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RESEARCH ARTICLE **OPEN ACCESS**

Do Vulnerable Citizens (Really) Perceive Higher Bureaucracy Costs? Testing a Key Claim of the Administrative Burden Framework

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ABSTRACT

A key claim of the administrative burden framework is that vulnerable citizens are more affected by administrative burden than others. We test this assumption using the life events survey in Germany, an official data record covering more than 10,000 administrative encounters involving more than 5000 citizens. We find support only for the psychological costs of perceived discrimination, whereas neither compliance nor learning costs are positively associated with vulnerability. On the contrary, some vulnerable groups perceive significantly *lower* learning and compliance costs. Post hoc analyses suggest that these groups might feel less exposed to bureaucracy because they use fewer sources of information. Further, the results also indicate that citizens' tolerance toward burden decreases with every additional administrative encounter and that previous research has missed an important distinction between absolute and relative burden.

1 | Introduction

Citizens often perceive encounters with the state as unpleasant and burdensome (Herd and Moynihan 2019). However, not all citizens share this experience to the same extent. Vulnerable citizens often face higher administrative burden than non-vulnerable groups, as they may lack the necessary skills to navigate bureaucratic procedures as effectively (e.g., Christensen et al. 2020; Döring and Madsen 2022; Masood and Nisar 2021). Vulnerability is the propensity of individuals, groups, or communities to be exposed to harmful economic, social, environmental, or legal influences or events, often arising from the poor socio-economic conditions in which they live (Hogan and Marandola Jr 2005). For example, high age, low education, bad health, financial hardship, and ethnic minority background are among the many socio-demographic sources and indicators of social and financial vulnerability (Mah et al. 2023;

Rivera 2019). Since vulnerable citizens enter the service delivery process with disadvantages (Rosenbaum, Seger-Guttmann, and Giraldo 2017), they are often excluded from social benefits (e.g., Brodtkin and Majmundar 2010; Chudnovsky and Peeters 2021, 2022; Nisar 2018), even though they are in greatest need of support.

This assumption—that is, vulnerable people experience higher bureaucracy costs—is one of the key claims the administrative burden framework makes (Herd and Moynihan 2019; Moynihan, Herd, and Harvey 2015). This theoretical framework presents a set of assumptions on what kinds of administrative burden occur, why there is administrative burden, who tolerates and who suffers from it, how it affects public policy implementation, and how it ultimately perpetuates social inequalities. Public management scholarship and practice has recently afforded growing attention to administrative burden but has only

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Summary

- Public managers should approach vulnerable citizens more proactively than others when they seek feedback on administrative procedures because these groups are less likely to provide critical feedback.
- Anti-discrimination policies and trainings should help to avoid misattributions to public employees by raising awareness that perceived discrimination may have other origins than the administrative encounter itself.
- Practitioners should critically review the information their agencies provide to the public and join efforts to present administrative information in a style, content, and volume that address citizens' needs.
- Public managers may communicate citizens' satisfaction with specific administrative procedures to the public because this performance indicator may help to debias people's general and often negative perceptions of bureaucracy.

just started testing and elaborating the framework in empirical studies (Halling and Bækgaard 2024; Madsen, Mikkelsen, and Moynihan 2022). Accordingly, evidence is still sparse, reflecting only a limited range of administrative settings. The association between citizens' vulnerability and administrative burden might hold for some socio-demographic vulnerability factors but not for others (e.g., Martin, Delaney, and Doyle 2024), it might be stronger in some administrative procedures and policy fields than in others (e.g., Barnes, Michener, and Rains 2023), and it might apply to some administrative systems but less so to others (e.g., Peeters, Renteria, and Cejudo 2023). Therefore, more evidence on how citizens' vulnerability is related to perceived burden will elaborate and substantiate the administrative burden framework.

The study examines whether and to what extent vulnerable people experience higher administrative costs than non-vulnerable groups. *How is citizens' vulnerability associated with perceived administrative burden, and how does this association vary across different vulnerabilities, types of services, and kinds of administrative costs?* We address this research question in an empirical study using the life events survey conducted by the Federal Statistical Office of Germany (2019). Germany has a strong legalist tradition of bureaucracy (Weber 1968), but there have recently been intensified efforts to alleviate unnecessary burden that citizens face when interacting with state authorities (Federal Government of Germany 2024). The survey tracks progress in this government program and is designed to be representative of the German population, asking citizens about their experiences during administrative encounters across various life events that require interaction with state agencies. We use data collected in 2019 with responses from 5428 citizens reporting their experiences in 10,200 encounters with 39 state agencies offering 131 services across 21 life events. For example, these services (life events) include applying for unemployment benefits (unemployment), updating vehicle registration (relocation), or applying for a grant of probate (death of a close relative).

Results of multi-level regression analyses provide no general support for the hypothesis that the more vulnerable people are, the greater their administrative burden. This statement holds only for the psychological costs of perceived discrimination in administrative encounters, more precisely, for high age, low income, low education, migration background, and disability. For learning and compliance costs, we find either no or a negative association with citizens' vulnerability, implying that vulnerable individuals tend to experience *lower* burden from learning about and compliance with administrative procedures. Post hoc analyses suggest that this counter-intuitive finding could result from vulnerable people using fewer sources of administrative information, thus being less exposed to bureaucracy than more advantaged people. However, they are not less successful in their encounters with state agencies.

With these and further results, our study contributes to the emerging body of literature on administrative burden (Bækgaard and Tankink 2021; Halling and Bækgaard 2024; Herd and Moynihan 2019; Madsen, Mikkelsen, and Moynihan 2022). This scholarship is at a nascent stage, where more variation in empirical research helps to substantiate the overall framework and the assumptions on which it builds. Testing whether assumptions are valid is important for identifying the boundary conditions of the framework, including whether and where the stated relationship between citizens' social vulnerability and perceived administrative costs holds. Administrative systems are likely to differ in how inclusive they are, with an impact on the strength and direction of the relationship between vulnerability and administrative burden. While the administrative burden framework is rooted in observations from liberal welfare states, particularly the United States (e.g., Camillo 2021; Fox, Feng, and Reynolds 2023; Heinrich 2018; Herd and Moynihan 2019), our study contributes evidence from a largely representative survey in a conservative welfare state (Esping-Andersen 2013).

2 | Literature Review and Hypothesis

Administrative burden is “an individual's experience of policy implementation as onerous” (Burden et al. 2012, 741). Seminal work suggests that administrative burden is multi-faceted, composed of learning, compliance, and psychological costs that citizens have to bear when they interact with the government and its representatives (Moynihan, Herd, and Harvey 2015). *Learning costs* are the expenses incurred from the search for information regarding public authorities, their responsibilities, programs, and related application procedures. For example, if citizens perceive information about an administrative service or program as unclear, incomplete, or misleading, they incur higher learning costs, as they have additional effort to comprehend the available information or to seek further information (e.g., Tarshish and Holler 2023). *Compliance costs* encompass the time and financial resources citizens must invest in adhering to procedures and fulfilling eligibility criteria. For instance, if citizens find it challenging to fill in complex forms and receive no help from case workers, they incur heightened compliance costs (e.g., Eikenaar, de Rijk, and Meershoek 2016). *Psychological costs* pertain to the stress and other adverse cognitive states that citizens undergo during administrative encounters. For instance, this occurs

when citizens encounter derogatory treatment from frontline employees (e.g., Yates et al. 2022).

This study focuses on one key claim of the administrative burden framework: vulnerable citizens suffer higher administrative costs than non-vulnerable citizens (Herd and Moynihan 2019). A major line of reasoning regarding why vulnerable people would experience higher administrative costs relates to them bringing less human capital to government encounters (e.g., Christensen et al. 2020; Döring and Madsen 2022; Masood and Nisar 2021; Yang and Wang 2025). Human capital is multi-faceted: It involves cognitive and executive functioning, educational and professional literacy, experience with state authorities, social networks inside and outside the bureaucracy, and financial resources. All these factors can influence the individuals' ability to navigate bureaucracy and their perception of the burden these interactions entail (Christensen et al. 2020; Döring 2021; Masood and Nisar 2021). The availability and use of human capital are also important for easing the negative impact of administrative burden during and after the encounter (Peeters and Campos 2021). Hence, the human capital perspective provides behavioral explanations for the variations in the conditions under which citizens engage with state authorities (Chudnovsky and Peeters 2021).

The link between human capital and perceptions of administrative burden can be illustrated with various vulnerability factors identified in the literature (Mah et al. 2023). A prime example is low education because human capital grows from investment in formal education (Deming 2022). Many fundamental skills acquired in education, especially the ability to handle complex information, are critical for encountering with state agencies (Döring 2021; Masood and Nisar 2021). Another example is health-related issues, as bad health conditions can divert attention and impair executive functioning, thus diminishing human capital (Bell, Christensen, et al. 2023; Christensen et al. 2020). In particular, disabled people often constitute a vulnerable group because, depending on the kind of disability, they suffer from limitations regarding cognitive and/or motor skills (Collie et al. 2021; Holler and Tarshish 2024; Kyle and Frakt 2021; Yates et al. 2022). The same applies to aging people, who often experience a decline in cognitive abilities and executive functioning (Christensen et al. 2020) corresponding to losses of human capital for interactions with public authorities (Chudnovsky and Peeters 2021; Sapat et al. 2023).

To conclude, vulnerable people are most likely disadvantaged in accumulating the human capital necessary for competent interactions with state authorities. In turn, low human capital is a significant factor that exacerbates vulnerability in various life circumstances, creating a vicious cycle of exclusion. This reasoning leads us to our general hypothesis, which aligns with a key claim in the administrative burden framework (Halling and Bækgaard 2024; Herd and Moynihan 2023):

Hypothesis. *The more vulnerable citizens are, the greater the administrative burden they perceive when interacting with state authorities.*

Although the relationship between citizen factors and the experience of administrative burden is the most frequently researched

within the administrative burden framework (Halling and Bækgaard 2024), empirical studies offer no clear evidence supporting the above hypothesis. This still unsettled state-of-the-art results from three orientations in previous scholarship that limit the generalizability of findings: First, scholars have researched vulnerabilities at a broad range of socio-demographic factors, but different vulnerabilities might have different implications for the experience of administrative burden (e.g., Martin, Delaney, and Doyle 2024). Second, previous research has predominantly focused on single services with particular design features, although the relationship between vulnerability and burden might differ across administrative procedures (e.g., Barnes, Michener, and Rains 2023). Third, the same lack of comparisons applies to the policy fields in which the studied services cluster, given that most administrative burden research has been conducted in the domain of welfare and health policies (Halling and Bækgaard 2024).

2.1 | Which Vulnerabilities?

Depending on the kind of vulnerability, the hypothesized association with the perception of administrative burden might change strength and direction. The range of vulnerability factors researched in administrative burden scholarship includes (but is not limited to) disability (e.g., Collie et al. 2021), ethnic background (e.g., Olsen, Kyhse-Andersen, and Moynihan 2022), gender (e.g., Yates et al. 2022), high age (e.g., Christensen et al. 2020), low education (e.g., Döring and Madsen 2022), low income (e.g., Heinrich, Camacho, Henderson, et al. 2022), single parenthood (e.g., Cook 2021), and unemployment (e.g., Bækgaard and Madsen 2024). These factors do not entail the same deficiencies in human capital and therefore may influence the perception of administrative burden differently. For example, the cognitive abilities of elderly citizens begin to erode at a certain age (Christensen et al. 2020), but the same deficiencies do not apply to other vulnerabilities, such as single parenthood or physical disabilities. Accordingly, studies covering multiple vulnerability factors have yielded mixed evidence for their association with the perception of burdens. For instance, Martin, Delaney, and Doyle (2024) find that elderly citizens are more likely to suffer from time costs resulting from bills-related administrative tasks, while the same does not apply to citizens in bad health conditions. Döring and Madsen, Mikkelsen, and Moynihan (2022) show that education is negatively associated with the psychological costs of stress in an administrative encounter, while unemployment turns out to be unrelated to stress. Bækgaard and Madsen (2024) find learning and compliance costs to be increased for citizens with health impairments but decreased for citizens with foreign ethnic backgrounds. This considerably mixed evidence suggests that the vulnerability hypothesis is likely to find different degrees of confirmation for different vulnerabilities.

2.2 | Which Services?

Another relevant variation in previous tests of the vulnerability hypothesis emerges from the range of administrative services under study. When examining the relationship between vulnerability factors and the perception of administrative

burden, most scholars have focused on few or only single services in particular programs. For example, plenty of studies have been conducted on administrative burden in *Medicaid* (e.g., Arbogast, Chorniy, and Currie 2024; Fox, Feng, and Stazyk 2020; Herd et al. 2013), the *Supplemental Nutrition Assistance Program* (SNAP; e.g., Herd 2015; Moynihan et al. 2022; Negoita et al. 2024), and the *Temporary Assistance for Needy Families* (TANF; e.g., Barnes and Gennetian 2021; Brodtkin and Majmudar 2010; Fox, Feng, and Reynolds 2023). Further studies are available for similarly specific yet less frequently examined social benefit programs (e.g., Collie et al. 2021; Heinrich and Brill 2015; Yates et al. 2022). As the complexity, design, and implementation of administrative procedures differ significantly among those programs, the related experience of administrative burden for vulnerable citizens can vary “like night and day” (Barnes, Michener, and Rains 2023). For example, Barnes, Michener, and Rains (2023) reveal sharp contrasts in the treatment of low-income citizens across different social programs and, consequently, in the psychological costs they incur. Martin, Delaney, and Doyle (2024) find that citizens in bad health conditions are more likely to bear time costs from administrative tasks related to government benefits but less likely to spend time for retirement-related tasks. These variations suggest that generalizations of findings across different services, procedures, and tasks require caution.

2.3 | Which Policies?

While previous scholarship has examined a wide range of administrative services, there is less diversity in the policy domains in which the services under study are implemented. A clear majority of studies has been conducted in the field of (re-)distributive social and health policies (e.g., Bækgaard and Madsen 2024; Edwards et al. 2023; Fox, Feng, and Reynolds 2023). Whereas this focus aligns with the framework’s overall perspective on how administrative burden excludes vulnerable citizens from welfare programs (Herd and Moynihan 2019), it remains uncertain whether the vulnerability hypothesis applies to administrative procedures in regulative policies, which have rarely been researched (Halling and Bækgaard 2024). A notable exception are studies on the disadvantages of vulnerable people in regulative procedures related to immigration and citizenship (e.g., Chudnovsky and Peeters 2022; Heinrich 2018; Moynihan, Gerzina, and Herd 2021). Still, an important reason why those procedures receive scholarly and political attention is their implications for applicants’ subsequent access to social benefits (Chudnovsky and Peeters 2022). It should also be noted that welfare policies might involve regulative and involuntary interventions of coercive state authorities. For example, Edwards et al. (2023) show how needy families bear substantial learning, compliance, and psychological costs from oversight by authorities in a child welfare system. However, given that these exceptions are rare, it is reasonable to conclude that only limited evidence exists regarding whether and how the vulnerability hypothesis generalizes across different policy domains.

To conclude, evidence is too sparse and mixed to provide general support for the hypothesis that vulnerable citizens perceive higher levels of administrative burden than non-vulnerable

citizens (Herd and Moynihan 2019). Different vulnerabilities have different implications for citizens’ endowment with general human capital and administrative literacy and thus do not uniformly translate into the perception of administrative burden. Depending on the design of administrative procedures, vulnerabilities may be more or less correlated with the perception of burdens, which makes it difficult to generalize findings across various services. Likewise, it is unclear whether findings from (re-)distributive policies apply to other fields because those policies are often specifically targeted at vulnerable and therefore needy citizens. This fragmented state of research calls for more empirical evidence that facilitates comparisons of perceived burdens across a wide array of vulnerabilities, administrative procedures, and policy domains.

3 | Data and Methods

Our study was conducted in Germany, which is characterized as a conservative welfare state (Esping-Andersen 2013) and serves as a key representative of the continental European administrative tradition (Kuhlmann and Wollmann 2019). The hierarchical separation of state and society and the primacy of law in governing this relationship make Germany an exemplary case for examining administrative burden. Germany has engaged in reform movements aligned with New Public Management (NPM) and New Public Governance (NPG), albeit more cautiously and less progressively than other countries (Pollitt and Bouckaert 2017). One reason for this hesitation is that the decentralization necessary for a stronger service orientation and citizen participation has historically been integrated into the administrative system. Germany exemplifies strong administrative decentralization, with significant autonomy granted to federal states and municipalities in the delivery of public services at the local level (OECD 2021). This decentralization results in considerable variations in the design and implementation of administrative procedures across different states and municipalities, including disparities in the level of digitalization. On average, Germany ranks in the lower midrange among OECD countries regarding digital public services (OECD 2020). Both digital and analog services are subject to increased efforts aimed at inclusion of vulnerable citizens, for instance, by providing procedural information in simple language.

3.1 | Survey

Efforts to enhance service orientation toward citizens within a legalistic and bureaucratic framework have made the reduction of administrative burdens a persistent priority for policy-makers and practitioners in Germany. Since 2006, the German government runs the *Program for Bureaucracy Reduction and Better Regulation*, devoted to the reduction of administrative burden for both businesses and citizens (Federal Government of Germany 2024). The program is accompanied by a survey called *Life Events Survey* (Lebenslagenbefragung) conducted by the Federal Statistical Office of Germany (2019) to monitor progress. Given its purpose of providing insight into the types and extent of burdens that citizens face in their lives, the survey serves as the data source for this study. Using secondary data is a common practice in public management scholarship

(Groeneveld et al. 2015), including research on administrative burden (e.g., Bell, Schwegman, et al. 2023; Heinrich 2015). We based the data selection on careful evaluation of suitability, quality, structure, survey design, and sampling strategy (Smith et al. 2011) and concluded that the advantages of the data outweigh the disadvantage that the survey was not originally devised for scholarly purposes.

The survey employs a repeated cross-sectional design, assessing citizen satisfaction with public services across 21 pre-defined life events involving interactions with state authorities (e.g., financial problems, birth of a child, long-term illness, car registration, disability). We utilized the 2019 wave of the survey, which collected data by phone between February and April asking respondents to retrospectively report their experiences with administrative encounters during the preceding 2 years. The Federal Statistical Office subcontracted a market research institute that used 882 trained interviewers for the data collection (Belz and Brand 2021). Interviewees were selected following the standard procedure of the Association for German Market and Social Research, which is based on a synthetic generation of telephone numbers (Häder and Gabler 1998). Both landline (60%) and mobile phone numbers (40%) were utilized to mitigate potential bias arising from “mobile-only” households (Belz and Brand 2021). The target population was German-speaking people living in Germany and aged 16 years or older. Due to missing values on some items, the effective sample in this study comprises 5428 respondents reporting their experience in 10,200 encounters with state agencies. Table 1 shows sample characteristics. Appendix 1 shows how the observations are distributed across the 21 life events and 39 involved agencies. All appendices are provided in the supporting online information.

3.2 | Measurement

Dependent variables. Dependent variables are the learning, compliance, and psychological costs in citizens' encounters with state agencies (Moynihan, Herd, and Harvey 2015). Consistent with a definition of administrative burden as citizens' subjective experiences, we used items reflecting participants' self-reported satisfaction with various aspects of the bureaucratic procedures. For learning and compliance costs, participants responded on a 5-point Likert-type scale ranging from 1 (very satisfied) to 5 (very unsatisfied). In a confirmatory factor analysis estimated with maximum likelihood with missing values, none of the indicators showed loadings below 0.4 (Appendix 2). The overall fit of the measurement model was acceptable (RMSEA = 0.079, CFI = 0.927, TLI = 0.900, CD = 0.983).

We further validated the measures by conducting a content analysis of qualitative data from the survey (Mayring 2015). In case respondents expressed overall dissatisfaction with an administrative procedure, they were additionally asked for the reasons why they were (fully or partly) dissatisfied. The responses were recorded in an open-text field ($n = 2780$), providing rich material on citizens' experiences that are reflected in their self-reported dissatisfaction. The results in Appendix 3 show that the majority of the reported reasons clearly relate to administrative burden. For example, the most frequently

TABLE 1 | Sample characteristics ($n = 5248$).

Variable	Freq.	Percent	
		Unweighted	Weighted ^a
Gender			
Female	2627	48.36	50.12
Male	2788	51.40	49.60
Diverse	13	0.24	0.28
Age			
16–19years	131	2.41	2.91
20–29years	437	8.05	9.04
30–39years	758	13.96	13.80
40–49years	899	16.56	16.84
50–59years	1467	27.03	26.50
≥ 60years	1736	31.98	31.85
Educational level			
Still in school	32	0.59	0.64
Without degree	34	0.63	0.69
Compulsory	686	12.64	13.87
Lower secondary	1574	29.00	29.55
Higher secondary	1644	30.29	30.18
University	1458	26.86	25.07
Monthly household net income			
€0–999	447	8.24	9.15
€1000–1499	471	8.68	8.75
€1500–1999	588	10.83	11.62
€2000–2499	672	12.38	12.26
€2500–2999	601	11.07	11.17
€3000–3999	823	15.16	14.88
≥ €4000	1302	23.99	22.45
Missing	524	9.65	9.72
Non-residential citizenship			
Yes	202	3.72	3.92
No	5226	96.28	96.08
Migration background			
Yes	691	12.73	13.28
No	4737	87.27	86.72

(Continues)

TABLE 1 | (Continued)

Variable	Freq.	Percent	
		Unweighted	Weighted ^a
Disability			
No	4362	80.36	80.63
Yes, < 50%	243	4.48	4.35
Yes, ≥ 50%	390	7.18	7.25
Missing	433	7.98	7.72

Note: RDC of the Federal Statistical Office and Statistical Offices of the Federal States, DOI: [10.21242/00000.2019.00.04.3.1.0](https://doi.org/10.21242/00000.2019.00.04.3.1.0), own calculations.

^aWeighted with survey weight at respondent level.

mentioned reasons for dissatisfaction were “long processing and waiting times” (in 36% of comments), followed by “poor forms and documents” (26%) and “lack of transparency and information” (21%), all of which are core constituents of compliance and learning costs, respectively (e.g., Burden et al. 2012; Herd and Moynihan 2019; Moynihan, Herd, and Harvey 2015). This reinforces our confidence that the reported dissatisfaction with public services genuinely reflects the burdens experienced in interactions with state agencies, especially since our survey items specifically address dissatisfaction with aspects of the procedures identified in previous studies as contributing to perceptions of administrative burden (Appendix 2). We wish to emphasize, however, that the measures should be regarded as proximate indicators rather than direct measurements of perceived burden.

Learning costs. The effort associated with learning costs refers to gathering and evaluating information about an upcoming encounter with authorities (Moynihan, Herd, and Harvey 2015). We measured learning costs with five items reflecting the accessibility and comprehensibility of forms and official letters, as well as the availability and provision of procedural information. A sample item is “How satisfied were you with the comprehensibility of the forms for [procedure]?”. The reliability of the measure is good ($\alpha = 0.85$).

Compliance costs. According to Moynihan, Herd, and Harvey (2015), compliance costs arise from administrative regulations and requirements government agencies impose on citizens. Four items were used to measure compliance costs reflecting citizens’ experience regarding the accessibility of office buildings, opening hours, as well as waiting and processing times. A sample item is “How satisfied were you with the waiting times?”. The scale reliability is satisfactory ($\alpha = 0.73$).

Psychological costs. Unfortunately, the survey provided scant information on psychological costs, indicating that this dimension of administrative burden is less commonly considered by practitioners and more difficult to assess. However, one survey question asked participants about having experienced discrimination in the administrative encounter (*Regarding my concern, I have felt personally disadvantaged, e.g., on the basis of gender, age, disability, origin, religion, or sexual identity*). Arguably, feeling discriminated against creates emotional discomfort which would increase the psychological costs of the

interaction. Considering the strong interest recent scholarship has shown in issues of public authorities’ discrimination, including studies on administrative burden (e.g., Compton et al. 2023; Heinrich, Camacho, Binsted, et al. 2022; Olsen, Kyhse-Andersen, and Moynihan 2022), we decided to proceed with this item and to use it as an indicator of psychological costs. Responses were given on a 5-point agreement scale, ranging from 1 = totally agree to 5 = totally disagree. We reversed this score, such that high values reflect strong impressions of discrimination.

Independent variables. Independent variables are the vulnerability factors hypothesized above. We dummy-coded all these variables, with 1 indicating the presence of the vulnerability factor and 0 otherwise. *Elderly* are respondents in the highest of the pre-defined age groups, that is, 60 years or older. *Female* indicates participants who identified themselves with the female gender. To calculate *low income*, we approximated the calculation of the equivalized disposable income according to the European Union Statistics on Income and Living Conditions, which accounts for the number and age of household members and indicates the poverty risk (for further details, see Appendix 4). *Unemployed* is true for respondents who applied for unemployment benefits within the foregoing 2 years, regardless of whether they were still unemployed at the time of the survey. *Low education* indicates respondents who were still in secondary school, had left school without a qualification, or had the lowest secondary school certificate (i.e., compulsory secondary education). *Disabled* were those who reported a disability degree of 50% or above according to the German Social Insurance Code (for further details, see Appendix 5). A *migration background* is considered applicable if the respondent or at least one parent relocated to Germany after 1955, in accordance with the definition used by official German population statistics. *No residential citizenship* was valid for respondents who did not report German citizenship. *Single parent* reflects participants in households with children below 18 years and who do not live in a partnership with any of the household members.

Control variables. We controlled for characteristics of both the respondents and the administrative procedures. Regarding the respondents, we considered whether they were *married* or not, the *number of encounters* with state authorities in the foregoing 2 years, whether they had *full-time employment* at the time of the survey, their *household size*, whether they lived in a rural or *urban area*, and in which *federal state* they lived. Regarding process characteristics, we considered whether respondents had *self-encountered* the involved state authorities or whether they had been assisted by third persons, whether *e-government services* (i.e., online applications and emails) were their primary means of communication with the state authority, and whether the procedure was still *ongoing* or already completed. We also controlled for the *life event* that triggered the interaction with state authorities.

3.3 | Data Analysis

In the interviews, respondents reported experiences related to various procedures associated with multiple life events.

Consequently, the data is clustered, with procedural characteristics represented at level 1 and respondent characteristics at level 2. Thus, we employed multi-level modeling with random intercepts for our primary analyses. We conducted the analyses using two survey weights (Forschungsdatenzentrum 2021): The weight at the respondent level accounts for the differing selection probabilities of individuals within households. For instance, some household members may be more likely to be at home when the interviewers make a phone call. The weight at the procedure level addresses potential biases in the selection of life events, agencies, and services for the interviews. For example, respondents might have reported the occurrence of a specific life event but may have been reluctant to elaborate on the details, leading to an underrepresentation of that life event. All analyses, including the weighting procedure, were conducted using Stata 18.0.

4 | Findings

4.1 | Descriptive Results

To make the data intuitively approachable, the scatter plot presented in Figure 1 shows how the 21 life events are mapped across two dimensions: The first dimension is the perceived administrative burden as averaged across our three measures (i.e., learning, compliance, psychological costs). The second dimension represents the proportion of regulative compared to (re-)distributive procedures, thus capturing various types of services associated with different policies (Lowi 1972). Citizens assume different roles depending on whether they must comply with obligatory regulations or apply for beneficial services and transfers. The marker size is proportional to the number of observations, while the marker color indicates the share of

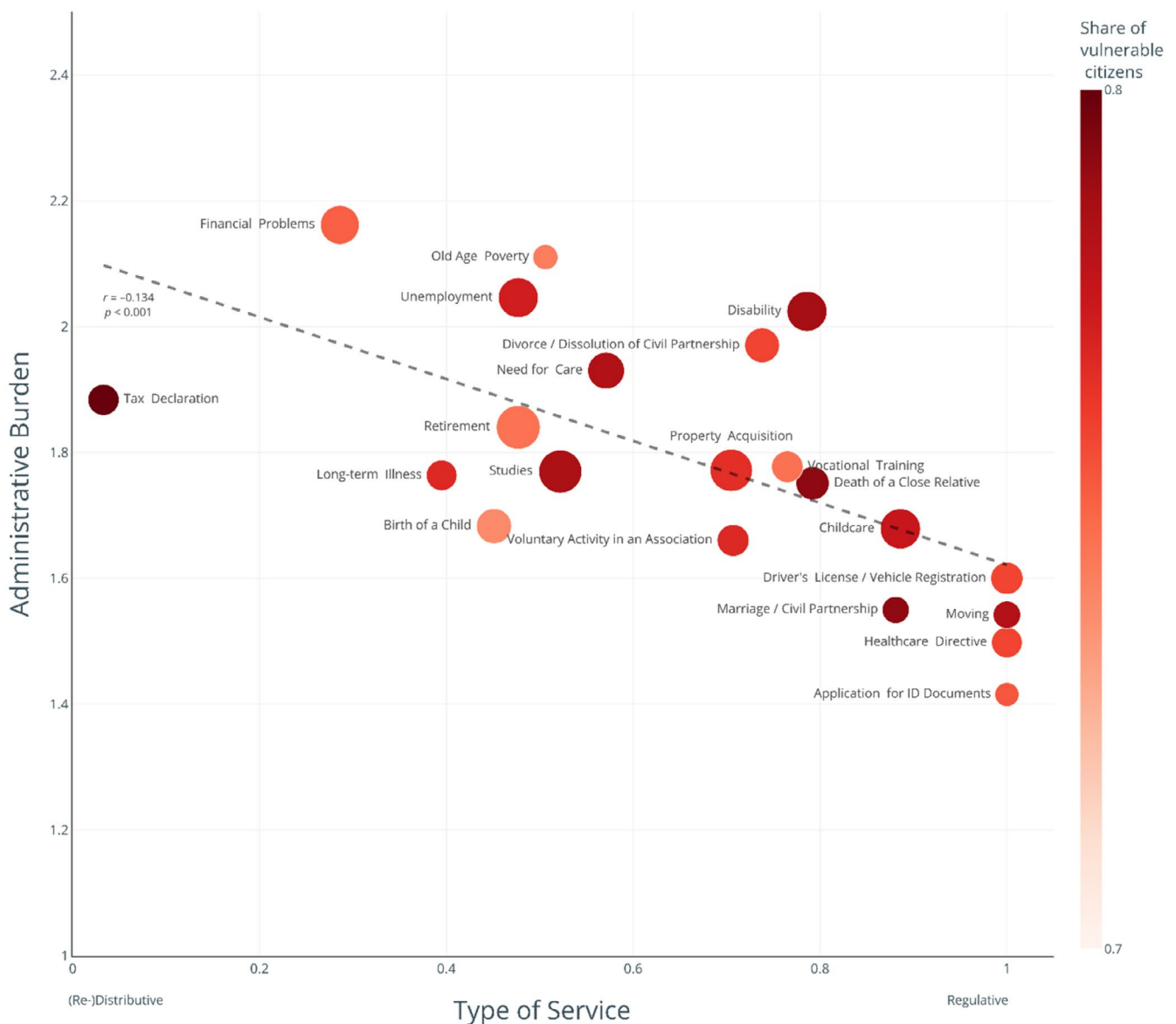


FIGURE 1 | Life events. Source: RDC of the Federal Statistical Office and Statistical Offices of the Federal States, DOI: 10.21242/00000.2019.00.04.3.1.0, own calculations.

vulnerable users accessing these services. Appendix 6 provides the underlying data. Appendices 7 and 8 present descriptive statistics and intercorrelations for study variables at the respondent and procedural level, respectively.

4.2 | Hypothesis Testing

Table 2 shows the results of multi-level analyses for learning, compliance, and psychological costs as dependent variables. A mean variance inflation factor (VIF) of 1.86, with the VIF of none of the predictor variables exceeding the threshold of 3, indicates that multicollinearity is not a concern. Models I, III, and V are intercept-only (i.e., null-)models, with intraclass correlation coefficients (ICCs) ranging from 0.381 to 0.458. These values indicate that between 38% and 46% of the variance in the dependent variables are on the level of the individual, which implies that multi-level modeling is indeed an appropriate and required approach. Models II, IV, and VI are the full models, which include the vulnerability factors as predictors of perceived administrative burden, as well as control variables on both levels of analysis. Appendix 9 presents the same models with non-vulnerable categories as predictors and the vulnerabilities as reference categories. This additional material enables more nuanced analyses for variables with more than one non-vulnerable category (i.e., age, disability, education, income).

The general hypothesis states that the more vulnerable citizens are, the greater the administrative burden they perceive. Model II tests this hypothesis for *learning costs*. However, the results provide no support. On the contrary, some vulnerability factors are negatively and significantly related to perceived learning costs: Elderly people ($b = -0.076$, $p = 0.028$), citizens with low education ($b = -0.084$, $p = 0.018$), people without residential citizenship ($b = -0.173$, $p = 0.007$), and single parents ($b = -0.110$, $p = 0.016$) report significantly lower learning costs compared to individuals without these characteristics.

Model IV tests the general hypothesis for *compliance costs*. The data provide no support for the assumption that vulnerable citizens have stronger perceptions of compliance costs than non-vulnerable people. Again, we find negative and significant associations between vulnerability factors and perceived administrative costs: Elderly people ($b = -0.141$, $p < 0.001$) and citizens with low education ($b = -0.077$, $p = 0.047$) report significantly lower levels of compliance costs than others.

Model VI completes the hypothesis testing with an inspection of how vulnerability is associated with *psychological costs* in terms of perceived discrimination in bureaucratic encounters. We find elderly ($b = 0.091$, $p = 0.043$), low income ($b = 0.180$, $p < 0.001$), low education ($b = 0.211$, $p < 0.001$), migration background ($b = 0.119$, $p = 0.008$), and disability ($b = 0.204$, $p = 0.005$) to be positively and significantly associated with perceptions of discrimination. Accordingly, the general hypothesis finds partial support for psychological costs.

Among the control variables, the indicator of a still ongoing (as opposed to already completed) procedure shows strong positive associations with all three types of administrative

costs (learning costs: $b = 0.416$, $p < 0.001$; compliance costs: $b = 0.443$, $p < 0.001$; psychological costs: $b = 0.197$, $p < 0.001$). All other controls show a consistent pattern of significant relationships with learning and compliance costs but a deviant pattern for psychological costs. Citizens perceive higher learning and compliance costs if they encounter state authorities themselves (learning costs: $b = 0.088$, $p < 0.001$; compliance costs: $b = 0.121$, $p < 0.001$) rather than being assisted by a third person, if they are married (learning costs: $b = 0.074$, $p = 0.017$; compliance costs: $b = 0.090$, $p = 0.012$), and the more often they have encountered state authorities during the foregoing 2 years (learning costs: $b = 0.028$, $p < 0.001$; compliance costs: $b = 0.033$, $p < 0.001$). Citizens experience lower psychological costs from discrimination if they live in urban as opposed to rural areas ($b = -0.100$, $p = 0.001$).

4.3 | Subgroup Analysis

The previous analyses use data that is aggregated across a wide range of life events, administrative services, and public agencies (Figure 1 and Appendix 1). To leverage this distinct advantage over existing studies, Appendices 10 and 11 run the same analyses with subsamples split between regulative and (re-)distributive procedures (Lowy 1972). This distinction among different types of services is pertinent to research on administrative burden because vulnerable citizens often have a specific need for (re-)distributive services, and the urgency of this need may have implications for how tolerant citizens are toward administrative burden. Figure 2 visualizes the results in a coefficient plot.

The results indicate that the same vulnerability factors can exhibit varying associations with perceived burden, contingent upon whether the procedure is (re-)distributive or regulative. For example, there is a highly significant and negative association between non-residential citizenship and perceived learning costs in (re-)distributive procedures, whereas we find no such association for regulative procedures. Another example is the positive and significant association between unemployment and disability and perceived discrimination in regulative procedures, which does not manifest in (re-)distributive procedures (with the latter being most likely specifically targeted at unemployed and disabled citizens). Those differences suggest caution in generalizing previous findings, which have predominantly been gathered from (re-)distributive procedures in social and health policies (Halling and Bækgaard 2024).

4.4 | Intersectional Analysis

The previous analyses have delineated the associations of various vulnerability factors with perceived administrative burden. However, as inequality is often the result of multiple vulnerabilities occurring in the same person, administrative burden scholarship has recently paid increasing attention to intersectional analysis (e.g., Bell and Meyer 2024; Bouek 2023; Yates et al. 2022). We build upon and advance this line of research and provide an intersectional multilevel analysis of individual heterogeneity and discriminatory accuracy (I-MAIHDA; Evans et al. 2024) in Appendix 12. In brief, I-MAIHDA enables

TABLE 2 | Results of multilevel analysis ($n = 5248/10,200$).

	Learning costs				Compliance costs				Psychological costs (perceived discrimination)			
	Model I		Model II		Model III		Model IV		Model V		Model VI	
	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)
Level 1												
(administrative procedure)												
Intercept	2.051***	(0.013)	2.453***	(0.079)	2.071***	(0.014)	2.197***	(0.085)	1.328***	(0.014)	1.485***	(0.096)
Self-encountered			0.088***	(0.020)			0.121***	(0.023)			−0.017	(0.023)
E-government			−0.006	(0.030)			0.004	(0.036)			−0.011	(0.028)
Ongoing			0.416***	(0.040)			0.443***	(0.044)			0.197***	(0.047)
Life event controls	No		Yes		No		Yes		No		Yes	
Level 2 (Respondent)												
Vulnerability factors												
Elderly			−0.076*	(0.035)			−0.141***	(0.039)			0.091*	(0.045)
Female			−0.014	(0.025)			−0.006	(0.027)			0.013	(0.029)
Low income			−0.030	(0.037)			−0.008	(0.040)			0.180***	(0.041)
Unemployed			−0.011	(0.044)			−0.004	(0.051)			0.098	(0.053)
Low education			−0.084*	(0.036)			−0.077*	(0.039)			0.211***	(0.051)
Migration background			0.034	(0.039)			−0.012	(0.041)			0.119**	(0.044)
Non-residential citizenship			−0.173**	(0.064)			−0.054	(0.072)			0.186	(0.099)
Disability			0.015	(0.049)			0.023	(0.054)			0.204**	(0.072)
Single parent			−0.110*	(0.046)			−0.020	(0.049)			−0.030	(0.055)
Controls												
Married			0.074*	(0.031)			0.090*	(0.036)			−0.043	(0.043)
Number of encounters			0.028***	(0.006)			0.033***	(0.006)			0.006	(0.007)

(Continues)

TABLE 2 | (Continued)

	Learning costs				Compliance costs				Psychological costs (perceived discrimination)			
	Model I		Model II		Model III		Model IV		Model V		Model VI	
	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)	EST	(SE)
Full-time employment			0.039	(0.027)			0.041	(0.031)			0.002	(0.030)
Household size			0.014	(0.014)			0.019	(0.015)			−0.021	(0.019)
Urban area			−0.054	(0.031)			0.001	(0.032)			−0.100**	(0.031)
Federal state controls												
Random effects	No		Yes		No		Yes		No		Yes	
L1 variance (σ^2)	0.421	(0.016)	0.387	(0.014)	0.561	(0.020)	0.531	(0.019)	0.456	0.029	0.457	(0.029)
L2 intercept variance (τ_{00})	0.340	(0.016)	0.275	(0.014)	0.346	(0.018)	0.298	(0.017)	0.385	0.039	0.312	(0.033)
ICC	0.446		0.415		0.381		0.359		0.458		0.406	
Log pseudolikelihood	−8121.12		−7710.77		−8819.96		−8556.62		−8425.10		−8227.11	
AIC	16,248.24		15,537.57		17,645.92		17,229.25		16,856.19		16,570.21	
BIC	16,269.93		15,956.92		17,667.61		17,648.59		16,877.88		16,989.56	

Note: RDC of the Federal Statistical Office and Statistical Offices of the Federal States, DOI: [10.21242/00000.2019.00.04.3.1.0](https://doi.org/10.21242/00000.2019.00.04.3.1.0), own calculations.
*** $p < 0.001$.
** $p < 0.01$.
* $p < 0.05$.

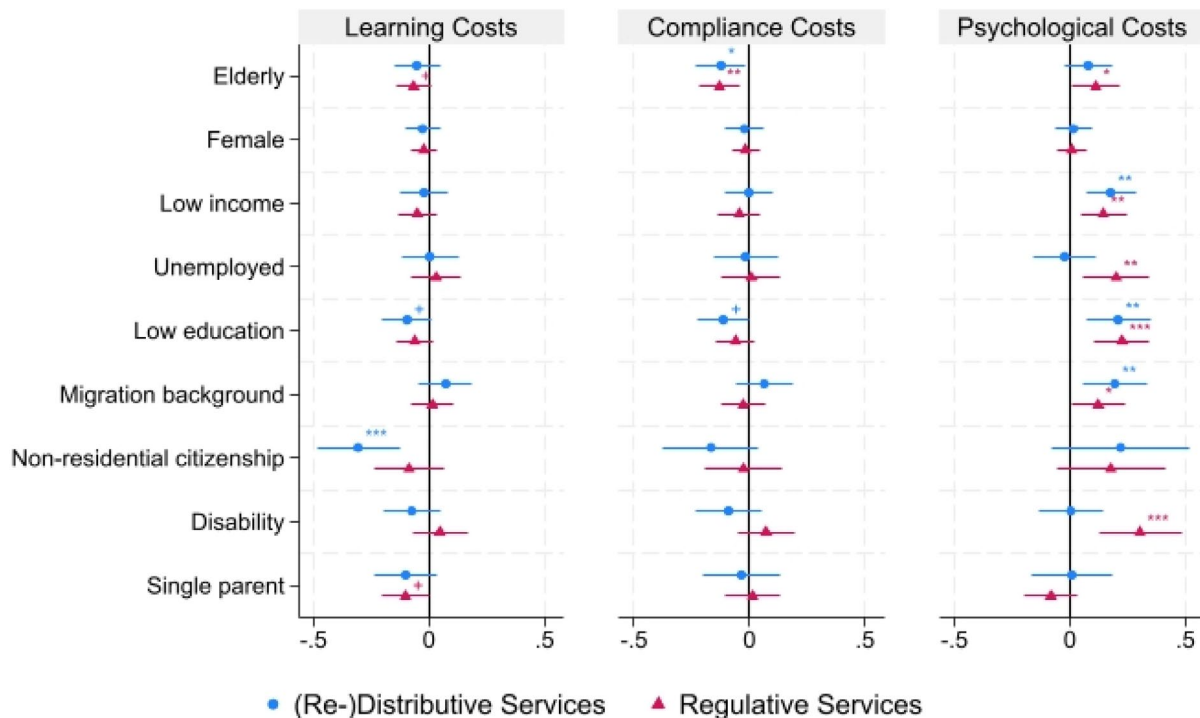


FIGURE 2 | Coefficient Plot for Vulnerability Factors and Types of Services with 95% CIs. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$. Source: RDC of the Federal Statistical Office and Statistical Offices of the Federal States, DOI: [10.21242/00000.2019.00.04.3.1.0](https://doi.org/10.21242/00000.2019.00.04.3.1.0), own calculations.

intersectional analysis in high-dimensional spaces defined by numerous vulnerability factors. The method defines social strata as distinct intersections of socio-demographic factors and performs multilevel analyses to determine the proportion of the total heterogeneity in the outcome that resides at the stratum level (for more details, see Appendix 12). The results reveal that intersectional effects do not account for perceptions of learning and compliance costs. However, they significantly influence perceived discrimination, as substantial proportions of the variance in this variable reside at the stratum level. This indicates superadditive effects, which particularly occur at the intersections of gender (i.e., female), poor socio-economic conditions (i.e., low education, unemployment, and/or low income), and ethnic background (i.e., non-residential citizenship and/or migration background).

5 | Discussion and Post Hoc Analyses

5.1 | Vulnerable Citizens Do Not Perceive Higher Learning and Compliance Costs

Most importantly, and most unexpectedly, we do not find confirmation for the claim that vulnerable citizens experience higher learning and compliance costs from bureaucratic encounters than non-vulnerable people (Herd and Moynihan 2019). On the contrary, some vulnerability factors (i.e., elderly, low income, low education, single parent) are *negatively* related to perceptions of learning and/or compliance costs. Different patterns in citizens' information-seeking behaviors could to some extent account for these differences (Linos et al. 2022). A post hoc analysis shows that some socio-demographic characteristics are associated with a significantly higher probability

of not consulting any administrative information before the encounter, even after controlling for the level of experience from past encounters (Appendix 13). Not reading or listening to administrative information implies lower exposure to bureaucracy, which is likely to result in lower levels of perceived administrative costs. However, disregarding bureaucratic information seems not to lead to increased compliance costs at subsequent stages of the procedure (Table 2). It does also not diminish success rates, as another post hoc analysis demonstrates that vulnerable citizens achieve their objectives in bureaucratic encounters to the same extent as non-vulnerable citizens do (Appendix 14).

Additional to less active information-seeking by vulnerable citizens, another explanation could be the role of urgent need in shaping citizens' evaluations of administrative services. Vulnerable individuals might be less critical of administrative procedures because they are more reliant on related services and benefits. In other words, their neediness might create a leniency bias in their evaluation of administrative services and staff. Indeed, citizens tend to be less critical the more reliant they have been on means-tested benefits, with eroding self-efficacy as a potential mechanism (Gilad and Assouline 2024). This interpretation is supported by another post hoc analysis, which shows that some vulnerable groups (i.e., high age, low income, and low education) are significantly less likely to provide feedback on procedural improvements even after controlling for their overall satisfaction with the procedure (Appendix 15). However, this explanation is preliminary and requires further investigation. Previous scholarship has examined how public employees respond to high-need citizens in their evaluations and decisions (e.g., Jilke and Tummers 2018; Ratzmann 2021), while the role of need urgency in citizens'

own perceptions of public administration has not received much attention.

Two vulnerability factors stand out here because their negative relationship with perceived administrative burden is consistent for both learning and compliance costs. First, citizens with low levels of education experience lower costs of these kinds. This is particularly surprising, given that human capital is clearly linked to education (Deming 2022). However, studies on the connection between education and perceived burden are inconclusive (Bækgaard and Madsen 2024; Chudnovsky and Peeters 2021; Döring and Madsen 2022) and have not yet considered that the educational level might affect the standards against which citizens evaluate administrative procedures. This reasoning is in line with a recent study by Gilad and Assouline (2024), who show that academic education enhances citizens' inclination to convey criticism of administrative procedures. Second, we find that elderly people perceive lower learning and compliance costs. Again, this finding contradicts theoretical reasoning, according to which human capital erodes in high age groups due to a decline in cognitive abilities and executive functioning (Christensen et al. 2020; Herd 2015). However, notably, in the absence of more nuanced data, our threshold in the definition of elderly was 60 years, which is lower than in other studies (Christensen et al. 2020; Martin, Delaney, and Doyle 2024; Sapat et al. 2023). The stated decline in human capital might only start at a higher age, the more so in societies with high levels of public health.

5.2 | Vulnerable Citizens Feel More Discriminated Against but It Is Unclear Why

In line with the administrative burden framework, we do find the expected link between vulnerability and the psychological costs of bureaucracy. In interpreting this result, we reiterate that only a single measure of one particular type of psychological costs was available from the survey, that is, perceived discrimination in the administrative encounter. Neither the main nor the post hoc analyses provide clues as to why these perceptions emerge. Previous literature suggests that public administration might deny minorities access to information or place additional documentation requirements on them (Carey, Malbon, and Blackwell 2021; Larsson 2021; Olsen, Kyhse-Andersen, and Moynihan 2022); yet, our results for learning and compliance costs do not support this view (Table 2). The perception of discrimination could also arise from unfriendly or inappropriate communication in direct contact between citizens and administrative staff (Heinrich, Camacho, Binsted, et al. 2022), but again, our data does not allow for this conclusion. The level of perceived discrimination shows no relation to whether the communication was in personal contact or not (Table 2), and except for citizens with a low educational level, vulnerable citizens do not perceive administrative staff to be less helpful than non-vulnerable citizens do (Appendix 16). Finally, previous research has shown that minorities could be more likely to obtain unfavorable or erroneous outcomes from encounters with state authorities (Compton et al. 2023; Heinrich and Brill 2015). However, we do not find any of the vulnerability factors to be related to successful administrative procedure completion (Appendix 14).

Another possible explanation is that vulnerable individuals may generally feel disadvantaged in society and tend to generalize experiences from other areas of life to their interactions with state authorities. This interpretation is reinforced by the intersectional analysis, which reveals stratum-level effects for the specific intersection of gender, social class, and ethnic background (Appendix 12). According to intersectionality theory, the social identity formed by these interlocking categories attains its full meaning only within a broader social context (Evans et al. 2024). As a result, these identities are salient not only in episodic contacts with state authorities but also across multiple domains, from which feelings of discrimination might spill over into bureaucratic encounters.

5.3 | Citizens Carry Absolute and Relative Administrative Burden

Our data enabled us to analyze what might be called *relative* administrative burden. By relative burden, we mean administrative burden that may weigh more heavily on some groups than on others although the same administrative procedures are involved. For instance, all citizens apply for identity documents in very similar ways, but for vulnerable citizens, this procedure can still be more burdensome than for others. In technical terms, we were able to analyze relative burden by contrasting citizens with and without socio-demographic indications of vulnerability while controlling for the life event that triggered specific kinds of administrative procedures. *Absolute* administrative burden, in contrast, is the accumulated burden that citizens experience in various, potentially different administrative procedures, including those that some go through while others do not. Differences in absolute burden between social groups could thus result from targeting in social policy, since the primary purpose of the welfare state is to support citizens in difficult life situations (Goodin 1988). Consequently, vulnerable citizens experience administrative encounters (and related burdens) more frequently than the non-vulnerable population (Herd and Moynihan 2019). For instance, only the vulnerable group of unemployed individuals is eligible to apply for unemployment benefits, thus experiencing the application procedure and bearing the associated costs.

It is important to distinguish between absolute and relative burden because the two might be unrelated to each other. Accordingly, one cannot conclude from our findings that vulnerable citizens, who bear lower relative burden in terms of learning and compliance costs, also carry lower absolute burden. On the contrary, another post hoc analysis shows that some vulnerability factors (i.e., low income, unemployment, disability) are positively (yet weakly) correlated with the number of life events through which respondents went and which required administrative encounters in the foregoing 2 years (Appendix 17), providing preliminary evidence that these citizens carry a slightly higher absolute burden than others. We recommend considering the suggested distinction between absolute and relative burden in future research because it contributes to a more nuanced framework and helps to put findings in perspective. For example, several studies on administrative burden have sampled vulnerable groups exclusively and shown how these citizens

suffer from burdensome administrative procedures (Carey, Malbon, and Blackwell 2021; Yates et al. 2022). As this burden often arises from programs specifically targeting these groups, it provides insight into citizens' absolute burden but does not allow for conclusions about their relative burden. Therefore, further research on administrative burden in regulative policies will offer insights into relative burden, as most, if not all, citizens undergo related procedures. While regulative policies are strongly underrepresented in administrative burden scholarship (Halling and Bækgaard 2024), our data indicate that they account for two-thirds of all administrative encounters.

5.4 | Citizens Both Forget and Remember Administrative Burden

A minor but still noteworthy implication from our findings is that citizens both forget and remember administrative burden. Our data shows that nothing matters more to the perception of learning, compliance, and psychological costs than whether the administrative procedure is still ongoing or already completed. Then, it seems, citizens *forget* administrative burden. Experiencing bureaucracy is more salient and burdensome when the interaction is still ongoing (Hattke, Hensel, and Kalucza 2020), while the memory often fades as soon as the procedure has come to an end. This effect is likely to be exacerbated by the unclear prospects of success in an ongoing procedure, whereas once the procedure is terminated, there is clarity regarding the outcome. In most cases in our data, the outcome is favorable, as 90% of the respondents agree unreservedly that they achieved their goal in the encounter. The procedure's completion, therefore, correlates strongly with a favorable outcome, and outcome favorability helps citizens to forget the burdensome procedure that was necessary to achieve this outcome (Kaufmann, Ingrams, and Jacobs 2020; Moon et al. 2020).

Citizens also *remember* administrative burden, given that another strong predictor of perceived learning and compliance costs is the number of encounters in the foregoing 2 years (Table 2). Accordingly, the accumulated administrative burden experienced in past encounters impacts the perception of burden in every additional encounter. While theory suggests that more experiences with state authorities help build administrative capital which, in turn, should reduce perceived burden (Masood and Nisar 2021), we find that perceived learning and compliance costs are higher for citizens with more bureaucratic encounters in the designated 2-year period. This is broadly in line with previous findings that citizens rate state government lower when they applied previously for governmental aid, compared to first-time applicants (Darr, Cate, and Moak 2019). The memory of recently encountered experiences is thus a legacy that citizens bring to new encounters, which makes them less patient with bureaucracy the heavier this legacy is. This gives another meaning to the notion of "burden tolerance" (Bækgaard, Halling, and Moynihan 2025), as citizens' tolerance of administrative burden is not just a distal attitude toward burden (Halling, Herd, and Moynihan 2023; Stenderup and Pedersen 2024) but also a dynamic state in actual encounters with state authorities.

5.5 | Practical Implications

Several implications for practitioners arise from this study. First, practitioners should be aware that vulnerable citizens are less likely to criticize administrative procedures than non-vulnerable people. Accordingly, improvements in administrative procedures are likely to echo the voice of more advantaged groups when they are sourced from citizen feedback. In order not to neglect the view of less advantaged citizens, public managers could approach these target groups more proactively than others when they seek feedback on administrative procedures.

Second, anti-discrimination policies and trainings for frontline employees should account for the complex reasons of why people feel discriminated against. While the current study was unable to explore these reasons beyond the administrative encounter, it shows that perceptions of discrimination persist although they do not arise from higher learning or compliance costs, inappropriate behaviors of frontline employees, or lower prospects of success. Greater awareness that perceived discrimination may have other origins than the administrative encounter itself helps to avoid misattributions to public employees and negative psychological consequences thereof.

Third, public managers should critically review the information their agencies provide to the public. This study finds that consulting this information is not advantageous for citizens in navigating the subsequent procedure and completing it successfully, thus raising doubts on the usefulness of that information. We suggest joining efforts to present administrative information in a style, content, and volume that address all citizens' needs.

Fourth, while this study has used citizens' satisfaction with specific administrative encounters as reverse indicator of perceived burden, public managers may communicate it to the public as favorable indicator of performance. Our data indicates remarkably high levels of satisfaction, which contrasts with the often negative image of bureaucracy in the general public. Communicating evidence-based information may help to correct this image and to debias people's perceptions of bureaucracy, thus improving the legitimacy of public services.

5.6 | Limitations

While the official survey used in this study offers multiple advantages for the pursuit of our research goals, using secondary data has some limitations that need to be acknowledged. First, the survey items were not originally developed for scholarly purposes, and their range was limited. This was a particular problem for measuring psychological cost, which we did with a narrow focus on perceived discrimination. Current public management scholarship's concern regarding discrimination issues (e.g., Compton et al. 2023; Heinrich, Camacho, Binsted, et al. 2022; Olsen, Kyhse-Andersen, and Moynihan 2022) encouraged us to keep this single item; even so, we recognize that our results cannot easily be compared to those obtained with more common psychological cost measures (stigma, stress, and loss of autonomy; e.g. Bækgaard and Madsen 2024). If possible, future research should combine the advantages of largely representative samples with those of more mature, validated measures

of administrative costs once such scales have been developed (Bækgaard and Tankink 2021; Jilke et al. 2024).

Second, for learning and compliance costs, respondents were asked to express their level of satisfaction with related aspects (Appendix 2), yet satisfaction with administrative services is an indicator rather than a direct measure of administrative costs. We expected that satisfaction levels would adequately reflect administrative burden because most citizens perceive burden as unpleasant and frustrating, which decreases their satisfaction with the procedure. This assumption was confirmed by our content analysis of open-text responses from dissatisfied citizens. However, the relationship between perceived burden and citizen satisfaction remains unclear, thus future research should address this.

Third, while our study contributes valuable evidence from a welfare state regime that has not previously been explored, the generalizability of our findings to other countries with differing regimes remains uncertain. For instance, the nature and intersections of vulnerabilities may manifest differently, as well as the type and magnitude of administrative burden, along with the tolerance for such burdens. Recent initial studies have demonstrated the potential benefits of cross-country research on administrative burden (Bækgaard, Halling, and Moynihan 2025), suggesting that such investigations could significantly aid scholars in evaluating the generalizability of findings across various welfare regimes.

Fourth, the sampling for the life events survey was limited to the German-speaking population aged 16 years or older, as the survey was conducted in German language. Since residents with limited German language proficiency often belong to vulnerable groups, the sampling might have resulted in underestimating both vulnerability and administrative costs. This limitation is particularly important when we interpret the results for socio-demographic characteristics that indicate ethnic minorities (i.e., migration background and non-residential citizenship).

Fifth, the breadth of our study, which covers multiple administrative procedures across various life events, public agencies, and federal states, comes at the expense of depth regarding the design of these procedures and the complexity of the underlying rules. Since perceptions of administrative burden are likely contingent on the design and complexity of rules and procedures, and no such information was available from the survey used in this study, future research could benefit from studies that incorporate these aspects.

6 | Conclusion

At an emerging or nascent stage, to advance further, a theoretical framework benefits from empirical testing of its core assumptions, including an exploration of the boundary conditions for its applicability and generalizability. Otherwise, theoretical claims risk becoming overnarrated and might ultimately turn into urban myths, especially when they possess intuitive and normative appeal. This study focused on a key claim of the administrative burden framework, which assumes that

vulnerable individuals experience more administrative burden in bureaucratic encounters than non-vulnerable people do (Herd and Moynihan 2019). The results, in providing only limited evidence and considerable counter-evidence for this claim, encourage scholars to further substantiate the framework with observations from various sites. Administrative traditions and systems are likely to be important contextual conditions of the framework because they may differ in their inclusiveness, resulting from different historical trajectories of welfare state regimes (Esping-Andersen 2013). It is also beneficial to vary the context in terms of policies. Much of previous research has focused on social and health policies, which tends to emphasize absolute burden. These services can be more burdensome than those implementing regulatory policies and are often predominantly or exclusively targeted at vulnerable groups, thus bearing the risk of sampling on both the dependent and independent variables. With a focus on relative burden, it will be particularly interesting to delve deeper into how various vulnerability factors affect the standards against which vulnerable and non-vulnerable citizens evaluate bureaucratic encounters and find them burdensome or not.

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Conflicts of Interest

The authors declare no conflicts of interest.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.