

Advancing Diversity and Excellence in Science and Engineering
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Student Recruitment Group 1

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1. Recruitment from HS

- a. Problem: Recruitment of women/minority at the High School level is difficult. The question is, where are all of the local MI minorities and women interested in science going, and how do we get them to come here? Part of the problem seems to be high school teachers and counselors. Three flaws in their advising:
 - i. They funnel women and minorities who are good at Math into Engineering programs
 - ii. They aren't encouraging students to apply to U of M (which students from Detroit public schools aren't doing, because they think they have no chance)
 - iii. When teachers discuss AP tests, they explain that colleges don't usually respect these grades/tests, so students end up thinking that the calculus they've learned isn't what calculus really is and they feel uncomfortable about taking it in college
- b. Possible Solution is to hold workshops for HS teachers to help do the kind of mentoring that would be helpful. It's hard to find a database of teachers to use to invite, though. Some concrete ideas to gather these people:
 - i. Use people in School of Ed – student teachers are scattered all over SE MI and they could disseminate invitations, etc.
 - ii. EMU's program a good resource too

2. Recruitment from 2-year colleges

- a. Results from HBCUs very heartening and we should learn from them about how to recruit. Still, must be very careful about how to recruit minorities without irritating them. Problems in the past:
 - i. When the same school (eg. U of M) goes to an HBCU 8 different times with 8 different programs, they get annoyed – should try harder to only go to the school once with a comprehensive list
 - ii. Must be very careful not to make HBCUs feel like their students are being poached – one way to do this is to go in with offers to be in the engineering program if the HBCU doesn't have an engineering program (then the student could go to the HBCU for first two years, and to U of M for second two)
 - iii. **Idea for Grant Proposal:** Write proposal to develop resources to bring in community college students and maybe do research to

figure which colleges would bring in the students we'd want to bring in – Tribal colleges or high numbers of underrepresented minorities.

- iv. Must make sure to provide programs that help students with the transition from 2-year schools to U of M. Jack Kent Cook not enough, because it doesn't provide scholarship support.
 - v. Should look into an alliance with LSAMP, which already has a summer program that maybe could be expanded.
3. Recruitment from students already here at U of M
- a. How do we identify people who could benefit from programs like the one Bryan Mosher and Susan Perrault are working on together (Douglas Hopeman? Scholars program)?
 - i. No good correlation with any predictors (eg. ACT math) to give indication of who needs help...
 - ii. Interests also not well correlated with people planning to go into math/science, since 18-year olds don't really know what they want to be

Student Recruitment Group 2

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Problems that were cited as the most pressing:

1. Externally UM is viewed as an unfriendly place for minority graduate students
2. When minority students get admitted, they don't survive well and often slip through the cracks – large and small departments have to deal with this problem differently
3. Minority students feel isolated – there are no graduate level student organizations that bring these students together, lack of integration – the university is large and students are not always able to find the fragmented information
4. Tokenism further makes students feel isolated – there is no system in place to make sure these students are ok and that they are being mentored properly
5. Summer programs available are poorly advertised and disconnected across departments
6. Where do we recruit students? Are there lists of conferences to attend?

7. Some students have gaps in their education – they are willing and capable, but they lack to resources
8. There is not reward structure in place that rewards faculty who are especially talented at mentoring students – particularly those who need additional help to get to the level they need to be at to succeed – this is a problem with grad education in general -- there is lack of emphasis on education and too much on research – we need to develop a culture where student’s productivity and education is a mission of the university and the advisor is responsible for taking student up the ladder - start rewarding advisors who do it right rather than penalizing advisors that do not do it right
9. Students need assistance in picking the right advisor – the department needs to systemically make sure that professors and students are matched appropriately
10. At most R1 universities graduate student attrition rate is 50% - this is done with full knowledge by recruiters (atrocious) with the survival of fittest mentality – there is an institutionalized barrier where faculty view anything extra distracts from their productivity
11. Graduate mentoring is not evaluated at the faculty level – students come in with a list of expectations, but faculty have none regarding their students

Suggested proposal ideas:

1. Cross-campus strategies to foster more collaborations such as speakers or social events – integrative events to enable the current community of students to get to know each other
2. Summer programs which allow current students to mentor incoming students - some of the grad students can come early in the summer and spend a couple of months to go over basic material, let incoming students know of things they haven’t been exposed to as undergraduates (Bridge program)
3. Integrating lists of minority conferences at a centralized locality especially for people new to recruiting and untrained faculty – need to centralize information for students, as well
4. Funds for faculty mentoring
5. Roosevelt: programs to break up large departments to form smaller, manageable cohorts so that students do not segregate right away
6. Construct a network of alumni to assist with recruiting – find out where they go, who are advocates of diversity, and have them suggest talented students for recruitment (such as the Berkeley model)

7. Like Berkeley, have alumni recommend talented students for a summer program that orients students to what grad school should be and makes them aware of other opportunities – need a person in charge of this and give that person a small staff – perhaps a work-study student and a TA (GSI) – getting everyone to know that working with recruitment efforts is valuable enough to give a ta-ship to (creative use of ta-ship)
8. Implement a system of faculty evaluations so that new grad students have information about how to make the choice about advisors – something like a faculty report card that provides the number of publications and presentations on students coming out of a given lab and average time to degree – student can evaluate those metrics and is more effective than simply rotating through a lab
9. Funding to send minority students to technical conferences to promote networking