

The AAU Sexual Assault Survey Data Cannot Substantiate Claims Regarding Harvard Final Clubs

1. Qualifications

I, Jora Stixrud, am an Economist at Welch Consulting, a consulting firm specializing in economic and statistical research. I have held this position since 2008. I hold a Bachelor of Arts in Economics and Mathematics from Northwestern University in Evanston, Illinois, and M.A. and Ph.D. degrees in Economics from the University of Chicago. My fields of specialty in graduate school were labor economics and applied econometrics. Labor Economics is the study of labor market phenomena from an economic perspective. Econometrics is the application of statistical methods to economic data. My resume can be found in Appendix A.

Since 2008, in my capacity as an economist at Welch Consulting, I have performed numerous economic and statistical analyses of complex data sources. Welch Consulting is a market leader in complex economic and statistical research and the analysis of labor and employment issues. Our clients consistently include industry leading companies and the nation's preeminent law firms. Welch Consulting has been a leader in its field for over 40 years.

2. Assignment

I have been asked by the Porcellian Club to review the results of the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct that was administered in the spring of 2015 to students of 27 schools, including Harvard University. In particular, I was asked to review the Harvard-specific component of the survey and the recommendations of the Task Force on the Prevention of Sexual Assault pertaining to Final Clubs, and to assess whether the claims being made by the Task Force are substantiated by the survey evidence. I find that they are not.

3. Summary of Findings

The Task Force reports that “Nearly one out of every two (47 percent) female College seniors participating in the Final Clubs reported experiencing nonconsensual sexual contact since entering college.” (pg. 16 of the Final Task Force Report) They “*interpret* ‘participate’ as meaning primarily non-member interaction with the all-male Final Clubs through social and other related events, as well as any assaults experienced by women who have joined one of the all-women Final Clubs.” (pg. 16, emphasis added) The report compares the 47 percent prevalence rate among Club members and “participants” to the aggregate 31 percent rate reported by all respondents, and concludes that “a Harvard College woman is half again more likely to experience sexual assault if she is involved with a Club than the average female Harvard College senior.” (pg. 16) They go on to *interpret* a question about the location of incidents of nonconsensual sexual contact to mean Final Clubs, even though it does not mention Final Clubs, and claim that the rates of incidents at the Clubs are “alarming.” (pg. 16) None of these conclusions is defensible from a statistical perspective, based on the underlying survey data.

There are only two questions on the survey with arguable pertinence to Final Clubs. The first asks the respondents about “participation” in clubs and other student groups. The second question, asked

elsewhere in the survey and not tied to participation in any undergraduate activity, including clubs, asks those who reported that they had experienced nonconsensual sexual contact where the incidents took place. One possible answer was listed as “other space used by a single-sex student social organization.” The first question tells us nothing about the issue at hand—whether or not Final Clubs have an effect on the incidence of nonconsensual sexual contact. The second question was posed in too general a manner to derive any meaningful conclusions from the responses. It does nothing to substantiate the claim implicit in the recommendations of the Task Force, that eliminating Final Clubs or forcing all of them to become co-ed would somehow decrease the incidence of nonconsensual sexual contact of Harvard College students.

4. Background

In the spring of 2015, the Campus Climate Survey on Sexual Assault and Sexual Misconduct was administered to students of 27 colleges and universities organized by the American Association for Universities (AAU). The survey was designed, administered, and analyzed by the research firm Westat in conjunction with a team of representatives from the included schools. The survey was administered to Harvard University students between April 12, 2015 and May 2, 2015. All 20,880 enrolled students were invited to participate, and were offered a \$5 Amazon gift card in exchange for their participation.

The survey response rates varied widely across the 27 schools. Harvard University had the highest aggregate response rate of all of the schools—53.2%. While this response rate is higher than the other schools, it still means that 47% of Harvard students did not respond. When analyzing the survey data, Westat used weights that attempt to account for this non-response. The weights are based on a student’s gender, age group, year in school, and race/ethnicity. The underlying assumption is therefore that students of the same gender, age group, year in school, and race/ethnicity who *did not* respond to the survey would have given similar answers as the students of the same gender, age group, year in school, and race/ethnicity who *did* respond to the survey. There is no way to test this assumption empirically, but the available evidence suggests that it is likely not a good one. The Westat Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct acknowledges and discusses the potential bias resulting from non-responses in some detail. The Report states that although non-responses could likely bias the results in either direction, the evidence suggests that non-victims are less likely to respond to the survey than victims.

The survey instrument was broad and covered a wide range of topics. There were ten sections ranging from perceptions of risk, response to reporting, and bystander behavior, to harassment, stalking, and sexual violence. The questions regarding nonconsensual sexual contact covered a range of behaviors—from unwanted kissing or touching, to forcible penetration. When a student reported an event, he/she was asked follow-up questions about the incident, including when and where it occurred.

There are two questions that are arguably related to Final Clubs. The first is question A16, which reads “Since you have been a student at Harvard University, have you been a member of or participated in any of the following?” The possible responses offered by the survey range from Academic group (e.g., math club, philosophy club), to Campus varsity team (e.g., basketball, softball, soccer), to Religious (e.g.,

Korean Campus Ministry, World Peace Buddhist Club). One possible selection is Final Clubs (male and female Clubs are not distinguished from each other). Respondents could select as many clubs or organizations as they wanted to. Figure 1 displays the complete list of clubs and organizations.

The second is actually a pair of questions. When a respondent reports having experienced an incidence of nonconsensual sexual contact, one follow-up question is “Did (this incident/any of these incidents) occur on campus or on university affiliated off-campus property?” (GA12) The next question is “Where did (this incident/these incidents) occur? (Mark all that apply).” (GA13a and GA13b) The set of possible responses differs depending on whether the respondent said “yes” or “no” to the first part of the question. If the respondent said “yes,” one of the possible responses is “University residence hall/dorm.” If the respondent said “no,” one of the possible responses is “Private residence.” Either way, one of the possible responses is “Other space used by a single-sex student social organization.” As I will discuss in more detail below, this could be interpreted to include Final Clubs. Figure 2 displays the complete text of the question.

In its March 7, 2016 Final Report, the Task Force acknowledges that “the survey data are not particularized, the information from the outreach was likewise often general in nature, that collectively they do not offer insight into potential variations among the Clubs, and that they do not permit us to untangle complex questions of causation” (pg. 17). Despite acknowledging the severe limitations of the survey data, the Task Force nevertheless makes strong and particular recommendations, purportedly based on the limited data. They recommend that single-gender Final Clubs should either be required to go co-ed and subject themselves to monitoring, or should be disbanded completely. They do not appear to be bothered by the fact that their recommendation is not supported in any statistically justifiable way by any data or evidence from the survey.

5. The Two Data Points

Responses to the question about participation in student groups and the question regarding the location of reported incidence(s) of non-consensual sexual contact form the basis of the Task Force’s argument regarding the connection between nonconsensual sexual contact and the Final Clubs. I will discuss each of these in turn.

a. “Participation” in Final Clubs

The Task Force has focused on the survey finding that 47% of female Harvard College seniors who selected “Final Clubs” as one of the student groups in which they were a member or participant also report nonconsensual sexual contact involving physical force or incapacitation in the four years since they started college. The same statistic for all female Harvard College seniors is 31%. This fact is not informative as to whether or not the existence of single-gender Final Clubs increases the incidence of nonconsensual sexual contact for several reasons.

One of the first lessons taught in most introductory statistics courses is that correlation does not imply causation. Examples of spurious correlations abound. [Econometric Methods](#) by Jack Johnston and John Dinardo has a section titled “Nonsense Correlations and Other Matters” (pg. 9, Fourth Edition). They

warn that correlation coefficients must be “interpreted with care.” Correlations that are large in magnitude may contain no real information, even when they are statistically significant. A classic example was given by the statistician G. Udny Yule. He found a correlation of +0.95 between the annual death rate in England and Wales from 1866 to 1911 and the annual proportion of all marriages solemnized by the Church of England. Does this imply that being married by the Church causes deaths? No. It means that at the same time—whether for related or completely unrelated reasons—the death rate and the proportion of Church marriages were both decreasing.

Another classic example is the strong positive relationship between homicides and ice cream sales. Does eating ice cream cause a person to kill or be killed? No. Both events are statistically more likely to occur in the summer. The fact that there is a positive correlation between participation or membership in Final Clubs and nonconsensual sexual contact does not tell us anything about the causality. It is quite possible that the two factors are correlated due to the existence of some unidentified third factor. The statistical correlation is just that, a correlation. It is not evidence that one factor causes the other.

Moreover, the causality argument is particularly weak in this instance because there is not even a claim—let alone survey evidence—that the specifics of the incidence(s) of nonconsensual sexual contact are at all related to involvement in the Final Clubs. The survey does not ask about the timing of the sexual contact vis-a-vis the timing of involvement in the Clubs. For example, if a student experienced an unwanted sexual contact during her freshman year of college—prior to any involvement with any Final Clubs—but then joined a female Final Club or went to a party at such a Club during her sophomore year in college, she could be counted as part of the 47%. Similarly, if a member of a female Final Club had a nonconsensual sexual contact while in California for spring break, she too could be counted as part of the 47%. What we have here is at most a statistical correlation. There is nothing in the data that would allow one to legitimately conclude that membership or participation in a Final Club was at all related to the timing, location, perpetrator, or any other specifics of the nonconsensual sexual contact.

The same chart that displays the 47% statistic (pg. 10 of the March 2016 Harvard specific supplement to the AAU campus survey report) displays the same statistic for members and participants in other student organizations. The student group with the next highest prevalence of nonconsensual contact is Peer educators (e.g., Drug & Alcohol Peer Advisors, Peer Advising Fellows) at 41%. It would be illogical to argue that being a Drug & Alcohol Peer Advisor would cause a woman to be victimized, or that eliminating the Drug & Alcohol Peer Advisor group would be a useful strategy for reducing the number of nonconsensual sexual contacts at Harvard University. There clearly is no established causal relationship. The same is true for Final Club members and participants.

It is not obvious from the available numbers that the correlation between participation in these student organizations and nonconsensual sexual contact is even statistically different from the correlation between participation in other student organizations and nonconsensual sexual contact. Because the reported observation counts are weighted versions of the actual underlying data, and there is overlap between the participants in the different student organizations (i.e., the same woman can report being in multiple groups), the exact statistical tests cannot be performed without the underlying data, which Harvard has not disclosed. However, it appears most likely the case that the results for a number of the

student organizations are not statistically different from one another. Respondents who indicate that they are members or participants in Final Clubs, Peer Educators, Greek Fraternity/Sorority, Campus Varsity Team, and/or Campus Sports Club are probably equally likely statistically also to report nonconsensual sexual contact. All of the correlations between membership or participation in these groups and nonconsensual sexual contact are most likely statistically indistinguishable. In short, there is no statistical evidence to support the singling out of Final Clubs as opposed to other student organizations.

Another key issue here is the meaning of membership or “participation” in a Final Club. The survey reports that 178 women “participated” in Final Clubs, but this is a constructed number. The actual number of “participants” who responded to the survey was almost surely less. The survey report fails to disclose the specific response rate for senior College females. It reports that 62.8% of undergraduate females responded to the survey—but this means that about 37% did not respond.¹ The reported count of 178 women was created based on assumed sample-weights, and is subject to an (undisclosed) margin of error. The survey analysts constructed sample weights to convert the number of actual respondents who indicated participation in Final Clubs, which was almost definitely less than 178, into a larger projected number that is intended to represent the number of women who would have indicated “participation” if all senior undergraduate women had responded to the survey. Implicit in this approach is the assumption that respondents are equally likely to participate in Final Clubs as non-respondents of the same gender, age group, year in school, and race/ethnicity. This may or may not be a valid assumption.

By definition, there are no female members in the all-male Final Clubs. I have been informed that, at the time of the survey, there were five all-female Final Clubs, each with about 20 senior members.² This means that there were about 100 actual female senior undergraduate members in Final Clubs when the survey was administered. Accepting for the moment the constructed number of 178 club participants, that would leave 78 women who are not members of all-female Clubs but consider themselves “participants” in the Clubs. What does this participation mean? They could be women who participated in some recruitment activities for the all-female clubs, women who attended parties or other events sponsored by the all-female clubs, or women who attended parties or other events sponsored by the all-male clubs. There are a wide range of reasonable interpretations, and it is impossible from the survey data to know what the respondents actually meant when they said they were participants. One thing is clear—the survey does not establish that all 178 assumed “participants” were “involved with” all-male final clubs, as the Task Force so clearly implies.

As another example, by my count there were about 80 to 90 female senior members of Campus Varsity Sports teams when the survey was administered.³ The survey reports 165 members or participants. Is this due to the non-response and sample weighting, female cheerleaders self-reporting as varsity

¹ The response rates are not available separately for senior undergraduate females. They may be higher or lower than the reported average response rate for undergraduate females.

² The average of 20 senior female members per all-female Club is an estimate. Two of the historically all-male Final Clubs have now become co-ed, but they were all-male as of the time of the survey administration.

³ I obtained this count based on a review of the Official Website of Harvard University Athletics.

athletes, team managers and other trainers considering themselves participants, or spectators self-selecting as participants? The survey does not provide enough data to determine, but it is clear that the meaning of “participation” is open to the respondent’s interpretation.

The Task Force recommendations focus on the all-male Final Clubs. From this perspective, the only data that could arguably be relevant for purposes of a defensible statistical analysis would be data on nonconsensual sexual contact that is directly related to all-male club events. Women who are members or participants in all-female or co-ed clubs are not relevant to this inquiry. Unfortunately, from the data available it is impossible to disentangle the two. We cannot determine how many—if any—of those reporting nonconsensual sexual contact (according to the survey, an assumed 84 individuals, i.e., 47% of the 178 constructed “participants”) were participants in all-male clubs. Nor, as noted, is there any information as to how much of the contact happened before—or without any conceivable connection to—any “participation” in Clubs. Without the ability to disentangle this group, the survey data cannot provide any statistically legitimate support for the Task Force Recommendations.

b. Location of the Incident(s)

The second finding that has garnered attention is the percent of female victims reporting an incident that occurred in an “Other space used by a single-sex student social organization.” This general language was used in the survey so that respondents from all participating schools could have the same list of possible responses. I do not know why the survey did not include school-specific locations as possible responses, as it did for student organizations (displayed in Figure 1).

As shown in the questionnaire (Figure 2), the question was broken down into incidents that occurred (a) on campus or on university-affiliated property (“university property”) or (b) off campus. For incidents occurring on university property, 15.9% of women reporting nonconsensual penetration by force and 10.7% of women reporting nonconsensual penetration by incapacitation responded that the incident occurred in an “Other space used by a single-sex student social organization.” The report states that the numbers for nonconsensual penetration incidents occurring off university property were too small to report. For nonconsensual sexual touching, the percentages are 19.2% and 16.0% for those reporting incidents involving force and incapacitation on university property, and 12.9% and 5.6% for those reporting incidents involving force and incapacitation off of university property. (Tables 3.5a and b of the Harvard-specific AAU Report)

The Task Force assumes that “Other space used by a single-sex student social organization”—whether on or off university property—should be taken as “mainly” referring to Final Clubs. (pg. 16 of the Final Task Force Report) This assumption is problematic for multiple reasons. First, to my knowledge it has not been validated, i.e., it has not been demonstrated that when respondents select this response they are actually intending to indicate that the incident occurred in a Final Club. The Task Force appears to concede that this category does not exclusively pertain to Final Clubs, and there is no information about what other location(s) these responses are actually capturing. Second, Final Clubs are privately operated, not university affiliated, and not on campus property. Thus, when responding to the part of the question involving incidents on university property, either many of the respondents are confused, or

they must mean something other than Final Clubs when they select a single-sex student social organization on University property as the location of the incident.

The Task Force recommendations focus on single-gender Clubs, yet this statistic does not tell us anything about what specifically is going on in those Clubs. I understand that, at the time the survey was given, there were five all-female Final Clubs and seven all-male Final Clubs. This statistic cannot possibly tell us anything about what is going on in any of the individual clubs, nor does it begin to account for differences in access to non-members provided by the various Final Clubs.

These same tables show that the vast majority of victims of nonconsensual sexual contact report an incident occurring in a University residence hall/dorm. These percentages range from 64.0% and 78.6% of incidents of nonconsensual sexual touching involving force or incapacitation, respectively, to 87.0% and 87.6% of incidents of nonconsensual penetration involving force or incapacitation, respectively. Without a lot more information, it is impossible to compare the statistics for same-sex social organizations to the statistics for University dormitories. There is no benchmark or reference point. We would need a lot more data to properly compare the two statistics and draw any meaningful conclusions from these numbers.

6. Conclusions

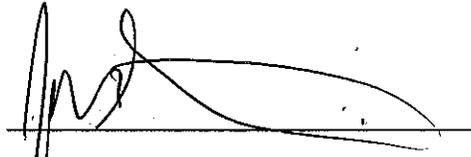
The 47% figure does not provide any meaningful information about whether there is any relationship between Final Clubs and nonconsensual sexual contact.

- First, the figure at best indicates a correlation that is meaningless for the topic addressed by the Task Force. It certainly tells us nothing about causality. As an example of how meaningless the figure is in any consideration of the topic of sexual contact and male Final Clubs, a woman who received an unwanted kiss in her dorm room while a freshman would be counted as part of this figure if she later joined an all-female Final Club in her sophomore year.
- Second, there are a number of student organizations whose members and/or participants report incidence rates in the 40s. Although Harvard did not disclose the underlying data needed to perform a definitive analysis, it is my judgment that the rates for all of the organizations in the 40s are likely not statistically distinct from each other. The Task Force's decision to single out the Final Clubs is statistically indefensible. The Task Force has made no recommendations to eliminate peer educators or varsity sports teams in an effort to reduce the incidence of nonconsensual sexual contact, yet as a statistical matter they are likely indistinguishable from the Final Club "participants".
- Third, the survey's use of "membership or participation" is too nebulous to be meaningful. Female members of all-female Final Clubs are likely combined with female non-members who have participated in one-or-more events at all-female and/or all-male Final Clubs. This aggregate statistic does not tell us anything about what goes on at all-male Final Clubs generally, let alone about what goes on at any specific all-male Final Club.

The 15% figure also provides no reliable statistical information as to what percent of those reporting nonconsensual sexual contact may have experienced an incident at a Final Club.

- The overly broad language of the question and the confusion as to whether the buildings are on or off campus make it too difficult to interpret. Again, the statistic also does not tell us anything about what goes on at any particular all-male Final Club, and without a reference point there is no way of judging the statistic.

In sum, this survey does not contain any data that would allow an analyst to support the recommendations of the Task Force that pertain to Final Clubs.



Jora B. Stixrud, Ph.D.

4/27/2016

Date

Figure 1

A16. Since you have been a student at [University], have you been a member of or participated in any of the following? (Mark all that apply)

[Harvard Specific List]

- Academic group (e.g., math club, philosophy club)
- Advocacy association (e.g., Amnesty International, Living Wage Advocacy, Sierra Club)
- Campus sports club (e.g., rugby club, Kendo club)
- Campus varsity team (e.g., basketball, softball, soccer)
- Cultural/ethnic clubs (e.g., Black Students Association, Chinese Student Association)
- Final clubs
- Governing bodies (e.g., student government, residence hall association)
- Greek fraternity or sorority
- Media (e.g., Crimson, The Harbus, other campus newspaper, radio station)
- Performing group (e.g., school band, dance team)
- Political (e.g., Young Republicans, College Democrats)
- Peer educators (e.g., Drug & Alcohol Peer Advisors, Peer Advising Fellows)
- Religious (e.g., Korean Campus Ministry, World Peace Buddhist Club)
- Community service club (e.g., Phillips Brooks House Association, Special Olympics Volunteers Club, Habitat for Humanity)
- Other campus-based club or organization

Figure 2

GA12. Did (this incident/any of these incidents) occur on campus or on university affiliated off-campus property?

Yes [CONTINUE TO GA13a]

No [SKIP TO GA13b]

[IF BLANK THEN SKIP TO GA13b]

GA13a. [IF GA12=Yes] Where did (this incident/these incidents) occur? (Mark all that apply)

University residence hall/dorm

Fraternity or Sorority house

Other space used by a single-sex student social organization

Other residential housing

Non-residential building

Other property (ex. outdoors)

[FOR ANY RESPONSE OR IF BLANK SKIP TO GA14]

GA13b. [IF GA12=No] Where did this (incident/these incidents) occur? (Mark all that apply)

Private residence

Fraternity or Sorority house

Other space used by a single-sex student social organization

Restaurant, bar or club

Other social venue

Outdoor or recreational space

Some other place

Appendix A



Jora B. Stixrud

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EDUCATION

Ph.D., Economics, *University of Chicago, 2008*
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PROFESSIONAL AND RESEARCH EXPERIENCE

Economist
Welch Consulting, Washington, DC, 2010-Present

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Department of Economics, University of Chicago, 2005-2007

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HONORS AND AWARDS

Henry Morgenthau, Jr. Memorial Dissertation Fellowship, 2007-2008
Frank H. Knight Graduate Fellowship, 2003-2007
Phi Beta Kappa, Northwestern University, inducted 2003

PUBLICATIONS

"*An Analysis of U.S. Teacher Quality from 1960 Until Today*". University of Chicago, Ph.D. Dissertation, 2008.

"The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior," (with J. Heckman and S. Urzua), 24(3): 411-482, Journal of Labor Economics, (July, 2006).

SELECTED PRESENTATIONS

Workshop on Education, Committee on Education, University of Chicago, April, 2008
Applied Economics Working Group, Department of Economics, University of Chicago, May, 2006
The Chicago Workshop on Black-White Inequality, Chicago, IL, April, 2006
Workshop in Public Policy and Economics, Harris School, Univ. of Chicago, September, 2005
Institute for Research on Poverty Workshop, Madison, WI, June, 2005

PROFESSIONAL ASSOCIATION MEMBERSHIPS

American Economic Association

