Coping with Representation: The Moderating Effect of Workload on Individual-Level Representation

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Abstract: Recent work in representative bureaucracy focuses on the micro-foundations of representation and explores the conditions for who represents and who receives representation. Drawing on insights from street-level bureaucracy, this paper contributes to the micro theory of representation by exploring how workload influences the ability for a bureaucrat to represent a client. Extant literature highlights how bureaucrats' resort to coping mechanisms to deal with conflicting demands and work requirements, yet how these mechanisms guide representation have yet to be explored. Findings from over 35,000 cases in Florida hospital emergency room departments reveal that physician-patient gender matching predicts a significant decrease in heart attack mortality when physician workload is normal. Moreover, the effects of representation are amplified when workload is low. When workload is high, however, there is no substantive benefit associated with representation. These findings suggest that representation is a discretionary action affected by workload and can carry distributional consequences depending on how bureaucrats' cope with job stress.

The theory of representative bureaucracy is a flourishing literature that argues a bureaucracy reflective of the demographic characteristics of the public is more likely to produce outputs to the public's benefit. With decades of research identifying a positive relationship between identity representation and organizational performance across contexts such as education, criminal justice, human services, and regulatory agencies, scholars are increasingly interested in exploring the micro-foundations of representation at the individual-level (Guul 2018; Nicholson-Crotty et al. 2016; Vinopal 2017). Relying on insights from street-level bureaucracy theory which recognizes how resource constraints and competing demands inform the individual's exercise of discretion (Lipsky 1980; Maynard, Moody, and Musheno 2003), this paper is interested in exploring how bureaucratic workload informs representation. As a response to high workload, a litany of research explores the coping mechanisms that frontline workers employ to manage, tolerate, or control job uncertainty (Folkman and Lazarus 1980; Tummers et al. 2015). Yet to be explored, however, is the relationship between coping and representation. This paper bridges that divide by identifying if representation is a guiding heuristic for bureaucratic coping or if identity is sacrificed as a way to manage competing demands.

On the one hand, we may expect that bureaucrats use representation to cope with high workloads. This argument suggests that identity motivates a bureaucrat to "move towards clients" and cope with constraints by prioritizing the treatment of those who benefit most from their attention (Tummers et al. 2015). Part of the subjective judgement made by the street-level bureaucrat on who to allocate time to is driven by the match of a salient identity and how much inequality that identity faces in the bureaucratic system or society more broadly (see Keiser et al. 2002; Meier 2019). Recognizing these inequalities, a bureaucrat may derive more intrinsic value when they use their discretion to act as a representative and maximize the well-being of those

worst off. These acts of discretion that prioritize those from certain demographic-based characteristics may serve important instrumental purposes in improving organizational performance if the minority bureaucrat can bring a special skill to their interactions with clientele (Hecksher 2007; Meier 2019) or improve the client's perceptions on the social legitimacy of the bureaucracy (Guul 2018; Meier and Nicholson-Crotty 2006; Vinopal 2017). Under time and resource constraints, a bureaucrat may make an assessment that moving towards clients that look like them helps ameliorate organizational pathologies and facilitate more neutral administrative outputs.

On the other hand, coping could work against representation with the bureaucrat "moving away from clients" (Tummers et al. 2015). When workload is high, representation may be subsumed by core organizational functions (Watkins-Hayes 2011). The most common coping mechanism in meeting core functions is routinization, whereby a bureaucrat standardizes all interactions with clients (Lipsky 1980; Riccucci et al. 2004; Soss, Fording, and Schram 2011; Thoren 2008; Trowler 1997; Watkins-Hayes 2011). Similarly, a bureaucrat may cope with constraints by rationing services (Triandafyllidou 2003). If representation is a process that occurs because the bureaucrat possesses slack resources (Carroll 2017; Meier 1993, 2019), then all of these coping mechanisms necessarily imply that acts of active representation are off the bureaucrat's choice set since they impose costs above and beyond what the bureaucrat is willing to expend on any given client.

This paper tests these competing coping mechanisms with an empirical application to the emergency department context. Emergency departments are regulated by the 1986 Emergency Medical Treatment and Labor Act (EMTALA), a federally enforced mandate ensuring universal, public emergency department access to all regardless of race, gender, citizenship, and ability to

pay (Bitterman 2002; Wanerman 2002). While ER care is administered across public, private, and nonprofit organizations, EMTALA acts as a social safety net that imposes a high degree of "publicness" on organizational functions (see Bozeman 1987).[1] In other words, the system is designed to be responsive to the needs of the public. Like many essential public services, emergency department care is implemented at the frontlines by street-level bureaucrats who grant access to programs, provide services within them, and serve as political actors with discretionary authority over the distribution of benefits (Hupe and Hill 2007; Lipsky 1980).

Relying on over 35,0000 individual emergency department visits to Florida hospitals between the years 2005-2016, I measure the impact of physician-patient gender matching on the likelihood of heart attack mortality. This focus is ideal for two reasons. First, ever since Lipsky (1980), physicians have been considered important street-level bureaucrats which use their autonomy and discretion to shape client outcomes (also see Harrison 2015; Harrison and McDonald 2008; Hupe and Hill 2007; Roth 1972). Second, growing medical evidence identifies heart attacks as a gendered policy area. In their interactions with the healthcare system, women are frequently depicted as overreactive, with their symptoms frequently ignored or overlooked (Fasler 2015; Fetters 2018). These biases against women are particularly troublesome for heart attacks since women can present atypical symptoms that are subtle and require more time and effort to identify (McSweeney et al. 2003; Then, Rankin, and Fofonoff 2001). Due to these administrative biases and the unique gendered symptoms of a heart attack, women have higher readmission, misdiagnosis, and mortality rates (Tsugawa et al. 2017). Consistent with prior work (Greenwood, Carnahan, and Huang 2019), I find that the mortality gap between men and women is closed through physician representation. However, the primary goal of this research is test how

[1] Violations of EMTALA subject hospitals to harsh penalties such as fines, civil liability, and a loss of the provider's Medicare or Medicaid funding.

institutional factors shape a bureaucrat's exercise of discretion and if these institutional factors are predictors of who represents and who receives its benefits.

The emergency department context is ideal for addressing these questions of coping due to unpredictable workflow, high-risk time-critical job duties, and gender saliency (Greenwood, Carnahan, and Huang 2019; El-Sherif et al. 2017; Levin et al. 2006). These factors point towards an organizational environment where demand may exceed available supply and frontline workers need to resort to coping mechanisms that manage their workload (Andersen and Guul 2018; Lipsky 1980; Tummers et al. 2015). How physicians cope with workload is theorized to be particularly relevant to heart attacks in women since they are harder to detect and may require more attention than men.

The findings suggest that during standard times of ER workload, gender matching predicts a substantive decrease in women's mortality rates. When workload is high, there is no substantive benefit associated with physician representation. When workload is low, the impact of physician representation on mortality amplifies. Taken together, these findings suggest that physicians move away from representation to cope with high workload, job uncertainty, and conflicting demands. Additionally, these findings provide the first empirical test of Meier's (1993, 2019) hypothesis that representation is a process amplified when a bureaucrat has slack resources. While representation can serve as a lever for social equity, more considerations need to be given to the micro-foundations of representation and the ways in which context shapes the link between bureaucratic values, behavior, and outcomes.

Overview of Representative Bureaucracy Theory

Representative bureaucracy theory is concerned with how the demographic composition of bureaucracy affects the implementation of policy and its subsequent outcomes. The theory can

be split along two dimensions—passive and active representation. Institutions are passively representative insofar as they mirror the background characteristics of the population they serve (Mosher 1982). Early works in this literature documented the determinants of passive representation (Kellough 1991; Naff 1998; Riccucci and Saidel 1997) and the degree to which the US federal bureaucracy was passively representative (Meier 1975). While a broad range of characteristics such as education, income, and age were originally considered, the theory largely focuses on race and gender given the legal tradition in the US of affirmative action and equal employment (Sabharwal, Levine, and D'Agostino 2018). Recent work extends the study to other important identities such as LGBT status (Lewis and Pitts 2011), veteran status (Gade and Wilkins 2013), social class (Gilad and Alon-Barkat 2018; Vinopal 2019), and prior addiction (Park 2018).

Active representation explores how the mirroring of these demographic characteristics influences bureaucratic behavior, policy implementation, and outcomes (Guul 2018; Keiser et al. 2002; Mosher 1982; Vinopal 2017). Towards this end, much attention has been given to the conditions that predict when passive representation translates to active representation. Many argue this translation comes from shared values, attitudes, and concerns between bureaucrats and clients that share a salient identity. To the extent that a bureaucrat uses discretion to align these shared values, attitudes, and concerns, his or her administrative actions will improve outcomes for the client (Dolan 2000; Keiser et al. 2002; Meier 1993; Sowa and Selden 2003; Wilkins and Keiser 2006).

Most research documents representation effects at the organizational-level, making it difficult to decipher if outcomes are driven by indirect effects at the organizational-level, direct effects at the individual-level, or a combination of the two (Bradbury and Kellough 2011; Favero

and Molina 2018; Meier and Bohte 2001; Nicholson-Crotty et al. 2016; Wilkins and Keiser 2006). Due to the lack of clarity across these multiple effects, a growing empirical literature on the micro-foundations of individual-level representation seeks to identify direct effects of representation between a particular bureaucrat and particular client. These studies find that salient shared characteristics such as race or gender facilitate improved policy outcomes across Danish unemployment programs, US education, and the Swiss federal bureaucracy (Guul 2018; Nicholson-Crotty et al. 2016; Vinopal 2017; Zwicky and Kübler 2018). Much like earlier efforts, these studies suggest that bureaucrats represent because of the ability to exercise discretion in policy contexts that are institutionally salient along a social characteristic.

Individual-Level Representation in an Institutional Context

While testing and validating the *why* question of representation at the micro-level is a noteworthy recent innovation, it is but one of many important micro-foundational processes that can be investigated at the individual level. In particular, Meier's (2019) recent theoretical piece brings attention to the *who* question of representation. This question encompasses both the bureaucrat who decides to adopt a representative role and the client who receives representation. Meier suggests that bureaucrats who represent do so because "(1) they see positive coproduction possibilities from the client, (2) the actions are consistent with the bureaucrat's own values, (3) the salience of the identity or identities shared with the client is high, and (4) the potential benefits (either intrinsic or extrinsic) outweigh the costs of representation" (47).

The last point on costs and benefits is particularly relevant here since it helps us establish a link between institutional factors and individual bureaucratic behavior. From this perspective, who represents or who receives representation is moderated by the larger institutional dynamics that underpin the bureaucratic encounter. Meier (2019) makes the argument that if a bureaucrat

lacks adequate time and resources (institutional factors), then a bureaucrat's desire to represent is subsumed by required organizational duties (Carroll 2017; Watkins-Hayes 2011).

In one of the few applications that investigates this link between institutional factors and individual-level representation, Watkins-Hayes' (2011) qualitative work emphasizes how organizational structures can create boundaries that prevent bureaucrats from connecting with clients despite their desire to do so (also see Sandfort, Ong, and McKay 2019; Soss, Fording, and Schram 2011). While this work largely focuses on static and rigid organizational structures such as bureaucratic red tape and performance management systems, other dimensions of the bureaucratic task environment such as slack resources and caseload can impact the calculus of who a bureaucrat represents (Meier 1993, 2019; Watkins-Hayes 2011).

These elements of the bureaucratic task environment are important for two reasons. First, they are not imposed equally on all bureaucrats. For example, a large literature focuses on teacher representation in the context of public schools (Favero and Molina 2018; Keiser et al. 2002; Song 2018; Vinopal 2017). However, class size, and by consequence, slack resources, are not distributed evenly across classroom. Some subjects may have larger class sizes while others are considerably smaller. The potential to represent, I argue, would be greater in smaller classrooms since there are more opportunities to interact one on one with students with disadvantaged students disproportionately benefitting from smaller classroom settings (e.g. Dynarski, Hyman, and Schanzenbach 2013). Second, these factors exhibit temporal variation. Many public service bureaucracies have to manage the intake and processing of clients, but this process is not uniform and constant across time. A Department of Motor Vehicles bureaucrat may have more time and flexibility with a client if they are served as soon as the office opens when compared to those treated at a busier time. Similarly, public services may exhibit variation

regarding seasonality such as that observed in crime and policing (McDowell, Loftin, and Pate 2011). These features recognize that an individual bureaucrat may represent multiple clients who share their identity, yet reach different outcomes depending on the bureaucratic work context that shapes the encounter.

Theoretical Relationship between Representation and Coping

Recognizing the competing demands, tasks, and expectations that bureaucrats face in their interactions with the public, a large literature in street-level bureaucracy explores the coping mechanisms that frontline workers employ to manage, tolerate, or control elements of job uncertainty and demand (Dubois 2010; Folkman and Lazarus 1980; Lipsky 1980; Tummers et al. 2015). On one hand, bureaucrats may cope with complexity and resource scarcity in their task environment by "moving towards clients" (Tummers et al. 2015). These coping mechanisms emphasize the ways in which the bureaucrat uses their discretion to adjust to the needs of the client. Frontline workers who adopt this role correspond to what Dias and Maynard-Moody (2007) refer to as a "social work narrative". In other words, frontline workers truly want to help their clients achieve long term success and strive to perform meaningful public services despite stressful or antagonistic situations.

When decision-making is subject to time and resource constraints, a bureaucrat who comes from a minority or disadvantaged background may allocate more of their time to those who match along a salient social characteristic, particularly if that identity faces inequitable treatment from the bureaucracy or society more broadly (see Keiser et al. 2002; Meier 2019). From a restorative justice perspective, a bureaucrat may perceive that their efforts have a larger impact on those that look like them even if it requires more effort. Indeed, representation may matter for a minority bureaucrat because they perceive majority group bureaucrats to be, at best,

naïve about the unique challenges minorities face or, at worst, biased against them.[2] Since bureaucracies cannot facilitate perfect identity-congruent interactions all the time, a subset of minority clientele could be treated by bureaucrats that generate bias or inequalities in their interactions with minority clientele. A minority bureaucrat may think that if they do not treat the client and represent them, no one will. When transported to highly sensitive, vulnerable, and discrete interactions such as a traffic stop or emergency room triage, the benefit of preventing an injustice may outweigh the costs to represent.

Building off the logic presented above, prioritizing clients that match may serve instrumental purposes to the organization that maximize not only the bureaucrat's own utility or orientation towards social justice, but the performance of the organization as well (see Meier 2019). A minority bureaucrat may bring a special skill to the organization or have a unique understanding of the client's needs (Hecksher 2007). These skills may be especially valuable if there is a lived experience unique to that cultural or gender identity that grants a specific insight into the client's needs or allows the bureaucrat to serve as a role model. Despite taking time away from other, perhaps more advantaged, clientele, moving towards representation can serve as a mechanism that fixes existing bureaucratic pathologies and would not generate cross-pressures with goals (cf. Lim 2006).

Similarly, prioritizing demographically similar clients may improve the social legitimacy of the bureaucratic encounter from the perspective of the client (Guul 2018; Meier and Nicholson-Crotty 2006; Vinopal 2017). With the importance of coproduction in many services

[2] An extensive literature across education, policing, welfare, and healthcare finds evidence that bureaucratic processes generally benefit the most advantaged citizens (e.g. Keiser et al. 2002; Epp, Maynard-Moody, and Haider-Markel 2014; LaVeist 2005; Soss, Fording, and Schram 2011). Since those most in need of representation are the disadvantaged in society, the assertion that these bureaucracies may be biased against these groups is not without empirical support.

such as education, policing, and healthcare, a bureaucrat may recognize how important these symbolic effects of representation are. A client may be more open and cooperative with the bureaucracy if they trust that the worker communicating with them is familiar with their needs or challenges. During periods of time and resource scarcity, taking extra time to communicate with disadvantaged clients can improve overall organizational processes since they can stand to benefit the most.

In sum, moving towards clients during time and resource scarcity may reflect minority bureaucrats adopting a long run time horizon. Whereas a short run time horizon would maximize short run outcomes by focusing on the clientele with the most immediate gains and reducing workload, the normative and performance-based logic of representation detailed above suggests that the potential short run losses are discounted for long run benefits to disadvantaged clientele. This argument recognizes that administrative outputs are rarely neutral, and the act of representation can help ameliorate bureaucratic pathologies.

Hypothesis 1: Bureaucrats move towards representation to cope with a high workload.

"Moving away from clients" is another important family of coping behaviors that street-level bureaucrats employ to minimize interactions with their clientele as a way to deal with the stress of a high caseload (Tummers et al. 2015). The most common process is routinization, where a bureaucrat standardizes their interactions with all clientele as a way to stretch scarce time and resources (Thoren 2008; Trowler 1997). By construction, bureaucrats who adopt a routinization role remove the potential for active representation since their behavior would not change in the presence of any salient or shared values with a client. This argument reflects Meier's (1993, 2018) hypothesis that representation occurs because the bureaucrat has access to slack resources (also see Carroll 2017). With slack resources a bureaucrat would be able to tend

to all of their required functions and still have time/resources left over to represent. However, without any slack resources the bureaucrat may perceive any discretionary actions that favor a particular client as secondary to the core organizational processes and tasks (i.e. tending to all cases). These scenarios are most common in the social work literature which demonstrate how bureaucrats fall back onto the structural rules and parameters of the organization to deal with high caseloads (Lipsky 1980; Riccucci et al. 2004; Soss, Fording, and Schram 2011; Watkins-Hayes 2011). The result is a depersonalized bureaucratic encounter where the bureaucrat may ignore or fail to identify important cues from the client that could lead to representation. An important implication of this argument is that the bureaucrat may possess a desire to connect with their clients but are incapable of doing so because of their institutional conditions (Sandfort, Ong, and McKay 2019).

Furthermore, the bureaucrat may fear that engaging in representation heightens their identity within the organization and threatens their job security. Routinization, in this case, is a reasonable coping mechanism since it does not draw attention to the actions of the bureaucrat. Job security can come into question if there are concerns that representation introduces partiality that the organization does not want (e.g. Lim 2006). In the short run, clearing cases and reducing caseload is more desirable and manageable through both the eyes of management and the bureaucrat than actually making a meaningful connection with the client. While the merits of representation as a long-run strategy are discussed above, this argument requires the organization and/or the bureaucrat to recognize how the benefits exceed the short-run costs. The ability to see past the short run is likely compromised if there are no slack resources.

Besides the direct effects that routinization has on bureaucratic behavior, it may also prevent symbolic representation if the client picks up on cues that suggest the bureaucrat is

inattentive to their needs and merely serving as "agents of the state" (Brodkin 2011; Brodkin and Majmundar 2010; Watkins-Hayes 2011). Conventional arguments for symbolic representation argue that passively representative workforces signal a commitment to that community that their concerns will be taken seriously (e.g. Epp, Maynard-Moody, and Haider-Markel 2014; Meier and Nicholson-Crotty 2006; Riccucci et al. 2018). However, this requires that the bureaucrat who is passively representative of the client is managing their emotional labor (e.g. stress, frustration, anger) while routinizing client experience. A bureaucrat may treat everyone the same, but if these encounters are perceived as rushed, disrespectful, or rude then the client may fail to perceive the public service as legitimate. As a result, there is no symbolic representation or change in client behavior because they identify with the bureaucratic role rather than a shared identity.

The final coping mechanism that can move against representation is rationing. When workload is high, frontline workers make accessing the public service more difficult. This is most prominent in areas where frontline workers have control over the allocation and availability of services. Triandafyllidou (2003) notes how police officers will tell clients applying for citizenship to "return tomorrow" if the office is very busy that day. While questions of representation are not explicitly addressed here, it is possible that a shared identity could benefit areas such as citizenship, translation services, etc. In sum, this generic process of rationing can be viewed as a strategic action meant to create shortcuts for the bureaucrat and inconveniences for the client.

In total, the "moving away from clients" argument provides a theoretical rationale for why representation would be in tension with a high workload. The costs of representation exceed the perceived benefits and the bureaucrat's time horizon is oriented towards short run priorities

and outcomes. Put another way, this family of coping mechanisms puts the immediate satisfaction of dealing with workload above the potential long-run benefits of engaging in representation.

Hypothesis 2: Bureaucrats move away from representation to cope with a high workload.

Gender Representation in the Healthcare Context

Representation can encompass several important demographic characteristics, but the specific interest of this study is gender representation in the healthcare context. In general, gender is a salient institutional characteristic that bears a significant impact on healthcare processes and outcomes. Women are regularly perceived as overreactive, dramatic, demanding, and emotional when expressing pain (Bernstein and Kane 1981; Fassler 2015; Fetters 2018). As a result, women are prescribed less pain killers than men, despite receiving the same diagnosis (Hoffman and Tarzian 2001). Furthermore, women are less satisfied with their treatment (Gross et al. 2008), less likely to follow rehabilitative or preventative protocols (Malhotra et al. 2017), and less likely to communicate with their doctor (Elliott et al. 2018). As a result of these negative perceptions and experiences, gender disparities are widely observed across areas such as surgery, critical care, and a number of other health conditions (Kent, Patel, and Varela 2012).

While gender disparities can be found in many facets of the healthcare system, I refine the focus to gender disparities in heart attack mortality for several reasons. Heart disease is the leading cause of death in the United States, accounting for roughly 25% of all fatalities (CDC 2017). Unlike certain diseases which affect subpopulations (e.g. HIV/AIDS, breast cancer, etc.), heart disease is the leading cause of death for men, women, and most ethnicities in the United States (CDC 2017). While the incidence of a heart attack may be similar across populations, the manifestation of symptoms is often different across the sexes. Chest pains are typical across both

men and women, but women are more likely to present atypical symptoms such as fatigue, abdominal discomfort, cold sweats, or pain in other parts of the body such as the jaw, back, shoulders, or legs that are harder to detect and diagnose (McSweeney et al. 2003; Then, Rankin, and Fofonoff 2001). Considering how the healthcare system regularly dismisses the concerns of women, these gender-based inequalities in treatment may help explain why women are more likely to die from heart attacks than men (Greenwood, Carnahan, and Huang 2018; Tsugawa et al. 2017).

Recent studies suggest that physician representation can serve a vital role in ameliorating the heart attack mortality gap. Like other street-level bureaucrats, physicians have a great deal of discretion in deciding who to allocate their time towards and how they treat their clients (Harrison 2015; Harrison and McDonald 2008; Hupe and Hill 2007; Lipsky 1980).[3] Specifically, physicians possess a great deal of autonomy in their diagnosis and treatment decisions (Harrison 2015; Harrison and McDonald 2008). *Who* doctors focus their efforts towards is a particularly interesting question in this regard since Greenwood, Carnahan, and Huang (2018) find that female heart attack patients treated by a female physicians see a significant reduction in heart attack mortality. Similar work finds that physician representation can reduce health issues such as cardiovascular risk factors or diabetes (Schmittdiel et al. 2009) and improve health processes and outcomes for traditionally disadvantaged populations including women and racial/ethnic

[3] While less explored than teachers or police officers, Lipsky (1980) provides several examples on advocacy, coping, and professionalism that explicitly reference physicians as street-level bureaucrats (pg. 4, 73, 85-86, 138). Other work, predominately from the European context, focuses on how physician discretion, professional autonomy, excessive demand, and the indeterminacy of medicine make it difficult to bureaucratize medicine in ways similar to other street-level bureaucracies (Harrison 2015; Harrison and McDonald 2008). That is, medicine cannot always be standardized, and managers must rely on the professional discretion and expertise of physicians to act in accordance to their best judgements. These features of the physician work environment vest a great deal of power in them as political actors who must rely on cognitive mechanisms to manage their workload and create criteria on client priority and deservingness not unlike teachers, cops, social workers, and other street-level bureaucrats.

minorities (Alsan, Garrick, and Graziani 2019; Franks and Bertakis 2003; Henderson and Weisman 2001; Maserejian et al. 2009; Roter, Hall, and Aoki 2002; Schmittdiel et al. 2009).

Insights from representative bureaucracy theory provide several reasons into why representation can serve such a vital role in this area. First, existing work suggests that representation occurs because the bureaucrat adopts a representative role and uses their discretion to benefit those who look like them (Selden 1997; Sowa and Selden 2003). Moreover, bureaucrats' may be aware of the inequality their social identity faces in society and recognize that adopting a representative role can help ameliorate bias and bureaucratic pathologies (see Meier 2019). Physicians may adopt a representative role by engaging in longer visits, providing more information, recommending gender salient procedures, and taking a greater interest in the patient's needs (Flocke and Gilchrist 2005; Franks and Bertakis 2003; Roter and Hall 2001; Roter, Hall, and Aoki 2002). Consistent with the representative role perspective, Roter and Hall (2001) suggest that women may take these actions to offset the more dismissive or intimidating characteristics of men that generate inequalities. Indeed, work by Bertakis and Azari (2012) finds that female physicians administer more patient centered care when treating female patients. In doing so, the doctor can minimize the risk of a misdiagnosis and offset some of the systematic biases against women.

Second, growing attention within representative bureaucracy acknowledges that the bureaucrat may bring special skills or a unique experience to the organization that helps facilitate representation (see Calderon 2018; Hecksher 2007; Meier 2019). Compared to men, women adhere to clinical guidelines more frequently (Baumhäkel, Müller, and Böhm 2009), provide preventative care more often (Franks and Bertakis 2004; Franks et al. 2013; Schmittdiel et al. 2000), and perform better on standardized tests (Ferguson, James, and Madeley 2002). In this

sense, detecting heart attack symptoms in women may be considered a special skill since it requires a technical form of discretion that requires an understanding of symptoms that fall outside what one would normally expect. With experimental evidence finding that physicians are more likely to misdiagnose heart disease symptoms in women (Masereijan et al. 2009), the technical skills that female physicians possess coupled with the gender saliency of these symptoms may make them more likely to know what these symptoms are and motivate them to stay up-to-date on gender salient medical literature.

Third, there may also be an element of symbolic representation. A female patient may be more open and communicative when they receive representation (see Nolan et al. 2016). These effects are likely to be enhanced if the woman has a prior negative experience with the opposite sex or feels vulnerable or embarrassed during the visit (Lahat et al. 2013; Nolan et al. 2016; Varadarajulu, Petruff, and Ramsey 2002; Varia et al. 2014). For women presenting atypical heart attack symptoms, the presence of a female physician may facilitate greater coproduction and encourage the patient to feel more comfortable about expressing their symptoms. Consistent with this argument, Derose et al. (2001) find that female ER patients viewed their physician as more trustworthy if they were a woman. While identifying the precise mechanism that produces these positive outcomes is beyond the scope of this research, all point towards the benefits of representation and are theoretically plausible given the degree of discretion that physicians possess and the gender salience of the context.

Despite the benefits of representation in ameliorating the heart attack mortality gap, individual encounters with the healthcare system are not always subject to favorable institutional conditions. Greenwood, Carnahan, and Huang's (2018) study is situated in the emergency department context which is ideal for testing the link between coping and representation. The ER

is a stressful, chaotic, and random environment punctuated by high-risk time-critical activities and unpredictable workflow (El-Sherif et al. 2017; Levin et al. 2006). The volatility of the organizational environment can create many interruptions and conflicting demands. Estimates suggest that ER physicians experience as many as six times more interruptions than those in primary care settings (Allard et al. 2012; Chisholm et al. 2001). Furthermore, these conditions can impose a great degree of stress, pressure, depression, and patient depersonalization (Lloyd et al. 1994; Whitley et al. 1989). Taken together, these findings suggest that the exercise of discretion may be shaped by institutional constraints. These constraints are particularly relevant to heart attacks in women since their symptoms may be harder to detect and may require more attention than men. All these factors point towards an organizational environment where demand regularly exceeds available supply and physicians must devise cognitive shortcuts to cope with job stress (Lipsky 1980).

Research Design

The current study uses individual-level hospital emergency department visits from the Florida Agency for Healthcare Administration over every quarter between the years 2005 through 2016. This explicit focus on emergency departments has several analytical advantages in unpacking the relationship between representation, bureaucratic coping, and client outcomes. As outlined in the 1986 Emergency Medical Treatment and Labor Act (EMTALA), every individual, regardless of demographic background or ability to pay, is entitled to emergency medical services.[4] Furthermore, a patient may not be transferred or discharged from the

[4] In this sense, the ER context exhibits a high degree of "publicness" since EMTALA established a regulatory structure that provides universal access across all Medicare licensed facilities. This instills a common public purpose that unifies public, private, and nonprofit emergency departments. All emergency departments are required by law to dispense an important social safety net program, making this an important context for studying questions of equity and access in public administration.

emergency room without their informed consent or stabilization. These features are important since other organizations subject to time or resource constraints may turn someone away, tell them to come again tomorrow, or ask them to schedule an appointment in advance. The regulatory features of the EMTALA mean that an ER must process a patient regardless of the constraints that their treatment place on the organizational system.

Another desirable feature about the ER context is that physician-patient assignment can be considered quasi-random. From the perspective of the patient, admittance is an unexpected event where they have little control over who their doctor is when receiving emergency care. From the perspective of the physician, the evidence is mixed. Greenwood, Carnahan, and Huang's (2018) study of over 200 Florida ERs provides evidence that gender assignment is quasi-random in emergency department settings, whereas Chang and Obermeyer's (2020) study on a single ER suggests that a physician's gender preference can change throughout the course of their shift. However, when analyzing the proportion of female patients treated across all physicians in their sample, the authors found no significant differences. This evidence may suggest that physicians have some control in choosing patients under certain scenarios, but it does not necessarily allow for a physician to prioritize women throughout the entirety of their shift. In times of high workload, selectivity may be even more compromised. This inability to fully select on gender preferences is important to this study because a female patient may prefer representation based on past bias and a female doctor may wish to adopt a restorative justice role. For inpatient or outpatient settings, these forms of selection bias would be a major concern. However, the nature of the ER context considerably mitigates these biases.

The third analytical advantage of these data concerns the focus on heart attack mortality. Heart attacks have the inferential advantage of being severe medical episodes that occur

unexpectedly and require immediate medical attention. This is important because patients would not have any *a priori* knowledge of ER intake or workload at the time of their heart attack. It is unlikely that the patient can make any strategic considerations based on wait times and the availability of services. This feature helps bolster the quasi-random nature of gender matching because patients cannot plan for treatment ahead of time and consult with an ER physician.

Heart Attack Mortality

The main patient-level outcome of interest is heart attack mortality. I created a subsample of heart attack cases by limiting the dataset to all cases where a heart attack was designated as the primary reason the patient received services from the ER. These cases were identified by their accompanying International Classification of Disease (ICD) code. From 2005-2015 Q3, the coding was based off ICD-9, with a heart attack taking the value of 410.XX. The X's represent specific values corresponding to a different heart attack classification. From 2015 Q4- 2016, the data switched to the ICD-10 classification system and is based off cases taking the value of I21.XX and I22.XX.

After creating the heart attack dataset, I constructed a measure of patient mortality. Each individual case contains an outcome that details if a patient survived (e.g. routine discharge, transferred) or expired while receiving treatment. Each case coded as "expired" in the dataset receives a value of 1. For all other outcomes, the individual case receives a value of 0. Suggestive of larger gender disparities, descriptive statistics reveal that women have a baseline death rate of nearly 10% compared to 6.5% of men. The statistical appendix provides further evidence that the symptoms of these heart attacks are quite different across the sexes.

Physician Characteristics

Corresponding to each individual case in the dataset is a unique physician ID code which provides detailed information on physician name, tenure, and professional background. Once the name was obtained, the gender of the physician was inferred and individually coded. For cases where gender was ambiguous, unique searches for the physician were performed. In total, physicians skew towards men, with only 18% of the sample consisting of female physicians. I also measured physician experience as the number of years since the physician received his or her license. The average tenure is 12 years, with a standard deviation of 8.9. The variable is right skewed and logarithmically transformed to account for the possibility of influential outliers.[5]

Patient Characteristics

Several important patient characteristics are extracted from the data. First, the sex of every patient is reported and coded as a dummy variable, where 1 takes the value of female and 0 for men. In the analytic sample, the data skews towards men, who represent 65% of the cases (24,445). The Florida dataset also provides detail on the type of insurance the patient provided. I include three controls for patients with Medicare (47%), Medicaid (6%), and no insurance (17%).[6] The data also report the age of each patient. Descriptive statistics reveal that the average patient is 63, with a standard deviation of 14.[7] The race of every patient is also reported. I constructed a dummy variable for all non-white patients. Based on the categories available, these include black, Asian, and Indian. The vast majority of cases are white, with only 16% of the sample consisting of non-white visits. Finally, I include a cluster of heart attack comorbidities. Besides reporting the primary ICD code associated with the visit, there are 8 variables for

[5] Specifically, I use the log + 1 transformation since many physicians in the sample are taking patients contemporaneously with their first year as a physician.
[6] The remaining insurance types are other insurance, unidentified insurance, state and local insurance, workers compensation, VA insurance, and Kids Care.
[7] Two observations are dropped from the analysis due to unrealistic numbers.

additional diagnoses. These variables allow us to identify the most common comorbidities of a heart attack while simultaneously accounting for the patient's health quality. These include hypertension (43%), tobacco use (20%), diabetes (14%), high cholesterol (13%), a prior heart attack (4%), and obesity (2.5%).

Hospital Characteristics

Workload is an important variable in street-level bureaucracy theory and is defined as the relationship between tasks and resources (Andersen and Guul 2018; Lipsky 1980; Tummers et al. 2015). To generate a measure of ER workload, I constructed measures based off the approximate 88,000,000 visits across the entire sampling frame. Due to the precision of patient reporting, I measured total patient intake for each hospital's combination of weekday, hour (military time), and quarter-year.[8] Next, I constructed an average hospital intake for each hospital quarter-year. Finally, I constructed a measure of "low workload" if the total intake during that weekday, hour, quarter-year was ≤ 1 SD below the average intake for that quarter-year and a measure of "high workload" if the total intake during that weekday, hour, quarter-year was ≥ 1 SD above the average intake for that quarter-year. For example, if a patient is treated on a Monday at 12:00 Q12012, I count the total number of visits during that specific time for the entirety of the quarter. If the total intake for that weekday-hour (i.e. Monday, 12:00) is ≥ 1 SD above the mean intake level for that quarter (i.e. Q12012), then I code the case as "high intake".[9]

The main benefit of this measurement technique is that it allows the data to define a perturbation in workload unique to each day for each organization. Since hospitals operate at different levels of capacity and economies of scale, exploiting the unique within-hospital

[8] The visits are not associated with a particular date.
[9] A continuous measure of ER intake is reported in the statistical appendix. This model is substantively similar to the dummy variable approach.

variation is essential for constructing a valid and reliable measure of intake. As Lipsky (1980) originally argued, bureaucrats will rely on coping mechanisms when demand exceeds available resources. Since this measure depicts scenarios when demand is atypically high (low), patients treated during these times are likely exposed to physicians relying on coping mechanisms.

Despite the benefits of these workload measures, they are only important insofar as they are unanticipated and disruptive perturbations that the organization cannot absorb with slack capacity or an understanding of when the ER system is likely to undergo stress. Unfortunately, these data lack any information on ER staffing levels, but I will next demonstrate why the distribution of high and low intake cases in the sample can help alleviate these concerns.

[Figure 1 About Here]

Figure 1 plots the proportion of high and low intake cases across every hour (military time) and weekday. Figure 2 plots high and low intake cases across every weekday hour combination. While the proportion of high intake exhibits several spikes throughout the course of the day, the data generally follows a uniform distribution. This feature is important because the hospital may try to staff in anticipation for an influx of patients if there is clustering around a certain time or weekday block. If this were the case, a physician's exercise of discretion would be less likely to change since adequate staffing, resources, and support would allow them to execute their job similarly. However, since periods of high intake are relatively rare (ranging anywhere from 20% to 30%) and seem to have an equal propensity to occur regardless of time or day, it is unlikely that the hospital detects it effectively or systematically. We observe a similar pattern for the distribution of low intake visits. A physician may try to schedule shifts during these times since their workload will be lower, but based on the data, predicting when this will

occur is unlikely. Taken together, this descriptive evidence suggests that intake and, by consequence, a physician's workload and slack capacity can be considered quasi-random.

[Figure 2 About Here]

The models also include several hospital-level controls. The first is an indicator variable representing the emergency departments that are affiliated with a teaching hospital. Second, hospital ownership is defined through three dummy variables representing public (17%), private for-profit (44%), and private nonprofit (39%) hospitals. In the empirical analysis, private for-profit hospitals are the omitted category.

Findings

All models are estimated with the logistic regression estimator with quarter-year fixed effects to address serial correlation and standard errors clustered by physician. Model 1 depicts the baseline unconditional determinants of a heart attack. While the models report logit coefficients, all substantive quantities of interest are expressed as average marginal effects. Since all variables of interest are binary, the effect of the indicator can be easily expressed as a percentage point change in patient mortality. Patients treated by a female physician are 0.9 percentage points less likely to die from a heart attack. As a reduction from the sample baseline of 7.5%, this reduction corresponds to a 12% decrease in mortality. Moving to the unconditional differences in patient mortality, we find modest gender differences ($p = .16$). Women have .03 percentage points, or 5% higher odds of heart attack mortality than men. Finally, the two indicator variables for low and high intake are statistically insignificant, but directionally consistent. That is, low intake visits predict a decrease in heart attack mortality whereas high intake visits predict an increase in mortality.

[Table 1 About Here]

Model 2 introduces an interaction between the female physician and female patient variables to test for representation effects. This step is important since we must first find evidence of representation at the individual level before we can test how this relationship changes based on different institutional conditions. The interaction is statistically significant and in the hypothesized direction, with an accompanying graphical representation of the relationship in Figure 3. When matching occurs between women, the model predicts a 1.8 percentage point decrease in heart attack mortality. Substantively, this effect corresponds to a 24% reduction in mortality. For male patients, however, we find no statistically significant relationship. Notably, the point estimate is closely centered around zero indicating that patient outcomes are indistinguishable between female and male physicians. This identifies two important processes. First, that male physicians do not exhibit any direct representation effects on male patients and second, that female physicians do not outperform men regardless of who they treat. Rather, female physicians are using their discretion in a way that improves the outcomes for women who are traditionally disadvantaged and stand to benefit the most from representation.

[Figure 3 About Here]

Now that the effects of representation are established, Table 2 explores how this effect is moderated by workload. Model 3 explores how physician-patient matching is moderated by high intake ($\geq$ 1 SD). This model specifies a three-way interaction and relies on a graphical representation of the marginal effects in Figure 4. Starting with the top plot, we find that there are no substantive differences between male and female physicians in treating men during normal times of operation. This finding should come as no surprise since these are patients that present the conventional symptoms of heart attacks and are treated during a time where it is unlikely that the administrative system would need to rely on street-level coping mechanisms.

For men treated when workload is high, we find a different effect, albeit statistically insignificant. Female physicians actually improve male mortality by 1.2 percentage points. Shifting to the differences for female patients, we find that gender matching predicts a 27% decrease in mortality during normal workload. Supporting Hypothesis 1, the representation effects go away for patients treated during busy times with the point estimate closely centered around zero.

[Table 2 About Here]

Model 2 allows us to refine the relationship between representation and coping by considering if the effect of gender-matching is amplified as workload decreases. That is, if decreases in workload generate more slack resources, does representation exhibit a stronger effect? Like the previous model, I estimate a three-way interaction but instead include the low intake variable while controlling for high intake cases. Starting with the top two plots in Figure 4, we find evidence that the performance of female physicians in treating patients is not purely a function of possessing more skill than male physicians. In both cases of normal and low workload, the substantive impact is a negligible 0.2 and 0.3 percentage point improvement in mortality.

[Figure 4 About Here]

Moving to the gender matching cases, we find a 1.2 percentage point decrease in mortality for women treated during normal times. This effect corresponds to an 18% reduction in mortality. Notably, however, we find that representation amplifies during times when there is a greater ability to use discretion in detecting and identifying a heart attack. Gender matching during the least busy times predicts a 3.0 percentage point decrease in the mortality rate. This corresponds to a 40% reduction from the sample baseline.

[Figure 5 About Here]

Several of the control variables yield substantively and statistically significant findings. Beginning with the individual-level controls, both the uninsured and Medicare patients have higher mortality rates relative to those with private insurance options. The uninsured have 55% higher odds of mortality and those on Medicare, while smaller in magnitude, still have 16% higher odds than the sample baseline. Unsurprisingly, patient age predicts an increase in patient mortality. Substantively, each year increase in age predicts a .3 percentage point change in heart attack mortality. Besides gender disparities in heart attack, the models point towards racial disparities as well. The non-white indicator suggests that, compared to whites, non-white patients have a 17% higher mortality than the sample baseline.

The organizational level covariates also produce interesting findings. Teaching hospitals have a 60% higher mortality rate than the baseline. This stands in contrast to recent work which finds that teaching hospitals have lower 30-day aggregate mortality rates (Burke et al. 2017). This difference across studies may be explained by a difference in aggregate vs. specific outcomes. Patients treated in nonprofit hospitals are 1.3 percentage points more likely to die from their heart attack relative to the private for-profit sector. As an increase from the sample baseline, this effect corresponds to a roughly 18% increase in mortality. Patients treated in the public sector, on the other hand, outperform the private sector with a 42% reduction in mortality from the sample baseline.

Discussion

Merging insights from representative bureaucracy and street-level bureaucracy theory, this paper considers how workload moderates who represents and who receives representation. When the demand for services exceeds available supply, street-level bureaucrats must resort to

coping mechanisms. Yet the degree to which these coping behaviors inform representation have yet to be explored. I proposed two competing hypotheses which stated that during times of excess demand coping would either move towards representation or against it. In the study of Florida emergency departments reported here, I find evidence that physicians move against representation when ER workload is high. Inversely, the effects of representation increase when ER workload is low.

This study provides several insights into our theoretical and practical understanding of representative bureaucracy. First, it provides the first formal test of Meier's (1993, 2019) hypothesis that representation is a process enhanced when a bureaucrat has slack resources. When workload is high, time is stretched thin and the slack necessary to make a judgement about a specific client's need is subsumed by coping and necessary job requirements. In this sense, representation can be perceived as a function complimentary to a bureaucrat's core functions in the organization rather than a defining normative motivation in their work. The degree to which this process characterizes other areas of public service delivery is an important avenue for future research and practice. Bureaucratic responses to workload are a ubiquitous phenomenon as evidenced by the international scope and comparative breadth of the coping literature (Tummers et al. 2015). Similarly, representative bureaucracy theory is emerging as a comparative literature with recent applications pushing the scope of study outside the United States and western contexts. Taken together, the link between coping and representation should be an important area for comparative research and organizational design.

Second, these findings motivate further attention to the distributional consequences of representation. Perhaps one of the more disturbing implications of these findings is that "who receives representation" is largely a function of chance. A patient cannot choose when they will

have a heart attack. Furthermore, they have no control or understanding into what the workload of the ER is during the time of their visit. From their perspective, the only factor of importance is making sure the medical emergency is handled. Unfortunately, the temporal conditions of ER admittance have the potential to set off a chain of bureaucratic coping that either works in favor of representation or ignores it to manage the many demands of the ER work environment.

Representation is not a panacea and has boundary conditions that generate disproportionate benefits for clientele. In this study, the question of who represents and who receives representation is, in effect, a product of the work conditions at the time of the bureaucratic contact and the coping mechanisms the bureaucrat employs to manage that interaction. The degree to which this is generalizable and applicable to other contexts is a very important question, particularly in public services that exist on the razor's-edge of dysfunction and serve a fragile and vulnerable population. Contexts such as drug rehabilitation, long-term care, incarceration, or mental health services may help further unpack the link between coping, workload, and representation.

Third, this study encourages a more thoughtful merger between two similar, yet largely disparate literatures: representative bureaucracy and street-level bureaucracy. As theories that largely focus on the discretionary actions of street-level bureaucrats, street-level bureaucracy's emphasis on the constraints and incentives that inform work at the frontlines can greatly inform representative bureaucracy. For instance, future work can incorporate how other coping mechanisms interact with bureaucratic representation. Besides the "moving towards clients" and "moving away from clients" constructs, Tummers et al. (2015) point towards acts of coping that "move against clients". These actions focus on the ways in which bureaucrats engage in manipulative, punitive, or aggressive behavior to relieve their own frustrations with workloads.

While not discussed here, these violations of human rights are regularly critiqued in areas such as policing, the carceral state, long-term care, and other areas where the public is put in vulnerable positions. Given the extant work on representation in policing (Hong 2016; Nicholson-Crotty, Nicholson-Crotty, and Fernandez 2017; Wilkins and Williams 2008) and the carceral state (Johnston and Holt 2019), these are areas where an extension to moving against clients can help advance our knowledge on the relationship between representation and bureaucratic coping.

There are several important limitations to this research that can also inform future scholars. First, more work is needed on the micro-foundations of coping in representation. The nature of observational data prevents me from disentangling why bureaucrats make the decisions they do when deciding to represent. While I propose multiple coping mechanisms and their relationship to representation, this is likely a highly idiosyncratic process. Future studies may consider qualitative approaches on the link between coping and representation. Existing work gives careful consideration for how bureaucrats use limited information and resources to make assessments of deservingness that in turn provide perceptive insights into the black box of why and who they represent (Watkins-Hayes 2011; Zamboni 2019).

Another limitation is the lack of ER staffing data. Despite the data suggesting that intake is quasi-random across time and unlikely to influence staffing patterns, there are still important questions worth exploring. First, the models cannot account for the fact that some hospitals may always have slack capacity. While a hospital may not be able to predict when they will be busy, some may be better at buffering excess demand than others if they staff excess nurses, administrative staff, and physicians. Departments staffed in such a way may be able to overcome the negative coping mechanisms and burnout so regularly observed amongst physicians. A related limitation is the lack of staffing data. Public administration is a design science, yet this

paper cannot provide any prescriptive claims on strategies to facilitate representation during times of high workload. In a recent paper, Andersen and Guul (2018) demonstrate that reduced workload can minimize discrimination. While indirect, this paper is suggestive of a similar trend given that representation occurs during times of normal and low intake when workload would be more manageable. Future work may test this argument formally and identify other ways to facilitate positive changes in bureaucratic behavior when organizational intake and workload is high.

A final limitation is that these data capture a measure of workload that may encompass more than just the physician's specific job duties and obligations. That is, times defined as "high workload" capture aggregate ER dynamics rather than unique physician-specific workload. This would require data that captures not only the weekday-hour combinations, but specific dates as well. With data of this nature, I could construct a more granular measure of workload.

References

Alsan, Marcella, Owen Garrick, and Grant Graziani. 2019. "Does Diversity Matter for Health? Experimental Evidence from Oakland." *American Economic Review* 109(12): 4071–4111.

Andersen, Simon Calmar, and Thorbjørn Sejr Guul. 2019. "Reducing Minority Discrimination at the Front Line—Combined Survey and Field Experimental Evidence." *Journal of Public Administration Research and Theory* 29(3): 429–444.

Bertakis, Klea D., Peter Franks, and Ronald M. Epstein. 2009. "Patient-Centered Communication in Primary Care: Physician and Patient Gender and Gender Concordance." *Journal of women's health* 18(4): 539–545.

Bitterman, Robert A. 2002. "Explaining the EMTALA Paradox." *Annals of emergency medicine* 40(5): 470–475.

Bozeman, Barry. 1987. *All Organizations Are Public: Bridging Public and Private Organizational Theories*. Jossey-Bass.

Bradbury, Mark, and J. Edward Kellough. 2011. "Representative Bureaucracy: Assessing the Evidence on Active Representation." *The American Review of Public Administration* 41(2): 157–167.

Calderon, Maria Apolonia. 2018. "Who's Going to Build Your Wall?: The Influence of Non-Governmental Institutions on Local Immigration Policy." PhD Thesis.

Carroll, Kristen. 2017. "Ambition Is Priceless: Socialization, Ambition, and Representative Bureaucracy." *The American Review of Public Administration* 47(2): 209–229.

Derose, Kathryn Pitkin, Ron D. Hays, Daniel F. McCaffrey, and David W. Bakerg. 2001. "Does Physician Gender Affect Satisfaction of Men and Women Visiting the Emergency Department?" *Journal of general internal medicine* 16(4): 218–226.

Dolan, Julie. 2002. "Representative Bureaucracy in the Federal Executive: Gender and Spending Priorities." *Journal of Public Administration Research and Theory* 12(3): 353–375.

Fassler, Joe. 2015. "How Doctors Take Women's Pain Less Seriously." *The Atlantic*. https://www.theatlantic.com/health/archive/2015/10/emergency-room-wait-times-sexism/410515/ (February 21, 2020).

Fetters, Ashley. 2018. "The Doctor Doesn't Listen to Her. But the Media Is Starting To." *The Atlantic*. https://www.theatlantic.com/family/archive/2018/08/womens-health-care-gaslighting/567149/ (February 21, 2020).

Flocke, Susan A., and Valerie Gilchrist. 2005. "Physician and Patient Gender Concordance and the Delivery of Comprehensive Clinical Preventive Services." *Medical care*: 486–492.

Folkman, Susan, and Richard S. Lazarus. 1988. "Coping as a Mediator of Emotion." *Journal of personality and social psychology* 54(3): 466.

Franks, Peter, and Klea D. Bertakis. 2003. "Physician Gender, Patient Gender, and Primary Care." *Journal of women's health* 12(1): 73–80.

Gade, Daniel M., and Vicky M. Wilkins. 2012. "Where Did You Serve? Veteran Identity, Representative Bureaucracy, and Vocational Rehabilitation." *Journal of Public Administration Research and Theory* 23(2): 267–288.

Gilad, Sharon, and Saar Alon-Barkat. 2018. “Enhancing Democracy via Bureaucracy: Senior Managers’ Social Identities and Motivation for Policy Change.” *Governance* 31(2): 359–380.
Greenwood, Brad N., Seth Carnahan, and Laura Huang. 2018. “Patient–Physician Gender Concordance and Increased Mortality among Female Heart Attack Patients.” *Proceedings of the National Academy of Sciences* 115(34): 8569–8574.
Guul, Thorbjørn Sejr. 2018. “The Individual-Level Effect of Gender Matching in Representative Bureaucracy.” *Public Administration Review* 78(3): 398–408.
Harrison, Stephen. 2015. “Street-Level Bureaucracy and Professionalism in Health Services.” *Understanding street-level bureaucracy*: 61–78.
Harrison, Stephen, and Ruth McDonald. 2007. *The Politics of Healthcare in Britain*. Sage.
Hecksher, Dorte. 2007. “Former Substance Users Working as Counselors. A Dual Relationship.” *Substance Use & Misuse* 42(8): 1253–1268.
Henderson, Jillian T., and Carol S. Weisman. 2001. “Physician Gender Effects on Preventive Screening and Counseling: An Analysis of Male and Female Patients’ Health Care Experiences.” *Medical care*: 1281–1292.
Hong, Sounman. 2017. “Black in Blue: Racial Profiling and Representative Bureaucracy in Policing Revisited.” *Journal of Public Administration Research and Theory* 27(4): 547–561.
Hupe, Peter, and Michael Hill. 2007. “Street-Level Bureaucracy and Public Accountability.” *Public administration* 85(2): 279–299.
Keiser, Lael R., Vicky M. Wilkins, Kenneth J. Meier, and Catherine A. Holland. 2002. “Lipstick and Logarithms: Gender, Institutional Context, and Representative Bureaucracy.” *American political science review* 96(3): 553–564.
Kellough, J. Edward. 1991. “The Supreme Court, Affirmative Action, and Public Management: Where Do We Stand Today?” *The American Review of Public Administration* 21(3): 255–269.
Lahat, Adi, Yehudith Assouline-Dayan, Lior H. Katz, and Herma H. Fidder. 2013. “The Preference for an Endoscopist Specific Sex: A Link between Ethnic Origin, Religious Belief, Socioeconomic Status, and Procedure Type.” *Patient preference and adherence* 7: 897.
LaVeist, Thomas A. 2005. 4 *Minority Populations and Health: An Introduction to Health Disparities in the United States*. John Wiley & Sons.
Lewis, Gregory B., and David W. Pitts. 2011. “Representation of Lesbians and Gay Men in Federal, State, and Local Bureaucracies.” *Journal of Public Administration Research and Theory* 21(1): 159–180.
Lipsky, Michael. 2010. *Street-Level Bureaucracy: Dilemmas of the Individual in Public Service*. Russell Sage Foundation.
Maserejian, Nancy N. et al. 2009. “Disparities in Physicians’ Interpretations of Heart Disease Symptoms by Patient Gender: Results of a Video Vignette Factorial Experiment.” *Journal of Women’s Health* 18(10): 1661–1667.
Maynard-Moody, Steven Williams, Michael Musheno, and Michael Craig Musheno. 2003. *Cops, Teachers, Counselors: Stories from the Front Lines of Public Service*. University of Michigan Press.
McSweeney, Jean C. et al. 2003. “Women’s Early Warning Symptoms of Acute Myocardial Infarction.” *Circulation* 108(21): 2619–2623.

Meier, Kenneth J. 1993. “Representative Bureaucracy: A Theoretical and Empirical Exposition.” *Research in public administration* 2(1): 1–35.
———. 2018. “Theoretical Frontiers in Representative Bureaucracy: New Directions for Research.” *Perspectives on Public Management and Governance* 2(1): 39–56.
Meier, Kenneth J., and Jill Nicholson-Crotty. 2006. “Gender, Representative Bureaucracy, and Law Enforcement: The Case of Sexual Assault.” *Public Administration Review* 66(6): 850–860.
Meier, Kenneth John. 1975. “Representative Bureaucracy: An Empirical Analysis.” *American political science review* 69(2): 526–542.
Mosher, Frederick C. 1982. 2 *Democracy and the Public Service*. Oxford University Press New York.
Naff, Katherine C. 1998. “Progress toward Achieving a Representative Federal Bureaucracy: The Impact of Supervisors and Their Beliefs.” *Public Personnel Management* 27(2): 135–150.
Nicholson-Crotty, Sean, Jill Nicholson-Crotty, and Sergio Fernandez. 2017. “Will More Black Cops Matter? Officer Race and Police-Involved Homicides of Black Citizens.” *Public Administration Review* 77(2): 206–216.
Riccucci, Norma M., and Marcia K. Meyers. 2004. “Linking Passive and Active Representation: The Case of Frontline Workers in Welfare Agencies.” *Journal of Public Administration Research and Theory* 14(4): 585–597.
Riccucci, Norma M., Marcia K. Meyers, Irene Lurie, and Jun Seop Han. 2004. “The Implementation of Welfare Reform Policy: The Role of Public Managers in Front-Line Practices.” *Public Administration Review* 64(4): 438–448.
Riccucci, Norma M., and Judith R. Saidel. 1997. “The Representativeness of State-Level Bureaucratic Leaders: A Missing Piece of the Representative Bureaucracy Puzzle.” *Public Administration Review*: 423–430.
Roter, Debra L., and Judith A. Hall. 2001. “How Physician Gender Shapes the Communication and Evaluation of Medical Care.” In *Mayo Clinic Proceedings*, Elsevier, 673–676.
Roter, Debra L., Judith A. Hall, and Yutaka Aoki. 2002. “Physician Gender Effects in Medical Communication: A Meta-Analytic Review.” *Jama* 288(6): 756–764.
Roth, Julius A. 1972. “Some Contingencies of the Moral Evaluation and Control of Clientele: The Case of the Hospital Emergency Service.” *American Journal of Sociology* 77(5): 839–856.
Sabharwal, Meghna, Helisse Levine, and Maria D’Agostino. 2018. “A Conceptual Content Analysis of 75 Years of Diversity Research in Public Administration.” *Review of Public Personnel Administration* 38(2): 248–267.
Schmittdiel, Julie, Kevin Grumbach, Joe V. Selby, and Charles P. Quesenberry. 2000. “Effect of Physician and Patient Gender Concordance on Patient Satisfaction and Preventive Care Practices.” *Journal of general internal medicine* 15(11): 761–769.
Schneider, Anne, and Helen Ingram. 1993. “Social Construction of Target Populations: Implications for Politics and Policy.” *American political science review* 87(2): 334–347.
Soss, Joe, Richard C. Fording, Sanford F. Schram, and Sanford Schram. 2011. *Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race*. University of Chicago Press.

Then, Karen L., James A. Rankin, and Doreen A. Fofonoff. 2001. "Atypical Presentation of Acute Myocardial Infarction in 3 Age Groups." *Heart & lung* 30(4): 285–293.
Thorén, Katarina H. 2008. "Activation Policy in Action: A Street-Level Study of Social Assistance in the Swedish Welfare State." PhD Thesis. Växjö University Press.
Triandafyllidou, Anna. 2003. "Immigration Policy Implementation in Italy: Organisational Culture, Identity Processes and Labour Market Control." *Journal of ethnic and migration studies* 29(2): 257–297.
Trowler, Paul. 1997. "Beyond the Robbins Trap: Reconceptualising Academic Responses to Change in Higher Education (Or… Quiet Flows the Don?)." *Studies in Higher Education* 22(3): 301–318.
Tsugawa, Yusuke et al. 2017. "Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs Female Physicians." *JAMA internal medicine* 177(2): 206–213.
Tummers, Lars LG, Victor Bekkers, Evelien Vink, and Michael Musheno. 2015. "Coping during Public Service Delivery: A Conceptualization and Systematic Review of the Literature." *Journal of Public Administration Research and Theory* 25(4): 1099–1126.
Varadarajulu, Shyam, Carol Petruff, and William H. Ramsey. 2002. "Patient Preferences for Gender of Endoscopists." *Gastrointestinal endoscopy* 56(2): 170–173.
Varia, Apurv et al. 2014. "Gender Preference for the Endoscopist among Hispanics: The Results of a Prospective Study." *Journal of immigrant and minority health* 16(5): 990–993.
Vinopal, Katie. 2017. "Understanding Individual and Organizational Level Representation: The Case of Parental Involvement in Schools." *Journal of Public Administration Research and Theory* 28(1): 1–15.
Wanerman, Robert. 2002. "The EMTALA Paradox." *Annals of emergency medicine* 40(5): 464–469.
Watkins-Hayes, Celeste. 2011. "Race, Respect, and Red Tape: Inside the Black Box of Racially Representative Bureaucracies." *Journal of Public Administration Research and Theory* 21(suppl_2): i233–i251.
Wilkins, Vicky M., and Brian N. Williams. 2008. "Black or Blue: Racial Profiling and Representative Bureaucracy." *Public Administration Review* 68(4): 654–664.
Zamboni, Lucila M. 2019. "Expanding the Theoretical Boundaries of Active Representation: Clients' Deservedness of Service in the 911 Emergency System." *Public Administration*.

Tables

Table 1: (1) Unconditional Predictors of Heart Attack Mortality and (2) Representation Effects of Heart Attack Mortality.

	(1) Pr(Mortality)	(2) Pr(Mortality)
Female Physician	-0.142*	-0.0482
	(0.0847)	(0.0953)
Female Patient	0.0613	0.0969**
	(0.0434)	(0.0468)
Female Physician x Female Patient		-0.242**
		(0.111)
Medicare Patient	0.189***	0.196***
	(0.0648)	(0.0644)
Medicaid Patient	0.0216	0.0388
	(0.124)	(0.124)
Teaching Hospital	0.692***	0.688***
	(0.0672)	(0.0667)
Uninsured	0.639***	0.645***
	(0.0764)	(0.0761)
Nonprofit Hospital	0.200***	0.201***
	(0.0685)	(0.0681)
Public Hospital	-0.478***	-0.471***
	(0.0981)	(0.0968)
High Intake	0.0270	0.0250
	(0.0557)	(0.0556)
Low Intake	-0.0229	-0.0231
	(0.0489)	(0.0487)
Physician Experience	-0.0264	-0.0239
	(0.0356)	(0.0351)
Patient Age	0.0471***	0.0468***
	(0.00218)	(0.00216)
Non-White patient	0.201***	0.199***
	(0.0608)	(0.0602)
Constant	-5.752***	-5.737***
	(0.216)	(0.169)

Notes: N= 36,119; Logistic Regression; Standard Errors Clustered by Physician; Quarter-Year Fixed Effects; *** p<0.01, ** p<0.05, * p<0.1.

Table 2: How ER Workload Moderates the Impact of Physician Representation on Heart Attack Mortality

VARIABLES	(3) Pr(Mortality)	(4) Pr(Mortality)
Female Physician	-0.00959	-0.0341
	(0.0990)	(0.102)
Female Patient	0.118**	0.0674
	(0.0512)	(0.0539)
Female Physician x Female Patient	-0.351***	-0.180
	(0.121)	(0.122)
High Workload	0.0497	0.0280
	(0.0803)	(0.0557)
Female Physician x High Workload	-0.190	
	(0.201)	
Female Patient x High Workload	-0.0776	
	(0.126)	
Female Physician x Female Patient x High Workload	0.579**	
	(0.294)	
Low Workload	-0.0230	-0.0655
	(0.0489)	(0.0718)
Female Physician x Low Workload		-0.0143
		(0.161)
Female Patient x Low Workload		0.156
		(0.107)
Female Physician x Female Patient x Low Workload		-0.310
		(0.272)
Medicaid	0.0207	0.0182
	(0.124)	(0.124)
Uninsured	0.637***	0.638***
	(0.0764)	(0.0764)
Medicare	0.188***	0.188***
	(0.0649)	(0.0648)
Physician Experience	-0.0269	-0.0262
	(0.0356)	(0.0356)
Patient Age	0.0471***	0.0471***
	(0.00218)	(0.00218)
Non-White Patient	0.200***	0.201***
	(0.0609)	(0.0609)
Teaching Hospital	0.692***	0.693***
	(0.0673)	(0.0673)
Nonprofit Hospital	0.201***	0.202***
	(0.0685)	(0.0685)
Public Hospital	-0.479***	-0.477***
	(0.0981)	(0.0981)
Constant	-5.768***	-5.760***
	(0.217)	(0.217)

Notes: N= 36,119; Logistic Regression; Standard Errors Clustered by Physician; Quarter-Year Fixed Effects; *** p<0.01, ** p<0.05, * p<0.1.

Figures

Figure 1: Measures of ER Intake Across Hour and Day.

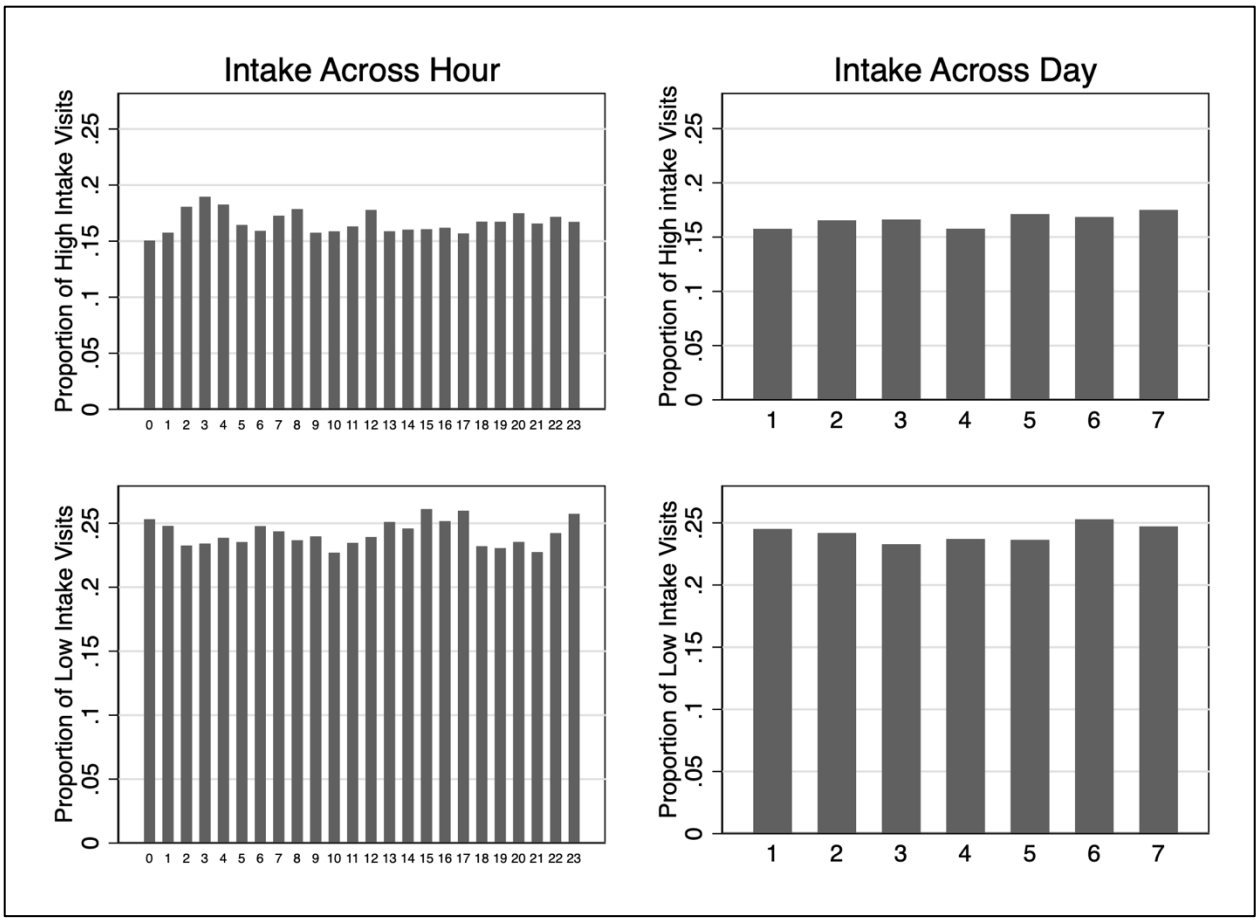


Figure 2: Measures of ER Intake across Weekday-Hour Combinations.

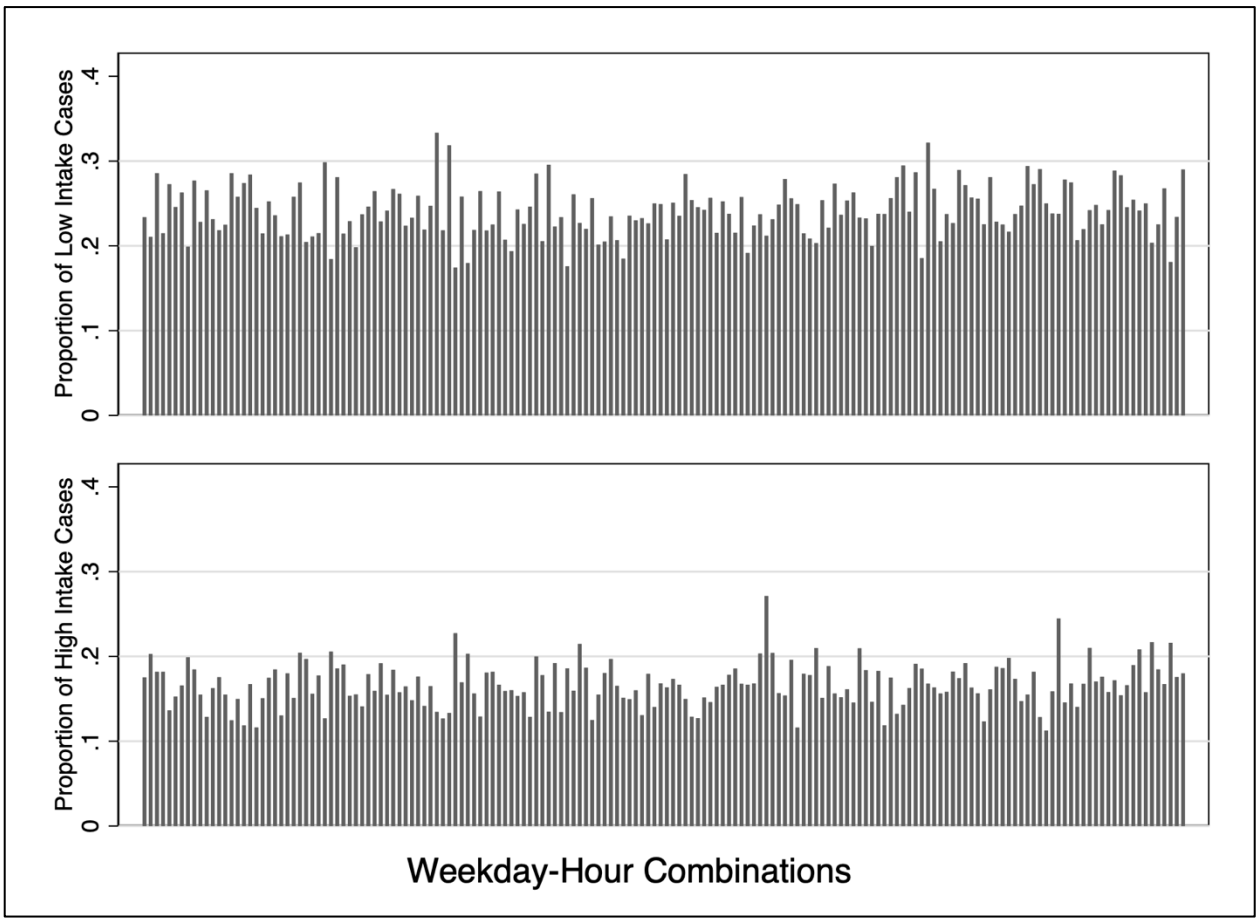
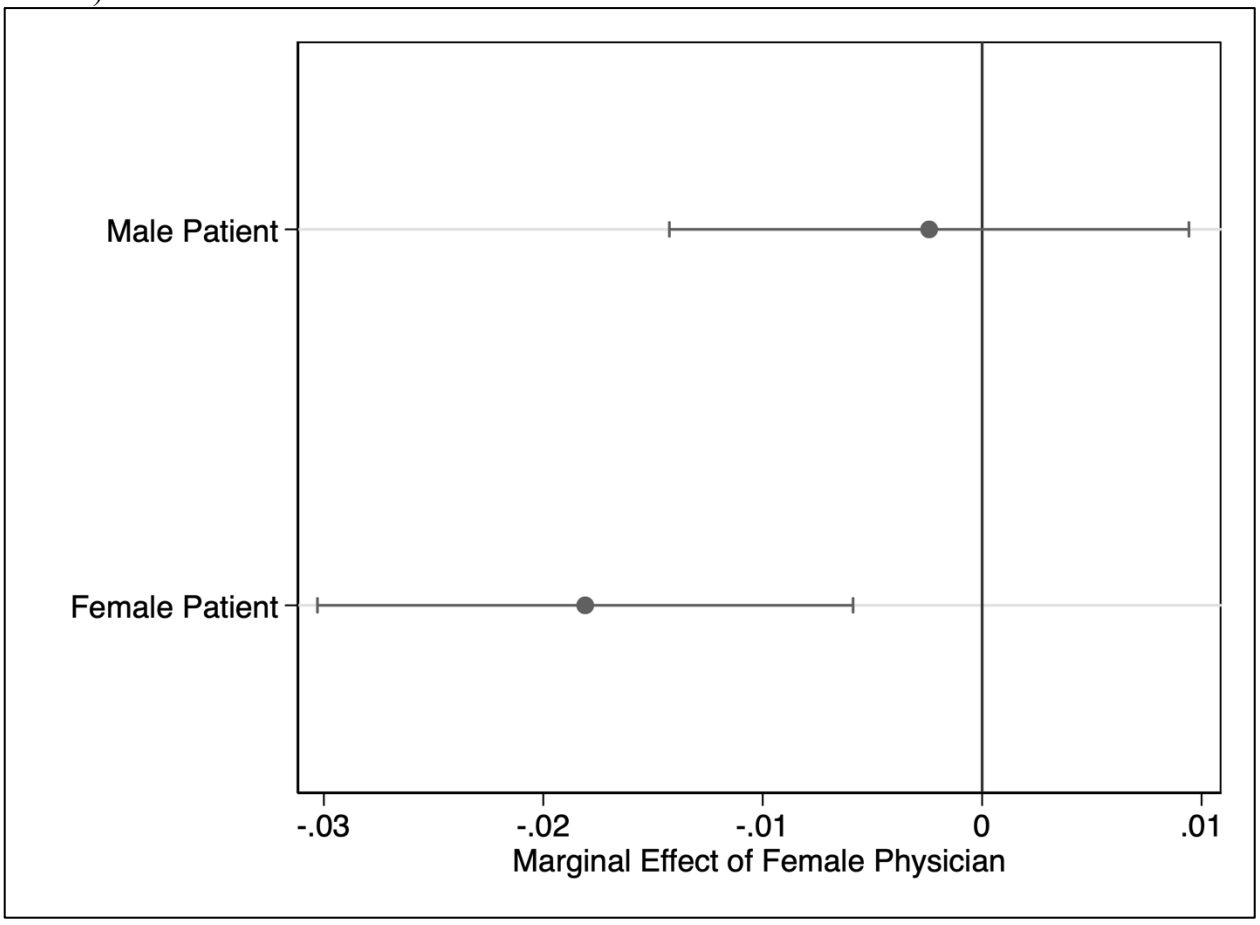
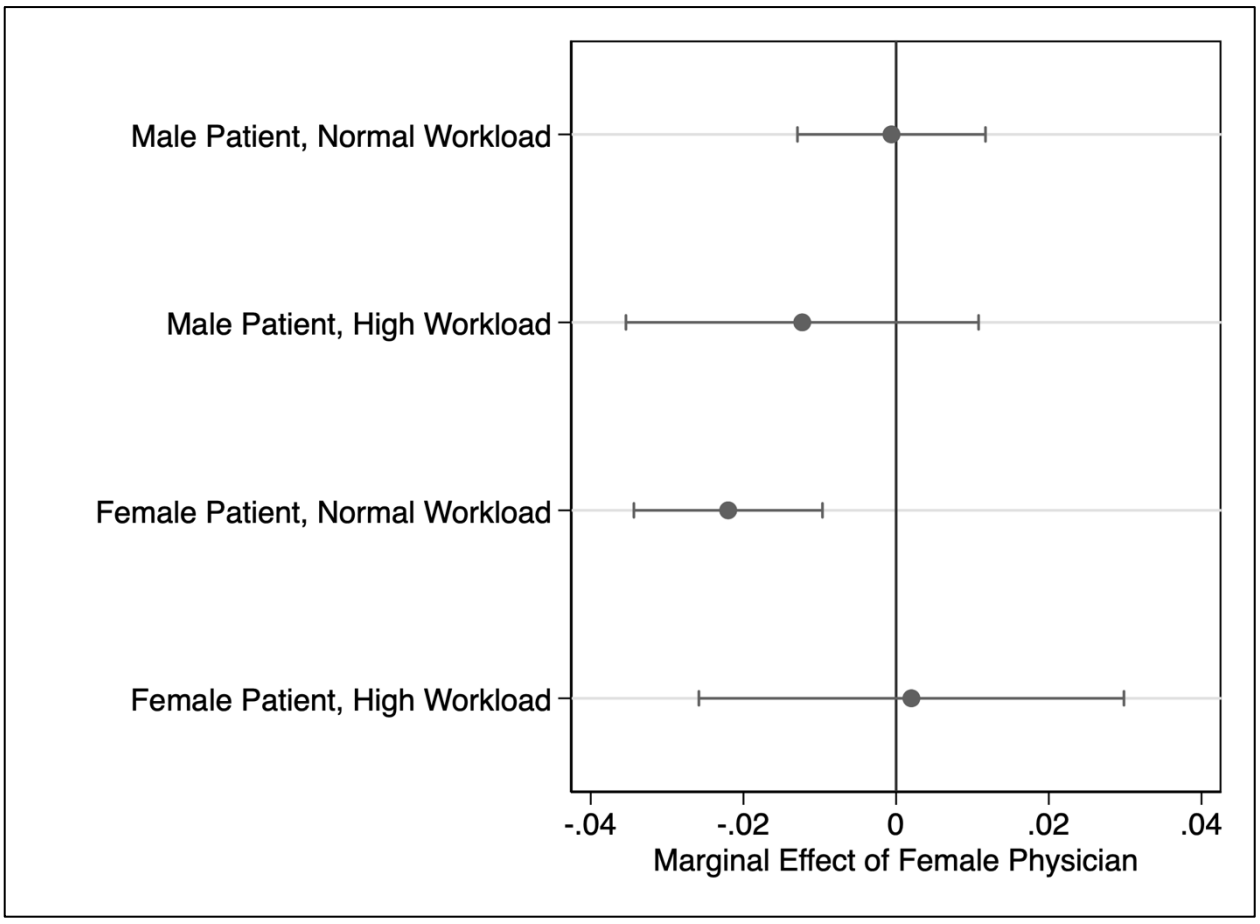


Figure 3: Marginal Effect of Female Physician across Patient Sex (Baseline Representation Effects)



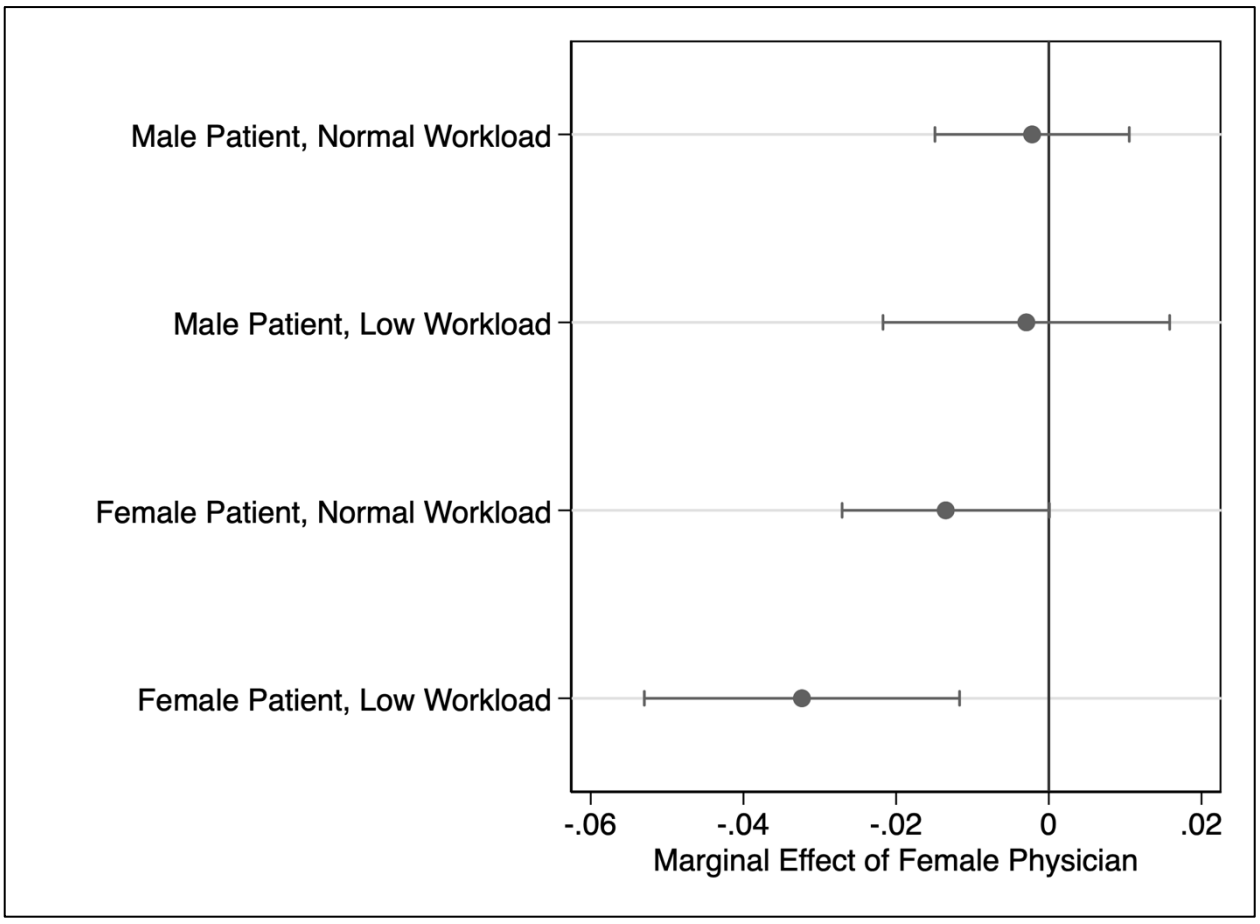
Notes: Estimates from Model 2; Average Marginal Effects; 95% Confidence Intervals.

Figure 4: Marginal Effect of Female Physician across Patient sex and High (Normal) Workload



Notes: Estimates from Model 3; Average Marginal Effects; 95% Confidence Intervals.

Figure 5: Marginal Effect of Female Physician across Patient sex and Low (Normal) Workload



Notes: Estimates from Model 3; Average Marginal Effects; 95% Confidence Intervals.