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How Bureaucratic Representation Affects Public Organizational Performance: A Meta-Analysis

Research Article

Abstract: *The impact of representative bureaucracy on public organizational performance has received a good deal of attention in public management. However, the literature provides little systematic rationalization about the effects of the individual constructs of representative bureaucracy on organizational performance. This meta-analysis of 648 effect sizes from 80 quantitative studies, closely examines the conditions under which bureaucratic representation affects public organizational performance. The research provides evidence on the relationship between different constructs of representative bureaucracy and organizational performance. This meta-analysis overall advances the theory of representative bureaucracy from several perspectives. It shows that the effects of representative bureaucracy on public organizational performance are positive in general, but that these effects are moderated by several contextual factors. And our finding that the effects of bureaucratic representation on public organizational performance was shaped by demographics and types of representation, levels of bureaucracy, and performance measurements adds to the micro-theory behind individual bureaucratic actions.*

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Evidence for Practice

- Organizations can bolster their performance and productivity when their demographic make-up reflects the communities they serve.
- Frontline or street-level bureaucrats may more effectively serve their counterparts in the general population as compared to managers.
- As public service delivery is increasingly client/citizen-oriented, the extent to which citizens perceive they are being represented is critical in promoting the legitimacy of and coproduction in public service delivery.

As a central topic of public management research and practice, organizational performance has been frequently linked to the issue of representativeness, particularly since the New Public Management movement (Andrews et al. 2005; Groeneveld and Van de Walle 2010). Commonly understood as a bureaucracy representing particular societal populations as a whole, especially women or members of different racial or ethnic groups (Groeneveld and Van de Walle 2010; Meier 1975; Meier 2019), representative bureaucracy has a close connection with the organizational performance.

Specifically, representative bureaucracy is ultimately concerned with democratic outcomes, but it is the interaction of representative bureaucracy and organizational performance in terms of democratic *process* that produces equity and effectiveness. Those processes must focus on such democratic values as fairness and transparency. In this sense performance management in public organizations includes not only "effectiveness" but equity as well. (Andersen, Boesen, and Pedersen 2016; Boyne, Brewer, and Walker

2010; Walker and Andrews 2015). Organizational performance includes efficiency and effectiveness, but also incorporates equity and inclusiveness. The efficiency and effectiveness tend to connote directly standardized objective measurements as espoused by, for example, the New Public Management. However, in order to accommodate to the increasingly humanized and customized public service provision, public organizational performance should also be construed from a political standpoint in terms of producing democratic processes and outcomes by including redistributive or even subjective indicators such as representation and social equity. Walker and Andrews (2015, p. 104) stress the importance of democratic processes in the delivery of public services. They point out that early studies of public organizational performance were devoted more to such measures as efficiency and effectiveness. But today, the governance of public services requires broader questions that "necessitate the examination of accountability, civil and human rights and key questions of probity and corruption alongside democratic outcomes and participation in the

democratic process." These, they argue, are additional process dimensions of public organizational performance and especially manifested with the impact of bureaucratic representation (Meier and Nicholson-Crotty, 2006; Riccucci and Meyers, 2004; Julnes and Holzer 2001).

Although the interaction between representative bureaucracy and public organizational performance has been extensively examined, the conditions under which bureaucratic representation affects organizational performance have lacked close scrutiny. Indeed, it may be that the effect of bureaucratic representation is highly situational or contextual (Andrews, Ashworth, and Meier 2014; Dolan 2000; Meier 2019; Park 2020; Meier and Wilkins 2002; Wilkins and Williams 2008). Thus, it is imperative to examine how certain conditions or circumstances shape the impact of bureaucratic representation on organizational performance. This research conducts a meta-analysis to synthesize 80 quantitative studies on the relationship between representative bureaucracy and organizational performance with 648 effect sizes. This study finds a significant and positive association between representative bureaucracy and public organizational performance. The moderator analysis further suggests that this positive association is facilitated by the presence of specific demographic characteristics as well as frontline settings. The study further finds that the facilitating effects of representative bureaucracy on public organizational performance is more significant at the organizational as compared to the individual level.

This meta-analysis overall advances the theory of representative bureaucracy in several ways. First, demographic salience compared with other identities increases the legitimacy of representative bureaucracy and helps promote the positive effects of representative bureaucracy on public organizational performance. In addition, the study helps advance the theoretical framework of representative bureaucracy from active to symbolic representativeness, finding that active representation and symbolic representation are equally important approaches to enhancing the effects of representativeness on performance. Also, compared with their non-frontline counterparts, street-level bureaucrats are found to have a greater impact on public organizational performance. Finally, our findings that the effects of bureaucratic representation on public organizational performance were lower at the individual as compared to the organizational level adds to the micro-theory behind individual bureaucratic actions (see Meier 2019). In sum, this study adds new knowledge to the theory of and literature on representative bureaucracy, which has implications for future research.

Representative Bureaucracy Theory

The theoretical framework of representative bureaucracy has evolved over time. Initially, the concept of representative bureaucracy was examined in terms of the descriptive representativeness of organizations; this was defined as passive representation. Here, research examined the degree to which the demographics of public organizations reflected the demographics of the general population (Meier 1993a; Meier 1993b; Selden 1997). Kenneth Meier was the first scholar to empirically examine the linkage between passive and active representation, which asks whether bureaucrats' social or demographic characteristics correspond with their values and policy decisions. Additional advancements in representative

bureaucracy theory and research found that the linkage between passive and active representation was based on a few assumptions: that bureaucrats have discretionary powers and that organization socialization enables individuals with the same demographic backgrounds to share certain values; and as a consequence, bureaucrats will make policy decisions consistent with their counterparts in the general population and, indeed, will seek to maximize the values shared with those demographic groups (Long 1952; Meier 1975; Meier and Morton 2015; Capers 2018; Favero and Molina 2018; Andrews and Johnston Miller 2013; Mosher 1968; Eulau and Karps 1977).

Symbolic representation further advanced the theoretical framework of representative bureaucracy. Empirical research here found that the social origins of bureaucrats can induce certain attitudes or behaviors on the part of citizens or clients without the bureaucrat taking any action. For example, Theobald and Haider-Markel (2009) found that the mere presence of Black police officers will improve the legitimacy of law enforcement for Black citizens, suggesting that passive representation by itself can influence outcomes (also see Riccucci and Van Ryzin 2017; Davis et al. 2011). Symbolic representation can also occur when citizens or clients respond favorably to the background or identity of bureaucrats, even if they do not share demographic characteristics. Gade and Wilkins (2012), for example, found that veterans receiving vocational rehabilitation services report significantly higher levels of satisfaction with the services when their counselors are veterans. Relatively fewer studies have been conducted on symbolic representation and so, its potential effects on public organizational performance especially as compared to active representation, are still in question.

In addition, representative bureaucracy theory presumes that in the aggregate or at the organizational level, the composition of the bureaucracy should reflect the clients it serves, thus ensuring that their voices will be heard and democratic values fulfilled. And although representation at the individual level is certainly reflected at the aggregate or organizational level, questions remain regarding the effects of individual bureaucratic actions on representativeness and ultimately organizational performance (Andrews et al. 2016; Meier 2019). As Meier (2019, 41) has pointed out, the aggregate focus "is theoretically justified by micro theories of representation that do not require an individual client come into contact with a specific individual bureaucrat" (also see Meier and Morton 2015).

As noted, apart from outcomes, representative bureaucracy is also expected to be concerned with the processes of public organizational performance (Andersen, Boesen, and Pedersen 2016). Compared with the private sector which attaches great importance to the cost-effectiveness or monetary value of organizational performance, public organizations pay much more attention to the quality of public service delivery (Walker and Andrews 2015). Performance management in the public sector does focus on program effectiveness but it also considers process-related criteria which emanate from traditional democratic values, such as due process, equity, integrity, and transparency (Moynihan et al. 2011). Since representation is one core element in democracy, bureaucratic representation within public organizations to some extent ensures that democratic processes of organizational performance are taken into account. A review of the representative bureaucracy literature

suggests that, apart from program effectiveness, the democratic outcomes of bureaucratic representation such as proportional representation, budget and policy priorities, and reduced inequality for the disadvantaged societal groups are all important dimensions to be considered in public organizational performance management (Bishu and Kennedy 2019). Bureaucratic representation allows the path of public service delivery to be more accessible to the various groups that are represented, which in turn contributes to the performance and management of public organizations.

The Effect of Context on the Representativeness-Performance Interaction

Despite the potential for bureaucratic representation to positively affect public service delivery, the actual outcome may vary depending upon certain conditions or circumstances. It has been widely confirmed that bureaucratic discretion is a precondition for representative behaviors within the bureaucracy. As Meier (2019, 40) points out this principle can be generalized to contextual theories of representative bureaucracy, where moderators can affect, for example, the linkage between passive and active representation. But, aside from control variables in representative bureaucracy studies, there has been virtually no systematic analysis of other conditions that may shape the actions of bureaucrats, especially those which are highly situational or contextual (Andrews, Ashworth, and Meier 2014; Dolan 2000; Wilkins and Williams 2008). Andrews et al. (2016) have advocated for the systematic accounting of contextual factors in the inquiry of relationship between representative bureaucracy and public organizational performance. They suggest that context shapes the definition of representativeness and performance, may directly determine the limitations and availability of bureaucratic representation, and can indirectly affect or interact with the relationship between representative bureaucracy and organizational performance (Andrews et al. 2016). Thus, it is necessary to review the current literature of representative bureaucracy correlated with the performance of public organizations and systematically analyze the effects of contextual factors on this correlation. In order to address the potential manifestation of contextual impacts, this meta-analysis attempts to discuss the contextual factors in a "set/group" manner.[1]

Demographic Facet

Empirical research suggests that the representativeness in bureaucratic representation accommodates the demographic characteristics of the populations that the bureaucracy serves. Mosher (1968) suggested the existence of a linkage between passive and active representation, i.e., that bureaucrats who share demographic backgrounds with the citizenry, are more likely to push for the needs and interests of that cohort of the citizenry; thus, bureaucrats' behavioral actions are consistent with their values and attitudes. To be sure, apart from bureaucratic discretion (Keiser et al. 2002; Meier and Stewart Jr 1992) there are additional conditions for the successful passive-active linkage of bureaucratic representation in the delivery of public services, including the critical mass of the demographic or identity group (Nicholson-Crotty, Nicholson-Crotty, and Fernandez 2017; Young and Hindera 1999), bureaucratic involvement in specific policy areas (Keiser et al. 2002; Selden, Brudney, and Kellough 1998), and shared bureaucrat-citizen experience (Meier and Nicholson-Crotty 2006). Thus, the demographic perspective has been advanced

as a critical factor in public organizational performance and management (Andrews et al. 2016; Meier 1975).

As Meier (2019, 40) has stated the "bare bone's theory of representation holds that the translation of [passive representation] PR into [active representation] AR is contingent on the salience of the identity in question." But while existing empirical studies examine identities from the perspective of demographics, the question of whether race, ethnicity, and/or gender will have a greater impact on organizational performance as compared to other identities (e.g., age, language, professional affiliation) has not been studied. Existing research suggests that race, gender, and ethnicity are the primary focus of the demographic dimensions since they are the most salient demographic characteristics being examined and have had the largest impact on policy-relevant attitudes, values, and bureaucratic behaviors (Hindera 1993; Meier and Stewart Jr 1992; Meier, Wrinkle, and Polinard 1999; Schuck 2018; Park 2020; Capers 2018; Capers, K. Juree 2019). That is, representative bureaucracy studies have focused on the effects of gender, race, and ethnicity on either political attitudes and policy decisions (Hindera 1993; Keiser et al. 2002; Meier and Stewart Jr 1992; Grissom et al. 2017; 2009; Kuan Heong 2018) or policy outcomes (Dee 2005; Dolan 2000; Gidengil and Vengroff 1997; Jamil and Dangal 2009; Kelly and Newman 2001; Meier and Bohte 2001; Selden 1997; Sowa and Selden 2003; Hawes 2008; Holt and Gershenson 2019; Kim 2003; Leon 2017; McBeath et al. 2014; Nicholson-Crotty et al. 2016). Thus, it is reasonable to postulate that public organizational performance is more likely to be promoted by representative bureaucracy with a focus on demographic factors such gender, race, and/or ethnicity, as compared with, for example, age, marital status, and language.[2]

> **H1:** *Bureaucratic representation focused on gender, race, and/or ethnicity will have a greater impact on public organizational performance than that without such a focus.*

Symbolic/Active Representation

The theory of representative bureaucracy is underdeveloped with respect to symbolic representation. As noted, earlier symbolic representation stems from passive or descriptive representativeness. When the bureaucracy reflects the demographic or identity makeup of the population, certain attitudes or behaviors can be induced on the part of clients or citizens (Bradbury and Kellough 2008; Theobald and Haider-Markel 2009). Symbolic representation recognizes that the social or identity characteristics of bureaucrats can influence how citizens or clients view the agency's legitimacy which in turn can influence their willingness to comply or cooperate with organizational decisions or outcomes. Theobald and Haider-Markel (2009), for example, found that a predominately African-American police force can create greater legitimacy among African Americans in the community, notwithstanding the actions or behaviors of the police officers. They also found that whites are more likely to perceive police actions as legitimate if the actions were taken by white officers. Active representation can also produce these responses among the citizenry or clients, but it requires *actions* on the part of bureaucrats (Mosher 1968).

However, with symbolic representation, citizens or clients react positively toward the bureaucracy, without the bureaucrat taking

any action. In effect, symbolic representation examines whether the attitudes of citizens or clients will be influenced by the descriptive representation of those citizens or clients (Gade and Wilkins (2012). As Pitkin (1967) argues, descriptive representation can produce symbolic representation, which works "on the minds of those who are to be represented or who are to be the audience accepting the symbolization" (Pitkin 1967, 111). Pitkin goes on to say that it does not involve the activity of acting for the represented.

Riccucci, Van Ryzin, and Li (2016) using an experimental design, found that the descriptive representation of women in the workplace increased women's intentions to recycle hard plastics and, importantly, their willingness to do the more arduous task of food composting. Indeed, the symbolic representation effects were largest for this more difficult type of recycling. Compared with direct policy outcomes that result from behavioral representativeness through active representation, the effects of symbolic representation may be more implicit or nuanced. The research on symbolic representation correlated with public service delivery and public organizations tends to concentrate on the changes in performance from a perceptual perspective (see Riccucci, Van Ryzin, and Li 2016; Riccucci, Van Ryzin, and Jackson 2018; Rasul and Rogger 2015). That is to say, symbolic representation produces *perceptions* of fairness and legitimacy, whereas active representativeness produces tangible outcomes for clients or citizens. It should further be noted that experimental studies isolate a single factor in order to measure its true significance, but these studies do not portray the actual complexity of real-world symbolic representation where many more factors or variables come into play. This does not diminish the importance of online experimental studies, but most symbolic representation studies here address perceptions which are more nuanced as compared to the policy outputs and outcomes of active representation.

This is not to say that perceptions are unimportant. As Theobald and Haider-Markel (2009, p. 411), point out, "Human perceptions of situations have real importance even when perceptions might be wrong. In a very real sense, an individual's perception is his/her reality." Nonetheless, the effects of symbolic bureaucratic representation on public organizational performance may not be as significant as those from active representative bureaucracy.

> **H2:** *Active bureaucratic representation has a greater impact than symbolic bureaucratic representation on public organizational performance.*

Organizational Stratification: Frontline/Non-frontline Representation

The effects of bureaucratic representation on public organizational performance may differ depending upon the organizational level where bureaucrats work. Some have argued that organizational stratification is a contextual variable that can affect, for example, the linkage between passive and active representation (see, Keiser et al. 2002; Selden 1997). Bureaucrats may be working at the frontlines or street levels of the bureaucracy or they may be in management or leadership positions (Maynard-Moody and Musheno 2013; Wilson 2019). Discretion as noted has been found to be an important precondition of active representative bureaucracy, but the extent to which bureaucrats have discretion varies across different hierarchical

levels of the bureaucracy (Lipsky 2010; Selden 1997; Wilson 2019). Sowa and Selden (2003), for example, found that when minority administrators in supervisory positions perceive themselves to have more discretion, they will enact policies that are more representative of minority values and interests. While additional studies examine representative bureaucracy from a managerial perspective (also see, e.g., Selden 1997; Carroll, Wright, and Meier 2019), a good deal of the research on representative bureaucracy focuses on street-level bureaucrats. These workers have discretionary authority at the frontlines as they interact directly with citizens or clients. The proximity of the client certainly enhances the salience of social identity. Police officers, for example, have a great deal of discretion that affects policy outcomes directly (e.g., a decision to engage in racial profiling). Some have argued that given their vast discretionary authority, street-level bureaucrats are more likely to actively represent constituents than managers or supervisors (Meier 1993; Meier and Bohte 2001). With respect to the interaction between representative bureaucracy and organizational performance, street-level bureaucrats with their field expertise and considerable discretion can greatly affect the lives of citizens or clients of the bureaucracy. With high levels of discretion, representative bureaucracy at the street level is hypothesized to contribute more to public organizational performance than at the non-frontline levels.

> **H3a:** *Frontline bureaucratic representatives will have a greater impact on public organizational performance than their non-frontline counterparts.*

Levels of Performance Measurement: From the Aggregate to Individual Level

The theory of representative bureaucracy presumes that in the aggregate or at the organizational level, the bureaucracy should look like the clients it serves, as this ensures that government decisions are more democratic, reflecting a diversity of interests. A good deal of research on representative bureaucracy is at the aggregate or organizational level. But, as Meier (2019) points out, questions persist on the effects of level of performance. In their research, Andrews et al. (2016) acknowledged the difficulty of disentangling the effects of individual contexts since their impact might be decided by a specific set of contextual factors. Performance measured at the individual level may differ from when it is measured at the organizational level, which further suggests the possible variation in effects of representative bureaucracy between different organizational levels. As the direct beneficiaries of bureaucratic representation, individuals as the members of the social groups in question are the first to react to the effects of representativeness. However, this also suggests that the effects of representative bureaucracy are limited at the individual level (Guul 2018). They are generally twofold: the symbolic impact that stems from the mere increase in proportion of bureaucratic representatives, and the active impact after the hands-on interaction between the clients and bureaucratic representatives.

However, once elevated to overall organizational performance, the process that representativeness within the bureaucracy affect the targeted group becomes far more complicated, and increases the possibilities that bureaucratic representation can benefit public organizational performance. Apart from the direct effects of representative bureaucracy, increased representativeness is

likely to motivate citizens or clients to cooperate with public organizations in coproduction, which can positively affect public service delivery (Meier 2019; Ostrom et al. 1979). Likewise, public values may be enhanced, which can also substantially improve the overall performance of public organizations (Hong 2016). Nevertheless, coproduction is not dependent on the presence of representativeness. Its antecedents include intrinsic motivations, social affiliation (or peer pressure), identification with normative purposes (Alford 2002; Sharp 1980; Thomas 2012; Carroll 2017), citizens' self-efficacy (Bandura 1997; Parrado et al. 2013), and perceived service satisfaction (Alford 2002). Thus, coproduction as independent from representative bureaucracy can promote the positive effects of bureaucratic representation on the performance of public organization as a whole (see Meier 2019; Conner 2016). Moreover, improvement in organizational performance can also be attributed to institutional pressures. Once representative bureaucracy is seen to benefit public organizational performance, organizations, as driven by normative isomorphism, may strive to increase representativeness in order to copy others' success (DiMaggio and Powell 1983). Thus, at the aggregate level, the facilitating effects of bureaucratic representation on organizational performance can be multiplied by other productive mechanisms within public organizations. Compared with its effect on overall public organizational performance, the positive influence of representative bureaucracy is weaker at individual level.

H3b: *The positive impact of representative bureaucracy on public organizational performance is smaller at the individual as compared to the organizational level.*

Data and Method

This study relies on meta-analysis to examine the effect of representative bureaucracy on public organizational performance and the contextual factors moderating the relationship. As a quantitative systematic review method, meta-analysis statistically analyzes the empirical results of a large population of existing studies in order to generalize the research findings on the relationship that the studies focus on (Glass 1976). Beside its frequent use in the fields of psychology, medicine, and business management, the use of meta-analysis in public administration research has been growing in recent years (see, e.g., Park 2020; George, Walker, and Monster 2019; Lu 2018; Harari et al. 2017; Bellé and Cantarelli 2017; Cantarelli, Belardinelli, and Belle 2016; Homberg, McCarthy, and Tabvuma 2015;).

Compared with traditional literature reviews, meta-analysis is a stronger tool for combining and generalizing research findings (Ringquist 2013). Unlike narrative reviews that typically summarize patterns across different research results through counting statistically significant results, meta-analysis systematically synthesizes all the individual results among existing studies. In this way, meta-analysis enables researchers to statistically aggregate the findings from primary studies to form a coherent result that is generalizable across those studies. Moreover, meta-analysis can detect and analyze the variability in results across existing studies, which is extremely useful to empirically evaluating the effects of possible moderators embedded in research designs or settings underlying the relationships examined. In sum, meta-analysis allows us to not only summarize the findings in existing literature

concerning the relationship between representative bureaucracy and public organizational performance, but also identify the factors shaping the representative bureaucracy–organizational performance relationship.

Literature Search and Inclusion Criteria
The meta-analysis started with a search for existing studies. The cutoff date for inclusion of relevant studies was the end of March 2020. To ensure the inclusiveness of the literature research, we employed three literature search strategies to identify relevant literature, following the best practices suggested by Reed and Baxter (2009) and Ringquist (2013). First, we searched in three academic databases, including EBSCO (for peer-reviewed journal articles), Web of Science (for peer-reviewed journal articles), and ProQuest (for dissertations). Articles including "bureaucratic representation/representative bureaucracy + performance," "race/Latino/black public + organization performance," "sex/gender/female + public organization performance/outcomes," and "active/symbolic bureaucratic representation/representative bureaucracy + performance" in the title, abstract, or full text were included. Second, the search was repeated using Google Scholar,[3] paying special attention to the newly published and highly cited academic works referenced. Only those references which shared the same keywords in the searching scheme of database records were included. Third, we also referred to the "Representative Bureaucracy Database" compiled through the Project for Equity, Representation and Governance, directed by Dr. Kenneth J. Meier (Project for Equity, Representation and Governance, 2018). The literature search was conducted in March of 2020 and a sum of 12,465 articles were collected.

These collected articles were further screened to identify those which were relevant for the present meta-analysis. We first reviewed the abstracts of the collected articles and identified 192 potentially relevant studies. We then performed full-text reviews, using the following four inclusion criteria. First, the focal predictor, *bureaucratic representation*, is operationalized as demographics.[4] According to Kennedy's (2014) review of the representative bureaucracy literature, the majority of empirical studies use descriptive or passive representation as the focal predictor and measure it predominantly using demographics. We followed this practice in the present analysis. Second, the dependent variable, *organizational performance*, can be operationalized as organizational outcomes at either the individual level (e.g., students' test scores) or the organizational level (e.g., overall program effectiveness and equality). Although Kennedy (2014) concluded that empirical research on representative bureaucracy typically linked to specific outcomes such as promoting educational performance in terms of students' test scores (Ross et al. 2010; Rocha and Hawes 2009; Pitts 2007; 2005; Dee 2004; 2005; 2007; Meier et al. 2006a; Meier and Bohte 2001; Meier and England 1984; Jenkins 2013; Morton 2015), Bishu and Kennedy's (2019) more recent review suggests that representative bureaucracy research has embraced a broader measure of organizational outcomes including client satisfaction, reduced inequality (Choi et al. 2018; Baekgaard and George 2018; Park and Liang 2019; Rabovsky and Lee 2018; Renzulli et al. 2011; Pate et al. 1998; Selden 1997; Sowa and Selden 2003; Lim and Meer 2017; Melton 2014), and law enforcement effectiveness (Nicholson-Crotty, Nicholson-Crotty, and Fernandez 2017; Roch and Edwards 2017; Roch et al. 2010; Wilkins and Williams 2008; Wilkins and

Williams 2009; Crawford and Fuller 2017). As a result, similar to previous meta-analyses on organizational performance (e.g., George, Walker, and Monster 2019; Gerrish 2016), we adopted this broader measurement of organizational performance, which helps capture different dimensions of organizational performance and further enhances the external validity of our analysis.

Third, studies only reporting descriptive statistics were excluded, since we cannot draw statistical information on the bureaucratic representation-organizational performance relationship from these studies. Fourth, studies that do not present correlation coefficients or t-statistics were removed from the collection, since there is not enough statistical information to calculate effect sizes. Based on a refined full-text review, 80 studies met the inclusion criteria and thus serve as our final sample for the meta-analysis. These 80 studies include 75 published studies and 5 unpublished studies ("gray studies").[5] Sixty-nine studies were observational while only 11 studies designed experiments. The majority of these studies are US-based (56 studies), with less than a third conducted in other countries (24 studies).[6] As for organizational performance, 12 articles focused on effectiveness, 22 on efficiency, 11 on representation, 21 on equity, and 14 on multiple dimensions. The PRISMA flow diagram describing the detailed procedures of literature search is presented in Figure 1.

Coding Procedures

We then extracted and coded information from the included studies. Two categories of information were coded in the synthesis—effect size information and moderator information (Lipsey 2009).

In this meta-analysis, the effect sizes, describing the standardized associations between the focal predictor *bureaucratic representation* and the dependent variable *public organizational performance*, were calculated into correlation-based (r-based) effect sizes. The correlation coefficient r, if not provided in the primary study, was calculated using the following equation: $r = \sqrt{\left[\dfrac{t^2}{t^2 + df}\right]}$, where t is the t-score testing the null hypothesis that the population correlation $Rho = 0$, df is the degree of freedom.

However, a number of studies were found that their effects were either not generated on the basis of linear correlation or lacking explicit conditions to generate r. Under these circumstances, we applied several modification strategies, following the suggestions from Hedges (2009) and Ringquist (2013). First, for the studies with a mean-comparison technique, the group-difference-based effect sizes (Cohen's d) were first calculated and then transformed into r.
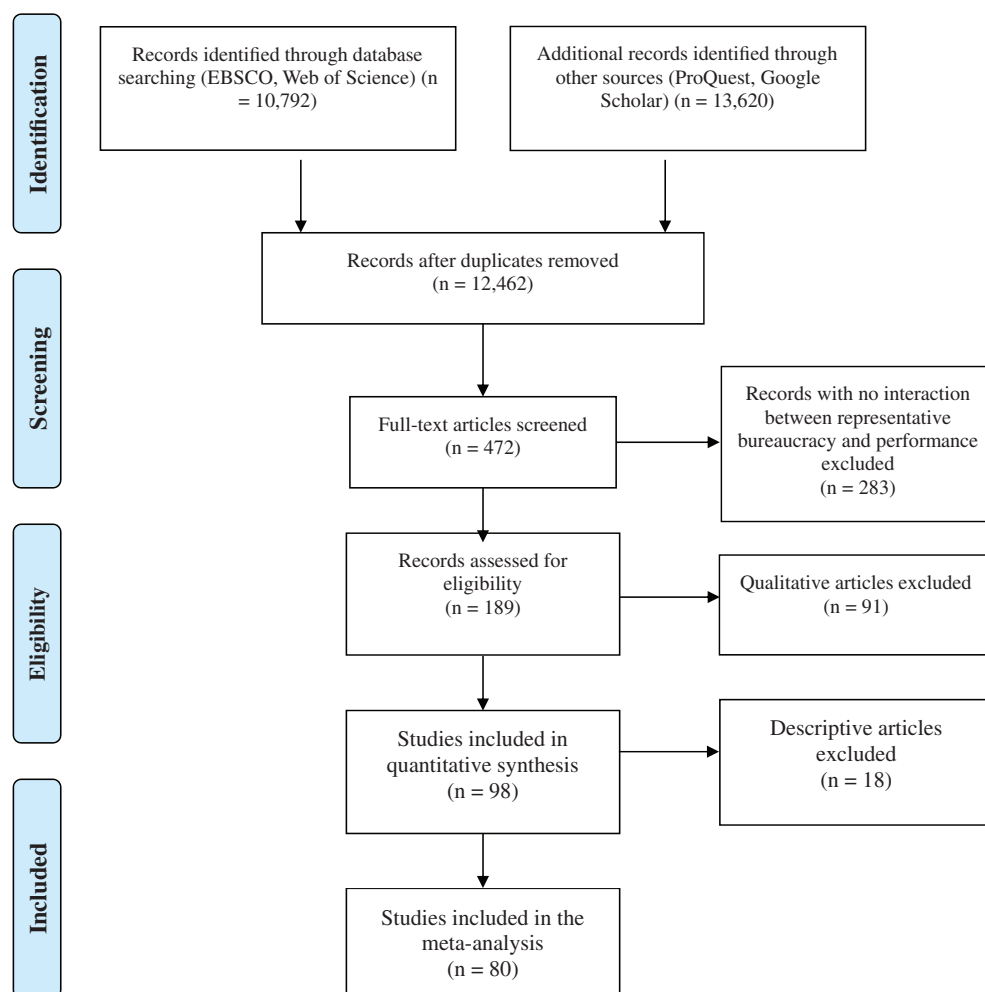

Figure 1   PRISMA Flow Diagram Identification

Second, for the research implementing logit/probit models, odds-based effect sizes were first adopted and then converted into *r*. Third, several studies only reported regression coefficients with significant levels using asterisks, *t* scores or *z* scores at the corresponding symbol levels were introduced to estimate the values of *r*, respectively. If the correlation was not significant, the effect size was coded 0.

Moreover, in studies containing multiple effect sizes, the *r* of all these effect sizes were calculated to maintain the within-study variation. Further, in order to correct the small bias associated with correlation coefficient *r*, Fisher's *z* was applied to represent the correlation-based effect sizes and was calculated using the following equation: $Z_r = 0.5\ln\left[\dfrac{1+r}{1-r}\right]$, with variance $V[Z_r] = \dfrac{1}{(n-3)}$. Finally, 648 effect sizes were drawn from 80 primary studies.

In order to examine the situational factors affecting the relationship between representative bureaucracy and public organizational performance, the contextual characteristics in the research design were extracted from the primary studies and coded as moderators. Specifically, according to the aforementioned hypotheses, four moderators were generated dichotomously. The first moderator *demographic facet* was coded as 1 if the representation relates to gender, race, or ethnicity and 0 if otherwise. The second moderator *active/symbolic representation* was coded as 1 for active representation and 0 for symbolic representation. The third moderator *frontline/non-frontline representation* was coded as 1 if the representation was measured at the frontline and 0 if otherwise. The fourth moderator *level of performance measurement* was coded as 1 for organizational performance measured at the individual level and 0 for the organizational level. Table 1 provides the distribution of these moderators within our sample.

Results
Average Effect Size Analysis
The 648 effect sizes representing the association between representative bureaucracy and public organizational performance range from –0.570 to 0.952. Of all the individual effect sizes, a majority of 449 indicated a positive association, supporting the facilitating effects of bureaucratic representation on public organization performance. Only three effect sizes demonstrated a negative association, which underscores the tradeoff between bureaucratic representation and public organizational performance. The remaining 196 effects size yield no association between the two variables. The study-level distribution of effect sizes across the 80 studies is presented in Figure 2.

Before estimating the average effect size across primary studies, the effect size heterogeneity was investigated through the *Q*-test, in

order to select the appropriate calculating strategy between fixed-effects and random-effects models. The *Q* statistic is 10189.27 with 647 degree of freedom, and its corresponding *p*-value is smaller than .01. This result suggests that under 99% confidence, the null hypothesis that the variation among the effect sizes can only be explained by sampling error was rejected. Moreover, the I^2 statistic of 93.7% also implies a high level of heterogeneity across effect sizes (Higgins and Thompson 2002). Thus, the random-effects model was applied to generate an average effect size of 648 effect sizes from 80 studies. The weighted average effect size in Fisher's *z* is 0.029 ($z = 26.56$, $p < .01$), with a 95% confidence interval of [0.027, 0.031]. The positive though small average effect size suggests a significant positive association between representative bureaucracy and public organizational performance, despite the relatively minimal magnitude of correlation. Thus, the facilitating effects of bureaucratic representation on public organizational performance as widely proposed are empirically supported (e.g. Bradbury and Kellough 2008; Lim 2006; Pitkin 1967; Riccucci, Van Ryzin, and Lavena 2014; Selden 1997; Thomas 1998; Wilkins and Williams 2008).

Findings: Meta-Regression Analysis
A meta-regression analysis was conducted to further evaluate the systematic variability in effect sizes which was theoretically postulated to attributing to the previously mentioned situational moderators: demographic facet, active/symbolic representation, frontline/non-frontline representation, and levels of performance. The regression model is specified as follows:

$$ES_i = b_0 + b_1 Gender\ \&\ Race_i + b_2 Frontline\ Representation_i$$
$$+ b_3 Active\ Representation_i + b_4 Performance\ Level_i + b_5 Publication\ Bias_i$$

where ES_i refers to the raw effect size in original study *i* in terms of Fisher's *z*, $Gender\ \&\ Race_i$ refers to whether gender, race or/and ethnicity as focal indicator was examined in the study, $Frontline\ Representation_i$ refers to whether the public agency being affected by bureaucratic representation was at the frontline level, $Active\ Representation_i$ refers to whether the effect of representative bureaucracy on public organization performance was the result of active representation, $Performance\ Level_i$ refers to whether the performance of public organization was measured at individual level, and $Publication\ Bias_i$ refers to whether a study appeared in a peer-reviewed publication outlet (published study = 1 and unpublished study = 0).

We used advanced meta-regression models to address the two empirical challenges, effect size heteroscedasticity, and non-independent observations. First, given that the effect sizes were generated from studies with various sample sizes, heteroscedasticity became a concern in the meta-regression. Second, to maintain the within-study variability, we retained all the effect sizes eligible for the meta-analysis from original studies, rather than selecting the most representative effect sizes (Ringquist 2013). However, this treatment is likely to undermine the observation independence. As a result, these two problems are difficult to be resolved by traditional multivariate analysis. In this study, we followed the best practices suggested by Ringquist (2013) to apply clustered robust variance estimation (CRVE) and generalized estimating equations (GEE) to specify the meta-regression model (Ringquist 2013).

Table 1 Distribution of Moderators Within the Sample

Contextual Moderators	Study-Level Distribution	Effect Size-Level Distribution
Race representation	59.04%	68.50%
Gender representation	49.40%	49.03%
Active representation	50.60%	53.19%
Symbolic representation	37.35%	28.23%
Frontline representation	48.19%	49.93%
Individual performance measurement	43.37%	37.00%

Notes: multiple contextual moderators can be included in one study so that the cumulative percentage does not equal to 100%.

Study	ES (95% CI)
Agyapong (2018)	0.17 (0.01, 0.33)
Almutairi (2007)	0.14 (0.03, 0.24)
Andrews & Miller (2013)	0.07 (-0.09, 0.23)
Andrews et al. (2005)	0.23 (0.19, 0.27)
Andrews et al. (2014)	0.09 (-0.08, 0.26)
Baekgaard & George (2018)	0.08 (0.01, 0.14)
Capers (2018)	0.03 (-0.00, 0.07)
Capers (2019)	0.04 (-0.03, 0.12)
Carroll (2017)	0.04 (-0.02, 0.09)
Choi et al. (2018)	0.19 (-0.00, 0.38)
Crawford & Edward (2015)	0.01 (0.00, 0.02)
Dee (2004)	0.03 (0.00, 0.05)
Dee (2007)	0.01 (-0.01, 0.04)
Favero & Molina (2018)	-0.05 (-0.22, 0.12)
Fernandez (2020)	0.43 (0.29, 0.56)
Fernandez et al. (2018)	0.17 (0.02, 0.31)
Grissom et al. (2017)	0.03 (-0.01, 0.08)
Grissom et al. (2009)	0.05 (0.01, 0.10)
Guul (2018)	0.07 (0.02, 0.13)
Hassan & Hatmaker (2015)	0.11 (0.03, 0.19)
Hawes (2008)	0.04 (0.00, 0.08)
Hawes (2013)	0.02 (-0.01, 0.06)
Holt & Gershenson (2019)	0.00 (0.00, 0.00)
Hong (2016)	0.08 (-0.04, 0.21)
Hong (2017)	0.07 (-0.04, 0.18)
Hong (2017)	0.17 (-0.05, 0.38)
Hong, S. (2020)	0.09 (0.00, 0.18)
Jacobsen (2012)	0.09 (-0.09, 0.26)
Jacobson et al. (2010)	0.00 (-0.05, 0.05)
Jehn et al. (1997)	0.06 (-0.03, 0.16)
Jenkins (2013)	0.03 (-0.04, 0.10)
Julnes & Holzer (2004)	0.15 (0.05, 0.25)
Keiser et al. (2002)	0.11 (0.05, 0.16)
Kim (2003)	0.06 (-0.40, 0.52)
Krøtel et al. (2019)	0.10 (-0.01, 0.22)
Kuan Heong (2018)	0.05 (-0.03, 0.14)
Lee (2019)	0.07 (-0.07, 0.20)
Leon (2017)	0.26 (0.10, 0.42)
Liang et al. (2020)	0.00 (-0.01, 0.01)
Lim & Meer (2015)	0.01 (-0.01, 0.02)
McBeath et al. (2014)	0.04 (-0.05, 0.13)
Meier & Nicholson-Crotty (2006)	0.31 (0.22, 0.40)
Meier & Wilkins (2002)	0.07 (0.04, 0.10)
Meier (1975)	0.04 (0.00, 0.09)
Meier et al. (2006)	0.07 (0.03, 0.10)
Meier et al. (2006)	0.20 (0.16, 0.24)
Meier et al. (2004)	0.05 (-0.05, 0.14)
Melton (2011)	0.04 (0.01, 0.07)
Melton (2014)	0.03 (0.00, 0.05)
Melton et al. (2010)	0.03 (-0.01, 0.06)
Molina (2016)	0.04 (0.00, 0.08)
Morton (2015)	0.00 (-0.02, 0.02)
Nicholson-Crotty et al. (2016)	0.02 (-0.00, 0.04)
Nicholson-Crotty et al. (2017)	0.14 (-0.06, 0.33)
Park & Liang (2019)	0.00 (-0.03, 0.03)
Park (2013)	0.99 (0.57, 1.41)
Pate et al. (1998)	0.03 (-0.01, 0.07)
Pitts (2005)	0.02 (-0.02, 0.06)
Pitts (2007)	0.02 (-0.01, 0.04)
Rabovsky et al. (2017)	0.00 (-0.04, 0.04)
Rasul & Rogger (2015)	0.04 (0.01, 0.06)
Renzulli et al. (2011)	0.00 (-0.01, 0.01)
Riccucci & Meyers (2004)	0.05 (-0.09, 0.19)
Riccucci et al. (2018)	0.09 (-0.01, 0.19)
Riccucci et al. (2014)	0.09 (0.01, 0.17)
Roch & Edwards (2017)	0.07 (0.00, 0.14)
Roch et al. (2010)	0.02 (-0.01, 0.04)
Ross et al. (2010)	0.03 (-0.00, 0.05)
Saifulina & Carballo (2017)	0.31 (0.04, 0.57)
Schuck (2018)	0.02 (-0.00, 0.04)
Shjarback et al. (2017)	0.04 (0.00, 0.09)
Song (2018)	0.02 (-0.00, 0.04)
Sowa & Selden (2003)	0.09 (-0.05, 0.22)
Suhaeniti & Ryu (2019)	0.05 (-0.01, 0.11)
Velte (2016)	0.22 (0.16, 0.28)
Wade-Olson (2019)	0.06 (-0.03, 0.14)
Wilkins & Keiser (2006)	0.01 (-0.03, 0.04)
Wilkins (2007)	0.14 (-0.16, 0.43)
Wilson & Carlos (2014)	0.01 (-0.00, 0.03)
Zhang (2019)	0.00 (-0.02, 0.03)

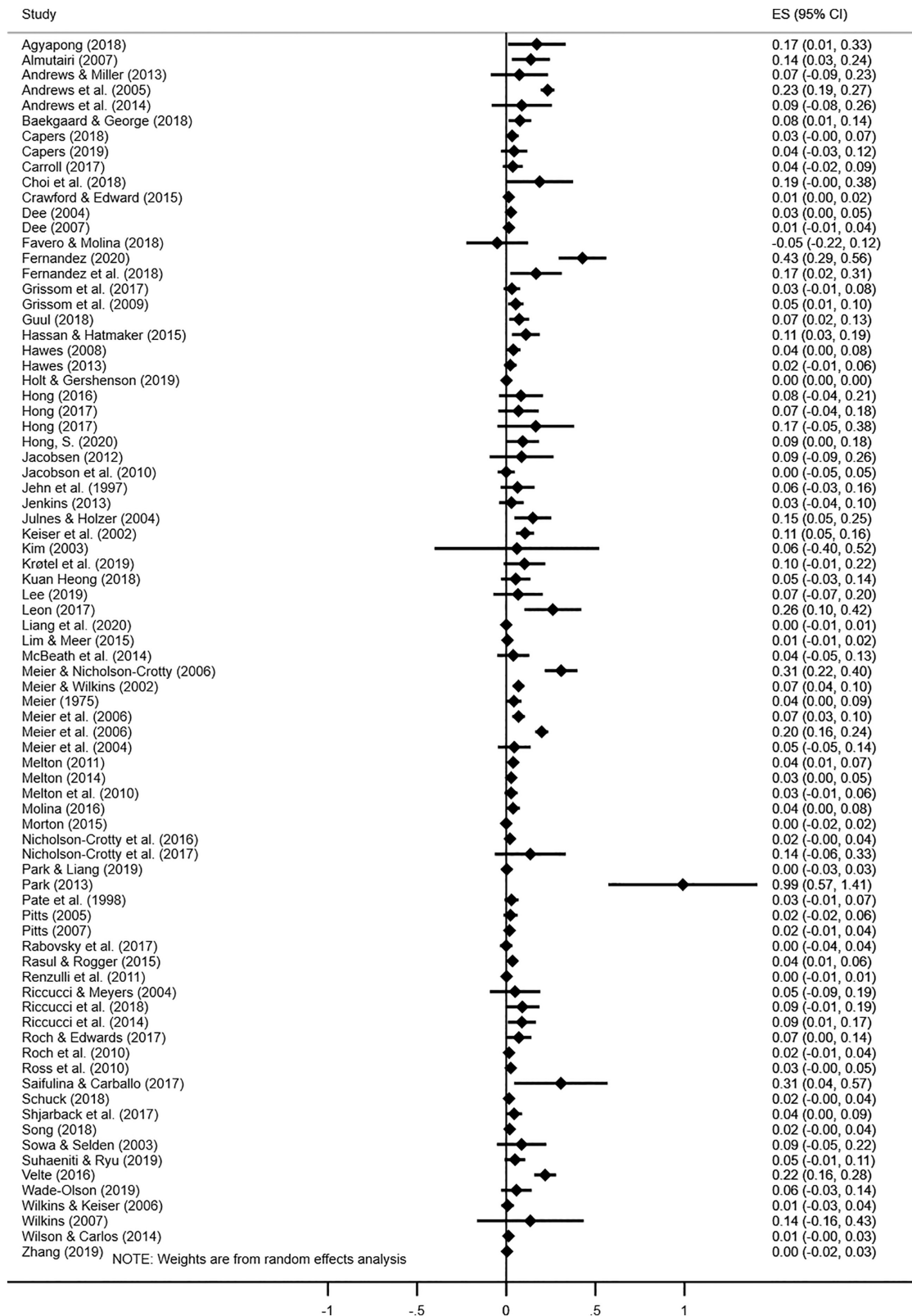NOTE: Weights are from random effects analysis

Figure 2 Distribution of Study-Level Effect Sizes Across Existing Studies

The former strategy mitigates the effect of heteroscedasticity by introducing a clustered robust parameter variance–covariance matrix suggested by White (1980) and the latter maintains the contribution of studies with few effect sizes by downplaying the importance of number of effect sizes on regression results (Liang and Zeger 1986). Armed with the two strategies, the meta-regression model is more assured to estimate meta-regression parameters.

The meta-regression results using both CRVE model and GEE model are presented in Table 2. Both models had the F-statistic and Wald χ^2 statistic with corresponding p-values smaller than .01,

Table 2 Meta-regression on Representative Bureaucracy—Organizational Performance Relationship

Moderator	CRVE	GEE
Gender/race	.0397[a] (.0196)	.0411[a] (.0163)
Active representation	−.0016 (.0128)	−.0015 (.0105)
Frontline representation	.0385[a] (.0188)	.0283[b] (.0155)
Performance level	−.0304[b] (.0178)	−.0359[a] (.0161)
Publication bias	−.0028 (.0161)	−.0049 (.0172)
Constant	−.0084 (.0192)	−.0132 (.0188)
No. of effect sizes	648	648
No. of studies	80	80
F	14.62[c]	
R^2	0.0880	
Wald χ^2		84.01[c]

Notes: Robust standard errors in parentheses. CRVE = Clustered robust variance estimation; GEE = Generalized estimating equations.
[a]Significant at .05,
[b]Significant at .1,
[c]Significant at .01.

which indicated the statistical significance. As showed in Table 2, the two models yield similar results.

First, the moderator representing the demographic characteristics of the research has a statistically significant and positive effect. We postulate that the effect of bureaucratic representation focusing on race/ethnicity and gender is greater than that focusing on other demographics. In both CRVE and GEE models, the significant and positive coefficients of the variable (b_{CRVE} = 0.0397, $p < .05$; b_{GEE} = 0.0411, $p < .05$) support the stronger impact of representation of the two demographics. Indeed, bureaucratic representation of gender, race, and ethnicity has always been the major focus of representative bureaucracy studies. Compared with other demographics such as age, marital status, and language, gender, race, and ethnicity are the most direct denominators for social redistribution and remain the most salient demographic characteristics affecting individuals' policy-related attitudes (Hindera 1993; Kennedy 2014; Meier and Stewart Jr 1992; Meier, Wrinkle, and Polinard 1999). Thus, our findings confirm *H1* that bureaucratic representation as measured by gender, race, and/or ethnicity will have a greater impact on public organizational performance as compared with other identities.

Second, there is no significant difference in effects between active representation and symbolic representation, thus *H2* is rejected. The coefficient of the variable representing active/symbolic representation is positive as expected, but it is not statistically significant ($p > .1$). This result suggests that there seems no substantial difference between active and symbolic representation in shaping organizational performance.

Third, the difference in effects of bureaucratic representation varying across different organizational levels is found, thus confirming *H3a*. Both meta-regression models report significant and positive coefficients of the variable on frontline bureaucrats (b_{CRVE} = 0.0385, $p < .05$; b_{GEE} = 0.0283, $p < .1$). This finding implies that the effect of bureaucratic representation on organizational performance at the frontlines or street-levels is greater than that at the non-frontline levels.

Fourth, in accordance with our expectations, the facilitating effects of bureaucratic representation on public organizational performance was lower at the individual as compared to the organizational level. The meta-analysis found that the coefficient of performance measurement at organization/individual level was statistically significant but negative (b_{CRVE} = −0.0304, $p < .1$; b_{GEE} = −0.0359, $p < .05$). This finding suggests that the positive impacts of representative bureaucracy were more salient on overall public organizational performance rather than on the performance of individuals within public organizations. In other words, bureaucratic representation is more likely to benefit public organizational performance when other conducive mechanisms within the organizations are well managed.

Lastly, the issue of publication bias was managed within the meta-regression. A typically methodological concern in meta-analysis is that the results can be deviated by the systematic difference in effect sizes between published and unpublished studies (Sutton, 2009). Although we identified and included five unpublished studies in the meta-analysis, we still take additional steps to detect the potential publication bias. The Egger test and Begg test were first implemented. Both tests rejected the null hypothesis of no publication bias ($p < .01$). Although both Egger and Begg test results could not guarantee a serious publication bias (Ringquist 2013), we further explored publication bias in the meta-regression by comparing the effect sizes from published and unpublished studies. In both CRVE and GEE models, the coefficients of the publication bias variable indicate that effect sizes from published studies are slightly smaller than those from unpublished studies, but the differences are not statistically significant ($p > .1$). In other words, we cannot reject the null hypothesis that the deviating effect of unpublished studies on the effect sizes is zero. In sum, there is little evidence that effect sizes in the representative bureaucracy literature are contaminated by publication bias.

Discussion: Does Context Matter?

As a response to the calls by the representative bureaucracy theorists (e.g. Meier 2019; Anderson, Boesen and Pedersen 2016; and Andrews, Groeneveld, Meier, & Schröter, 2016), this meta-analysis links representative bureaucracy with contextual factors. First, the postulated distinct effects of bureaucratic representation of specific demographic characteristics were empirically supported, which indicated demographic identity salience as important determinants to the effect of representative bureaucracy. As defined by Randel, identity salience is the extent to which a demographic category is used by individuals to describe the members of their work groups (Randel 2002). Even though individuals' demographic identity salience has been argued to be subject to the temporal changes (e.g., Alexander Jr and Knight 1971; Gergen 1977), the salience of certain demographic categories can be more stable since the stereotypes and impressions of others related to these demographics are predominant (Randel 2002). Thus, identity salience has been mostly used to identify the individual demographic differences and strategic behaviors to adapt to the dominant social identity groups (e.g. Brewer 1988; Randel 2002; Tajfel 1982; Weick 1979). However, this does not exclude the possibility that the identity salience at group level can be used to direct the bureaucratic representation of the socially disfavored groups. After all, categorizations tend to be the basis for the lasting stereotypes, which is one antecedent of social inequity (Snyder, Tanke, and Berscheid 1977; Taylor et al. 1978). Applying the terminology to the sphere

of representative bureaucracy, the outstanding effects of gender, race, and/or ethnicity as examined in our meta-analysis substantiate the relevance of demographic identity salience, albeit conceptualized in sociology, in the inquiry of representative bureaucracy. The high resilience of the stereotypes of certain demographics such as gender, race, and ethnicity makes them hard to adjust over time, which further retains the salience of these demographics in the representative bureaucracy as well as the importance of these demographic identity groups to the relevant social issues (Wade-Olson 2019; Gilad and Alon-Barkat 2018; Shjarback et al. 2017; Wilsson and Carlos 2014; Wilkins and Keiser 2007; 2006; Fernandez 2020; Fernandez et al. 2018; Hawes 2013; Jacobson et al. 2010; Krøtel et al. 2019; Liang et al. 2020). The resulting demographic identity salience produces more significant effects of the bureaucratic representation of these groups on the operations of related public policies or programs.

Moreover, bureaucratic representation, as expected, was more effective at enhancing public organizational performance at the frontline rather than non-frontline levels. As previously discussed, discretion has been an acknowledged prerequisite for an effective representative bureaucracy. Because street-level bureaucrats work directly with clients, fully understanding and interacting with the social groups they represent, frontline workers may be more apt to exercise their discretionary authority as compared to non-frontline workers (see, e.g. Lipsky 2010; Meier and Bohte 2001; Sowa and Selden 2003; Wilson 2019; Molina 2016). Therefore, the observed stronger effects of bureaucratic representation at the frontline compared with non-frontline levels also suggest that discretion has been one major determinant to the ability of bureaucratic representativeness to positively affect public organizational performance (Huber and Shipan 2002; Keiser et al. 2002; Meier 2019; Meier and Nicholson-Crotty 2006; Moe 1984; Selden, Brudney, and Kellough 1998; Hassan and Hatmaker 2015; Kelly 1994; Melton et al. 2010).

Additionally, representative bureaucracy contributed to overall public organizational performance more than when performance was measured at individual levels. The limited paths of representation-performance interaction are magnified at organization level, allowing the positive effects of bureaucratic representation to cascade throughout public organizations and also further interacts with other mechanisms. Thus, it may be reasonable to speculate that apart from working as direct facilitators of public organizational performance, representative bureaucracy can also work as a moderator to catalyze the positive association between organizational performance and other factors such as coproduction (Alford 2002; Hong 2016; Ryu 2019; Saifulina and Carballo-Penela 2017; Ostrom et al. 1979; Lee 2019; Park 2013). Despite our findings, further investigation into the micro-theory behind individual bureaucratic actions can provide important insights for scholars, as will be discussed shortly.

Surprisingly, the effects of symbolic bureaucratic representation were similar with those of active representation on improving public organizational performance. This finding may be explained by the shift from the second wave to the third wave of representative bureaucracy research as summarized in Bishu and Kennedy's (2019) meta-review. In the 2000s, passive-to-active representation

studies was a primary focus of academic inquiry into representative bureaucracy, because of the concern with discretion and policy involvement as preconditions for representativeness (Keiser et al. 2002; Meier and Stewart Jr 1992; Selden, Brudney, and Kellough 1998). However, as public service delivery becomes increasingly client/citizen-oriented, the extent to which citizens perceive they are being represented has become an increasingly important focus of bureaucracy research. Perceptions of government performance, as noted, promote legitimacy and coproduction in public service delivery (Bishu and Kennedy 2019). Thus, the newest iteration of representative bureaucracy from a symbolic perspective may be equally important for the performance of public organizations.

In general, contextual factors as either constructs of bureaucratic representation or their surroundings shape how representative bureaucracy affects public organizational performance. Demographic characteristics as the building blocks of representative bureaucracy determine the extent to which the increased representativeness brings changes to the public organizational performance. Those with high demographic identity salience are much less volatile than other characteristics due to their high resilience and they also attract major public concerns and result in substantial improvements in the performance of the related public organizations and programs. Frontline bureaucracy enjoys more discretion than its non-frontline counterparts, which is more likely to prevent the effectiveness of bureaucratic representation affecting public organizational performance from the detriments of various administrative burdens and political conflicts. The increased bureaucratic representativeness in aggregate affects public organizational performance more than its influence at individual level, which triggers the reexamination of the role that representative bureaucracy plays in enhancing public organizational performance at different organizational levels. No substantial difference in effects has been found between symbolic and active representation as two major mechanism of bureaucratic representation, which contradicts the asserted supremacy of active representation over symbolic representation as dominant approaches to the realized bureaucratic representativeness and advocates equal importance of the two in the inquiry of representative bureaucracy.

Conclusion

The close interaction between bureaucratic representation and public organizational performance can be reflected in the democratic processes and outcomes of increased representativeness, more client-oriented public service delivery for the specific social groups, and broadened dimensions of performance measurement under a representative bureaucracy (Andersen, Boesen, and Pedersen 2016; Moynihan et al. 2011; Selden 1997; Slack 2001; Walker and Andrews 2015). However, little attention has been paid to synthesizing the conditions under which representative bureaucracies can impact on public organizational performance. This meta-analysis sought to quantitatively generalize the effects of contextual moderators on the relationship between representative bureaucracy and public organizational performance. The commonly anticipated positive association between bureaucratic representation and public organizational performance has been found in the empirical studies included in this meta-analysis. However, context matters.

This study helps to generate new theoretical insights into the how representative bureaucracies can affect public organizational

performance. The postulated distinct effects of bureaucratic representation of specific demographic characteristics were empirically supported, which links the demographic identity salience with representative bureaucracy. And bureaucratic representation, as expected, was more effective at enhancing public organizational performance at the frontline rather than non-frontline levels; this finding supports the level of discretion as one major factor regarding the effects of bureaucratic representation. Moreover, representative bureaucracy contributed to overall public organizational performance more than when performance was measured at individual levels, which suggests the possible variation in the role that bureaucratic representation plays in affecting public organizational performance at different organizational levels. Surprisingly, the effects of symbolic bureaucratic representation were similar with those of active representation on improving public organizational performance, which points to the equal status of symbolic and active representation as aspects of representative bureaucracy.

But there is still a good deal of work needed empirically and theoretically on representative bureaucracy. For example, although we found demographic salience in terms of race, ethnicity, and/or gender, what are effects of representative bureaucracy with respect to multiple identities? As (Meier 2019, 46) maintains, "Because everyone has multiple identities …, clients can match bureaucrats on zero, one, two, three, four or more identities. It is quite possible that an African-American female bureaucrat from a poor family could be more interested in assisting individuals who match up on all three of these identities than those who match up on one or two." He suggests a number of testable hypotheses, including the following:

> Bureaucrats are more likely to act for clients if the clients' multiple identities closely match those of the bureaucrat

> and

> The impact of intersectionality on representative bureaucracy is a function of the multiple identities of both the bureaucrat and the client.

The latter hypothesis suggests that representative bureaucracy research should focus on the intersection of race, gender, ethnicity, sexual orientation, gender identity, and other markers of identity. We are slowly beginning to see more research on representativeness, for example, in terms of LGBTQ persons (see, e.g., Ng, Schweitzer, and Lyons 2012; Lewis 2011).

The results of this work also yielded several implications for the future exploration of representative bureaucracy as it affects or interacts with public organizational performance. For example, it is necessary to acknowledge the role of frontline bureaucrats in the positive association between bureaucratic representation and public organizational performance and fully utilize it. Compared with officials at the managerial or leadership levels, the highly discretionary street-level bureaucrats enjoy less institutional constraints and more field experience which allows them to familiarize themselves with the social identity groups they serve (Meier and Bohte 2001; Meier, Wrinkle, and Polinard 1999; Sowa

and Selden 2003). This is the key to an effective representative bureaucracy and further to high-performing public organizations/programs. It is obvious that bureaucratic discretion alone is not conducive to representativeness. The effects of bureaucratic representation can be mitigated by the inconsistency between the shared values generated from representativeness and the values through which organizational socialization affects frontline workers (Grissom and Keiser 2011; Hong 2016, 2017a, 2017b, 2020; Jacobsen 2012; 2005; Jehn et al. 1997; McCubbins et al. 1989; Meier et al. 2006b; 2004; Melton 2011).

In addition, it is worth reconsidering representative bureaucracy as moderator or direct predictor to enhance public organizational performance at different levels. The hypothesized difference between performance at the organizational and the individual level as affected by representative bureaucracy was not empirically supported among the effect sizes, which suggests that the improvement on individual performance as result of increased bureaucratic representativeness might be directly reflected in enhanced performance overall at the organizational level. If the effects of bureaucratic representation as perceived by the individuals within organization is similar to what can be demonstrated at organizational level, then representative bureaucracy might not be a significant factor affecting public organizational performance. This is because other behavioral, organizational, and institutional mechanisms that can affect public organizations as a whole have been discovered to affect performance (e.g., as noted coproduction and institutional isomorphism), which might partly replace the effects of representative bureaucracy if it is found to be a major predictor of performance (Alford 2002; Hong 2016; Ostrom et al. 1979). Thus, the role that representative bureaucracy plays in influencing the public organizational performance as direct indicators or indirect moderators needs to be scrutinized in the further research. This can effectively improve interpretation of the importance of representative bureaucracy to organizational performance in the public sector as a consequence of the actual causal relationship between representative bureaucracy and performance. In any case, as Meier (2019) acknowledges, further investigation into the micro-theory behind individual actions of bureaucrats are needed and can provide insights for scholars. Questions such as who do bureaucrats represent, why do they represent, and what are the values being represented remain.

Finally, the importance of research on symbolic representation cannot be overstated. Active representation certainly indicates how representative bureaucracy can affect public organizational performance, given bureaucratic discretion and policy involvement as prerequisites. However, the results in this meta-analysis found that symbolic representation may be just as effective in enhancing organizational performance This suggests that the direct or concrete participation of bureaucratic representatives might not be a "one-size-fits-all" precondition for the positive affect of representative bureaucracy on public organizational performance. Thus, additional research on the effect of symbolic representation in various contexts on organizational performance is warranted.

Despite the valuable insights provided here, this study is not without limitations. First, the studies included in the meta-analysis are dominated by studies from the U.S. and countries with similar diverse

demographic compositions (e.g. western European countries), since there are too few representative bureaucracy studies in the contexts of nation-states (e.g., there was one study each on China, Ghana, Korea, Kuwait and Indonesia; see, Zhang 2019; Agyapong 2018; Song 2018; Almutairi 2007; Ryu 2019). As a result, a small number of nation-state studies prevent us from comparing multicultural-state findings with nation-state findings. Indeed, it has been argued that institutional differentiation does affect the status of bureaucratic representation and can further impact performance (Andrews et al. 2016). Thus, future research can examine whether national context would change the bureaucratic representation-organizational performance relationship. Second, given that most studies included in the analysis rely on cross-sectional data, the usual caveats related to cross-sectional analysis apply to the results of the current meta-analysis. In particular, our results might be best understood as correlative rather than causal relationships. Third, the contextual moderators included in the analysis could not exhaust all the potential moderators, since meta-analyses mostly examine the factors that are dichotomous and representative in existing studies (George et al. 2020). For instance, out of 80 primary studies included in our meta-analysis, 22 studies employ efficiency measures of performance, which seemed plausible for consideration for comparison with studies with/without efficiency measures of performance. However, such a dichotomy can hardly yield any substantial implications for the interaction between bureaucratic representation and public organizational performance in that the assumed non-efficiency category includes heterogenous dimensions of performance measures such as effectiveness and equity perspectives, which can still be separable. Finally, although our study sample is quite diverse, our sample size does not enable us to control for other potential study characteristics.

Despite these limitations, additional empirical inquiries will certainly emerge, thus allowing for a comparison of different performance measures which will be useful for providing potential avenues for further exploration on the relationship between bureaucratic representation and public organizational performance. As the studies on bureaucratic representation and organizational performance continue to evolve over time, it is reasonable to expect that future research will include more conditions which can further advance our knowledge.

Notes

1. We use a broad definition of context which refers to the research-specific contingencies of both representative bureaucracy and public organizations that shape the bureaucratic representation-organizational performance relationship observed in individual studies.
2. Parenthetically, it may be the case that outside the U.S., the issue of language especially in minority communities may be an essential characteristic in representative bureaucracy studies, because language may be a major obstacle in terms of the ability of bureaucrats to serve targeted minority communities (Eckhard 2014; Gravier and Roth 2020). However, relatively few representative bureaucracy studies focus on language.
3. Google Scholar provides a comprehensive coverage of scholarly literature in a variety of publishing formats such as journal articles, books, book chapters, and conference papers. The reliance on Google Scholar in the search allowed us to reach a diverse set of studies.
4. This meta-analysis did not include studies on diversity management because these studies may introduce bias in the synthesis of effect sizes since diversity management

and bureaucratic representation are measured at different levels. Unlike diversity, diversity management was commonly examined as moderators of other associations, which cannot be comparatively analyzed with bureaucratic representation.
5. We followed the traditional practice to consider a study that is not published in a peer-reviewed academic journal as unpublished or gray literature (Rothstein & Hopewell, 2009).
6. Since a number of countries in the non-US literature share the diverse demographic compositions with U.S. (e.g. Western European countries), simply separating the effects based on the U.S. origin might overlook the impacts caused by the nuances in demographic diversity between non-U.S. countries. Thus, the classification of nation-state (i.e. a country "where the great majority are conscious of a common identity and share the same culture" (UNESCO, 2017)) versus multicultural state based on the level of immigration and number of minority members and "home" ethnic members (UNESCO, 2017) is more reasonable to check the robustness of our empirical models. There are only five papers in our sample conducting their research in the nation-states (i.e. China, Korea, Ghana, Kuwait, and Indonesia), and the empirical results after eliminating these articles still highly resemble the results from 80 studies. Thus, the types of countries might not have a significant impact on the relationship between bureaucratic representation and public organizational performance.

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