a) Power3 is an e-tech mentoring program linking college students with disadvantaged youth. It includes a community-based tool for registering micro-projects to strengthen science, technology, engineering, and math education among the future workforce. At the same time it improves access to broadband service and application by building critical thinking skills. The collaborative and comprehensive nature of this project limits the potential funding to the ARRA as a source for immediate implementation. While Power3 is consistent with objectives outlined in many policies, there is no other start-up revenue source that addresses the comprehensive nature of Power3 that includes development of a matching/registration software (called ‘e11’), training and outreach efforts associated with deploying the mentoring program, or upgrading computing needs in non-profit computing centers so the youth have a place to work on the projects. All of these elements are required to support the goal of Power3 that introduces vulnerable youth to real-world technical applications, encouraging them to further advance adoption rates among their peers. The value of replicating the program into other communities has incredible potential, but is not readily recognizable and most grants do not consider these long-term returns on investments in successful applications. Power3 is clearly aligned with the purpose of the Sustainable Broadband Adoption Program with regards to providing education awareness, training, access, equipment and support to vulnerable populations and sustainability. We have a two year goal of directing reaching 5,000 disadvantaged youth as well as an additional 2,500 users through their experience. In addition, the program uses 1,400 college students who will benefit from not only broadening their technology skills, but build leadership skills as they mentor the youths, while connecting with the business community and advancing employment opportunities through the micro-projects they develop. b) There is no systematic framework for student learning and service to address the actual human needs of communities. The US is running out of the time to equip the workforce at large, and in particular disadvantaged communities, with science and technology skills. The US needs a duplicatable system within which academic, business, and public service organizations can easily collaborate to achieve goals. Power3 moves an idea from a thought to a solution by accessing existing resources from an array of partners as a three-way collaboration between businesses, academia, and the public sector. These solutions both contribute to and make use of open source collateral. The Power3 is based on a simple pyramid concept to propagate novel project ideas and skills by linking mentors at one level with two or three apprentices at a lower level within the context of an appropriately scoped micro-project. With a professional or academic scientist at the top, we will build a downward-reaching pyramid of mentors and apprentices. We will achieve the SBA objectives of expanding broadband by providing broadband-
based mentored projects in a disadvantages area through schools, libraries, and public computing centers, and job creation by connecting college students talents with business defined needs. The program will fuel sustainable broadband adoption in every community in which it is implemented. c) The targeted area includes neighborhoods in northeast Columbus. The area population is 222,000. Of these, roughly 37% are African American (3 times the proportion of the nation), per capita income is around $20,200. The unemployment rate is 20% higher than the national average. d) There are many partners and specific skill sets necessary to implement Power3. Project development relies upon partners at the Ohio State University (OSU) to build technical tools and coordinate the mentoring opportunities, the business community through TechColumbus to identify mini-project needs, and a regional partner in the Mid Ohio Regional Planning Commission (MORPC) to coordinate with other universities and communities to replicate Power3, and the Columbus Institute for Contemporary Journalism for enhancing micro-projects by providing access to its public computing center including media production facilities. Service learning is an explicit goal at OSU. Today, the search for collaborative opportunities occur in an inefficient ad-hoc way. The primary developer of Power3 is the Center for Enterprise Transformation and Innovation (CETI) within the college of Engineering. CETI is a National Science Foundation funded Industry-University Collaborative Research center for Enterprise Systems research. Its successes include mentoring best practices in Information Technology applications resulting in over 400 undergraduate and 40 graduate students, 140 micro-projects sponsored by over 35 business and government organizations over the last three years. TechColumbus is the technical business incubator in central Ohio. They partner with OSU, Battelle, Columbus Children's Research Institute, OhioHealth, 15 Fortune 1,000 companies, thousands of small and large tech-based and tech-enabled companies, and a large, growing young professional community. MORPC is the regional planning commission in central Ohio. It mission is to 'be the regional voice and a catalyst for sustainability and economic prosperity in order to secure a competitive advantage for central Ohio'. They are established with the local governments, schools districts, chambers of commerce and universities. The Columbus Institute for Contemporary Journalism will provide access to its public computing center including media production facilities. Operations of Power3 will rely on CETI, DataCenter101, the Ohio Cooperative Extension Service and the public computer centers in the area (see attachments). DataCenter101 operates a next-generation colocation facility. Their facility is maintained by licensed vendors. Their power, network and critical systems utilize N+1 architecture including real-time critical systems monitoring, results oriented customer support and 24/7 on-site Network Operations Center (NOC) staff. It has a near perfect average power factor of 0.99. The OSU Extension Outreach Center has a long history and provides informal educational programs for 7,800 people near OSU. Finally, the operational capacity of Power3 would be greatly enhanced by the successful award to other central Ohio ARRA broadband applications including the City of Columbus's 'Columbus Regional Comprehensive Community Plan.' That would enhances broadband access by completing a communitywide network, and the Connect Ohio NTIA-BTOF-SBA submission for providing training at public computing facilities. Training and outreach partners include TechCorps, the 4H program at OSU, the OSU African American and African Studies-Community Extension Center (AAAS-CEC), the city of Columbus Public Access TV Station, WOSU Public communications, and the Columbus Institute for Contemporary Journalism. TechCorps connects technology to learning. Since 1999, they have placed over 500 technology volunteers who have assisted students and teachers in more than 300 Ohio schools and nonprofit organizations. TechCorps programs have impacted nearly
10,000 K-12 students in 23 Ohio counties. OSU- 4H is a non-formal educational youth development program. It extends into underserved communities in Columbus. AAAS-CEC provides community outreach and education programs enhance the educational opportunities Columbus’s urban and minority communities. Media partners including Columbus Public Access and WOSU have committed to promote Power3, however other media will also be called upon to promote the program through public service announcements and general media. Perhaps the greatest outreach value is expected from the participants themselves through various social media outlets. Finally, the Power3 team will be working with JobLeaders/COWIC is a job training partnership operating a summer youth employment program that currently is using ARRA funds. e)Based on the CEA methodology 20 potential direct-job years can be created from the Ohio State University’s sustainable broadband adoption proposal. However, the effect on the future workforce will be much greater. f)$3.47 million total project cost with 56% cost ($1.95 million) to sponsor and 44% ($1.5 million) in-kind for developing a sustainable training and outreach best practice, enhancing pre-existing organizational infrastructures, training pilot assessment, continuous improvement, and promotion. In-kind match is in facilites, faculty time, student time, data center access, software, administration.