

## **Broadband USA Applications Database**

**Applicant Name:** South Carolina State Museum Foundation

**Project Title:** South Carolina State Museum Distance Learning Initiative

**Project Type:** Sustainable Adoption

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### **Executive Summary**

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a) A statement of the problem or need your project addresses with regard to improving broadband services adoption rates.

The challenges facing schoolchildren in South Carolina are well-documented. Our high school graduation rate is among the lowest in the country, and although the state has made improvements in science and math achievement over the past five years, our eighth graders still rank 28th in science and 30th in math. We face a serious achievement gap between white and non-white students, and between poorer and rural youth and their wealthier counterparts in other parts of the state. This achievement gap is an access gap: lack of access to learning opportunities, hands-on experiences, leading-edge technologies, creative and interdisciplinary pedagogical approaches.

Broadband-enabled educational opportunities represent a cost-effective strategy to overcome this gap and give all students statewide access to high-quality, outcomes-based curriculum, particularly in science, technology, engineering, and mathematics (STEM). Anchor institutions like the South Carolina State Museum must improve their capacity to provide innovative content and train teachers in the use of distance-learning to further K-12 educational efforts, leveraging investments made in broadband access in schools and focused STEM education statewide.

b) Your approach to addressing the need and how your approach is innovative.

Through the South Carolina State Museum Distance Learning Initiative (DLI), the State Museum will construct and equip a fully digitized observatory at our facility in Columbia, South Carolina. This Observatory will house the only telescope in the state fully accessible to teachers and students via the internet, and, based on our research, one of only two in the country available for free public use via the internet. Our Observatory will deliver real-time astronomical observation and accompanying science programs to public schools statewide, broadening educational opportunity and modeling new uses for technology in the classroom. The Observatory will also be accessible to the general public, allowing users to leverage broadband-access investment statewide to take advantage of this powerful new public resource.

The Museum will also build and equip a Teachers' Resource Center and video studio to offer teachers professional development and additional content to integrate distance-learning and other broadband technologies into their curriculum. Thus, the project will provide teachers and students with direct use of the Observatory online (creating content), and will facilitate related educational support from the State Museum's staff through in-person visits, web-based presentations, and professional development (supporting classroom integration). We will train teachers to maximize their use of the Observatory and other distance-learning technology to drive STEM educational goals, particularly in K-12 schools serving rural and lower-income populations throughout the state. In collaboration with the South Carolina Department of Education, we will model this content and training through pilot collaborations focusing on STEM education with five geographically distributed under-performing schools, creating best practice educational units that will be easily replicated in other schools statewide, ensuring sustainability.

c) Areas to be served, population of the target areas, including demographic information and the estimated number of potential broadband subscribers your project will reach.

Ultimately, this project is designed to have statewide impact serving a total of 100,000 students in all 46 counties and a projected 16,000 individual Observatory users. Our pilot educational outreach will focus on five schools: Gibbes Middle School (Richland County, Midlands); Mt. Pleasant Middle School (Lee County, Midlands); North Charleston High School (Charleston County, Lowcountry); Whitlock Junior High School (Spartanburg County, Upstate); and J.V. Martin Junior High School (Dillon, Pee Dee). The schools serve 2,452 students, 91% minority, averaging more than 94% free or reduced-lunch rates.

d) Qualifications of the applicant that demonstrate the ability to implement the project and achieve its intended results.

The South Carolina State Museum Foundation is a non-profit organization that seeks program and project funds to further the mission of the South Carolina State Museum. Founded in 1988, the State Museum is the state's flagship educational museum, featuring a collection of more than 70,000 objects across four floors dedicated to art, history, natural history, and science and technology. The museum is accredited by the American Association of Museums, and is a Smithsonian Institution affiliate. It welcomes more than 132,000 visitors annually, including guests from all 50 states and 11 foreign countries, as well as 65,000 elementary, middle, and high school students from all 46 counties in the state. All K-12 students are admitted to the museum free of charge. The State Museum is a recognized leader in developing innovative content distributed through in-person visits to the Museum and, in partnership with South Carolina Educational Television (SCETV), across the state via closed-circuit TV.

This project is part of Windows to New Worlds, an ambitious campaign to expand the State Museum's capacity to fulfill its educational mission, creating a range of dynamic new facilities—including those described in this proposal—that will build on more than 20 years of educational excellence. The State Museum Foundation is in the final phase of fundraising, after more than 10 years of planning with community leaders, government agencies, and others.

e) Jobs to be saved/created. The project will create an estimated 100 construction jobs over the first 18 months, with 7 permanent positions added to the State Museum's staff by the end of the grant period.

f) Overall cost. \$2,860,000