State Library of North Carolina

Addressing the K-12 Homework Gap through Broadband Adoption

The State Library of North Carolina, in partnership with the NC Broadband Infrastructure Office and the Department of Public Instruction, requests $244,526 to design and implement a holistic, replicable, and scalable model to enable North Carolina's public libraries to demonstrate the important role they can play in promoting broadband access to address the K-12 homework gap in their communities.

Statement of National Need: Nationally, 7 in 10 teachers assign homework that requires internet access, but an estimated five million households with school-age children do not have internet access at home. These children—students who are assigned homework requiring access to the internet, but don't have home access—fall into what's called the "homework gap." Per a recent pilot study conducted by the Broadband Infrastructure Office (BIO) of the North Carolina Department of Information Technology,10 percent of surveyed K-12 households do not have internet access in their homes, but as of this year all textbooks in NC schools are now digital. FCC Commissioner Jessica Rosenworcel describes the homework gap as the "cruelest part of the digital divide." The homework gap will diminish educational outcomes and hinder future career and economic opportunities for the children who suffer from it.

Causes for the homework gap mirror those that prevent households from adopting broadband in their homes. Research shows that the four major obstacles to broadband adoption are: a lack of digital literacy knowledge, inability to afford purchase of internet service and digital devices, a lack of access to broadband service, and the lack of understanding how the internet is relevant to a person's life.

While lending of wifi hotspots in libraries has been steadily increasing, there has been no coordinated effort to establish a model of service delivery to promote broadband adoption while addressing the homework gap. This project addresses each of the barriers to broadband adoption through partnerships and a coordinated approach addressing all the barriers simultaneously. Our model will demonstrate how public libraries can help close the homework gap and increase broadband adoption through a combination of wifi hotspots, digital devices, programming, and educational resources.

This project complements existing efforts to collect data on and create solutions for the homework gap in North Carolina spearheaded by BIO. As a result of recommendations set forth in the 2016 State Broadband Plan (https://ncbroadband.gov/sbp), BIO recently conducted a pilot study and distributed a survey to nearly 8,000 K-12 households to measure the scope of the homework gap in North Carolina. While further research is needed, the initial results align with traditional broadband adoption research and demonstrate a need for a multi-pronged solution.

North Carolina's public libraries see over 33 million patrons a year, with over 6.5 million computer uses per year. As trusted community anchor institutions that already provide services that citizens use to access the digital world, our public libraries have an opportunity to help further close the homework gap through partnership with local stakeholders to address the issue holistically.

This proposal supports the IMLS National Digital Platform project category in expanding access to broadband services and further establishing public libraries as essential partners in reducing the homework gap. North Carolina is the perfect location to test the model because of its strong public library system, diverse geography and citizenry, existing broadband infrastructure, and strong existing partnerships between the libraries and organizations focused on expanding broadband access throughout the state.

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Project Design: For this two-year project, North Carolina will use the IMLS funding to purchase digital devices (e.g., tablets or laptops) and hotspots, develop programs, and create a Digital Inclusion Librarian position at the State Library. The Digital Inclusion Librarian will lead the project implementation and will identify digital literacy and educational programming resources, develop digital literacy train the trainer curricula, and support equipment distribution and training.

In year one, three library systems serving Tier 1 counties (those designated by the NC Department of Commerce as the most distressed) will be selected based on review of data on their population, median household income, free and reduced lunch rates at K-12 schools, broadband availability, broadband adoption, the presence of a 1:1 device program at their K-12 schools, and geographic diversity. Selected libraries within the three areas will receive hotspots, devices, support, and training from the Digital Inclusion Librarian. To test the efficacy of lending digital devices from libraries, a select number of the library partners will receive digital devices to lend to patrons. In year two, up to three additional library systems will receive hotspots and digital devices along with training and resources, providing an opportunity to test and refine best practices identified during year one.

The Digital Inclusion Librarian will lead the identification of appropriate resources and curricula, training, dissemination of equipment, and program evaluation. BIO will provide program planning support, subject matter expertise on broadband and the homework gap, connections to local partners, assistance in establishing a method for distributing the hotspots and digital devices, and program evaluation.

All partners will collaborate on dissemination of the model and best practices once the project concludes. Deliverables include a toolkit with best practices, K-12 focused digital literacy training materials, equipment testing and training materials, curriculum guides, and a program evaluation including case studies. Findings will be disseminated through online, print, social media, and other library, broadband, and IT outlets as well as presentations at relevant meetings and conferences of organizations such as COSLA, SHLB, NDIA, NTEN and PLA.

Projected National Impact: The project will result in a best practices toolkit available for libraries nationwide that establishes them as a leader in bridging the "cruelest part of the digital divide" through a holistic model in their communities.

Project goals include: 1) demonstrated evidence of reduced homework gap in communities where project is implemented; 2) improved educational outcomes for students who receive homework gap support; 3) libraries established as strong leaders in bridging the digital divide; 4) increased partnerships between public libraries and schools; 5) a replicable and sustainable model for libraries nationwide; and 6) assessment of library broadband deployment for homework help as a gateway to increased broadband adoption in underserved communities.

Budget Summary: Grant funds of $244,526 are requested for the two-year project: salary for a Digital Inclusion Librarian; equipment including hotspots and digital devices; travel to libraries within state and to national conferences.

Category	Year 1	Year 2	Total
Salary & Benefits	$68,903	$68,903	$137,806
Equipment	$45,360	$45,360	$90,720
Travel	$8,000	$8,000	$16,000
TOTAL	$122,263	$122,263	$244,526