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Intersectionality and equity:

Dynamic bureaucratic representation in higher education

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Abstract

Representative bureaucracy scholarship has yet to address two interrelated phenomena: intersectionality and changes in relative disadvantage over time. This manuscript addresses these gaps by assessing representation effects at the intersection of race/ethnicity and sex and in previously, but no longer, disadvantaged client groups. It also argues that if bureaucratic representation is viewed as a quest for equity, then representation will decline as disadvantaged client groups approach equity in policy outcomes. Using panel data for US higher education, this study highlights the importance of intersectional representation in bureaucratic organizations. In three of the four race/ethnic/sex combinations, students perform better in the presence of faculty who match them intersectionally (in the fourth case, race but not sex matters). The empirical results also find that as a formerly disadvantaged client group (women) becomes successful within an organization, the active representation relationship declines. These implications inform future representative bureaucracy scholarship examining intersectional groups.

Introduction

Representation is a process in which an individual serves the interests of a population that shares the identity of the individual either symbolically or through advocacy. The process can occur in all political institutions, including legislatures (Matland 1998), interest groups (Walker 1991), and bureaucracies (Keiser et al. 2002). Of these, bureaucratic representation is considered the least common because representation is not the primary function of bureaucracies (unlike legislatures), and political institutions oppose bureaucratic representation (Daley 1984) and act to limit the discretion that permits it (Wood and Waterman 1994). Despite these obstacles, bureaucrats interact directly with far more citizens than other government institutions, often in a nuanced, detailed and prolonged manner (Goodsell 2014; Rourke 1969), suggesting that bureaucratic representation could inform our understanding of representation of multiple, intersecting, and changing identities across political institutions.

Two conundrums permeate the literature on representative bureaucracy. First, studies of representation have not effectively dealt with the challenge of intersectionality (see Hancock 2007; Reinhold and Smith 2012). Bureaucrats, like clients, have multi-dimensional identities; but we know little about how such dimensions as race, sex, gender, professional training, and social class interact within a bureaucracy to influence policy outcomes (Bearfield 2009). While research exists on how identity intersections may influence behavior of female or minority legislators (Bratton, Haynie, and Reingold 2006; Orey et al. 2006), this work primarily focuses on “women’s interest” policies or policies that benefit a racial or ethnic minority group independently. Far less work (Reingold and Smith 2012, is a notable exception) has identified and tested the effect of intersectional representation on policy simultaneously shaped by the intersection of race and gender – “raced-gendered” policy (Hawkesworth 2003).

Second, the theory of representative bureaucracy is based on the normative contention that a bureaucracy broadly descriptively representative of the population will make decisions that are responsive to the *general* population (Long 1952; Mosher 1968). In contrast, empirical scholarship on representative bureaucracy examines the demographic composition of the bureaucracy that results in improved policy outcomes of *disadvantaged* clientele (Keiser et al. 2002; Kennedy 2014).ⁱ This disconnect has led some scholars to charge that representative bureaucracy has the potential to transform a neutral bureaucracy into a biased one, creating advantage beyond equity for certain client groups, rather than policies broadly representative of the general population (Lim 2006; but see Meier and Morton 2015).ⁱⁱ Shifting advantages in policy outcomes over time could vary by intersecting identities. The increased attention to intersectional representation therefore highlights subgroups of previously disadvantaged population that gain parity in policy outcomes (i.e. white women), but also subgroups of a previously disadvantaged population that have yet to gain parity in policy outcomes (i.e. Black women). Intersectionality acknowledges that socially constructed identities are multifaceted and *dynamic*, and scholarship across disciplines has argued that an intersectional framework allows aggregate tracking of aggregate patterns of group inequalities in life experiences (Best et al., 2011; Browne & Misra, 2003; Parker & Hefner, 2015). The long-standing debate over the ubiquity and salience of race and sex disadvantage has been empirically tested many times in the sociology, feminist and literatures (see Browne & Misra, 2003), but has not been tested in the context of representative bureaucracy.

This study addresses these issues by bringing two innovations to the study of representative bureaucracy: 1) assessing how matched intersectionality across race/ethnicity and sex of both representatives and the represented affect policy outcomes of a bureaucratic

organization and 2) examining the relationship between representation and policy outcomes of previously disadvantaged client groups that have achieved advantage past equity in policy outcomes. Higher education in the US provides the opportunity to address both intersectionality and representation of newly advantaged groups in representative bureaucracy. Panel data from higher education permits a precise examination of the intersection of race/ethnicity and sex (for both faculty and students) and provides a case where a once-marginalized client group (women students) is now overrepresented and outperforming a previously advantaged group of clients (men students).

Intersectionality and Representative Bureaucracy

Representative bureaucracy generally explores how demographic characteristics of bureaucrats affect the distribution of services to clients who share these characteristics. Many previous studies attempt to identify the conditions in which passive representation translates to active representation between bureaucrat and client, but recent work shows that bureaucratic representation can also serve as a powerful symbol changing attitudes and/or behavior of other stakeholders (Theobald and Haider-Markel 2009; Meier and Nicholson-Crotty 2006; Gade and Wilkins 2013; Atkins and Wilkins 2013). Gade and Wilkins find that clients of the VA vocational rehabilitation system report better service and higher satisfaction when they know or believe their counselor shares a military veteran identity. This symbolic representation on client attitudes has been confirmed in experimental methods in police forces (Ricucci, van Ryzin and Lavena 2014) and recycling programs (Ricucci, van Ryzin and Li 2016). Symbolic representation may also shift majority bureaucrats' behavior, such as white high school teachers seeking guidance and mimicking behavior of Black teachers working with Black students (Atkins and Wilkins 2013). Passive representation therefore works "on the minds of those who

are to be represented or who are to be the audience accepting the symbolization” (Pitkin, 1967:111), and may not require intentional action from the representative or direct contact with the client.

Individuals represent multiple identities, and this multiplicity of identities likely influences the provision of representation effects (Atkins and Wilkins 2013; Gade and Wilkins 2013; Groeneveld et al. 2015; Keiser et al. 2002; Meier and Morton 2015). Social identities are often interconnected based on various social constructions. Because of these identity intersections, individual groups vary in terms of the degree of disadvantage, marginalization, and power. Bureaucratic clients with combined and intersecting identities may also achieve disparate policy outcomes compared to clients sharing one aspect of an intersectional identity, but not another. For example, Black women often graduate college at higher rates compared to Black men despite sharing marginalized race/ethnic identities. Bureaucrats with multiple minority identities (e.g. Black women) may therefore symbolically represent the needs of client groups who match part of their identity differently than those who match other parts (Black women vs. Black men). One might theorize that intersectional representation processes stem in large part from the importance of each identity to the client and bureaucrat groups, the salience of the identity to the situation at hand, and the biases (i.e. racism and sexism) in the bureaucracy itself.

Intersectionality discourse establishes that intersectional groups with multiple minority identities such as Black women face unique societal challenges based on the synergistic combination of racism and sexism that groups sharing only part of the identity avoid. bell hooks argued that the experiences of Black women have been obscured because critical race scholarship tends to focus on Black experiences and feminist scholarship focuses on experiences of white women (1981). Bearfield (2009) and Riccucci (2009) later reiterated these arguments

for bureaucracy. Discrimination against Black women could be based on sex or race *or both*, but the unidirectional path towards restorative justice often requires showing evidence of sexism *or* racism thereby obfuscating the synergistic oppression of both (Crenshaw 1989). The synergy described by Crenshaw suggests that intersectional oppression cannot be isolated to discrete and/or binary identities.

Crenshaw (1989) argues that ignoring the unique challenges faced by intersectional groups reduces the opportunity for systematic redistribution of opportunity in an established hierarchy to minor incremental changes. Intersectional bureaucratic representation may redistribute opportunity for bureaucrats and clients through major shifts in the established organizational hierarchy or incremental shifts in employee decision-making away from sexist, racist, and intersectionally-biased organizational norms.

Representatives matching intersectional identities may serve as powerful symbols of opportunity for clients seeking relief from hierarchical disadvantage compared to representatives matching a single discrete identity. This symbolic effect may spill over into other organizational actors similar to previous studies. Symbolic representation may be more important for intersectional representation compared to individual interaction because as Crenshaw argues, “Relatively privileged employees are probably better off guarding their advantage while jockeying against others to gain more” (p. 145). Employees that are disadvantaged across intersectional identities may not have the opportunity or power to exercise discretion due to their own disadvantage in the bureaucracy. The presence of these employees, however, has the potential to improve outcomes for clients sharing the intersectional identities by reducing underrepresentation and increasing the visibility of the intersectional group and its unique concerns throughout the organization.

Representation and Equity

The existing research on representative bureaucracy overlooks important assumptions about intersectional conditions and, in particular, the role of salience of race, sex and the intersection of both in policy outcomes. In much of the recent work, certain identities in policy areas are considered salient, or important, if they have a historical tradition of inequity within the organization(s) or if there are known contemporaneous inequities in policy outcomes that are deemed problematic (see Keiser et al. 2002; Nicholson-Crotty, Grissom and Nicholson-Crotty 2011). But what if we can separate historical and contemporaneous inequities?

We posit that representation gains occur when client groups currently suffer inequities in a specific policy area. Bureaucrats, after all, are policy experts and likely to be aware of any distributional aspects of policy. Nicholson-Crotty et al. (2011), suggest that as client outcomes become more equitable, the identity salience drops and thus the motivation for representation declines. We therefore expect a leveling off of representation effects to previously disadvantaged client groups that achieve equity in policy outcomes, suggesting that bureaucratic disadvantage may be contingent and not ubiquitous (Brown & Misra, 2003). This leads us to propose that it is critical to understand how the level of parity influences the provision of substantive representation. If substantive bureaucratic representation is the process whereby organizations reduce existing biases (see Meier 2019), then it may be unlikely that positive representation effects will continue when client disparities are no longer present. This question is interconnected to the concept of intersectionality because many client groups contain individuals with multiple intersecting identities that face shifting advantages and disadvantages in terms of policy outcomes.

The Empirical Case: U.S. Postsecondary Education

US post-secondary education is an ideal area to examine both intersectional representation and representation past equity. Colleges and universities help students build human capital and gain financial stability, which have major policy and political consequences (Bailey and Dynarski, 2011; McDaniel et al., 2011). In terms of representative bureaucracy, higher education is arguably among the best-case scenarios for active representation processes. Sex and race/ethnicity are salient to college student outcomes (see Bowen and Bok 1998; Bradley 2000), university faculty have significant discretion in executing their duties, and serve in administrative roles that make policy decisions directly influencing organizational outcomes (Bozeman, Fay, and Gaughan, 2013). The richness of higher education data also allows us to examine the effects of faculty representation on graduation rates by both sex and race/ethnicity intersectionally and by sex to examine changing levels of advantage across various groups. The overwhelming consensus from previous work suggests faculty enhance student success (Allen 1992; Anaya and Cole 2001; Braxton, Hirschy and McClendon 2011; Campbell and Campbell 1997), but these studies fail to account for shifting advantages or intersectional representation among many students and faculty across a large number of institutions.

Research has identified several barriers to graduation for students of color, and institutions have responded by creating policies and programs designed to remove such obstacles. Students of color, for example, are more likely than white students to enter college without sufficient academic preparation in math or language, often as a consequence of persistent inequality in the K-12 system (Hunsaker et al. 2013). Many institutions have created remedial courses in math and language to close the gaps in skills and knowledge, but an unintended consequence has been the *de facto* segregation of white and nonwhite students in the first two years of college (Thomas et al. 2013).ⁱⁱⁱ This has compounded a second barrier to completion for

nonwhite students at predominantly white institutions (PWIs), a campus climate that generates stress, anxiety, and isolation for minority students (Ancis et al. 2000; Meeuwisse et al. 2010) and therefore racial bias in the organization.

The political salience of race in higher education creates strong preconditions for representative bureaucracy. Many of the most important civil rights battles have started on college campuses (e.g. *McLaurin*, *Sipuel*, *Sweatt*, *Bakke*, *Hopwood*, *Grutter*, *Gratz*), and these battles continue today (most recently in the *Fisher* decision). Higher education, however, has also seen a remarkable shift in student outcomes across race and sex, and this provides an opportunity to contrast the goal of representation with the goal of equity. The research demonstrating positive active representation effects for women in public organizations relies on empirical evidence from policy areas where women clients have yet to achieve any form of equity (see Smith and Fernandez 2010; Meier and Nicholson-Crotty 2006; Selden 1997), but in higher education, women across race and ethnicity have routinely outnumbered and outperformed male counterparts for decades. Presently, female enrollment and graduation rates are above the rates of their male counterparts, both in the aggregate and for Black, white, and Latinx student groups specifically. Bailey and Dynarski (2011) found that women have graduated at higher rates than their male counterparts since the 1925 birth cohort for Black students, the 1960 birth cohort for Latinx students, and the 1966 birth cohort for whites. Using the case of college graduation rates, we can test whether positive representation effects are strictly limited to historically underrepresented client groups or if these effects are dynamic.

Leveraging Variation to Explore the Micro-Theory

We focus on the institutional-level representation effect on institutional-level outcomes, and in doing so, must address a common issue faced by leaders of public organizations: how do

individuals within an organizations affect institutional policies, practices, and culture.

Theoretically, organizations with a larger proportion of faculty that share one or more identities with previously or currently underrepresented groups of students can influence organizational outcomes in at least five ways.

First, faculty members concerned with disparate completions might spend additional time with and generate positive reinforcement when teaching students from similar disadvantaged backgrounds. Second, students in these groups could identify with faculty members who share their intersectional identity as role models; resulting in a greater sense of belonging, higher levels of campus engagement, and a feeling that success is valuable and attainable. Third, faculty members may actively mentor students, who share one or more intersectional identities, outside the classroom. This could involve offering advice, steering students to degree programs to maximize the likelihood of success, including students on research projects, and helping students network with additional faculty members.

Fourth, faculty may press the university to adopt policies that recruit and support students from previously or currently underrepresented groups into fields where they have historically been underrepresented. Fifth, the increased presence of intersectional faculty may produce a change in the behavior of nonminority faculty members who enjoy higher levels of representation and voice, perhaps raising these groups' awareness of underrepresented student needs. Only one of the five methods of influence require individual interaction in a classroom; the other four processes can work through the organization to affect student outcomes broadly.

Our understanding of the research on representative bureaucracy, intersectionality, and student success lead us to formulate several hypotheses. Our hypotheses are influenced by our proposition that positive representation effects are more likely in organizations with higher

representation of bureaucrats sharing the identities of the student groups in question and where inequities persist. First, we expect the intersectional match up across race/ethnicity and sex should increase the salience across two meaningful constructs in an education setting: race and sex.^{iv} We therefore expect that the increased presence of Black men and Latino men faculty at a university will be associated with higher graduation rates for Black male and Latino male students respectively. Importantly, we are not suggesting that intersectional representation will be the sum of representation across race/ethnicity and sex, nor do we conceptualize intersectional identities as the combination of two discrete constructs of race/ethnicity and sex. Instead, we expect intersectional representation to be complex, interconnected, and fluid categories of race/ethnicity and sex. We therefore expect positive representation effects for men with the same racial identity. Second, analogously we predict higher graduation rates for Black women and Latina students as the faculty representation of Black women and Latinas increases. We expect the intersectional representation effect to be lower for the female intersectional groups compared to male intersectional groups because women outperform men in both racial groups, so the demand for representation is lower because the intersectional disadvantage may be contingent. However, Black women and Latina faculty face racism and sexism^v in the university resulting in diminished security and power. Alleviating the compounded bias in the organization may therefore prove more difficult. We must underscore that we expect these relationships to be specific to the intersectional group and not based on a false conceptualization of gender and/or race as a discrete and binary construct. Sex and race/ethnicity may help or hurt each group differently.

In the case of higher education, we hypothesize that female faculty members recognize the successes of female students in graduation rates and do not use their discretion to improve

this particular outcome.^{vi} Given this, we expect to find no relationship between female faculty representation and graduation rates for female students. With the shifts in enrollment (female students outnumbering men since the 1980s) and disparities in outcomes (males have graduated at a lower rate than female counterparts since the 1960s), however, we expect to find that male faculty representation is associated with increased male graduation rates.

One qualification on our hypotheses is that they need to be placed in the context of higher education. A wide variety of factors affect college graduation rates including the motivation and inherent abilities of the students, family, and college resources, the fit of programs with student interests, etc. Many of these cannot be influenced by individual faculty members; and as organizations, universities change only slowly. As a result of these factors, it is unlikely that the influence of representative bureaucracy will be the most important determinant of student success, but existing literature suggests that it will contribute significantly.

Data and Methods

We use the Integrated Postsecondary Education Data System (IPEDS), compiled by the National Center for Education Statistics within the US Department of Education for our empirical models. Our units of analysis are institution-years from 2002-2014 for all four-year colleges and universities. The dependent variable is the six-year graduation rate for undergraduate students.^{vii} This graduation rate is computed by tracking each cohort of first-time, full-time, degree-seeking freshmen at an institution, following them for six years and calculating the percentage of these students who completed a bachelor's degree in six years or less. These cohorts are disaggregated based on race/ethnicity, sex, and the intersection of the two. The measure of intersectional students is not an interaction of race and sex, but the actual number of students in each intersectional group (i.e. Black men, Black women, Latinas, and Latinos) that

complete in six years or less. Our eleven cohorts started college in 1996-2008, and to be included in the graduation measure, students must have received a degree by 2002-2014, respective to six years after the first matriculation year.^{viii} Descriptive statistics for all variables appear in Table 1.

[Table One about Here]

The primary independent variables of interest are measures of faculty representation for men and women, Black and Latinx faculty, and men and women identifying with each racial/ethnic group to test for intersectionality. We capture this as each group's percentage share of an institution's full-time faculty,^{ix} a number that varies modestly across the years in which a given cohort of students is enrolled. In our general models presented in Tables 2 through 6, we use the representation score for each cohort's third year of attendance.^x For theoretical reasons, it is important to use the level of faculty representation not the change in representation. The microtheory noted above relies on either the number of minority faculty making decisions in the organization or contact by minority faculty members with minority students and other faculty, which has implications for the appropriate modeling of the process (see below).

Each analysis also includes several control variables that could also influence student success, especially marginalized groups. Institutional variables include whether a school is public or private/not-for-profit^{xi}; the Carnegie classification of the institution^{xii} (a measure of selectivity and mission, e.g., teaching versus research); the total number of faculty and students^{xiii}; and its total revenue^{xiv} to account for the control, selectivity, size, and financial wealth of the organization. Student-related variables include the average financial aid package received by a student at the university^{xv}; the total amount of Pell grant funding received by the institution^{xvi}; the total population of the racial/ethnic subgroup whose graduation rate is being regressed^{xvii}; the total first year retention rate among students^{xviii} and the graduation rates of the

other racial/ethnic groups not being regressed, as a measure of peer effects that cut across groups (see Meier 2019).

Each equation includes year and state^{xix} fixed effects and a linear trend term for the number of years since 2002. Lack of variation on institutional characteristics precludes the use of institutional fixed effects. Institutional fixed effects are also not consistent with our theory since they would convert all measures of faculty into changes in percentages of faculty. Theoretically faculty should be considered a capital stock rather than a flow; one student adopting a faculty as a role model does not preclude others from doing so. Similarly, the ability to influence policies in the organization is likely to be a function of the level of representation not the change in representation. Even student and faculty direct interaction with minority faculty is enhanced by the level rather than the change in faculty members. Because students and graduation rates can be considered a continuous production process (see Woodward, 1970), faculty will be exposed to new students every year and the same faculty member can influence many students.^{xx}

We censor our data, so that only subgroup cohorts with more than five students are included in the analysis.^{xxi xxii} Additionally, we excluded Historically Black Colleges and Universities (HBCU) from our analysis given their unique mission and demographic characteristics.^{xxiii} Our approach to empirically examine intersectionality affects avoids some of the common concerns cautioned against by scholars such as Ragin and Fiss (2017). We are using organizational level data in our models and therefore avoid the problematic OLS assumptions the authors found in individual-level analysis. While our approach cannot provide the detailed information as truth tables may, we are able to examine how representation of

intersectional faculty in an organization may correlate to increased performance of intersectional students.

Findings

Changes in access to higher education over the last century provide the necessary conditions to determine if representative bureaucracies seek representation or equity. As noted earlier, women students have moved from being a distinct minority in colleges and universities to majority status, despite the marginalization that women face in society generally and in the labor market specifically. At the same time, women have substantially higher graduation rates than men. Even though women faculty remain a minority among US colleges and universities, the equity argument suggests that women faculty may shift their attention, as it relates to female students, away from undergraduate degree completion to other efforts, like STEM participation, graduate school admissions, research opportunities, or faculty recruitment where women continue to be underrepresented and marginalized. If that is the case, we would expect that the representation relationship between women faculty and female graduation rates would attenuate and perhaps go to zero. In contrast, the advantage past equity hypothesis would suggest a positive active representation relationship despite female students' performance gains. For male students, both the advantage and the equity hypotheses would indicate a positive relationship between male faculty and male graduation rates because men are not the highest performing client group. This would also suggest intersectional disadvantages are contingent and not ubiquitous. Table 2 presents the regression results for both female and male graduation rates. Male faculty passive representation is positively, but modestly associated with male graduation rates; a one percentage point increase in male faculty is associated with a .051 percentage point increase in male graduation rates all things being equal.^{xxiv} In contrast, female faculty are *not*

associated with significant gains in female graduation rates. This set of findings is consistent with the argument that representative bureaucracies seek equity over advantage and challenges the argument that active representation is pursued after achieving subpopulation parity in client outcomes. It is also consistent with temporally shifting client disadvantages.

[Table 2 About Here]

Table 2 also shows that faculty representation (similar to latter regressions) is important but its impact is at the margins. Several factors have effects in the same direction for both male and female graduation rates of including graduation rates for peers (that is, the other sex) (positive), Pell grants (negative), first year retention rates (positive), and institution size (positive). Some interesting sex differences also exist. Resources in the form of student aid matter for both groups, but in opposite directions positively associated with male graduation rates and negatively associated with rates for female students. Carnegie selectivity has a slightly positive relationship with female graduation rates but a large negative association with male graduation rates. Total revenue appears to be linked only to male graduation rates, while being at a private institution only has a positive association for women graduation rates. Such findings are consistent with the existing evidence that women students on average are better prepared for higher education than their male counter parts.

Assessing intersectionality in the active representation relationship is complicated by the collinearity among the various variables. Ideally a regression analysis for Black female graduation rates would include female faculty, Black faculty, and Black female faculty as independent variables in the same model. We operationalize passive representation as the percent of total faculty belonging to a particular group. Black female faculty is therefore a subset of both female faculty *and* Black faculty. A change in Black female faculty results in an equal change in

the same direction for both female faculty and Black faculty. The extensive collinearity among these variables generates large standard errors and calculates coefficients for Black female faculty controlling for total Black faculty (of which over half are women) and female faculty (a portion of which are Black) that are difficult to interpret. Additionally, interacting Black faculty and female faculty would not provide the exact percentage of Black women faculty that is available in our data. Our strategy of analysis for dealing with these problems is to present three separate estimations for each group of students – one that matches students and faculty on sex, one that matches students and faculty on race/ethnicity, and one that matches both race and sex. Four subgroups of students will be analyzed – Black women, Black men, Latina women, and Latino men.

Table 3 presents three regressions for Black female graduation rates. The first regression shows no significant relationship between the representation of female faculty members and Black female graduation rates. *Black female graduation rates, however, are positively and significantly associated with the percentage of Black faculty (column 2) but the positive effect is not significant for Black female faculty (column 3).* A one percentage point increase in Black faculty is correlated with a .21 percentage point increase in Black female graduation rates. The results show limited support for the hypothesis that intersectionality influences of representation, but clear positive racial/ethnic active representation effects. The quality of the school and the resources that it possesses remain strong determinants of Black female graduation rates.

[Table 3 About Here]

Intersectionality tests for Black males set a high bar for empirical results given that there are fewer Black male students than any other subpopulation, and Black men have the lowest overall graduation rates.^{xxv} Table 5 shows that male faculty have a negative and significant

effect on Black male graduation rates. The representation of Black faculty in general is unrelated to Black male graduation rates. Conversely *the presence of African American male faculty members is positively and significantly related to African American male graduation rates*. A one-percentage point increase in African American male faculty representation is associated with a .33 percentage point increase in Black male graduation rates. This relationship is consistent with the intersectionality hypothesis concerning how the intersection of race and sex is more salient than either separately . The quality of the institution (peer graduation rates and retention rates) and its resources (student aid, institutional revenue) again also matter for Black male graduation rates.

[Table 4 About Here]

The Latina graduation rates in Table 5 show a strong pattern consistent with the intersectionality hypothesis. We find no significant relationships between female faculty representation and Latina graduation rates. *The relationship between Latina graduation rates and Latinx (male and female) and Latina faculty representation are both positive and significant*. These relationships are also larger than we have seen with other subgroups, a one percentage point increase in overall Latinx faculty and the same increase in Latina faculty are associated with a .51 and .88 percentage point increase in Latina graduation rates, respectively. Similar to the results for other subgroups, the quality of the institution and the resources that it has are important determinants of Latina graduation rates.^{xxvi} Representation matters within the context of these factors, and the intersectional match appears to matter the most.

[Table 5 About Here]

The next intersectionality analysis shown in table 6 examines Latino graduation rates, and the familiar pattern for Latinas appears again. The presence of male faculty alone has a

negative and significant influence on the graduation rate of Latino males. *Latinx faculty combined show a positive influence on Latino graduation rates (.35), and Latino faculty are associated with an even higher Latino graduation rate (.63).* The difference in these slopes is statistically significant ($t = 1.65$, $p = .05$, one-tailed test) and represents a substantive increase in active representation effects. Latino male graduation rates, similar to all other groups, are also strongly influenced by the quality of the institution and resources.^{xxvii}

[Table 6 About Here]^{xxviii}

Discussion/Conclusions

If all political institutions seek to represent interests, then the study of bureaucratic representation has the potential to contribute to a more general understanding of representation and how it might be affected by institutional structures, the match between representatives and the represented, the objectives of representation, and other factors. This study examined two theoretically central questions to the study of representation. First, does the match between intersectionality of the representatives (the supply of representative) and the represented (the demand for representation) matter in terms of policy outcomes? Second, does representation always seek advantage or might it pursue equity?

Using a panel of U.S. colleges and universities from 2002 to 2014, we considered how the representativeness of faculty in terms of race/ethnicity, sex, and the intersection of both was associated with the performance of students (the six-year graduation rate). The postsecondary data set has significant advantages in investigating the important question of intersectionality and representation because data are available on both the intersectional characteristics across race/ethnicity and sex of both faculty and students. These data permit investigating in the words of Ange-Marie Hancock (2007) if one plus one does not equal two, or whether combinations of

race and sex matter more than race and sex matter by themselves. In three of the four cases, the intersectional match up (faculty sex-race/ethnicity combinations being the same as student sex-race/ethnicity combinations) provided the greatest policy outcome gains (Black males, Latinos, and Latinas). The anomaly was Black female students who appeared to benefit from Black faculty in general but were not influenced by Black female faculty representation. This case merits further investigation; it may reflect the priority on Black male student performance (the group with the lowest graduation and matriculation rates) or other factors unique to the Black female educational experience. It may also be the case that the process of active representation is unable to reduce the synergistic relationship of both sexism and racism in the organization, since active representation usually influences outcomes at the margins (Meier 2019). Evidence also suggests that Black women are disproportionately assigned to alternative service and teaching requirements not critical to the institution's function (Aguirre, 2000), which may detract from the opportunity to engage in meaningful representation.

Because women are traditionally a disadvantaged category in the US and elsewhere, but now significantly outperform male peers in college graduation, an assessment of sex representation provided the opportunity to determine if active representation would decline when a formerly disadvantaged group achieved equity in policy outcomes. The empirical results were consistent with the hypothesis that representative bureaucracy seeks equity not advantage and disadvantage is contingent. Female graduations were unrelated to female faculty representation; the graduation rates of male students (traditionally advantaged but currently significantly underperforming in bureaucratic outcomes), in contrast, were positively albeit modestly associated with male faculty. This may also explain positive representation effects for male students of color.

The somewhat unexpected results for Latina students highlight the interconnectedness of intersectionality and shifting advantage over times. We expected intersectional representation effects to be largest for men of color, but we found the largest graduation gains for Latinas with increased Latina faculty representation. This may suggest that the female sex advantage is not ubiquitous. It could also be that the combined racialized and gendered experiences of Latinas in higher education is different than for other women, including other women of color.

The implications of the current study of bureaucratic representation merit discussion. The article's first empirical contribution, illustrating the intersectional nature of representation and the importance of considering the intersectionality of both the representatives and the represented, has broader implications for the study of representation. To date, work has focused on the intersectional aspects of the representatives which theoretically is only half of the relationship. To verify the importance of both supply and demand factors additional studies in other bureaucracies and nonbureaucratic institutions are needed. Such studies require a finer distinction in terms of the data used to investigate representation, particularly in terms of the policy outcomes for intersectional clients and not just policy outcomes generally. Representative bureaucracy scholarship previously theorized that positive representation effects are dependent on the salience of the matched identity between bureaucrat and client (Keiser et al. 2002). This study suggests that representation depends not only on the salience of the matched identity, but also on the number of intersecting identities matched between client and bureaucrat.

The investigation of intersectionality here, despite its improvements over the existing empirical work in the field, indicates how little of the concept of intersectionality has been explored. This study, similar to much of the literature, focused on the intersections of race, ethnicity and sex, but individuals have many more identities that are politically salient. They

might have strong identities linked to social class, sexual orientation, gender identity, occupation, education, professional status, age, and countless others. Clearly additional theoretical and empirical work is needed.

The second empirical finding in regard to equity versus advantage raises an important question of whether this might be unique to bureaucratic institutions. Interest groups, for example, are unlikely to moderate their demands simply because they hold a temporary advantage; the politics of business and labor in regard to the National Labor Relations Board (Tope and Jacobs 2009) and the Occupational Safety and Health Administration (Vike 2007) clearly demonstrate that. A recent study of representation by elected local government chief executives in Brazil, however, indicated that both male and female officials created new participatory councils that reached across sexes (see Meier and Funk 2016). Similarly, we might imagine that legislatures that are highly competitive, so that majorities often become minorities or that have strong norms of bipartisanship, might produce equity via representation rather than continuing to press for greater advantages. Both additional theorizing on how institutional arrangements might shape the representation process and empirical studies would be useful on this topic. In addition, exactly what constitutes equity for representatives and those represented could be a contestable issue, and different thresholds might exist under different levels of uncertainty and institutional arrangements.

Even within the narrow study of representative bureaucracy, there are many questions that remain unanswered and caveats that need to be addressed in this line of inquiry. Although postsecondary education offers data that allow for arguably better tests of our theories, the aggregate-level nature of the data limits our ability to identify the specific micro-theory with much precision. Individual-level data would help to identify the specific ways in which female

and minority faculty members behave differently than white male counterparts, especially related to student performance. Public organizations may be unable to pair individual intersectional clients to individual intersectional bureaucrats to leverage differential advocacy. Our findings indicate that increased intersectional bureaucratic representation at the organizational level can move the needle to improve intersectional client outcomes. Qualitative research would further assist in understanding the causal story, especially given the relative novelty of intersectionality to representative bureaucracy work and the lack of theory development thus far.

We have identified the provision of representation at one level of these organizations – faculty – and on one outcome (six-year graduation rates), but there are potential links at other levels and other outcomes. Future work should consider whether women and people of color at other hierarchical levels of the college or university are associated with better outcomes for these populations. It is possible, for example, the women and people of color in leadership positions generate trickle-down effects that lead to better outcomes via shifts in university culture, more emphasis on faculty diversity, and more attention to the needs of diverse students. It is also possible that representation might affect many outcomes other than graduation rates (future education, social adjustment, etc.). These hypotheses are also not limited to U.S. universities, but future testing could develop the broader understanding of representation in political organizations. One might expect that representation effects are most pronounced in a U.S. context given the salient nature of racial inequities in education. Given the history of racial division in this country we expect these findings to translate to many other public services in the social safety net. Other countries without such racial biases in bureaucracies may not have similar intersectional representation effects. Countries with patriarchal traditions may see similar representation effects driven by the organization bias against women. Future work should

explore how intersectional bureaucratic representation varies by social service and national context.

Table 1: Summary Statistics

	Mean	S.D.
<u>Graduation Rates</u>		
All Women	59.72	17.69
All Men	52.83	19.12
All Students	56.58	18.13
All Black Students	45.01	22.19
Black women	48.79	25.31
Black men	40.83	23.84
All Latino Students	50.60	21.61
Latina women	53.99	24.62
Latino men	46.83	25.92
All White Students	59.72	17.69
White women	61.81	17.33
White men	55.02	19.20
<u>Faculty Representation Year 3</u>		
All women	43.29	8.00
All men	56.71	8.00
All Black faculty	3.48	3.29
Black women	1.79	2.02
Black men	1.68	1.59
All Latino faculty	3.29	4.07
Latina women	1.55	2.00
Latino men	1.74	2.27
All White faculty	81.04	11.79
White women	35.22	9.19
White men	45.82	8.91
<u>Student populations</u>		
All men	3921.59	4191.53
All women	4576.86	4423.26
All Black students	736.30	1049.21
Black women	446.35	675.39
Black men	293.25	387.30
All Latino students	1019.12	2166.92
Latina women	584.53	1237.77
Latino men	436.91	938.32
<u>Control Variables</u>		
Private Institution	0.44	0.50
Total faculty and students (Org size)	9046.50	9047.50
Average Student Aid (in tens of dollars)	177.52	87.94
Total Pell Grants logged	15.73	1.13
Percent retention in first year cohort	76.59	11.24
Total revenue logged	18.91	1.28
Carnegie extensive/intensive institution	0.27	0.44
Observations	3079	

Table 2: OLS Coefficients for representation effects (General Sex)

	Male Graduation Rate	Female Graduation Rate
Total male faculty representation year 3	0.051*** (2.74)	
Total female faculty representation year 3		-0.025 (1.38)
Female Graduation Rate	0.65*** (23.78)	
Total Male Population	-0.00025** (2.15)	
Private Institution	0.15 (0.33)	1.96*** (4.72)
Total faculty and students (Org size)	0.000054** (2.46)	0.00038*** (5.62)
Average Student Aid (in tens of dollars)	0.0086*** (3.43)	-0.0046** (1.99)
Total Pell Grants logged	-3.17*** (9.53)	-1.67*** (5.44)
Percent retention in first year cohort	0.35*** (7.75)	0.39*** (9.73)
Carnegie extensive/intensive institution	-1.18*** (3.53)	0.81** (2.54)
Trend	0.060 (0.35)	0.030 (0.20)
Total revenue logged	3.13*** (11.51)	-0.12 (0.54)
Male Graduation Rate		0.62*** (26.07)
Total Female Population		-0.00049*** (3.67)
Observations	3076	3076
R^2	0.935	0.928

Absolute t statistics in parentheses

DV=6-year graduation rate. State and year fixed effects not shown.

** $p < 0.05$, *** $p < 0.01$

Table 3: OLS Coefficients for representation effects (Black Women)

	Female faculty	Black faculty	Black female faculty
Total female faculty representation year 3	-0.045 (0.99)		
Total Black faculty representation year 3		0.21** (2.12)	
Black female faculty representation year 3			0.080 (0.50)
White Female Graduation Rate	0.55*** (10.94)	0.57*** (10.78)	0.56*** (10.71)
Black women population	0.00013 (0.28)	-0.00052 (1.02)	-0.00011 (0.21)
Private Institution	-1.84 (1.48)	-1.62 (1.30)	-1.68 (1.34)
Total faculty and students (Org size)	0.00013** (2.24)	0.00017*** (2.77)	0.00015** (2.44)
Average Student Aid (in tens of dollars)	0.017** (2.31)	0.017** (2.31)	0.017** (2.33)
Total Pell Grants logged	-4.68*** (5.99)	-4.61*** (5.73)	-4.62*** (5.71)
Percent retention in first year cohort	0.50*** (6.21)	0.50*** (5.81)	0.50*** (5.84)
Carnegie extensive/intensive institution	-0.15 (0.19)	0.068 (0.08)	-0.072 (0.09)
Trend	0.090 (0.20)	0.070 (0.16)	0.070 (0.15)
Total revenue logged	2.74*** (4.51)	2.56*** (4.16)	2.67*** (4.34)
Observations	2699	2545	2545
R^2	0.702	0.705	0.704

Absolute t statistics in parentheses

DV=6-year graduation rate. State and year fixed effects not shown.

** $p < 0.05$, *** $p < 0.01$

Table 4: OLS Coefficients for representation effects (Black Men)

	Male faculty	Black faculty	Black male faculty
Total male faculty representation year 3	-0.11** (2.46)		
Total Black faculty representation year 3		0.11 (1.16)	
Black male faculty representation year 3			0.33** (1.79)
White Male Graduation Rate	0.47*** (10.65)	0.46*** (10.07)	0.46*** (9.99)
Black men population	0.00058 (0.68)	-0.00020 (0.22)	-0.00029 (0.32)
Private Institution	-3.06** (2.49)	-2.69** (2.12)	-2.62** (2.06)
Total faculty and students (Org size)	0.000023 (0.38)	0.000059 (0.95)	0.000064 (1.04)
Average Student Aid (in tens of dollars)	0.026*** (3.47)	0.026*** (3.26)	0.026*** (3.25)
Total Pell Grants logged	-4.73*** (6.42)	-4.71*** (6.22)	-4.73*** (6.25)
Percent retention in first year cohort	0.45*** (6.42)	0.44*** (5.99)	0.44*** (5.96)
Carnegie extensive/intensive institution	-2.23*** (2.65)	-2.73*** (3.21)	-2.67*** (3.14)
Trend	-0.12 (0.25)	-0.035 (0.08)	-0.023 (0.05)
Total revenue logged	4.46*** (7.34)	4.39*** (6.97)	4.35*** (6.91)
Observations	2753	2592	2592
R^2	0.686	0.683	0.683

Absolute t statistics in parentheses

DV=6-year graduation rate. State and year fixed effects not shown.

** $p < 0.05$, *** $p < 0.01$

Table 5: OLS Coefficients for representation effects (Latina Women)

	Female faculty	Latino faculty	Latina faculty
Total female faculty representation year 3	0.053 (1.05)		
Total Latino faculty representation year 3		0.51*** (4.65)	
Latina women faculty representation year 3			0.88*** (3.60)
White Female	0.54*** (10.15)	0.57*** (11.49)	0.57*** (11.22)
Graduation Rate			
Latina women population	0.00022 (1.02)	-0.00066** (2.23)	-0.00049 (1.64)
Private Institution	0.18 (0.14)	0.80 (0.63)	0.77 (0.60)
Total faculty and students (Org size)	0.000037 (0.58)	0.00011 (1.61)	0.000100 (1.47)
Average Student Aid (in tens of dollars)	0.021*** (3.01)	0.018*** (2.59)	0.017** (2.40)
Total Pell Grants logged	-2.58*** (3.34)	-2.35*** (3.01)	-2.52*** (3.21)
Percent retention in first year cohort	0.47*** (5.81)	0.45*** (5.64)	0.46*** (5.68)
Carnegie extensive/intensive institution	0.52 (0.60)	0.15 (0.17)	0.35 (0.41)
Trend	-0.37 (0.68)	-0.35 (0.63)	-0.35 (0.64)
Total revenue logged	1.97*** (3.20)	1.63** (2.57)	1.71*** (2.71)
Observations	2599	2455	2455
R^2	0.656	0.663	0.662

Absolute t statistics in parentheses

DV=6-year graduation rate. State and year fixed effects not shown.

** $p < 0.05$, *** $p < 0.01$

Table 6: OLS Coefficients for representation effects (Latino men)

	Male faculty	Latino faculty	Latino men faculty
Total male faculty representation year 3	-0.16*** (2.85)		
Total Latino faculty representation year 3		0.35*** (4.26)	
Latino men faculty representation year 3			0.63*** (4.25)
White Male Graduation Rate	0.47*** (9.16)	0.44*** (8.40)	0.44*** (8.26)
Latino men population	0.00030 (1.13)	-0.00054 (1.61)	-0.00054 (1.63)
Private Institution	1.68 (1.16)	2.51 (1.70)	2.51 (1.70)
Total faculty and students (Org size)	-0.0000085 (0.13)	0.000078 (1.13)	0.000074 (1.07)
Average Student Aid (in tens of dollars)	0.017** (2.34)	0.017** (2.22)	0.018** (2.34)
Total Pell Grants logged	-3.60*** (4.29)	-3.44*** (4.02)	-3.36*** (3.94)
Percent retention in first year cohort	0.55*** (6.78)	0.57*** (6.79)	0.58*** (6.83)
Carnegie extensive/intensive institution	0.77 (0.89)	-0.49 (0.59)	-0.62 (0.74)
Trend	0.58 (1.42)	0.63 (1.62)	0.65 (1.69)
Total revenue logged	3.41*** (5.11)	3.20*** (4.71)	3.21*** (4.71)
Observations	2536	2397	2397
R^2	0.658	0.660	0.661

Absolute t statistics in parentheses

DV=6-year graduation rate. State and year fixed effects not shown.

** $p < 0.05$, *** $p < 0.01$

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ⁱEmpirically, bureaucracies that represent the advantaged rather than the disadvantage are not politically interesting phenomena. Political institutions, including bureaucratic agencies, are designed to represent the interests of those with the ability to control the bureaucracy (Weber 1946), and the United States has a long history of formally requiring bureaucracies to represent groups with political advantages, e.g., business, agriculture, labor (see Redford 1969).

ⁱⁱThe contention that greater representation of minorities generates a biased bureaucracy assumes that existing bureaucracies are fully neutral and are not biased against disadvantaged individuals and that representation will somehow over represent individuals rather than simply approach equity. Neither assumption has empirical support.

ⁱⁱⁱ This process segregates somewhat on socio-economic status also as students from low income areas are likely to attend less challenging schools and be less prepared for higher education.

^{iv} This is not to say we conceptualize intersectionality as the combination of two discrete identities of race/ethnicity and sex, but rather the interconnection of race/ethnicity and sex based on discrete groups of faculty and students across the two interconnected constructs.

^v Although women outperform men in undergraduate graduation rates and faculty representation in certain disciplines, women still face institutional sexism perpetuated by both men and women through hegemonic masculinity in academia (Armato 2013).

^{vi} Women faculty members could well have influence on other outcomes for female students including such things as improved grades, higher career aspirations, applications to graduate school, sexual harassment issues, and similar factors.

^{vii} Although not ideal, the six-year graduation rate is the most common, and most salient institutional-level outcome for state and federal policymakers and many other organizations. This measure is limited in its ability to offer a clear picture of all student outcomes for many first generation and low-income students, but it is the best information currently available and used by many states as a performance measure (Ishitani, 2003).

^{viii} Importantly, institutions often report a zero percent graduation rate for each of our subpopulations. These zeros identify institutions in which students of a particular subpopulation matriculated six-years prior, but failed to graduate. We excluded any institution which reported zero students enrolled from any subpopulation of interest.

^{ix} This value excludes adjunct faculty who are employed less than fulltime.

^x Since our unit of analysis is a university cohort, we had several options for calculating this variable. The most straightforward would be averaging the representation across the six years in which the cohort enrolled. This is made impractical by (a) no data on faculty race/ethnicity collected in 1996, 1998, 1999, or 2000, leading to imbalanced averages; and (b) the fact that many students have graduated by the fifth or sixth year, so they would not be exposed to the fifth and sixth year average representation, but still included in the six year graduation rate. Additionally, many students are enrolled in lower level courses taught by graduate students or adjunct instructors in the first and second year. Since the third year is spent largely in the student's major, where the student will have the greatest probability of engaging with faculty in ways that would promote representation, and all students in the cohort are exposed to this representation value, we decided to use that year's value in our models. Because faculty representation data is not gathered in 2000, the first cohort (1996) is excluded from the general analysis. We also excluded any institution with missing representation values across any group of interest. The results are robust to different measures of faculty representation including the average faculty representation across all six years. The results of these estimations are available from the corresponding author.

^{xi} Private colleges and universities in general have higher graduation rates due to a variety of factors including resources and student populations (Scott, Bailey & Kienz 2006)

^{xii} Evidence suggests that Carnegie classifications are correlated with student outcomes and engagement (McCormick, Pike, Kuh, Pu-Shih, Chen 2009).

^{xiii} Students may need more institutional assistance in order to succeed in larger universities where they can be lost among a sea of people (Townsend & Wilson 2006).

^{xiv} We chose total revenue because a university's ability to generate revenue affects its ability to achieve its mission (Weisbrod, Ballou & Asch 2008), which commonly includes educating a diverse student body.

^{xv} Financial aid is closely associated with college attendance and completion (Dynarski 2003).

^{xvi} Pell grants are common controls for econometric models examining undergraduate graduation rates. Evidence suggests that the amount of Pell grants received by an institution are negatively associated with graduation rates because it indicates either lower family income or higher tuition levels (Ehrenberg & Zhang 2005).

^{xvii} Many studies have demonstrated that a key factor in minority student attrition in higher education is the isolation felt by students surrounded by white students (Davis, Dias-Bowie, Greenberg, Klukken, Pollio, Thomas & Thompson 2004).

^{xviii} To account for general student attrition at the institution.

^{xix} Public higher education governance occurs at the state level and evidence suggests that state government officials influence institutional revenue, which can affect the cost of attendance for students (Lowry 2001).

^{xx} Virtually all of the variation in the key independent variable, faculty composition, is cross-sectional, not longitudinal. The longitudinal variation totals only 1.9% for black female faculty, 1.3% for black male faculty, 10% for Latina faculty, and 3.8% for Latino faculty. Graduation rates are also highly cross-sectional dominant.

^{xxi} To test the robustness of our findings, we run the analysis without the censor and find that it does not change the sign or significance of any of our results.

^{xxii} The censor is included in each analysis, so an institution without five students in subgroup A may be dropped from one analysis, but included when subgroup B meets the censor requirement.

^{xxiii} These organizations' mission is to represent a historically disadvantaged group i.e. Black students. A Black bureaucrat seeking to represent Black students therefore faces no personal risks and limited transaction costs (see Meier 2019).

^{xxiv} Note the representation coefficients for African American and Latino students are six to eight times larger than the coefficient for males (from Table 2). This may reflect a general lack gender consciousness on part of males and thus salience of the identity relative to that for racial minorities in higher education policy outcomes.

^{xxv} Latinas are the only faculty group with less passive representation than Black men.

^{xxvi} The t-test to determine if these coefficients could be drawn from the same population is 1.38 $p = .084$ with a one-tailed test.

^{xxvii} Appendix table A7 replicates the results for white students as a robustness check.

^{xxviii} We estimated models examining the representation effects for African American and Latinx students, but do not report the positive representation relationships in the interest of space. These results are available from the corresponding author.