PROJECT JUSTIFICATION. We propose the East Carolina University (ECU) Laupus Health Sciences Library as a **model hub for community-engaged, applied research to advance digital equity in rural agricultural communities**. Our project stems from multiple prior collaborations to develop information resources and address equity including a State Library of NC/IMLS Migrant Education Program Laptops Program grant, a National Library of Medicine Health Disparities Resources grant, and a National Network of Libraries of Medicine Health Information Outreach Project.

Our community partners include community health workers (CHWs), farmworker advocates, Cooperative Extension agents, state agencies, and libraries. Our partners share our goal of addressing digital inclusion and promoting the ability of agricultural workers and agricultural communities to engage civically and to improve their health, education, and economic status with broadband access. The applied research described below is designed to provide information to support policy change that advances digital equity, to ensure the inclusion of agricultural workers in broadband infrastructure and information literacy, and to inform how libraries lead digital inclusion efforts across the United States (US).

We seek to answer eight **research questions**. In Aim 1, What is the prevalence of internet access for farmworkers, what devices are available to farmworkers, and how much are farmworkers spending on internet access in NC? In Aim 2, What are the information literacy levels and needs of farmworkers and farmers, and what are the implications for libraries related to resources, programming, and educational materials? In Aim 3, To what extent do librarians already provide outreach services to agricultural communities, and, if they do not, what is their interest level in providing these services and what resources do they need to provide them? To what extent have libraries participated in county broadband planning efforts? And, to what extent do NC county broadband plans include libraries and agricultural workers' needs?

<u>Goals Addressed</u>. The proposed **applied research project** addresses National Leadership Grants for Libraries Program Goal 2, Objective 2.2.

<u>Need</u>. **There are profound barriers to digital inclusion for migrant and seasonal farmworkers ("farmworkers"), which limit civic and economic participation and adversely impact health and educational attainment.** While the inequities that farmworkers experience in the US are well documented in multiple reviews (Quandt 2007) and books (Arcury 2020; Thompson 2002), the gravity and scope of these inequities can be difficult to comprehend. Indeed, when CBS aired Edward R. Murrow's *Harvest of Shame* in 1960, the *New York Times* called it "a tremendously disturbing study of the migratory workers who pick the fruit and vegetable crops that adorn the nation's tables" (Gould 1960). Important parts of the documentary were filmed in NC, and the 2012 PBS follow-up *Harvest of Dignity* shows just how little has changed for migrant and seasonal farmworkers (UNC-TV 2012). A recent mapping review of the literature on farmworker health conducted by our team identified over 50 years of evidence of structural vulnerabilities showing how little has improved in the working and living conditions for farmworkers in the US (Bloss 2021). Importantly, this mapping review shows major gaps in the literature for use of technology and digital skills (just 11 of 1,083 papers).

A digital divide for farmworkers limits their ability to <u>obtain</u> information. There is longstanding evidence of inequities in access to the internet by race, ethnicity, and rurality, and these inequities extend to farmworkers across the US (Arcury 2017; Price 2013; Sandberg 2016). Nationally, most farmworkers live in isolated areas in rural, agricultural communities that have limited internet access. For example, in an earlier project by our team, half of participating farmworker family households did not have home internet access (Mendez 2019).

Digital equity in rural agricultural communities may be achieved by improving the information literacy skills of farmworkers and farmers *in conjunction with* policies that promote access to the internet, devices, and information sources. Information literacy is the ability to search, access, evaluate and interpret information using digital or media technology (Klomsri 2016). This skill can enhance one's education, improve one's overall health and wellbeing, and support participative citizenship and social inclusion (Lawless 2016; Lloyd 2013; Naik 2014). Yet, there is limited research on the information literacy competency of migrant and seasonal farmworkers in the US (Bloss 2021). The few studies on the information literacy competency of *farmers* were conducted outside of the United States (Dauphine 2003; Kumar 2020; Oduwole 2006; Vent 2005). Additionally, policies and programs being developed to address the digital divide often omit farmworkers

-- a recent report on rural agricultural broadband in NC, for example, makes no mention of farmworkers or farmworker housing (NC Dept. of Information Technology 2021).

Community groups, advisory panels, and farmworkers confirm the need for digital inclusion efforts to address the digital divide. In preliminary evaluation of our projects distributing information technology (e.g., hotspots) and promoting health information literacy within farmworker communities, farmworkers highlighted the challenges in access, affordability, and reliability of internet connections, as well as access to remote medical care. Albeit temporary, internet provision through this prior project was beneficial in addressing some of these challenges. As one farmworker explained in his description of the benefit of having internet access, "*You can find information about taking care of yourself, how to protect yourself, what to do, what medicine to take and which not to.*" **In summary, prior research, our partners' input, and our team's work with farmworker communities in NC have all shown the critical need for applied, engaged research that fills existing gaps in evidence and informs policy and programming to address digital equity across the country. The pandemic has made that need even more critical (Lee 2020).**

Target Group. There are approximately 80,000 migrant and seasonal farmworkers in NC each year (Lambar 2019). Most NC farmworkers are Latinx men who speak Spanish as their primary language, live below the federal poverty level, and are uninsured (Lambar 2019). While around 63% of all farmworkers in the US are authorized to work legally, around one-third of the farmworkers in the US are undocumented, and, as such, they have diminished access to legal protections and health care (JBS International 2021; NCFH 2020).

Beneficiaries. *Farmworkers*. Even with growing investment in rural broadband, farmworkers are at risk of being "left out" of infrastructure through exclusion from broadband planning, omission of farmworker housing in broadband infrastructure, and inadequate educational programs and resources to improve information literacy. As a result of the engaged research, farmworkers in NC and nationally will benefit from initiatives that address their specific information literacy needs and from policies that promote equitable internet access.

Farmers. Many of the approximately 50,000 farms in rural NC have limited access to highspeed, reliable, and affordable internet service (NC Dept. of Information Technology 2021), and almost 20% have no internet access (USDA 2021). Whereas NC farmers consider internet service to be pertinent to their business activities, digital inclusion remains a challenge for farms in rural NC (NC Dept. of Information Technology 2021). Inclusion of agricultural communities in rural broadband planning efforts will positively impact farmers economically as well as educationally and in terms of their health and civic engagement.

Community Health Workers (CHWs). A CHW is a "frontline public health worker who is a trusted member of and/or has an unusually close understanding of the community served. This relationship enables the worker to serve as a liaison/link/intermediary between health/social services and the community" (APHA 2018). CHWs typically share "…ethnicity, language, socio-economic status, and life experiences" with the people they serve (HRSA 2007). Their core responsibility includes providing culturally competent health education to farmworkers (CHW Core Consensus Project 2018). Farmworker-serving CHWs identify housing units, visit units, and provide health education and enabling services (e.g., transportation to health centers and language interpretation). There are approximately 60 farmworker-serving CHWs each agricultural season in NC. Most are women who speak Spanish as a first language, and two-thirds have a bachelor's degree or higher (LePrevost 2014a). CHWs will use research findings to improve how they provide enabling services to farmworkers and the content and format of the health education they provide. Broadband in farmworker housing will facilitate CHWs' work increasing farmworkers' access to medical care through telemedicine.

Cooperative Extension. NC Cooperative Extension provides local services in all 100 counties of NC and the Eastern Band of the Cherokee through an extensive network of over 775 county-based educators. County-based Cooperative Extension agents, a subset of whom will inform the research design and engage participating farmers in this project, will benefit from access to information literacy materials that are tailored to the needs of the agricultural community identified through the research.

Libraries. Rural public libraries operate on a smaller scale than those in suburban or urban communities but are often one of the few places that offer internet and technology training and access for their residents. Historically, 64.5% of public libraries report that they are the only provider of free public computer and internet access in their communities (Jaeger 2012; Real 2014). Rural public libraries partner with "community

organizations to serve patrons 'where they are'" while also providing access to broadband service and reliable information resources in their library buildings and bookmobiles (IMLS 2020). Rural public libraries can contribute partial solutions to the digital divide, but they need support (Strover 2020). The research conducted will inform rural public libraries' outreach initiatives, and they can use the data obtained in these studies to reach more of their constituents and advocate for more funding.

How Project Differs from and Complements Existing Theory, Scholarship, and Practice. We have previously focused on the delivery of resources to address urgent needs instead of on research. Libraries can play a role in ending the digital divide, but there is a need for a national model that centers librarian expertise in these efforts. The proposed model puts public and health sciences libraries in the center of the applied research aims. Librarians have expertise in teaching information literacy and digital literacy skills and conducting information literacy assessments. For example, NC libraries have previously focused on increasing literacy skills and access to internet and devices to close the homework gap, particularly among K-12 and indigenous populations (Reading Nation Waterfall 2022; State Library of NC 2021). Yet, research assessing information literacy skills of farmworkers and farmers and assessing the role of libraries in promoting broadband access in rural areas is lacking.

Librarians are not often embedded in the research process as part of a team science approach. Instead, they are often seen as ancillary to the research process (Borrego 2020). Interprofessional collaboration is reported to be increasing in the library profession but is still low (Bahr 2000; Norelli 2013). Our research team has consistently included librarians in prior work with farmworkers and CHWs. Building on this work, we propose to address the **compelling need to center library expertise in research and build a model for how libraries can lead research to advance literacy and equity in agricultural communities**.

PROJECT WORK PLAN. The work plan will be implemented by an interdisciplinary team (see Appendix 1 for details) with a history of collaboration and extensive experience with library science, research, public health, digital equity, and agricultural extension. **We conceptualize each project as having librarian expertise, and a librarian is leading or participating as an embedded member of each research aim**. This model is designed to ensure that the research being conducted draws on librarian expertise, remains focused on addressing information needs, and is action-oriented.

Our team is supported by an **Advisory Panel** of 10 people who have been (see letters of support) or will be recruited through our longstanding networks. We have identified to-be-named advisory panel members and anticipate no problems in filling those roles. The advisory panel includes CHWs (Jessica Rodriguez, formerly of Vecinos Farmworker Health Program and now with Mountain Area Health Education Center; TBN CHW from Eastern NC), students/recent graduates from farmworker families (Eve Portillo-Portillo, ECU; TBN Student, NC State), librarians (Leah Cordova, health science librarian; Tony Nguyen, Executive Director, National Network of Libraries of Medicine Region 1), state agency and program representatives (Jocelyn Romina Santillán, Internet Connectivity Project Coordinator, NC Farmworker Health Program; Maggie Woods, Program Director, BAND-NC), and national advocates (Paolo Balboa, Senior Manager of Programs and Data, National Digital Inclusion Alliance; Melanie Forti, Health & Safety Programs Director, Association of Farmworker Opportunity Programs [AFOP]). Many of our advisory panel members have long-standing relationships with our research team (see letters of support). We will hold three virtual advisory panel meetings per year and solicit feedback by email between meetings. Our team includes a founding member, Dr. Leslie Cofie, of the approximately 30 member **NC Agriculture Digital Alliance**, which seeks to ensure the inclusion of agricultural communities and farmworkers in rural broadband efforts and is coordinated by Ms. Romina Santillán. We will solicit input from them and coordinate dissemination efforts. Finally, the non-profit organization Student Action with Farmworkers, a longstanding collaborator of our team, will serve as a consultant on recruitment and dissemination.

Theoretical Framing. As a community-engaged, applied research project, we will respond to questions prioritized by our community partners and share the answers to the research questions underlying our aims. The framework in Fig. 1 (next page) underpins our three aims with Aim 1 addressing digital accessibility, Aim 2 information literacy skills, and Aim 3 information resources. All our aims are informed by the recognition that they exist within a sociocultural context. Our framework draws on a research framework used for a multicultural

approach to digital information literacy skills assessment (Pieterse 2018) based on the models of Ng (2012) and Shapiro and Hughes (1996). We modified the original framework to highlight the sociocultural context in which all three research aims operate. Information literacy skills are only applied when users have access to devices and the internet. In turn, having access to reliable information resources is of vital importance, and we aim to study if the resources provided by the state library and public libraries reach the target populations. Based on the need and driven by the theoretical frameworks, we propose three _specific aims._
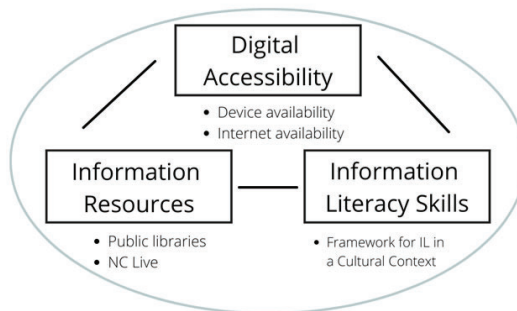
Figure 1. Theoretical framework

AIM 1. DETERMINE THE ACCESSIBILITY OF ONLINE INFORMATION BY ESTIMATING THE PREVALENCE OF INTERNET ACCESS FOR FARMWORKERS IN NC, THE DEVICES AVAILABLE TO FARMWORKERS, AND THE AVERAGE COST OF INTERNET ACCESS. Our _research questions_ are: What is the prevalence of internet access for farmworkers, what devices are available to farmworkers, and how much are farmworkers spending on internet access in NC? Our _working hypothesis_ is that there remain major gaps in access to the internet for farmworkers.

Relevance for Current Practice. Currently, there is virtually no published data on the prevalence of internet service for farmworkers (Bloss 2021), data on what devices farmworkers typically have for access are rapidly aging out of relevance (Jimenez 2017; Price 2013), and no data show the costs of internet access to farmworkers (Bloss 2021). For example, the National Agricultural Workers Survey (NAWS) has recently included questions about access to any digital information source and devices used to access those sources, but the survey does not specifically address internet access and includes a small percentage (13%) of migrant farmworkers (and excludes workers with the most common type of work visa). Fewer than 800 farmworkers are surveyed through NAWS in the entire eastern migrant stream, which encompasses 19 states from Louisiana to Florida and Maine. The NAWS design affords limited regional coverage and no state data. Such information is critical for delivery of telehealth and virtual outreach, information literacy interventions, civic engagement, and intervention development for a myriad of health, educational, and advocacy efforts.

Aim 1 Methods. Our approach is to conduct time- and location-based sampling across outreach sites and the agricultural season in Year 1. We will leverage our partnership with CHWs, who will conduct the assessment in all farmworker housing visited during outreach for two weeks during the peak season for the geographic area. As part of our team science, embedded librarian approach to ensure leadership of librarians in research, Ms. Mary Roby, MLS, will be the librarian point-person for this aim. She will fully participate in the participatory design, instrument development, interpretation of results, and framing of dissemination materials.

Participatory design of Aim 1. As a participatory project, Drs. Lee and LePrevost and Ms. Roby will engage CHWs to design a survey and build CHWs' capacity in research skills. Specifically, we will compensate CHWs as consultants (see budget) and tie training in survey administration with professional development and contribution to the survey development and data collection planning. We have previously worked with CHWs across the state, delivering resources, trainings, and soliciting feedback, and we have engaged more than half of the farmworker-serving CHWs in NC (Bloss 2022; Harwell 2022). We have also previously developed a web-based tool specifically for CHWs that empowers them to effectively partner with researchers to develop and implement farmworker health research projects (Walton 2020). This tool, the development of which was driven by CHW input through focus groups, surveys, and conference presentations, aims to increase CHWs' self-efficacy in recruitment, data collection, and reporting. We will use this tool to build professional development opportunities for CHWs, and we will specifically address instrument development, reducing sampling bias, and survey administration that can inform CHWs' efforts to assess and evaluate their services and priorities. As we have identified to be best practices (Harwell 2022; LePrevost 2018), we will provide CHW professional development and engage in planning in the off season and implement the survey during the peak season, which varies across the state based on differences in crops and climate in the state's regions. CHWs will administer surveys to farmworkers during their regular outreach, which typically occurs late in the evening during peak season after farmworkers have spent 8-12 hours in the field. We will minimize the time burden by including only the most essential questions (i.e., ~7 questions). We will ask CHWs to develop two of the

questions during off-season professional development to ensure that the study addresses on-the-ground priorities.

Survey instrument. Drs. Lee and LePrevost and Ms. Roby will work with CHWs to develop a short survey appropriate for language, numeracy, and literacy of farmworkers in NC following best practices in questionnaire design (Dillman 2011) and specific recommendations for farmworker populations (LePrevost 2014b). We will have our advisory panel review the instrument, and we will pilot test it with a minimum of 10 farmworkers prior to fielding. Our experience working with farmworkers suggests strongly that the survey should be administered verbally (i.e., read aloud along with any visuals) to address literacy levels and unfamiliarity with surveys. We expect measures to be refined by CHW, advisory panel, and pilot testing feedback. All measures will be professionally translated into Spanish by a translator with experience with NC farmworker populations. Mr. Harwell will work with CHWs who will individually administer surveys to farmworkers during their routine visits for outreach and service delivery. We will provide tablets to the participating CHWs complete with Qualtrics offline app for data collection where there is no internet access.

Sampling. We will use a systematic sampling approach designed for marginalized populations and previously used with farmworkers (Fernández 2005; Moore 2016): time-location sampling (Muhib 2001). We will partner with 10 CHWs engaging in farmworker outreach across NC who will administer very short surveys during their outreach visits across a two-week period in the peak season for their region of the state to the first five workers seen per housing site. We expect each CHW to, on average, visit 2 housing units/labor camps each day (visits typically take place in the evening after workers return from the fields) for 5 days a week across 2 weeks and administering the questionnaire to 5 workers at each location (5 farmworkers x 2 housing units x 5 days x 2 weeks x 10 CHWs = 1000 surveys). Each housing site will be provided with small tokens of appreciation (non-monetary incentives such as a soccer ball). This sample size will allow us to look for regional differences across Eastern, Central, and Western NC and report back results to each CHW's site. We will treat our systematic sample as a representative but not probability-based sample and thus do not calculate survey weights for the time-location sampling given the limited data on the full population of farmworkers and farmworker housing units. However, we will construct weights to take into account the size of the housing unit surveyed. Regarding power, assuming a service area of 10,000 farmworkers, we would be powered to provide estimates of internet access prevalence back to CHWs for their sites with a ±10 point margin of error (assuming a catchment population of 10,000, and assuming a 50% proportion of the outcome of interest in a simple random sample with 95% confidence [a smaller proportion, which is more likely, would result in even narrower margins of error]).

Data analysis. Dr. Cofie will lead the quantitative analysis using SAS 9.4 (Cary, NC) software. After standard data cleaning and quality checks as well as the creation of a codebook, we will examine the data and calculate the weighted prevalence of internet availability to NC farmworkers, pattern of devices available for use, and costs borne by farmworkers for data or internet access. Additional analyses will assess data by data collection "site" (i.e., CHW) and provide analyses for the CHW-generated questions. Dr. Cofie has extensive experience with survey analysis (Cofie 2021; Cofie 2018).

Products from data. After successful completion of this aim, we will have answers to our research questions and will know estimated prevalence of internet access, device access, and costs for farmworkers across NC and for each of the participating CHW sites. Led by Mr. Harwell, our team will use these data to create fact sheets, infographics, policy briefings, and publications/presentations about farmworkers' ability to access the internet and devices. We will also create site-specific reports for each participating CHW. Dissemination plans for all aims are presented separately under the reporting and dissemination section.

AIM 2. IDENTIFY INFORMATION LITERACY LEVELS AND NEEDS OF (A) FARMWORKERS AND (B) FARMERS TO INFORM LIBRARY RESOURCES, PROGRAMMING, AND EDUCATIONAL MATERIALS. Our <u>research questions</u> are: What are the information literacy levels and needs of farmworkers and farmers, and what are the implications for libraries related to resources, programming, and educational materials? Our <u>working hypothesis</u> is that there are large gaps in information literacy skills among both groups that could be addressed by libraries.

Relevance for Current Practice. Much of the research assessing information literacy skills has been conducted in formal educational settings, not within specific communities or populations within the workforce

(Beile 2008; Weiner 2011). Scant research has been conducted to assess the information literacy competencies of migrant and seasonal farmworkers, and only a few studies have assessed these competencies in farmers (Dauphine 2003; Kumar 2020; Mashroofa 2014; Oduwole 2006; Osokoya 2014; Sang 2020; Vent 2005). These few studies focused on how to increase agricultural productivity and combat food insecurity rather than assessing other outcomes related to daily living, health, and education. None of these studies regarding farmers' information literacy skills were conducted in the US. To identify the information levels and needs of farmworkers and farmers, tailored assessment instruments and designs are needed. An understanding of information literacy skills among these populations is essential to supporting access to education, increasing overall health and wellbeing, encouraging participative citizenship, and increasing social inclusion (Lawless 2016; Lloyd 2013; Naik 2014).

Aim 2 Methods. Our approach is to conduct in-depth interviews with farmworkers and focus group discussions with farmers in Year 1 and implement a community survey with both farmworkers and farmers in Year 2. We will use individual interviews with farmworkers because of the challenges related to transportation of farmworkers to a central location during peak agricultural season. We will conduct focus groups with farmers. CHWs and county Cooperative Extension agents will survey farmworkers and farmers, respectively. Our team of librarians, Extension experts, and social scientists will work with community partners to develop interview and focus group discussion guides and the survey instrument. Data collection for this aim will be based on a mixed methods exploratory sequential design (Creswell 2017); that is, qualitative data will be collected and analyzed to assess farmworkers' and farmers' perceptions about their information literacy skills and needs. The qualitative findings will subsequently inform the survey development. The benefit of this approach is that it will enable us to improve the quality of our survey design and make the items relevant to the context of the agriculture community. As part of our team science, embedded librarian approach to ensure leadership of librarians in research, Ms. Jamie Bloss, MLIS, AHIP, will be the librarian point-person for this aim. She will fully participate in the design, development of study materials, interpretation of results, and dissemination.

Participatory design of Aim 2. As described in Aim 1, we will incorporate input on the design as well as feedback on survey items and interview and focus group discussion guides from CHWs and our advisory panel. In Aim 2, this participatory process will also include Extension Agents.

Sampling for qualitative data. Qualitative data collection will be accomplished using convenience sampling. The data will consist of focus group discussions with farmers (3 focus group discussions with 6-8 individuals each) and in-depth individual interviews with farmworkers (15 individuals total). We will partner with three Cooperative Extension County agents, identified by Mr. Sherin, to recruit farmers across NC for focus group discussions. One focus group discussion will be conducted in each region of the state (Eastern, Central, and Western NC) in the first year of the study. Focus group discussions will take place in Cooperative Extension County Centers, where farmers frequently engage in commodity meetings and receive training. Mr. Harwell will work with CHWs and SAF to recruit farmworkers across the state to participate in individual interviews. (Our prior experience resulting in 29 farmworker interviews across the state during the pandemic through collaboration with CHWs indicates this is a feasible approach, and we have full confidence in Mr. Harwell's ability to recruit, build rapport, and interview farmworkers based on his prior work.) We have had past success recruiting farmworkers for interviews by having an interviewer accompany the CHW and conduct interviews in a private location with workers waiting to have their health assessments completed. Although we will prioritize in-person interviews, we have previously and successfully used WhatsApp to conduct interviews with farmworkers on Sunday afternoons in the pandemic and mailed incentives. When no mailing address exists (as is sometimes the case for farmworker housing), we have distributed the incentive via the relevant CHW. Thus, recruitment is feasible, and we have prior experience conducting interviews with farmworkers.

Guides for interviews and focus groups. We will develop guides for both focus group discussions and individual interviews. Our team of librarians, Extension experts, and social scientists will work with the advisory panel, CHWs recruited in Aim 1, and Extension agents to develop the guides. The guides will include questions to explore the experiences of farmworkers and farmers in using digital technology and accessing digital information, as well as their capacity to understand the credibility of, and utilize the information. Our questions will be informed by existing information literacy assessment tools and the ACRL framework (ACRL 2015).

Conducting focus groups and interviews. Mr. Harwell, assisted by Mr. Sherin, will conduct focus group discussions in English with farmers. Mr. Harwell has previously participated in focus group facilitation and has experience developing educational materials for farmers. Individual interviews with farmworkers will be conducted by Mr. Harwell, who is bilingual. All interviews will be audio recorded and later transcribed and translated into English if necessary. Each focus group discussion participant will receive a $30 gift card and meal for their participation. Interview participants will receive $20 (given the shorter time commitment). The number of focus group discussions and individual interviews proposed are sufficient to draw conclusions and achieve saturation of themes based on our experience and expert recommendations (Carlsen 2011).

Qualitative data analysis. Dr. Cofie will lead the qualitative data analysis using inductive and deductive thematic coding with assistance from Mr. Harwell, a library science graduate assistant, and input from the team. Dr. Cofie has experience working in qualitative data across multiple languages (Cofie 2015). Dr. Cofie will use an iterative data analysis process by, first, reading through each transcript, identifying key themes, and writing narratives summaries (Sandelowski 1995). Dr. Cofie will then develop a codebook, using deductive codes from interview guides and inductive codes based on themes from the summaries (Gibbs 2007). Second, to ensure coding reliability, he, along with Mr. Harwell and the graduate assistant, will code the transcripts using NVIVO software. Third, Dr. Cofie will write thematic code summaries for key codes and analyze relevant themes by developing matrices based on the code outputs, thematic code summaries, and narrative summaries. Memos will be written throughout the analytic process to establish an audit trail and facilitate data interpretation (Saldaña 2015). Examination of the matrices and thematic and narrative summaries will enable us to determine the information literacy skill levels and needs of both farmworkers and farmers.

Survey instrument for quantitative data. The development of community surveys will be informed by findings from the focus group discussions and individual interviews, the ACRL framework, and questions adapted from Pieterse (2018). We will follow a similar approach described in Aim 1 in our process for developing the survey instrument; our advisory panel will review the instrument and CHWs and Extension Agents will provide feedback on items and propose items they are most interested in.

Survey sampling. We will partner with 10 CHWs (compensated as consultants on ECU's budget) and 10 county Cooperative Extension agents (compensated as NC State University employees) located across NC to administer the survey to farmworkers and farmers, respectively. Using quota sampling, the CHWs and Extension Agents will administer the surveys to 150 farmworkers (i.e., 15 per CHW) and 100 farmers (i.e., 10 per Extension agent) during the peak season for farmworkers and off-season for farmers. That is, CHWs and Extension Agents will collect these interviews when it fits into their workflow (e.g., while farmworkers are waiting for an appointment or while farmers are receiving on-farm technical assistance). Farmers are non-migratory and are accustomed to participating in training and commodity meetings in the off-season when they work shorter hours. CHWs will individually administer the survey to farmworkers they interact with during routine visits to farmworker housing or while providing transportation, interpretation, or case management for medical appointments. Extension Agents will individually administer the survey to farmers who attend training events or when Agents are providing technical assistance on farms. CHWs will be provided a tablet in Year 1 (see Aim 1) and Extension Agents will be provided with a tablet in Year 2 complete with Qualtrics offline app for data collection where there is no internet access. All survey participants will receive a $25 gift card to facilitate recruitment.

Quantitative data analysis. Dr. Cofie will lead the quantitative analysis as described in Aim 1.

Products from data. After successful completion of Aim 2, we will have evidence of information literacy levels of farmworkers and farmers that can inform resource provision and programming. After successful completion of this aim, we will have created data reports and dissemination materials including newsletters that can be shared with libraries across the state and our partners. Additionally, Ms. Bloss and Ms. Roby will develop and facilitate webinars for local librarians about the needs of these two populations. Dissemination plans for all aims are presented separately under the reporting and dissemination section.

AIM 3. ASSESS THE ROLE OF NC LIBRARIES IN SERVING AGRICULTURAL COMMUNITIES AND THE EXTENT TO WHICH NC COUNTY BROADBAND PLANS INCLUDE LIBRARIES AND AGRICULTURAL WORKERS' SPECIFIC NEEDS. Our *research questions* are: To what extent do librarians already provide

outreach services to agricultural communities, and, if they do not, what is their interest level in providing these services and what resources do they need to provide them? To what extent have libraries participated in county broadband planning efforts? To what extent do NC county broadband plans include libraries and agricultural workers' needs? Our _working hypothesis_ is that there are opportunities for libraries to expand their reach to agricultural communities, and farmworkers specifically, and maximize their engagement in county broadband planning and implementation.

Relevance for Current Practice. Public libraries serve as anchor points in rural communities, yet rural public libraries are understudied and historically underfunded (Real 2014). As both a highly trusted institution in most rural communities and champions of access to information, libraries and librarians have the unique opportunity to expand outreach to their communities and work to advise broadband planning for their communities. An understanding of the roles that rural public libraries currently inhabit regarding agricultural outreach and community broadband planning will facilitate identification of opportunities for strategic expansion and models that could be implemented both throughout the state and nationally.

Aim 3 Methods. We approach this aim in three ways. First, in Year 1, we will survey public librarians and key state librarians regarding interest, resources, and needs related to addressing digital equity. Second, in Year 2, we will use the survey findings to identify innovative approaches being used, and our library science graduate student will conduct interviews to explore these approaches and develop case studies with Mr. Russell, Ms. Roby, and Ms. Bloss. Third, in Year 2, with oversight by Dr. Lee and input from the team, our coordinator Mr. Harwell and the library science graduate student will conduct a quantitative content analysis (Riffe 2005) of all completed NC county broadband plans to assess the inclusion of libraries and farmworkers. As part of our team science, embedded librarian approach to ensure leadership of librarians in research, Mr. Roger Russell, MLS, will be the librarian point-person for this aim and will fully participate in the participatory design, instrument development, interpretation of results, and framing of dissemination materials.

Participatory design for Aim 3. Similar to our approaches for Aims 1 and 2, our advisory panel and library experts will provide input on the design as well as feedback on survey items and the interview guide.

Survey instrument. Our team of librarians and social scientists will develop a survey based on participatory input and using validated measures whenever possible. Specifically, we will ask librarians the extent to which they provide outreach services to agricultural communities and participate in county broadband planning and implementation services. We will also ask about their interest in participating in subsequent interview, and outreach and broadband planning. As for Aims 1 and 2, we will have our advisory panel review the instrument. The survey instrument will also be piloted tested with librarians (N~=10) and reviewed for face and content validity. The survey will be designed and administered using Qualtrics.

Sampling. The survey will be sent to the NC Library Association listserv, emailed to librarians at the State Library of NC, and disseminated via other relevant academic and public library listservs in NC. The data collection period will last for two months in Year 1 of the project. Participant emails will be recorded with survey submission, with consent, to contact participants for interviews post-survey and to raffle a $100 gift card.

Quantitative data analysis. Dr. Cofie will lead the analysis of survey responses as described in Aim 1.

Sampling for qualitative data. Qualitative data collection will be accomplished using convenience sampling of survey participants. Our library science graduate student working with Ms. Bloss, Ms. Roby, and Mr. Russell, our librarian team members, will recruit a subsample of the survey participants (15 librarians); specifically, those whose survey responses indicate unique experiences or innovative ideas on providing resources and engaging with agricultural communities, will be selected. Potential participants will be invited to take part in phone interviews in Year 2.

Interview guide for case study semi-structured interviews. Our team of librarians and social scientists will work with our advisory panel to develop an interview guide. The guide will include questions to explore the experiences of librarians that have successfully developed and disseminated information literacy resources and programs, engaged in broadband planning and implementation, or created digital literacy resources for agricultural communities.

Conducting interviews. Dr. Cofie will train a graduate assistant from the library sciences program to conduct qualitative interviews. Interviews will be conducted in English, audio recorded, and transcribed. Interviewees will receive a $20 gift card for their participation. We expect to achieve saturation of themes and draw conclusions based on the number of interviews proposed (Carlsen 2011).

Qualitative data analysis. Dr. Cofie will conduct the qualitative data analysis as described in Aim 2.

Content analysis of broadband plans. Currently, 62 of 100 NC counties have a broadband plan or a planning effort underway and an additional 18 are covered by a digital equity plan. We will leverage our connections with the Broadband Infrastructure Office at the NC Department of Information Technology and NC State University's Institute for Emerging Issue's "Building a New Digital Economy" (BAND-NC) program to obtain completed broadband infrastructure plans for counties across the state. The leader of BAND-NC is a part of our advisory panel (see letters). Plans covering a county or group of counties will be eligible for inclusion. Dr. Lee will train Mr. Harwell and the library science graduate research assistant on the coding following recommended practices from quantitative content analysis methods (Riffe 2005) with which we have experience (Lee 2022). We will work to develop a protocol to standardize coding in answering key questions about if and how libraries and farmworkers are represented in broadband planning documents. We will assess inter-coder reliability using Krippendorff's alpha (Hayes 2007), and we will iteratively train and revise the codebook until reliability is established ($\alpha > 0.75$). Then, the two coders will review plans, coding their content into a standardized data collection tool in Qualtrics.

Products from data. Upon successful completion of Aim 3, we will know the extent to which librarians are working with agricultural communities on digital inclusion, what level of interest there is in this work, and what resources are needed to expand outreach to these communities. We will also know how librarians and farmworkers are involved in digital inclusion and county broadband planning efforts. We will have documented needs, resources, and innovative approaches. Products will include a webinar for librarians, newsletters and other digital documents for dissemination to libraries, case studies of librarians with unique experiences or innovative ideas on providing resources and engaging with agricultural communities, and publications in library science journals. Dissemination plans for all aims are presented separately under the reporting and dissemination section.

Potential problems and alternative solutions for all aims. Challenges across our aims are largely related to the difficulty of reaching populations with heavy work schedules, limited time, and – for farmworkers – structural vulnerabilities and marginalization. Our connections to CHWs, Extension Agents, and partners as well as incentives and inclusion in the design and reporting are all designed to overcome these challenges. Our project will still be feasible if data collection timelines have to be extended.

IRB FOR ALL AIMS. We have prior experience with assent and consent conducted with this population and in Spanish. The East Carolina University and Medical Institutional Review Board (IRB) has previously reviewed and approved our work with teens from farmworker families (#17-001303) and interviews with farmworkers and CHWs, including through phone or WhatsApp (#19-001817), and established reliance agreements with community partners and NC State University. We will implement protections to limit any ability to link data with individuals. We will strip identifying information from interview and focus group transcripts. We will securely store data on university-owned and approved file storage. Participants will be made aware of the risks prior to participating in focus groups, interviews, and surveys. Participants will be advised during the consent process that others participating in the focus group may be able to deduce their identity or learn things about them. Informed consent or assent will be administered during the screening process using language approved by the ECU IRB that is designed for readability and includes the general topic of the study, the name of the PI, the PI's contact information, the IRB approval number, and the phone number of the ECU IRB. The ECU IRB has Spanish-language phone support for participants. Participants will be reminded that they are not required to answer questions (other than for eligibility in the screening), that they can stop participating at any time, and that there is no obligation to participate. We use a professional translator for all IRB documents. Finally, upon receiving our IRB approval, **we will apply to the National Institutes of Health for a Certificate of Confidentiality**, which can be issued for non-NIH funding. We will do this given the potentially sensitive nature of farmworker housing locations that Mr. Harwell will be traveling to. Participants in the focus groups will be

reminded to maintain confidentiality about what other participants say; no last names will be used; and the recordings will be kept on ECU's secure network with access by only members of the study team. The transcripts of the groups and interviews will not have any identifying information. Following our institution's IRB requirements and state laws, we will establish a protocol to address the unlikely but possible event of having, for example, abuse or suicidal ideation disclosed during an interview.

Diversity Plan. To ensure a diversity of perspectives and authentically engage with farmworker communities, we will establish an advisory panel described above (and in letters of support) consisting of 10 individuals representing students from farmworker families, CHWs, farmworker advocates, state and national partners working in digital equity and farmworker health, and librarians and experts in information literacy. The advisory panel, along with CHWs and Extension Agents, will provide valuable input on our research design in Years 1 and 2, as well as inform our dissemination plans. Furthermore, our research team and advisory panel collectively represent diversity with regard to race, ethnicity, gender, sexual orientation, national origin, rural backgrounds, and first-generation graduate status, in addition to expertise. We will also have our research approach, questions, and methods be informed and driven by the needs of the ~30-member NC Agriculture Digital Alliance, which includes farmworker advocates.

Project Results and Reporting/Dissemination Thereof. To ensure the deliverables of this project are readily adaptable, generalizable, and usable by other institutions and communities nationally, the team will leverage the visibility and reach of at least two national library networks: the National Networks of Libraries of Medicine (NNLM), particularly the Region 1 office, and the Rural Library Network (RLN). The NNLM provides opportunities to share information through webinars and through weekly newsletters and blogs. The RLN has a monthly webinar on place-based approaches to community change with a focus on serving the needs of rural students.

Community partners, the NC Community Health Center Association and the NC Farmworker Health Program, each provide opportunities for the research team to disseminate information to farmworker-serving CHWs through training sessions and listservs. We will use regional and national meetings of farmworker health researchers and CHWs (e.g., East Coast Migrant Stream Forum, International Society for Agricultural Safety and Health) to expand our dissemination beyond NC and library networks.

The team will focus on publishing research results in open access publications to have the widest reach in readership and to promote equity in access to research results. Titles that the team will submit to are likely to include *Journal of the Medical Library Association*, *Health Information and Libraries Journal*, and *Health Literacy Research and Practice*. Other opportunities to share deliverables on a national scale include submitting research for presentation at the MLA Annual Meeting, the Association for Rural and Small Libraries Annual Conference, or the Institute for Healthcare Advancement Annual Health Literacy Conference. Other regional meetings like that of the Mid-Atlantic Chapter of the Medical Library Association and NC Farmworker Institute provide an opportunity to share research with information professionals and CHWs who serve rural populations.

East Carolina University's institutional repository, "The ScholarShip" provides a permanent home for these scholarly works and a permanent URL that will be shared at all opportunities where the research team is communicating results and experiences of the project. Datasets, survey instruments, and interview and FG guides, will be stored in Dataverse or another appropriate publicly accessible site such as Open Science Framework (OSF) and will follow standards for privacy and confidentiality. The team will use FAIR Guiding Principles for scientific data management and stewardship so that deliverables and metadata exist beyond the conclusion period of performance.

SCHEDULE OF COMPLETION

Task	Year 1												Year 2												Year 3											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
IRB application	X	X																																		
Advisory panel meetings					X				X				X				X				X				X				X				X			
CHW professional development (AIM 1)				X	X	X	X																													
Survey design and pilot testing (AIM 1)				X	X	X	X																													
Administer survey to farmworkers (AIM 1)								X					X	X																						
Quantitative data analysis (AIM 1)															X				X																	
Product development and dissemination – fact sheets, infographics, policy briefings, site specific reports (AIM 1)																				X	X	X										X	X	X	X	X
Focus group and interview guides development (AIM 2)				X	X	X	X																													
Conduct interviews with farmworkers and focus groups with farmers (AIM 2)						X	X			X	X	X																								
Qualitative analysis (AIM 2)												X	X	X				X																		
Development of community survey (AIM 2)																	X	X																		
Administer surveys to farmworkers and farmers (AIM 2)																			X			X														
Quantitative data analysis (AIM 2)																									X	X	X									
Product development representing qualitative findings (dissemination) - data reports, newsletters, webinars (AIM 2)																			X	X	X	X									X	X	X	X	X	X
Train data collectors (AIM 3)													X	X	X																					
Survey design and pilot testing (AIM 3)		X	X	X	X																															
Survey administration to librarians (AIM 3)						X	X																													
Initial quantitative data analysis (AIM 3)										X	X																									
Interview guide development (AIM 3)												X	X																							
Individual interviews with librarians (AIM 3)															X	X	X																			
Qualitative data analysis (AIM 3)																						X	X	X		X	X									
Gather broadband plans (AIM 3)													X	X	X																					
Conduct content analysis (AIM 3)															X	X	X	X	X																	
Product development and dissemination - webinar for librarians, newsletters, case studies (AIM 3)																															X	X	X	X	X	X
Year-end and final project report generation											X	X											X	X										X		
Conference presentations and journal article publications (all AIMs)												X	X	X	X	X	X	X	X	X	X	X	X	X							X	X	X	X	X	X

DIGITAL PRODUCTS PLAN

Type

The research the team plans to execute will generate qualitative and quantitative datasets, memos, and codebooks in standard file formats such as .CSV, .PDF, and .TXT. In addition to the datasets that are created, we will be creating dissemination materials such as fact sheets, infographics, policy briefings, data reports, newsletters, peer-reviewed publications, and presentations or webinars. Webinars will be recorded as .MP3 files with accompanying subtitle files (.SRT). All dissemination materials will be available as PDF files, or infographics and any other photos as TIFF files. Metadata documentation will be stored in a readme.txt file with the dataset it describes.

Availability

We will register research protocols in Open Science Framework prior to implementation, document all research instruments and methods, and, upon acceptance of the primary results paper for each aim, ensure any final datasets, survey instruments, and interview and focus group guides are made available in East Carolina University's data archive, Dataverse. We will disseminate research findings and other digital products via a website hosted by ECU (web development time is part of our budget) and by upload to Dataverse and OSF. Manuscripts will be submitted to open access publications whenever possible. Results and assets will be openly available online via OSF, Dataverse, and our website. We will endeavor to also make results and dissemination materials available in both English and Spanish. For any webinars we host, we will notify participants of the recording and post to the Laupus Library YouTube page so anyone can access them and the transcripts.

Access

Depositing our datasets in Dataverse will make de-identified data available at no cost to interested parties while requiring citation of the original source of the data (i.e., with a CC0 Public Domain Dedication). We will make any research instruments such as surveys and interview guides, fact sheets, policy briefings, or other dissemination materials available under an Attribution 4.0 International (CC BY 4.0) license. Articles will be submitted to Open Access journals whenever possible. Therefore, anyone with access to internet and a device will be able to access and re-use or re-analyze our de-identified data, dissemination materials, and view our research. We will additionally mail some materials as appropriate where issues of access may arise for outreach workers or library employees in North Carolina to raise awareness of our research and can mail thumb drives with files on them as needed if someone were to request a dataset from us who does not have a stable internet connection to download them.

Sustainability

We will keep all files in two different locations, one of which is ECU's Microsoft OneDrive which is accessible to the entire grant team. Copies will additionally be held locally at ECU on a secured server that is administered by ECU ITCS. Dataverse (https://dataverse.unc.edu/dataverse/ECU), where our datasets will be stored, is managed by the Odum Institute at the University of North Carolina at Chapel Hill and integrated in the Open Science Framework (OSF). The Odum Institute Data Archive is a leader in research data stewardship, with over 50 years of experience beginning in 1965. Datasets and other research products all have a persistent link and DOI associated with them on OSF and Dataverse to prevent link rot issues. ECU's Laupus Library will host the project website, so funding for the website will not cease once the grant period has ended and it will continue to be maintained by our dedicated webmaster. Dissemination materials will be linked on the website from Dataverse. Dissemination materials can be stored for years to come on Dataverse, and datasets will be available for at least ten years, or to the extent approved by the IRB. Preliminary analyses or drafts of papers will be saved in Microsoft OneDrive at ECU and retained for five years post publication.

DATA MANAGEMENT PLAN

   Our data management plan is guided by a strong commitment to open science and the importance of transparency and reproducibility in research findings. To that end we have a health sciences librarian/information specialist as a part of our team, Ms. Jamie Bloss, MLIS, AHIP, to ensure best practices in data management, open science, and data archiving are met across the entire grant process. Ms. Bloss will be the contact to store, anonymize if needed, and archive research data from the 3 aims.

INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

   ECU and NC State will share copyright and IPR of any existing or new data that we will create. Depositing data in Dataverse will make de-identified data available at no cost to interested parties while requiring citation of the original source of the data (i.e., with a CC0 Public Domain Dedication). To protect project participants, we will ensure data are anonymized and have no potential for deductive disclosure.

DIGITAL CONTENT, RESOURCES, OR ASSETS

   In Aim 1, quantitative survey data will be collected using Qualtrics, which will be coded in Excel (CSV) and then analyzed using SAS 9.4. The survey instrument will also be saved as a PDF. Fact sheets, infographics, policy briefings, and publications/presentations will be saved in PDF format.

   In Aim 2, qualitative focus group data and qualitative interview data will be collected. Interview and FG guides will be saved as PDF files. Transcripts will be saved and coded using NVIVO software. Memos will be saved in TXT files. Data reports and dissemination materials including newsletters will be saved as PDF files.

   In Aim 3, quantitative survey data and qualitative interview data will be collected. The survey instrument and interview guide will be saved as a PDF file. Survey data will be collected using Qualtrics, which will be coded in Excel (CSV) and then analyzed using SAS 9.4. Interview transcripts will be saved and coded using NVIVO software. Newsletters and other digital documents for dissemination to libraries and case studies of librarians with unique experiences or innovative ideas on providing resources and engaging with agricultural communities will be stored as PDF files.

   We will ensure data and other products are stored in a standardized format as our preference is for using open formats (e.g., CSV, TXT, HTML, XML, PDF) that are expected to remain compatible with newer versions of software.

   Microsoft products, NVIVO, Qualtrics, notepad, and SAS 9.4 programs will be used to record and analyze data.

   We will keep all files in two different locations, one of which is ECU's Microsoft OneDrive which the entire grant team has access to, which is approved for storage of research data. Copies will additionally be held locally at ECU on a secured server that is administered by ECU ITCS. We will register research protocols in Open Science Framework prior to implementation, document all research instruments and methods, and, upon acceptance of the primary results paper for each aim, ensure any final datasets are made available in East Carolina University's data archive, Dataverse. Dataverse (https://dataverse.unc.edu/dataverse/ECU) is managed by the Odum Institute at the University of North Carolina at Chapel Hill and integrated in the Open Science Framework, thereby linking research products from protocols to data files. We will obtain a persistent identifier (DOI) that will assist with citation of any data sets and provide a clear method of identifying the raw data underlying any analyzed publication data.

   In terms of metadata, we follow a standard based on Dublin Core (https://www.dublincore.org/specifications/dublin-core/dces/). We will document the following in a readme.txt file and store it with the data we collect:

General Overview
Title: Name of the dataset or research project that produced it
Creator: Names and addresses of the organizations or people who created the data; preferred format for personal names is surname first (e.g., Smith, Jane)
Identifier: Unique number used to identify the data, even if it is just an internal project reference number
Date: Key dates associated with the data, including: project start and end date; release date; time period covered by the data; and other dates associated with the data lifespan, such as maintenance cycle, update schedule; preferred format is yyyy-mm-dd, or yyyy.mm.dd-yyyy.mm.dd for a range
Method: How the data were generated, listing equipment and software used (including model and version numbers), formulae, algorithms, experimental protocols, and other things one might include in a lab notebook

Processing: How the data have been altered or processed (e.g., normalized)
Source: Citations to data derived from other sources, including details of where the source data is held and how it was accessed
Funder: Organizations or agencies who funded the research

Content Description
Subject: Keywords or phrases describing the subject or content of the data (using MeSH)
Place: All applicable physical locations
Language: All languages used in the dataset
Variable list: All variables in the data files, where applicable
Code list: Explanation of codes or abbreviations used in either the file names or the variables in the data files (e.g. "999 indicates a missing value in the data")

Technical Description
File inventory: All files associated with the project, including extensions (e.g. "NWPalaceTR.WRL", "stone.mov")
File formats: Formats of the data, e.g., FITS, SPSS, HTML, JPEG, etc.
File structure: Organization of the data file(s) and layout of the variables, where applicable
Version: Unique date/time stamp and identifier for each version
Necessary software: Names of any special-purpose software packages required to create, view, analyze, or otherwise use the data

Dissemination

We will disseminate research findings via a website hosted by ECU and by upload to Dataverse and OSF. Publications will be submitted to open access publications. Results and assets will be openly available online via OSF, Dataverse, and our website.

RESEARCH DATA

Following our IRB and best practices, we will protect participant identities. We will implement protections to limit any ability to link data with individuals. We will strip identifying information from interview and focus group transcripts. Participants will be made aware of the risks prior to participating in focus groups, interviews, and surveys. Informed consent or assent will be administered during the screening process using language approved by the ECU IRB that is designed for readability and includes the general topic of the study, the name of the PI, the PI's contact information, the IRB approval number, and the phone number of the ECU IRB. Participants will be reminded that they are not required to answer questions (other than for eligibility in the screening), that they can stop participating at any time, and that there is no obligation to participate.

Anyone wishing to access, display, process, or reuse the data would need access to a computer and a web browser. They would need to be able to open CSV, TXT, and PDF files. Codebooks will be created in NVIVO and exported to a more stable format such as Microsoft Excel (.xls, .xlsx), PDF (.pdf), and plain text (.txt). If any survey codebooks are created in a Microsoft word document (.docx), they will be converted to PDF files. Consent agreements for the interviews and surveys will be stored on Qualtrics and exported to PDF or CSV files, or as PDF files for the interviews.

Datasets will continue to have a persistent link and DOI on OSF or Dataverse (https://dataverse.unc.edu/). Additionally, our website will be maintained by Laupus Library at ECU. We plan to review this document every six months to update it and make sure that implementation is happening as the research progresses through all years of the award period.

Examples of items produced from past grant work with DOIs
Education Materials for Farmworker Health: A Resource List - Materiales de educación de salud para trabajadores agrícolas: Lista de Recursos.
https://dataverse.unc.edu/dataset.xhtml?persistentId=doi%3A10.15139%2FS3%2FF1M9KC
https://doi.org/10.15139/S3/F1M9KC
Dissemination Materials. https://dataverse.unc.edu/dataset.xhtml?persistentId=doi:10.15139/S3/DXQYMX
https://doi.org/10.15139/S3/DXQYMX
Migrant and Seasonal Farmworker Health Research Mapping Review Bibliographies.
https://dataverse.unc.edu/dataset.xhtml?persistentId=doi:10.15139/S3/JNW5XE
https://doi.org/10.15139/S3/JNW5XE

ORGANIZATIONAL PROFILE

East Carolina University Mission:
To be a national model for student success, public service and regional transformation, East Carolina University:
- Uses innovative learning strategies and delivery methods to maximize access;
- Prepares students with the knowledge, skills and values to succeed in a global, multicultural society;
- Develops tomorrow's leaders to serve and inspire positive change;
- Discovers new knowledge and innovations to support a thriving future for eastern North Carolina and beyond;
- Transforms health care, promotes wellness, and reduces health disparities; and
- Improves quality of life through cultural enrichment, academics, the arts, and athletics.

We accomplish our mission through education, research, creative activities, and service while being good stewards of the resources entrusted to us.
Approved by the Board of Trustees in July, 2013
Approved by the Board of Governors in February 2014
Source: https://chancellor.ecu.edu/university-mission/

Governance Structure:
Laupus Library reports directly to the Provost; the Provost reports directly to the Chancellor; the Chancellor reports to ECU Board of Trustees, and to UNC President; the UNC President reports to the UNC Board of Governors

Service Area:
Laupus Library provides leadership in access to information essential to quality health care delivery, education, and research at East Carolina University and across eastern North Carolina. We serve the Brody School of Medicine, the College of Nursing, the College of Allied Health Sciences, and the School of Dental Medicine at ECU. We also deliver library and information services to Vidant Health hospitals and other health care providers across the region. Our regional focus is typically on the mostly rural eastern 23 counties of North Carolina. We partner with the NC Area Health Education Centers (AHEC), and Eastern AHEC regional office to provide linkage to health information for these rural and underserved parts of the state.

Brief History:
We began as the Health Affairs Library which was established in 1969 with Dr. Jo Ann Bell as its director. Our mission was to serve the fledgling School of Health Affairs. Our collection was started with only one professional librarian and 12 tons of donated books. Throughout the years, we've grown to serve Vidant Health Center (formerly Pitt Community Hospital) and, through EAHEC, health care professionals across Eastern North Carolina.

We have moved four times in our history. We moved from the old cafeteria building to the Biology Building (1970), to the Belk Building (1972), then to the Brody Building (1981). Finally, in 2006, we moved to our current location, the Health Sciences Building. The Health Sciences Building is a 300,000 square foot, state-of-the-art educational center that we share with the College of Allied Health Sciences and the College of Nursing.