

IMLS Laura Bush 21st Century Librarian Early Career Development Grant
Libraries, Integration, and New Americans: Understanding immigrant acculturative stress
Dr. Ana Ndumu, University of Maryland College Park, College of Information Studies
Proposal ID: RE-248754-OLS

Abstract: The University of Maryland College Park iSchool is seeking funding in the amount of \$390,308 for “*Libraries, Integration, and New Americans*,” or L.I.N.A., a three-year research project that will answer the following questions: **What is the role of information in immigrant acculturative stress? How does information-related acculturative stress impact library access? How can libraries help adult immigrants who are overwhelmed by information?** Dr. Ana Ndumu will serve as the principal investigator. Funding from IMLS under the Laura Bush 21st Century Early Career Development Grant category would support phenomenological studies that build on the researcher's previous dissertation work involving information and immigrant integration. This multi-phase project will span from August 1, 2021 to June 30, 2024 and will 1.) operationalize *acculturative stress, or the strain caused by adjusting to a new culture*, from an LIS standpoint; 2.) investigate connections between information and indicators of acculturative stress; and 3.) distill community-centered recommendations on how libraries can respond to immigrant acculturative stress. Participants will consist of adults aged 18 and older who were born outside of the U.S. The project is rooted in a research-to-service mission and, as such, the deliverables will include a free, self-paced mini-course for library staff, a pilot course and curriculum on Immigration & Information; and a workbook for immigrant groups. The purpose is to advance LIS knowledge of immigrant wellbeing and increase capacity for libraries to serve as trusted spaces.

In response to the prevalent assumption that immigrants are information impoverished¹, Dr. Ndumu designed a scale for measuring problems related to the overabundance rather than scarcity of information. She then tested it via census data, focus groups, and a national survey. Based on the findings, participants demonstrate adequate information and communication technology (ICT) access. However, they experience information overload as a result of the voluminous, decentralized, and ubiquitous nature of information in the U.S. Information overload was also tied to perceptions of belonging and undertaking high-stakes tasks such as navigating immigration or employment procedures. Stated differently, participants expressed that the stratified and complex U.S. information landscape may prompt what is known as acculturative stress. Yet, only 7% of respondents claimed to use libraries when overwhelmed. Within the LIS body of research, there is virtually no data on acculturative stress as an information problem. The researcher aims to address this gap.

Dr. Ndumu's doctoral studies afforded a glimpse into the lived experiences of immigrants, but the picture is incomplete. A correlation between acculturative stress and information overload is plausible and suspected. However, the scale instrument was limited in meaningfully drawing connections. It is necessary to investigate the dimensions of information that result in acculturative stress. The L.I.N.A. Project will build on the initial work by 1.) **conceptualizing acculturative stress** from an LIS perspective; 2.) strengthening the original information overload scale by including **substantiated factors of acculturative stress**; 3.) broadening the focus to **various immigrant groups** and 4.) **granting participants greater agency** in the research process. To date, there has been no large-scale, national research on the phenomenon of immigrant acculturative stress that begins and ends with libraries in mind.

¹ Ndumu, A. (2020). Disrupting Digital Divide Narratives: Exploring the US Black Diasporic Immigrant Context. *Open Information Science*, 4(1), 75-84.
<https://doi.org/10.1515/opis-2020-0006>

I. Statement of Need:

The U.S. is home to the most diverse composition of people, including approximately 19% of the world's 244 million immigrants. This amounts to 46 million newcomers originating from every nation in the world. Most Americans can trace their familial ties to other countries. According to the 2010 U.S. Census, one in every seven people in the U.S. is an immigrant. Data from the 2020 Census is likely to show even greater diversity in terms of national origins.

Immigration has historically been a defining characteristic of U.S. society, and immigrants are important library constituents. For more than a century, America's public libraries have provided service to newcomers. However, little is known about how information that is stressful to access, manage, or use is counterproductive to immigrant integration and wellbeing. Dr. Ndumu is interested in the LIS field's role in this dynamic. She will respond to the three research needs described below:

Need 1: Close the Empirical Research Gap

Despite the fact that outreach to immigrant communities is a longstanding aspect of library service, empirical research that links libraries, social inclusion, and immigrants remains meager. The available scholarship consists predominantly of library professionals' experiences, recommendations, or case studies.² Johannsen³ found that of the 243 articles on immigrants and public libraries that were indexed in the Library and Information Science Abstract (LISA) database between 1960 and 2013, only 45 (18.8%) were peer-reviewed, empirical studies. Though valuable, localized, library-centered accounts reveal little about patrons' lived experiences.⁴ Calls for realistic data⁵ on libraries and information in the lives of immigrants have not resulted in further research. Fields such as demography and population studies⁶ fare better when it comes to acknowledging immigrants' information capacities and dynamism. U.S.-based LIS educators, practitioners, and researchers have yet to thoroughly explore this reality. The result is that the LIS workforce is trained in such a way that service to immigrants constitutes an abbreviated unit within introductory diversity courses. As such, LIS pedagogy and professional development champion predictable, prescriptive recommendations: English language education; citizenship preparation; and cultural programming. There is a need to examine overlooked elements—for example, the various types of immigrants, the immigration process, and how integrating and acculturating can be physically, socially, and psychologically overwhelming especially in tense sociopolitical landscapes. The L.I.N.A. project will culminate in evidence-based, contextualized pedagogy for MLIS students along with the LIS workforce.

Need 2: Define Acculturative Stress from an LIS standpoint

Acculturating to a new society is a long-term process that is directly linked not only to the availability of resources but how they influence one's quality of life. Reasons for migration (i.e., forceful displacement, family reunification, or upward mobility) may vary. Tangential to this, immigration status is incredibly fluid and many immigrants find themselves in vulnerable categories (i.e., Temporary Protected Status, Deferred Action for Childhood Arrivals or DACA) and mixed status households. No matter the circumstances, those who relocate to the U.S. often share a common experience of being overwhelmed by a stratified, complex U.S. information environment. There must be updated

² Great overviews of LIS scholarly discourse include Hildreth, C. R., & Aytac, S. (2007). [Recent library practitioner research: A methodological analysis and critique](#). *Journal of education for library and information science*, 236-258 and Turcios, M. E., Agarwal, N. K., & Watkins, L. (2014). [How much of library and information science literature qualifies as research?](#) *The Journal of Academic Librarianship*, 40(5), 473-479.

³ Johannsen, C. G. (2015). *Library user metaphors and services: How librarians look at their users*. Berlin: De Gruyter Saur.

⁴ Non-U.S. scholars have conducted in-depth studies of this dynamic - for instance, this paper looks at the Canadian context: Caidi, N., Allard, D., & Quirke, L. (2010). [Information practices of immigrants](#). *Annual review of information science and technology*, 44(1), 491-531. A U.S.-centered perspective is very much needed.

⁵ Srinivasan, R., & Pyati, A. (2007). [Diasporic information environments: Reframing immigrant-focused information research](#). *Journal of the American Society for Information Science and Technology*, 58(12), 1734-1744.

⁶ Dekker, R., & Engbersen, G. (2014). [How social media transform migrant networks and facilitate migration](#). *Global Networks*, 14(4), 401-418.

understandings of immigrant information contexts—ones that acknowledge the centrality of information resources in migration, especially in light of networked, global information dissemination. The notion of immigrants being universally information poor no longer holds and is, in fact, problematic.

We must instead explore barriers to library and information access. Acculturative stress is important to consider. It is seen as “the mental or psychological burden that arises during the process of second-culture acquisition or the absorption of a cultural group into another, more dominant culture.”⁷ The concept was introduced by psychologist John W. Berry⁸ as an expansion of the popular notion of culture shock.⁹ It is widely used in migration and population research but seldom applied within LIS scholarship. Stress and anxiety should be acknowledged when analyzing immigrants’ engagement with information, particularly in light of solid research on immigrant health outcomes. Studies indicate that immigrants often enter the U.S. in satisfactory health.¹⁰ Evidence shows that migration favors those who fare well on strict health screenings or are physically able to relocate.¹¹ However, health indicators significantly deteriorate as years of residence in the U.S. increase, a phenomenon known as the “healthy immigrant paradox.”¹² New data suggests that post-migration stressors negatively influence health and wellness, perceptions of belonging and, in turn, social inclusion.¹³ Yet, little is known about the relationship between information and acculturative stress and how this dynamic influences library access. Acculturative stress is typically examined within the fields of migration and population studies as well as public health. The LIS field can add to what is known about immigrant acculturative stress; this is precisely what the L.I.N.A. Project will accomplish.

Need 3: Democratize LIS Research on Immigrants

As mentioned earlier, insight on the relationship between immigrants, information, and library is mostly based on case studies and librarians’ recommendations. The question remains: how can we expand and diversify what we know? LIS research on immigrants must move beyond methodological individualism¹⁴ or analyst-constructed typologies.¹⁵ For instance, early American Library Association leaders believed their mission was to “let in light where darkness prevails through ignorance” for “librarians have level judgments, undeceived of the failings of alien newcomers, but they also understand their possibilities.”¹⁶ These biases were later crystallized through research on information poverty—the seminal work being Childers and Posts’ *The information poor in America* which described groups such as immigrants as “not predisposed as the general population to alter the undesirable conditions of their lives, or to see information as an instrument in their salvation.”¹⁷ Similar to current rhetoric, Childers and Post described Mexican immigrants, in particular, as those who are “isolated from information that sustains the dominant society,” because “a number of characteristics magnify their isolation. They are proud of their culture, and especially tenacious in their language...they distrust or dislike

⁷ Rudmin, F., 2009. Constructs, measurements and models of acculturation and acculturative stress. *International Journal of Intercultural Relations*, 33(2), pp.106-123.

⁸ Berry, J. W. (2006). Acculturative stress. In *Handbook of multicultural perspectives on stress and coping* (pp. 287-298). Springer, Boston, MA.

⁹ Oberg, K. (1960). Culture shock: adjustment to new cultural environments. *Practical Anthropology* 7, 177-182.

¹⁰ Jass, G. & Massey, D.S., 2004. *Immigrant health: Selectivity and acculturation*. IFS Working Papers No. 04/23. London: Institute for Fiscal Studies. Retrieved from <http://dx.doi.org/10.1920/wp.ifs.2004.0423>

¹¹Ibid.

¹² Millett, L. S. (2016). The healthy immigrant paradox and child maltreatment: a systematic review. *Journal of immigrant and minority health*, 18(5), 1199-1215.

¹³ Bhugra, D. (2004). Migration and mental health. *Acta psychiatrica scandinavica*, 109(4), 243-258.

¹⁴Jarvelin, K., & Vakkari, P. (1990). Content analysis of research articles in library and information science. *Library and information science research*, 12(4), 395-421.

¹⁵ Marshall, C., & Rossman, G. B. (1999). *Designing qualitative research* (3rd ed.). Thousand Oaks, CA, US: Sage.

¹⁶Carr, J.F. (1916). Some of the People We Work For. *Bulletin of the American Library Association* 10(4) 149-154.

¹⁷ Childers, T., & Post, J. A. (1975). *The information-poor in America*. New Jersey: Scarecrow, p. 80.

Anglo institutions, such as schools, medical clinics, public housing, etc.”¹⁸ Childers and Post influenced a long line of LIS scholarship.¹⁹

To avoid narrow inferences that rely on siloed evidence, LIS must broaden its methodologies, frameworks, and lexicon. Through community-based, shared research, the L.I.N.A. Project will prioritize inductive (based on evidence or observation) versus deductive (based on a premise or conclusion), and emic (participant-oriented) versus etic (researcher-oriented) insight. Allowing immigrant groups to present their own narratives - that is, counterstories - is an essential component of this endeavor. Without reliable, first-hand knowledge of the role of libraries in the lives of immigrants, LIS approaches will continue to be limited in comprehending the circumstances that threaten immigrant social inclusion and integration. An examination of acculturative stress can help make information systems work better for immigrant families.

II. Project Plan

The project goals and outcomes are as follows:

Outcome 1: Conceptualize the role of information in immigrant acculturative stress

Deliverable 1: Enhanced information overload scale

Deliverable 2: Widely-disseminated (i.e., open-access publications, presentations) systematic review of information-related acculturative stress

Outcome 2: Investigate how acculturative stress impacts library access

Deliverable 1: Widely-disseminated model for LIS practice

Deliverable 2: Widely-disseminated national survey study findings

Outcome 3: Provide evidence-based training for library workers

Deliverable 1: Freely-accessible, self-paced course for librarians

Deliverable 2: Freely-accessible curriculum for LIS educators

Phase 1 Needs Assessment (2020-2021) →	Phase 2 Data Collection (2021-2022) →	Phase 3 Knowledge Dissemination (2022-2023)
1.) Systematically review concept of acculturative stress within population/migration, psychological and medical literature	1.) Refine and test information overload scale by incorporating acculturative stress indicators	1.) Introduce model on the relationship between information, acculturative stress, and libraries
2.) Conduct up to four focus groups with various immigrant ethnic groups	2.) Distribute national survey study in partnership with key immigrant organizations	2.) Publish research findings on immigrant experiences with information, acculturative stress, and libraries
3.) Conduct content analysis of LIS program course descriptions and syllabi	3.) Design University of Maryland course: Immigration and Information	3.) Self-paced course for librarians and curriculum for LIS educators based on model and findings

¹⁸ Childers and Posts, *Information poor*, p.79.

¹⁹ Most notably, Elfreda Chatman’s “information poverty” theory - Chatman, E. A. (1996a). The impoverished life-world of outsiders. *Journal of the American Society for information Science*, 47, 193-2. .See also Shen, L. (2013). Out of information poverty: Library services for urban marginalized immigrants. *Urban Library Journal*, 19(1), 4.

Phase 1: Needs Assessment

The L.I.N.A. Project is an exploratory, multimethod initiative that will begin with an assessment of stakeholder needs. The research team will first conduct a **systematic review of scholarly literature on acculturation and acculturative stress within sociological, psychological and medical databases**. This approach uses systematic methods to aggregate research studies, compare results, and synthesize conclusions. It is useful for producing large-scale information and distilling common variables.

The research team will then gather community feedback on experiences with acculturative stress, information resources, and libraries. Community members will describe the conditions in which information becomes a burden and the methods they use to cope. **Each focus group will consist of a different ethnic group that will participate in an ethnographic, visual technique developed by Greyson and colleagues: information world mapping.**²⁰ The method builds on Jaeger and Burnett's information worlds theory; it is appropriate for this project which is also grounded in the theory of information worlds. In each focus group, up to eight participants will first describe their information worlds (social norms, social types, information value, information behavior, and boundaries) in a group setting. They will then draw their individual information experiences, particularly with acculturative stress and information. Visual methods are especially promising for work involving marginalized groups.

There will be a minimum of four focus group consultations. Focus groups were chosen for assessing information needs because the method is conducive to community-based, participatory research involving underrepresented groups.²¹ Group interaction is a purposeful component of this exercise. Participants are encouraged to talk to one another, exchange anecdotes, and comment on other's experiences. Rather than ascribing to the researcher's agenda, focus groups allow participants to co-direct the research experience. Structured but open dialogue is valued in the focus group setting. The qualitative and visual evidence shared among the focus groups will then be transcribed, coded, and categorized into vignettes using the constant comparative method of analysis.²² Most importantly, the combined data from focus group consultations and systematic literature review will inform the next phase: data collection. The conclusions will paint a picture of the role of information in immigrant acculturative stress.

The needs assessment phase will conclude with a **content analysis of MLIS course syllabi**. Improving LIS education requires evaluation of coverage of library service to immigrants. The research team will access the directory of the 53 ALA-accredited MLIS programs in the U.S. Using Berelson's content analysis procedure, they will then mine available online syllabi for evidence of a) dedicated courses on library service to immigrants; b) courses that include modules or units on library service to immigrants; c) reading selections; and d) assignments. The research team will canvas and categorize content with the goal of identifying the scope of LIS education. This knowledge will then uncover gaps and opportunities.

Phase 2: Data Collection

Since the L.I.N.A. Project entails an exploratory, sequential approach, the research team will proceed with instrument creation based on the needs assessment. The data from the focus groups and systematic review will help significantly

²⁰ Greyson, D. (2013, November). [Information world mapping: A participatory, visual, elicitation activity for information practice interviews](#). In *Proceedings of the 76th ASIS&T Annual Meeting - Beyond the Cloud: Rethinking Information Boundaries* (p. 106). American Society for Information Science.

²¹ Rhodes, S., Hergenrather, K., Wilkin, A., Alegria-Ortega, J., and Montano, J. 2006. Preventing HIV Infection among young immigrant Latino men: Results from focus groups using community-based participatory research. *Journal of the National Medical Association*, 98(4), pp. 564-573;

²² For information on the value of vignettes in research see Barter, C., & Renold, E. (1999). The use of vignettes in qualitative research. *Social research update*, 25(9), 1-6. and Hughes, R. (1998). Considering the vignette technique and its application to a study of drug injecting and HIV risk and safer behaviour. *Sociology of Health & Illness*, 20(3), 381-400. To learn about the constant comparative method, see Glaser, B. G. (1965). The constant comparative method of qualitative analysis. *Social problems*, 12(4), 436-445 and Fram, S. M. (2013). The constant comparative analysis method outside of grounded theory. *Qualitative Report*, 18, 1.

enhance the original information overload survey questionnaire. Oosterveld calls this evidence-based method of questionnaire development “the external prototyping approach” based on the state of knowledge of a construct (in this case, acculturative stress) while Timmers and Glas refer to it as “the presence of substantial knowledge about the content and structure of a phenomenon.”²³

To answer the research question *What is the role of information in immigrant acculturative stress?*, the researcher will revise the original survey instrument by adding substantiated conditions of information-related acculturative stress. The instrument will therefore be pre-coded according to a taxonomy of acculturative stress indicators that correspond with multiple choice and open-ended questions divided into three sections: I. Personal demographics, II. Acculturative stress, and III. Library Access. A Likert scale (0=never; 1=seldom; 2=sometimes; 3=often; 4=very often) will measure the frequency of information-related acculturative stress.

To answer the research question *How does immigrant acculturative stress impact library access?*, the researcher will incorporate indicators based on vignettes provided by focus group sessions with immigrant groups. The survey will first be pilot tested by a group of respondents that meet the participant inclusion criteria. Project advisors and other community members will be asked for feedback on the instrument. Next, it will be refined for functional and logical fidelity. The survey will then be disseminated online via social media and immigration advocacy groups’ email list-servs. It is important to note that the survey will be designed using Qualtrics software which has a built-in language translation feature. It will also be available in print in a dozen languages and made available at select information grounds.²⁴ For example, in the original study on Black diasporic immigrants’ experiences with information overload, Dr. Ndumu partnered with places of worship, restaurants, and libraries in Houston, Texas and Miami, Florida. The quantitative data from the survey study will thus capture the experiences of a national sample of immigrants and, thereby, reify the qualitative data gathered during the needs assessment. The researcher will **create a model for LIS practice based on the research findings.**

To answer the research question *How can libraries help adult immigrants who are overwhelmed by information?*, Dr. Ndumu will provide learning material to equip emerging and existing librarians with interventions for alleviating the types of information-related stressors that impede library access. Dr. Ndumu will design and pilot a Master’s seminar course on Information and Immigration. The course will explore

- U.S. immigration history
- the role of information in migration and acculturation
- the quickly changing global immigration landscape and factors that prompt mass migration
- methods of connecting immigrant families to vital social support and programs
- Tactics for improving information systems for immigrant communities, particularly those facing language, economic, or legal barriers
- tools for enhancing library services to promote well-being and social inclusion

Dr. Ndumu will combine data from summative and formative course assessments, student evaluations, stakeholder (e.g., advisory board, LIS educators, focus group participants) feedback, plus her own copious instructor notes to improve the course. The learning content will be cross-disciplinary or inclusive of library, sociological, psychological, and medical data. There will be **two tested final products: a self-paced, online course for librarians and a model curriculum for LIS educators.** Immigrant community members will be invited to provide feedback on the learning content. The goal is

²³ Oosterveld, P. (1996). Questionnaire design methods. Amsterdam: Berkhout Nijmegen BV. Timmers, C. and Glas, C. (2010), “Developing scales for information-seeking behaviour”, *Journal of Documentation*, 6(1), pp. 46-69. <https://doi.org/10.1108/00220411011016362>

²⁴ Fisher, K. E., & Naumer, C. M. (2006). Information grounds: Theoretical basis and empirical findings on information flow in social settings. In *New directions in human information behavior* (pp. 93-111). Springer, Dordrecht.

to train library workers on prevalent immigration concepts, facets of acculturation and acculturative stress, and how libraries can transform engagement with immigrants.

Phase 3: Knowledge Dissemination

The L.I.N.A. Project will culminate in **freely-available, open-access knowledge on how information, immigrant acculturative stress, and libraries intersect**. The research team will publish at least three studies: the systematic review of immigrant acculturative stress, the focus group research using the information worlds mapping technique, and the survey study on information acculturative stress. Furthermore, the pilot course on Immigration and Information will result in an evidence-based LIS course and curriculum. The researcher will present this knowledge at LIS meetings that promote multiculturalism, equity, and inclusion or provide professional development for a wide range of library workers. Examples include the

- The Association for LIS Education (ALISE) Annual Meeting
- ALA Office of Diversity, Literacy, and Outreach Services (ODLOS) Diversity webinar series
- ALA Ethnic, Multicultural, Information Exchange RoundTable (EMIERT) sessions
- Joint Conference of Librarians of Color
- and the University of Maryland's iSchool's own Conference on Inclusion and Diversity in LIS , or CIDLIS, which is now in its 12th year.

Dr. Ndumu has presented at each of these events. She will also share research findings with immigrant advocates at non-LIS forums such as the UndocuBlack Convening, the National Immigrant Integration Conference, and the Whole of Community Conference. The researcher aims to design a workbook for immigrant groups to utilize; it will include tips on avoiding misinformation, staying informed on community needs, managing information resources, how information can prompt stress, and the ways in which libraries can help.

Important Research Considerations

Several other factors shape the L.I.N.A. Project's research design. These factors warrant explanation:

Theoretical Foundation

Jaeger and Burnett's²⁵ theory of information worlds provides a framework to analyze how immigrants experience information-related acculturative stress. Information worlds is conducive for research involving diasporic information environments.²⁶ It suggests that a community's understanding and use of information is influenced by its (1) social norms dictated by the community; (2) social types, or the identities and roles that members take on and/or are assigned; (3) information value, or the significance placed on information (4) information behavior, acceptable activities that impact the members' interactions with information; and (5) boundaries, the margins or perimeters which influence the movement of information.

Researcher Positionality

Work that seeks to strengthen communities must be rooted in co-ownership. Although Dr. Ndumu identifies as an Afro-Nicaraguan immigrant, she recognizes that every researcher needs accountability. Partnering with community members will help minimize harm, prevent tensions stemming from power imbalances, and ensure that the findings are

²⁵ Burnett, G., & Jaeger, P. T. (2008). Small Worlds, Lifeworlds, and Information: The Ramifications of the Information Behaviour of Social Groups in Public Policy and the Public Sphere. *Information Research: An International Electronic Journal*, 13(2); Jaeger, P. T., & Burnett, G., 2010. *Information worlds: Social context, technology, and information behavior in the age of the Internet*. New York: Routledge.

²⁶ Srinivasan, R., & Pyati, A. (2007). Diasporic information environments: Reframing immigrant-focused information research. *Journal of the American Society for Information Science and Technology*, 58(12), 1734-1744.

relevant and realistic. Dr. Ndumu will uphold shared governance throughout the project and will include various constituent groups throughout the planning, execution and analysis phases.

Participants and Recruitment

As previously mentioned, much of LIS research on immigrants involves localized settings; thus, study groups customarily represent a single immigrant type. The L.I.N.A. Project hopes to reflect the plurality of U.S. society by accounting for as many cross-sections of the immigrant population as possible. Any non-U.S.-born person aged 18 and older will be encouraged to participate.

The researcher is committed to achieving full representation. The project will reflect the realities of a range of immigrants, including:

- immigrants of color such as Asian, Black, or Latinx diasporic groups
- those who are forcefully displaced such as refugees and asylees
- religious minorities, including Muslim immigrants
- those belonging to relatively new immigrant groups - for instance, Sub-Saharan Africans who, according to census data, currently comprise the fastest-growing immigrant population²⁷
- those who are of Hispanic, Francophone or other linguistic heritages and for which English is a second language
- those who seek a pathway to citizenship such as TPS holders, DACA recipients, and undocumented immigrants

To encourage broad participation, the researcher will partner with various immigrant groups. Through her work involving libraries and social inclusion (i.e., census participation, mental health facilitation) among immigrant communities, Dr. Ndumu has fostered relationships with an array of immigrant advocacy groups such as [The UndocuBlack Network](#), [NAKASEC](#), [Asian Americans Advancing Justice](#), the [Haitian Bridge Alliance](#), [Arab-American Anti-Discrimination Committee](#), [El Poder de Ser Mujer](#), [Centro de Apoyo Familiar](#), and [Abren Enhun Ethiopian Support Association](#). She has worked with each of these groups as an advocate, advisor, and speaker. In addition, the University of Maryland College of Information is capable of supporting this project given its proximity to major think tanks such as the Migration Policy Institute, Pew Research Center, and the UMD Center for Migration Studies, and the UMD Population Research Center.

Attentiveness to Community Realities

It is important to account for possible participation barriers. For example, when providing research incentives, it may be necessary to establish alternative methods of providing research incentives. To meet the needs of participants who remain unbanked and cash-dependent, the researcher will work with UMD's Office of Research Administration to provide cash incentives. In addition, accommodating those who have limited Internet access (i.e., are smartphone dependent), research material will be mobile phone compatible and available in print. Similarly, to ensure language equity, material will be available in the five core languages used by the U.S. Census Bureau for the 2020 Census. Print and verbal translation will also be available upon request.

Privacy and Confidentiality

Underrepresented groups have historically been susceptible to breaches in research privacy and anonymity. Dr. Ndumu will continue to abide by strict research protocol. Participants will be assured that all data will first be de-identified and then stored in an encrypted file on a password word-protected, offline external harddrive. To minimize the risk of

²⁷ Rogers, W., & Lange, M. M. (2013). Rethinking the vulnerability of minority populations in research. *American Journal of Public Health*, 103(12), 2141-2146.

exposure, survey results will be reported comprehensively while focus group findings will use participant-selected pseudonyms to mask identities. In keeping with the University of Maryland's Institutional Research Board (IRB) policy, external groups and agencies will be prohibited from accessing the data, and this protection will be made clear especially to participants who identify as undocumented immigrants.

III. National Impact

The L.I.N.A. Project aligns with the Institute of Museum and Library Services' mission of understanding on a national level the conditions under which libraries improve the quality of life in the communities they serve. This present study is grounded in the concept of personal wellbeing that looks beyond economic outputs to assess the relative wellness of immigrant communities. This study seeks to advance the library profession from what can be considered "Deweyian pragmatism,"²⁸ or the tyranny of practicality. In other words, the researcher is motivated by IMLS's charge to explore not just the material standard of living but cultural engagement, political voice, and social connections.²⁹ Rather than prescribing services and outreach based solely on information providers, this project will uncover immigrants' own reflections on how they engage with libraries and information. By situating training within real-world context and social realism, the L.I.N.A. project will advance LIS practice in the U.S.

IV. Project Resources

The estimated budget of \$390,308 entails in salaries and fringe benefits; three years of graduate research assistant wages plus fringe benefits and tuition (\$110,805); two years of support for an undergraduate student research assistant (\$15,444); focus group functional expenses and research participant incentives (\$6,000); travel for data collection and research dissemination (\$5,000); supplies and software (\$1,000); multimedia consultants to develop a mini-course for library workers (up to \$10,000); advisory board stipends (\$5,400) and the University of Maryland's negotiated on-campus rate of 54.5% (\$126,735). The requested budget is on par with [similar, successful IMLS Early Career Development Grants](#).

Personnel

Serving as the principal investigator is [Dr. Ana Ndumu](#), who researches and teaches on library services to immigrants, immigrant information behavior, and methods for promoting representation and inclusion in LIS. Dr. Ndumu is the editor of [Borders & belonging: Critical examinations of library approaches toward immigrants](#). She was awarded a \$105,000 IMLS LB21 grant to host the [Counted In: National Forum on Libraries, Census 2020, and New Americans](#) as well as an [ALISE Community Conn@ct Grant](#) to integrate immigrants into the LIS field. She chairs the ALA [Serving Refugees, Immigrants, and Displaced Persons](#) ODLOS Sub-Committee through which she helped design a [Welcoming Week Guide](#) to promote the 2020 Welcoming Week campaign in libraries across the country.

The L.I.N.A. Project research team will include a doctoral student research assistant and one undergraduate student assistant per year. These students will work closely with the principal investigator to sharpen their research skills and gain knowledge of the LIS field and professoriate. The doctoral student will assist with gathering and analyzing data, publishing and presenting findings, as well as teaching the seminar course. The hourly undergraduate student assistant will be responsible for bibliographic maintenance, data transcription, and report generation.

²⁸ Buschman, J. (2017). Once more unto the breach: "Overcoming epistemology" and librarianship's de facto Deweyian Pragmatism. *Journal of Documentation*, 73(2), 210-223.

²⁹ Norton, M. H., & Dowdall, E. (2016). *Strengthening networks, sparking change: Museums and libraries as community catalysts*. Washington, D.C.: Institute of Museum and Library Services.

Advisory Board

The advisory board will consist of representatives from immigrant advocacy groups along with a group of LIS leaders with expertise in serving immigrant communities. These individuals include:

- [Dr. Clara Chu](#), 2019-2020 ASIS&T president and Director of the Mortensen Center for International Library Programs
- [Nicanor Diaz](#), manager of the Immigrant Services Division and La Plaza program at the Denver Public Libraries and president of REFORMA, the National Association for Library Services to Latinos and the Spanish Speaking
- [Bessie Smith-Chatham](#), Director of Community Engagement, Asian American Justice Center
- Zeleke Dadi, Director, Abren Enhun Ethiopian Support Association
- [Guerline Jozef](#), Immigrant Activist and Director, Haitian Bridge Alliance
- [Madeleine Idelfonso](#), Senior Librarian at the Office of Enrichment & Empowerment at the Los Angeles Public Libraries

Advisors will help ensure that the project is ethical and on target. Advisors will 1.) respond to a monthly email update on project developments; 2.) provide guidance in a quarterly 1-on-1 phone call , and 3.) decide on strategic directions during a biannual advisor's virtual meeting. By way of examples, advisors on the researcher's previous IMLS-funded project met to select forum attendees and approve marketing material. For their commitment, advisors will receive a \$300 annual stipend.

V. Diversity Plan

This research will further IMLS's strategic mission of ensuring information access for all Americans and serving individuals of diverse geographic, cultural and socioeconomic backgrounds. It also aligns with IMLS's long-term goal of appraising the social value of libraries. It will strengthen librarians' awareness of the many intersections of immigration and the role of libraries in the entire ecosystem of migration and integration. The research has broad implications for all types of librarians; K-12, academic, and public librarians will have greater awareness of how immigrant adults acculturate and the subsequent effects on children, adolescents, young adults and families. This project will include adult immigrant men and women of all ethnicities, races, physical abilities, and sexual orientation. By strengthening LIS education and training, libraries will continue to be trusted community partners. In addition, the researcher will aim to hire a doctoral research assistant along with an hourly MLIS or undergraduate research assistant from among the UMD iSchool's diverse student body. Currently, our College educates more than 1,500 Bachelor's in Information Science majors, 300 MLIS graduate students, and 55 doctoral students. Approximately, 44% percent of UMD iSchool students identify as immigrants and/or Black, Indigeneous, or people of color.

VI. Sustainability

The L.I.N.A. Project will be stewarded through long-term engagement along with continued, open access to resources. The mini-course will be updated annually, remaining available through a dedicated webpage. It as well as publications will be freely accessible through the both University of Maryland, College Park's Libraries as well as the researcher's personal site. Most important of all, the researcher will continue to promote the knowledge gained from the L.I.N.A. Project to improve the relationship between libraries and immigrant communities.

IMLS Laura Bush 21st Century Librarian Early Career Development Grant
Libraries, Integration, and New Americans Project
Schedule of Completion

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021								Preparation		Phase 1: Needs Assessment		
								Hire/ train student assistants Purchase materials Advisory Board meeting		Begin Literature Review Begin content analysis of LIS courses Organize / recruit focus groups		
2022	Phase 1: Needs Assessment				Phase 2: Data Collection							
	Synthesize Lit Review findings Organize LIS course coverage Conduct focus groups				Refine scale Develop survey instrument Pilot survey instrument				Advisory board meeting Develop LIS course Gather survey responses			
2023	Phase 2: Data Collection				Phase 3: Knowledge Dissemination							
	Analyze survey findings Pilot LIS course Write research articles				Create model Design self-paced course Write research articles				Advisory board meeting Launch self-paced course Design LIS curriculum			
2024	Phase 3: Knowledge Dissemination					Evaluation						
	Publish research articles Present at LIS conferences Share findings with immigrant advocacy groups					Self-paced course usage Measure research impact Write project report						

SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

A.1 We expect applicants seeking federal funds for developing or creating digital products to release these files under open-source licenses to maximize access and promote reuse. What will be the intellectual property status of the digital products (i.e., digital content, resources, or assets; software; research data) you intend to create? What ownership rights will your organization assert over the files you intend to create, and what conditions will you impose on their access and use? Who will hold the copyright(s)? Explain and justify your licensing selections. Identify and explain the license under which you will release the files (e.g., a non-restrictive license such as BSD, GNU, MIT, Creative Commons licenses; RightsStatements.org statements). Explain and justify any prohibitive terms or conditions of use or access, and detail how you will notify potential users about relevant terms and conditions.

If funded, the "Libraries, Integration, and New Americans" research project will result in an online self-paced mini-course. While the University of Maryland iSchool will retain the copyright, users will be able to freely access the mini-course and project website under a Creative Commons (CCO) license. All rights will be granted and there will be no restrictions as far as producing, editing, or dissemination marketing material so long as credit is given to IMLS and the Counted In project.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

The LINA Project mini-course will be considered a Free Intellectual Work, thereby granting users permission to freely use the work, or the information in the work.

A.3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

Users will be asked to register to participate in the mini-course. Registration will allow the PI to compile usage statistics and also follow up with users, who will be asked to complete surveys. All of this information will be used to evaluate the project's effectiveness.

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and the format(s) you will use.

The Libraries, Integration, and New Americans project will culminate in a self-paced mini-course to train library workers on the acculturative stress experiences by immigrants, and how it impacts library access. The self-paced mini-course will consist of interactive learning content within a learning management system (i.e., Canvas, Moodle).

A.2 List the equipment, software, and supplies that you will use to create the digital content, resources, or assets, or the name of the service provider that will perform the work.

The self-paced mini-course will be created by a multimedia firm.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG, OBJ, DOC, PDF) you plan to use. If digitizing content, describe the quality standards (e.g., resolution, sampling rate, pixel dimensions) you will use for the files you will create.

N/A

Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you monitor and evaluate your workflow and products?

The self-paced mini-course will be designed in consultation with the L.I.N.A. Project Advisory Board and community members. Participants will be surveyed on the effectiveness of the course and the learning content will be updated regularly to ensure functionality and relevance.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period. Your plan should address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

The L.I.N.A. Project will be stewarded through long-term engagement as well as continued, open access to resources. The mini-course will be updated annually, remaining available through a dedicated webpage. It as well as publications will be freely accessible through the both University of Maryland, College Park's Libraries, iSchool website, as well as the researcher's personal site.

Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata or linked data. Specify which standards or data models you will use for the metadata structure (e.g., RDF, BIBFRAME, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

N/A

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

N/A

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

N/A

Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content, delivery enabled by IIIF specifications).

The L.I.N.A. Project self-paced mini-course will be freely available to library workers across the country. It will be promoted throughout library listservs, conferences, organizations and social media. The platform will meet all 508 Usability Standards.

D.2. Provide the name(s) and URL(s) (Universal Resource Locator), DOI (Digital Object Identifier), or other persistent identifier for any examples of previous digital content, resources, or assets your organization has created.

Faculty at the University of Maryland's iSchool have developed the Connected Lib Toolkit (<http://connectedlib.github.io/>), which was an IMLS funded project.

The L.I.N.A. project PI, Dr. Ana Ndumu, also designed the Toolkit for Library Services to Black Immigrants (blackimmigrantsinlibraries.com) and the IMLS-funded Counted In Libraries Toolkit to help libraries promote census participation among New Americans (countedinlibraries.org).

SECTION III: SOFTWARE

General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

N/A

A.2 List other existing software that wholly or partially performs the same or similar functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

N/A

Technical Information

B.1 List the programming languages, platforms, frameworks, software, or other applications you will use to create your software and explain why you chose them.

N/A

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

N/A

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

N/A

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

N/A

B.5 Provide the name(s), URL(s), and/or code repository locations for examples of any previous software your organization has created.

N/A

Access and Use

C.1 Describe how you will make the software and source code available to the public and/or its intended users.

N/A

C.2 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

N/A

URL:

N/A

SECTION IV: RESEARCH DATA

As part of the federal government's commitment to increase access to federally funded research data, Section IV represents the Data Management Plan (DMP) for research proposals and should reflect data management, dissemination, and preservation best practices in the applicant's area of research appropriate to the data that the project will generate.

A.1 Identify the type(s) of data you plan to collect or generate, and the purpose or intended use(s) to which you expect them to be put. Describe the method(s) you will use, the proposed scope and scale, and the approximate dates or intervals at which you will collect or generate data.

The researcher will

- 2.) Conduct up to four focus groups with various immigrant ethnic groups
- 2.) Gather data through a national survey study in partnership with key immigrant organizations

Data collection will take place between August 2021 and May 2022.

The outcomes are:

- 1.) Introduce model on the relationship between information, acculturative stress, and libraries
- 2.) Publish research findings on immigrant experiences with information, acculturative stress, and libraries
- 3.) Self-paced course for librarians and curriculum for LIS educators based on model and findings

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

Yes, the researcher will obtain IRB approval.

A.3 Will you collect any sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

Dr. Ndumu will continue to abide by strict research protocol. Participants will be assured that all data will first be de-identified and then stored in an encrypted file on a password word-protected, offline external harddrive. To minimize the risk of exposure, survey results will be reported comprehensively while focus group findings will use participant-selected pseudonyms to mask identities. In keeping with the University of Maryland ' s Institutional Research Bo

A.4 What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data?

The researcher anticipates that she will use the following software: R, NVivo, SPSS, and SASS.

A.5 What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

The researcher will create an information acculturatie stress scale that will be available as an appendix in all research publications.

A.6 What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project?

The project website and research publications will indicate that interested parties can contact the researcher for access to the data.

A.7 Identify where you will deposit the data:

Name of repository:

N/A

URL:

N/A

A.8 When and how frequently will you review this data management plan? How will the implementation be monitored?

The data management plan will assessed and updated annually.