The Admissions Task Force was asked to look at the various areas related to WPI's ability to enroll students of appropriate quality and to make recommendations for change. The Task Force went beyond what was understood to be the original charge and undertook to define the make-up of the freshman class entering in 2010. To accomplish this, the TF used a standard planning procedure considering environmental factors affecting WPI's enrollment mix, setting goals which we would like to meet, arriving at major strategies to achieve these goals and doing a rudimentary cost/benefit analysis for carrying out these strategies.

Rarely was there an item unanimously endorsed by the TF. In fact, the discussion ranged from staying essentially as we are to becoming a comprehensive university with a broad array of academic programs. What follows are not all possible options, only those that seemed to attract majority support.

**ENVIRONMENTAL ANALYSIS**
Listed below, in general groupings, are some of the major environmental trends which we believe would affect WPI over the next 13 years. They serve as a framework for setting admission goals.

**DEMOGRAPHICS**
- Increasing number of high school graduates
Increasing number of young students of color
Increasing number of single-parent families
Increasing number of older students
Increasing enrollment in private high schools and specialized schools

**EDUCATIONAL PHILOSOPHY**

- Increasing use of group and cooperative learning in K-12
- If high schools develop outcomes orientation and measurements, we will receive more and different data on which to base admissions
- Increasing number of students entering college with advanced standing through dual enrollment programs, advanced placement or distance learning.
- Increasing number of universities (large and well-known research universities chief among them) "rediscovering" undergraduates and emphasizing excellence in undergraduate instruction
- Competition from business world generating alternative technologies (CD-ROM/www interactive learning software) for instruction which will challenge higher ed's traditional monopoly over post high school education

**ECONOMICS**

- Increasing division between haves and have-nots

**TECHNOLOGY**

- Increasing role of educational technology - which will impact both student learning and faculty teaching - both on campus and off campus
- Rapid advances in technology in general
- The number of families with access to the Internet will increase
- With distance learning, competitors need not be geographically close

**POLITICAL**

- Federal and state contributions for education will not increase substantially
- The anti-immigrant sentiment in the US could impact international student recruitment
Increasing number of universities (large and well-known research universities chief among them) "rediscovering" undergraduates and emphasizing excellence in undergraduate instruction

**INTERNATIONAL**

- WPI has no national reputation
- Polytechnic Institutes are perceived as being narrow educationally
- WPI admissions requirements are not outcomes based, potentially rigid (e.g., we rely on number of math/science courses taken)

**GLOBAL ISSUES**

- Increasing competition for academically strong international students
- Increasing number of employers placing a premium on international experience
- Need for globally prepared workforce

**COST**

- Increased concern among students about financing college
- Increasing consumer debt
- Increasing hesitancy to finance college education

**OTHER**

- Increasing interest in majors which prepare students for careers upon graduation
- Remedial Courses widespread
  More than three-quarters of U.S. colleges offer remedial courses and 29 percent of first-time freshmen take them. Remedial courses defined as math, reading, or writing classes designed to prepare students to succeed in regular college courses
- Graduates with work experience are favored
- Need for employees who can work independently - make decisions, stay on schedule, get information needed

**GOALS**
The environmental factors most important in setting goals were changing demographics and changing social trends. The TF can clearly see that students of color will become a majority of the high school age population in the near future. Additionally, the necessity for all students to have computer skills will
likely give rise to an increasing number of females willing to consider a technical field. It will be important for WPI to capture a share of each of these potential growth markets if it is to improve its competitive position.

The TF considered a wide variety of potential freshman class sizes for the year 2010. It recognized that non-traditional, distance learning programs will probably swell enrollment numbers but decided to concentrate its deliberations on traditional college freshmen. Ultimately, it was felt that we would not set an "ideal" class size. Instead we would establish targets for various sub-populations of the class and let the class size be dictated by those targets. It was generally accepted, however, that class size would approximate current sizes. It was recognized, however, that some major areas are underutilized and that enrollment growth could occur in these areas, raising the total freshmen enrollment, without the need for additional academic resources. Such an occurrence would necessitate some new strategies in housing or student services.

The goals below for enrollment by area of study came from the goals set for sub-populations as well as from our pedagogical interest in seeing a more diverse student population at WPI. From a purely pragmatic perspective, it is important to diversify WPI's population for financial reasons. Our progress cannot be held hostage to the periodic downturns in interest in engineering and various areas of science. Again, there was no unanimity as to these goals. Some felt they were too high, others too low. They do represent figures the TF could live with.

**ACADEMIC QUALITY**

1. Seventy percent of WPI freshmen entering in 2010 will have ranked in the upper 10% of their high school class.

   Rationale: All evidence points to high school performance as the best indicator of success at WPI. Scholastic Aptitude Tests may play a role for some subgroups, notably students of color. Non-cognitive variables may be important as well. The TF recommends that a study be undertaken to assist Admissions in uncovering overlooked areas which may correlate well with academic success at WPI.
DIVERSITY

1. Fifteen percent of WPI's freshman should be international students.
   Rationale: WPI's commitment to globalization and the needs of industry support developing a learning environment which emphasizes understanding of cultures other than our own.

2. Fifteen percent of WPI's freshmen should be students of color.
   Rationale: The proportion of students of color in high schools continues to rise. If we do not become an institution which can serve this soon to be majority, we cannot survive. Additionally, there is educational and social value in diversifying the campus.

3. Forty percent of WPI's freshmen enrollment should be female.
   Rationale: Aside from the obvious social and cultural value of such a goal, WPI's current gender imbalance precludes its effective recruitment of a large portion of the high school age population. Special efforts must be made to address this issue.

OTHER

1. There was discussion of the need to enroll larger number of articulate leaders. No method was proposed to measure progress toward this goal so it was not included. It was felt that studying variables in the admissions process that might relate to this goal be undertaken (see "Academic Quality, above).

2. There was discussion of the need to reduce the percentage of students on financial aid. That discussion evolved, briefly, into the need to reduce financial aid expenditures, a different issue than that originally raised. This issue was too complex to be studied in a short period of time so was left unresolved (but of concern).

ACADEMIC MAKEUP

1. WPI's entering student population should be made up of:
   a. 50% engineering majors
   b. 35% science majors
   c. 10% management majors
   d. 5% liberal arts majors

STRATEGIES
In setting goals earlier in this document, we agreed that these goals would only be as good as the strategies we developed to meet them. If we could not develop exciting strategies, we would have to go back and reset the goals. Further, we worked under the assumption that WPI could accomplish whatever it wanted to if it could develop the resources necessary to carry out strategies. The strategies listed below should allow WPI to meet the goals established. They are divided into areas of product, promotion and price.

**PRODUCT**

1. **EXPAND ACADEMIC AREAS DEALING WITH COMMUNICATIONS.**
   
   We noted a large interest nationally, and especially among females, in areas of study involving communications. WPI has developed programs in Technical, Scientific and Professional Communications, Theater and Technology and Music Technology which we believe could be expanded to include Journalism, Public Relations, Graphic Design and Media Production. Further, it is recommended that these programs be united in a new Department of Communications with its own department head.

   Expense: Three faculty members would be hired for the communications department.

2. **ENHANCE PROGRAM DEALING WITH THE ENVIRONMENT.**
   
   Lack of a department of environmental science dilutes WPI's ability to attract students interested in this field. In fact, while our offerings in environmental areas rival even those of the best known programs offered nationally, a general campus-wide lack of understanding of who should deal with students interested in the environment is counterproductive to our efforts. We recommend that WPI establish a Department of Environmental Science which would be structured similarly to the Biomedical Engineering department in that it would maintain an identity of its own while drawing on many faculty from other departments at WPI. By so doing, WPI should be able to attract a much larger number of environmental students, a majority of whom would be female.

   Expense: One faculty member would be hired for the environmental studies department to coordinate the program.

3. **EXPAND THE DEPARTMENT OF MANAGEMENT.**
The historical offerings of the Management Department have appealed to only a small segment of students indicating an interest in business. Expanding our offerings to include reasonable concentrations in accounting, marketing, finance and international business would open up a huge market for WPI. This market includes a large number of females.

Expense: The TF recommends five additional faculty members in the Department of Management.

4. AWARD MERIT SCHOLARSHIPS TIED TO FRESHMEN-YEAR RESEARCH
Attracting excellent students is a necessary but not a sufficient condition for ensuring WPI's future; they must also be retained. The best and brightest often find their freshman year here too much like high school with too few challenges, and many leave. Scholarships that enable outstanding freshmen to become involved in research during their first year would help us attract and retain the most promising entrants. In addition to a monetary award and recognition for the student, these scholarships would include a modest sum to underwrite his/her research.

Expense: $50,000 for scholarships plus $25,000 for lab expenses for 50 students/year.

PROMOTION

1. PROMOTE THE OPPORTUNITIES FOR TEACHING AFTER GRADUATION.
There is a large untapped market in secondary education in science and mathematics. WPI has not done enough to promote this as a potential area of study. This alternative should be presented to all prospective students. This is a heavily female area as well.

2. REASSESSING ADMISSION REQUIREMENTS/Criteria
Given the fact that high school record correlates best with achievement at WPI, we should consider dropping the SAT as an admissions requirement as several excellent colleges have done. Doing so would open new markets for excellent high school students with lower SAT scores as well as provide WPI with a publicity opportunity. On the negative side, there may be subgroups of our pool (students of color, for example) for whom the SAT is a good indicator of success.
at WPI. While we would seem likely to attract more applications from groups that have traditionally scored lower on the SAT (women, students of color) without the current requirement, we would have to find some new means to use in determining likelihood of success for these new applicants. The TF recommends that a study be undertaken to assist Admission in uncovering overlooked areas which may correlate well with academic success at WPI.

There was discussion of a program of differential admissions. No firm recommendation was made in this area. It is suggested that a group be formed to study the benefits of changing WPI's current admissions policies to a program where a student's proposed area of study and the academic demand of that area is considered in the admissions process. The TF suggests some summer funding for a group of faculty to consider this issue.

Expense: The TF recommends summer funding for four faculty for one month each to carry out the suggested studies. Projected expense $20,000.

3. MAKE BETTER USE OF INTERNATIONAL ALUMNI IN PROMOTING THE INSTITUTE.

WPI's international alumni have reached high levels of achievement in their home countries. If approached, such alumni can provide WPI with respectability with students, and especially parents of potential international applicants. Further, courting these alumni might open up other opportunities for overseas project work or fundraising for WPI.

4. EXPAND WPI'S PRE-COLLEGE OUTREACH PROGRAMS, PARTICULARLY IN AREAS REACHING STUDENTS OF COLOR AND FEMALES.

The success of the Frontiers and Strive programs (and the Mass Academy) in attracting students to WPI suggests an expansion of such programs. Despite the rising number of high school graduates, competition for top students from certain subgroups, particularly students of color, seems likely to increase. It will be necessary for WPI to establish an expanding base of students from elementary through high school already committed to WPI before the traditional recruitment cycle begins, if we are to continue our success in recruiting such subgroups.

Expense: Establish and staff a new office of Pre-College Outreach with two additional staff members. Projected costs: Salaries $55,000 plus benefits, $50,000 seed money and then initiate a fundraising campaign to expand future programs.
**PRICE**

1. The issue of price and discounting casts a shadow over all other considerations. The long term outlook for the long-held understanding that undergraduate tuition will subsidize most areas of endeavor at the Institute is not bright. In fact, it is not difficult to project a time in the near future when, given tuition increases and projected increases in family contribution toward educational costs, virtually all students will require need-based financial aid. Any attempt to lower WPI's discount rate, while possibly successful in the short term, is doomed to failure in the longer term as long as financial need is the driving force behind it. How can we get off of this treadmill where money comes into one pocket and goes out of the other?

   a. WPI will have to establish new revenue streams in areas like distance learning and auxiliary enterprises. While it is not within the charge of the TF to suggest specific revenue enhancing areas, it is clear that they must be established.

   b. Eliminate need as the primary driving force behind discounting. The need-based approach has had its day. The TF recommends a group be formed to investigate new ways of using our funds to achieve both enrollment and financial goals.

**COST/BENEFIT**

The TF has no doubt that achieving the stated goals will improve the quality of life and the academic atmosphere at WPI. More difficult to project, given the needs of many departments, is whether the benefits of this "new WPI" are worth the cost. There is certainly one train of thought which suggests that WPI can meet its overall enrollment goals without changing the mix of its student body. Given the fact that enrollment has held up through one of the more difficult times in the history of higher education, there is some validity to that view. How then, do you attach a dollar value to quality of life or academic atmosphere? There is no doubt that carrying out the above strategies will enlarge the application pool, giving WPI some leeway in who it decides to admit. Still, if our enrollment cannot grow, we seem unlikely to be any better off financially for this investment. We will simply be replacing one student with another.
Not considered in costs associated with specific strategies are space concerns. It is possible, even likely, that these additions to staff and program would require an investment in bricks and mortar.

There is little doubt that these investments will make WPI more selective, better able to withstand downturns in interest in engineering, and provide a better environment for learning and living. We will leave it to others to review all the needs of the Institute to determine whether or not these investments are the best ones we can make for the long term benefit.