# Gender Policy Feedback: Perceptions of Sex Equity, Title IX, and Political Mobilization among College Athletes 

James N. Druckman', Jacob E. Rothschild', and Elizabeth A. Sharrow ${ }^{2}$


#### Abstract

Public policies invariably confer or deny benefits to particular citizens. How citizens respond to relevant policies has fundamental implications for democratic responsiveness. We study the beliefs of a core constituency of one of the most celebrated sex non-discrimination policies in U.S. history: Title IX of the Education Amendments of 1972. Using a novel survey of college student-athletes, we find strong support for the spirit of the policy, with the vast majority of respondents reporting the opinion that there "should" be equity. Concurrently, student-athletes also perceive maldistribution among status quo resources and opportunities and believe that redistribution is needed. Furthermore, they are willing to take political action to improve equality. Consistent with our expectations, these beliefs are particularly salient for women and those who perceive persistent sex discrimination in society. Our results reveal "positive policy feedback" among policy beneficiaries of Title IX who mobilize to seek equity in athletics. The dissatisfaction among policy beneficiaries raises questions about democratic responsiveness (e.g., to whom are policymakers and leaders in college athletics responding?) and highlights the political nature of college athletics.


## Keywords

policy feedback, Title IX, public opinion, gender politics, sports politics

What do citizens think about public policies that affect them? Political scientists have addressed this foundational question when it comes to an array of policies including Social Security (Campbell 2003), the Affordable Care Act (Jacobs and Mettler, forthcoming; Lerman and McCabe 2017), welfare reform (Soss and Schram 2007), and the G.I. Bill (Mettler 2002). Yet, virtually no work explores citizens' reactions to one of the most discussed pieces of sex non-discrimination policy in U.S. history-Title IX of the Education Amendments of 1972. We extend work on "policy feedback" into this domain of U.S. civil rights policy. We offer a theory about perceptions of sex inequities among one of Title IX's most affected populations: college student-athletes. We assess our hypotheses with a survey of student-athletes from a major athletic conference.

We find that college student-athletes-particularly women and those who believe sex discrimination in society persists-perceive significant gender biases in college athletics. These student-athletes also support redistribution of athletic resources to address extant inequalities and are willing to take political action (i.e., writing letters, signing petitions, or attending protests) to address the issue. The results reveal that, from the perspective of student-athletes, the implementation of Title

IX has not yet produced the policy's aim of eliminating sex-based discrimination. The Act may have established expectations of equality for women and men in educational institutions, but its implementation has inculcated perceptions of gender inequality within college athletics. The findings accentuate a possible representation conundrum inherent to the contemporary politics of Title IX such that those most affected by the policy are not the constituents to whom policy makers and college leaders fully respond. ${ }^{1}$

## Title IX, Opinions about Sex Inequities, and Policy Feedback

Passed by the U.S. Congress on June 23, 1972, in an omnibus bill to amend the Civil Rights Act of 1964, Title IX states, "No person shall, on the basis of sex, be excluded from participation in, denied benefits of, or be

[^0]subjected to discrimination under any educational program or activity receiving Federal financial assistance" (20 U.S.C. §1681; emphasis added). The law applies to all educational institutions that receive federal funds and has notably impacted the lives of faculty, staff, and students.

While the initial impetus for the law focused on graduate school admissions, faculty hiring, and sex-bias in teaching materials (Rose 2015), the vast gender inequities in athletics quickly drew policymakers' attention (Edwards 2010; Sharrow 2017). At the time of Title IX's passage, athletic opportunities for women were extremely limited (Acosta and Carpenter 2014; Cahn 1995). How to address these inequities led to significant debate which culminated in the 1979 policy guidelines on intercollegiate athletics (Office for Civil Rights [OCR], U.S. Department of Health, Education, and Welfare 1979). These guidelines established the expectation of sex equity in college sports (see the supplementary appendix for the details of policy requirements; all supplementary appendix material is available at the journal's website).

Implementing Title IX substantially enhanced athletic opportunities for women (National Collegiate Athletic Association [NCAA] 2017). At the collegiate level, women now enjoy twelve times as many athletic opportunities as they did before Title IX (Acosta and Carpenter 2014). In American high schools, half of girls experience substantial athletic participation during their high school careers (National Federation of State High School Associations [NFSHSA] 2017; Stevenson 2007), up from one in twelve in 1971 (NFSHSA 2015). Public opinion toward Title IX remains overwhelmingly supportive of the law's aims (Connelly 2011; YouGov 2017), and journalistic coverage of Title IX increasingly frames the policy as a great success (Whiteside and Roessner 2018). Yet, scholarly assessment of the policy's achievements lacks a clear consensus. Many point to uneven and incomplete implementation (see Supplementary Appendix Table A2, which details inequities in the distribution of opportunities and expenditures; also see, for example, Kane and Ladda 2012; National Coalition for Women and Girls in Education [NCWGE] 2017; National Women's Law Center [NWLC] 2012; U.S. Department of Education, Secretary's Commission on Opportunity in Athletics 2003). ${ }^{\text {a }}$ The most recent U.S. Department of Education (2012) report on Title IX finds that athletic issues comprised the largest number of Title IX discrimination complaints in 2010 and 2011, illustrating that activists continue to demand more robust enforcement. ${ }^{3}$

Within this evolving landscape of Title IX's politics, we know very little about what average college student-athletes-one of Title IX's central beneficiary groupsbelieve about sex-based resource discrimination. ${ }^{4}$ Do student-athletes believe men's and women's sports are treated equally (i.e., without sex discrimination)? What
factors determine these beliefs? These questions matter when it comes to "policy feedback," which posits that public policy implementation and concomitant social change may beget new forms of opinion and mobilization (Campbell 2003, 2012; c.f., Jacobs and Mettler, forthcoming; Patashnik and Zelizer 2013). ${ }^{5}$ The feedback concept suggests that public policy can reformulate the capacity of the state by affecting administrative capabilities, and/or by impacting the political goals and/or identities of social groups (Skocpol 1992). Policy "feedback" can either reinforce past policy trajectories, inspire civic participation, and mobilize political engagement-what scholars call "positive feedback" (e.g., Mettler 2005; Pierson 1993)-or undermine democratic processes, unravel existing policy regimes, and demobilize constituent groups-what scholars refer to as "negative feedback" (e.g., Patashnik 2008; Soss 2000; R. K. Weaver 2010). ${ }^{6}$ Given the relative stability of Title IX's regime (i.e., policy interpretations in athletics have remained largely consistent since 1979) and the public nature of accountability under the Equity in Athletics Disclosure Act, we argue that "positive" feedback is more likely among those affected. That is, those who believe policy implementation is incomplete will continue to push for gender equity via resource redistribution (i.e., reallocation toward greater gender equity) and political action. ${ }^{7}$ Policy imbues student-athletes with rights, increasing the likelihood that they will mobilize to seek equity.

To be clear, we recognize that isolating the direct effect of a forty-five-year-old law on contemporary attitudes would be a challenging, if not impossible, task given the simultaneous societal shift in gendered attitudes (see Jacobs and Mettler, forthcoming). ${ }^{8}$ Our goal is to "audit" beliefs about the law's stated goal of ending discrimination. Even though many social forces and experiences shape relevant beliefs, the existence of the policyparticularly a policy designed to address historical discrimination toward a marginalized group-likely still plays a role in shaping opinions. It could do so by establishing normative expectations of resource allocation. Moreover, it is entirely possible that current beliefs among recipient populations not only reflect assessments of the past and present but also suggest prospective thinking about future policy modifications and political mobilization (e.g., Campbell 2003 in the realm of Social Security policy). Our study of the extent to which policy objectives have been achieved illuminates the degree to which opinion may serve as important positive feedback into future iterations of relevant policy around Title IX.

## Hypotheses

To assess beliefs about the intent of the policy, we focus on the stated target of Title IX's policy intervention: sex-based
"discrimination." We follow Pager and Shepherd’s (2008) operationalization: "discrimination" under current policy occurs when one group (in our case, men or women stu-dent-athletes) is advantaged relative to another. ${ }^{9}$ Policy guidelines provide a similar, if more capacious, metric which is employed by the OCR in Title IX investigations as discussed in the supplementary appendix. Do studentathletes perceive discrimination, and if so, which student-athletes?

We expect two factors to drive perceptions of discrimination among student-athletes: respondent sex and attitudes about societal sex discrimination. Objectively, men's sports remain advantaged in college athletics (NCAA 2017; Yanus and O’Connor 2016); for example, in the NCAA's Big Ten Conference, men received roughly 10 percent more participation opportunities, 37 percent more expenditures for recruiting, and an extraordinary 43 percent more in overall expenditures during 2015-2016 (U.S. Department of Education, Office of Postsecondary Education 2016; see the supplementary appendix for details and additional data). These figures mean that women student-athletes experience relative "losses" from a purportedly equal status quo, and it is well established that individuals recognize and weigh losses more than gains (e.g., Baumeister et al. 2001). We therefore hypothesize that women should perceive these inequities to a greater extent than men, all else being constant (Hypothesis 1). ${ }^{10}$

In addition, we hypothesize that as individuals perceive greater (or lesser) sex discrimination in society writ large, they will believe there is more (or less) inequity when it comes to college sports (Hypothesis 2). This expectation follows from research on motivated reasoning which suggests that those who perceive broader inequalities will be more likely to observe disparities when assessing specific situations. In contrast, those who believe that the status quo is equitable will be less likely to recognize objective inequalities (e.g., Taber and Lodge 2006).

In line with the (positive) policy feedback model (Campbell 2003; Mettler 2002), we also hypothesize that these same individuals who tend to be less satisfied with the current state of policy implementation will be more likely to support a redistribution of resources so as to align more closely with full equity (e.g., move resources from men's sports to women's sports to achieve greater equality; Hypothesis 3). Because they are also more likely to view the policy itself as necessary to compel colleges and universities to pursue equitable treatment, they will therefore also be more likely to advocate for robust enforcement (i.e., they will support the policy and take action on behalf of it, exhibiting evidence of "positive feedback"; Hypothesis 4). This expectation follows from the positive feedback model, which suggests that those dissatisfied with a relevant policy will be more likely to
advocate for their rights (e.g., Campbell 2003; Gusmano, Schlesinger, and Thomas 2002). Our predictions suggest that the very people meant to benefit from Title IX (e.g., women) are less likely to perceive it as a success and more likely to mobilize in light of this perception.

## Survey

We tested our hypotheses using a survey in which we solicited participation from NCAA Big Ten Athletic Conference student-athletes (i.e., our population is Big Ten student-athletes). We emailed an invitation to current student-athletes on March 30, 2016, asking them to take part in a survey on college athletics. A total of 1,615 stu-dent-athletes completed (at least a portion of) the survey. Survey implementation details, explanation and justification for our sampling approach (as well as a discussion of limitations), and weighted sample demographics are provided in the supplementary appendix.

To gauge perceptions of (in)equality, we asked respondents how they believe their university, across all sports, actually distributes athletic resources and opportunities between women and men. We asked this on twenty-four distinct items and practices relevant to college athletics (e.g., athletic scholarships, coaches); respondents rated each item on a 5-point scale ranging from "women extremely advantaged" (1) to "men extremely advantaged" (5). We also asked them to rate the same items with regard to how they think their university should distribute each item between women and men athletes. These two batteries allow us to explore perceptions of inequality and attitudes about redistribution (i.e., the difference between one’s perception of status quo distribution and one's belief about what it should be). The twenty-four items map onto four distinctive areas, for which we created index measures: overall resources (a single item, non-indexed), opportunity (e.g., to participate, have an athletic scholarship, practice), personnel (e.g., full-time coaches, medical staff), and equipment (e.g., locker rooms, facilities, training). ${ }^{11}$ We assessed policy opinions and political mobilization by asking (1) the extent to which the respondent disagrees or agrees with Title IX's requirements (on a 7-point scale with higher scores indicating greater agreement), and (2) the respondent's likelihood of taking seven different actions to express an opinion about gender (in)equity in sports (e.g., talking to the athletic director or a coach, protesting, signing a petition, etc.). For the action items, we created a single indexed variable ( $\alpha=.87$ ). ${ }^{12}$

We measured respondent's sex with a straightforward self-report question; to capture general attitudes about sex discrimination, we used a four-question battery ( $\alpha=.71$ ) that resembles one used in prior work (e.g., Swim et al. 1995; similar items also appeared in the 2012 American

National Election Study). ${ }^{13}$ In addition, we included measures of ethnicity, familial income, ideology (with higher scores indicating greater conservatism), year in school, whether the respondent attended high school in the United States (thereby capturing internationally recruited athletes), whether the respondent has an athletic scholarship, the university the respondent attends, and in what sport(s) the respondent competes.

For our analyses, we include four dummy variables to indicate if the respondent competes in men's basketball, men's football, men's or women's track and field/crosscountry, and men's wrestling. The former two sports are commonly referred to as "revenue producing" sports at the NCAA Division I level, and policy critics sometimes suggest they should, therefore, be treated separately when it comes to Title IX (Boyle 2016; Suggs 2005). Track and field and cross-country stand out as high-participant, low-cost sports, and thus, those participants may have distinct perceptions of resource distribution. ${ }^{14}$ Wrestling has been central to equity policy discussions due to claims that colleges defunded and disbanded a number of men's wrestling teams in pursuit of Title IX compliance (e.g., Ridpath et al. 2009). We also include variables to identify respondents attending the University of Iowa and the University of Minnesota because, during the time of our data collection, both schools were in the midst of public Title IX controversies. ${ }^{15}$

Finally, following extant work on participation (e.g., Rosenstone and Hansen 1993), we include variables we expect to affect our action items, including measures of internal university efficacy (i.e., perceived ability to understand university affairs), external university efficacy (i.e., perceived ability to have a say in what the university does), and trust in the university. Full details about the wording of questions on the survey instrument are in the supplementary appendix.

## Results

We expect perceptions and behaviors to depend, in part, on gender, sport, and university. As is true in virtually any survey, our sample did not perfectly represent the population on these important factors. Thus, we follow common practice, and, for all analyses, we weight the data based on gender, sport, and university. This facilitates generalization to the population of Big Ten student-athletes (see the supplementary appendix for weighted sample comparisons with the population). ${ }^{16}$

We start by evaluating opinions on how respondents believe resources and opportunities should be distributed between women and men. Remarkably, the vast majority of respondents believe that there should be near exact equality. Throughout, a score of " 3 " on each scale indicates the opinion that "neither women nor men [should be]
advantaged." The respective averages in each domain are overall resources, 3.09 ( $S D=.41 ; N=1,287$ ); opportunity, 3.06 ( $S D=.33$; $N=1,289$ ); personnel, 3.03 ( $S D=$ .33; $N=1,281$ ), and equipment $3.04(S D=.34 ; N=$ 1,288 ). As indicated by the low standard deviations, most respondents believe that equality should be the norm. ${ }^{17}$ These results suggest a diffusion of the ideology of sex equality within Title IX's policy mandate, as both women and men student-athletes report normative attitudes toward equal treatment of women and men. Under Title IX's contemporary policy regime, our results suggest that student-athletes' beliefs about how resources should be distributed are in concordance with the expected implementation outcome of equity established by policy guidelines. This suggests that Title IX (and/or the current social climate toward equity) establishes an expected baseline of equity from which athletes may evaluate the practices of their athletic departments.

When it comes to perceptions of actual resource distribution, we observe a very different story. The mean scores for all four domains veer toward the perception that men are advantaged. Indeed, all scores on the perceptions of actual distributions are statistically significantly higher than the scores on how respondents believe resources should be distributed. The respective mean scores (and tests of significance) are as follows: overall resources, 3.31, $S D=0.79, N=1,342 ; t(2627)=8.91$, $p<.01$, for a two-tailed test; opportunity, $3.20, S D=0.56$, $N=1,347 ; t(2634)=7.78, p<.01$; personnel $3.21, S D=0.48$, $N=1,328 ; t(2607)=11.12, p<.01$; and equipment, 3.30, $S D=0.59, N=1,341 ; t(2627)=13.77, p<.01$.

To test our hypotheses regarding the impact of respondent's sex and attitudes toward sex discrimination, we regress each of our distribution perception variables on respondent's sex and sex discrimination attitudes along with the aforementioned controls. We display the results in Table 1. ${ }^{18}$ Across all four measures, consistent with our first hypothesis, the sex of respondents has a significant and large effect. To get a sense of the substantive impact, consider that, holding all other variables at their means, the predicted mean values for women respondents, on overall resources, opportunity, personnel, and equipment, are $3.62(S E=0.04), 3.49(S E=0.03), 3.34(S E=0.03)$, and $3.59(S E=0.03)$, respectively ${ }^{19}$ These sharply contrast the respective predicted values for men which are $3.13(S E=0.04), 2.97(S E=0.03), 3.12(S E=0.03)$, and $3.09(S E=0.03)$.

We additionally find strong support for our second hypothesis on sex discrimination attitudes. Those who perceive broader patterns of sex discrimination in society also observe disparate treatment in their athletic departments. Substantively, for example, holding other variables at their means, there is a 10 percent increase in perceptions of inequality on our overall resource measure

Table I. Determinants of Distribution Perceptions (Probability-Weighted OLS).

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Resources | Opportunity | Personnel | Equipment |
| Female | 0.486*** | 0.516*** | 0.217*** | 0.504*** |
|  | (0.056) | (0.040) | (0.03I) | (0.038) |
| African American | -0.066 | -0.136 | -0.124* | -0.073 |
|  | (0.125) | (0.085) | (0.07I) | (0.094) |
| Asian | -0.023 | -0.050 | -0.123** | 0.021 |
|  | (0.114) | (0.068) | (0.050) | (0.068) |
| Hispanic | -0.146 | -0.238** | -0.064 | -0.192** |
|  | (0.133) | (0.105) | (0.120) | (0.095) |
| U.S. high school | -0.172** | -0.134** | -0.038 | 0.005 |
|  | (0.085) | (0.060) | (0.064) | (0.059) |
| Year | 0.050** | -0.010 | 0.012 | -0.001 |
|  | (0.022) | (0.018) | (0.017) | (0.017) |
| Familial income | -0.021 | -0.042** | -0.012 | -0.017 |
|  | (0.025) | (0.020) | (0.019) | (0.019) |
| Ideology | -0.010 | 0.006 | 0.004 | 0.005 |
|  | (0.019) | (0.014) | (0.014) | (0.015) |
| Discrimination perceptions | 0.205*** | 0.123*** | 0.079*** | 0.091*** |
|  | (0.044) | (0.032) | (0.030) | (0.03I) |
| Athletic scholarship | 0.022 | 0.006 | 0.041 | 0.009 |
|  | (0.059) | (0.047) | (0.045) | (0.047) |
| Wrestling | 0.248* | 0.213* | 0.009 | -0.016 |
|  | (0.137) | (0.111) | (0.103) | (0.103) |
| Football | 0.595*** | 0.578*** | 0.262** | 0.418*** |
|  | (0.122) | (0.108) | (0.106) | (0.103) |
| Men's basketball | 0.397*** | 0.310*** | -0.020 | 0.059 |
|  | (0.138) | (0.055) | (0.038) | (0.048) |
| Track and field/crosscountry | -0.109* | -0.170*** | -0.001 | -0.050 |
|  | (0.059) | (0.038) | (0.033) | (0.043) |
| lowa | 0.156 | -0.080 | -0.008 | 0.015 |
|  | (0.096) | (0.060) | (0.057) | (0.054) |
| Minnesota | 0.174** | 0.073 | 0.029 | 0.122** |
|  | (0.085) | (0.058) | (0.052) | (0.058) |
| Constant | 2.429*** | 2.741*** | 2.819*** | 2.729*** |
|  | (0.215) | (0.165) | (0.154) | (0.151) |
| Observations | I,137 | 1,139 | 1,138 | 1,138 |
| $R^{2}$ | . 200 | . 296 | . 103 | . 218 |

Standard errors are in parentheses. OLS = ordinary least squares.
Statistical significance is denoted by $*_{p}<. I$. $*^{*} p<.05$. $*^{* *} p<.01$ (two-tailed tests).
when one compares a respondent who scores one standard deviation below the mean discrimination score with a respondent who scores one standard deviation above it.

Otherwise, interestingly, male student-athletes from sports often at the heart of Title IX debates-the wellresourced sports of football and men's basketball and the wrestlers who are often described as suffering cuts due to Title IX—also perceive distribution biases (at least on some of the measures). It may be that participating in a sport that intersects with Title IX debates generates more awareness of the aforementioned objective inequities. Track and field/cross-country student-athletes perceive
less inequality when it comes to overall resources and opportunity, perhaps reflecting that they experience more equality between women and men within their sport. We find that Minnesota student-athletes are also more attuned to inequities in two cases (likely due to the aforementioned public attention on Title IX). Otherwise, we find variables such as ideology, familial income, and other demographics do not matter in any systematic, predictable way. ${ }^{20}$

Our data also allow us to evaluate the effects of beliefs about resource redistribution in athletics. To assess this, we calculate the difference between each respondent's answer to the "should be" items and their perceptions of
actual, existing distributions. We present our findings in the supplementary appendix (Table A7). Not surprisingly, given that virtually all respondents reported a normative view of equal distribution, women and those who perceive more sex discrimination in society exhibit greater support for redistributing resources in a more equitable manner across all measures (consistent with Hypothesis 3). For example, as compared with men, women, on average, believe there should be a 6 percent reallocation in overall resources to make the distribution more sex-equal. This is persuasive evidence that one of the main targets of Title IX—women college student-athletes—believe both that sex-based discrimination remains a problem and that redistribution is needed. This finding suggests that women college athletes hold opinions more aligned with scholars and activist groups who remain focused on Title IX's unfulfilled implementation promise (e.g., Buzuvis 2014; Sharrow 2017; Yanus and O’Connor 2016) and less aligned with common media portrayals of relative policy success (Whiteside and Roessner 2018). The finding also means that the NCAA's own "definition of gender equity" has not been met insofar as they dictate the following: "An athletics program can be considered gender equitable when the participants in both the men's and women's sports programs would accept as fair and equitable the overall program of the other gender" (NCAA 2017, 3). ${ }^{21}$ Our results suggest that women, in particular, do not accept their programs as fair and equitable given that they view redistribution as necessary. ${ }^{22}$

Public opinion feedback among student-athletes on Title IX's application to college athletics is that the law has not met its full potential. Another step in the policy feedback model is to assess whether affected individuals, particularly those who may not be fully satisfied, mobilize. We thus next test whether the individuals who perceive more mal-distribution also are more likely to become politically mobilized to advocate for a policy solution to address inequity-that is, more robust enforcement or implementation of Title IX itself. Table 2 displays the models which evaluate support for Title IX specifically, and mobilization as measured by several action measures. The results provide evidence in support of Hypothesis 4, in that those most likely to believe the policy has not eliminated inequality are also relatively supportive of Title IX specifically and more likely to take action to address inequality. Clearly, these individuals believe policy solutions (like better enforcement or more thorough implementation) are still required and they are willing to politically mobilize on the issue. ${ }^{23}$ We also find that football players express significant support for Title IX, consistent with the prior results; however, they are not more likely to mobilize to action around gender equality concerns and in fact are nearly significantly less likely to do so (as are men's basketball players). These
well-resourced athletes likely feel less compelled to mobilize because the status quo already benefits their interests (and redistribution of resources may indeed hurt their current standing in the status quo). Track and field/ cross-country student-athletes are more likely to mobilize, which may result from their own experiences of having to advocate for their sport that receives scant resources. ${ }^{24}$

We see variables that typically affect political participation matter here, in predictable ways when it comes to internal efficacy and trust. Surprisingly though, increased external efficacy significantly lowers the likelihood of taking action. This could reflect a belief among athletes that the university will be responsive to student-athletes in general, and thus, their extra-systemic action is not needed. Taken as a whole, these results support a positive feedback model for understanding the contemporary politics of Title IX in college athletics-those dissatisfied with the policy's extant implementation support more aggressive policy implementation and demonstrate a likelihood to take political action in response to perceived injustices within their university athletic environment. ${ }^{25}$

We previously noted that the beliefs and intentions we study here surely reflect a host of experiences, beyond the mere presence of the law itself. Indeed, we positioned our study as one that audits the feedback on the law's intent. One could even go so far as to ask whether the Act itself is relevant for these reactions-that is, is the Act playing any role in the responses we study-is this actually "feedback" on the Act? There is clear evidence that it is, on three counts. First, we investigated whether respondents had "heard of" Title IX and 91 percent responded affirmatively. Thus it seems likely that, as we suggested previously, Title IX is on the minds of student-athletes and sets the normative expectation of equality-for which we find such strong evidence. Second, that the same factors (i.e., gender and discrimination perceptions) drive views of equality and support for the Act suggests that these student-athletes connect inequities to the specific policy.

Third, our survey asked respondents whether they knew if Title IX applies only to athletics, only to education, both athletics and education, or neither (the correct answer is both; see Druckman et al. 2014). ${ }^{26}$ We find that, relative to offering the correct answer, women studentathletes, all else constant, are significantly more likely to believe the Act only applies to athletics. In contrast, those with stronger societal discrimination perceptions are less likely, albeit not to the point of statistical significance, to hold that incorrect belief (the full results are in the Supplementary Appendix Table A10). These findings cohere with our theory insofar as we argued that women's beliefs stem from their experiences in the domain of athletics, and so, they may think of Title IX strictly in that sense. The dynamic behind our discrimination perception

Table 2. Determinants of Title IX Support and Actions (Probability-Weighted OLS).

|  | (1) | (2) |
| :---: | :---: | :---: |
|  | Support | Action |
| Female | 1.630*** | 0.193** |
|  | (0.132) | (0.08I) |
| African American | 0.080 | 0.226* |
|  | (0.2II) | (0.127) |
| Asian | -0.744*** | 0.153 |
|  | (0.198) | (0.156) |
| Hispanic | -0.027 | 0.084 |
|  | (0.285) | (0.232) |
| U.S. high school | 0.164 | 0.197 |
|  | (0.183) | (0.176) |
| Year | -0.044 | -0.016 |
|  | (0.042) | (0.025) |
| Familial income | -0.075* | -0.082*** |
|  | (0.044) | (0.029) |
| Ideology | -0.080** | -0.031 |
|  | (0.036) | (0.023) |
| Discrimination perceptions | 0.623*** | 0.158*** |
|  | (0.085) | (0.054) |
| Athletic scholarship | 0.122 | -0.04I |
|  | (0.107) | (0.066) |
| Wrestling | -0.033 | 0.038 |
|  | (0.257) | (0.152) |
| Football | 0.631*** | -0.223 |
|  | (0.196) | (0.137) |
| Men's basketball | -0.137 | -0.479** |
|  | (0.335) | (0.225) |
| Track and field/ cross-country | -0.079 | 0.160** |
|  | (0.125) | (0.078) |
| External university efficacy |  | -0.096*** |
|  |  | (0.033) |
| Internal university efficacy |  | 0.161*** |
|  |  | (0.060) |
| University trust |  | -0.085** |
|  |  | (0.037) |
| lowa | 0.176 | 0.221* |
|  | (0.203) | (0.125) |
| Minnesota | -0.105 | 0.101 |
|  | (0.165) | (0.093) |
| Constant | 1.925*** | 2.335*** |
|  | (0.427) | (0.42I) |
| Observations | I,129 | 1,099 |
| $R^{2}$ | . 396 | . 135 |

Standard errors are in parentheses. OLS = ordinary least squares. Statistical significance is denoted by ${ }^{*} p<.1$. ${ }^{* *} p<.05 .{ }^{* * *} p<.01$ (two-tailed tests).
expectation though was one of motivated reasoning, which tends to occur with greater frequency as knowledge increases (Taber and Lodge 2006); increased knowledge also reflects the concerns about equity across the domains
to which Title IX applies. Thus, these knowledge findings are consistent with our theoretical expectations about the formation of beliefs regarding Title IX. Future work is needed to pin down mechanisms. For instance, it could be that instead of merely experiences in college, women student-athletes perceive greater inequalities due to particular personal qualities or experiences (see Knifsend and Graham 2012). These attributes may lead women both to select into pursuing a collegiate athletics career and to perceive sex inequities. Untangling the role of experiences in college versus other individual-level factors (e.g., by comparing similar student-athletes with non-student-athletes) is a question for future work. ${ }^{27}$

## Conclusions

There is little doubt that Title IX altered the landscape of athletics by vastly expanding opportunities for girls and women. Yet, to date, we are not aware of any work that has studied whether one of the primary target populations actually believes that the policy has fully worked to eliminate discrimination "on the basis of sex." We show that college student-athletes strongly support the spirit of the policy, with nearly all reporting that there "should" be equity. Still, a sizeable and important population also believes mal-distribution exists among resources and opportunities, thinks redistribution is needed, and is willing to take political action to improve equality. This provides evidence of positive feedback where those who perceive that the policy has not fully succeeded are apt to seek change consistent with the policy's principles. We further offer some evidence that existence of the policy itself plays a role in reactions. An interesting next step would be to explore which types of inequities student-athletes view as more or less problematic (e.g., are they less concerned with scholarship or equipment inequalities, given the large size of the football team, than with facility inequality?).

Regardless of such possible tradeoffs, our results suggest an overall uneven landscape for sex equity politics in college athletics. On one hand, Title IX is not an unmitigated implementation success; women and those who believe there are sex-based inequities in society continue to perceive, and indeed question, the dramatically unequal practices endemic to college sports. On the other hand, when this circumstance is viewed as an extension of recent studies showing the benefits of melding theories of opinion formation with policy feedback, we find some evidence of policy success. First, the evidence of widespread support for sex equitable practices suggests that the norm of equity embedded in Title IX has, via various social forces and policy implementation, diffused and impacted how athletes think athletics should be organized. Second, the diffusion of this norm may inspire the broad-based demands needed to achieve better policy enforcement. Very little
evidence, to date, has demonstrated that when student-athletes see these equity norms being violated, they are willing to take action. In this sense, our findings suggest that there exists among current student-athletes a potential for mobilizing social movement demands that could impel policy change. Such a movement, on a local or national level, will likely be necessary to enact broadbased policy change (e.g., Weldon 2002, 2011).

We also isolate an important problem concerning democratic responsiveness. Public policies typically affect a targeted subset of the broader population-in this case, college student-athletes. Yet, policymakers and those who implement the policies often must consider the effect of the policy on less directly impacted populations (e.g., taxpayers). Within the landscape of Title IX such indirectly impacted populations might include fans of college athletics and alumni who consume the product of college sports, especially men's basketball and football. Consequently, efforts to redistribute resources may go unanswered, in part, because the less directly affected constituencies have more power. This is a particularly perplexing situation when it comes to college sports given that student-athletes' lives are highly regulated at the same time as many of their rights are far from clear. ${ }^{28}$ Democratic responsiveness to the less-empowered stakeholders in college athletics may ultimately be attenuated by the ascendance of an economic model for college sports (Clotfelter 2011; Lanter and Hawkins 2013). So long as athletic departments in the most competitive conferences remain committed to a central goal of producing revenue, sex equity concerns may continue to receive short shrift.

This analysis of the "feedback" politics at stake in Title IX suggests that the future of college sports is potentially complicated by student-athletes-women athletes, in par-ticular-who accurately perceive themselves as rightsbearing citizens with civil rights protections. The economic model for college athletics may, our results suggest, be forced to grapple with civil rights protections afforded to the athletes who comprise college sports. How politics and law intersect with college athletics is a topic that has received scant attention from political science despite the inherently political nature of college sports. Our results suggest that scholars of policy should take seriously the domain of athletics because it overlaps with the domain of civil rights. With women athletes poised, in particular, to see themselves as rights-bearing policy leaders, athletic departments may have no choice but to reckon with the still-evolving debate over gender politics.

## Authors' Note

Authors are listed in alphabetical order and contributed equally to this paper. Data used in this paper and replication code are available at http://faculty.wcas.northwestern.edu/~jnd260/ publications.html.

## Acknowledgments

The authors thank S. R. Gubitz, Bit Meehan, Naomi Ostrander, and Kumar Ramanathan for superb research assistance, and Erin Buzuvis and Kathy Dolan for their excellent advice. They also thank the anonymous reviewers for Political Research Quarterly for their extremely helpful feedback.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

## Notes

1. Such "feedback" between citizens and policymakers is posited as evidence of responsive governance (i.e., Campbell 2003); its absence raises serious questions about inequalities in citizen's voices (Campbell 2012).
2. There is notable variation in the impact of Title IX based on geography, race, and other individual characteristics (see, for example, Sharrow 2017 for discussion).
3. That said, other issues (i.e., non-athletic) have risen to prominence among the types of federal discrimination complaints in recent years (Reynolds, forthcoming).
4. Other studies focus on Title IX-specific policy knowledge and support among the mass public (Sigelman and Wilcox 2001), athletic administrators (Staurowsky and Weight 2013), and college athletes (Druckman et al. 2014). There are also large literatures on legal aspects of Title IX (see Brake 2010) and the long-term consequences of policy implementation on the lives of girls and women (e.g., Kaestner and Xu 2010; Stevenson 2010).
5. While much of the feedback literature focuses on political structures and policy development, recent work has turned to citizens' opinions (Mettler and Soss 2004, 64) in such areas as health care policy (e.g., Campbell 2011; Jacobs and Mettler, forthcoming; Lerman and McCabe 2017), welfare reform (Soss and Schram 2007), and criminal justice policy (V. M. Weaver and Lerman 2010). We seek to add to this recent work.
6. The most positive mobilizing effects extend from policies that promote democratic authority structures (Bruch, Ferree, and Soss 2010) instead of paternalistic ones (Soss, Fording, and Schram 2011).
7. Other feedback scholars acknowledge that Title IX exists among the population of policies which "expand and underscore citizens' rights" (Mettler and Soss 2004, 61) and that "decisions on equal protection and Title [IX] have encouraged, and in some cases created, populations" (Norton 2004, 58).
8. Policy implementation of Title IX co-evolved with the widespread shift in attitudes around gender equality and gender roles (e.g., Aronson 2003; Bolzendahl and Myers 2004; Burns and Gallagher 2010; Sigel 1996).
9. For a more detailed discussion of how the policy constitutes men and women as distinct groups, see Sharrow (2017).
10. High school girls who participate in athletics tend to perceive greater levels of discrimination relative to girls who do not (e.g., Knifsend and Graham 2012); thus, we may see an especially pronounced effect of sex given our focus on athletes.
11. The overall resource item is a single, non-indexed variable, while the other measures average multiple items, as detailed in the supplementary appendix. As there are a large number of items on our survey instrument, we list descriptive statistics here and report all details in the supplementary appendix. The respective alphas for opportunities, personnel, and equipment are $.84, .83$, and .90 . These metrics are meant to capture a holistic assessment of the multi-faceted domain of college athletics. Some of our measures are detailed in the 1979 Title IX Policy Interpretation, which governs implementation, and others are items that are annually reported by athletic departments to the federal government under the Equity in Athletics Disclosure Act (EADA). We discuss the details of both the Title IX regulations and the EADA metrics in the supplementary appendix as the two do not directly map onto each other (although athletic programs must be responsive to both).
12. These actions are partially derived from standard measures of political mobilization used by the American National Election Study (e.g., attending a protest) and created to reflect specific action options available to athletes (e.g., talking to a coach). We recognize our measures involve intent rather than actual behavior; in so doing, we follow a large literature that relies on similar intention measures. For example, Ajzen and Fishbein $(2005,188)$ explain that an "intention to perform a behavior . . . is the closest cognitive antecedent of actual behavioral performance
." Furthermore, O’Keefe $(2002,128)$ states, "there is good evidence that voluntary actions can be successfully predicted from intentions" (also see Lubell, Zahran, and Vedlitz 2007; Sears et al. 1978).
13. See http://www.electionstudies.org/studypages/anes_timeseries_2012/anes_timeseries_2012_userguidecodebook. pdf. General gender discrimination attitudes tend to be quite stable as they reflect fundamental values and ideology; in discussing the related gender traditionalism scale (i.e., which includes more overt items than we use), McThomas and Tesler $(2016,35)$ state that it is "quite stable over time at the individual level. Moreover, stable predispositions, such as gender attitudes, rarely change in accordance with mass assessments of well-known political figures (Tesler 2015)" [or in our case, we presume issues]. Thus, we are confident that the causal direction flows from this general battery to perceptions of equality in sports (and not vice versa) and that the inclusion of the latter did not substantially impact answers to the former. The general scale was also placed later in the sequence of the survey.
14. In the Big Ten, track and field/cross-country has more participants than any sport other than football (see the supplementary appendix). Yet, among the schools in our population their average expenditures are $\$ 13,506$ per athlete whereas the average expenditures for football
are $\$ 227,352$ (U.S. Department of Education, Office of Postsecondary Education 2016). These numbers are calculated using EADA statistics that report expenditures and participation numbers across, rather than within, track and field/cross-country teams. The number reported here for track and field/cross-country averages per athlete expenditures on both women and men.
15. Minnesota was under official investigation by the federal government for spending inequities in athletics during the year before our survey was in the field (Lerner, Browning, and Nelson 2015; Rayno 2015) and Iowa faced a March 2016 Title IX lawsuit regarding discrimination against women's coaches (Associated Press 2016).
16. Specifically, we apply inverse probability weights to our sample (see Steinmetz et al. 2014); for population statistics, we relied on the information we gathered to obtain the sample, which involved identifying the population of student-athletes from available schools (see the supplementary appendix). We did not record and were unable to identify data on other demographic attributes of the population; however, the three variables on which we weight are clearly the most relevant to our hypotheses
17. The modal score for each item is 3.0 with an overwhelming number of respondents registering these scores-for each respective measure, the percentages who score 3.0 are 90 percent, 74 percent, 88 percent, and 86 percent. The average scores for men are overall resources 3.15 ( $S D=0.50$ ), opportunity $3.12(S D=0.40)$, personnel 3.07 ( $S D=0.41$ ), and equipment $3.09(S D=0.42)$. The average scores for women are overall resources 3.02 ( $S D=0.26$ ), opportunity $3.01(S D=0.22)$, personnel $2.99(S D=0.22)$, and equipment $2.99(S D=0.23)$.
18. The Ns change due to missing responses on selected items; results are robust to multiple imputation techniques.
19. We use Clarify to calculate predicted values (see King, Tomz, and Wittenberg 2000).
20. That said, Hispanic-identified respondents perceive significantly less inequality when it comes to opportunity and equipment, and those who attended high school in the United States perceive less inequality of resources and opportunity.
21. Of course, federal law under Title IX is more binding to athletic department practices than is National Collegiate Athletic Association (NCAA) policy. However, the NCAA offers guidance to member institutions on developing their "gender equity" practices and in responding to EADA data requests (see http://www.ncaa.org/about/resources/ finances/ncaa-membership-financial-reporting-system).
22. We asked respondents their opinion regarding whether men's football and/or basketball should be included or excluded when considering gender equality in the overall distribution of resources. Policy makers and the courts consistently reject this argument, although the idea of isolating so-called "revenue-producing sports" from equity policy remains in circulation among Title IX's harshest critics. Forty-three percent of respondents thought these sports should be excluded from equity considerations. We also asked about objective and normative views of overall resource distribution if men's football and basketball were excluded. We present those results in the Supplementary Appendix Table A8.
23. In results available from the authors, we create an aggregate measure of inequality perceptions (by merging the four distinct batteries) and add it to the regressions presented in Table 2. We find this scale is significant for Title IX support but not for the action items. Even so, the scale does not seem to substantially mediate the relationship between gender/discrimination attitudes and Title IX support. That is, there is not clear evidence that gender and discrimination attitudes affect distribution perceptions that in turn affect policy support and the likelihood of taking action. Gender and discrimination attitudes appear to assert independent effects on distribution perceptions, policy support, and actions. On its face, this may seem contrary to a positive policy feedback model where perceived consequences stimulate subsequent policy support and actions. However, we suspect that the results instead reveal that policy support/mobilization among these individuals come from not merely extant perceptions but also from speculation about future possibilities that could exist sans the policy and/or actions. Policy feedback effects can be potentially prospective.
24. We also find that familial income has a negative relationship with activism which is sensible insofar as the type of activism we are studying involves extra-systemic (protest type) activities, which have been shown to negatively correlate with income (e.g., Bowles and Gintis 1982). In the Supplementary Appendix Table A9, we explore whether the relationships we find for taking actions are contingent on either income or whether the sport is more individual or team-oriented (as income and social pressure that could come from a team have been shown to impact/moderate types of political participation).
25. Although we know of no similar data recording athletic equity opinion among college athletes from the era before Title IX, the historical record captures significant mobilization by college football coaches and players (as well as the NCAA itself) against the implementation of Title IX in the 1970s (Edwards 2010; Sharrow 2017).
26. Overall, 22 percent believe the law only applies to athletics, 2 percent believe it only applies to education, 74 percent correctly believe it applies to both athletics and education, and 2 percent believe it applies to neither.
27. One study of post-college life outcomes among NCAA athletes suggests that athletes have distinctive outcomes from their non-athlete peers, indicating that researchers may also benefit from studying the role that experience plays in shaping athletes during college as well (Gallup 2016).
28. Staurowsky (2014, 23-24) explains, "In the netherworld that has existed for college athletes between bona fide workers and students, their ability to access their rights becomes more difficult . . . The lives of college athletes are routinely regulated in ways that distinguish them from their colleagues in the general student population . . . in an atmosphere where questioning the status quo is not welcome and with the expectation that players will not go public with their grievances for fear of damaging the program and their own prospects, there is considerable risk associated with player activism . . ."

## Supplementary Material

Supplemental materials for this article are available with the manuscript on the Political Research Quarterly (PRQ) website.

## References

Acosta, Vivian, and Linda Carpenter. 2014. "Women in Intercollegiate Sport: A Longitudinal, National Study, Thirty-Seven Year Update, 1977-2014." www.acostacarpenter.org (accessed August 6, 2017).
Ajzen, Icek, and Martin Fishbein. 2005. "The Influence of Attitudes on Behaviors." In The Handbook of Attitudes, edited by Dolores Albarracin, Blair T. Johnson, and Mark P. Zanna, 173-221. London: Lawrence Erlbaum.

Aronson, Pamela. 2003. "Feminists or 'Postfeminists'? Young Women's Attitudes toward Feminism and Gender Relations." Gender \& Society 17 (6): 903-22.
Associated Press. 2016. "Former Field Hockey Coach Files Discrimination Suit against Iowa." ESPN Online. http:// www.espn.com/college-sports/story/_/id/14923152/law-suit-accuses-iowa-hawkeyes-athletic-director-gary-barta-gender-discrimination-hiring (accessed August 7, 2017).
Baumeister, Roy, Ellen Bratslavsky, Catrin Finkenauer, and Kathleen Vohs. 2001. "Bad Is Stronger than Good." Review of General Psychology 5 (4): 323-70.
Bolzendahl, Catherine I., and Daniel J. Myers. 2004. "Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974-1998." Social Forces 83 (2): 759-90.
Bowles, Samuel, and Herbert Gintis. 1982. "The Crisis of Liberal Democratic Capitalism: The Case of the United States." Politics \& Society 11:51-93.
Boyle, Kelcey. 2016. "The Potential Title IX Implications of Division I Men's Basketball \& FBS Football Players Being Awarded a Share of Revenues for Their Use of Their Names, Likenesses, and Images Pursuant to the Holding of O'Bannon v. NCAA." Law School Student Scholarship Paper No. 725, Seton Hall University. http://scholarship.shu. edu/student_scholarship/725 (accessed December 28, 2017).
Brake, Deborah. 2010. Getting in the Game: Title IX and the Women's Sports Revolution. New York: New York University Press.
Bruch, Sarah, Myra Marx Ferree, and Joe Soss. 2010. "From Policy to Polity: Democracy, Paternalism, and the Incorporation of Disadvantaged Citizens." American Sociological Review 75 (2): 205-26.
Burns, Nancy, and Katherine Gallagher. 2010. "Public Opinion on Gender Issues: The Politics of Equity and Roles." Annual Review of Political Science 13 (1): 425-43.
Buzuvis, Erin E. 2014. "Title IX Feminism, Social Justice, and NCAA Reform." Freedom Center Journal 1:101-21.
Cahn, Susan. 1995. Coming on Strong: Gender and Sexuality in Twentieth-Century Women's Sport. Cambridge: Harvard University Press.
Campbell, Andrea Louise. 2003. How Policies Make Citizens: Senior Political Activism and the American Welfare State. Princeton: Princeton University Press.
Campbell, Andrea Louise. 2011. "Policy Feedbacks and the Impact of Policy Designs on Public Opinion." Journal of Health Politics, Policy and Law 36 (6): 961-73.
Campbell, Andrea Louise. 2012. "Policy Makes Mass Politics." Annual Review of Political Science 15 (1): 333-51.
Clotfelter, Charles T. 2011. Big-Time Sports in American Universities. New York: Cambridge University Press.

Connelly, Marjorie. 2011. "Few Americans Familiar with Title IX, Though Most Approve of It." New York Times, April 26. http://www.nytimes.com/2011/04/26/sports/26titleixpoll. html (accessed May 17, 2017).
Druckman, James N., Mauro Gilli, Samara Klar, and Joshua Robison. 2014. "Athlete Support for Title IX." The Sport Journal. http://thesportjournal.org/article/athlete-support-for-title-ix/ (accessed December 28, 2017).
Edwards, Amanda Ross. 2010. "Why Sport? The Development of Sport as a Policy Issue in Title IX of the Education Amendments of 1972." Journal of Policy History 22 (3): 300-36.
Gallup. 2016. "Understanding Life Outcomes of Former NCAA Student-Athletes." Gallup, Washington, DC. https://www.ncaa.org/sites/default/files/2016_Gallup_ NCAA_StudentAthlete_Report_20160503.pdf (accessed December 28, 2017).
Gusmano, Michael K., Mark Schlesinger, and Tracey Thomas. 2002. "Policy Feedback and Public Opinion: The Role of Employer Responsibility in Social Policy." Journal of Health Politics, Policy and Law 27 (5): 73172.

Jacobs, Lawrence R., and Suzanne Mettler. Forthcoming. "When and How New Policy Creates New Politics: Examining Feedback Effects of the Affordable Care Act on Public Opinion." Perspectives on Politics.
Kaestner, Robert, and Xin Xu. 2010. "Title IX, Girls’ Sports Participation, and Adult Female Physical Activity and Weight." Evaluation Review 34 (1): 52-78.
Kane, Mary Jo, and Shawn Ladda. 2012. Research Digest: 40th Anniversary of Title IX. Rockville: President's Council on Fitness, Sports, and Nutrition.
King, Gary, Michael Tomz, and Jason Wittenberg. 2000. "Making the Most of Statistical Analyses: Improving Interpretation and Presentation." American Journal of Political Science 44 (2): 341-55.
Knifsend, Casey, and Sandra Graham. 2012. "Unique Challenges Facing Female Athletes in Urban High Schools." Sex Roles 67 (3-4): 236-46.
Lanter, Jason R., and Billy Hawkins. 2013. "The Economic Model of Intercollegiate Athletics and Its Effects on the College Athlete Educational Experience." Journal of Intercollegiate Sport 6:86-95.
Lerman, Amy, and Katherine McCabe. 2017. "Personal Experience and Public Opinion: A Theory and Test of Conditional Policy Feedback." The Journal of Politics 79 (2): 624-41.

Lerner, Maura, Dan Browning, and Emma Nelson. 2015. "University of Minnesota Releases Interim Report on Gender Equity in Athletics." Star Tribune, October 3. http:// www.startribune.com/university-of-minnesota-releases-interim-report-on-gender-equity-in-athletics/330484671 (accessed August 7, 2017).
Lubell, Mark, Sammy Zahran, and Arnold Vedlitz. 2007. "Collective Action and Citizen Responses to Global Warming." Political Behavior 29 (3): 391-414.
McThomas, Mary, and Michael Tesler. 2016. "The Growing Influence of Gender Attitudes on Public Support for Hillary Clinton, 2008-2012." Politics \& Gender 12 (1): 28-49.

Mettler, Suzanne. 2002. "Bringing the State Back in to Civic Engagement: Policy Feedback Effects of the G.I. Bill for World War II Veterans." American Political Science Review 96 (2): 351-65.
Mettler, Suzanne. 2005. Soldiers to Citizens: The G.I. Bill and the Making of the Greatest Generation. New York: Oxford University Press.
Mettler, Suzanne, and Joe Soss. 2004. "The Consequences of Public Policy for Democratic Citizenship: Bridging Policy Studies and Mass Politics." Perspectives on Politics 2 (1): 55-73.
National Coalition for Women and Girls in Education. 2017. "Title IX at 45: Advancing Opportunity through Equity in Education." National Coalition for Women and Girls in Education, Washington, DC.
National Collegiate Athletic Association. 2017. "45 Years of Title IX: The Status of Women in Intercollegiate Athletics." National Collegiate Athletic Association, Indianapolis.
National Federation of State High School Associations. 2015. "1969-2014 High School Athletics Participation Survey Results." National Federation of State High School Associations, Indianapolis. http://www.nfhs.org/ ParticipationStatics/PDF/Participation\%20Survey\%20 History\%20Book.pdf (accessed March 8, 2016).
National Federation of State High School Associations. 2017. "2016-17 High School Athletics Participation Survey." National Federation of State High School Associations, Indianapolis. http://www.nfhs.org/ParticipationStatistics/ PDF/2016-17_Participation_Survey_Results.pdf (accessed October 27, 2017).
National Women’s Law Center. 2012. "Title IX: 40 Years and Counting." National Women's Law Center, Washington, DC.

Norton, Anne. 2004. Ninety-Five Theses on Politics, Culture, and Method. New Haven: Yale University Press.
Office for Civil Rights, U.S. Department of Health, Education, and Welfare. 1979. "A Policy Interpretation: Title IX and Intercollegiate Athletics." Federal Register 44 (239). http://www2.ed.gov/about/offices/list/ocr/docs/t9interp. html (accessed March 8, 2016).
O’Keefe, Daniel J. 2002. Persuasion. 2nd ed. Thousand Oaks: SAGE.
Pager, Devah, and Hana Shepherd. 2008. "The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets." Annual Review of Sociology 34:181-209.
Patashnik, Eric. 2008. Reforms at Risk: What Happens after Major Policy Changes Are Enacted. Princeton: Princeton University Press.
Patashnik, Eric, and Julian E. Zelizer. 2013. "The Struggle to Remake Politics: Liberal Reform and the Limits of Policy Feedback in the Contemporary American State." Perspectives on Politics 11 (4): 1071-87.
Pierson, Paul. 1993. "When Effect Becomes Cause: Policy Feedback and Political Change." World Politics 45 (4): 595-628.
Rayno, Amelia. 2015. "Feds Weigh Allegations of Gender Inequity in University of Minnesota Sports." Star Tribune, June 11. http://www.startribune.com/feds-
weigh-allegations-of-gender-inequity-in-u-of-msports/306866861/ (accessed August 7, 2017).
Reynolds, Celene. Forthcoming. "The Mobilization of Title IX across Colleges and Universities, 1994-2014." Social Problems.
Ridpath, Bradley David, Athena Yiamouyiannis, Heather Lawrence, and Kristen Galles. 2009. "Changing Sides: The Failure of the Wrestling Community's Challenges to Title IX and New Strategies for Saving NCAA Sport Teams." Journal of Intercollegiate Sport 1:255-83.
Rose, Deondra. 2015. "Regulating Opportunity: Title IX and the Birth of Gender-Conscious Higher Education Policy." Journal of Policy History 27 (1): 157-83.
Rosenstone, Steven J., and John Hansen. 1993. Mobilization, Participation, and Democracy in America. New York: Macmillan.
Sears, David O., Tom R. Tyler, Jack Citrin, and Donald R. Kinder. 1978. "Political System Support and Public Response to the Energy Crisis." American Journal of Political Science 22 (1): 56-82.
Sharrow, Elizabeth. 2017. "'Female Athlete’ Politic: Title IX and the Naturalization of Sex Difference in Public Policy." Politics, Groups, and Identities 5 (1): 46-66.
Sigel, Roberta S. 1996. Ambition and Accommodation: How Women View Gender Relations. Chicago: University of Chicago Press.
Sigelman, Lee, and Clyde Wilcox. 2001. "Public Support for Gender Equality in Athletics Programs." Women \& Politics 22 (1): 85-96.
Skocpol, Theda. 1992. Protecting Soliders and Mothers: The Political Origins of Social Policy in the United States. Cambridge: Harvard University Press.
Soss, Joe. 2000. Unwanted Claims: The Politics of Participation in the U.S. Welfare System. Ann Arbor: University of Michigan Press.
Soss, Joe, Richard C. Fording, and Sanford F. Schram. 2011. Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race. Chicago: University of Chicago Press.
Soss, Joe, and Sanford F. Schram. 2007. "A Public Transformed? Welfare Reform as Policy Feedback." American Political Science Review 101 (1): 111-27.
Staurowsky, Ellen. 2014. "College Athletes’ Rights in the Age of the Super Conference: The Case of the All Players United Campaign." Journal of Intercollegiate Sport 7 (1): 11-34.
Staurowsky, Ellen, and Erianne A. Weight. 2013. "Discovering Dysfunction in Title IX Implementation NCAA Administrator Literacy, Responsibility, and Fear." Journal of Applied Sport Management 5 (1): 1-30.
Steinmetz, Stephanie, Annamaria Bianchi, Kea Tijdens, and Silvia Biffignandi. 2014. "Improving Web Survey Quality: Potentials and Constraints of Propensity Score Adjustments." In Online Panel Research: A Data Quality Perspective, edited by Mario Callegaro, Reginald P. Baker, Jelke Bethlehem, Anja S. Göritz, Jon A.

Krosnick, and Paul J. Lavrakas, 273-98. West Sussex: Wiley.
Stevenson, Betsey. 2007. "Title IX and the Evolution of High School Sports." Contemporary Economic Policy 25 (4): 486-505.
Stevenson, Betsey. 2010. "Beyond the Classroom: Using Title IX to Measure the Return to High School Sports." The Review of Economics and Statistics 92 (2): 284301.

Suggs, Welch. 2005. A Place on the Team: The Triumph and Tragedy of Title IX. Princeton: Princeton University Press.
Swim, Janet K., Kathryn J. Aikin, Wayne S. Hall, and Barbara A. Hunter. 1995. "Sexism and Racism: Old-Fashioned and Modern Prejudices." Journal of Personality and Social Psychology 68 (2): 199-214.
Taber, Charles S., and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." American Journal of Political Science 50 (3): 755-69.
Tesler, Michael. 2015. "The Conditions Ripe for Racial Spillover Effects." Political Psychology 36 (S1): 101-17.
U.S. Department of Education. 2012. Title IX: Enforcement Highlights. Washington, DC: Office for Civil Rights, U.S. Department of Education.
U.S. Department of Education, Office of Postsecondary Education. 2016. "Equity in Athletics Disclosure Act Data, 2015-16." https://ope.ed.gov/athletics/\#/ (accessed December 28, 2017).
U.S. Department of Education, Secretary's Commission on Opportunity in Athletics. 2003. "Open to All: Title IX at Thirty." Washington, DC. https://www2.ed.gov/about/ bdscomm/list/athletics/title9report.pdf (accessed October 27, 2017).
Weaver, R. Kent. 2010. "Paths and Forks or Chutes and Ladders? Negative Feedbacks and Policy Regime Change." Journal of Public Policy 30 (2): 137-62.
Weaver, Vesla M., and Amy E. Lerman. 2010. "Political Consequences of the Carceral State." American Political Science Review 104 (4): 817-33.
Weldon, S. Laurel. 2002. Protest, Policy, and the Problem of Violence against Women: A Cross-National Comparison. Pittsburgh: University of Pittsburgh Press.
Weldon, S. Laurel. 2011. When Protest Makes Policy: How Social Movements Represent Disadvantaged Groups. Ann Arbor: University of Michigan Press.
Whiteside, Erin, and Amber Roessner. 2018. "Forgotten and Left behind: Political Apathy and Privilege at Title IXs 40th Anniversary." Communication \& Sport 6 (1): 3-24.
Yanus, Alixandra, and Karen O’Connor. 2016. "To Comply or Not to Comply: Evaluating Compliance with Title IX of the Educational Amendments of 1972." Journal of Women, Politics \& Policy 37 (3): 341-58.
YouGov. 2017. Title IX and Girls in Sport. East Meadow, NY: Women's Sports Foundation.

## Supplementary Appendix for "Gender Policy Feedback: Perceptions of Sex Equity, Title IX, and Political Mobilization Among College Athletes"

## I. Sex Equity Policy Requirements: Title IX and the Equity in Athletics Disclosure Act

Here we provide detailed discussion about Title IX and its implementation with regard to college athletics. This provides context to the focus of the paper and motivates the particular items we used in surveying student-athletes' opinions toward sex equity practices.

Importantly, although Title IX of the Education Amendments of 1972 provides the primary policy guidelines for implementing and complying with sex non-discrimination policy in athletics, the public reporting of equity practices is managed under the purview of the Equity in Athletics Disclosure Act (EADA), which requires institutions to annually report intercollegiate athletic equity statistics to the U.S. Department of Education. Title IX's non-discrimination mandate applies to all institutions receiving federal funding (including through direct educational and research grants, as well as through federal grants and loans to students enrolled at the institution), with a few exemptions: private school admissions decisions, public elementary and secondary school admissions (meaning: single-sex schools at these levels are allowed), private schools controlled by religious organizations, military academies, fraternities or sororities, and some specific auxiliary programs (i.e., Boys and Girls State programs, the Boy Scout and Girl Scouts, etc.) (20 U.S.C. §1681-1688).

Intercollegiate athletic departments do not annually report Title IX statistics, per se, although they are required to account for all sex equity practices if the Office for Civil Rights opens a Title IX investigation of an educational institution. Instead, since the mid-1990s, collegelevel programs have been required to annually report on their equity practices using metrics required under the EADA. The reporting manual which all schools follow specifically notes that the data annually reported under the EADA "may not be the same as data used for determining compliance with other Federal or state laws, including Title IX" (see link in supplementary appendix footnote 3). Intercollegiate athletic programs are legally required to comply with both of these mandates.

We detail the differences and similarities between the two reporting requirements in Table A-1. As this table shows, public data on college athletics does not perfectly overlap with the requirements of compliance with Title IX. For the purpose of our research questions, and as detailed below in section III, we solicited college athlete opinion in 24 distinctive areas that draw on both the Title IX guidelines and the EADA data. The requirements of Title IX are the most comprehensive measures of sex equity practices and they have been the subject of the most legal scrutiny (Brake 2010), although the Office for Civil Rights (OCR) retains significant leeway in interpreting compliance with the measures. ${ }^{1}$ For our purposes, soliciting opinion on only either Title IX's specific requirements or the EADA report requirements would have obscured major elements of equity practices in college athletics.

[^1]Table A-1. Title IX compliance measures compared to the EADA requirements

| Title IX compliance measures ${ }^{2}$ | EADA annual reporting requirements ${ }^{3}$ |
| :--- | :--- |
| $\begin{array}{l}\text { Equitable participation opportunities, i.e., } \\ \text { substantially proportional men's and women's } \\ \text { athletic opportunities; or history and } \\ \text { continuing practice of expanding } \\ \text { opportunities for the underrepresented sex; or } \\ \text { full and effective accommodation of the } \\ \text { interests and abilities of the underrepresented } \\ \text { sex }\end{array}$ | $\begin{array}{l}\text { Male and female athletic participants (counted } \\ \text { on the first day of competition in the sport) }\end{array}$ |
| Substantially proportional men's and |  |
| women's athletic aid | $\begin{array}{l}\text { Athletically-related Student Aid (reported in } \\ \text { \$) }\end{array}$ |
| $\begin{array}{l}\text { Equal treatment of the men's and women's } \\ \text { athletic programs, considering such factors as: } \\ \text { equipment and supplies, games and practice } \\ \text { times, travel and per diem, coaching and } \\ \text { academic tutoring, assignment and } \\ \text { compensation of coaches and tutors, locker }\end{array}$ | $\begin{array}{l}\text { Head Coaches of Men's and Women's Teams } \\ \text { (full and part-time) } \\ \text { Assistant Coaches of Men's and Women's } \\ \text { rooms, practice and competitive facilities, } \\ \text { medical and training facilities, housing and } \\ \text { dining facilities, publicity, recruitment, and } \\ \text { support services. }\end{array}$ | $\left.\begin{array}{l}\text { Teams and part-time) }\end{array}\right\}$| Assistant Coaches' Salaries |
| :--- |
| Recruiting Expenses |
| Operating Expenses Per Team/per Participant |
| Total Expenses |
| Total Revenue |

[^2]
## II. Objective Sex Inequities within Big Ten Intercollegiate Athletic Programs

Next, we present the publicly available EADA data from Big Ten Conference institutions during the 2015-16 school year (and the year that our survey was in the field). The statistics presented demonstrate evidence of objective inequities in athletic opportunities and resources between women and men in the conference. These findings are reported in Table A-2.

Our source for these data is the publicly available EADA Online Cutting Tool (https://ope.ed.gov/athletics/). ${ }^{4}$ The EADA requires all coeducational institutions of postsecondary education that participate in a Title IV federal student financial assistance program and have an intercollegiate athletic program to "prepare an annual report to the Department of Education on athletic participation, staffing, and revenues and expenses, by men's and women's teams." In order to compile the information in Table A-2, we searched the online "cutting tool" for each institution in the Big Ten Conference and collected their EADA statistics for the 2015-16 academic year for items which directly correlate with equity measures on our survey. These include statistics on athletic participation (including total participants, unduplicated participants, and non-competing practice players), ${ }^{5}$ coaching staff (both full and part time), coaching salaries, athletically related student aid, recruiting expenses, and other expenses and revenues.

We then calculate the data in Table A-2 by determining the difference in men's and women's participation opportunities, scholarship dollars, number of teams, ${ }^{6}$ recruiting expenditures, full-time coaches (measured as coaches of men's or women's teams, regardless of the gender of the coaches employed), and overall annual expenditures. We present both count and percent differences for all measures except number of athletic teams. As we note in the text, these data demonstrate significant bias towards men's opportunities, scholarships, expenditures, and coaching staffs. There exists some variation across schools in the conference in the magnitude of differential opportunities, spending, and support for men and women athletes, but Table A-2 demonstrates the overwhelming trend that men receive significantly more support in a number of domains.

We also designate in the second row how these measures comport with our analytic indices for overall resources, opportunity, and personnel. We compute averages for all measures across the Big Ten Conference as a whole, and among our sampled schools. The EADA data represent the most systematic accounting of objective practices in athletics.

[^3]Table A-2. Distribution of Opportunities and Expenditures in the Big Ten Conference, 2015-16

| Institution Name | \% difference <br> (Men's - <br> Women's) in <br> Participation <br> Opportunities | \# difference (Men's Women's) Participation Opportunity | \% difference <br> (Men's - <br> Women's) in Scholarship Dollars | \$ difference (Men's Women's) in Scholarship Dollars | \# difference (Men's Women's) in number of teams | \% difference (Men's - <br> Women's) in Recruiting Expenditures | \$ difference (Men's - <br> Women's) in Recruiting Expenditures | \% difference <br> (Men's - <br> Women's) <br> Full Time Coach | \% difference (Men's Women's) in Overall Expenditures | \$ difference (Men's Women's) in Overall Expenditures |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Opportunity Measures |  |  |  |  | Personnel Measures |  |  | OVERALL |  |
| Indiana UniversityBloomington | 7.22\% | 49 | 7.81\% | \$1,153,383 | -2 | 47.14\% | \$708,267 | 1.9\% | 46.22\% | \$ 28,656,324 |
| Michigan State University | 3.00\% | 22 | 10.16\% | \$1,474,820 | -1 | 46.80\% | \$648,333 | 3.5\% | 51.08\% | \$ 35,729,655 |
| Northwestern University | -2.42\% | -12 | 11.23\% | \$2,123,099 | -3 | 42.78\% | \$481,865 | 0.0\% | 37.98\% | \$ 20,833,075 |
| Ohio State <br> University- <br> Main <br> Campus+ | 13.69\% | 138 | 2.99\% | \$543,640 | -1 | 25.63\% | \$489,816 | 7.1\% | 43.64\% | \$ 38,665,140 |
| Pennsylvania State <br> University- <br> Main Campus | 19.41\% | 157 | 15.06\% | \$2,835,767 | 1 | 49.95\% | \$1,079,769 | 8.2\% | 46.88\% | \$ 37,028,681 |
| Purdue UniversityMain Campus | 19.76\% | 100 | 27.33\% | \$2,955,909 | 0 | 38.57\% | \$514,019 | 9.0\% | 42.60\% | \$ 18,036,897 |
| Rutgers <br> University- <br> New <br> Brunswick | 3.25\% | 21 | 5.28\% | \$681,059 | -4 | 38.27\% | \$485,641 | 4.0\% | 40.06\% | \$ 21,568,565 |
| University of Illinois at UrbanaChampaign | 23.01\% | 107 | 18.78\% | \$2,291,727 | -1 | 50.49\% | \$867,809 | 7.0\% | 42.12\% | \$ 19,276,628 |
| University of Iowa | 3.86\% | 26 | 4.52\% | \$520,179 | -2 | 26.19\% | \$411,798 | -2.4\% | 44.27\% | \$ 28,844,608 |
| University of MarylandCollege Park* | 20.08\% | 104 | 13.68\% | \$2,118,194 | -3 | 23.71\% | \$288,902 | 1.6\% | 39.90\% | \$ 20,657,022 |
| University of MichiganAnn Arbor | 4.23\% | 37 | 10.68\% | \$2,397,195 | -1 | 46.89\% | \$1,153,989 | 1.7\% | 43.67\% | \$ 38,271,842 |
| University of MinnesotaTwin Cities | 5.03\% | 36 | 9.64\% | \$1,009,863 | -1 | 26.79\% | \$407,222 | -1.0\% | 43.98\% | \$ 27,856,677 |


| University of NebraskaLincoln* | 15.21\% | 89 | 12.48\% | \$1,378,835 | -4 | 41.73\% | \$885,722 | 5.5\% | 37.01\% | \$ 23,230,116 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| University of WisconsinMadison | 2.22\% | 17 | 9.12\% | \$1,271,168 | -1 | 16.38\% | \$184,764 | 3.4\% | 41.90\% | \$ 33,097,322 |
| AVERAGE across full Big Ten Conference | 9.82\% | 64 | 11.34\% | \$1,625,346 | -1.6 | $37.24 \%$ | \$614,851 | 3.1\% | 42.95\% | \$ 27,982,325 |
| AVERAGE within our sampled subset of schools | 8.52\% | 58 | 11.05\% | \$1,604,817 | -1.3 | 37.99\% | \$619,441 | 3.0\% | 43.70\% | \$ 28,988,785 |

Source: Equity in Athletics Disclosure Act Online Cutting Tool (https://ope.ed.gov/athletics/), Office of Postsecondary Education in the U.S. Department of Education

Notes:

* Institution excluded from survey sample (see Supplementary appendix Part III Survey Implementation and Sample)
** Count based on data which excludes male practice players on women's team roster counts
+ Participation information excludes coed sports


## III. Survey Implementation and Sample

Our ideal population is all student-athletes affected by Title IX which would include virtually all high school and college athletes in the United States (except those enrolled in military institutions or religious schools granted exemption from the law). It was infeasible for us to obtain contact information from the 1,000 s of secondary schools. We opted to focus on a single major NCAA Division I conference for three reasons. First, the funding and visibility of schools in NCAA's Division I is notably higher than other colleges (NCAA 2017). As such, the respondents are student-athletes for whom Title IX's influence may be most salient, making them a clear "target" population (i.e., athletic participation is a significant part of their lives and identities) (see also Ingram and Schneider 1991 for literature discussion of "target populations"). ${ }^{7}$ Second, we are unaware of an available list of contact information for all NCAA student-athletes. That means that we had to obtain contact information by visiting each school's website, identifying student-athletes, and obtaining their e-mail addresses. Practical concerns about time and resources prevented us from drawing a random sample from the more than 170,000 student-athletes who participate on one of the more than 6,000 Division I teams (from roughly 350 schools; http://www.ncaa.org/about?division=d1). Third, these constraints meant one approach could have been to randomly select schools and then sports, and then studentathletes (or to target all student-athletes from a selected team given time constraints of searching for rosters and then e-mails). We opted to not take this approach as we wanted to ensure a sufficient number of student-athletes from the sports for which we controlled (some of which have been implicated in Title IX debates): football, men's basketball, men's and women's track and field/cross country, and men's wrestling. For these reasons, we opted to focus on a single Division I conference - the Big Ten - where our sampling frame could be the universe of student-athletes with publicly available contact information. Our population is thus Big Ten student-athletes.

The Big Ten Conference includes 14 major research universities located in the Midwest and Eastern parts of the country. We believe this is a strong starting point as it includes a large amount of variance among universities and includes schools that recruit nationally and internationally. Our focus on a single conference also follows other studies of student-athletes (e.g. Druckman et al. 2014; Fountain and Finley 2009). That said, we also recognize that the Big Ten may differ from other conferences/schools due to relatively high levels of media coverage (and the selling of media rights) and geographic considerations (e.g., the Big Ten includes many schools from relatively high social capital states). These factors may lead to, on average, relatively greater sensitivity to gender equality among these student-athletes - obviously further theorizing and empirical work is needed to explore this. Even so, ours is a reasonable starting point, and, if nothing else, we see no reason why our central explanatory variables (to explain our perceptions of discrimination, mobilization) would not generalize to all Division I studentathletes.

In the winter of 2016, we accessed the athletic websites of all the Big Ten schools and obtained the full rosters for all sports at every school. We then accessed each school's website to

[^4]locate and record the email address (and sport and gender) of every student-athlete listed on those rosters. This information was publicly available at all schools except for the University of Nebraska and the University of Maryland. These two schools thus are excluded from our sample. Overall, we located 7,977 names on rosters (which we believe is the full population of Big Ten student-athletes at the time, from all but the two schools). We found no e-mails for 788 studentathletes and subsequently we sent out 7,189 e-mails. Of them, 1,678 bounced back as no longer in service (which could be due to the students no longer being enrolled, database errors, website errors, or some other reason). Thus, we successfully sent (on March $30^{\text {th }}$, 2016) a total of 5,511 e-mails that, to our knowledge, reached their intended targets. We also sent out one reminder (on April $4^{\text {th }}, 2016$ ) to all respondents. The invitation letter (and the reminder) asked the studentathletes to participate in a survey aimed at understanding what student-athletes think about a range of relevant issues revolving around college athletics. They were directed to an encrypted link and assured of anonymity.

In the end, we received 1,615 responses leading to response rate of $1615 / 5511=29.3 \%$. This rate exceeds the typical response rate in e-mail surveys of this length, especially those that do not employ incentives (see Couper 2008; Ritter and Sue 2007: 36; Shih and Fan 2008 for discussion of typical response rates in similar surveys). We report features of the sample in Table A-3. Tables A-4 and A-5 report the percentages of our sample from each school and sport. Sample size varied across schools due to variations in the number of sports each school sponsors. As explained in the text, we weighted all of our analyses so that our sample approaches population figures on gender, sport, and school (obtained from our download of the rosters). The descriptive statistics provided below are also weighted - the tables reveal that the weighted sample used in the analyses closely resembles the population.

Table A-3. Sample Characteristics (Weighted)

| Variable | Percent |
| :---: | :---: |
| Female $^{1}$ | $44.95 \%$ |
| Race/Ethnicity $^{2}$ White | $88.32 \%$ |
| Black | $8.86 \%$ |
| Asian | $2.67 \%$ |
| Hispanic | $2.61 \%$ |
| Year | $25.83 \%$ |
| Freshman | $27.31 \%$ |
| Sophomore | $23.19 \%$ |
| Junior | $19.67 \%$ |
| Senior | $3.56 \%$ |
| Graduate Student | $5.55 \%$ |
| Sport | $1.52 \%$ |
| Wrestling | $18.82 \%$ |
| Men's Basketball | $15.40 \%$ |
| Football | $53.33 \%$ |
| Track \& Field/Cross Country | $95.06 \%$ |
| Athletic Scholarship | Mean (std. dev.) |
| US High School | $3.67(1.09)$ |
|  | $3.49(.74)$ |
| Familial Income (1-5 scale) |  |
| Women Discrimination (1-5 scale) | $4.12(1.58)$ |
| Ideology (1-7 scale) |  |

${ }^{1}$ We do not have population percentages on the demographic data, other than for gender for which the population is $44.30 \%$ female.
${ }^{2} 1=<\$ 30,000,2=\$ 30,000-\$ 69,999,3=\$ 70,000-\$ 99,999,4=\$ 100,000-\$ 200,000$, $5=>\$ 200,000$.

Table A-4. Sample Composition by University (Weighted)

| School | Percent of Sample | Percent of Population |
| :--- | :---: | :---: |
| Illinois | $5.66 \%$ | $6.09 \%$ |
| Indiana | $7.16 \%$ | $7.99 \%$ |
| Iowa | $7.92 \%$ | $8.22 \%$ |
| Michigan | $10.29 \%$ | $10.24 \%$ |
| Michigan State | $8.60 \%$ | $8.95 \%$ |
| Minnesota | $8.70 \%$ | $8.89 \%$ |
| Northwestern | $6.96 \%$ | $6.12 \%$ |
| Ohio State | $10.56 \%$ | $10.49 \%$ |
| Penn State | $9.77 \%$ | $9.62 \%$ |
| Purdue | $6.34 \%$ | $6.52 \%$ |
| Rutgers | $7.86 \%$ | $7.31 \%$ |
| Wisconsin | $10.00 \%$ | $9.55 \%$ |

Table A-5. Sample Composition by Sport (Weighted) ${ }^{1}$

| Sport | Percent of Sample | Percent of <br> Population |
| :--- | :---: | :---: |
| Baseball | $4.08 \%$ | $4.43 \%$ |
| Basketball | $3.58 \%$ | $4.21 \%$ |
| Cross Country | $8.56 \%$ | $6.61 \%$ |
| Fencing | $1.76 \%$ | $1.59 \%$ |
| Field Hockey | $2.65 \%$ | $2.24 \%$ |
| Football | $18.82 \%$ | $16.64 \%$ |
| Golf | $2.74 \%$ | $2.81 \%$ |
| Gymnastics | $3.12 \%$ | $3.06 \%$ |
| Ice Hockey | $3.51 \%$ | $3.13 \%$ |
| Lacrosse | $4.96 \%$ | $4.46 \%$ |
| Lightweight Rowing | $0.83 \%$ | $0.66 \%$ |
| Pistol | $0.14 \%$ | $0.13 \%$ |
| Rifle | $0.15 \%$ | $0.18 \%$ |
| Rowing | $7.70 \%$ | $6.62 \%$ |
| Soccer | $5.93 \%$ | $6.59 \%$ |
| Softball | $3.51 \%$ | $3.10 \%$ |
| Swimming and Diving | $12.38 \%$ | $8.81 \%$ |
| Synchronized Swimming | $0.50 \%$ | $0.35 \%$ |
| Tennis | $2.72 \%$ | $2.85 \%$ |
| Track and Field | $15.19 \%$ | $14.04 \%$ |
| Volleyball | $2.65 \%$ | $2.32 \%$ |
| Water Polo | $0.38 \%$ | $0.29 \%$ |
| Wrestling | $5.55 \%$ | $4.88 \%$ |
| Other Sport | $0.18 \%$ | $0.00 \%$ |

${ }^{1}$ Of the total who participate in either cross-country or track, $54 \%$ (weighted) do both. Otherwise, less than $1 \%$ of the sample participates in more than one sport.

## IV. Survey Instrument

Survey question wordings appear below. As noted in the text, our sex discrimination scale (to measure general attitudes about sex discrimination) merged the four items (listed below) that ask about women and discrimination. The action/mobilization scale merged the seven "action" measures also listed below. The precise items that we used for our inequality batteries appear in a table in Table A-6, which appears below the question wordings.

What University do you attend?

| $\square$ Indiana University | $\square$ Ohio State | $\square$ University of | $\square$ University of |
| :--- | :--- | :--- | :--- |
|  | University | Illinois | Minnesota |
| $\square$ Michigan State | $\square$ Purdue University | $\square$ University of Iowa | $\square$ University of |
| University |  |  | Wisconsin |
| $\square$ Northwestern | $\square$ Pennsylvania State | $\square$ University of | $\square$ University of |
| University | University | Michigan | Nebraska |
| $\square$ Rutgers University | $\square$ University of |  |  |
|  | Maryland |  |  |

Which sport(s) do you or did you play at a varsity level this past academic year? (If you played on multiple varsity sports teams, select all teams on which you played.)

| $\square$ Baseball | $\square$ Fencing | $\square$ Lacrosse | $\square$ Softball | $\square$ Volleyball |
| :--- | :--- | :--- | :--- | :--- |
| $\square$ Basketball | $\square$ Field hockey | $\square$ Lightweight | $\square$ Swimming | $\square$ Water polo |
|  |  | Rowing |  |  |
| $\square$ Beach | $\square$ Football | $\square$ Pistol | $\square$ Synchronized | $\square$ Wrestling |
| Volleyball |  | Swimming |  |  |
| $\square$ Bowling | $\square$ Golf | $\square$ Rifle | $\square$ Tennis | $\square$ Other |
| $\square$ Cross country | $\square$ Gymnastics | $\square$ Rowing | $\square$ Track and |  |
| $\square$ Diving | $\square$ Ice Hockey | $\square$ Soccer | Field |  |

Are you male or female?
$\overline{\text { Male }} \quad \overline{\text { Female }}$
Which of the following do you consider to be your primary racial or ethnic group (you may check more than one)?
$\overline{\text { White }} \quad \overline{\text { African American }} \overline{\text { Asian American }} \overline{\text { Hispanic }} \quad \overline{\text { Native American }} \overline{\text { Other }}$

What is your current year in school?
$\overline{\text { First year }} \quad \overline{\text { Sophomore }} \quad \overline{\text { Junior }} \quad \overline{\text { Senior }} \quad \overline{\text { Graduate student }} \overline{\text { N/A }}$

What is your estimate of your family's annual household income (before taxes)?
$\overline{<\$ 30,000} \quad \$ 30,000 \overline{-\$ 69,999} \quad \overline{\$ 70,000-\$ 99,999} \quad \overline{\$ 100,000-\$ 200,000} \quad \overline{\$ 200,000}$

Are you on a full or partial scholarship?

$\overline{\text { No Scholarship }}$| Full Scholarship |
| :--- |
| scholarship) |$\quad \quad$ Partial Scholarship (including partial tuition and/or book

If you have a scholarship, is it for academics and/or for athletics?
$\overline{\text { No Scholarship }} \quad \overline{\text { Academic Scholarship }} \quad \overline{\text { Athletic Scholarship }} \quad \overline{\text { Both (mix of Academic and Athletic) }}$

Below is a list of items relevant to intercollegiate sports. For each item, indicate whether you believe your university, across all sports, actually distributes the item such that women are extremely advantaged, women are somewhat advantaged, neither women nor men are advantaged, men are somewhat advantaged, or men are extremely advantaged. That is, how do you think these items are actually distributed at your university?

|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Overall resources | 1 | 2 | 3 | 4 | 5 |
| Overall financial support | 1 | 2 | 3 | 4 | 5 |
| Number of opportunities <br> to participate on athletic <br> team | 1 | 2 | 3 | 4 | 5 |
| Number of sports teams | 1 | 2 | 3 | 4 | 5 |
| Number of athletic <br> scholarships | 1 | 2 | 3 | 4 | 5 |
| Scheduling of practice <br> times | 1 | 2 | 3 | 4 | 5 |
| Scheduling of <br> competition times | 1 | 2 | 3 | 4 | 5 |
| Quality of team travel <br> arrangements to <br> competition (via bus, <br> airplane, etc.) | 1 | 2 | 3 | 4 | 5 |
| Quality of equipment for <br> strength training (e.g., <br> weight rooms) | 1 | 2 | 3 | 4 | 5 |
| Scheduling of strength <br> training opportunities | 1 | 2 | 3 | 4 | 5 |
| Quality of press releases <br> written about team <br> performance | 1 | 2 | 3 | 4 | 5 |
| Quality of team media <br> guides | 1 | 2 | 3 | 4 | 5 |


|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quality of full-time <br> coaches | 1 | 2 | 3 | 4 | 5 |
| Number of full-time <br> coaches | 1 | 2 | 3 | 4 | 5 |
| Quality of athletic <br> medicine staff | 1 | 2 | 3 | 4 | 5 |
| Quality of academic <br> support staff | 1 | 2 | 3 | 4 | 5 |
| Support from athletic <br> department administrators | 1 | 2 | 3 | 4 | 5 |
| Quality of support for <br> recruiting new team <br> members | 1 | 2 | 3 | 4 | 5 |


|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged <br> and | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quality of locker rooms | 1 | 2 | 3 | 4 | 5 |
| Quality of practice <br> facilities | 1 | 2 | 3 | 4 | 5 |
| Quality of competition <br> facilities | 1 | 2 | 3 | 4 | 5 |
| Quality of uniforms | 1 | 2 | 3 | 4 | 5 |
| Quality of apparel for <br> sport-specific training | 1 | 2 | 3 | 4 | 5 |
| Quality of equipment for <br> sport-specific training | 1 | 2 | 3 | 4 | 5 |

We just asked you about how you think various items are actually distributed, across gender, at your university? We are now going to list the same items, but this time, we are interesting in knowing, across sports, the extent to which you think the distribution, at your university, should extremely advantage women, somewhat advantage women, neither advantage women nor men, somewhat advantage men, or extremely advantage men. That is, how do you think things should be distributed at your university, regardless of the actual distribution?

|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Overall resources | 1 | 2 | 3 | 4 | 5 |
| Overall financial support | 1 | 2 | 3 | 4 | 5 |
| Number of opportunities <br> to participate on athletic <br> team | 1 | 2 | 3 | 4 | 5 |
| Number of sports teams | 1 | 2 | 3 | 4 | 5 |
| Number of athletic <br> scholarships | 1 | 2 | 3 | 4 | 5 |
| Scheduling of practice <br> times | 1 | 2 | 3 | 4 | 5 |
| Scheduling of <br> competition times | 1 | 2 | 3 | 4 | 5 |
| Quality of team travel <br> arrangements to <br> competition (via bus, <br> airplane, etc.) | 1 | 2 | 3 | 4 | 5 |
| Quality of equipment for <br> strength training (e.g., <br> weight rooms) | 1 | 2 | 3 | 4 | 5 |
| Scheduling of strength <br> training opportunities | 1 | 2 | 3 | 4 | 5 |
| Quality of press releases <br> written about team <br> performance | 1 | 2 | 3 | 4 | 5 |
| Quality of team media <br> guides | 1 | 2 | 3 | 4 | 5 |


|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quality of full-time <br> coaches | 1 | 2 | 3 | 4 | 5 |
| Number of full-time <br> coaches | 1 | 2 | 3 | 4 | 5 |
| Quality of athletic <br> medicine staff | 1 | 2 | 3 | 4 | 5 |
| Quality of academic <br> support staff | 1 | 2 | 3 | 4 | 5 |
| Support from athletic <br> department administrators | 1 | 2 | 3 | 4 | 5 |
| Quality of support for <br> recruiting new team <br> members | 1 | 2 | 3 | 4 | 5 |


|  | Women <br> extremely <br> advantaged | Women <br> somewhat <br> advantaged <br> and | Neither <br> men nor <br> women <br> advantaged | Men <br> somewhat <br> advantaged | Men <br> extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quality of locker rooms | 1 | 2 | 3 | 4 | 5 |
| Quality of practice <br> facilities | 1 | 2 | 3 | 4 | 5 |
| Quality of competition <br> facilities | 1 | 2 | 3 | 4 | 5 |
| Quality of uniforms | 1 | 2 | 3 | 4 | 5 |
| Quality of apparel for <br> sport-specific training | 1 | 2 | 3 | 4 | 5 |
| Quality of equipment for <br> sport-specific training | 1 | 2 | 3 | 4 | 5 |

Do you think men's football and/or men's basketball should be excluded or included when universities consider gender equality in the overall distribution of all resources?

[^5]When it comes the gender distribution of all resources across sports, but excluding men's football and men's basketball, which of the following best describes your view about how resources are actually distributed?

| $\overline{\text { Women extremely }}$ | $\overline{\text { Women somewhat }}$ | $\overline{\text { Neither women }}$ | $\overline{\text { Men somewhat }}$ advantaged | advantaged |
| :--- | :--- | :--- | :--- | :--- | | nor men |
| :--- |
| advantaged |$\quad$| Men extremely |
| :--- |
| advantaged |

When it comes the gender distribution of all resources across sports, but excluding men's football and men's basketball, which of the following best describes your view about how resources should be distributed?

| $\overline{\text { Women extremely }}$ | $\overline{\text { Women somewhat }}$ | $\overline{\text { Neither women }}$ | $\overline{\text { Men somewhat }}$ | Men extremely <br> advantaged |
| :--- | :--- | :--- | :--- | :--- |
| advantaged | nor men | advantaged | advantaged |  |

Have you heard of a piece of legislation called Title IX?
$\overline{\text { Yes }} \overline{\text { No }} \quad \overline{\text { Don't Know }}$

Do you know if Title IX applies to college spending on athletics, on education, on both, or on neither?

Neither Athletics nor Education

Given your own knowledge about Title IX, do you disagree or agree with its requirements?

| Definitely | Mostly | Slightly | Neither | Slightly | Mostly | Definitely |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Disagree | Disagree | Disagree | Disagree Nor | Agree | Agree | Agree |

How unlikely or likely is it that you would ever take one of the following actions (at least once) to express your opinion about gender equity in sports? (If you have already taken such an action, check the appropriate box.)

|  | Extremely <br> unlikely | Somewhat <br> unlikely | Neither <br> unlikely <br> nor <br> likely | Somewhat <br> likely | Extremely <br> likely |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Talk to your coach <br> about unequal <br> treatment in your <br> athletic department |  |  |  |  |  |
| Talk to your athletic <br> director about <br> unequal treatment in <br> your athletic <br> department |  |  |  |  |  |
| Talk with your <br> teammates about <br> unequal treatment in <br> your athletic <br> department |  |  |  |  |  |
| Write a letter or <br> email to your <br> university president <br> about unequal <br> treatment in your <br> athletic department |  |  |  |  |  |
| Sign a petition about <br> unequal treatment in <br> your athletic <br> department |  |  |  |  |  |
| Participate in a <br> protest about unequal <br> treatment in your <br> athletic department |  |  |  |  |  |
| Participate in a <br> protest about unequal <br> treatment in your <br> athletic department |  |  |  |  |  |

## [The following four questions comprise our sex discrimination scale]

How serious a problem is discrimination against women in the United States?

| An extremely serious | a very serious | a moderately | a minor | not a problem at all |
| :---: | :---: | :---: | :---: | :---: |
| Problem | problem | serious problem | problem |  |

When women demand equality these days, how often are they actually seeking special favors?
$\overline{\text { Never }} \quad \overline{\text { some of the time }} \quad \overline{\text { about half the time }} \quad \overline{\text { most of the time }} \quad$ always

Although women can achieve the highest levels of professional success, they often have to overcome more obstacles than men to get there.
$\overline{\text { Strongly }}$
agree $\quad \overline{\text { agree somewhat }} \quad \overline{\text { disagree somewhat }} \quad$ strongly disagree

When women complain about discrimination, how often do they cause more problems than they solve?
$\overline{\text { Never }} \quad \overline{\text { some of the time }} \quad \overline{\text { about half of the time }} \quad \overline{\text { always }}$

Did you go to high school in the United States?
$\overline{Y e s} \quad \overline{N o}$

Please state the extent to which you agree or disagree with the following statements about your university:
"People like me don't have any say about what my university does."

| $\overline{\text { Disagree }}$strongly | Disagree <br> somewhat | Neither disagree <br> nor agree | Agree <br> somewhat | Agree <br> strongly |
| :--- | :--- | :--- | :--- | :--- |

"Officials at my university don't care much what people like me think."

| $\overline{\text { Disagree }}$ | $\overline{\text { Disagree }}$ |
| :--- | :--- | :--- | :--- | :--- |
| strongly |  |$\quad$| somewhat |
| :--- | :--- | :--- | :--- |$\quad$| Neither disagree |
| :--- | :--- |
| nor agree |$\quad \overline{\text { Agree }}$| somewhat |
| :--- |$\quad$| Agree |
| :--- |
| strongly |

"Sometimes, the affairs of my university seem so complicated that a person like me can't really understand what's going on."

| $\overline{$ Disagree  <br>  strongly $}$ | Disagree <br> somewhat | Neither disagree <br> nor agree | Agree <br> somewhat | Agree <br> strongly |
| :--- | :--- | :--- | :--- | :--- |

"I feel that I have a pretty good understanding of the important issues facing my university."

| $\overline{\text { Disagree }}$ | $\overline{\text { Disagree }}$ |
| :--- | :--- | :--- | :--- | :--- |
| strongly |  |$\quad$| somewhat |
| :--- | :--- | :--- | :--- |$\quad$| Neither disagree |
| :--- |
| nor agree |$\quad$| Agree |
| :--- |
| somewhat |$\quad$| Agree |
| :--- |
| strongly |

"How often can you trust your university to do what is right?"

$\overline{\text { Never }} \quad$| Some of <br> the time | About half <br> of the time | Most of <br> the time | $\overline{\text { Always }}$ |
| :--- | :--- | :--- | :--- |

Table A-6. Content of Indexed Equity Measures

| Overall Resources | Opportunity Scale | Personnel Scale | Equipment Scale |
| :--- | :--- | :--- | :--- |
| Overall resources | Overall financial <br> support | Quality of full time <br> coaches | Quality of locker <br> rooms |
|  | Number of <br> opportunities to <br> participate on athletic <br> team | Number of full time <br> coaches | Quality of practice <br> facilities |
|  | Number of athletic <br> scholarships | Quality of athletic <br> medicine staff | Quality of <br> competition facilities |
|  | Scheduling of <br> practice times | Quality of academic <br> support staff | Quality of uniforms |
|  | Scheduling of <br> competition times | Support from athletic <br> department | Quality of apparel for <br> sport-specific training |
|  | Quality of team travel <br> arrangements to <br> competition | Quality of support for <br> recruiting new team <br> members | Quality of equipment <br> for sport-specific <br> training |
|  | Scheduling of <br> strength training <br> opportunities | Quality of equipment <br> for strength training |  |
|  | Quality of press <br> releases | Quality of team <br> media guides |  |

## V. Additional analyses

In Table A-7, we present the results of our redistribution analyses, as discussed in the text. Recall the dependent variables are the differences between each respondent's answer to the "should be" items and their perceptions of actual, existing distributions. Gender and discrimination perceptions remain highly significant.

As noted in the text, we asked respondents about objective and normative views of overall resource distribution if men's football and basketball were excluded. We present those results in the Table A-8. These results, largely but do not entirely, echo our main results that do not explicitly exclude those sports. The main difference is that discrimination perceptions fall short of significance when it comes to perceptions of resource distribution (it remains positive and near significant - at the .15 level). This suggests that those who perceive societal discrimination put particular weight on football and men's basketball when thinking about resource inequities. This is not the case for women student-athletes who perhaps are likely to consider their own experiences rather than larger distributional allocations.

In Table A-9, as noted in the text, we analyze the action variable by looking specifically at low and high familial income, and individual and team sports. In terms of the former, we reran our analyses separately for student-athletes from low-income and high-income families (using a median split on income). We find that for respondents from low-income families, gender remains significant but perception of discrimination does not (it falls just short of significance). For student-athletes from high-income families, gender is not significant but perception of discrimination is significant. Thus, there are contradictory patterns based on income differences. These findings are sensible, however, insofar as individuals from low-income families engage in protest activities when they feel they have a direct (possibly material) interest at stake. They otherwise may not have the resources to act. In contrast, individuals from high-income families do not feel the need to protest for their own interests (they have other sources of capital) but they do protest when they feel their values are violated. This is consistent with the notion that postmaterial concerns of justice and higher income lead to protest behaviors (Copeland 2014). We explored whether the nature of the sport matters with the idea that team-oriented sports may produce distinct types of social pressures to take actions. ${ }^{11}$ Consistent with this idea, we find that the effects of gender and discrimination perceptions are just short of significant in individual (non-team oriented) sports and strongly significant for team-oriented sports. In sum, familial income and the nature of the sport seem to somewhat moderate the impact of gender and discrimination perceptions in prompting people to take action.

In Table A-10, we present the results from our knowledge question about to what areas Title IX applies, as discussed in the text.

[^6]Table A-7. Determinants of Redistribution Attitudes (probability-weighted OLS)

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Resources | Opportunity | Personnel | Equipment |
| Female | 0.536*** | 0.544*** | 0.223*** | 0.517*** |
|  | (0.066) | (0.042) | (0.030) | (0.038) |
| African-American | 0.085 | 0.041 | 0.017 | 0.085 |
|  | (0.121) | (0.074) | (0.063) | (0.088) |
| Asian | -0.069 | -0.107 | -0.168*** | -0.029 |
|  | (0.119) | (0.076) | (0.044) | (0.073) |
| Hispanic | -0.087 | -0.210** | -0.016 | -0.143* |
|  | (0.128) | (0.090) | (0.099) | (0.075) |
| U.S. High School | -0.228** | -0.096 | -0.035 | -0.039 |
|  | (0.093) | (0.102) | (0.064) | (0.063) |
| Year | 0.025 | -0.001 | 0.028 | 0.009 |
|  | (0.023) | (0.018) | (0.022) | (0.018) |
| Familial Income | -0.024 | -0.031* | 0.019 | 0.002 |
|  | (0.024) | (0.017) | (0.017) | (0.017) |
| Ideology | -0.037** | -0.014 | -0.015 | -0.014 |
|  | (0.019) | (0.013) | (0.011) | (0.013) |
| Discrimination Perceptions | 0.237*** | 0.169*** | 0.102*** | 0.115*** |
|  | (0.051) | (0.032) | (0.029) | (0.030) |
| Athletic Scholarship | -0.021 | -0.036 | 0.005 | -0.034 |
|  | (0.059) | (0.041) | (0.037) | (0.041) |
| Wrestling | 0.287*** | 0.272*** | 0.062 | 0.060 |
|  | (0.101) | (0.068) | (0.047) | (0.060) |
| Football | 0.379*** | 0.352*** | 0.046 | 0.221*** |
|  | (0.116) | (0.089) | (0.085) | (0.081) |
| Men's Basketball | 0.366*** | 0.304*** | -0.133 | 0.009 |
|  | (0.113) | (0.077) | (0.095) | (0.093) |
| Track \& Field/Cross-Country | -0.088 | -0.161*** | -0.017 | -0.054 |
|  | (0.061) | (0.038) | (0.032) | (0.042) |
| Iowa | 0.069 | -0.145 | -0.072 | -0.055 |
|  | (0.132) | (0.101) | (0.084) | (0.086) |
| Minnesota | 0.114 | 0.033 | -0.016 | 0.071 |
|  | (0.086) | (0.048) | (0.038) | (0.048) |
| Constant | -0.507** | -0.459** | -0.319* | -0.318** |
|  | (0.226) | (0.191) | (0.169) | (0.137) |
| Observations | 1,133 | 1,135 | 1,133 | 1,135 |
| R-squared | 0.219 | 0.337 | 0.134 | 0.248 |

Table A-8. Determinants of Resource Distribution Perceptions and Redistribution Preferences, Excluding Football and Men's Basketball (probability-weighted OLS)

|  | $(1)$ <br> Perception | $(2)$ <br> Redistribution |
| :--- | :---: | :---: |
| Female | $0.857^{* * *}$ | $-0.951^{* * *}$ |
|  | $(0.075)$ | $(0.090)$ |
| African-American | 0.121 | -0.043 |
|  | $(0.105)$ | $(0.123)$ |
| Asian | 0.144 | -0.121 |
|  | $(0.110)$ | $(0.119)$ |
| Hispanic | 0.217 | -0.167 |
|  | $(0.185)$ | $(0.193)$ |
| U.S. High School | $-0.284^{* *}$ | 0.158 |
|  | $(0.116)$ | $(0.120)$ |
| Year | $-0.066^{* * *}$ | $0.052^{* *}$ |
|  | $(0.025)$ | $(0.026)$ |
| Familial Income | -0.040 | $0.050^{*}$ |
|  | $(0.026)$ | $(0.026)$ |
| Ideology | -0.006 | 0.023 |
|  | $(0.019)$ | $(0.023)$ |
| Discrimination Perceptions | 0.068 | $-0.095^{*}$ |
|  | $(0.047)$ | $(0.058)$ |
| Athletic Scholarship | 0.060 | -0.041 |
|  | $(0.061)$ | $(0.064)$ |
| Wrestling | 0.246 | -0.171 |
|  | $(0.178)$ | $(0.187)$ |
| Football | $0.679^{* * *}$ | $-0.764^{* * *}$ |
| Men's Basketball | $(0.114)$ | $(0.124)$ |
|  | $0.611^{* * *}$ | $-0.710^{* * *}$ |
| Track \& Field/Cross-Country | $(0.146)$ | $(0.184)$ |
| Iowa | -0.117 | 0.069 |
| Minnesota | $(0.079)$ | $(0.082)$ |
| Constant | -0.059 | 0.132 |
|  | $(0.105)$ | $(0.116)$ |
| Observations | -0.027 | 0.040 |
| R-squared | $(0.082)$ | $(0.081)$ |
|  | $2.638^{* * *}$ | $0.563^{* *}$ |
|  | $(0.240)$ | $(0.278)$ |
|  |  |  |
|  | 1,136 | 1,135 |
|  | 0.240 | 0.271 |

Standard errors are in parentheses. Statistical significance is denoted by: $* * * p<0.01, ~ * * p<$ $0.05, * p<0.105$ for two-tailed tests. We used "*" for 105 significance (rather than .100 ) as that is the level for discrimination perception and felt it worth noting given our focus.

Table A-9. Determinants of Actions By Familial Income and Sport Type (probabilityweighted OLS)

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
| VARIABLES | Low Income | High Income | Individual Sport | Team Sport |
| Female | 0.348*** | 0.120 | 0.142 | 0.336** |
|  | (0.120) | (0.105) | (0.098) | (0.133) |
| African-American | 0.131 | 0.356 | 0.085 | 0.349** |
|  | (0.161) | (0.218) | (0.193) | (0.168) |
| Asian | 0.292** | 0.103 | 0.162 | -0.092 |
|  | (0.145) | (0.222) | (0.188) | (0.269) |
| Hispanic | -0.078 | 0.223 | -0.413 | 0.606*** |
|  | (0.354) | (0.251) | (0.348) | (0.171) |
| U.S. High School | 0.433** | -0.055 | 0.080 | 0.327 |
|  | (0.207) | (0.204) | (0.175) | (0.280) |
| Year | 0.024 | -0.041 | -0.019 | -0.013 |
|  | (0.039) | (0.031) | (0.035) | (0.034) |
| Familial Income | -0.087 | -0.108 | -0.049 | -0.109*** |
|  | (0.069) | (0.080) | (0.039) | (0.039) |
| Ideology | -0.080** | -0.005 | -0.052 | -0.008 |
|  | (0.036) | (0.027) | (0.032) | (0.030) |
| Discrimination Perceptions | 0.136 | 0.151** | 0.125 | 0.143* |
|  | (0.088) | (0.065) | (0.079) | (0.075) |
| Athletic Scholarship | -0.153 | 0.052 | -0.064 | -0.030 |
|  | (0.101) | (0.084) | (0.086) | (0.093) |
| Wrestling | 0.174 | 0.031 | -0.019 | n/a |
|  | (0.250) | (0.198) | (0.171) |  |
| Football | 0.004 | -0.333** | n/a | -0.139 |
|  | (0.217) | (0.163) |  | (0.165) |
| Men's Basketball | 0.027 | -0.623** | n/a | -0.398 |
|  | (0.278) | (0.317) |  | (0.247) |
| Track \& Field/Cross-Country | -0.009 | 0.230** | 0.082 | n/a |
|  | (0.116) | (0.100) | (0.094) |  |
| External University | -0.086* | -0.101** | -0.084* | -0.116** |
| Efficacy | (0.048) | (0.045) | (0.046) | (0.048) |
| Internal University | 0.134 | 0.152** | 0.147* | 0.182** |
| Efficacy | (0.091) | (0.076) | (0.076) | (0.086) |
| University Trust | -0.042 | $-0.122 * * *$ | -0.081 | -0.093* |
|  | (0.057) | (0.047) | (0.051) | (0.052) |
| Iowa | -0.010 | 0.388** | 0.289* | 0.120 |
|  | (0.190) | (0.164) | (0.159) | (0.181) |
| Minnesota | 0.145 | 0.090 | 0.122 | 0.103 |
|  | (0.126) | (0.125) | (0.128) | (0.128) |
| Constant | 2.165*** | 2.821*** | 2.630*** | $2.135^{* * *}$ |
|  | (0.627) | (0.535) | (0.501) | (0.589) |
| Observations | 431 | 668 | 533 | 561 |
| R-squared | 0.172 | 0.140 | 0.094 | 0.179 |

Table A-10. Determinants of Knowledge About Title IX (probability-weighted Multinomial Logit with excluded category being the correct answer of applies to both "athletics and education")

|  | $(1)$ <br> Applies Only <br> to Athletics | $(2)$ <br> Applies Only <br> to Education | $(4)$ <br> Applies <br> Neither to <br> Athletics nor <br> Education |
| :--- | :---: | :---: | :---: |
| Female |  |  | 0.851 |
|  | $0.553^{* * *}$ | $-1.468^{* *}$ | $(0.932)$ |
| African-American | $(0.203)$ | $(0.692)$ | $1.189^{* *}$ |
|  | -0.193 | 0.443 | $(0.568)$ |
| Asian | $(0.399)$ | $(1.048)$ | 0.001 |
|  | 0.092 | $-15.692^{* * *}$ | $(0.534)$ |

Standard errors are in parentheses. Statistical significance is denoted by: ${ }^{* * * p<0.01,{ }^{* *} p \lll r}$ $0.05,{ }^{*} p<0.1$ for two-tailed tests.

## Supplementary appendix References

Brake, Deborah. 2010. Getting in the Game: Title IX and the Women's Sports Revolution. New York, NY: NYU Press.
Cheslock, John J., and E. Eckes, Suzanne. 2008. "Statistical Evidence and Compliance with Title IX." In New Directions for Institutional Research no. 138, 31-45.

Copeland, Lauren. 2014. "Value Change and Political Action: Postmaterialism, Political Consumerism, and Political Participation." American Politics Research 42: 257-282.
Couper, Mick. 2008. Designing Effective Web Surveys. New York: Cambridge University Press.
Druckman, James N., Mauro Gilli, Samara Klar, and Joshua Robison. 2014. "Athlete Support for Title IX." The Sport Journal: 1-22. http://thesportjournal.org/article/athlete-support-for-title-ix/.
Fountain, Jeffrey, and Peter Finley. 2009. "Academic Majors of Upperclassmen Football Players in the Atlantic Coast Conference: An Analysis of Academic Clustering Comparing White and Minority Players." Journal of Issues in Intercollegiate Athletics 2009(2): 1-13.
Ingram, Helen, and Anne Schneider. 1991. "The Choice of Target Populations." Administration \& Society 23(3): 333-56.
National Collegiate Athletic Association (NCAA). 2017. "Archives of NCAA Revenues and Expenses Reports by Division." http://www.ncaa.org/about/resources/research/archives-ncaa-revenues-and-expenses-reports-division.
Office for Civil Rights in the U.S. Department of Education (OCR). 1979. "A Policy Interpretation: Title IX and Intercollegiate Athletics." Federal Register, Vol. 44, No. 239. http://www2.ed.gov/about/offices/list/ocr/docs/t9interp.html (March 8, 2016).
___ 1996. "Clarification of Intercollegiate Athletics Policy Guidance: The Three-Part Test." https://www2.ed.gov/about/offices/list/ocr/docs/clarific.html (May 17, 2017).
Reynolds, Celene. N.d. "The Mobilization of Title IX across Colleges and Universities, 19942014". Social Problems, Forthcoming.
Ritter, Lois A., and Valerie M. Sue. 2007. "Introduction to Using Online Surveys." New Directions for Evaluation 115: 5-14.
Rose, Deondra. 2015. "Regulating Opportunity: Title IX and the Birth of Gender-Conscious Higher Education Policy." Journal of Policy History 27(1): 157-83.
Sharrow, Elizabeth. 2017. "'Female Athlete' Politic: Title IX and the Naturalization of Sex Difference in Public Policy." Politics, Groups, and Identities 5(1): 46-66.
Shih, Tse-Hua, and Xitao Fan. 2008. "Comparing Response Rates from Web and Mail Surveys: A Meta-Analysis." Field Methods 20(3): 249-71.


[^0]:    'Northwestern University, Evanston, IL, USA
    ${ }^{2}$ University of Massachusetts Amherst, USA
    Corresponding Author:
    James N. Druckman, Department of Political Science, Northwestern University, 60 I University Place, Evanston, IL 60208, USA.
    Email: druckman@northwestern.edu

[^1]:    ${ }^{1}$ It is also worth noting that no institution has ever been subjected to having their federal funding revoked as a result of a Title IX investigation. More typically, the result of an OCR investigation is an agreement between the federal government and the institution, which will guide future practices towards sex equity at the institution under investigation.

[^2]:    ${ }^{2}$ Title IX's 1979 policy implementation guidelines provide an interpretation of policy for intercollegiate athletics (OCR 1979) and they operate in tandem with a second clarification in 1996 (OCR 1996) to produce this list of requirements. The guidelines focus on the meanings of "equal opportunity" in athletics, delineating three domains (often referred to as the "three-part test" of compliance), which we delineate in this column: participation opportunities, athletic aid, and equal treatment (see 34 C.F.R. § 106.1).
    ${ }^{3}$ https://surveys.ope.ed.gov/athletics/images/Instructions/2016_EADA_user_s_Guide.pdf See also the EADA reporting website: https://surveys.ope.ed.gov/athletics/

[^3]:    ${ }^{4}$ According to the U.S. Department of Education: "The data are drawn from the OPE Equity in Athletics Discloser Website database. This database consists of athletics data that are submitted annually as required by the EADA, via a Web-based data collection, by all co-educational postsecondary institutions that receive Title IV funding (i.e., those that participate in federal student aid programs and that have an intercollegiate athletics program." See: https://www2.ed.gov/finaid/prof/resources/athletics/eada.html.
    ${ }^{5}$ We make our calculations based on unduplicated counts (i.e., not counting twice any athletes that compete in multiple sports - schools must report the "unduplicated numbers" across all sports), and we subtract male practice players who practice with women's teams. This method reveals actual numbers of women's participation opportunities (Cheslock and Eckes 2008).
    ${ }^{6}$ Title IX does not require equity in number of teams offered for each sex, instead requiring substantially proportional opportunities between the sexes, across all sports. In fact, most schools in the Big Ten host more women's teams than men's teams because of the large numbers of men's football players on Big Ten team's rosters.

[^4]:    ${ }^{7}$ College student-athletes are directly affected by the 1979 athletic guidelines (Sharrow 2017). That said, they are one type of the many groups targeted by Title IX, including girls and women in education (Rose 2015). Increasingly, other groups are mobilizing to make political claims under Title IX, including survivors of campus sexual assault (Reynolds n.d.). Our survey only explored opinion towards equity practices and Title IX among college athletes.

[^5]:    Included
    Excluded
    Not sure

[^6]:    ${ }^{11}$ Sports for which there are both individual and team titles awarded at the NCAA Championship (or analogous competitions for sports for which the NCAA does not sponsor championships) classify as "individual sports" whereas sports for which there are only a team title awarded classify as "team sports." Using this approach, the "individual sports" are cross country, diving, fencing, golf, gymnastics, pistol, rifle, swimming, tennis, track and field, and wrestling. The "team sports" are: baseball, basketball, bowling, field hockey, football, ice hockey, lacrosse, rowing (lightweight and open weight), soccer, softball, synchronized swimming, volleyball (beach and regular), and water polo.

