The Governor's Productivity Investment Fund
Productivity Investment Fund Request for Information Response
Statement of Interest Submission Template

All submissions must be received by 11:59pm Eastern Standard Time,
by email or mail. Electronic responses are preferred and should include **Productivity Investment Fund RFI Response** in the subject line. Non-electronic responses will also be accepted. Please send to:

Please provide answers to all questions.

Email: Thomas.Gates@governor.virginia.gov

Mail: Productivity Investment Fund
        c/o Thomas Gates
        1111 E. Broad Street, 4th Floor
        Richmond, VA 23219
        804.692.2580

Indicate the name of your proposal and the date this submission was prepared. Also, provide the name, title, address, phone number and email address of the individual who is taking accountability for this submission. Finally, please indicate which partner agency head is sponsoring this proposal (if different from above), and attach a brief email or letter of support from this individual as indicated in the RFI. NOTE: <u>Any SOI without support from the head of the sponsoring agency WILL NOT BE CONSIDERED FOR FUNDING.</u>

Section 1 – Administrative Information
Proposal Name:
PlugGED® In: A Contextualized GED Curriculum to Prepare Learners for the 21st Century Workplace

Date: June 13, 2008

Contact:
Barbara E. Gibson
Associate Director
The Literacy Institute
Virginia Commonwealth University
3600 W. Broad St., Ste 669
Richmond, VA 23230
(804) 827-2636
begibson@vcu.edu

Sponsor:
Dr. Eugene Trani
President, Virginia Commonwealth University

Collaborating sponsors:
Dr. Billy Cannaday, Jr.
Superintendent of Public Instruction
Virginia Department of Education

Dr. Glenn DuBois
Chancellor
Virginia Community College System

Dr. Mark Emblidge
Director
The Literacy Institute at Virginia Commonwealth University

Section 2 – Problem Statement

What is the need?
As a result of an economic partnership with the state of Virginia, two technology-sector industries, CGI and Northrop Grumman, have been established in rural Russell County, Virginia, bringing much-needed employment opportunities to hundreds of residents living in the Southwest Virginia region. The IT-sector jobs these companies provide offer the chance of increased prosperity to a population of Virginians that has, until recently, seen little economic benefit from the new, global economy.

However, many in the workforce of Russell County and the surrounding counties of Buchanan, Dickenson, and Tazewell do not possess the necessary entry-level skills to fill these new jobs. This region of the state is home to a large number of potential employees who do not have a high school diploma. In fact, the percentage of residents in Southwest Virginia aged 18-64 who do not complete high school or pursue post-secondary training is significantly higher than the national average. Of all adults aged 25 or older in the four-county region, 39.5% lack a high school credential. Among the 18- to 24-year-olds, nearly one quarter lack a high school credential. Less than nine percent of individuals aged 25 or older have a bachelor's degree or higher degree. Additionally, while the attainment of a high school diploma or GED® certificate is an important educational milestone, these credentials alone are often insufficient for achieving success in the 21st century labor market. For these reasons, educational and training programs need to be designed to meet current and future employer demands in order to create a well-trained, well-educated, and globally competitive skilled workforce that can move into jobs such as those in Southwest Virginia.

There is a need to develop an educational and employment program that will quickly connect these uncredentialed workers to gainful IT employment by preparing them to pass the GED Tests, earn a Career Readiness Certificate (CRC), and gain exposure to the technology skills required to succeed in the current 21st century workplace. This need, while critical for the Southwest Virginia region, is not limited to this area of the state. According to the *Partnership for 21st Century Skills*, all U.S. workers need to be prepared for the comprehensive use of technology and to develop technological literacy skills. As Virginia continues to attract technology sector industries to the state and as technology skills become a more essential component of many jobs, there is an urgent need to develop innovative ways to fill these available high-tech jobs with qualified Virginian workers.

How/why is it not being met?
Many of the current aptitude assessments, job inventories, and traditional educational credentials do not offer an efficient and effective way to identify individuals with the potential to excel in high-tech industries and prepare them for these new technology sector positions. According to a report by the U.S. Department of Commerce, the field of education is the least technology-intensive enterprise in a ranking of technology use among 55 U.S. industry sectors. The GED Tests, which were developed to measure only

the core academic skills learned in high school, do not assess a test-taker's technological knowledge or proficiency. In order to add value to the GED credential and better prepare dropouts who earn one, a new curriculum is needed that both addresses the skills needed to successfully pass the tests and targets the cutting-edge skills needed to successfully move these previously unqualified GED credential holders into entry-level technology sector jobs or further post-secondary education and training.

What are the impacts of this opportunity?
The development and evaluation of this curriculum would benefit undereducated citizens of the commonwealth in a number of ways. First, its successful implementation would prepare high-school dropouts to pass the GED Tests while also exposing them to much sought-after 21st century workforce skills through their preparation for earning a CRC and their participation in the curriculum's intense, project-based learning activities. Through a partnership with Microsoft IT Academy, students will also be given opportunities to acquire valuable technology industry certifications, such as the Microsoft Desktop Support Technician (MSDST) and Certified Systems Administrator (CSA) certifications, credentials preferred for many of the positions at CGI and Northrop Grumman. Second, by integrating GED preparation with a technology workforce curriculum and partnering with relevant adult education and post-secondary agencies to deliver this curriculum, the *PlugGED In* program will graduate individuals who will be able to move into entry-level technology sector jobs, training programs, or post-secondary institutions more quickly than they would have been able to through traditional educational and workforce channels. Currently, uncredentialed workers interested in IT-sector employment must prepare for and pass the GED Tests, typically requiring about three months of formal class preparation. Once they have earned a GED credential, they often must complete at least two years of additional post-secondary training to earn the necessary credentials and training for entry-level IT work.

In addition to directly benefiting the citizens of Virginia, it is anticipated that this project will also make a positive impact on the commonwealth by providing needed economic development to the Southwest Virginia region, an identified depressed area. This project will also create a well-researched, vetted pilot curriculum that can be replicated by other educational programs across the commonwealth.

Who are the stakeholders and what are their interests?
The stakeholders for this project include not only the target population of high school dropouts and their families but also a number of educational, governmental, and private institutions that have a professional obligation to or a vested interest in providing educational and workplace development to this potential student population. These stakeholders include:

Virginians lacking a high school diploma and career-readiness skills
The uncredentialed citizens of Southwest Virginia are the primary stakeholders of this effort and would directly benefit from free access to an innovative curriculum, GED and CRC preparation, professional mentoring and coaching, and access to industry-standard technology certifications. In a recent meeting with Senator Phillip P. Puckett (District 34)

and several Russell County School Board members, *PlugGED In* received their strong support as the kind of educational and economic development program that Southwest Virginia needs.

Using the formal assessment scores of young adults who have enrolled in adult education programs statewide as a guide, it is estimated that 36,000 young Virginians would have basic academic skills at a level high enough to allow them to be successful in this program. In the four-county pilot region, more than 400 18- to 25-year-olds would meet those basic assessment criteria. To help assure that the participants selected for *PlugGED In* will be the ones most likely to benefit, the selection process would also include a formal referral, standard application form, personal statement, and a personal interview to assess interest in the technology field.

Technology sector industries (For this initial phase: CGI and Northrop Grumman)
Both of these technology industry leaders are interested in filling open positions with qualified workers who have a high school diploma or GED credential and a CRC, as well as exposure to and experience with technology and technology-related workplace skills. Both Northrop Grumman and CGI management are supportive of this project and will recruit mentors, host site visits/field trips, and participate in focus groups.

Office of Adult Education and Literacy, Virginia Department of Education and Southwest Regional Adult Education Program
The population of students targeted for this project is typically served by the Southwest Regional Adult Education Program, which will partner with Southwest Virginia Community College, UVa-Wise, and the Southwest Virginia Technology Development Center in Russell County to recruit qualified student candidates and deliver targeted GED instruction and test-taking skills as needed. The Virginia Department of Education, Office of Adult Education and Literacy has agreed to provide the adult education program with $20,000 to fund the part-time GED teacher and instructional materials for this project.

Virginia Community College System and Southwest Virginia Community College
The VCCS has committed to delivering this curriculum at the pilot site in Lebanon and will provide experienced class facilitators, career coaches, CRC preparation, and other valuable resources to ensure a successful implementation of this curriculum.

Southwest Virginia Technology Development Center and UVa-Wise
The Southwest Virginia Technology Development Center in Lebanon, which is managed by UVa-Wise, is uniquely equipped to serve as the pilot site to deliver this curriculum. The facilities contain cutting-edge computer hardware and software and classroom space; the Center is centrally located in the region, allowing convenient learner access. A classroom and computer lab in the Center will be used for this project.

Office of Telework Promotion and Broadband Assistance
The Office of Telework Promotion and Broadband Assistance will provide guidance and linkages into the technology community (potential advisors, partners, and employers) to

make sure that program certifications meet the requirements for entry-level IT positions and to define potential employment opportunities for program graduates.

Center for Innovative Technology
The Center for Innovative Technology has provided the funds to certify both the Southwest Virginia Technology Development Center and Southwest Virginia Community College as Microsoft IT Academy testing sites.

Microsoft IT Academy
Microsoft IT Academy has agreed to provide access to a number of its online professional certification preparation programs and has contributed coupons that will allow *PlugGED In* learners to take any relevant certification exams for free.

Virginia Adult Learning Resource Center (VALRC), The Literacy Institute at VCU
VALRC, funded by the Virginia Department of Education, and The Literacy Institute at VCU will oversee this project and will contribute personnel, GED curriculum development experience, and professional adult basic education expertise.

Section 3 – Description of Solution

What actions need to be taken to address this opportunity?
To successfully address the needs described above, the project team would work directly with its educational partners, industry stakeholders, and area employers to identify the specific curricular components needed to successfully integrate GED-related skills into a workplace and technology curriculum targeted at 18- to 25-year-old high school dropouts. Research staff on the *PlugGED In* team will also develop an evaluation plan for measuring the effectiveness of the curriculum.

Following the multi-stage development and approval of this project-based curriculum, the team would then work with its educational partners at the Southwest Regional Adult Education Program, UVA at Wise, and the Virginia Community College System to implement and facilitate the pilot curriculum.

What resources are needed to develop and implement this solution?
The resources needed to develop the curriculum and carry out its evaluation include salaries and benefits for:
- Curriculum development personnel
- Workforce development personnel
- Researchers
- Project manager
- Administrative assistant

Funds for:
- Travel
- Office supplies and support (copying, telephone, etc.)

In-kind contributions to this project include:
- Instructors for the pilot course
- Access to Microsoft's IT Academy certification programs
- Access to Career Readiness Certification preparation
- Access to IT employees who will serve as volunteer mentors to participants
- Access to pilot locations at the Southwest Virginia Technology Development Center and Southwest Virginia Community College, including access to computer hardware and software
- Access to support and professional consultation from The Literacy Institute at VCU and VALRC professional staff and management, as well as longstanding working relationships with adult education providers and state agencies such as the Department of Social Services, Department of Rehabilitative Services, and Department of Correctional Education.

How is success defined and measured?
This project will be defined as successful if the six-month curriculum meets its goals of effectively preparing learners to earn a GED credential and CRC and move into entry-level IT employment and further education. The curriculum will be formally evaluated by a research team to measure not only whether students achieve these goals, but what components of the curriculum were the most effective in ensuring student success.

When could development of this solution get started?
The *PlugGED In* project will begin development immediately after receiving funding.

How long would it take until implementation?
Curriculum development will proceed through the summer with the goal of implementing the program in mid-October 2008.

Section 4 – Business & Financial Analysis (Please attach all supporting documentation)

What are the financial costs and benefits of your solution?
This year alone, 29,195 young people in Virginia, or 27 percent, who entered 9th grade four years ago will have dropped out of school by the time their classmates graduate. (See *Virginia School to College: Can State P-16 Councils Ease the Transition?)* An estimated 200,000 18- to 25-year-olds lack a high school diploma or its equivalent. Some estimates show that each dropout can cost a state as much as $4,437 a year in lost tax revenue, Medicaid costs, and incarceration costs over a lifetime, for a total of $887,400,000 annually for just this group of 18- to 25-year-olds. This figure does not include the costs associated with loss of productivity or the impact that undereducated parents have on their children's lack of academic success. A report issued in 2006 by the Educational Testing Service showed that the annual incomes for high school dropouts have declined 35 percent during the past 30 years, and while the incomes of high school graduates have also decreased, the decline has not been as great as for dropouts, whose full-time, 12-month incomes hover at the poverty level. It is clear that a program that helps young high school dropouts obtain credentials for high school equivalency and career readiness while getting a solid introduction to technology-related careers will benefit individual

participants as well as local and state economies.

What other costs and benefits are associated with your solution? In particular, how well does it address the three Commonwealth objectives presented in the RFI? (e.g., lower operating costs, reducing constituent transaction times, and advancing key agency performance goals. Be sure to quantify all costs and benefits). Please consider how key outcomes will be measured.

The *PlugGED In* project addresses three of the key Virginia Performs objectives. Under the economic objectives, this project is designed to build educational and innovation capacity in Southwest Virginia and to increase employment among Virginians with low incomes. Through its innovative curriculum, collaboration between Southwest Regional Adult Education Program and VCCS, and employer mentoring, *PlugGED In* will provide a new, more effective means of engaging dropouts in education and employment that will meet the need for entry-level technology jobs in Southwest Virginia and, potentially, across the commonwealth. Further, it addresses the educational objective of increasing enrollment in GED and postsecondary degree programs. Not only will this project include counseling and encouragement for participants to enroll in postsecondary education or certificate programs after completing the *PlugGED In* program, but through the collaboration with VCCS, it will also provide a direct link to the local community college. A major advantage for participants will be their ability to obtain GED and CRC credentials and ready themselves for employment in the IT sector within a six-month period. Upon completion of the program, they will be able to move forward with further training or education while being employed in an entry-level technology job.

Clearly the most important outcomes for participants in the *PlugGED In* program will be achievement of GED and CRC certificates and entry-level employment in the IT sector. Those outcomes will be monitored and reported. Beyond those most obvious outcomes, this project includes an in-depth evaluation of the effectiveness of the curriculum in delivering the results that could lead to further refinements and improvements before replicating it in other areas of the state. The evaluation will also help define the attributes of success among participants in order to more specifically target potential participants within the 18 to 25 age group and to inform the application process for subsequent *PlugGED In* programs.

The costs for the development and evaluation of this curriculum are approximately $127,000. These costs are already greatly reduced due to in-kind donations offered by the project partners including Microsoft, Inc., the Virginia Community College System, the Virginia Department of Education, the Center for Innovative Technology, and the Southwest Virginia Technology Development Center/UVA at Wise. Once developed, the curriculum will be replicable, allowing it to be implemented in adult education programs and community colleges statewide.

What critical assumptions, if any, have you made in your analysis?

It is assumed, based upon previous experience in developing contextualized curricula for other business sectors and numerous reports on workforce and economic development in Virginia and nationwide, that area businesses will support this endeavor. After

conversations with representatives of the educational community, the management team believes that there are qualified learners in the region who have the necessary entry-level skills to participate in the course. In addition, it is assumed that, with the participation of a highly qualified and experienced curriculum development team, the curriculum will successfully prepare learners for entry-level work in technology-sector positions.

What do you anticipate as obstacles or constraints in implementing your solution?
Recruitment**:** Recruitment of highly motivated young adults who have the necessary entry-level skills to be successful in this curriculum and will persevere through a rigorous program. Retention**:** Retention of students accepted into the program to the completion of the course. Building and sustaining partnerships: Building and sustaining partnerships with local technology companies and post-secondary institutions to help ensure that graduates from the program either enter the workforce or pursue post-secondary education and training

How do you propose to avoid/overcome obstacles?

Recruitment
The *PlugGED In* project management team will work with partners (in particular the Virginia Community College System) to develop a multi-step recruitment and application process. This process will include a referral process, standard application form, personal statement, intake testing, and a personal interview. Those individuals who successfully complete the application process will have been closely vetted and will only be accepted into the program if the program staff is confident of a likelihood of success.

Retention
The *PlugGED In* project management team has met with officials from the Virginia Community College System (VCCS) to explore various ways to partner. One suggestion that will be pursued is the reliance on VCCS career coaches to work with *PlugGED In* learners. These coaches have proven very successful in helping high school students understand and pursue various career tracks. Within the *PlugGED In* project, the coaches will assist learners with soft skills, resumé building, and career planning. The opportunity to apply for entry-level technology jobs upon completion of *PlugGED In*, coupled with a broad selection of career or educational opportunities available immediately after completion, should help participants to remain motivated and achieve success in the program.

Building and sustaining partnerships
While support for this project has been overwhelmingly enthusiastic, the challenge of cultivating and maintaining working partnerships cannot be underestimated. The *PlugGED In* management team has had several conversations with executives at Microsoft, Inc., as well as with VCCS leadership, during which plans have developed to offer *PlugGED In* graduates access to a selection of Microsoft certification courses subsequent to their completion of the curriculum and successful completion of the GED Tests. The *PlugGED In* program staff will rely on local contacts in the Russell County area to recruit support from human resources and information technology staff at CGI and Northrop Grumman; ideally, this support will be in the form of mentors who would assist the learners with their projects and provide feedback about "soft skills" such as work ethic, problem solving, and teamwork. *PlugGED In* staff will work with local

technology companies and civic leaders to provide further exposure to the workplace by arranging for guest speakers to visit the class and field trips to worksite locations. Partners in the program include Southwest Virginia Community College and UVA at Wise, both of which will provide learners with support, guidance, and opportunities to pursue post-secondary education and certifications after completing the *PlugGED In* program.

What risks/trade-offs does your solution create?
While the project design team will work diligently to ensure that the screening process and the curriculum will result in student success, it is possible that the rigor of the curriculum could prove too challenging for some adults trying to balance work and family responsibilities. Despite providing students with opportunities to pursue additional training, education, and entry-level positions with regional IT-sector employers, there is a risk that some participants may not follow through with post-program goals such as pursuing additional education and training or technology-sector employment. The curriculum will be developed partly in consultation with industry partners in the region, based on their specific regional needs. If the pilot proves successful and the program is replicated elsewhere, the curriculum may require some modification to meet the needs of employers in other regions of the commonwealth.

Section 5 – Additional Information

What opportunity, if any, is there to leverage your solution across multiple agencies?
The goal of this project is to produce a project-based contextualized GED and CRC curriculum that could be replicated by a number of state educational entities including local adult education programs across the commonwealth, colleges within the Virginia Community College System, the Department of Social Services, and other educational institutions interested in delivering this curriculum to their learners. The replication of this curriculum would provide a significant return on investment for this project.

If your proposal receives funding, what would be your initial next steps?
If funded, the first steps would be to collect data on the specific high-need technology and workforce skills that will need to be integrated into the curriculum. This data will be provided by our project partners at the Virginia Community College System as well as through independent data collection efforts.

Once the targeted workforce skills have been identified, the *PlugGED In* curriculum team will begin to integrate these skills into a project-based technology curriculum appropriate for this population of adults. Concurrently, the research staff will develop an evaluation plan in coordination with the curriculum developers in order to evaluate the overall effectiveness and validity of the curriculum.

Is there anything else we should know?
This project has already garnered intense interest from a number of potential partners in education, government, and the private sector who recognize the need for this proposed

solution. The *PlugGED In* project team is also engaging the legislative delegation for the Southwest Virginia region to obtain buy-in and support for this program. This level of interest from such varied institutions, organizations, and government representatives creates the opportunity for exciting new partnerships and potential collaboration to better serve the needs of the citizens of Virginia.