all interns would be paid \$20 an hour, which is in a common pay range for similar programs ([Wang et al., 2022](#)). Interns can work up to a maximum of 10 hours per week, and their paid time includes their work on projects and attendance at training sessions.

The inaugural cohort consisted of eight interns across three partner organizations – the Data Curation Network (DCN), the NNLM Evaluation Center (NEC), and the New York University Health Sciences Library (NYUHSL) – to provide hands-on, practical work experiences in data services. In its second year, DCN and NEC were renewing partners, and the University of Rochester Miner Libraries and Cary Institute of Ecosystem Studies were new partner sites. Concurrently with program development, NCDS leadership participated in the following program: “Leading the Charge: Advancing the Recruitment, Retention and Inclusion of People of Color within the Library and Information Science Field” IMLS Grant ([Institute of Museum and Library Services, 2020](#)) to improve planning and assessment of the internship.

Guidance from “Leading the Charge”

The current “Leading the Charge” program (2020–2023) is an extension of a 2017 IMLS grant awarded to Hampton University’s William R. and Norma B. Harvey Library. The first grant funded a gathering of librarians, leaders, and experts in LIS to explore the recruitment and retention of people of color in the field (Rollins et al., n.d.). The current grant seeks to “build the capacity of libraries to develop and implement sustainable and successful core practices and initiatives which change, evolve and improve the experiences of people of color working within Library and Information Science” ([Hampton University, 2023, para. 1](#)).

As part of this project, Equity, Diversity, and Inclusion (EDI) consultants were paired with selected project participants based on geography, region, and specialty to help with ideas and strategies. Overall, EDI consultant duties included discussing project goals, assessments, outcomes, and best practices. For the NCDS internship program, the EDI consultant assisted with participant recruitment, application development, application review process, and program assessment tool development. By participating in the “Leading the Charge” program, we benefited from expert advice informed by current EDIA practices that resulted in a variety of methods for building awareness of their internship program, providing context and motivation for applying, and minimizing barriers for applicants.

Objective

In this case study, we described the steps taken to recruit BIPOC LIS students for a data librarian internship. We also shared some of the results and the implications of this case study on the field of data librarianship. Our focus on recruitment for a specialized field of library work is due to limited publications in this area – most library diversity recruitment efforts have focused on getting the BIPOC community interested in LIS programs or librarianship in general ([ACRL Task Force on Recruitment of Underrepresented Minorities, 1990](#); [Busch et al., 2022](#); [Kim & Sin, 2008](#); [Love, 2010](#)) with little to no published research on recruiting BIPOC librarians-to-be for specialized roles. Publications on external, health sciences-focused training for LIS students describe processes and best practices for its facilitation, rather than its recruitment process, and most are not focused on data literacy ([Laynor & Tagge, 2022](#)). Because the audience for this internship was so narrow (BIPOC in an ALA-accredited LIS program who are potentially interested in medical data librarianship), the team spent considerable time developing recruitment strategies.

Methods

Initial Recruitment

The following methods for initial recruitment were implemented for the NCDS internship: (1) we developed a website with an informational video about the field, (2) we held information sessions during the application period, and (3) we made direct outreach to LIS graduate programs.

Creating a website about the internship and a video about data services featuring people of color was an important outreach tool for this opportunity because LIS

students have been found to be most attracted to programs through their websites ([Ndumu & Betts-Green, 2018](#)). Also, although data services positions are increasing, many BIPOC students may not see themselves represented in the field. This lack of visibility was one of the initial challenges NCDS faced in recruiting for this internship, resulting in NCDS's internship committee developing a promotional video about data librarianship, showing interviews with BIPOC librarians who detailed their work roles and experiences. To ensure high-quality video production, NCDS mailed recording equipment (studio microphones and ring lights) to BIPOC data librarians so they could easily record their video segments. We published the resulting video to YouTube ([Network of the National Library of Medicine, 2022](#)), embedded it on the internship webpage, and distributed it in promotional emails. The video served to help BIPOC library students see themselves in a role they may not have initially considered for themselves. At the time of writing, this video has had over 1,000 views.

Information Sessions

To allow potential applicants to meet NCDS members and ask questions about the internship experience, two informational sessions were held before the application due date each year. The sessions were modeled after the prestigious Texas Library Association's Texas Accelerated Library Leaders (TALL Texans) program ([Texas Library Association, 2023](#)), where potential applicants could view a live presentation about the internship, including the projects being offered, and receive tips for applying. The attendees were also able to see and ask questions of the individuals who developed the internship.

During the first session, six weeks before the application deadline, we gave an overview of the intended internship experience, reviewed the application process, and answered questions from attendees. For the second session, one week before the application due date, we announced the partner sites, and attendees received information on the internship project topics. In 2022, 20 prospective applicants attended these informational sessions, including 4 people who would be chosen to be in the first cohort of 8 interns. In 2023, attendance doubled to 40 prospective applicants.

Direct Outreach to LIS Graduate Programs

We sent recruitment emails to general email discussion lists for medical and data librarianship and individually to most ALA-accredited graduate schools in the U.S. ([American Library Association, 2023b](#)). The recruitment email included a link to the internship application ([Appendix A](#)), which consisted of 10 questions plus an optional space to ask the internship committee any questions about the program.

Encouraging Application Completion

To support applicants who may have been hesitant to follow through with the application process or who otherwise needed additional encouragement and assistance, we took the following steps to increase the quantity of quality applications received: (1) used language in promoting the internship and on the application form that helped applicants envision themselves in this role; (2) were selective in the requested and

required components of the application; and (3) had an application coach available to all prospective applicants. In these ways, we improved the application process by reducing barriers to entry.

Application Form Design

The internship application consisted of the following requirements: contact information, demographic information, a statement of interest no longer than one page, and a CV/resume. The application gave optional opportunity for applicants to provide their pronouns and preferred honorifics. Although lengthy forms with questions and required references are typical for student programs ([Baruzzi et al., 2020](#)), we evaluated fields that are typically required on job and internship applications, and, instead of asking routine questions such as gender, we eliminated questions that were not necessary. Because of typically required materials, such as references, there can be a strong selection bias towards applicants with well-developed professional networks and years of relevant work experience, so to attempt to counter those biases, the application process did not ask for letters of recommendation or a letter of support from a workplace ([Hathcock, 2015](#); [Wang et al., 2022](#)).

One point of the internship program was to include various types of experiences and backgrounds. As a result, we designed the application to allow applicants to share their interest about the internship without it being an onerous process. In their one-page personal statement, applicants were asked to address any experience working with data or data services, any relevant data skills, and the types of projects they might be interested in during the internship as part of their statement. In the first year, interns were hired by NYU Langone Health as non-insured intern staff. Due to formal requirements from Human Resources, applicants were asked if they could provide the contact information for 3 references if chosen. Reference quality and the information the committee gathered from checking references were not criteria for selection and, therefore, were not provided to the external evaluators who helped select the interns. The internship application was distributed via a REDCap survey the first year and, in an organizational effort to place all application information in a central location, a Drupal website form the second year. In the second year, the compensation method was altered to “independent contractor status” that allowed the application process to only consist of the application materials: No references were required, and the program could include graduating students and recent graduates, a feature recommended in several case studies of similar library types ([Wang et al., 2022](#)), as well as by prospective applicants who emailed the team during the first year.

Application Coaching

To reduce barriers for BIPOC applicants who may not have had prior experience applying for rigorous programs – and for those without mentors in the profession – we provided prospective applicants with the contact information for an external “application coach.” Having coaching available was an innovation of the ARL Kaleidoscope Program ([n.d.](#)). For the NCDS internship, the application coach was a person of color in data librarianship, unaffiliated with NCDS or the internship program. They provided support and advice for several applicants. In the first year, they received

questions about the projects being offered, their eligibility, and the application timeline. They also provided support and feedback on formatting quality CVs and letters of interest. Applicants who worked with the coach mentioned they did not have experience applying for internships or needed advice on explaining gaps or changes in work experience.

One of the applicants sent the following email (provided here with permission) in appreciation for the time and effort of the coach and another advisor in helping them with strengthening their writing:

“I wanted to thank you all for your feedback on the application materials needed to apply to the NCDS Internship. I appreciate all of your coaching when it came to their construction. Every comment or critique was reviewed and integrated into my final materials. I appreciate the time and effort each of you took out of your day to support my journey. With utmost respect and gratitude, I would like to thank you in sincerity for your contribution in my final submission to the internship. I have attached the final materials that I submitted to demonstrate how much your feedback impacted the final submission. You are each appreciated. Have a blessed day” (personal communication, 2022).

In the second year of having application coaching, eight applicants reached out for assistance, and two of those who reached out were selected for the internship. Question topics in the second year included assistance writing a CV instead of a resume, asking about references, and formatting requirements for the statement of interest. The coach also reviewed six sets of applications. The coach was compensated time spent (approximately 13–14 hours) reviewing application materials. Two applicants reached out later and thanked the coach for their assistance.

Selection of Applicants and Host Sites

Racially and ethnically diverse external evaluators (three in Year One, and four in Year Two) assessed all the applications using a scored rubric we developed ([Appendix B](#)). Reviewer scores were averaged to determine the rankings of applicants who met the threshold for participation according to the rubric. Reviewers were assessed to account for inter-rater reliability in their scoring of applicants. In the second year, applicants who scored above the threshold were selected due to geographic distribution in alignment with external funding by several NNLM Regional Medical Libraries.

NCDS also accepted project submissions from potential host sites for the internship. A host site provides a project for three interns with a clear scope that fits the timeline of the internship and ends with a data-centered deliverable or accomplishment. Because the projects are central to the interns’ experiences, we selected sites based on the applications that showed a potential to both foster a supportive environment for interns and provide them with tangible data skills. The sites selected in 2022 were the Data Curation Network, which offered an extensive, immersive experience for interns in learning about curating clinical data; the NYU Health Sciences Library, which offered interns an analysis project based on evaluation data; and the NNLM Evaluation Center,

which offered interns the opportunity to evaluate data from the NNLM Data Warehouse using SQL. To ensure success on intern projects, NCDS also trained interns on data management, Python, APIs, SQL, Tableau, and more.

In the second year, 12 interns were again placed in teams of three at the four host sites. The Data Curation Network and NNLM Evaluation Center again hosted interns on topics similar to the previous year, and the University of Rochester Edward G. Miner Libraries and the Cary Institute of Ecosystem Studies were selected as the other two hosts. Interns working with the Miner Libraries focused on a research metrics project that used bibliographic data from Scopus to generate metrics for various medical departments. The Cary Institute project had interns join their team to work on the ecology of infectious disease by exploring global biological and ecological data about mammals and zoonotic pathogens.

Results

Each year, there was a one-month open application period, and, in the first year, 38 applications were received, and most of the applications were from eligible applicants with a clear need and strong interest in data librarianship. Nine interns were selected with a 24% acceptance rate for 2022, and eight interns completed the program. One intern could not participate due to their primary workplace employment restrictions. Due to the success of the first cohort, the paid internship was expanded in its second year to 12 internship participants and 4 partner sites. For the second year, there were 59 applicants and a 20% acceptance rate. We collected geographical information from applicants in the second year (2023) (Figure 1).

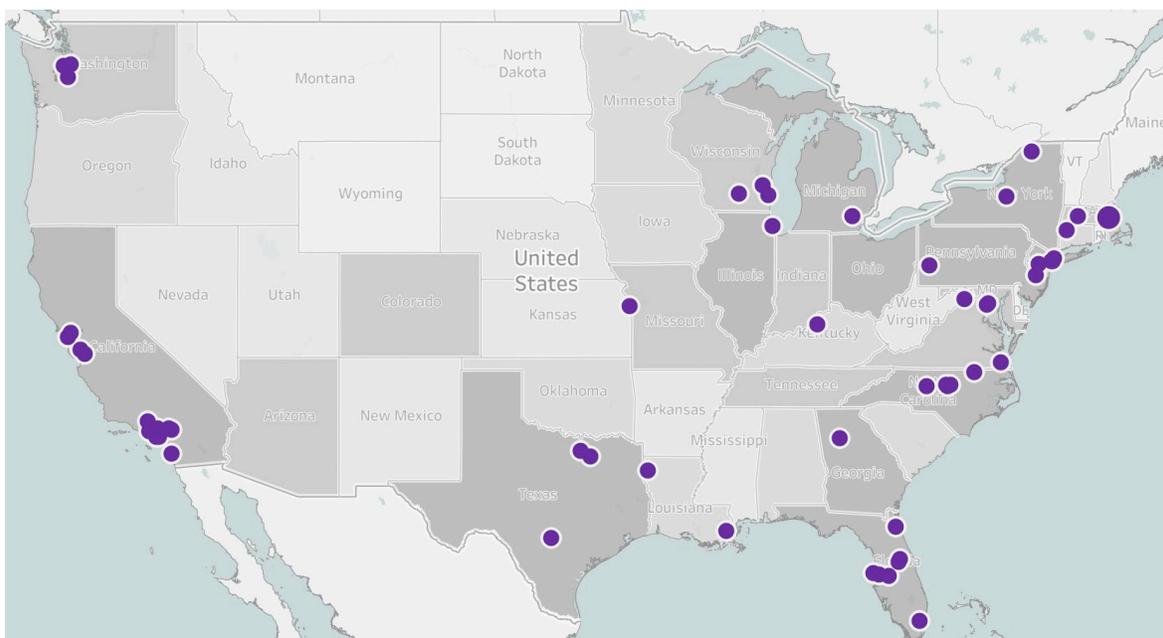


Figure 1. Geographical distribution of applications in 2023 (Note: State populations are indicated by the saturation of grey coloring.)

We received applications from students at 40 institutions, and 2 applicants did not report their institution. There were 19 applications from students at San José State

University (SJSU), the largest LIS program in the U.S. Five applicants were from Louisiana State University, and the following institutions accounted for four applicants each: University of Washington, University of Southern California, University of North Texas, and University of North Carolina at Chapel Hill. Of the remaining institutions, 6 institutions had 3 applicants, 8 institutions had 2 applicants, and 20 had 1 applicant for the internship.

Table 1. The 20 graduate program institutions with two or more applicants

Applicant's Grad School Institution	No. of Applications	
	2022	2023
San José State University	4	15
Louisiana State University	2	3
University of Washington	2	2
University of Southern California	3	1
University of North Texas	2	2
University of North Carolina at Chapel Hill	0	4
University of South Florida	0	3
University of Kentucky	2	1
University of Illinois Urbana-Champaign	3	0
Indiana University - Bloomington	2	1
Florida State University	0	3
Clarion University	2	1
University of Wisconsin Milwaukee	0	2
University of Pittsburgh	1	1
University of Alabama	1	1
Syracuse University	0	2
Simmons University	0	2
Rutgers University	0	2
North Carolina Central University	1	1
Massachusetts College of Pharmacy and Health Sciences	2	0

Most applicants to the internship were graduating within the next year (see Table 2). However, there was a wider range of graduation dates from applicants in 2023, due to the broader range of eligibility.

Table 2. Applicant graduation years by cohort

Year of Internship	Expected Graduation Date	No. of Applicants
2022	Not reported	5
	2022	7
	2023	22
	2024	2
	2025	1
2023	2021	1
	2022	2
	2023	21
	2024	27
	2025	7
	2026	1

Note. In 2022, the internship was only open to students who were enrolled in full-time programs in the proceeding spring and the upcoming fall. In 2023, the internship was open to all full- or part-time students as well as recent graduates.

Applications were received from all racial groups except Native Hawaiian or Other Pacific Islander. For both years, Asian, Black or African American, and Hispanic or Latino applicants made up the largest percentages of applicants. Figure 2 shows a comparison of the breakdown of applicant racial and ethnic groups.

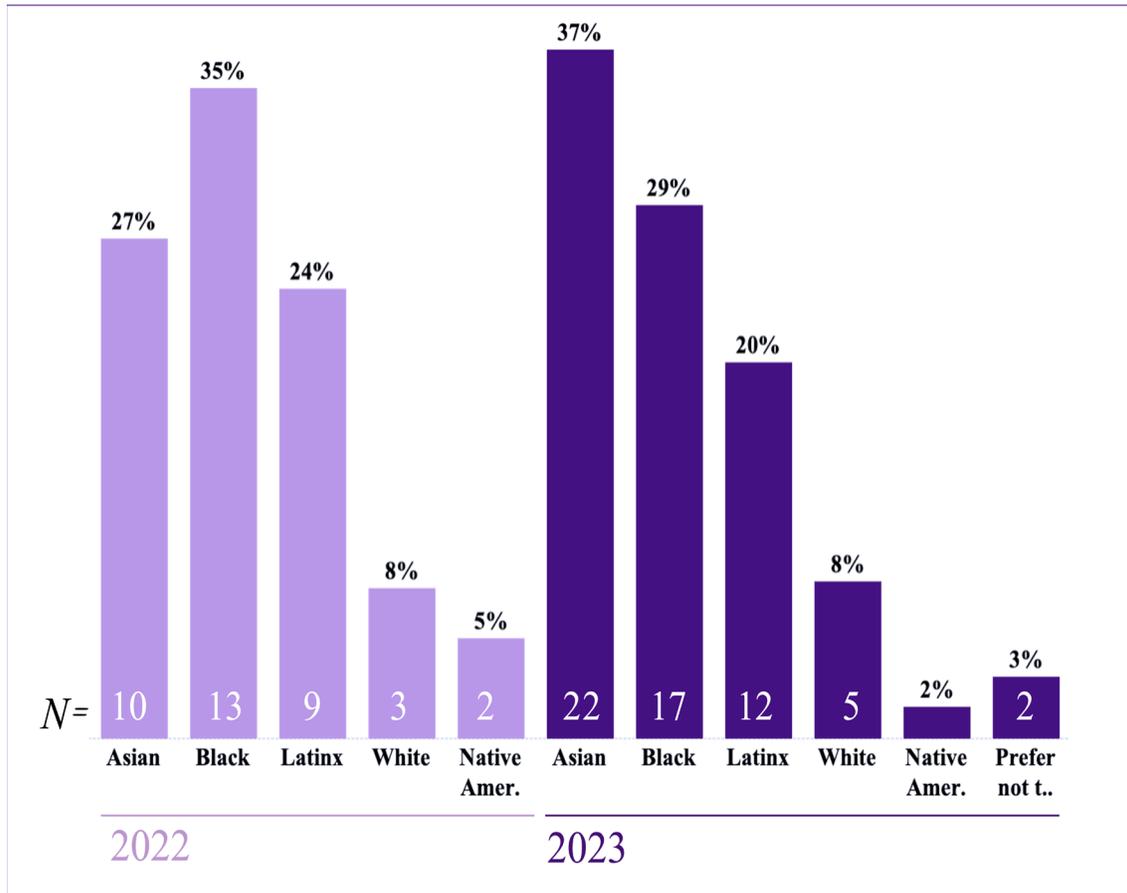


Figure 2. Percentage and number of applicants from each racial and ethnic group (*Note.* There was one Native American applicant and two applicants who marked “Prefer not to say” in 2023.)

Conclusions

The aim of the recruitment effort for this internship was to receive enough applications to fill all available places, since many specialized librarian programs for BIPOC LIS students find it difficult to do so. With 38 applications for 9 positions in the first year and 59 applications for 12 positions in the second year, we consider the application numbers a success. Although applications were distributed across many LIS programs, SJSU comprised 25% of the applications in the second year. Therefore, it may be useful to engage in more targeted outreach to institutions with fewer applications, especially those with smaller, less data-oriented courses and tracks.

Regarding ethnic and racial distribution, applications from all groups increased, except Native American. Furthermore, those selected in the first two years were divided among Black, Asian, and Latinx participants. So, more emphasis on Native American, Native Hawaiian and Pacific Islander applicants could increase participation from students who identify in these racial groups and may face challenges specific to their racial identities. In total, removing barriers to the application process, providing application coaching, and having knowledgeable and diverse external application reviewers contributed to a diverse and enthusiastic group of interns. During the internship period, there was no attrition during the summer program, and students worked with health science libraries and data organizations on interesting and relevant projects. Learning demonstrable skills, which often included data cleaning and analysis, participating in regular meetings, and giving presentations, provided the interns with soft and hard skills to confidently enter into the field of data librarianship. As previously mentioned, the inherent whiteness of librarianship places BIPOC students (and librarians) at a disadvantage, and it is the goal of the NCDS internship to provide training in this area so interns can engage with the field in a positive and supportive environment. Building community networks like this for LIS students and recent graduates may help retain BIPOC individuals in librarianship, and combat its history of white supremacy.

Limitations

Both interns and sites alike reported high satisfaction with the internship program; however, there were several areas for growth and adjustment in future iterations of recruitment for the internship. Certain aspects of the internship, such as finding application reviewers and creating videos, took significantly longer than expected. Moving forward, we plan to extend timelines for tasks, including application review and onboarding of both sites and interns. Some tasks, such as creating videos for outreach, do not need to be re-created each year, although we now acknowledge that future updates or changes to the videos need to be planned for accordingly.

The biggest challenge for the organizing team and interns was the HR process of onboarding since that could potentially affect recruitment. In the first year, interns were hired through the NYU Langone Health system and then placed at internship sites, which has the same requirements for newly hired employees regardless of clinical role or whether they work remotely. Due to the bureaucratic requirements of NYU Langone Health, this led to additional requirements for interns (e.g., to be considered, they needed to be enrolled full-time in an educational program both the semester before and the semester after the internship) as well as invasive blood work, vaccinations, and arduous and time-consuming paperwork for interns to complete. To avoid ongoing challenges for all involved, beginning in the internship's second year, interns were paid as contractors. This had an added benefit of removing the request for professional references from the application process.

This internship program will repeat annually while funding is available and aims to improve the aforementioned equity, diversity, inclusion, and accessibility issues in data librarianship by presenting current LIS students from underrepresented racial and ethnic groups with the opportunity to engage in data services projects. Additionally, we

plan to stay in contact with past interns to track their progress and facilitate the development of an internship alumni community where current and past interns can continually expand their professional networks.

Acknowledgments

Developing and hosting this internship involved the time and effort of a number of data librarians. To ensure that diverse perspectives were prioritized, most of these librarians were BIPOC. The team would like to acknowledge the paid and unpaid labor behind the roles of the application coach, the external application reviewers, the project sites and their internship liaisons, and all others who contributed to the success of the program. We would also like to thank Negeen Aghassibake, the NCDS Internship Application Coach, for assisting with information gathering for this article. Lastly, we would like to thank the support of the “Leading the Charge: Advancing the Recruitment, Retention and Inclusion of People of Color within the Library and Information Science Field” IMLS Grant project team.

The internship discussed in this chapter was funded with Federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under Cooperative Agreement Number UG4LM012347 with NYU Langone Health. This project was also made possible in part by the Institute of Museum and Library Services RE-246407-OLS-20. The content is solely the responsibility of the authors and does not necessarily represent the official views of NIH.

References

ACRL Task Force on Recruitment of Underrepresented Minorities. (1990). Recruiting the underrepresented to academic libraries. *College & Research Libraries News*, 51(11), 1016–1029. <https://doi.org/10.5860/crln.51.11.1016>

Albanese, A. (2019, June 24). ALA 2019: ALA votes to strip Melvil Dewey’s name from its top honor. *Publishers Weekly*, 266(25). <https://www.publishersweekly.com/pw/by-topic/industry-news/libraries/article/80557-ala-votes-to-strip-melvil-dewey-s-name-from-its-top-honor.html>

American Library Association. (2023a). *About ALA*. <https://www.ala.org/aboutala/>

American Library Association. (2023b). *Directory of ALA-accredited and candidate programs in library and information studies*. <https://www.ala.org/educationcareers/accreditedprograms/directory>

Association of Research Libraries. (n.d). *Kaleidoscope program*. <https://www.arl.org/category/our-priorities/diversity-equity-inclusion/kaleidoscope-program>

Baruzzi, A., Harris, P., & Vargas, R. (2020). Interns, inclusion, and iteration: Undergraduates influencing the library profession. In C. Bombaro (Ed.), *Diversity*,

equity, and inclusion in action: Planning, leadership, and programming (pp. 135-150). American Library Association.

Brady, H., & Abbott, F. (2015). *A history of US public libraries: Segregated libraries*. Digital Public Library of America. <https://dp.la/exhibitions/history-us-public-libraries/segregated-libraries>

Busch, T., Del Rio, L., Kamper, E., McDavid, S., Swarn, L., & Williams, S. (2022). SIUE's diverse librarianship career training and education program a lack of diversity: A call to action. *ILA Reporter*, XL(3), 16–19. <https://www.ila.org/publications/ila-reporter/article/171/siue-s-diverse-librarianship-career-training-and-education-program-a-lack-of-div>

Chang, H-F. (2013). *Ethnic and racial diversity in academic and research libraries: Past, present, and future* [Conference presentation]. ACRL 16th National Conference, Indianapolis, IN, United States. <https://alair.ala.org/handle/11213/18090>

Damasco, I. T., & Hodges, D. (2012). Tenure and promotion experiences of academic librarians of color. *College & Research Libraries*, 73(3), 279–301. <https://doi.org/10.5860/crl-244>

Farkas, M. (2019, May 1). Barriers to diversity: The problems of LIS internship and practice. *American Libraries*, 50(5), 48–48. <https://americanlibrariesmagazine.org/2019/05/01/barriers-diversity-lis-internships/>

Federer, L. (2018). Defining data librarianship: A survey of competencies, skills, and training. *Journal of the Medical Library Association*, 106(3), 294–303. <https://doi.org/10.5195/jmla.2018.306>

Fernández, N., & Filar Williams, B. (2020, June 24). Creating a library wide culture and environment to support MLIS students of color: The diversity scholars program at Oregon State University Libraries. *In the Library with the Lead Pipe*. <https://www.inthelibrarywiththeleadpipe.org/2020/diversity-scholars-program/>

Hampton University. (2023). *Leading the charge: Advancing the recruitment, retention and inclusion of people of color within the library and information science field*. <https://hamptonu.libguides.com/c.php?g=1101154&p=8034290>

Hathcock, A. (2015, October 7). White librarianship in blackface: Diversity initiatives in LIS. *In the Library with the Lead Pipe*. <https://www.inthelibrarywiththeleadpipe.org/2015/lis-diversity/>

Hudson, D. (2017). On “diversity” as anti-racism in library and information studies: A critique. *Journal of Critical Library and Information Science*, 1(1). <https://doi.org/10.24242/jclis.v1i1.6>

Institute of Museum and Library Services. (2020). Hampton University. <https://www.imls.gov/grants/awarded/re-246407-ols-20>

- Jones, P. A.** (2004). *Still struggling for equality: American public library services with minorities*. Libraries Unlimited.
- Jones, S., & Murphy, B.** (2019). *Diversity and inclusion in libraries: A call to action and strategies for success*. Rowman & Littlefield.
- Juarez, D., & Blackwood, E.** (2022). Virtual undergraduate internships: One COVID-19 side effect that academic libraries should keep. *portal: Libraries and the Academy*, 22(1), 81–91. <https://doi.org/10.1353/pla.2022.0010>
- Kendall, J.** (2014, March 24). Melvil Dewey, compulsive innovator. *American Libraries*, 45(3/4), 52–54. <https://americanlibrariesmagazine.org/2014/03/24/melvil-dewey-compulsive-innovator/>
- Kim, K-S., & Sin, S-C. J.** (2008). Increasing ethnic diversity in LIS: Strategies suggested by librarians of color. *The Library Quarterly*, 78(2), 153–177. <https://doi.org/10.1086/528887>
- Knott, C.** (2015). *Not free, not for all: Public libraries in the age of Jim Crow*. University of Massachusetts Press.
- Kung, J. Y., Fraser, K-L., & Winn, D.** (2020). Diversity initiatives to recruit and retain academic librarians: A systematic review. *College & Research Libraries*, 81(1), 96–108. <http://doi.org/10.5860/crl.81.1.96>
- Laynor, G., & Tagge, N.** (2022). Developing pathways to health sciences librarianship with an introductory course and mentoring program. *The Reference Librarian*, 63(3), 67–81. <https://doi.org/10.1080/02763877.2022.2056559>
- Love, E.** (2010). Generation next: Recruiting minority students to librarianship. *Reference Services Review*, 38(3), 482–492. <https://doi.org/10.1108/00907321011070955>
- Medical Library Association.** (n.d.). *MLA/NLM spectrum scholarship*. <https://www.mlanet.org/p/cm/ld/fid=449>
- National Center for Data Services.** (2022). *NCDS data internship*. <https://www.nlm.gov/about/centers/ncds/internship>
- Ndumu, A., & Betts-Green, C.** (2018). First impressions: A review of diversity-related content on North American LIS program websites. *The International Journal of Information, Diversity, & Inclusion*, 2(3), 91–113. <https://www.jstor.org/stable/48644438>
- Network of the National Library of Medicine [NNLM].** (2022, May 2). *About data librarianship | National Center for Data Services* [Video]. YouTube. <https://www.youtube.com/watch?v=3otE8BgfFH8>
- Ossom-Williamson, P., Williams, J., Goodman, X., Minter, C. I. J., & Logan, A.** (2021). Starting with I: Combating anti-Blackness in libraries. *Medical Reference Services Quarterly*, 40(2), 139–150. <https://doi.org/10.1080/02763869.2021.1903276>

Phillips, K. W., Liljenquist, K. A., & Neale, M. A. (2009). Is the pain worth the gain? The advantages and liabilities of agreeing with socially distinct newcomers. *Personality and Social Psychology, Bulletin* 35(3), 345. <https://doi.org/10.1177/0146167208328062>

Pionke, J. J. (2020). Medical Library Association diversity and inclusion task force 2019 survey report. *Journal of the Medical Library Association*, 108(3), 503-512. <https://doi.org/10.5195/jmla.2020.948>

Rollins, T., McGruffie, R., Nduma, A., Villicaña, M. O., & DuVernay, J. (n.d.). *The Hampton University forum on minority recruitment and retention in the library and information science field: Overview, outcomes, and strategies for implementation*. <https://hamptonu.libguides.com/leadingthecharge/whitepaper>

Rosa, K., & Henke, K. (2017). *2017 ALA demographic study*. <https://www.ala.org/tools/sites/ala.org.tools/files/content/Draft%20of%20Member%20Demographics%20Survey%2001-11-2017.pdf>

Rutledge, L., Colbert, J. L., Chiu, A., & Alston, J. (2019). *Developing a residency program: A practical guide for librarians*. Rowman & Littlefield Publishing Group Inc.

Texas Library Association. (2023). *TALL Texans*. <https://txla.org/professional-development/tall-texans/>

Thielen, J., & Neeser, A. (2020). Making job postings more equitable: Evidence based recommendations from an analysis of data professionals job postings between 2013-2018. *Evidence Based Library and Information Practice*, 15(3), 103-156. <https://doi.org/10.18438/eblip29674>

U.S. Department of Health and Human Services Office of Minority Health. (n.d.). *Explanation of data standards for race, ethnicity, sex, primary languages, and disability*. <https://minorityhealth.hhs.gov/explanation-data-standards-race-ethnicity-sex-primary-language-and-disability>

Velez, L., Alston, J., Blas, N., Bradshaw, K., Duffus, O., Eads, D., Holmes, G., & Patterson, O. (2021). Mapping the residency program landscape. *The Journal of Academic Librarianship*, 47(5), 102389. <https://doi.org/10.1016/j.acalib.2021.102389>

Wang, K., Kratcha, K. B., Yin, W., & Tewell, E. (2022). Redesigning an academic library internship program with equity in mind. *College & Research Libraries News*, 83(9), 385-388. <https://doi.org/10.5860/crln.83.9.385>

Wildenhaus, K. (2018). Wages for intern work: Denormalizing unpaid positions in archives and libraries. *Journal of Critical Library and Information Studies*, 2(1). <https://doi.org/10.24242/jclis.v2i1.88>

ZipRecruiter. (2023a). *Academic librarian salary in US*. <https://www.ziprecruiter.com/Salaries/Academic-Librarian-Salary--in-US>

ZipRecruiter. (2023b). *Data librarian salary in US.*

<https://www.ziprecruiter.com/Salaries/Data-Librarian-Salary--in-US>



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Appendix A

NCDS Internship Application Form

1. Full Name
2. Email
3. Phone
4. Are you currently employed as an information professional, attending graduate school in information studies, or are a recent graduate of an information studies program?
[Yes/No]
5. Which of the following best describes you? Please select all that apply **[Checkboxes]**:
 1. American Indian or Alaska Native
 2. Asian
 3. Black or African American
 4. Native Hawaiian or Other Pacific Islander
 5. White
 6. Prefer not to say
 7. Not listed
6. Do you identify as Hispanic or Latino? **[Multiple choice, choose one]**
 1. Yes
 2. No
 3. Prefer not to say
7. Please upload your state of interest (as a PDF). We recognize that applicants may have a variety of backgrounds and experiences. As best you can, please describe the following (One Page Maximum): Your interest in the NCDS internship. Your experience working with data and/or providing data services. Any relevant data skills. The types of projects you might be looking for or are interested in. Please name your file as: YOURLASTNAME_NCDS_statement.pdf **[file upload option]**
8. Please upload a current resume/CV (as a PDF). Please name your file as: YOURLASTNAME_NCDS_CV.pdf **[file upload option]**
9. The length of this paid internship is 10 weeks at a maximum of 10 hours per week. Please confirm you are available from June 5, 2023 to August 14, 2023. **[Yes/No]**
10. If you are selected, will you be able to provide the contact information for three professional references? **[Yes/No]**
11. Do you have any questions for the NNLM NCDS Internship team?

Appendix B

NCDS Internship Application Rubric

Performance Criteria	Complete/detailed	Addressed but incomplete	Did not adequately address	N/A
<p>1 Applicant describes interest in the internship and how the internship would benefit the applicant.</p> <p>20 pts possible</p>	<p>20 pts Applicant clearly describes interest in data services and how they would benefit from the internship.</p>	<p>15 pts Some details are provided about interest, but does not mention data services, specifically. Applicant describes interest in the internship.</p>	<p>5 pts Little information is provided about applicant's interest, goals, or personal/professional benefit in the Statement of Interest.</p>	<p>0 pts Information is not provided. OR Statement of interest and resume are not included in the application.</p>
<p>2 Applicant describes experience working with or seeking to learn about data or providing data services.</p> <p>5 pts possible</p>	<p>5 pts The applicant clearly details and summarizes their interest, background, work, or educational experiences working with data services. OR The applicant details why they do not have experience in data or data services.</p>	<p>3 pts The applicant has provided some details about their background/experience, but missing are specific connections to data services or this specific internship and the applicant's connections to it. OR The applicant describes having no experience without rationale.</p>	<p>1 pt Little or no information about the applicant's experience or background is provided in the letter of interest. Information may be limited to what is listed in the resume.</p>	<p>0 pts Information is not provided. OR Statement of interest and resume are not included in the application.</p>
<p>3 Applicant describes and details projects they may be interested in undertaking, as part of the internship.</p>	<p>5 pts The applicant has some cursory familiarity with what data services are and, at least generally, describes (1) a project they would be</p>	<p>3 pts The applicant either has some cursory familiarity with data services or provides information about what skills they would like to learn, but missing are details that would help us match the applicant to available internships.</p>	<p>1 pt Little to no information about potential projects / projects of interest is provided.</p>	<p>0 pts Information is not provided. OR Statement of interest is not included in the application.</p>

	5 pts possible	<i>interested in pursuing, such as data visualization, data curation, etc. and (2) skills they would like to develop, such as using R.</i>			
--	-----------------------	--	--	--	--