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Understanding Street-Level Bureaucrats' Decision Making: Determining Eligibility in the Social Security Disability Program

Spotlight on Public Management at The Grassroots

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Personal interactions between clients and street-level bureaucrats are significant in explaining why street-level bureaucrats behave as they do. Not all bureaucracies that apply program rules to individuals, however, engage face-to-face with their clientele. As more intake procedures are automated, such "one-on-one" encounters decrease. The author generates and tests hypotheses about frontline bureaucratic decision making in the Social Security Disability program, by applying bounded rationality theory. The findings show that eligibility decisions by street-level bureaucrats are affected by their adherence to subsets of agency goals and perceptions of others in the governance system. How quickly they make decisions also has an impact. There is no evidence that the way in which bureaucrats evaluate clients explains their decisions when they lack face-to-face contact.

Access to social welfare programs depends not only on the eligibility rules that Congress adopts but also on how bureaucrats apply those rules to individual cases (Brodkin 1997; Hasenfeld 1992; Lipsky 1980; Maynard-Moody and Musheno 2003; Prottas 1979). Often, bureaucrats who determine eligibility for government programs are referred to as "street-level bureaucrats." One central characteristic of street-level bureaucracies is the face-to-face interactions between bureaucrats and clients (Lipsky 1980; Maynard-Moody and Musheno 2003). The advancement of information technology has removed this characteristic, however, from many bureaucracies (Bovens and Zouridis 2002), and some bureaucracies that process people have never had this characteristic. Despite this, most research and theory building on bureaucracies that apply services directly to clients has focused on bureaucracies in which bureaucrats and clients physically interact (Maynard-Moody and Musheno 2003; Riccucci 2005; Vinzant

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and Crothers 2007; see Wenger and Wilkins 2009 for an exception). Even in the absence of face-to-face interaction, the bureaucrats who apply program rules to individuals should still play a role in influencing policy implementation because program rules can often be interpreted in different ways, and individuals often do not neatly fit into eligibility criteria (Hasenfeld 1992; Keiser 1999; Lipsky 1980; Prottas 1979; Sandfort 2000; Stone 1984).

Using insights from the literature on street-level bureaucracies and the theory of bounded rationality, I generate and test hypotheses that explain variation in how street-level bureaucrats use their discretion when they lack physical interactions with clients. I test these hypotheses using data from a mail survey of frontline workers in the Social Security Disability program. Bureaucrats implementing this program have high levels of discretion and process people but lack face-to-face interactions. I examine the impact of street-level bureaucrats' individual characteristics, such as their ideology, adherence to agency goals, attitudes toward clients, information about other bureau actors, and decision-making speed, on how generously they apply eligibility rules.

In addition to being a good case study to examine the determinants of eligibility determination, studying the Social Security Administration is important in its own right. Social Security Disability is one of the largest welfare programs in the United States. In 2005, the Social Security Administration administered $128 billion in cash benefits to 12.8 million people through the Social Security Disability Insurance (DI) and Supplemental Security Income (SSI) (GAO 2007). Furthermore, these programs are extremely important for the disabled population. Not only do these programs

provide needed income support, but also access to health insurance through the Medicare and Medicaid programs. The system is under severe stress with high and increasing costs, a large pending caseload, slow processing of cases, and inconsistency in decisions across geographic areas and different levels of decision making (Autor and Duggan 2006; Social Security Advisory Board 2001). Therefore, understanding the determinants of eligibility determination in DI and SSI has important policy implications.

Social Security Disability

Congress extended Social Security to cover persons with disabilities in 1956. To receive financial assistance, a disabled person may qualify for DI or SSI. In order to do so, potential clients must be assessed as unable to work in the same range of jobs as nondisabled people given their age, education, and work experience (Roth 1987). In addition, to qualify for DI, recipients must have paid into Social Security an amount determined by their age and employment history, and for SSI, they must meet a means test. Both programs are federal, and the national government provides the funding and determines the rules of eligibility (Dolgoff, Feldstein, and Skolnik 1993).

Despite the dominance of the federal government in funding and setting eligibility requirements, the bureaucrats making initial eligibility decisions for the DI and SSI program work in state offices of rehabilitation (referred to as Disability Determination Services or DDS). Claimants who are denied at the DDS level can appeal to federal administrative law judges in the Social Security Administration (Social Security Advisory Board 2001). To qualify for each program, potential clients must be assessed as unable to work in the same range of jobs as nondisabled people (Roth 1987). The impairment must be of such severity that the claimant is not able to do his or her previous work or engage in "substantial gainful work" that exists in the national economy and is appropriate given the claimant's age, education, and experience. It is not relevant for eligibility whether openings exist or whether the claimant is likely to be hired (Berkowitz 1987).

DDS offices distribute applications to examiners on a random basis (phone interviews with DDS directors). If the examiner feels that additional information is needed, such as consultative exams from non–personal physicians or particular medical tests, the examiner asks the applicant to see a doctor or psychologist. The examiner then turns the case over to medical consultants (either physicians or psychologists), who make an assessment about whether the claimants' medical condition meets the medical statutory requirements for disability. If a claimant has both mental and physical ailments, physicians and psychologists independently assess whether the applicant meets the physical requirements or the mental requirements, respectively. The consulting physicians and psychologists return the case to the examiner, who assesses the occupational opportunities available to the applicant given his or her medical condition. Ultimately, the examiner makes the final decision as to whether the applicant meets the criteria for eligibility.

In some cases, claimants have certain medical conditions that automatically make them eligible for benefits; these cases are routine. One characteristic of street-level work, however, is that rules do not always perfectly fit the characteristics of the people to whom the

bureaucrat is applying the rules. In these cases, it is difficult to apply rules uniformly (Hasenfeld 1992; Lipsky 1980; Maynard-Moody and Musheno 2003). In the Social Security Disability program, the examiner must assess whether the combination of conditions and the occupational opportunities available to the claimant meet the eligibility criteria.

Whether a claimant is truly unable to work is very subjective because the concept of disability resists precise definition and measurement. This gives street-level bureaucrats high levels of discretion in decision making (Berkowitz 1987; Derthick 1990). Uncertainty and disagreement exist between physicians over the interpretation of diagnostic tests such as X-rays (see Stone 1984 for a review of these studies). Pain affects people differently, and while one person may be able to work with his or her limitation, another may not (Stone 1984). Similarly, people vary significantly in their ability to work with mental illness (Dow and Boaz 1994).

In addition to the subjective medical information given to disability determination workers, examiners must also take into account a claimant's age and occupational history. This requires subjective decisions (Stone 1984). The kinds of jobs that claimants can do given their physical limitations are not always easy to determine. In sum, the statutory definition of disability is not sharp enough for us to say with confidence that any particular decision is or is not a correct application of the statute. Although many decisions are ones that clearly meet the eligibility criteria or do not, a substantial percentage of cases fall into a gray area (Mashaw 1983). Not surprisingly, consistency among DDS examiners and across DDS offices has periodically been a concern of the Social Security Administration and of members of Congress (GAO 2004; Social Security Advisory Board 2001). What explains variation among DDS examiners?

To answer this question, I first made personal visits to two DDS state offices and had a phone interview with the director of a third state. Through the contacts with directors, I received permission to conduct a mail survey of street-level bureaucrats in DDS offices— examiners, consulting physicians and psychologists, and supervisors. In all three states, office policy dictates that applications for DI and SSI are distributed randomly across examiners. This allows us to control for quality of case. Because the cases are randomly assigned, the severity of claimants' disabilities should be randomly distributed across examiners. If street-level bureaucrats make decisions solely based on the severity of the medical condition and the strength of the evidence, we would expect to find little variation between examiners in their allowance rates. However, examiners report varying levels of award rates. The average reported award rate is 33 percent, with a standard deviation of 17 percent.[1]

The Theory of Bounded Rationality

Information in public policy is inherently ambiguous (Feldman 1989; Stone 1997; Zahariadis 1999). Because of this, individuals may respond differently to the same information when making decisions (Jones 2001; Simon 1947). Individuals process information through a filter created by their personal attitudes and experiences (Jones 2001; Simon 1947; Zaller 1992). Recent work on public attitudes toward policy issues finds that individuals' responses to information are shaped by both their individual characteristics (such as ideology) and their knowledge about how others in their social

network feel about the issue (Wood and Vedlitz 2007). Applying this to public agencies leads us to expect that street-level bureaucrats' personal attitudes and values, in addition to their perceptions of others in the bureaucracy, will have an impact on how they interpret information presented in applications for disability, and consequently on how likely they are to allow or deny an applicant.

Bureaucratic Attitudes and Values

Bureaucrats have attitudes that influence how they implement policy that arise from both their experience inside and outside the bureaucracy (Meyers and Vorsanger 2003). Herbert Kaufman (1956), in his seminal work on the U.S. Forest Service, argues that the personal attitudes that bureaucrats bring with them into the bureaucracy are important for understanding bureaucratic behavior. Bureaucrats enter organizations with "opinions, values, preferences and their own interpretations of the world" (Kaufman 1960, 80–81). The existence of these "predilections" creates challenges for the leaders of the bureaucracy, who want to ensure consistency in policy implementation. To overcome this challenge, managers seek to integrate all members into the goals of the agency and the selection of like-minded people (Kaufman 1956). Furthermore, interactions with peers during the course of daily work create shared knowledge and collective beliefs (Sandfort 2000). As will be discussed in more detail later, because organizations vary in the ability of leaders to create consistency in values (Meier 1993), some organizations will have little variation in values. Therefore, values will not be important in explaining variation in bureaucratic behavior. Values will still matter, but will be a constant across most bureaucrats in the organization. In other organizations, however, bureaucrats will vary in attitudes, and that variation may explain why bureaucrats within the same organization implement policy differently.

At the aggregate level, scholars have found that bureaucratic values measured by a variety of proxies do play a role in explaining how the bureaucracy implements policy (Chaney and Saltzstein 1998; Eisner and Meier 1990; Meier and O'Toole 2006). Because these studies use proxies for values such as the representation of race and sex in the bureaucracy or the percentage of bureaucrats with a particular professional background, we do not know whether it is the attitudes or values of street-level bureaucrats that it is affecting policy implementation or whether it is the goals of managers, or something else. We cannot infer from aggregate-level studies that individual values matter. To more thoroughly understand the role of the values of street-level bureaucrats in explaining policy implementation, we must examine data at the individual level.

Scholars using inductive research designs and individual-level data have found evidence that values play a role in determining how bureaucrats implement policy (Kelly 1994; Lipsky 1980; Maynard-Moody and Musheno 2003; Vinzant and Crothers 1998). Although this body of work generates several interesting hypotheses, few of these hypotheses have been tested using large-N data sets and deductive research designs. It does not present evidence, therefore, that allows us to draw inferences about the importance of bureaucrats' client perceptions and political orientations (King, Keohane, and Verba 1994).

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Several large-N studies with deductive research designs exist that explore the impact of values on bureaucratic behavior (Brehm and Gates 1997; Riccucci 2005; Winter 2002). Many of these studies do not, however, link bureaucratic attitudes to actual decisions of bureaucrats (for exceptions see May and Winter 2009; Sabatier, Loomis, and McCarthy 1995; Whitford 2002). Brehm and Gates's study (1997) demonstrates, for example, the importance of bureaucratic attitudes (functional and solidary preferences) toward what bureaucrats do with their time. Similarly, Riccucci (2005) does find some effect of attitudes (how much compassion bureaucrats have for their clientele) on bureaucratic behavior, but her dependent variable focuses on whether street-level workers spend their time on eligibility determination or employment training rather than whether bureaucrats give individuals access to benefits (see also Winter 2002). While what activities bureaucrats spend their time on and how they interact with clients are important variables to study, and indirectly contribute to the distribution of policy benefits, they do not capture how the values of street-level bureaucrats directly affect actual decisions. Scholars have identified three particular kinds of attitudes that may explain the eligibility decisions that street-level bureaucrats make: political ideology, adherence to bureaucratic goal or mission, and client assessment.

Political Ideology

The theory of bounded rationality predicts that the political ideology of street-level bureaucrats should influence decision making because it influences how bureaucrats will interpret information, especially in bureaucracies with multiple or vague missions (Jones 2001; Wilson 1989). Although Social Security receives bipartisan support, conservatives in general have been less supportive of expanding the program than liberals (Keiser 1999). Furthermore, ideological differences in the American population coincide with differences in assumptions of personal responsibility and the causes of personal hardship in the market economy (Stone 1984). Conservative ideology tends to hold individuals responsible for their lack of labor market performance more so than liberal ideology. The survey asked respondents to place themselves on a seven-point scale ranging from very liberal (1) to very conservative (7). I expect examiners who place themselves toward the conservative end of the scale to have lower allowance rates than examiners who place themselves toward the liberal end. Examiners divided fairly evenly in terms of ideology, with 33 percent responding "liberal," 27 percent responding "moderate," and 40 percent responding "conservative."

It is important to distinguish between ideological identification, which is simply the perceptions of individuals of where they lie on a liberal–conservative continuum, and ideological conceptualization, which refers to the role that ideological identification plays in shaping how individuals think about politics and policy. Although most Americans can identify themselves on the liberal–conservative scale, these identifications do not necessarily translate into coherent and consistent attitudes (Campbell et al. 1960; Converse 1964). Furthermore, most people are internally conflicted about the type of welfare state they want the government to provide and hold conflicting values that support small government and individualism, as well as sympathy for those who are disadvantaged (Feldman and Zaller 1992; Hochschild 1981).

Among a subset of individuals, however, such as those with advanced levels of education, ideological identification does connect with attitudes about policy. Furthermore, ideological identification does seem to be related to attitudes toward many policy issues (Rudolph and Evans 2005; Sears and Citrin 1985; Sears et al. 1980). Most DDS examiners have at least some college education, and therefore we should expect that ideological identification will correlate with policy attitudes and should affect bureaucratic behavior.[2] To test the hypothesis that ideological identification influences bureaucratic decision making, I regress political ideological identification on DDS examiners' self-reported allowance rates, expecting that more conservative examiners will have lower allowance rates.

Adherence to Bureaucratic Goal or Mission

In addition to political ideological identification, how street-level bureaucrats use their discretion may be influenced by attitudes toward specific program goals or the bureaucracy's mission. As mentioned earlier, to reduce the likelihood that policy implementation will reflect the personal values or attitudes of individual bureaucrats, managers attempt to create a sense of shared values concerning the primary goal of the organization and the best means to achieve that goal (Kaufman 1956; Wilson 1989). Kaufman (1956) attributes the lack of fragmentation in how the U.S. Forest Service implements policy to the creation of common values and a sense of mission (Kaufman 1960; see also Sabatier, Loomis and McCarthy 1995). Organizations vary, however, in their ability to create a common sense of values. When an organization has multiple or conflicting goals, bureaucrats have leeway in deciding which goals to prioritize (Chun and Rainey 2005; Meier 1993; Pandey and Wright 2006; Rainey 1993). Because of this, not all agencies may be successful at creating a commitment to one mission. This should especially be the case in bureaucracies that implement redistributive policies such as Social Security Disability because the government is transferring benefits from one group to another, which creates high levels of conflict (Lowi 1972). Similar to redistributive policies, bureaucracies implementing regulatory policy should also have high goal ambiguity because their stakeholders include interest groups that have different priorities about the importance of economic growth and public health and welfare. In contrast, clientele bureaucracies that the government created to serve the interests of one particular group and that often implement distributive policies should have less goal ambiguity (Lowi 1972; Meier 1993).

The literature examining the link between attitudes concerning the goals of the program and bureaucratic decisions provides mixed findings. Sabatier, Loomis, and McCarthy (1995) test how the attitudes of U.S. Forest Service personnel regarding various goals for the management of the forests have very marginal effects on planning decisions about forests. May and Soren (2009), however, find that how street-level bureaucrats feel about program goals in employment policy affects how they apply the program to individual clients.

DDS offices have two contradictory missions. The first is to grant access to a needy population, and the second is to protect the solvency of the Social Security Trust Fund (Mashaw 1983). If DDS offices grant eligibility to many claimants, they run the risk of endangering the trust fund and risking the solvency of the program. If they grant eligibility to too few, they risk leaving a portion of the population unprotected. Examiners who are most concerned about

protecting the solvency of the Social Security Program should feel most accountable to U.S. taxpayers, whereas those who are most concerned with serving the disabled should feel most accountable to citizens in their own state. I include a variable in the model that is coded 1 if examiners chose the option "U.S. taxpayers" in response to the question, "If you had to choose one, to whom do you feel DDS officials should be most accountable?" and 0 if they chose "citizens in your state." I expect that examiners who feel most accountable to U.S. taxpayers will have lower allowance rates than those who feel most accountable to citizens in their own state. Sixty-six percent of examiners responded "U.S. taxpayers."

Client Assessment

According to some street-level bureaucracy scholars (Lipsky 1984; Maynard-Moody and Musheno 2003), the most defining characteristic of street-level work is not political ideology or attitudes about policy goals, but the physical interaction between workers and clients. This interaction has a profound impact on how street-level workers make decisions. Street-level workers do not adapt laws, rules, and procedures to the circumstances of cases, as depicted in traditional perspectives on street-level work. Instead, judgments are rendered more in the context of social relationships and the identity of the client. Street-level workers are attentive to who their clients are, and they make decisions based on an assessment of people's character and identity (Maynard-Moody and Musheno 2003). In other words, workers start with an assessment of the client and then find a rule or procedure that will provide the type of service that fits with the value judgment the worker has made regarding the client. This theoretical perspective, referred to as the "citizen–agent narrative" (Maynard-Moody and Musheno 2003), suggests that how workers assess clients is paramount in explaining patterns of decision making in street-level work.

Empirical research supports the argument that client assessment plays a role in determining street-level bureaucratic behavior. Research has found that attitudes toward clients affect the decisions that street-level bureaucrats make (Hasenfeld and Steinmetz 1981; Scott 1987; Winter 2002; but see May and Winter 2009). Workers in DDS offices do not meet, however, the traditional definition of street-level work because they do not have face-to-face interactions with clients (see Lipsky 1980; Maynard-Moody and Musheno 2003). Although DDS workers have few face-to-face interactions with clients, they interact with clients by reviewing the details of their lives through reading their applications for disability benefits. Furthermore, they speak with clients on the phone to solicit information regarding their health (in the survey, examiners reported an average of 158 telephone contacts per month).[3] In this way, they interact with clients, although not perhaps in exactly the way described by Lipsky (1980) when he argues that a distinct framework or theory is needed to understand frontline bureaucrats.

The lack of face-to-face interaction has some theoretical implications for the role of client assessment in determining street-level behavior. According to Maynard-Moody and Musheno (2003), face-to-face interactions affect bureaucratic decisions because clients overpower the physical and emotional spaces in which street-level workers perform their jobs. Clients are at the forefront of the environment in which street-level bureaucrats work, which causes client attributes to become central in decision making.

The citizen–agent narrative (Maynard-Moody and Musheno 2003), as well as almost all work on street-level bureaucrats, focuses only on workers who have face-to-face interactions with clients. Consequently, current research has not revealed whether this face-to-face contact is what causes client assessment to play a major role in explaining decisions that street-level workers make because the face-to-face contact has been a constant. The nature of eligibility determination in the Social Security Disability program provides us with a good policy case to test whether face-to-face contact is indeed a necessary condition for client assessment to play a role in bureaucratic decision making.

On the one hand, client assessment should be an important variable even without face-to-face interaction. Analyzing a paper application and/or speaking on the phone with a client is similar in kind, if not in degree, to face-to-face interactions. Although the interactions are not as intimate as they are with face-to-face interactions, DDS examiners process people, and, as Hasenfeld (1992) argues, all bureaucrats who processes people engage in judgments about them and make assessments of their moral worth. Therefore, even without face-to-face interactions, client assessment may be important. On the other hand, Maynard-Moody and Musheno (2003) theorize that it is the face-to-face contact that makes client assessment so important because clients dominant the physical space of street-level workers, making it impossible for street-level workers to ignore their feelings about clients.

One important aspect of attitudes toward claimants is whether examiners feel that claimants are honest about needing benefits. A high suspicion that claimants are dishonest should repress award rates. To gauge examiners' attitudes toward claimants, the survey asked examiners to agree or disagree with the statement, "Most claimants are honest about their medical conditions." The data is coded so that a high score reflects the view that clients are not honest. Examiners who feel that claimants, on average, are not honest should have lower award rates than their peers who do not feel this way, all else being equal. Examiners were evenly split in their views of claimants, with 50 percent agreeing strongly or agreeing and 50 percent disagreeing strongly or disagreeing.

Bureaucratic Networks

In addition to street-level bureaucrats' values and attitudes, street-level bureaucrats should be influenced by their broader social networks. Although scholars have relatively recently been viewing bureaucracies as part of broader governance systems of interlocking organizations, bureaucracies have never been monolithic, although a lot of research has treated them as such (Heinrich, Hill, and Lynn 2004). Instead, government agencies are made up of different bureaus working within overarching departments. Street-level workers exist in "micro-networks" of vertical and horizontal relationships, defined by vertical relationships with national organizations and horizontal relationships with actors in other organizations (Hupe and Hill 2007). What the bureaucracy does, therefore, is a function of the interactions between these units. The Social Security Administration is a good example of this. As mentioned earlier, several

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different units are involved in setting eligibility policy. DDS examiners make initial decisions within state offices, while administrative law judges working in different offices hear appeals from those decisions. Bureaucrats in regional federal offices review a sample of DDS decisions and oversee operations in DDS offices.

Because these bureaus operate within micro-networks, what occurs in one unit should have an impact on other units because of social and policy feedbacks. Information and inputs (applications for disability benefits) flow between these units. Social feedback theory suggests that individuals' perceptions of information are shaped by their perceptions of how others in their social networks perceive information (Wood and Vedlitz 2007).

One important characteristic of the micro-networks within which public agencies operate is hierarchy. Evidence exists that hierarchical relationships exert influence (Golden 2000; May and Winter 2007; Moe 1984; Wood and Waterman 1994), even if coercive controls are ineffective (Brehm and Gates 1998). Managers affect street-level workers (Brewer 2005; Riccucci 2005; but see Lipsky 1980; Brehm and Gates 1998). Because of the effects of hierarchy, I expect examiner allowance rates to be influenced by perceptions of whether their direct supervisors and the supervisors of their organization (regional offices) are more concerned with allowance or denial errors. Questions that ask whether supervisors within DDS office and supervisors within regional offices are more likely to question denials, question both, or question allowances are used to measure hierarchical control and or influence. I created a scale coded as 1 if the examiner believed the focus was on denials, 2 if the examiner believed the focus was on both equally, and 3 if the examiner believed the focus was on allowances. Higher scores on the scale should result in a reduction in allowance rates. Forty-six percent of examiners believed supervisors focused on denials, 44 percent on both equally, and 10 percent on allowances. Twenty-seven percent of examiners believed that regional Social Security Administration officials focused on denials, 31 percent on both equally, and 42 percent on allowances.

In addition to the effects of hierarchy, expectations and knowledge about how other actors will respond to claims create incentives and disincentives to behave in certain ways (Vinzant and Crothers 1998, 16). Knowledge that other units are likely to overturn particular types of decisions creates disincentives to make those types of decisions, even if the people in those units do not officially oversee street-level bureaucrats. For these reasons, I expect that street-level bureaucratic decision making will be influenced by information about what other actors in the broader governance structure are doing. To measure the impact of nonhierarchical units in the bureaucracy, I used responses to a question related to administrative law judges (ALJs). DDS offices do not have hierarchical relationships with ALJ offices and have very little contact with them and do not know which cases ALJs reverse. The ALJs do not evaluate DDS examiners or contribute to policy in DDS offices. ALJ offices do affect, however, the ultimate outcome of cases that DDS examiners decide because they hear these cases on appeal (Social Security Advisory Board 2001). In doing this, ALJs create policy feedbacks. Insofar as

street-level workers are influenced by information about how others in their governance system implement policy, we should expect that DDS examiners with knowledge of ALJ activity will implement eligibility policy differently than those without that knowledge. ALJs overturn a high percentage of DDS cases. Nationally, administrative law judges overturn about two-thirds of all cases that are appealed (GAO 2004). Insofar as DDS examiners are influenced by this policy feedback, knowledge about ALJ reversal rates should increase allowance rates because it creates a disincentive to take the time to deny a case if it is likely that the case will be allowed on appeal. To test this hypothesis, examiners were asked whether they were aware of how many cases ALJs reversed. Those answering "yes" were coded as 1, and those answering "no" were coded as zero. Most examiners were not aware of ALJ reversal rates (77 percent).

Characteristics of Decision Making

In addition to values and perceptions, the theory of bounded rationality suggests that DDS examiners' substantive decisions may be affected by how long they take to make decisions. Research on organizations has highlighted the importance of the time frame in which decisions are made for understanding bureaucratic decisions (Carpenter 2002; Gordon 1999). Bureaucrats do not gather all of the necessary information to reach rational decisions, but instead make decisions when they have gathered adequate information (Simon 1947). When decisions are made quickly, those decisions are more likely to reflect decisional biases (Jones 2001). We would expect that examiners will be more likely to err on the side of whatever type of decision they feel is most likely to cause their decisions to be sanctioned or questioned. As mentioned earlier, the responses on the survey overwhelmingly demonstrate that examiners are most likely to think that denials are more likely to be questioned or that decisions are equally likely to be questioned by their immediate supervisor. Only 9.71 percent believed supervisors were more likely to question allowances. These data indicate that at least during the time of this survey and in the states included in the study, the DDS had either no bias or a bias toward higher allowance rates.[4] We should expect, therefore, that examiners making decisions more quickly will have higher allowance rates.

Methods and Data

The random distribution of cases to examiners provides an opportunity to test the hypotheses discussed earlier. Because the severity of medical conditions should vary randomly across examiners, we can test the hypothesis that personal attitudes and values of bureaucrats, their perceptions of others in the governance system, and how quickly they process cases explain variation in how street-level workers implement policy. As mentioned earlier, to collect data on personal characteristics and bureaucratic behavior, I conducted a mail survey of DDS examiners in three different states after interviewing the directors of those offices. The response rate from the surveys ranged between 37 percent and 57 percent across the three DDS sites.[5] Dummy variables are included in the model to control for differences across the three states.[6] A follow-up survey was sent to each respondent to increase the return rate, although the follow-up did not change the response rate substantially. To avoid bias in the responses, respondents were promised that the name of their state would remain confidential. Although the survey did contain information about which state the respondent worked in, it did not include any identifying information pertaining to the respondent.

If street-level bureaucrats make decisions solely on the severity of the medical condition and the strength of the evidence, we would expect to find little variation between examiners in their allowance rates. Examiners reported, however, varying levels of award rates. The survey asked examiners, "What percentage of cases do you allow in a typical month?" The responses to this question for examiners with regular caseloads varied tremendously, ranging from 2 percent to 65 percent. What I am predicting with this model is not respondents' actual allowance rate but what their best guess of their allowance rate is.[7] The directors in the DDS offices in this study were not able or willing to provide data on individual examiners' actual allowance rates. Furthermore, matching individual surveys with administrative data from DDS offices would make it difficult to preserve the anonymity of the examiners. Because of measurement error, self-reported allowance rates probably contain a fair amount of noise, providing a stringent test for finding evidence of relationships. Regression diagnostics were performed on the models, and all problems were corrected.[8]

Although Social Security Disability has some unique policy attributes, the finding from this case study should be generalizable to other organizations charged with determining eligibility. One task that many street-level bureaucrats perform is determining eligibility for government programs such as food stamps, Temporary Aid to Needy Families, workers' compensation, veterans' disability, and special education. Because these programs involve applying rules to people (Hasenfeld 1992), the factors that affect decision making in those programs should be similar to the Social Security Disability program. Furthermore, many of these programs, such as workers' compensation, veterans' disability, and special education, are very similar to Social Security Disability because they involve determining whether someone's medical condition precludes them from working or requires that they receive special services. Because of the similarities involved in determining eligibility, the findings from this study should be generalizable to programs in which street-level workers must make determinations about whether an individual meets criteria to receive benefits.

Findings

Overall, the model explains about 12 percent of the variation in eligibility determination across DDS examiners. The amount of explained variation is relatively similar to that found in others studies

Table 1 The Determinants of Street-Level Bureaucrats' Program Generosity (Examiner Allowance Rate)

Variables	Coefficient	Standard Error	T-Score
Accountable to federal taxpayers	–6.52	2.96	–2.20*
Claimant dishonesty	–1.89	1.75	–1.08
Ideology	0.10	0.85	0.12
Knowledge of ALJ reversal rate	5.68	3.18	1.79*
Supervisor focus on allowances	2.30	2.18	1.06
Regional office focus on allowances	–4.29	1.82	–2.34
Processing time	–0.17	0.08	–2.22
State 1	10.58	6.14	1.72**
State 2	2.17	3.43	0.63
Constant	54.72	9.10	6.01*
Adj. R^2 = .12			
N = 128			
F-score= 2.86			

* $p \leq .05$; ** $p \leq .10$.

predicting individual bureaucratic behavior (see Riccucci 2005). The model supports three of the hypotheses.[9] First, as expected, perceptions of activity in other units of the bureaucracy do have an impact on how individual bureaucrats implement policy. Examiners with knowledge of how many cases administrative law judges overturn report about 6 percent higher allowance rates than those without this knowledge. Similarly, examiners who think that regional offices are more likely to focus on allowances than denials have about 4 percent lower allowance rates. Any particular examiner has very little individual contact with administrative law judges or regional office representatives. Despite this, perceptions of what goes on in these units influence street-level bureaucratic behavior.

The findings show mixed support for the contention that individual attitudes explain variation in policy implementation. Attitudes about whom DDS examiners should be accountable to affect allowance rates. As expected, examiners who believe that DDS offices should be most accountable to federal taxpayers have lower allowance rates (about 6 percent) than those who believe DDS offices should be most accountable to citizens in the respondents' home state. Those who feel most accountable to U.S. taxpayers should place a higher priority on protecting the solvency of the Social Security Trust Fund, whereas those who feel most accountable to citizens in their own state should place a higher priority on meeting the needs of the disabled. Unlike adherence to different goals, however, ideological identification and assessments of claimants do not seem to play a role in explaining variation in examiners' decision making.[10]

An important question regarding the impact of the variables that support the hypotheses, however, is whether the impacts of these variables are meaningful. Although determining the importance of an effect is subjective, I would argue that these changes have a meaningful impact on the generosity of the Social Security Disability program. In 2003, about 2 million people across the country applied for DI benefits, and 37 percent of them received allowances at the initial DDS level (GAO 2004). An increase of 4 percent in the allowance rate would increase the number of beneficiaries by about 99,000 in any given year, and a 6 percent increase would increase the number by more than 148,000. While many of these beneficiaries would have received benefits on appeal (61 percent at the ALJ level), claimants wait on average about 481 days for an ALJ decision. Therefore, making those decisions at the DDS level would reduce financial hardships for many applicants. Furthermore, about 36 percent of applicants never appeal (Soss and Keiser 2006). A 4 percent to 6 percent change in the allowance rate at the DDS level, therefore, would have meaningful impacts for those with disabling conditions.

Adding even a relatively small number of beneficiaries can have long-term fiscal impacts for the federal government because most beneficiaries are never terminated from the program (Social Security Advisory Board 2001). Furthermore, because eligibility for Medicare and Medicaid coincides with eligibility for SSI and DI, increasing the number of recipients also has program costs for government health care that continue for a long time. In addition to perceptions

> . . . the findings show that street-level bureaucrats are influenced by their perceptions of actors in other organizations within the governance system, even without a high level of interaction between units.

of intra-agency actors and accountability values, decision-making time explains variance in examiners' eligibility determinations. An increase of one day in average processing time increases the allowance rate by about 0.2 percent.

Implications for Understanding Street-Level Decision Making

The findings make four main contributions to the broader literature on street-level bureaucracies. First, the findings show that street-level bureaucrats are influenced by their perceptions of actors in other organizations within the governance system, even without a high level of interaction between units. Some of these actors exist in hierarchical relationships with DDS offices (regional Social Security Administration offices), but others do not (administrative law judges). The significant finding for perceptions of regional offices has implications for managers administering intergovernmental programs. Providing information to street-level bureaucrats about the preferences of the federal government can affect how street-level bureaucrats at the local level implement federal policy and increase intergovernmental coordination. Interestingly, I find no support that examiners are influenced by supervisors within their offices. This may be attributable to the fact that, as mentioned earlier, less variation exists across examiners in how they perceive supervisors than their perceptions of other actors outside the organization.[11] Perceptions of supervisors may not explain variation across examiners because any bias supervisors have is toward questioning denials, which would raise allowance rates across all examiners in these particular DDS offices.

Unlike regional office officials, administrative law judges do not exist in hierarchical relationships with DDS examiners, yet they still have an impact on examiners' decision making. Simple knowledge of how many cases administrative law judges reverse increases DDS examiners' award rates.[12] Policy feedbacks seem to exist between units, and knowledge of the policy outputs of one unit provides incentives for actors in other units. Policy feedbacks are important given that coordination within governance systems is problematic (Bardach 1998; Goldsmith and Eggers 2004). The Social Security Administration, like many large public departments, seeks consistency between units and has tried to increase it between the DDS and ALJ levels (GAO 2004). The findings indicate that simple information sharing about ALJ reversal rates would enhance consistency. One important role of management is the shaping of the knowledge and motivations of employees (Brewer 2005; May and Winter 2009). The results support the contention that affecting knowledge will have direct impact on how street-level bureaucrats behave.

The second noteworthy finding in this study is that I find no evidence that client assessment directly explains variation in bureaucrat behavior. The structure of decision making in the Social Security Disability program has implications for how we should interpret these null findings. It would not be accurate to claim from these findings that client assessment does not play a role in explaining street-level bureaucratic behavior in general. Instead, the findings have implications only for bureaucracies that limit interactions between clients and the caseworkers who determine eligibility.

These types of bureaucracies are becoming more and more common with the advance of computer technology. As Bovens and Zouridis (2002) argue, street-level bureaucracy is transforming into "screen-level" and "system-level bureaucracy." This transformation so fundamentally alters the bureaucracy that many bureaucracies no longer meet the literal definition of street-level bureaucracy because clients no longer interact with bureaucrats (Bovens and Zouridis 2002). In the United States, these changes toward automated intake procedures are widespread across the U.S. states in the unemployment insurance program (Wenger and Wilkins 2009) and also have been implemented in some states for food stamps and Medicaid (Lange 2007; Winstead and Hudgens 2007).

Although null findings need to be interpreted with care, the findings in this study suggest that in bureaucracies without physical interactions with clients, client assessment may be less important than in more traditional street-level bureaucracies. This is consistent with Maynard-Mooney and Musheno's (2003) work, which highlights the importance of the physical interaction between clients and caseworkers in making client assessment such an important factor in street-level work. The finding here is also consistent with Wenger and Wilkins (2009), who find evidence that moving away from in-person intake services to automated services reduces the importance of client attributes (in this case sex) as a determinant of eligibility in the unemployment insurance program. Although removing face-to-face interactions most likely has negative effects such as client alienation, the results here suggest that future research should continue to explore whether it can insulate decision making from the effects of client stereotyping.

The third noteworthy finding is that attitudes about the goals of the organization affect street-level decision making. Examiners who feel that their organization should be most accountable to U.S. taxpayers rather than citizens in their own state, which places a priority on protecting the Social Security Trust Fund, implement policy differently than examiners who feel more accountable to citizens in their own state. Many organizations have multiple or conflicting goals, which gives bureaucrats discretion in choosing which goal they feel is most important (Chun and Rainey 2005; Pandey and Wright 2006; Rainey 1993). This choice has consequences for how street-level bureaucrats implement policy.

It is important to note that the model determining eligibility determination leaves a substantial amount of variation unexplained. Several possible variables exist that are not easily captured in a quantitative research design. First of all, I only measured one aspect of client assessment—how honest examiners believe claimants to be. In Maynard-Moody and Musheno's (2003) qualitative inductive research design, however, client assessment is highly complex and nuanced. Furthermore, public opinion researchers have found that Americans in general hold highly complex and contradictory values regarding to role of social welfare benefits in this country (Feldman and Zaller 1992; Hochschild 1981). Examiners may vary in their allowance rates because of differences in their attitudes about social

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welfare programs, which are complex and difficult to measure in quantitative research designs.

Another source of unexplained variation in examiner self-reported allowance rates may be random error. Although I observed the director of one DDS asking examiners what their allowance rate was during my site visits, and they were able to answer, not all examiners may be aware of their actual allowance rate. This random error in the model decreases the amount of variation my model explains and makes it more difficult to identify patterns in the data.

Conclusion

The theory of bounded rationality suggests that variation in bureaucratic decision making can be explained by variation in the personal attitudes and values of bureaucrats, by variation in the perceptions and knowledge of other actors in the policy network, and in variation in how quickly bureaucrats make decisions. The findings here suggest that knowledge of the preferences and behaviors of other actors in the organization, attitudes toward different bureaucratic goals, and how quickly frontline workers make decisions explain some of the variation in how they implement policy in settings in which bureaucrats and clients do not physically interact. These findings have implications for practitioners and suggest ways that managers of government programs can alter eligibility determination.

First, the findings suggest that public managers can reduce inconsistency between units simply by sharing information and shaping perceptions of the preferences and actions of actors in other units. Second, the findings highlight the importance of street-level bureaucrats' attitudes toward different goals in the organization. Insofar as managers can affect which goals bureaucrats adhere to the most, they can influence how street-level bureaucrats implement policy.

Finally, the results provide directions for future research. Theories of street-level bureaucracy have highlighted the importance of face-to-face interactions between clients and bureaucrats as a central characteristic of street-level bureaucracy. Many bureaucracies that process people do so through interaction with information given through paper application, computer programs, or the telephone and lack face-to-face interactions. With advances in information technology, more and more traditional street-level bureaucracies may lose this defining characteristic. This study is a preliminary effort to generate and test hypotheses to explain variation in how frontline workers implement policy when they lack face-to-face interactions with clients. Although null results should be interpreted with caution, the findings suggest that in bureaucracies that lack face-to-face interactions between clients and bureaucrats, client assessment may be less important in shaping decision making than it is in traditional street-level bureaucracies. Future research is needed in bureaucratic organizations that provide similar services as traditional street-level bureaucracies but limit physical interactions. Doing so is important so that we can understand how automation of intake services

will change the role that street-level bureaucracies play in policy implementation.

Acknowledgments

Notes

1. The survey was administered in 2000.
2. On the survey, 90 percent of examiners report they have a bachelor's degree or higher.
3. Substantial variation exists between examiners, with responses ranging from 5 to 750.
4. It is important to note that, as discussed earlier, a different pattern was found for perceptions of regional office supervisors. More examiners thought regional office supervisors focused on allowances or both equally than focused on denials. DDS examiners have much more contact with supervisors within DDS than with regional office supervisors, who do not even work in the same physical location as examiners. Therefore, the preference of immediate supervisors should be more important in determining organizational biases.
5. The nonresponse rate was under 7 percent for all variables except for the question asking which types of cases regional offices tend to focus on. To ensure that respondents who decided not to answer questions were not biasing the results, I created dummy variables for each variable for missing data and included those variables into the regression model. None of the dummies reached statistical significance.
6. I also ran the analysis using data from examiners from the largest state in my sample. The findings were consistent between that model and the model presented in the paper.
7. Respondents involved with continuing disability reviews (reviews of existing recipients of DI or SSI) are not included in the analysis.
8. The mean variance inflation factor of the model was 1.47, revealing that the multicollinearity was not a problem in the model. The Breuch-Pagen test using STATA's hettest command revealed that the model did not suffer from heteroscedasticity. Diagnostics of the outliers did not show any data points that were distorting the regression line except for one respondent with an extremely large score on processing time (307 days). This data point was dropped from the analysis.
9. Controls for years of service, having a friend with a disability, and having a background in a helping profession were included in earlier models but were not statistically significant and did not substantively change the results. To preserve degrees of freedom, they are not included in the final model.
10. To explore the possible indirect effects of ideology on decision making, I created models testing the impact of political ideology on accountability values, knowledge about ALJ reversal rates and belief in claimant honesty, and decision-making time. The findings demonstrate that liberal examiners are less likely to feel most accountable to U.S. taxpayers than conservative examiners and were more likely to believe claimants were honest. More liberal examiners were not, however, more likely to make decisions quickly. These models are available from the author.
11. Supervisors' responses to questions about which types of decisions they focus on and which types of decisions regional offices focus upon follow the same pattern of examiner's responses, which supports the notion that examiners have fairly accurate views of the concerns of supervisors.
12. Holding all else equal, if more examiners increased their allowance rates, ALJs would reverse fewer cases because their caseloads would have fewer gray area claims, making decision making more consistent between units.

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