As Chair of the Committee on Minority Issues in Anthropology, Diaz-Barriga became interested in the role of mentoring in graduate students success and in attracting and retaining minority students in the discipline. O’Connell, who has studied the experiences of medical students and surgical residents, has studied race and gender dynamics in professional graduate programs. We were immediately struck by the paucity of research on mentoring—which either was based on limited samples and/or took a prescriptive tack in outlining mentoring strategies. Indeed, even the American Anthropological Association, which has recently made mentoring a focus, has not collected detailed data on mentoring. To be sure, as most research indicates, mentoring is very important for graduate student success. Our survey indicates a high correlation between overall satisfaction with graduate school with quality of mentoring (r = 0.75). However, our research also indicates that many of the commonly held assumptions about mentoring need to be refined and/or questioned—especially around conceptions of race and gender dynamics. In addition, our survey suggests that departments reproduce themselves—less diverse departments enroll fewer students of color.

Our survey is based on a questionnaire sent to graduate students who are members of the American Anthropological Association. We sent our survey to 2797 students through e-mail, with a link to the survey web site, and in cases where e-mail was returned, we sent the survey by regular mail. We had 811 respondents for a return rate of approximately 27%. The major bias in our research is that we only contacted graduate students who were members of the AAAs as we will discuss below.

Assumption #1: Graduate students are not satisfied with their mentors.

Our survey indicates that Anthropology graduate students are for the most part satisfied with their mentors. For purposes of the survey we defined mentors as “the primary faculty member who provides academic advising, intellectual guidance and/or personal encouragement.” About half of the students identified their dissertation advisor as their mentor, while about 25% identified an academic advisor and about 15% cited another faculty member. Rating their satisfaction with their mentoring experience, students were generally satisfied. On a scale of one to seven (1 = very unsatisfied, 4=neutral, 7 = very satisfied), the average response was 5.17 (SD = 1.80). Table 1 shows the distribution of responses. Students’ satisfaction with mentoring was significantly associated with a number of factors including mentor’s accessibility, interest in research topic, and provision of constructive criticism. It was also significantly correlated with

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1 Our thanks to Margarita Fermin who helped organize the survey.
access to other faculty members familiar with the student’s research topic, and with mentor’s engagement of the student in professional activities like conference presentations, awards, other research projects, and introductions to faculty outside of the university setting.

About 20% of students were between somewhat and very unsatisfied with their mentoring experience. Students unhappy with mentoring were most concerned with length of time to degree and failure to find employment. When asked to describe a “good mentor,” students emphasized listening enthusiastically, and providing both support and motivation to complete research. Our study suggests that graduate school programs looking to improve mentoring should focus on maintaining faculty access, providing students with funds for conference travel and attendance, shortening time to degree and assisting students with employment searches.

Table 1. Student satisfaction with mentoring

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<th>Percent</th>
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<th>20</th>
<th>30</th>
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<tr>
<td>1</td>
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</tbody>
</table>

Table 1. Student satisfaction with mentoring

Assumption #2: Minority and female students are less satisfied with mentoring.

In our survey, we asked students to self-identify their race. Table 2 shows the distribution of racial categories. Notice the large proportion of Caucasian students that comprise the body of AAA student members.

Table 2. Breakdown of racial categories
Tables 3 and 4 show the level of satisfaction with mentoring for female and minority students. The similarity in the distribution of responses to Table 1 above is striking. The mean level of satisfaction for women was 5.19, very close to the average for men which was 5.21. Using a t-test, there was no significant difference between these ratings. For Caucasian students, the average ranking was 5.12, and for minority students it was 5.31, higher than for the white students. This difference was significant at p < 0.10.

Table 3: Women’s satisfaction with mentoring.

Table 4. Minority satisfaction with mentoring.
Latina females were the most unsatisfied among the anthropology students with an overall satisfaction rate of 4.76 (n=39), followed by white males with a rate of 5.01 (n=171). Minority males reported the highest level of satisfaction with a mean ranking of 5.82 (n=57), a highly significant difference. The reasons for this breakdown require more qualitative research. One factor to look at, beyond the work of academic departments, is the contributions of programs like the Mellon-Mays and the Ford Foundation in fostering mentor relationships.

**Table 5.**

<table>
<thead>
<tr>
<th>Race and Gender</th>
<th>Mean Satisfaction</th>
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<tbody>
<tr>
<td>White Male</td>
<td>5.01</td>
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<tr>
<td>White Female</td>
<td>4.76</td>
</tr>
<tr>
<td>Non-white Male</td>
<td>5.82</td>
</tr>
<tr>
<td>Non-white Female</td>
<td>5.57</td>
</tr>
</tbody>
</table>

**Assumption #3: Minority students need minority faculty as mentors.**

Our results show in general that minority students do not have minority faculty mentors, not surprising since program faculty are still overwhelmingly white (83.4%), even more than the student body (72.8%). There are just too few minority faculty members to go around. Only about nine percent of minority students in this sample...
reported having a minority mentor. Minority students who were paired with either a faculty member of their own race, or of another minority race, were no more or less satisfied with their mentoring experience than minority students who had a Caucasian mentor.

More importantly, when asked whether race/ethnicity of a faculty member was an important factor in choosing him or her as a mentor, less than three percent of the entire sample and only six percent of all minority students reported that it was. In most cases, a mentor is picked based on research interests, accessibility, and professionalism.

Assumption #4: Female students need female mentors.

Female students do not pick mentors primarily based on gender. As we found with minority students, there is an imbalance between the current proportion of female faculty and female students in anthropology graduate programs in the United States. While our survey indicates that female comprise 42% of the graduate faculty, female students account for 58% of the student body. As a result, about 50% of the female students reported having a female mentor. But female students who were paired with a female mentor were not more satisfied with their mentoring experience than female students paired with male mentors. Male students also did not differ in their level of satisfaction when they had a male mentor or a female mentor.

About 10% of the entire student body reported that their mentor’s sex was an important factor in their choice of mentor. The majority of these respondents were females. While 14% of the female student body thought that the sex of their mentor was important, only two percent of males agreed. The difference was highly significant. There was no difference in likelihood of reporting agreement between Caucasian and minority women.

Some of our qualitative data suggest that perceived competition between female faculty and female students might be one of the reasons why female respondents did not report preferring female mentors. Several students described female faculty as insecure, protective of their positions and in competition with female students. Eight respondents discussed in some detail the competition that occurs between female mentors and female mentees in their departments. While this competition may be real, the students’ perceptions may also reflect the different ways students judge male and female behavior in this culture. While students may expect aggressive and domineering behavior from male professors, they may expect females to behave in a nurturing manner. Female professors who behave exactly as their male peers will then be judged to be less supportive by students who sought a female scholar precisely for support. More qualitative research should be done at the department level to tease out the different ways male and female professors are judged on their mentoring skills. Keep in mind, however, that only 14% of the entire female student body thought that the sex of their mentor was important. Only three male students commented on the gender of their mentor. One male stated that he “does better with men.” Another commented that he could not choose a female since there were no female professors available in his field. And the third stated that he prefers to work with female scholars.

Assumption #5: Diversity is important.
This assumption turns out to be true.

Among the departments represented in this sample, we found significant associations between the composition of the faculty and of the student body. Programs with higher proportions of male faculty also had higher proportions of male students. The same relationship held for female faculty and female students, for minority faculty and minority students, and for international faculty and international students. This finding indicates that graduate departments reproduce themselves by admitting students who mirror the faculty.

It may also be the case that minority and female students seek to join more diverse departments. To test this hypothesis, we would need data on applicant and admission statistics. Diverse departments may provide an overall level of support to minority and female students allowing them to choose their mentors based on research interests and professional considerations rather than on race and gender. Within a supportive and familiar graduate department environment, concerns about race and gender become less central to the mentor/mentee relationship. Our data suggests that this is particularly important for minority students whose satisfaction with their mentoring experience was significantly correlated with the proportion of minority faculty even when the student had a Caucasian mentor. This finding calls for a rethinking of the mentoring paradigm, beyond relationships between individuals, should be refocused to take into account the culture and composition of departments.

But the environmental effect is not limited to faculty composition. Several respondents cited peer relations as an important support network in graduate school. Being able to share their experiences with students like themselves provides considerable support. One African-American respondent talked about how she acted as a mentor to other incoming African-American students to compensate for lack of departmental support. Overall, two percent of respondents provided detailed comments about the importance of peer support in having a successful graduate school experience. For organizations that value diversity, like the American Anthropological Association, these findings emphasize the importance of a diverse faculty and student body.

**Being a successful mentor**

As stated above, students’ satisfaction with mentoring was significantly associated with a number of different factors: mentor’s accessibility, interest in research topic, and provision of constructive criticism. We also asked respondents how they would describe their mentor with the following categories. Table 6 shows the percent of respondents in each category.

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2 Bivariate regression models for these variables were all highly significant. Simple correlations were strongest for percent minority faculty and percent minority students and (r = 0.53) and for percent international faculty and percent international students (r = 0.57). For female faculty/female students, r = 0.27, and for male faculty/male students, r = 0.25.

3 A full analysis of the importance of minority faculty for minority students will be available in O’Connell forthcoming.
An ordered probit model showed that students who described their relationships as formal were significantly less satisfied with their mentoring experience, while students who described their relationships as personal and/or professional, and saw their mentors as role models were significantly more satisfied. Qualitative comments also mentioned sincerity, trustworthiness, and having a caring and welcoming demeanor. These attributes speak to the nature of mentor-mentee relations, and the dynamic interplay between personal and professional qualities. Students tended to see their relationships for the most part as professional, with 62% identifying this as an aspect of their relationship. About 11% of the population (76 respondents) stated that they wished their relationship was more personal. On the whole, respondents who had a personal relationship were happy with this aspect of the relationship. Some described their mentors as members of their extended family. The longer the student had been in the program and the further along they were with their studies, the more likely they were to describe their relationship as personal. This finding reflects upon the transitional process of mentoring. Although mentee and mentor start out in a traditional student/faculty relationship, in time they become peers.

Other challenges

Interdepartmental politics was an issue raised several times by respondents (31) but one that we did not specifically address in the survey. This is an area that warrants further research. Many complained that the politics between professors prevented students from having positive interactions with faculty members. These respondents felt like helpless pawns in the faculty’s conflicts. It would be interesting to see what department characteristics are associated with greater or lesser degrees of inter-faculty political conflicts.

Funding was another concern frequently raised in the qualitative comments. About 16% of the respondents reported having no funding support of any kind—no tuition waivers, stipends for living expenses, TA or RA appointments, scholarships or family financial support. Not surprisingly, these students were significantly less satisfied with both their overall graduate experience and their mentoring experience. These respondents also expressed concern about the debt they would face after graduate school, and about securing enough funds to finish their PhD.

About four percent of respondents commented that more assistance at the beginning of their professional careers would be helpful, specifically assistance in
publishing and writing grant proposals. Students who reported that their mentors provided information and tips on publishing were significantly more satisfied with their mentoring experience.

Lack of support in publishing and grant proposal writing goes hand in hand with job hunting. Over 30 different respondents wished they had more guidance and support with the beginning of their professional lives. They often cited lack of publishing options as well, where as the respondents were happy with the mentors commented on the support available for publishing and grant writing.

Harassment

Less than two percent of respondents reported being the victim of any form of harassment or discrimination by their mentor, but about four percent did experience hazing or humiliation by their mentor. Respondents were more likely to have experienced harassment, discrimination or hazing at the hand of other faculty members in their departments. The types and frequency of harassment and discrimination appear in Table 2.

Table 2: Percent of students experiencing harassment/discrimination by faculty members

<table>
<thead>
<tr>
<th>Type of harassment/discrimination</th>
<th>Percent</th>
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<tbody>
<tr>
<td>racial discrimination</td>
<td>4.62%</td>
</tr>
<tr>
<td>sexual harassment</td>
<td>3.82%</td>
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<tr>
<td>sexual discrimination</td>
<td>7.17%</td>
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<tr>
<td>discrimination because of sexual orientation</td>
<td>1.59%</td>
</tr>
<tr>
<td>discrimination because of a disability</td>
<td>1.59%</td>
</tr>
<tr>
<td>discrimination because of age</td>
<td>5.10%</td>
</tr>
<tr>
<td>hazing or humiliation</td>
<td>9.39%</td>
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</tbody>
</table>

Even though less than 10% of the students experienced any form of these behaviors it is disquieting that all of the numbers are not closer to zero. Experiencing any form of these behaviors was significantly associated with lower rankings on both the graduate school experience and on the mentoring experience. The effect of department composition followed expected patterns. The likelihood of experiencing racial discrimination was significantly higher in departments with a greater percent of Caucasian faculty. Similarly, sexual harassment and discrimination was significantly more likely in departments with higher proportions of male faculty. White females were significantly more likely than any other race or gender group to be the recipient of hazing or humiliation. This increased likelihood for white women was not associated with being in a largely male department, either faculty or student.

Future Direction
A number of suggestions for improving the mentoring experience come out of the results of this survey. Since students want to choose their mentors based on shared research interests and accessibility, we have to focus on producing graduate environments that allow students to pick their mentors on the basis of shared interests and not based on race and gender. Trying to establish a gender balance in the department and promoting the hiring of more minority faculty would enrich departments and expand the diversity of the student body. Creating a supportive environment for all types of students would allow students to focus on their research.

We also need to conduct more research on how different aspects of the environment including size and departmental politics affect the graduate experience. A number of students mentioned that students get “lost” in very large departments. What are the special challenges faced by large and small departments in providing the right balance of professionalism and the personal touch? The findings from this study suggest that graduate programs looking to improve mentoring should focus on maintaining faculty access, providing students with funds for conference travel and attendance, shortening time to degree and assisting students with employment searches and grant writing.

Given the demonstrated importance of peer support, departments should consider holding various peer functions in order to institute peer support within the department. Events such as coffee hours or discussion groups could be very beneficial. Pairing younger cohorts with upper cohort students could help students make easier transitions to the graduate department. Involving other departments that have overlapping interests is another possibility, since several students mentioned finding support in peers as well as faculty members from outside their department.

Future research should also gather responses from both the members and non-members of professional organizations like the AAA. As we discussed above, we have a biased sample. Since all respondents are members of the AAA, we have not gathered the opinions of students who have not joined the AAA. We suspect that students unhappy with graduate school might not be motivated to join the AAA since their experience thus far has not been positive.

We were pleased to find that students were somewhat satisfied with their mentoring experience. This work provides some new conceptual tools for thinking about how the wider environment contributes to students’ experiences with their mentors, to their satisfaction with their graduate program, and to their eventual success. In addition, more research is needed on why some departments have diversified and others have remained fairly homogenous at both the faculty and student levels. This research is needed in order to ensure that anthropology departments do not become bifurcated along the lines of diversity.