Is the University of Michigan a Homophilous Habitat?
Freshmen Friendship Formation at the U

Will Fogel, SI 508: Network Theory
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ABSTRACT: Over the past seventy years, network theorists have studied the pervasiveness of homophilous relationships in many contexts. There are some contexts, however, in which homophilous behavior is not desirable. The University of Michigan has long been an advocate of desegregated, diverse learning environments, but anecdotal evidence has suggested that, even at Michigan, homophily reigns. In this report, we examine survey data on friendship formation between University of Michigan freshmen in order to quantitatively assess oft-remarked theories regarding the lack of “diverse” interaction at U of M. We begin by studying the contexts in which friendships at the University are being made. Next, we analyze the political differences between friends in order to ascertain the political diversity of friendships. We end by exploring the racial diversity of friendships and attempt to gauge whether cross-racial friendships are particularly hard or easy to form in different geographic and social settings. While the paucity of data prevents us from making more than a few statistically significant claims, we hope that this data will interest others with better access to the student body so that a more thorough study can be performed.¹

¹ The author would like to thank Lada Adamic for her scripting assistance, cheer, and advice throughout this process. Although few of the results discussed in this work are statistically significant, Lada may use this paper however she deems fit, whether it be posted on the class website or used in another way.
INTRODUCTION AND LITERATURE REVIEW

“The University of Michigan has created, and will continue to create, a learning environment that is the very essence of what a university should be—a place where our differences create a robust learning experience that is filled with challenge, progress, and hope.”

— Governor Jennifer Granholm, State of Michigan Amicus Brief, *Grutter v Bollinger*

With this amicus brief, Governor Granholm lent her support to the University of Michigan in its Supreme Court fight to defend its race-based affirmative action policies. While the defenders of affirmative action employed a plethora of arguments, the importance of a diverse learning environment turned out to be the winning one. In her majority opinion, Justice O’Connor allowed the Law School’s race-conscious admissions policy only because the Law School had a “compelling interest in obtaining the educational benefits that flow from a diverse student body,” an interest which justified the constitutionally questionable policy.²

Numerous studies have pointed out the benefits of diverse learning environments. Odell, Korgen, and Wang aptly summarized this research: Students in racially diverse institutions of higher learning have a broader understanding and openness towards diversity in society (Pascarella et al, Whitt, Nora, Edison, Hagedorn, and Terenzini, 1996), become better citizens (Bowen and Bok, 1999; Gurin, 1999), and are more likely to have friends of other races after college (Gurin, 1999) than students at racially homogeneous colleges and universities.³

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Refer to these article for references to articles alluded to parenthetically above.
Still, while the benefits of cross-racial interactions are clear, it remains unclear how campuses can foster racially diverse interactions. Recruiting and admitting a racially diverse study body will not necessarily produce a learning environment capable of overcoming its members’ racially homophilous tendencies, tendencies Wesley Shrum documents well.  

Pettigrew’s Intergroup Contact Hypothesis suggests that interracial contacts will pervade a learning environment only when five conditions are met: “1) cooperation among the groups; 2) a common goal; 3) equal status of groups during contact; 4) the support of authority, custom or law; and 5) friendship potential.” While the University of Michigan clearly satisfies aims two and four and attempts to foster objectives one and three, little seems to be done at an institutional level to foster cross-racial friendship potential.

Lacking institutional support, cross-racial friendships don’t appear to be forming on their own. On October 31, 2007, the Speaker of the Black Student Union, Sheldon Johnson, criticized the University’s emphasis on bringing in diverse freshmen classes over integrating the existing University culture. The student-run *Michigan Daily* reported, “Johnson said after the panel he was disappointed with the panel's focus on the external

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aspects of Proposal 2 and philanthropy when the administration needs to work to integrate what he called a segregated campus.\textsuperscript{6}

In addition to analyzing Johnson’s claim that the campus is racially segregated, we will also explore the much-talked about but little-researched phenomena of political homophily at the University of Michigan. Specifically, we will examine the relationships freshmen form at the University of Michigan’s Ann Arbor campus in order to answer a number of questions related to the formation of a truly diverse learning community\textsuperscript{7}: (1) In what setting are friendships between students being formed? (2) Are students forming friendships with others who hold opposing political views? (3) Are students forming friendships with members of other races? (4) Are cross-racial friendships being formed in different settings than friendships between students of similar backgrounds? If so, where is each type of friendship most likely to be formed? Questions two and three provide some insight into the current level of integration at the University of Michigan, and questions one and four may offer clues on how Michigan might better integrate in the future.

Because of the paucity of data collected for this study, few of the findings reported here are statistically significant. This paper is not intended for publication but rather as the starting point for further research in this area.

\textsuperscript{7} I readily acknowledges that race, gender, year, state of origin, honors-college-status, and political views are only six of many ways in which students differ from one another. However, given the constraints of our survey work, I will confine my study in this paper to these six proxies for diversity.
METHODS

An online survey was undertaken which asked undergraduates at the University of Michigan to answer questions about themselves and five of their friends. From each participant, we attempted to gather the following information: the year, gender, race, home state, and political views of each respondent and each friend of the respondent, as well as the conditions under which the friendship between the two began.

The survey was initially distributed to thirteen Honors Freshmen, all of whom were taking an Honors freshmen seminar together. Eleven of the initial respondents were Caucasian, and the other two were Asian; seven were women, and six were men; eleven lived in Honors Housing in South Quadrangle, one lived on another floor of South Quadrangle, and the thirteenth lived in Couzens Hall.

The respondent pool then grew by snowball sampling\(^8\): every person identified by a respondent as a “friend” was invited via email to participate in the survey. Food items were raffled off to respondents as incentives to participate.

RESULTS

\(^8\) While most of the survey growth came through snowball sampling, one of the subjects also distributed the survey to her sorority pledge class, and others found out about the survey in other ways. Upon examining the data, we believe that very few of the sorority members solicited by mass email participated in the survey. Thus, the integrity of the snowball sampling was preserved. Snowball sampling was chosen in order to maximize the connectivity of the network and to minimize potential biases which might be introduced if the survey was conducted another way. If, for example, the survey had been conducted by in-person interviews, some potential respondents may have felt more comfortable with the researcher than others. Those who felt more comfortable—that comfort possibly being derived from homophilic connections to the researcher—might be more likely to respond to the survey. If instead respondents were encouraged to send the survey to everyone they knew, members of large social networks might be overrepresented in the respondent pool.
Of the 121 Michigan students who began the survey, fifty-seven completed it. The sixty-four students who began the survey but did not finish it all answered the questions about themselves, but most refused to answer any questions about their friends. Still, through the responses gathered from those who would discuss their friends, we obtained information about 266 students at the University of Michigan and 309 friendships. As shown in Figure 1, the racial make-up of the 266-member data pool roughly mirrored the racial make-up of the student body.

**Figure 1: Race Ethnicity Data**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>#</th>
<th>% of Total</th>
<th>% of 2007 Freshman class</th>
</tr>
</thead>
<tbody>
<tr>
<td>White (Not of Hispanic Origin)</td>
<td>206</td>
<td>77.7</td>
<td>65.2</td>
</tr>
<tr>
<td>White (Of Hispanic Origin)</td>
<td>11</td>
<td>4.1</td>
<td>4.7</td>
</tr>
<tr>
<td>Black</td>
<td>14</td>
<td>5.2</td>
<td>5.8</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>0.3</td>
<td>0.9</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>33</td>
<td>12.4</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Even with information regarding 309 friendships, however, the network is woefully undersized and under-connected. Few meaningful conclusions can be drawn from such a small and disparate data set, and I will not try to force any conclusion. Traditional network analysis would be particularly difficult with this data set. We cannot contend that individuals who appear well-connected in the respondent-network are actually more central to the campus social network; rather, they have more friends who also responded to this survey. Community-finding measures and small-world applications are

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9 The Race/Ethnicity labels used were adopted from the US Census reports.
10 [http://www.ns.umich.edu/htdocs/releases/story.php?id=6152](http://www.ns.umich.edu/htdocs/releases/story.php?id=6152) These figures do not add up to 100% because the University looks at international students as a separate group, a group-distinction we chose not to employ in our survey.
impractical for the same reasons. Nevertheless, statistical analysis of the current data set can suggest avenues which might be explored by another team which gathers more data.

Circumstances of Relationship Formation

Anecdotal evidence led us to believe that most Freshman-year friendships are formed in the residence halls. Our data, displayed in Table 2, supports this theory. Nearly half of all friendships reported were formed in the residence halls. Several friendships were also formed at home (mostly between students from Michigan), in class, at Welcome Week events, at Orientation, and through Greek Life.¹¹

Friendships made in residence halls were primarily made between students living in the same dormitory. To illustrate this finding, let us examine the divide between South Quadrangle and West Quadrangle. The dorms sit perhaps fifty yards from one another at the heart of campus. Both are at least a five-minute walk removed from any other residence hall. Furthermore, meal schedules force South Quadders and West Quadders to come together for breakfasts and Sunday dinners.¹² And yet, 117 of the students identified in the survey lived in South Quadrangle. A paltry seven lived in West Quadrangle.¹³ Only two South Quadrangle residents identified a friend in West Quadrangle, and no West Quadrangle respondents identified a South Quadrangle friend.

¹¹ Several students who answered “Other” had interesting answers. Three friendships were formed through common employment outside of the University. Two friendships were formed via facebook; the students communicated before arriving on campus. Our study admittedly offered students only ten options for the setting of friendship formation in addition to “other.” Nevertheless, those ten options captured nearly ninety percent of the all the friendships formed.

¹² South Quad serves breakfast on the weekends, and West Quad serves breakfast during the week. South Quad serves Sunday dinner while West Quad does not.

¹³ The high number of students living in South Quadrangle is likely a function of two factors: (1) Twelve of the original thirteen respondents lived in South Quadrangle, and (2) friendships were often formed in the
Table 2

<table>
<thead>
<tr>
<th>Place of Friendship Formation</th>
<th># of Friendships Formed</th>
<th>% of Total Friendships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence Halls</td>
<td>143</td>
<td>47</td>
</tr>
<tr>
<td>Other</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Home</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>Class</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>Welcome Week event</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Greek Life</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Orientation</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Party</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Student Org event</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Sporting event (spectators)</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Sporting event (participants)</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Political Homophily: Fact or Fiction?

Respondents were asked to rate themselves politically on a scale of 1-7 (one being “very liberal” and seven being “very conservative). One hundred and thirty-five individuals responded to that question (see Figure 1 for the distribution), with an average response of 2.74 (se=.168, p= 7.5), a somewhat liberal average. This average is significantly different from four, the average which would denote balanced campus political views.

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Residence Halls so the South Quadrangle residents identified other South Quadrangle residents, and that process repeated itself.
This finding that our campus is in fact liberal is interesting, but it isn’t earth-shattering.

We then sought to determine whether or not people were choosing politically like-minded friends. To discover the extent of political homophily on campus, we examined the sixty-seven friendships for which we had obtained three pieces of information: (1) the respondent’s self-identified political leaning; the respondent’s estimation of his or her friend’s political leaning; (2) that friend’s self-identified political leaning. We then regressed predictors’ political views on the self-identified political views of their friends and obtained the following regression equation:

\[
\text{Predictor’s Political Views} = .17 \pm .10 \times \text{Actual Political Views of Predictor’s Friends} + 2.24 \pm .29 \\
p = .083
\]

This data suggests political homophily, but it can by no means confirm it. We next hypothesized that respondents might try to form homophilous political friendships but fail to do so because they possess imperfect information regarding the political affiliation.
of their friends (e.g. Bill, thinking that Mary shared his political views, might befriend Mary, whose views were actually antithetic to Bill’s own). If these friendships based on misinformation were widespread, campus might be more politically homophilous in intent than in practice. To analyze this hypothesis, we regressed predictor political views on their predictions of their friends’ political views and obtained the following:

ii) Predictor’s Political Views = .06 (.10) Predicted Political Views of Predictor’s Friends + 2.53 (.31)
   p=.532

Compared with the regression of the predictors’ own political views on the self-identified views of their friends, the regression of the predictors’ political views on the predictors’ perceptions of their friends’ political views was far less significant; the resulting beta-coefficient was far smaller (.06 compared with .17), and the p-value far larger (p=.532 compared with p=.083). Thus, some evidence suggests that students were unconsciously making politically homophilous choices even if consciously they believed that they were befriending students of differing political views.\(^\text{14}\)

**Cross Racial Friendships**

\(^{14}\) This result seems to contradict our initial assumption that students overestimate the political similarity between their views and the views of their friends. Using the same data on the sixty-seven friendships, we found a correlation (Corr=.339) between respondents’ errors in assessing their friends’ political leanings and the difference between respondents’ political leanings and the actual political leanings of their friends. We initially thought that this result implied that respondents believed that their friends were more politically similar to them than those friends actually were. However, when we sought to strengthen this claim by regressing a friend’s predicted political view on his or her actual political views and the political views of the predictor, the predictor’s political views were not statistically significant. (The regression analysis gave us the following equation, standard errors in parenthesis: Predicted Political View= 1.74 (.52) + .53 (.11) Actual Political View -.07 (.14) Predictor’s Political View.) Thus, we cannot firmly state that respondents’ own political views influenced their predictions of their friends’ views.
We next turned to race, analyzing whether some settings were more conducive to the formation of cross-racial friendships than others. Of the 309 friendships identified in this survey, twenty-nine percent were cross-racial friendships.\textsuperscript{15} While twenty-nine percent of the total friendships were cross-racial, that percentage varied widely over the different settings of friendship formation. Only fourteen percent (3/21) of Welcome Week event connections were formed between white and non-white students, and two of those three were initiated by the same individual. Friendships formed at parties, through Greek Life, or through student organizations were similarly racially homophilous. By contrast, friendships formed at home and maintained at Michigan were most likely to pair members of different races.\textsuperscript{16} Table 3 outlines some of these findings.

<table>
<thead>
<tr>
<th>Setting of Friendship Formation</th>
<th>% of Friendships Formed Which Were Cross-Racial</th>
<th>p-value of hypothesis test of significant difference from 29% (two-sided test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Week Event</td>
<td>14</td>
<td>.06</td>
</tr>
<tr>
<td>Party</td>
<td>14</td>
<td>.30</td>
</tr>
<tr>
<td>Greek Life</td>
<td>21</td>
<td>.42</td>
</tr>
<tr>
<td>Class</td>
<td>29</td>
<td>~</td>
</tr>
<tr>
<td>Residence Hall</td>
<td>31</td>
<td>.61</td>
</tr>
<tr>
<td>Hometown (before Michigan)</td>
<td>37</td>
<td>.37</td>
</tr>
</tbody>
</table>

Unfortunately, due to a dearth of data, none of these findings is statistically significant at a ninety-five-percent level. Thus, these findings should be read as suggestive but by no

\textsuperscript{15} Forty-one connected white students to non-white students; forty-eight connected non-white students to white students; 189 connected white students to other white students; and thirty-one connected minority students to other minority students.

\textsuperscript{16} Our data was supported by the comments of survey respondents, comments which were collected at the completion of the survey process. Many survey respondents echoed one respondent who complained: “I don't feel I have a diverse set of friends at UMich, at least not as much of one as I had during high school.” Another compared Michigan to the outside world, saying, “it is harder to meet people [at the University of Michigan] than in "real life."
means conclusive. Further data collection needs to be done to definitively answer these questions.

Still, two statistically significant racial statements can be made: (1) Asian or Pacific Islander students are more likely than others to have at least one Asian or Pacific Islander friend, and (2) non-white students are more likely than white students to have at least one non-white friend. With one notable exception, every Asian or Pacific Islander respondent identified at least one Asian or Pacific Islander friend; and with two exceptions, every respondent who listed friends and did not identify as “White (Not of Hispanic Origin)” identified at least one friend who was also non-white.\textsuperscript{17} Thus, though we found a large number of cross-racial friendships, some desire may exist for racial homophily or intra-racial support.

**CONCLUSIONS ARE FUTURE WORK**

In the above analysis, we concluded that Michigan freshmen are on average a liberal group. We also suggested that freshmen at the University of Michigan may have unconscious, politically homophilous preferences but be consciously open to diverse political interaction. With regard to racial diversity, some settings (residence halls, home, and orientation) seemed to be more conducive to cross-racial friendship formation than others (Welcome Week events, Greek Life, and parties). Unfortunately, we did not have enough data to prove the statistical significance of any of these findings. Nevertheless, we hope our work will be carried on by others and that our data can suggest areas of research for those who follow us.

\textsuperscript{17} Similarly, but not as statistically surprisingly, every white student had at least one friend who was also white.