Draft PIC K-12 Initiative for review, revision and costing

At this time there are many disjoint efforts involving community affairs and outreach. Discussion among PIC members revealed a wide ranging list of such activities already performed at WPI; however, many of the activities occur separately and without coordination with the rest of the WPI campus. A partial list of these efforts include:

1. Massachusetts Academy for Math and Science,
2. Area 51 Education sector IQPs,
3. First Competition (National High School event),
4. Basketball, soccer, football, etc., summer camps,
5. Science fairs,
6. Annual Odyssey of the Mind (OM) meet,
7. Frontiers program (WPI program for high school juniors),
8. Strive program (WPI program for high school minority students),
9. Camp Reach (WPI program for 7th grade women),
10. High School Mathematics Meet
11. Various K-12 conferences and meetings held on-campus throughout the year.
12. Summer video camp (discontinued WPI program for grade school students)

In order to best fulfill the needs of a coordinated K-12 and community outreach program as suggested above PIC suggests the creation of a new position of Outreach Coordinator which would be attached to the Center for Educational Development and Assessment (CEDTA) suggested in the associated PIC initiative. This position would be used as a focusing point for all outreach and community affairs at the institute.

PIC believes that under a coordinated control, WPI could benefit greatly by more directly addressing the many diverse groups visiting campus. First, it must be understood that every person visiting the campus for a program is either a parent of a potential student or a potential student. With this in mind a standard tour and/or presentation, to expose the academic richness of the campus, can be developed.

Within the purview of this administrator would be coordination of an effort to better focus Educational IQP's for the improvement of community relations, development of
interests in higher education among K-12 students and enhancement of the WPI IQP student experience. This may involve recruitment of client schools and ensuring that groundwork is executed for IQP's of this nature at the client school and by preparation of the WPI student teams. This will further allow faculty and students to focus on the content of projects and less on administrative tasks. In addition these Area 51 IQP's could be strengthened by providing a relatively uniform framework around which an IQP group can build a project. In this sense they may modeled in accordance with the successful Global IQP programs now on campus.

This office would also be concerned with involving WPI in more national K-12 conferences and projects, for example, those connected with technology and information transfer as related to education. As technology becomes ever more prevalent in society, there is a need to educate the educators in the use of information technology. WPI has the potential become a leader in this effort if a coordinated policy was incorporated, owing to its existing K-12 programs, and technological focus.

A program to create teaching modules for community schools, (providing helpful and easy to use laboratory experiments, which acquaint primary and secondary students with the basics of technology,) could become an important and motivating campus-wide effort. This program could be incorporated with on and off-campus IQP's to help further strengthen and give direction to the education related IQP experience. An organized effort of this sort would benefit our students, K-12 students and teachers, the community into which these students would enter and WPI's profile in feeder schools.

A program tentatively called career-gate could be instituted at WPI during the summer for high achieving 8th to 12th grade high school students in Massachusetts. This program would extend similar programs at Holy Cross that address 1st to 3rd graders and 4th to 8th graders. The focus of such a program would be promotion of high-school preparation for entering a career in engineering, science, mathematics and management. WPI could help students in high-school to lift their sights towards horizons that are often not sufficiently exposed in their day-to-day experience.

Funding for this position should initially derive from the capital campaign as a one-time investment in the experiment. In the long term however, this effort should target a self-sustaining operation through, endowments, education development grants and various conference and camp fees.