



Action Initiative Business Plan Template

Cluster Work Group:	Improving Education: Abilities for tomorrow's careers and entrepreneurs
Prepared by:	Dave Thurman, Joy Howland, Larry Crum, Lynn Johnson, Jeff Johnson, Jacques Lawarree, etc.
Date:	3-16-05

Title or Name of the Initiative: <i>Develop a name for the effort that communicates action and positive outcomes. This initiative will be known as:</i>
K-12 Awareness Initiative

Initiative Champion/Implementation Team Members: <i>Name and contact information for each person working on this initiative.</i>	
Larry A Crum [lcrum@u.washington.edu] Dr. Andrew L Harris [dr.harris@ harrisnassociates.com] Joy Howland [jhowland@bcc.ctc.edu] Jeffrey Johnson [jjohnson@bcc.ctc.edu]	Lynn H Johnson [lynn.h.johnson@boeing.com] Jacques Lawarree [jacquesl@microsoft.com] David Siburg [dsiburg@kpud.org] Dave Thurman [dave.thurman@pnl.gov]

Description & Motivation: <i>What is the nature of the cluster challenge the initiative will address?</i>
<p>Motivation: Parents, students, and educators must understand the sort of education that is required for first-tier jobs in the information technology economy.</p> <p>Description: This initiative is designed to increase the number of Washington State high school graduates pursuing degrees in Science, Math and Technology by demonstrating to parents, students and educators 1) the variety of options available for technology graduates, 2) excite them about the opportunities/technologies and 3) clearly define what the educational requirements are for IT occupations (specifically math and science).</p> <p>We envision a collection of events that would be designed to engage students and get them excited about possibilities. Examples include: at-school demonstrations of technology developed by local companies, field days held at community colleges/universities for multiple schools, summer day camps & internships, etc. Rather than a rag-tag of programs offered by individual companies/organizations, however, the goal would be to develop an overall program of activities that engage the universities, corporations, and research organizations in the region in a cohesive fashion.</p> <p>These same events would engage K-12 educators as well, but additional programs could be crafted with them specifically in mind. Continuing education programs that offer teachers the chance to learn about technology and the people behind it might be one option. In addition, there needs to be coordinated programs for parents so that they can help guide their children's education to enable them to enter this exciting and lucrative field.</p>

Objective: *What is the objective of the initiative? How will it impact economic or cluster development in the region? Describe how it relates to the Prosperity Partnership's goal of job creation?*

The objective is to increase the number of students choosing to pursue high education degrees in IT/CS. These future graduates will enable local firms to recruit from local colleges and universities

Obstacles and Impediments Likely to Affect Implementation: *What do you expect to be the most significant obstacles to implementation? How can/will they be overcome? What resources will be required (e.g., political support, lobbying efforts)*

This needs to be an enduring program with an organization behind it dedicated to its sustainability. Sufficient funding needs to be made available for staff to plan and coordinate events, market the program to organizations and recruit their involvement, etc. This is not a small undertaking.

It needs to be enduring. It can't hit a school once, but rather should attempt to reach kids multiple times during their elementary years, again in junior high, and at least once more in high school. It doesn't need to reach every kid every year, but perhaps every third year. At the kinds of events offered to each age group could vary widely. At-school demos for young elementary kids, field days for older elementary students, spring break "camps" in junior high, and summer camps/internships in high school.

Regardless of the type of event at each age, the point is to grab attention early and hold it throughout the K-12 career. Demonstrations will need to be flashy and eye catching and age appropriate. No grade school kid is going to be too interested in hydrological modeling, but high school students interested in computer science and the environment might.

This initiative will require the private sector to step up with funding the initiative and monitoring the curriculum's content.

Funding: *What is the estimated cost of this initiative, in phases beginning with design, the "ramping up" phase, and then for ongoing annual costs? Note alternative sources of funding for each phase.*

In order to sustain this initiative there would need to be a staff involved in planning and coordinating events, recruiting private sector participation and securing funding to support the program.

Identify other organizations that are currently working this space to determine if they can assist in the development of this program. This may save time and resources related to start-up costs. A good example of an established program is NWCET's Working Connections Institute and the Washington Center for IT's program "A day @ Boeing," that provides short term internships and training for Community College faculty during the summer months. See also the Pacific Science Center Science on the go.

Outcome/Results: *How will know that we have achieved our objective? How will we evaluate whether or not we have been successful?*

Develop metrics/track over time the number of Washington State high school grad enrollments/acceptance into CS/IT programs.

Math and science assessments – track preparation at the K-12 level.

Outcome/Results: *How will know that we have achieved our objective? How will we evaluate whether or not we have been successful?*

Are we reaching parents – survey/track attendance, etc.
 Be prepared to assist high schools in teacher education, counselor education.

Action Steps: *Describe the initiative in specific steps: Tasks (What, Who, When).*

- 1.
- 2.
- 3.
- 4.
5. Add pages, as required

Timeline: *Provide a rough schedule of activity for each step above and the lead person for each task. (Example: Establish implementation team/Jones, Hold first planning meeting/Johnson, Prepare concept/funding proposal/Smith, dates).*

<i>Step</i>	<i>Key Person</i>	<i>Timeline</i>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Other action steps/implementation timing issues:



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<p>Title or Name of the Initiative: <i>Develop a name for the effort that communicates action and positive outcomes. This initiative will be known as:</i></p>
Increasing the Pipeline to 4-year programs in IT-Related Disciplines

<p>Initiative Champion/Implementation Team Members: <i>Name and contact information for each person working on this initiative.</i></p>	
Larry A Crum [lcrum@u.washington.edu] Dr. Andrew L Harris [dr.harris@ harrisnassociates.com] Joy Howland [jhowland@bcc.ctc.edu] Jeffrey Johnson [jjohnson@bcc.ctc.edu]	Lynn H Johnson [lynn.h.johnson@boeing.com] Jacques Lawarree [jacquesl@microsoft.com] David Siburg [dsiburg@kpud.org] Dave Thurman [dave.thurman@pnl.gov]

<p>Description & Motivation: <i>What is the nature of the cluster challenge the initiative will address?</i></p>
<p>Motivation: we must have the capacity to grant a greater number of bachelors and advanced degrees in appropriate fields.</p> <p>Description: This initiative attempts to address at a high level the actions needed by the university and community and technical colleges to improve/increase opportunities for students to pursue a 4-year degree or advanced degree in an Information Technology or related field of study, such as engineering or software development. It should also take into consideration supporting these graduates (and current IT practitioners) throughout their careers via access to high quality continuing education programs and advanced degree options within their community.</p>

<p>Objective: <i>What is the objective of the initiative? How will it impact economic or cluster development in the region? Describe how it relates to the Prosperity Partnership's goal of job creation?</i></p>
<p>The objective is to increase the number of student's enrolling/graduating from higher education degrees in IT/CS and the removal of bottlenecks in the system, such as upper-division capacity. It also seeks to support workers (post-graduation) during transitional phases within their careers, such as unemployment, job retention and/or advancement.</p>

Obstacles and Impediments Likely to Affect Implementation: *What do you expect to be the most significant obstacles to implementation? How can/will they be overcome? What resources will be required (e.g., political support, lobbying efforts)*

The expansion of upper division capacity will require state support for increased funding.

Understanding if the degrees currently offered at the University of Washington (including branch campuses) will meet the diverse needs of the IT community – should they be expanded, modified? Are modifications needed at the lower division level at both universities and community colleges? Can enrollment be shifted within existing institutions? Is the addition of lower-division/upper-division curricula needed to encompass/develop skill sets/knowledge of areas such as entrepreneurship and business?

We need to address the global competitiveness issue – is there a differentiating factor between the graduates produced by WA State universities in computer science, etc versus those in China, Ireland and India? If so, how do we communicate that to the prospective students/parents? How do we assure them that this is still a viable and robust career path?

What role does continuing education (life-long learning) play in this equation? How do we position/support institutions such as the University of Washington-Extension and Community and Technical College’s Continuing Education Divisions in assisting workers in increasing their skills throughout their careers in order to remain competitive?

Affordability – a 4 year degree in IT related fields can be expensive for the schools to provide and expensive for the students to obtain. What can/should be done if anything to improve financial support for these schools and students – if anything? Is there a private sector role? The healthcare sector has done this at the 2-year and 4-year levels.

In our work group, it was stated that some Community Colleges do a better job of preparing their transfer students in math than others. Can these best practices be identified and disseminated?

What about other populations not typically served by a university, such as working adults? Are the branch campuses and community colleges well positioned to serve this population and provide diversity in program options? See the examples of Executive MBAs and UW Tech Management Masters.

We know that the IT skill demands within non-IT producing sectors (finance/manufacturing/healthcare) have/are increasing significantly. We also know that IT practitioners within non-IT firms or traditional businesses require interdisciplinary skills that include advanced technical knowledge and domain specific knowledge. Are those needs addressed by current programs?

Funding: *What is the estimated cost of this initiative, in phases beginning with design, the “ramping up” phase, and then for ongoing annual costs? Note alternative sources of funding for each phase.*

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Outcome/Results: *How will know that we have achieved our objective? How will we evaluate whether or not we have been successful?*

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