

ANNUAL PERFORMANCE PROGRESS REPORT FOR SUSTAINABLE BROADBAND ADOPTION

General Information

1. Federal Agency and Organizational Element to Which Report is Submitted Department of Commerce, National Telecommunications and Information Administration	2. Award Identification Number 23-43-B10581	3. DUNS Number 607132466
4. Recipient Organization AXIOM Technologies, LLC 3 Water Street, Machias, ME 04654-1118		
5. Current Reporting Period End Date (MM/DD/YYYY) 12-31-2012	6. Is this the last Annual Report of the Award Period? <p style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </p>	
7. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.		
7a. Typed or Printed Name and Title of Certifying Official Susan M Corbett CEO	7c. Telephone (area code, number and extension) (207) 255-0679	
	7d. Email Address susan.corbett@axiom-tech.net	
7b. Signature of Certifying Official Submitted Electronically	7e. Date Report Submitted (MM/DD/YYYY): 01-29-2013	

PROJECT INDICATORS

1. Does your Sustainable Broadband Adoption (SBA) project foster a particular broadband technology or technologies? If so, please describe this technology (or technologies) (600 words or less).

The Washington County Education and Employment through Sustainable Broadband Adoption Project (WCEESBA) took advantage of its wireless broadband technology and provided educational and employment opportunities to three of the largest industries in the County: blueberry farming, fishing and healthcare. Axiom partnered with the Central Maine Medical Center College of Nursing and Health Professions as Sub-Recipient, and Anchor Institutions: University of Maine at Machias, Down East Community Hospital, Downeast Institute for Applied Marine Research and Education, Sunrise County Blueberry Cooperative and other collaborators. The Program addressed the underserved, unemployed and underemployed residents by providing education and training opportunities in healthcare, computer and Internet technology skills and cost effective and efficient fishing and farming operating methods, all through the use of broadband technology and computer skill and customized software training and usage. The program has opened doors to education and training opportunities and an increased demand for broadband connectivity, resulting in increased adoption rates. At program inception, Axiom's Wireless Network provided broadband service to over 100 regions (46 towns) with 80 Access Points in Washington County, creating an umbrella over 2,500 square miles in the area. Since the onset of the BTOP program, Axiom has increased the capacity of its wireless network via the BTOP Project, "The Three Ring Binder" and upgraded their subscribers from a 1.5 Mb. connection to a 3 Mb. connection at no additional cost to the subscriber. Axiom is installing Three Ring Binder fiber-optic broadband services to businesses throughout the region. Axiom has also increased DSL broadband service to its network. Axiom has added Access Points to its Wireless Network expanding its reach with over 90 Access Points. Axiom continues to find solutions to bring broadband service to the unserved homes and businesses in Washington County and in Maine.

Axiom implemented a program to prove the concept of leveraging new broadband technology use to bolster a dwindling natural resource-based economy and become a guide for other regions and States faced with similar 21st century challenges. Washington County produces more than 90% of the world's blueberry crop and has 3,598 (23%) of Maine's small and medium-sized commercial fishing and marine harvesting operations, many of whom are small, economically and socially disadvantaged businesses. The WEESBA economic metrics for subject businesses includes: 1) employee competency and capability; 2) new market access; 3) process automation; 4) effects on operating costs; 5) effects on gross revenue; and blending next generation technology with natural resource-based industry. A rugged laptop computer able to withstand field operations was provided to each subject business and configured to utilize the high capacity data network. These machines were equipped with software and technology tools to support and enhance the subject businesses operation.

The College of Nursing and Health Professions expanded its existing Distance Learning Education Associate Degree Registered Nurse Program into rural Washington County, Maine. At present, there is a Freshman Class and a Senior Class. Upon completion of the program, area residents that received the nursing degree will be able to supply a badly needed healthcare workforce with skilled nursing professionals in a Health Profession Shortage Area. The Remote Teaching site, which utilized state-of-the art Real-Time Video-Conferencing technology, in Washington County at the Down East Community Hospital has allowed Washington County residents to obtain a degree without traveling great distances, thus saving both time and expense, but more importantly a unique opportunity to pursue a non-traditional, unique education.

2a. Please list all of the broadband equipment and/or supplies you have purchased during the most recent calendar year using BTOP grant funds or other (matching) funds, including any customer premises equipment or end-user devices. If additional space is needed, please attach a list of equipment and/or supplies. Please also describe how the equipment and supplies have been deployed (100 words or less).

Manufacturer	Item	Unit Cost per Item	Number of Units	Narrative description of how the equipment and supplies were deployed
Not Applicable	0	0	0	Not Applicable
Totals		0	0	

Add Equipment

Remove Equipment

2b. To the extent you distribute equipment/supplies to beneficiaries of your project, please describe the equipment/supplies you distribute, the quantities distributed, and the specific populations to whom the equipment/supplies are distributed (600 words or less).

Equipment and supplies were purchased to connect the farmers and fishermen from their boats, trucks, docks or field to the Internet via Axiom's Wireless Network. A fiber-optic connection was installed by Maine Fiber Company at Down East Community Hospital via the BTOP Three Ring Binder project. A computer was purchased to host the software created by the farmers, fishermen and consultants for the MAPOnline data collection software.

Equipment and supplies were purchased for the College of Nursing and Health Professional for their Distance Learning Education Program that connects from their main campus in Lewiston, Maine to their remote teaching site at Down East Community Hospital in Machias, Maine.

Educational materials were purchased for both Axiom and the College of Nursing and Health Professions to assist the faculty and staff. No item had a value over \$5,000.00.

3. For SBA access and training provided with BTOP grant funds, please provide the information below. Unless otherwise indicated in the instructions, figures should be reported cumulatively from award inception to the end of the most recent calendar year. For each type of

training (other than open access), please count only the participants who completed the course.

Types of Access or Training	Number of People Targeted	Number of People Participating	Total Training Hours Offered
Open Lab Access	0	0	0
Multimedia	0	0	0
Office Skills	0	0	0
ESL	0	0	0
GED	0	0	0
College Preparatory Training	0	0	0
Basic Internet and Computer Use	80	369	18,556
Certified Training Programs	0	0	0
Other (please specify): Associate Degree Nursing	16	16	19,706
Total	96	385	38,262

4. Please describe key economic and social successes of your project during the past year, and why you believe the project is successful thus far (600 words or less).

The Washington County Education and Employment Sustainable Broadband Project exhibited much success and attention regionally, statewide and nationally, and best practices are included in the National Broadband Adoption Kit. The digital literacy component which originally targeted a core group of 10 fishermen and 10 farmers, their crews and families was expanded to include the residents of Washington County. A total of 369 individuals have taken one or more computer skills classes which included Basic Computer Skills, Microsoft Word, Excel, Outlook, PhotoShop, QuickBooks, Web Design and Social Media skills training.

In 2012, Axiom collaborated with the Maine State Library, a recipient of a BTOP Public Computer Center grant and offered classes in 18 libraries in Washington County. Classes were also held at the Career Centers, colleges, high schools, community centers and private business locations throughout the 2500 square mile region. The classes were held at various days and times to accommodate the most convenient time period for the students. The farmers, fishermen, their crews and families, have achieved over 13,714 learning hours. The general public has achieved over 4,841 learning hours, the grand total of 18,555 learning hours which included classes, tutoring, homework, self-studying, teaching others and learning to navigate the Internet.

The success of the program garnered the attention of the John T. Gorman Foundation who asked Axiom to submit a proposal to continue digital literacy classes in Washington County. This private foundation has awarded Axiom Technologies, in collaboration with Sunrise County Economic Council, \$300,000.00 to continue digital literacy classes in 2013 and 2014.

The popular digital literacy classes have increased broadband awareness and have driven broadband adoption in Washington County. In Quarter 2/2013, the final study will be done by the University of Maine at Machias' Department. of Economics to measure the economic outcomes and benefits for the farmers and fishermen.

The College of Nursing and Health Professions Distance Learning Education Nursing Program is fully operational with two classes of nursing students that allowed them to participate in a nursing degree program without the time and expense of traveling great distances. Five nurses will graduate with an Associate Degree in Nursing in May 2013.

Enthusiasm for the Project is not limited to Washington County; Axiom's CEO has traveled across the State and beyond to garner support and collaborate on the project on many local, state and a few national levels. It is clear that many entities are excited and interested about replicating the programs to fit their industries or adapting the program to their region. As we move forward, and needing Broadband to conduct business becomes more of an issue for remote and isolated pockets of the country like Washington County, we expect that both programs will continue to grow and expand beyond its current boundaries.

5. Please estimate the level of broadband adoption in the community(ies) and/or area(s) your project serves, explain your methodology for estimating the level of broadband adoption, and explain changes in the broadband adoption level, if any, since the project began.

5a. Adoption Level (%):	Narrative description of level, methodology, and change from the level at project inception (600 words or less).

<p>5a. Adoption Level (%):</p>	<p>Narrative description of level, methodology, and change from the level at project inception (600 words or less).</p>
<p>34</p>	<p>Axiom has expanded the capacity of its Wireless Network, added DSL sites and promoted BTOP's Three Ring Binder project to homes and businesses in Washington County and continues to engineer and deploy broadband solutions to close the gap on the unserved regions. Since the inception of the Washington County Education and Employment through Sustainable Broadband Adoption program, Axiom has installed broadband to 337 homes and 59 businesses, which total 1,164 new users. Broadband installation to homes and businesses since the inception of the program (800 subscribers in 2010) equals a 34% increase in new broadband installations to the region. The challenge in rural areas such as Washington County is finding solutions for the very hard-to-reach homes and businesses. Wireless technology is "line-of-sight" which means Axiom's Wireless Access Point must "see" the end-user. The geographical challenges in areas like Washington County that is populated with trees, mountains, valleys make "line-of-site" technology difficult to reach many areas. Axiom continues to find solutions and explore new technology, including white-space spectrum and non-line-of-site technology, to ensure that every home and business in Washington County and the State of Maine bring broadband to our citizens.</p>

6. Please describe the two most common barriers to broadband adoption that you have experienced this year in connection with your project. What steps did you take to address them (600 words or less)?

Two of the most common barriers to broadband adoption have been lack of training on how to use the technology and the difficult topography of the region that makes broadband access difficult. Throughout this grant period, Axiom has continued to find solutions for the unserved areas of the region and will continue to do so until every home and business in Washington County and Maine is connected. Many businesses are just now getting connected to broadband. Once that happens, the computers and software that they have been using are no longer adequate. Business owners often don't even know what to ask for or who to ask for help. Axiom introduced an Entrepreneurial Coach, as well as an Educator and Technical Support to the farmers and fishermen to help define the technology needs of the businesses. Axiom asks these individuals questions such as "Do you intend to expand?", "How do you track sales?", and "How are you managing your business?" Axiom assesses technology skills of participants and, based on the goals and plans of the business owners, recommended appropriate classes to each individual and technology solutions to the business. Axiom provides technology classes including Basic Computer Skills, Microsoft Word, Excel, Outlook and QuickBooks and many other courses. In some cases, Axiom found that the topics are more effectively taught when the examples are specific to the business. For example, Axiom provides tutors to teach QuickBooks on-site at the business office using real-life examples.

7. To the extent that you have made any subcontracts or sub grants, please provide the number of subcontracts or sub grants that have been made to socially and economically disadvantaged small business (SDB) concerns as defined by section 8(a) of the Small Business Act, 15 U.S.C. 647, as modified by NTIA's adoption of an alternative small business size standard for use in BTOP. Please also provide the names of these SDB entities. (150 words or less)
 None/Does not Apply.

8. Please describe any best practices / lessons learned that can be shared with other similar BTOP projects (900 words or less).

Axiom's educators and staff observed that the biggest obstacle to overcome for a student is the anxiety they have in approaching a computer for the first time. The Instructor's people skills and ability to connect to the student and meet them on their level is just as important as teaching the technical skills. You need both. The atmosphere must be relaxed, comfortable and inviting. We encouraged students to ask questions, to contact us in between classes if they need help, give as much support as we can to the instruction, encourage them to practice and discuss how to implement technology and how it benefits our lives. The "teaching" is more of a conversation between "trainers" and "trainees."