

**Sex Differences in the Acceptability of Discrimination**

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# Sex Differences in the Acceptability of Discrimination

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**Abstract.**

A large telephone survey conducted after the attacks of September 11 suggests that the willingness to tolerate discrimination varies significantly across domains, with a very high tolerance of discrimination against poorly educated immigrants and a strikingly low tolerance of discrimination against the genetically disadvantaged. Regardless of domain, tolerance is greater among men than among women. A survey conducted simultaneously over the World-Wide Web, using volunteer panels, replicated the phone survey results and revealed an even larger sex gap. This finding suggests that a social desirability bias leads women to overstate and men to understate their tolerance of discrimination in public.

**Key words.**

Discrimination, sex differences, surveys, public opinion, social desirability bias.

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Although discrimination has long been associated with malevolent intent and social harm, it remains ubiquitous. To go to the theater with one group of friends rather than another is, fundamentally, an act of “discrimination.” So too is buying one artist’s painting instead of an equally priced work of another. With respect to a wide range of contexts, including the selection of friends and art, “discrimination” often carries a neutral connotation. It may even signify praise, as with references to a person’s “discriminating taste.”

An individual who sees nothing wrong with certain forms of discrimination will often find others objectionable and even favor their prohibition. Many political struggles of our time, in the United States as elsewhere, amount to clashes over the appropriate boundary between permissible and impermissible forms of discrimination. The groups that spearhead these struggles typically draw their constituents disproportionately from specific groups. Thus, Arab-Americans enjoy disproportionate representation in movements seeking to eradicate discrimination against Arabs and Muslims. Likewise, women are overrepresented in those focused on ending discrimination against women.

People who sympathize with movements aimed at expanding their own opportunities need not be indifferent to discrimination against others. In principle, identifiable groups could differ in their attitudes regarding discrimination. To explore this possibility with respect to one specific group attribute, sex, is this article’s objective. To this end, we measure how the acceptability of discrimination varies by sex, in various contexts of broad social, political, and economic relevance.

The analysis is based on a large telephone survey conducted in January 2002 shortly after the terrorist attacks of September 11, 2001. In view of the emotionally charged atmosphere of the time, we suspected that respondents might be more tolerant of certain forms of discrimination,

such as the denial of airplane seats to Arab-American travelers, than of others, such as racial profiling against African-American motorists. We thought, that is, that social context would matter. In addition to restrictions on Arab-American airplane passengers and the profiling of African-American motorists, we inquired into attitudes about three other forms of discrimination: the denial of employment to seriously overweight people, genetic testing to screen job applicants who pose medical risks, and the use of education as a factor in admitting immigrants. We expected to find differences across these contexts as well. On the basis of a growing literature on sex differences in political attitudes (Foster, Arnt and Honkola 2004; Alvarez and McCaffery, 2003; Lueptow, Moser, Pendleton 1990), we expected, additionally, to encounter sex differences in the acceptability of discrimination.

The results below show that attitudes toward discrimination are indeed highly dependent on subject matter. Our respondents were much more tolerant of discrimination against certain groups than against others. Differentiating among acts of discrimination, they displayed the greatest acceptance of discrimination against poorly educated immigrants, and the least acceptance of genetic discrimination. By the same token, men and women differed substantially and systematically in their expressed attitudes. In all five contexts, men displayed a greater willingness to tolerate discrimination.

Replicating our survey using a large, albeit volunteer, Web-based panel, we found again that acceptability of discrimination varies by context and that there exists a “sex gap.” We also received a tantalizing indication that the size of the sex gap might depend on the survey mode used to measure conveyed attitudes. In the Web survey the sex gap was substantially larger. It thus appears, in line with other recent survey research (Holbrook and Krosnick 2005; Kuran and McCaffery 2004; Dillman et al. 2003; Holbrook, Green, Krosnick 2003; Aquilino 1994), that a

social desirability bias makes expressed attitudes vary according to the anonymity granted to respondents. More intriguing, the social desirability bias induced by live interviewers may operate in opposing directions for men and women, with men relatively understating, and women relatively overstating their tolerance for discrimination, causing a convergence of attitudes. Although the methodology of the Web survey precludes firm conclusions regarding mode effects on the sex gap in question, they do suggest that public opinion measurements with regard to sex differences can be sensitive to survey technique.

## **Survey Methods, Questions, and Hypotheses**

### *Surveys*

The telephone survey consisted of 1500 interviews administered in both Spanish and English by the professional staff of Interviewing Services of America, from January 11 to January 22, 2002. The subjects were selected using standard random digit dialing (RDD) techniques. Details of the survey design, response rate, and demographic statistics on respondents are available from Alvarez et al. (2002a). They are also discussed at length, using the relevant American Association of Public Opinion Research (AAPOR) definitions, in Alvarez, Sherman and VanBeselaere (2003). In essence, to generate the 1500 completed interviews, 3549 contacts were made: 1469 of the contacts refused to complete the survey, 151 were minors without an adult present at the time, and 429 terminated before completion for other reasons. The pool of 1500 was 52.6% male, 77.8% white, and 53.3% married. It spanned the age ranges of 18-29, 30-39, 40-49, 50-59, 60-69, and over 69, more or less evenly, with approximately 20%

of respondents in each of the first four age categories, and 20% over 60. The modal educational attainment level was high school, with over 35% having at least a college education.

Simultaneously with the RDD telephone survey, we conducted a Web survey that led to 1845 completed responses. The broader panel for the Web survey was recruited through several methods: paid Web banner advertising from third-party provider Value-Click, direct subscription or co-registration with Value-Click, free Web banner advertising on two banner sites, and word of mouth, all described in detail in Alvarez, Sherman and VanBeselaere (2003). Respondents first gave information about themselves, including their email address; they were then emailed the survey's URL and asked to participate. Participants were promised an opportunity to win a \$50 gift certificate for books from an online book company. Like the telephone survey, the Web survey was completed in January 2002; details are available from Alvarez et al. (2002b). The Web response pool was 28.9% male, 87.8% white, and 50.8% married. Compared to the phone respondent pool, it was both relatively younger and more educated (see the comparison of roughly equivalent Web and phone based pools in Alvarez et al. 2003: 32).

The overrepresentation of women, whites, the young, and the more highly-educated is typical of volunteer Web-based samples. As with other Web-based surveys, our sample clearly raises serious questions of selection bias (Chang and Krosnick 2004; Alvarez, Sherman, VanBeselaere 2003; Couper 2000), which is why we do not rely heavily on the Web survey. Nevertheless, there are three reasons to report them and consider their implications. First, they replicate our basic and very striking findings from the RDD survey. Second, and for reasons to be developed, they point to the possibility of social desirability biases making the Web a more accurate reflection of "true" preferences (Holbrook and Krosnick 2005). Finally, and most significant for the future, the rising popularity of Web surveys makes it of interest to reflect on

the information they yield. Exploring their advantages and disadvantages as tools of analysis is important, given that the Web is seeing increasing use as a medium for measuring public opinion. At a minimum, our Web results underscore the need for further, and much broader, research on survey mode effects.

### *Questions*

We posed five questions to both the Web and telephone pools, as part of a larger project in which subpools received different questions in different orders, to test for anchoring and priming effects. In the component of interest here, half of each pool heard two questions—question 1 on Arab-Americans and question 5 on African-Americans—in that order, and the other half heard them in the reverse order. We had hypothesized that respondents would be relatively less accepting of discrimination against African-Americans, and that when asked the African-American question first, they would seek consistency and become less supportive of discrimination against Arab-Americans. But the ordering effect turned out to be statistically insignificant. Accordingly, the analysis reported here does not differentiate between the subpools.

Each of the five questions dealt with a form of discrimination that targets a distinct class of individuals: Arab-Americans, the obese, the genetically disadvantaged, uneducated foreigners, and African-Americans. As noted, the two ethnic group questions appeared in different orders, as either the first question or the last. The ordering of the questions relating to the other three groups was fixed. The questions followed an identical form, and we eschewed emotionally charged words liable to convey a normative judgment. We also avoided expressions liable to intimate a ranking of relative severity. These precautions were taken to keep from biasing responses.

Here are the five questions and the key options (the others were “I am indifferent” and “Don’t know,” offered in that order to both the telephone and Web pools):

1. There is discussion on whether an airline can keep Arab-Americans off an airplane if their presence would make the pilot or any passenger uncomfortable. Some people say that this is necessary to make flying safe. Others say that such a practice would violate individual rights to equal treatment under the law. What do you think? Should airlines be allowed to keep Arab-Americans off an airplane flight if it can be proven that this increases airline safety? Or should airlines be required to treat all passengers equally?

- a. Airlines can keep Arab-Americans off planes
- b. Airlines should treat all passengers equally regardless of ethnicity

2. Some employers want to be able to deny employment to seriously overweight people. They say that such people are more likely to fall ill and miss work. Other people say that such practices treat overweight people unfairly. What do you think? Should employers be allowed to deny jobs to overweight people if it can be proven that this is efficient? Or should employers be required to make hiring decisions without regard to weight?

- a. Employers should be allowed to deny employment to an overweight person
- b. Employers should treat all job applicants equally regardless of weight

3. Advances in genetics have led to discussion about the use of genetic testing by employers. Some people say that employers should be able to perform genetic testing on potential employees to screen out those who are likely to require expensive medical care. Other people say that employers should be barred from using genetic tests, to make sure that every applicant is treated fairly. What do you think? Should employers be allowed to screen job applicants through genetic testing if it can be proven that this is cost effective? Or should employers be required to make hiring decisions without regard to genetic information?

- a. Employers should be able to use genetic testing
- b. Employers should treat all job applicants equally regardless of genetic information

4. There is discussion on whether the U.S. should pay attention to education in deciding whom to admit as an immigrant. Some people say that well educated immigrants will contribute more to American society. Others say that we should give all foreigners an equal opportunity to become Americans. What do you think? Should the U.S. favor well educated foreigners if it can be proven that they will become more productive citizens? Or should the U.S. set immigration policy without regard to education?

- a. The U.S. should consider education in making immigration decisions
- b. The U.S. should treat all potential immigrants equally regardless of education

5. There is a controversy over whether the police should be allowed to stop African-American motorists in disproportionately greater numbers. Some people say that this is necessary to reduce crime. Others say that such a practice would violate individual rights to equal treatment under the law. What do you think? Should the police be allowed to search African-American motorists in greater numbers if it can be proven that this reduces crime? Or should the police be required to treat all motorists equally?

- a. Police should be allowed to stop African-American motorists disproportionately
- b. Police should treat all motorists equally regardless of race

Each of these questions starts by pointing to a controversy over the legitimacy of discrimination against a particular group. Then justifications for the pro- and anti-discrimination positions are presented, always in the same form (“Some people say ...”, “Others say . . .”) and same order (rationale for allowing discrimination first). In each case, the justification for tolerating discrimination involves a utilitarian calculation: the rest of society may benefit from singling out the group for special treatment. The justification for prohibiting discrimination is always based on a consideration of justice: it would violate the equal rights principle or would otherwise be unfair. At the end of each question, the subject is asked, in effect, whether he/she finds one argument or the other more compelling. As a short hand, we shall characterize as the “discrimination position” the utilitarian rationale centered on the material advantages of discrimination, and as the “equality position” the egalitarian rationale focused on social justice.

### *Hypotheses*

At the time of the survey, mass outrage over the terrorist attacks, combined with a pervasive fear of further Al-Qaeda strikes, had induced widely reported demands to restrict the

freedoms of Arabs and Muslims in general. More to the point, the mass media featured reports of airplane passengers openly requesting the riddance of passengers with Arab features. We were especially interested in contrasting attitudes regarding Arab-Americans with those involving other targets of discrimination, especially with attitudes on the racial profiling of African-Americans. The latter form of discrimination had received far more media coverage prior to September 11 (Peterson 2000; Drummond 1999).<sup>1</sup> Discrimination against Arab-Americans would enjoy the greatest acceptance, we thought, given the survey's proximity to September 11. In addition to variations according to context, we expected to find, as others have, that men are more accepting of discrimination than women (Foster, Arnt and Honkola 2004; Hughes and Tuch 2003; Glick et al. 2000; Johnson and Marini 1998).<sup>2</sup>

Although, as noted above, our volunteer Web sample would preclude definitive conclusions, we expected that the Web and telephone responses would differ, reflecting a social desirability bias. In general, we expected to find less tolerance for discrimination on the telephone than on the Web, except perhaps on the Arab-American question, where respondents might consider it "socially desirable" to express a *pro*-discrimination position to a live interviewer. This hypothesis is consistent with other findings about the perceived prevalence of discrimination (Kuran and McCaffery 2004; Krysan 1998). We also expected to encounter interactions between mode and sex, with men exhibiting greater acceptance of discrimination on the Web than on the telephone, because of the social desirability bias.

## Results

### *Context*

We did indeed find that context matters greatly, though not always precisely as predicted. Table 1 presents the basic frequency results, sorted by context. Respondents overwhelmingly chose the equality position. Across all five questions, the “treat equally” option received far more than 50 percent of responses. Still there was significant variation in the tolerance for discrimination, from 27.7 percent of respondents accepting discrimination against “poorly educated immigrants” to a mere 6.7 percent accepting discrimination against the “genetically disadvantaged.”

<insert Table 1 near here>

Respondents were most likely to accept discrimination against poorly educated immigrants (question 4), followed by discrimination against Arab-Americans (question 1). The prevalence of the acceptability of discrimination against immigrants may have reflected a belief that they lack the “rights” enshrined in the equality position. In addition, the utilitarian motivation conveyed by our survey—“well educated immigrants will contribute more to American society”—may have been especially compelling. African-American motorists (question 5) and “seriously overweight people” (question 2) were next in line, virtually indistinguishably. A strikingly low number of respondents expressed acceptance of genetic discrimination by employers (question 3). Evidently the vast majority rejected the utilitarian justification centered on the expense of caring for the genetically infirm (Diver and Cohen 2001).

<insert Table 2 near here>

### *Sex*

Sex, too, makes a difference. Table 2 presents frequency data once again, this time with a focus on the percentages accepting discrimination. The “treat equally” percentage has been dropped, for it forms essentially the complement of the “allow discrimination” percentage. The table shows that men were consistently more tolerant of discrimination than women. A sex gap appears for every question, with statistical significance at the 99% confidence level in all but the Arab-American question, for which the confidence level drops to 95%. The third column records the difference between the percentages of men and women accepting discrimination, as a percentage of their average, which is our measure of the sex gap. This gap is positive for all five types of discrimination, ranging from a high of 28.9% for African-American motorists to a low of 8% for Arab-American airplane passengers.

<insert Table 3 near here>

### *Mode*

As a first cut, our Web survey replicated the basic findings from the RDD survey. Table 3, which matches Table 1, presents the basic results. While the magnitudes of the tolerance for discrimination varied, there was once again significant variation across context, from a high of 32.3% against “poorly educated immigrants” to a low of 3.2% for “genetically disadvantaged people.” Indeed, ignoring the statistically insignificant differences between “seriously overweight people” and “African-American motorists,” the rank order on the two modes was identical, with tolerance for discrimination against poorly educated immigrants surpassing that against Arab-American airplane passengers (a surprise). An extremely low tolerance for discrimination against the genetically disadvantaged brings up the rear. Thus, for all the

problems of online sampling, the basic Web results replicated, and to a degree confirmed, the basic phone results.

< insert Table 4 near here >

When we sorted the Web responses by sex, however, strong and interesting mode effects began to appear. Table 4 presents the Web responses sorted by sex and context, paralleling Table 2. What is striking in Table 4 is the presence of a very high and strongly significant sex gap for each discriminatory context. There are also striking rank order effects, between men and women on the same mode, and among men and women across modes. Consider, for example, the case of tolerance for discrimination against “seriously overweight people.” For men on the telephone, this category comes in third; for men on the Web, it places second. Women on the telephone rank it third, just like men; but their counterparts on the Web rank it fourth, far below men.

Such effects would arise if men tended to understate, and women to overstate, their tolerance for discrimination on the relatively public medium of the telephone. T-tests comparing the responses by mode for each gender confirm the presence of these opposing adjustments to loss of anonymity.<sup>3</sup> The consequent convergence of expressed attitudes suggests that a social desirability bias takes opposite forms for men and women. Specifically, switching from the Web to the phone appears to make the former hide their tolerance for discrimination even as the latter seek to appear more discriminatory.

### ***Multinomial Logit Analysis***

It is possible, of course, that the identified sex gaps are artifacts of our respondent pools. They might have been caused by cross-pool demographic differences correlated with attitudes toward discrimination. To isolate the attitudinal effects of sex alone, as many demographic

variables as possible must be held constant. To this end, we now present a multinomial logit (MNL) analysis of the survey data. What makes this analytical strategy appropriate is that our dependent variable, reported opinion, represents a discrete selection from a small number of options (Greene 2003). MNL analysis furnishes predictions as to how changes in any given independent variable influence the discrete choice of a dependent variable.

Testing several alternative models for goodness of fit, we ultimately selected one with five independent variables: age (coded in 7 categories: under 18, 18-29, 30-39, 40-49, 50-59, 60-69, and over 69), gender dummy (1 = female), educational level (coded in 6 categories: did not complete high school, graduated from high school, attended college, vocational degree, graduated from college, graduate or professional degree), race dummy (1 = white, 0 = nonwhite), and mode dummy (1 = telephone). The coefficients of an MNL analysis are difficult to interpret, so Table 5 provides the results of a first-difference analysis in probability terms, using Gary King's Clarify software (King, Tomz, Wittenberg 2003).

<insert Table 5 near here>

The table presents the effects of sex—the shift in the probability of an affirmative response when a modal respondent changes from woman to man—for each mode, telephone and Web, sorted separately. All probability estimates in the “allow discrimination” rows are positive, which confirms that men are relatively more likely to tolerate discrimination, controlling for age, education, income, and so on. On the telephone, the effects are strongly significant for tolerance of discrimination against the seriously overweight, genetically disadvantaged, and African-American motorists, and differ at a 95% confidence interval for

Arab-Americans. The effects are significant in magnitude as well. Men are 7.6% more likely to tolerate discrimination against the obese, and 8.9% more likely to accept racial profiling. On the Web, the significance and magnitudes of the sex gap are both higher. The values all differ from zero at 99% confidence intervals, and they are strikingly high. Men are 19.6% more likely to tolerate discrimination against the obese, for example, and 17.4% more likely to accept racial profiling of African-American motorists.

## **Interpretation**

It is worth remembering that to make a choice is, strictly speaking, to discriminate. As such, discrimination is an act committed routinely by everyone. In having a dinner party a couple effectively discriminates against those left off their invitation list. In supporting a social policy, a person rules on spending priorities, and the judgment entails discrimination in favor of some groups and against others. As a matter of practice, people morally opposed to discriminatory policies based on reviled forms of prejudice do not insist on equal treatment for everyone, in every context. In effect, they discriminate among potential targets of discrimination.

The surveys reported in this article validate this poorly appreciated fact in reference to several matters of political importance. In addition, they show that expressed attitudes toward discrimination vary by sex as well as context.

### ***Differences across Context***

A basic determinant of attitudes toward discrimination is self-interest. Opposition to discriminatory policies often comes primarily from those who will bear their costs. From this

perspective, it is understandable that genetic discrimination enjoys the least acceptance of the five forms of discrimination studied. It is the one most likely to be perceived as individually threatening. If genetic discrimination were legal, its potential victims would not necessarily be known in advance, at least not through currently available technologies. In principle, anyone could have a genetic defect inimical to personal advancement. The same logic illuminates why discrimination against poorly educated immigrants enjoys the greatest acceptance. The vast majority of our respondents would have been shielded by their citizenship, if not also their education, against readily identifiable costs of anti-immigrant policies.

If self-interest were the only relevant factor, we might have found similar support for the profiling of Arab-American travelers. Very few of our respondents would have been among the targets of such profiling.<sup>4</sup> However, ethnic discrimination is widely condemned by the political system, the media, and schools. In principle, it is also illegal. So some of our respondents may have opposed Arab-American profiling because of qualms about ethnic discrimination in general. No doubt some wanted to avoid setting a precedent for discrimination against other ethnic groups, possibly their own. Such considerations would have competed with the utilitarian drive to alleviate a pressing danger by restricting the liberties of an ostensibly dangerous group.

A major theme in recent experimental research is that people sacrifice material gain for the sake of outcomes they consider fair (Frey 1997; Fehr, Kirchsteiger, Riedl 1993; Güth, Schmittberger, Schwarze 1982). Fairness considerations would have influenced our results, especially because in each context our subjects encountered a moral rationale for disallowing discrimination. This interpretation accords with the fact that in each of the five contexts, and in each survey, a majority of our subjects picked the equality position over the discrimination position.

### *Attitudinal Differences between Men and Women*

General tendencies in a population can hide differences among its constituent groups. Numerous studies show that women tend to be politically more liberal than men, in the distinctly American sense of the word (Rapoport, Stone, Abramowitz 1990; Alvarez and McCaffery 2000; Carpini and Ketter 2000; Atkeson and Rapoport 2003). According to other studies, women find conflict more problematic than men, so they favor resolving conflicts through give and take and, to the extent possible, without causing discomfort (Babcock and Laschever 2003; Gilligan, 1982). Yet another literature shows that women tend to ascribe greater value to fairness (Eckel and Grossman 1996, 1998) and to contribute more readily to public goods (Brown-Kruse and Hummels 1993).

Our own findings on attitudinal differences between the sexes are consistent with all of these studies. Insofar as liberalism entails a concern for fairness, a comparatively liberal person will consider it relatively unacceptable to discriminate against an individual merely because he or she belongs to a particular social group. By the same token, that group will tend to oppose policies designed to resolve social problems at the expense of some group of individuals.

The flip-side of the results in the cited studies is that men are relatively readier to pursue their self-interest at the expense of others and to disregard the hurt they may cause to outsiders. Each of our five questions is predicated on the notion that the specified form of discrimination will serve a social purpose. For instance, the policy of allowing airlines to exclude Arab-Americans from airplanes will ostensibly make flying safer for everyone else. Men are readier than women to suspend the rights of individual Arab-Americans for the sake of protecting the broader community.

Neither men nor women can fail to realize, however, that in expressing policy positions they send signals from which others will draw character inferences. Such inferences can lead to tangible rewards or punishments. Our subjects had no reason to fear that for taking an unpopular stand they would be socially stigmatized or professionally harmed. Nevertheless, one would expect them to have realized that they could gain or lose esteem in the eyes of organizers of the survey. This is why opinion surveys in which respondents enjoy strict anonymity often register systematically different preferences than ones requiring respondents to state their views publicly (Kuran 1995). The “preference falsification” induced by fears of losing esteem produces, and is stimulated by, the “social desirability bias” mentioned earlier. The extent of this bias grows insofar as the issue at stake is sensitive or controversial.

How individuals gauge the popularity of alternative opinions, in other words, “public opinion,” has been the subject of much research. Many factors come into play, it is suggested, and the most critical, in a vast array of contexts, boils down to numbers (Kuran 1995, chaps. 3-4). Specifically, the numbers defending each side of a polarized issue heavily influences the popular perception of public opinion. Absent reasons to give greater weight to one group over another, individuals will effectively treat the mean of the expressed positions as a measure of public opinion.<sup>5</sup> For example, if 60% of a society is for a policy and 40% is against, on a 0-100 scale 60 would represent its public acceptance. That relative numbers matter a great deal is evident in the efforts that special-interest groups devote to boosting public support for their favored policies. They know that individuals typically tailor their “public face” on a politicized issue to public opinion, measured largely according to the distribution of publicly expressed positions.

These theoretical constructs offer insights into the sex gaps reported in this article. Respondents to a Web survey interact with a machine, which cannot pass judgment on an opinion. By contrast, the subjects of a telephone survey interact with a live interviewer, who may find any particular answer either commendable or offensive. Our telephone interviewers were trained to withhold reactions and appear neutral. Nevertheless, our respondents would have sensed that they could be, and probably would be, judged on the basis of their answers. This realization would have encouraged all respondents to adjust their answers in the direction of what seemed socially most acceptable. For women, statistically overrepresented among the opponents of discrimination, that adjustment, insofar as it occurred, would tend to be in favor of allowing discrimination. For men, overrepresented in the discrimination-accepting share of the population, adjustments would tend to be in the direction of equal treatment. Together, these tendencies would generate the observed reversion to society's overall mean, shaped by both sexes.<sup>6</sup>

### *Mode Effects*

Contrasting our two surveys based on intentionally different technologies, a standard RDD telephone survey and a Web survey that used a non-probability sample, we noticed such a reversion when controlling for various demographic variables. The logic outlined above suggests a possible explanation. Web respondents had no interactions with a live person, whereas those interviewed by telephone did. In that sense our Web survey registered relatively "less public" attitudes. So moving from the Web to the telephone would have induced preference falsification on the part of both sexes, causing them to jointly narrow their attitudinal differences.

If the Web survey is indeed more representative of private attitudes, it follows that our telephone survey provides not only a misleading sense of the distribution of attitudes but also a

misleading sense of sex-based differences. More generally, it appears that opinion surveys based on publicly-administered questionnaires will fail to capture the full extent of the sex gap in tolerance for discrimination. This is not to say that the telephone survey is scientifically useless. On the contrary, it has helped to identify how, in public spheres, both men and women make attitudinal compromises in the interest of fitting in.

### ***Other Factors***

Other scholars (e.g., Glick et al. 2003) have found that women are motivated to a greater degree by egalitarian and beneficent norms, and also that men are more tolerant of discriminatory, even hostile, attitudes towards others. Insofar as these observations are valid, they could help explain why, irrespective of survey mode, women choose the the equality position more than men do. But divergent underlying attitudes across the sexes would not explain the convergence phenomenon identified here. Both sexes contributed to it by altering their expressed attitudes across modes. What does explain the convergence is simply that, on politicized issues, preference falsification, a manifestation of norm-driven conformism, is prevalent among men as well as women (Kuran 1995, chaps. 6-9; Noelle-Neumann 1984, chap. 2). Although women's attitudes, true and expressed, may be more generally supportive of equal treatment than those of men, on the socially sensitive matter of discrimination perceived social pressures are known to make survey mode matter for both sexes (Sniderman and Carmines 1997; Holbrook et al. 2003). This is borne out by the results reported here.

In principle, political ideology could explain our results. However, information about party affiliation and strength, which our surveys collected (Alvarez et al. 2002a and b) add no explanatory power to our goodness of fit models. It is worth reiterating that unmeasured characteristics of our samples may have influenced the reported results. Almost half of the

individuals contacted by telephone refused to participate, and we lack full information on the selection biases afflicting participants over the Web. These facts call for caution with regard to the interpretations presented. Further research is needed to establish the generality of the identified mode effects. Nevertheless, the growing unease with telephone surveys (Dillman et al. 2003), and the need for new instruments to study manifestations of social desirability bias (Holbrook and Krosnick 2005; Holbrook et al. 2003), suggest that the Web will inevitably gain importance as a survey medium (Couper 2000).

## **Conclusions and Extensions**

This article contributes to the literature on sex differences in political attitudes by showing that attitudes towards discrimination vary by sex but also context. All of our respondents, male and female, demonstrated a remarkably high acceptance of an equality norm, though there was substantial variation across contexts. At one extreme, they were almost uniformly opposed to discrimination based on genetic information. At the other extreme, a substantial minority expressed tolerance of discrimination against poorly educated immigrants. Regardless of context, we found, men are more tolerant of discrimination than women. Yet, the sex gap narrows somewhat in contexts where a willingness to accept discrimination can appear “socially desirable.” Discrimination against Arab-American airplane passengers constituted just such a context in the months following September 11.

The study also hints that the sex gap in attitudes towards discrimination might be even greater than detectable through techniques in which respondents express opinions publicly. Intriguingly, the social desirability bias may affect the publicly conveyed opinions of the sexes

in opposite directions. Insofar as this asymmetry is present, public surveys will understate the genuine tolerance for discrimination of males, and they will overstate those of females. In the relatively more private setting of the Web, widely considered more anonymous, we found through statistical techniques that control for demographic characteristics, the attitudes of American males and females toward discrimination diverge. In particular, males express significantly greater acceptance of discrimination than on the telephone. This finding suggests that a tightly controlled multi-modal survey—one that uses sample pools with identical characteristics to measure opinions through multiple techniques—would yield highly valuable information. In addition to a standard telephone survey, one would want to measure opinions through mail-in forms, face-to-face interviews, focus groups, and of course the Web.

Survey techniques constitute, of course, a vehicle for discovering perceptions and attitudes. With regard to discrimination, the topic addressed here, they enable us to identify, among other matters, what kinds of discrimination are acceptable, to whom, and why. The answers to such questions can vary dramatically over time. The salience of any given category of discrimination will always be in flux, as will opinions regarding its acceptability. With the emergence of new technologies, new political cleavages, and new economic realities, old categories will fade in importance and others will arise to take their place. These transformations will be reflected in attitudes. As the social sciences continue to probe opinions on discrimination, researchers would do well to make use of creative research methods that evolving technologies allow.

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**Table 1. Acceptability and unacceptability of discrimination by context: Telephone survey**

<b>Target of discrimination</b>	<b>Attitude (%)</b>	
	<b>Allow Discrimination</b>	<b>Treat Equally</b>
Arab-American airplane passengers	26.4	66.7
Seriously overweight people	15.0	77.9
Genetically disadvantaged people	6.7	88.0
Poorly educated immigrants	27.7	62.1
African-American motorists	13.7	82.1

*Notes:* The figures represent the percentage of respondents holding the designated attitude. “I am indifferent” and “don’t know” responses form the small residual. N = 1500.

**Table 2. Acceptability of discrimination by context and sex: Telephone survey**

<b>Target of discrimination</b>	<b>M</b>	<b>F</b>	<b>Sex Gap</b>	<b>t-test</b>
Arab-American airplane passengers	28.4	24.2	8.0	1.83*
Seriously overweight people	18.1	11.5	22.3	3.56**
Genetically disadvantaged	8.4	4.9	26.3	2.64**
Poorly educated immigrants	31.8	23.2	15.6	3.70**
African-American motorists	17.4	9.6	28.9	4.38**

*Notes:* The t-test is two-sided. \*\* represents significance at the 99% confidence level and \* significance at the 95% level. N = 1500.

**Table 3. Acceptability and unacceptability of discrimination by context: Web survey**

<b>Target of discrimination</b>	<b>Attitude (%)</b>	
	<b>Allow Discrimination</b>	<b>Treat Equally</b>
Arab-American airplane passengers	17.8	69.7
Seriously overweight people	13.0	78.9
Genetically disadvantaged people	3.2	93.2
Poorly educated immigrants	32.3	53.7
African-American motorists	13.2	81.2

*Notes:* The figures represent the percentage of respondents holding the designated attitude. “I am indifferent” and “don’t know” responses form the small residual. N = 1845.

**Table 4. Acceptability of discrimination sorted sex and context: Web survey**

<b>Target of discrimination</b>	<b>M</b>	<b>F</b>	<b>Sex Gap</b>	<b>t-test</b>
Arab-American airplane passengers	25.0	14.9	25.3	5.15**
Seriously overweight people	27.9	6.9	60.4	12.20**
Genetically disadvantaged	6.9	1.7	60.5	5.80**
Poorly educated immigrants	44.1	27.5	23.2	6.89**
African-American motorists	25.3	8.3	50.6	9.78**

*Notes:* The t-test is two-sided. \*\* represents significance at the 99% confidence level and \* significance at the 95% level. N = 1845.

**Table 5. Multinomial Logit Analysis of Sex Effect (from female to male)**

**a) Within Phone**

Response	Target of discrimination				
	Arab-American airplane passengers	Seriously overweight people	Genetically disadvantaged people	Poorly educated immigrants	African-American motorists
Allow discrimination	.055*	.076**	.032**	.088	.089**
Treat equally	-.040	-.105	-.029	-.046	-.094**
Indifferent	-.014	.016	.005	-.009	.003
Don't know	-.011	.014	-.008	-.033	.003

**b) Within Web**

Response	Target of discrimination				
	Arab-American airplane passengers	Seriously overweight people	Genetically disadvantaged people	Poorly educated immigrants	African-American motorists
Allow discrimination	.095**	.196**	.048**	.156**	.174**
Treat equally	-.067**	-.241**	-.082**	-.129**	-.224**
Indifferent	.014	.042**	.022**	-.006	.040**
Don't know	-.042	.003	.011	-.021	.010

*Notes:* First differences calculated using Clarify software. The symbols \*\* and \* indicate significance at the 99% and 95% confidence levels, respectively.

## Notes

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<sup>1</sup> Before September 11, the media carried occasional reports of discrimination against Arab- or Muslim-Americans. There were also organizations working to publicize cases of anti-Arab or anti-Muslim prejudice and defend their victims. They include the American-Arab Anti-Discrimination Committee (founded 1980) and the Council on American-Islamic Relations (1994). But these efforts pale in comparison to those aimed at fighting discrimination against African-Americans. To our knowledge, prior to September 11 no one measured the relative acceptability of discrimination against Arab-Americans or Muslim-Americans. Hence, we lack a scientific benchmark for making an inter-temporal comparison.

<sup>2</sup> Hughes and Tuch (2003) find that among whites gender differences in racial attitudes are “small, inconsistent, and limited mostly to attitudes about racial policy.” But even they find men more tolerant than women about racist attitudes.

<sup>3</sup> T-tests comparing women’s responses on the telephone and Web show very strong significance (confidence interval of greater than 99%) for the questions involving Arab-Americans, the seriously overweight, and the genetically infirm; and strong significance (greater than 95%) on poorly educated immigrants. There is no significance on the question about African-American motorists. Men, in contrast, and as hypothesized, reveal less tolerance for discrimination on the telephone, with the possible exception of the question involving Arab-Americans (weak

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confidence interval above 90%) and the genetically disadvantaged (no statistical significance).

The other three categories show very strong significance.

<sup>4</sup> Only 0.3 % of our telephone sample and 0.2 % of our Web sample answered “Arab,” or “Muslim,” or “Middle Eastern” when asked, at the beginning of the survey, “How do you describe your ethnicity to your close friends.” Although these figures are probably biased downward as a result of qualms about expressing an Arab identity in the wake of September 11, they are unlikely to be much greater than 1.5%, the share of the overall American population that is Arab or Muslim.

<sup>5</sup> Imagine that 60% of society is for a particular policy and 40% against. On a 0-100 scale, 60 would represent its level of public acceptance.

<sup>6</sup> Assume that 0 represents opposition to discrimination (equality position) and 100 acceptance of it (discrimination position). The mean position of women lies below that of men. Accordingly, adjusting to society’s mean will entail an upward adjustment for women, and a downward one for men.

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