Base Rates of Hate Crime Victimization Among College Students

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This study uses the unmatched count technique (UCT) to estimate base rates for hate crime victimization in college students and compares the results with estimates found using conventional methods. Hate crimes, criminal acts perpetrated against individuals or members of specific stigmatized groups, intend to express condemnation, hate, disapproval, dislike, or distrust for a group. The UCT is a promising tool in the investigation of hate crime because it does not require participants to directly answer sensitive questions. This may provide more accurate responses than other methods. The UCT revealed higher estimates for a variety of serious hate crimes, including physical and sexual assault. These higher estimates provide a better feel for the level of hate crime victimization and point to the increased need for hate crime victims' assistance programs on college campuses.

Keywords: unmatched count technique; UCT; hate crimes; bias crimes; base rates; hate crime victim; hate crime victimization

The "rising tide of bigotry and bloodshed" in American society is a serious problem (Levin & McDevitt, 1993). Hate crimes are criminal acts perpetrated against individuals or members of specific stigmatized groups, which express condemnation, hate, disapproval, dislike, or distrust for that group (Herek, 1989). Currently, no uniform agreement exists with regard to which victim groups are included in the hate crime discourse. The characteristics of so-called "protected groups" vary from jurisdiction to jurisdiction. However, most social science researchers currently define a criminal act as a hate crime if it was motivated by the perpetrator's hatred for the victim's gender, race, ethnicity, religion, national origin, sexual orientation, or disability.

The problem of hate crimes is arguably one of the most hotly debated social issues of the present time. Public opinion assumes that hate crimes are

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worse than nonhate crimes. Hate crimes supposedly tear at the moral fabric of our society and harm their victims more viciously than comparable nonbias crimes. In particular, hate crimes possibly result in more psychological damage for the victim than nonhate crimes. A large body of psychological literature speaks to the detrimental effects of criminal victimization on mental health (e.g., Bard & Sangrey, 1979; Kilpatrick et al., 1985). Hate crimes may result in even more damage for the victim above and beyond the impact of the crime without the hate component.

Unfortunately, a variety of factors complicate the acquisition of accurate base rate estimates of hate crimes. An extensive literature documents the reluctance of hate crime victims to report attacks to law enforcement. Herek, Gillis, and Cogan (1999) found that hate crime victims are less likely than nonbias crime victims to report to the police. Their research in the Sacramento area revealed that about one third of the victims of sexual orientation-based hate crimes reported the crimes to the police compared with two thirds of gay and lesbian victims of nonbias crimes. In addition, a study of anti-gay/lesbian hate crimes in the Los Angeles area found that more serious forms of hate crimes, such as physical assault, assault with a deadly weapon, sexual assault, and verbal threat of harm, were predictive of nonreportage to law enforcement (Recker & Dunbar, 1998). In other words, violent and traumatic forms of hate crimes go undetected in the criminal justice system. This means that legal, financial, and psychological assistance are unavailable for many hate crime victims who fail to report the crime. In addition, the legal system cannot prosecute the perpetrators if the victims fail to report to law enforcement. Finally, the absence of accurate documentation regarding the prevalence of hate crimes negatively affects hate crime policy and legislative initiatives.

The issue of social desirability may be an important obstacle preventing hate crime victims from reporting the crime. Social desirability is the tendency to alter responses on a test, questionnaire, or interview in order to be perceived favorably by other people (Richman, Kiesler, Weisb, & Drasgow, 1999). Respondents often refrain from answering certain questions with candor because they fear that their disclosure may reflect on them in a negative way. Distortion as a result of social desirability is likely to increase when the topics under investigation are of a highly sensitive nature (Catania, Gibson, Chitwood, & Coates, 1990). Consequently, this may lead to an underestimation of true base rates of certain phenomena. For example, Waterton and Duffy (1984) found a discrepancy between people's self-reported alcohol consumption and actual alcohol sales and attributed this finding to social desirability. Accordingly, social desirability may reduce people's disclosure of hate crime victimization. Many victims may be motivated to hide their victim status because they perceive a lack of support by the general public and among law enforcement officials. Research has documented a significant degree of mistrust of the police among gay and lesbian hate crime victims. Comstock (1991) found that 67% of gay and lesbian hate crime victims who declined to file a police report had experienced or perceived the police to be antigay. Research has shown that such perceptions may be accurate. People tend to see victims as responsible for their misfortune (Ryan, 1971), label them as losers (Bard & Sangrey, 1979), or simply ignore them (Reiff, 1979). Hate crime victims may feel victimized all over again when they encounter the negative feedback may encourage them to hide their victim status.

Victims' desire to downplay their victim status most likely leads to an underestimation of the problem of hate crimes. People may be motivated to withhold information because they fear the potential negative consequences of admitting to being a hate crime victim. In other words, a straightforward inquiry about hate crime victimization experiences may raise a red flag for the participants to censor their responding.

This study uses a procedure called the unmatched count technique (UCT) (Wimbush & Dalton, 1997) in an attempt to reduce social desirability in the exploration of base rates of hate crime victimization. This technique shows promise in obtaining better base rate estimates of hate crime victimization because it reduces the self-presentation bias. Thus, this study will provide new information about the extent of the problem of hate crimes on a college campus. It will obtain combined base rate estimates for crimes motivated by the perpetrator's hatred for the victim's race, religion, sexual orientation, or gender.

An Illustration of the UCT

The UCT has been used in estimating the base rates for employee theft (Dalton, Wimbush, & Daily, 1994; Wimbush & Dalton, 1997), sexual risk behaviors (LaBrie & Earleywine, 2000), and antigay hate crime perpetration (Rayburn, Earlywine, & Davison, 2003). In each of these areas, the UCT revealed higher estimates of base rates for sensitive behaviors than did conventional self-report surveys. The following section illustrates how previous research on employee theft has used the UCT.

Wimbush and Dalton (1997) studied base rates for employee theft. Previous studies had reported widely varying rates of employee theft, implying that it was difficult to assess (Camara & Schneider, 1994; Dalton et al., 1994; Murphy, 1993). Camara and Schneider (1994) noted base rate estimates between 3% and 62%. Because employee theft carries the potential of negative consequences (e.g., getting fired from the job if discovered), people are inclined to lie or provide evasive answers (Chaudhuri & Mukerjee, 1998). Guarantees of anonymity might not be enough to encourage truthful answering to produce accurate base rates. Thus, Wimbush and Dalton used the UCT, offering participants a chance to answer sensitive items without ever having to directly admit to a given behavior.

In the UCT method, participants read a series of five or six statements and respond by indicating the number of statements that are true for them. One of the statements is the item of interest. Half the sample receives the item of interest in their set of six statements; the other half receives only the remaining five items. The base rate estimate for the item of interest is determined through random assignment of participants and comparisons between the two halves of the sample. Please refer to the "Method" section of this article for a more thorough description of this protocol. The key element of the UCT is that participants do not respond directly to the sensitive items. Instead, they report the number of true items in a set, which may include the sensitive item. Wimbush and Dalton (1997) found that a higher percentage of participants endorsed employee theft on the UCT than on a conventional anonymous survey. The authors concluded that the higher percentages found using the UCT technique provide better estimates of the base rates of employee theft.

The Present Study

This study extends the use of the UCT protocol to the sensitive area of hate crime victimization. We hypothesized that the UCT technique would yield significantly higher percentages of persons who endorse sensitive items than would an anonymous self-report questionnaire.

METHOD

Participants

The sample comprised 287 college students (201 women and 86 men). The mean age of the participants was 19.88 years (SD = 2.84). The participants came from diverse ethnic backgrounds: 6% identified themselves as African American, 40% as Caucasian, 15% as Latino, 23% as Asian American, and 16% as members of other racial/ethnic groups. The participants were randomly divided into three groups. There were no group differences in

terms of age, ethnicity, and gender. Participants were part of the psychology department human participants pool at a large urban university. They received the questionnaires as part of a larger packet of unrelated measures. They were enrolled in introductory psychology classes and obtained extra credit for their participation. Alternative ways for obtaining extra credit were provided (e.g., writing a short paper).

Procedure

All questionnaires were administered during class time. Participants randomly received either a conventional survey questionnaire inquiring about their hate crime experiences (Group 1, n = 177) or one of the UCT protocols. Groups 2 (n = 55) and 3 (n = 55) were UCT protocol groups, with Group 2 receiving Form A and Group 3 receiving Form B.

Conventional self-report survey protocol. Group 1 (n = 177) received a questionnaire adapted from Herek's (1992) sample survey of antigay hate crimes. It asked participants a series of statements related to their experiences of various hate crimes motivated by the perpetrator's dislike or hatred for their religion, race, sexual orientation, or gender. For example, it asked participants whether they had ever been assaulted because of their race, religion, sexual orientation, or gender and whether they had ever had their property damaged because someone disliked their race, religion, sexual orientation, or gender. Table 1 lists the items participants were inquired about. Groups 2 and 3 received versions of the UCT questionnaire. The anonymous questionnaire for Group 1 asked participants to indicate whether they had ever been the victim of such hate crimes. The questionnaire instructions advised participants to fill out the questionnaire as honestly as possible and informed them that their answers were completely anonymous.

UCT protocol. Base rate estimates by UCT require randomly assigned groups (Dalton et al., 1994). In the typical UCT procedure, one of the groups receives multiple sets of five nonsensitive items (Wimbush & Dalton, 1997). The participants are asked not to indicate directly whether a particular item is true. Rather, they report how many of the five items in each set are true for them. Therefore, although stating how many items are true, they never directly endorse any particular item. People who respond 2, for example, indicate that two out of the five items are true for them.

Another group receives the same series of nonsensitive items. However, an extra item is added to this series so that the series contains six items. This extra item is the sensitive item of interest. The instructions for this group are

Item	Conventional (%) (n = 177)	UCT (%) (n = 110)	Binomial Test	Factor
Verbal insult	36.7	75.00	<i>p</i> < .001	2.00*
Verbal threat	9.1	25.0	p < .001	2.75*
Property destruction	4.0	7.0	ns	1.75
Throwing objects	4.0	13.0	p < .007	3.25*
Chasing	10.7	1.0	p < .001	0.09*
Spitting	2.3	7.0	p < .040	3.04*
Physical assault	2.3	10.4	p < .006	4.52*
Assault with a weapon	2.3	0.9	ns	0.39
Sexual harassment	15.8	27.7	<i>p</i> < .019	1.75*
Sexual assault	3.4	23.6	p < .001	6.94*
Harassment by police	10.2	25.9	p < .001	2.54*
Beaten by police	0.0	8.8	p < .001	a
Property theft	0.0	25.5	p < .001	a
Car theft	0.0	20.3	p < .001	а
Burglary	0.0	8.7	p < .001	а

 TABLE 1:
 Comparison of Hate Crime Victimization Base Rates Using Conventional Survey and Unmatched Count (UCT) Protocols (N = 287)

NOTE: The factor score is obtained by dividing the UCT proportion by the conventional survey proportion. The 6.94 factor score for sexual assault indicates that UCT participants are 6.94 times more likely to admit to having been sexually assaulted than conventional survey participants.

a. Cannot compute.

**p* < .01.

identical, and participants are asked to indicate the number of items in the set that are true for them. As is the case with the first group, a response of 3 means that the participant indicates that three out of the six items are true. Again, it is impossible to determine exactly which three of the six are true for a certain participant. Because participants were randomly assigned to groups, the difference in the mean responses of these two groups must be a function of some persons in the second group endorsing the sensitive item. The base rate estimate for the sensitive behavior is determined from this difference. Randomization and adequate sample size minimize the chance that confounds (e.g., group differences on demographic characteristics, etc.) rather than the proportion of persons in the second group endorsing the sensitive item account for the mean differences. Larger samples enhance estimate stability and accuracy. Wimbush and Dalton (1997) suggested that accuracy and stability are compromised if the groups do not contain at least 40 to 50 participants.

In this study, the two UCT conditions (i.e., the remaining two groups of our study) each contained 55 participants. Group 2 received Form A, and Group 3 received Form B. Each form contained 15 sets of items. The sensi-

tive items were split between the two groups to further ensure that any hidden group differences were not accounting for differences in mean scores on any particular set.

For example, Form A, Set 1, contains five nonsensitive statements:

I speak a foreign language reasonably well. I own at least one computer. I own one or more motorcycles. I have one or more dogs. I know what a "birdie" is in golf.

If a participant gives a response of 2 to this set, this indicates that two out of the five items are true for him or her. However, the participant does not circle or check the two true items but simply puts a 2 next to the set. Set 1 on Form B contains the exact same five nonsensitive items as Set 1 on Form A. But Set 1 on Form B includes an additional item: I have been harassed by the police because of my race, religion, sexual orientation, or gender. The addition of this sensitive statement is the key to the UCT technique. The 55 participants who received Form A had a mean of 1.6667 true items for the five items in Set 1, whereas the 55 different participants who received Form B averaged 1.9259 true items out of the six items that made up Set 1 on Form B. The mean of the B group was expected to be larger because of the additional item (harassment by the police because of race, religion, sexual orientation, or gender). As stated earlier, given the random assignment to forms, the difference in the average responses to Set 1 between the two groups was a function of those respondents who endorsed the police harassment item (Wimbush & Dalton, 1997).

The base rate estimate of the behavior of interest is found by subtracting the two means: p = mean (Form B, Set 1) – mean (Form A, Set 1), where p is the proportion of participants endorsing the sensitive behavior. In this example, p = 1.6667 - 1.9259 = 0.2592. Thus, the base rate estimate in this population for having been harassed by the police because of race, religion, sexual orientation, or gender was 25.92%.

RESULTS

A criterion for the effectiveness of UCT is whether it results in higher base rates of sensitive behaviors than more conventional self-report surveys (Dalton et al., 1994; Wimbush & Dalton, 1997). This will be particularly true for the assessment of hate crime victimization. The findings from the conventional survey and UCT protocol on hate crime victimization experiences are displayed in Table 1.

Statistics

Because participants either endorsed an item of interest or did not, these data are appropriate for analysis comparing two independent binomials. This analysis tests the hypothesis p1 = p2, where p1 = the proportion of endorsements in the conventional survey and p2 = the proportion of endorsements in the UCT. The conventional procedure for testing this hypothesis is Fisher's exact test. However, Fisher's test has less power compared to other procedures (Wilcox, 1997). Storer and Kim (1990) compared several methods that have better power properties than Fisher's exact test. They recommended a modern, robust binomial test, which Wilcox (1996) named "Twobinom." In addition to better power, this procedure provides better control over Type 1 error. Analyses using this modern binomial test result in a significance level for the null hypothesis that the proportions are equal.

Findings

Significant differences were found between the two groups on the items concerning verbal insult (p < .001), verbal threat of harm (p < .001), having objects thrown (p < .007), spitting (p < .04), physical assault (p < .006), sexual harassment (p < .019), sexual assault (p < .001), harassment by the police (p < .001), assault by the police (p < .001), property theft (p < .001), car theft (p < .001), and burglary (p < .001). All of these findings revealed higher base rates when using the UCT as compared to the conventional survey. For one item, chasing (p < .001), the anonymous questionnaire revealed a significantly higher base rate. The results showed no significant difference between the UCT and the conventional survey for the items concerning property destruction and assault with a weapon.

DISCUSSION

The UCT protocol revealed significantly higher base rates than a conventional self-report survey for a variety of serious hate crimes, such as verbal insults, verbal threats of violence, throwing objects, spitting, physical assault, sexual harassment, sexual assault, assault by police, harassment by the police, property theft, car theft, and burglary. The higher base rates revealed using the UCT are consistent with the hypotheses for sensitive experiences. Significantly higher base rates were obtained for hate crimes ranging in their degree of seriousness. A person answering true to any of the items on an anonymous questionnaire may possibly fear the negative societal consequences that are generally associated with victim status (Bard & Sangrey, 1979; Reiff, 1979; Ryan, 1971). This means that hate crime victims may be concerned about answering truthfully, even under the promise that their identity will remain completely anonymous. Consequently, they may hide their victim status.

The results of this study suggest that students may have underreported a variety of hate crime experiences when filling out the anonymous questionnaire. The format of the UCT, on the other hand, made it more likely for students to admit to these experiences. Students could be sure that there was no chance of being publicly identified when answering sensitive items. Consequently, more of them might have been willing to reveal their victim status under these more anonymous circumstances.

The UCT revealed significantly higher base rates for all the hate crimes under investigation, except for assault with a weapon, property destruction, and chasing. Base rates for property damage were 1.75 times higher in the UCT than in the conventional survey. Although this difference was not statistically significant, it nevertheless corroborates the overall trend of higher base rates in the UCT condition. The findings concerning the remaining two items are more puzzling. Participants reported higher base rates for assault with a weapon and chasing in the conventional survey as opposed to the UCT. However, these two findings are exceptions to the otherwise unambiguous patterns of higher base rates in the UCT condition.

Overall, the results from the anonymous survey create the impression that hate crimes are relatively rare among college students. The anonymous survey reports base rates for most hate crimes between 2% and 3%, and even some at 0%. Unfortunately, these data may underestimate the seriousness of the problem. Contrary to the anonymous questionnaire, the UCT obtained disturbingly high base rates of hate crimes, which provide reason to worry. Because the UCT is assumed to reduce social desirability bias and to increase the likelihood of honest responding, these higher base rates may reflect a more accurate picture of reality. Our data suggest that certain types of hate crimes may be close to seven times more common than conventional self-report surveys suggest. These findings underline the importance of methods that reduce social desirability bias in the investigation of hate crimes.

This study demonstrated victims' reluctance to disclose their victim status. Previous research has documented hate crime victims' unwillingness to report the crime to law enforcement (Recker & Dunbar, 1998). Our data suggest that the problem may be even more serious. Not only are hate crime victims disinclined to call the police, but they may exhibit problems revealing their victim status in general.

Future research should compare the tendencies of hate crime and non-hate crime victims to hide their victim status. We speculate that hate crime victims conceal their victimization experiences more frequently than non-hate crime victims. When people are attacked because of their membership in a specific stigmatized group, the consequences of victimization converge with those of societal prejudice against them and create an even greater challenge for the victim (Garnets, Herek, & Levy, 1992). Research has shown that prejudice and discrimination are rampant in the lives of many stigmatized groups (Landrine & Klonoff, 1996; Landrine, Klonoff, Gibbs, Manning, & Lund, 1995; Utsey & Ponterotto, 1996; Thompson, 1996). The targets of discrimination are typically aware of the prejudice they face (Sigelman & Welch, 1991). Particularly, African Americans feel that prejudice and discrimination continue to be significant problems in American society (Krysan, 2000; Schuman, Steeh, Bobo, & Krysan, 1997). In fact, minority group members with the longest and most visible history of discriminatory treatment, such as African Americans, Jews, and male homosexuals, are also the most frequent hate crime victims (California Department of Justice, 1999; U.S. Department of Justice, 1998). Thus, members of these groups may be guarded when it comes to disclosing their victim status and seeking help from mainstream society. Nickerson, Helms, and Terrell (1994) provided evidence for this speculation. They found that high levels of cultural mistrust of Whites among African Americans predict negative help-seeking attitudes.

It is important to note that the anonymous questionnaire and UCT protocols did not specifically inquire about on-campus hate crime experiences. Hence, we do not know whether the hate crimes students referred to actually took place on campus. It is possible that they happened during other times (e.g., while being home for summer break, before they came to college, while traveling to other parts of the city, etc.). Nevertheless, that a large number of hate crime victims are present on college campuses suggests the importance of targeting these places with hate crime victims' assistance resources. College administrators face the challenge of fostering an atmosphere of tolerance and acceptance that encourages hate crime victims to come forward with their experiences. College student counseling centers should be prepared to provide assistance to hate crime victims. Therapists should be aware of the difficulties associated with disclosing one's hate crime victim status. Acknowledgment of one's victim status is the first step to seeking help.

In this study we hypothesized that the different base rates produced by the UCT and the anonymous questionnaire are the function of reduced social desirability in the UCT condition. We assumed that social desirability is the

"mechanism" because of increased anonymity in the UCT condition. The key element of the UCT is that it does not require participants to respond directly to any sensitive items. However, it is important to note that we did not measure whether the difference was in fact due to reduced social desirability. Future research should further investigate the respective cognitive tasks involved in responding to the UCT and anonymous questionnaires. Such a test could provide evidence in support of the idea that the UCT base rates are more accurate due to reduced social desirability and are not the result of artifactual elements.

The generalizability of this study is somewhat limited because college students do not represent the population at large. Future research should test the utility of the UCT with other populations, such as community samples of African Americans, Jews, and homosexuals. Future research should also investigate hate crimes against specific minority groups. A prior study by Rayburn, Earlywine, and Davison (2003), using the UCT in the base rate investigation of sexual orientation hate crimes, provides an important first step in this direction.

Although the UCT is able to reveal base rates, the nature of the method does not allow researchers to link other relevant data to participants. For example, because one does not know who endorsed a particular sensitive item, it is impossible to determine from these data what other factors may be associated with an individual's victimization. It would be interesting to know how much certain crime scene variables, such as location and number of perpetrators, are related to a person's victimization. However, this problem could be solved in future research by combining the variable of interest and the sensitive experience in the same item. The present study represents an important first step in answering these more sophisticated questions about hate crime victimization.

The results of this study provide information on the pervasiveness of hate crime victimization among college students. The discrepancies between the base rates obtained by the conventional and UCT methods suggest that the UCT may be a promising new technique. There is, however, a definite need for more research to completely validate the procedure. Two of the sensitive items (chasing and assault with a weapon) revealed lower base rates for the UCT than for the conventional survey. The results for these two items were inconsistent with our hypothesis and contrary to what would be expected when using a more anonymous method, such as the UCT. Future research should be aimed at replicating our results and applying the UCT to other populations and sensitive issues. At this point, we can conclude that the UCT is a promising procedure that awaits comprehensive validation.

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