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Socioeconomic Status and Public Sector Worker Stereotypes: Results from a Representative Survey

Abstract: What views do people have of public sector workers? Public sector workers are often portrayed negatively. It is unclear, however, to what extent such negative perceptions are shared among different groups in society. Using a large representative survey in the Netherlands, we study whether people's socioeconomic status is related to having more negative stereotypes about public sector workers. Contrary to expectations, education and income are unrelated to stereotypes. We do find a relation with subjective income: People with low subjective income have more negative stereotypes. Moreover, the sector people work in is highly relevant. People working in core governmental sectors such as central and local government have positive stereotypes. Other groups—such as private sector and non-profit workers have a far more negative image of public sector workers. These findings help us to understand people's perceptions of public sector workers and the problems various groups have with the state.

# **Evidence for Practice**

- People with low subjective income are more negative about public sector workers. Because negative stereotypes can affect how citizens experience public service delivery, the public sector should find out why this group is more negative, what the consequences thereof are, and whether this can be improved.
- People working in the private sector have the most negative public sector worker stereotypes. Negative views among private sector workers could affect important aspects of public sector work, such as public-private partnerships and outsourcing, or attracting high quality personnel.
- Compared to other sectors, those working in central and local government are positive about public sector workers. In other words, there is a gap between the perceptions of central and local government workers and the perceptions of others. This can lead to a blind spot of public servants about citizen satisfaction with services, as well as a low perceived urgency for improvement.

hat views do people have of public sector workers? Some people say public sector workers are lazy clock-watchers (London Chamber of Commerce and Industry and Hays 2011). Others point to the fact that many public sector workers are motivated to help people (Perry 2000). Understanding the public's attitudes toward government is a crucial topic in public administration, since this forms the basis of people's perceptions of government's legitimacy, as well as perceived quality of performance (Tyler 2006; Van de Walle and Bouckaert 2003). Increasingly, governments are trying to improve the reputation and image of government (Bustos Pérez 2021; Van de Walle and Bouckaert 2003; Wæraas and Byrkjeflot 2012; Wæraas and Maor 2014). Understanding people's attitudes toward government workers is an important aspect of this (Wæraas and Byrkjeflot 2012). One way of approaching this matter is by studying the stereotypes the public has of public sector workers.

Stereotypes are "associations and beliefs about the characteristics and attributes of a group and its members that shape how people think about and respond to the group" (Dovidio et al. 2010, 8). Studying the stereotypes of public sector workers has a long tradition in public administration (for instance Goodsell 2004; Wilson 1989), and recent research has systematically mapped the stereotypes that people have (De Boer 2020; Willems 2020). The literature on public sector worker stereotypes does not, however, discuss in depth the possibility that stereotypes may differ between groups in a society. For instance, are people with lower incomes more negative about public sector workers, perhaps because they find them elitist, or because they are dependent on them? Are people working in the private sector more negative, perhaps because of ideas about public sector workers' work ethic?

In this study, we investigate whether citizens' socioeconomic status is related to the stereotypes

# **Research Article**

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Public Administration Review, Vol. 82, Iss. 2, pp. 237–255. © 2022 The Authors. Public Administration Review published by Wiley Periodicals LLC on behalf of American Society for Public Administration. DOI: 10.1111/puar.13461. they have of public sector workers. Although scholars usually include respondents' socioeconomic status as control variables, we argue that they warrant more direct attention. Research shows that people with different levels of socioeconomic status tend to have different attitudes toward their government (Van Ryzin, Muzzio and Immerwahr 2004). For example, people with lower levels of education tend to have less trust in government (Christensen and Lægreid 2005) and those with lower income levels are more negative about public sector performance (Porumbescu 2017). This negativity toward government among people with low levels of socioeconomic status may translate to the context of stereotypes of public sector workers. In addition, we might expect people with high levels of socioeconomic status to have negative stereotypes of public sector workers, for example because they look down on the supposed work ethic of public sector workers: 'clock-watchers', with their nine-tofive mentality (London Chamber of Commerce and Industry and Hays 2011). We thus examine the following research question:

How is socioeconomic status related to the stereotypes that citizens hold of public sector workers?

We aim to understand whether public sector stereotypes are related to people's socioeconomic status. This knowledge is indispensable to understanding potential consequences of stereotypes and how to deal with them. Negative job stereotyping affects people's performance and wellbeing at work (Allport 1954; Chen and Bozeman 2014; Schmader and Hall 2014). It can also affect the interaction between the stereotyper (here, citizens) and the one being stereotyped (the public sector worker; Dovidio et al. 2010). People with low levels of socioeconomic status are more likely to need public services and to interact with public sector workers. If low socioeconomic status citizens have negative stereotypes of public sector workers, these can inform the expectations that they bring to the table, and could in turn impact the interaction itself. For example, low socioeconomic status citizens may show hostility toward public sector workers because of negative stereotypes, leading to reduced service delivery or less benefits based on public sector workers' idea of the client's deservingness (Jilke and Tummers 2018). By examining whether and how patterns of stereotypes differ between people with different levels of socioeconomic status, this study serves as a stepping stone for future studies examining how public sector worker stereotypes affect statecitizen interactions, and how such interactions can be improved. Our purpose is not to test potential causal relationships - rather, by taking a correlational, descriptive approach, our research can help identify fruitful avenues of further research.

We study socioeconomic status and public sector worker stereotypes in the Netherlands, based on a preregistered, large-n, representative, cross-sectional citizen panel survey. In what follows, we provide an overview of the conceptual framework, outlining the state of the literature which inform our two hypotheses, using education and income as measures of socioeconomic status. Additionally, we take an exploratory approach to investigate the role of other factors, including additional factors of socioeconomic status, and respondents' own sector of employment. Contrary to our hypothesis, we find that respondents' levels of income and education are not related to their public sector worker stereotypes. However, we do find an interesting relation to their levels of subjective income. We find that people with low subjective income, i.e., who have difficulty getting by on their present income, have more negative stereotypes of public sector workers than those with high subjective income.

Additionally, we find that respondents' stereotypes are strongly related to their own occupational sector. Those working for central or local government have very positive public sector worker stereotypes. So do people working for state companies. However, private sector workers, the self-employed, those working in public sector jobs such as healthcare and education, and those in the non-profit sector are much more negative. It seems that the views of the public sector are heavily dependent on whether someone works in the core public sector. We discuss these findings, relate them to the academic literature, and provide future research suggestions and implications for practice.

# Conceptual Framework Public Sector Worker Stereotypes

Stereotypes can be defined as the characteristics and traits that people associate with a certain group and its members. These beliefs about the typicalities of a group will in turn shape how people perceive and respond to that group (Dovidio et al. 2010, 8). The concept of stereotypes has been studied from a multitude of perspectives, leading to a vast literature and different conceptions of what stereotypes are and how they should be studied (Bordalo, Coffman, Gennaioli, and Shleifer 2016). Taking a socio-cognitive perspective, stereotypes can be understood as cognitive schemas that people use to make sense of the world (Allport 1954; Schneider 2004; Tajfel 1981). By categorizing people into groups and generalizing about their characteristics, people simplify the information that they process every day. Relying on such cognitive shortcuts allows us to make efficient use of our cognitive resources. When we encounter someone we do not know, we use these mental schemas to interpret the situation and to form expectations (McGarty, Yzerbyt, and Spears 2002).

We can also approach stereotypes as a cultural or sociological phenomenon. Scholars who understand stereotypes in this way argue that stereotypes are social constructions, created through everyday communication, which are then reified and assume "an independent and sometimes prescriptive reality" (Augoustinos and Walker 1996, 222). Especially in the case of public sector stereotypes, this cultural view on stereotypes is important. Stereotypes about public sector workers are not controversial unlike stereotypes about gender, ethnicity, or sexual orientation. Therefore, they are often openly discussed and joked about. We can see this, for example, in the fact that "the lazy bureaucrat" has been such a common character in popular media (Lichter, Lichter, and Amundson 2000; Pautz and Warnement 2013; Van de Walle 2004).

Public administration scholars have called for increased attention to the mostly negative views of public sector workers (Goodsell 2004). Results from numerous studies suggest that the general public has quite negative stereotypes of public sector workers. For example, public sector workers are usually thought of as being more boring, less creative, and lazier compared to private sector workers (Chen and Bozeman 2014; Goodsell 2004; Lewis and Frank 2002). People see public sector workers as less productive and less hardworking (Demmke 2005; Frank and Lewis 2004; Marvel 2015a). Furthermore, they have worse performance expectations and evaluations of the public sector compared to private sector performance (Chen and Bozeman 2014; Frank and Lewis 2004; Marvel 2015a, 2015b). Politicians use so-called bureaucrat bashing to shame an administration and sway voters (Caillier 2018; Garrett et al. 2006; Hubbell 1991), and in popular media, public sector workers are presented as lazy or even evil (Lichter, Lichter, and Amundson 2000; Pautz and Warnement 2013; Van de Walle 2004; Wilson 1989). Even introductory textbooks on the American Government depict the bureaucrat negatively, mostly as employees who stay on forever and are hard to fire (Cigler and Neiswender 1991).

Taken together, these findings paint a negative image of public sector worker stereotypes. Recently, scholars have taken a more systematic approach to mapping people's stereotypes of public sector workers (De Boer 2020; Willems 2020). They show that stereotypes of public employees range from negative to positive: from overpaid to underpaid; from lazy and corrupt to hardworking, caring and helpful (Willems 2020). These studies thus allow for a more nuanced understanding of the stereotypes that exist across a country's population. They do not, however, allow us to theorize about differences *within* a country's population.

# Socioeconomic Status

One factor that relates to people's attitudes toward government is socioeconomic status. Socioeconomic status is a multidimensional construct that captures people's position in terms of their resources, such as education and income, and their status, such as their occupational prestige (Braveman et al. 2005; Krieger, Williams, and Moss 1997). Research suggests that low socioeconomic status is associated with more negativity toward government. For example, having lower levels of education (Christensen and Lægreid 2005; Foster and Frieden 2017) and financial satisfaction (Catterberg and Moreno 2005) is associated with having less trust in government and its institutions. Lower levels of education and economic status are related to having higher levels of public cynicism (Berman 1997), and lower income levels have been associated with more negative perceptions of public sector performance (Porumbescu 2017).

One reason why people with lower socioeconomic status could view government and its institutions more negatively is that they are generally more dependent on government. Although one could argue this would lead to more positive attitudes, because government provides them with essential services, we argue the opposite: They are forced to deal with the red tape and administrative burden that is often associated with government services (Brodkin and Majmundar 2010; Christensen et al. 2019; Hattke, Hensel, and Kalucza 2019). At the same time, they may have less human capital and associated cognitive resources to deal with administrative burden (Christensen et al. 2019), and in principle, the providers of those services can also deny them the services that they depend on. Additionally, qualitative research on citizen participation suggests that low-status citizens perceive government officials to be haughty, and may feel that they are looked down upon by government officials (Visser, De Koster and Van der Waal 2021; see also Noordzij, De Koster and Van der Waal 2020). On top of that, scholars suggest that clients' status and class affect how they are evaluated and treated by public sector workers (Harrits 2018; Raaphorst and Groeneveld 2018). For example, citizen-clients with low status are judged as less trustworthy by tax officials and thus receive more scrutiny

(Raaphorst and Groeneveld 2018). Even if an individual has not had such experiences themselves, they may learn through shared knowledge in one's social network, through friends, family, or neighbors.

Together, this could translate to low socio-economic status citizens having more negative public sector worker stereotypes. It leads us to our first hypothesis:

H1: People with low levels of socioeconomic status are more likely to have negative public sector worker stereotypes, as compared to those with mid-level socioeconomic status.

At the same time, we expect that people with high socioeconomic status may also have more negative stereotypes of public sector workers as compared to people with mid-level socioeconomic status. It could be that people working in high-earning private sector jobs look down upon the presupposed lazy bureaucrats and their nine-to-five mentality. Indeed, a report by the London Chamber of Commerce and Industry shows that private sector companies are hesitant to employ those who worked in the public sector (London Chamber of Commerce and Industry and Hays 2011). There are also indications that graduates of elite public schools are opting for private sector jobs over working in the public sector (Piereson & Schaefer Riley 2013). It suggests that people with highincome private sector jobs, and even students with high-income job prospects, see the public sector as inferior. This perception of public sector inferiority may translate to their perceptions of public sector workers. Additionally, Catterberg and Moreno (2005) find that income is negatively associated with trust in government in established democracies-that is, that those with higher income levels have less political trust. Van Ryzin and Lavena (2013) also show that people with higher levels of education are more skeptical of government information. Our second hypothesis is thus:

**H2:** People with high levels of socioeconomic status are more likely to have negative public sector worker stereotypes, as compared to those with mid-level socioeconomic status.

# Methods

To test these two hypotheses, we used a representative sample of Dutch citizens, collected via an online panel company. The data collection for this research was embedded in a broader survey study, aiming to systematically study public sector worker stereotypes across different countries. Our study is preregistered on the Open Science Framework. Ethical approval for the study and its procedures was obtained through the ethical committee of the Faculty of Law, Economics, and Governance of Utrecht University, and the data, syntax, and materials can be found on the Open Science Framework (https://osf.io/snzqv/).

# Sample and Procedure

Our sample consisted of 1,175 Dutch adult citizens. For our hypotheses, a power analysis in G\*Power (Faul et al. 2007) shows that for testing the hypotheses with the simplest model we require a total of at least 954 respondents. Respondents were reimbursed for their participation as is standard procedure for many panel companies. We used stratified sampling to ensure a sample that is representative of the Dutch population in terms of age, sex, and levels of education. To ensure data quality, we included three attention checks. We excluded respondents that failed two or more (N = 130). Furthermore, 18 respondents were excluded since they were below 18 years of age, leading to the total sample of 1,175 (out of 1,323 completed surveys).

After giving their informed consent, respondents first answered questions about their age, sex, and education level. These variables were used as quotas to obtain a representative sample. They then answered the questions about public sector worker stereotypes, and the survey ended with the questions about their socioeconomic and demographic background. The survey can be found via the Open Science Framework (https://osf.io/snzqv/; there: Appendices B and C). We describe the most important variables in the section below.

# Variables for Confirmatory Analyses

Public Sector Worker Stereotypes. In order to assess how positive or negative the respondents were of the public sector worker stereotypes-referred to from now on as the stereotype valence--we first presented them with a list of 36 traits (compiled for this purpose in an earlier study; for the full list and details of its compilation, see Appendix A). From this list, we asked respondents to select a maximum of five traits that they found most typical of public sector workers (following a method designed by Katz and Braly 1933 that is still often used, see for instance Schneider and Bos 2014). We then asked them to rate each of these five traits in terms of how desirable they found them for public sector workers to have, on a scale from 1 (not at all) to 5 (very much; Lee 2012). Respondents' stereotype valence scores were calculated as the mean of the five desirability ratings. Hence, these mean scores range from very negative (averaging around 1) to very positive (averaging around 5). Although there are different occupations within the public sector that will be met with different stereotypes by different people, we asked respondents about public sector workers as a general category. As literature suggests that generalized stereotypes exist (Van de Walle 2004), even for the broad category of public sector workers, we use this general category as a starting point.

To counter potential social desirability bias, we informed the participants that we were "interested in people's perceptions of and attitudes towards different occupations." Furthermore, we do not expect social desirability bias to play a big role in this research, since this bias is often elicited by questions about attitudes and behaviors that defy social norms (Krumpal 2011). Negative public servant stereotypes are not so socially sensitive, since they are quite pervasive and accepted in everyday life (think of caricatures in popular media, cartoons, jokes about lazy public servants) (Lichter, Lichter, and Amundson 2000; Pautz and Warnement 2013; Van de Walle 2004). This makes the context different from, for example, gender or ethnicity stereotypes research, where expressing negative stereotypes is much less socially accepted.

*Socioeconomic Status*. Socioeconomic status is a complex measure of economic and sociological standing, for which no clear-cut golden standard of measurement exists (Braveman et al. 2005). We used income and education as separate measures of socioeconomic status. These two factors are often used as proxies for socioeconomic status (Braveman et al. 2005). Although income and education tend

to correlate, research shows that their correlation is not big enough for problematic collinearity. While some authors make a composite score out of socioeconomic status, this ignores the differential role of the individual factors (Braveman et al. 2005; Galobardes et al. 2006a, 2006b). We therefore examined the variables separately.

Because the sensitive nature of socioeconomic status questions can lead to inaccuracy or nonresponse, we reminded respondents of the confidentiality of their answers and of the relevance thereof for the research. We also acknowledged the sensitivity of the questions. Research shows that such a reminder can help reduce nonresponse and increase the accuracy of responses (Singer, Von Thurn, and Miller 1995).

<u>Education Level</u>. We asked respondents for the highest level of education they had completed. Answer categories were based on the Dutch educational system, and were recoded to low, mid, and high according to the classification used by Statistics Netherlands (Statistics Netherlands 2019a).

Income. Although measuring income is challenging due to inaccuracy and nonresponse (Moore, Stinson, and Welniak 2000), measuring net family income seems to lead to relatively little bias (Körmendi 1988; Moore, Stinson, and Welniak 2000). We therefore asked respondents about their average monthly net household income, after tax and compulsory deductions, from all income sources. This was a multiple-choice question, with answer categories corresponding approximately to Dutch household income deciles (European Social Survey, ESS9 2018). We recoded the data to low, mid, and high levels following the classification used by Statistics Netherlands. This means that the lowest four income deciles (40 percent) were classified as the low-income group, the highest two deciles (20 percent) were classified as the high-income group, and the remaining four deciles (40 percent) were classified as the mid-level income group (Van den Brakel and Ament 2010). Income was standardized based on household composition (i.e., the number of adults and children living in a household) using the same formula as Statistics Netherlands (Statistics Netherlands 2019b).

# Variables for Exploratory Analyses

*Other Indicators of Socioeconomic Status*. For exploratory analyses, we investigated how other aspects of socioeconomic status relate to public sector worker stereotypes. We included a range of aspects of socioeconomic status that could play a role, namely, subjective income; employment status, and education and employment type of parents (capturing childhood socioeconomic status, Galobardes et al. 2006a, 2006b).

<u>Subjective Income</u>. The subjective measure of income (Howe et al. 2011) is based on the European Social Survey (ESS). It measures respondents' perceived income sufficiency. Respondents answer on a scale from 1 (Living comfortably on present income) to 4 (finding it very difficult to get by on present income) how they feel about their household's income nowadays (ESS9).

<u>Employment Status</u>. Based on the International Social Survey Program (ISSP), this question asked respondents about their current employment status, e.g., whether they are currently working, in education, unemployed, permanently sick or disabled, or retired. <u>Childhood Socioeconomic Status</u>. We assessed parents' educational level and their employment and occupational sector at respondents' age 14 were assessed, as an indication of childhood socioeconomic status.

**Occupational Sector**. Stereotyping often takes place regarding an outgroup (Dovidio et al. 2010). For those working in the public sector themselves, the questions in this survey pertain to their ingroup. For those working in the private or nonprofit sector, for example, the questions pertain to an outgroup. To see whether this accounts for any differences in results, we include respondents' own occupational sector. Based on the International Social Survey Program (ISSP), we asked respondents whether they work in central or local government; other public sector jobs such as education or healthcare; the private sector; a state-owned enterprise; a nonprofit organization, or whether they are self-employed, or had never worked. If respondents were retired or otherwise unemployed, we asked them about their last main job.

# **Control Variables**

**Political Orientation**. Based on the International Social Survey Program (ISSP), we measured political orientation by asking respondents what party they voted for during the last Dutch general election in 2017. We recoded party voted for on a scale from left to right, using the Chapel Hill Expert FLASH Survey (Polk et al. 2017). This survey lets political experts score political parties' general positioning from left to right on a scale from 1 (extreme left) to 10 (extreme right), leading to an overall outcome for each party. These scores were further recoded into left-, mid-, and right wing.

*Minority Identification*. We asked respondents whether they are part of an ethnic minority in the Netherlands. Response categories were yes, no, or I do not know.

*Year of Birth*. We include age because generational differences may lead to different experiences with government, and because attitudes toward government tend to change over the course of one's life (Dalton 2005).

*Sex.* Lastly, we include sex as men and women have been shown to differ in their attitudes toward government and institutions, for example in terms of trust (Christensen and Lægreid 2005).

# Results

We first provide the sample descriptives and quota distributions of age, gender, and level of education. Next, we test the two hypotheses of this study. Lastly, we discuss our exploratory analyses.

#### Sample Descriptives

Table 1 shows an overview of our sample as compared to the Dutch population, and shows that the sample is largely representative in terms of age, gender, and education (see Appendix B for sample descriptives and correlations of the other sociodemographic variables). Those with high education levels are somewhat overrepresented (a difference of 11.7 percent compared to the Dutch population). Those with mid-level education are somewhat underrepresented (a difference of 8.5 percent), so are those with low education levels (a difference of 4,2 percent). As a robustness check, we performed regression analyses on the data before and after weighting cases by education population

Table	1	Ouota	Distributions	Compared	to the	Dutch	Popu	lation
labic		Quota	Distributions	comparca	to the	Dutti	i opu	lation

	Sample N	Sample %	Dutch Population
Sex			
Female	589	50.1%	50.4%
Male	578	49.2%	49.6%
I'd rather not say	8	0.7%	
Age			
16–24	182	15.5%	14.7%
25–34	201	17.1%	15.0%
35–44	193	16.4%	14.3%
45–54	147	12.5%	17.7%
55–64	238	20.3%	15.9%
65+	214	18.2%	22.5%
Education			
Low	198	16.8%	21.0%
Mid	378	32.2%	40.7%
High	593	50.5%	38.8%

margins, to assess whether this influenced results. Differences in results were minimal, and are shown in Appendix C. The results presented below are based on the original, unweighted data. Furthermore, since group sizes are unequal, we use ANOVA Type 2 to account for the unbalanced design (Langsrud 2003).

### Hypotheses Testing

We assess two hypotheses in this study. First, that people with low levels of socioeconomic status are more likely to have negative public sector worker stereotypes than people with mid-level socioeconomic status; second, that those with high socioeconomic status levels have more negative stereotypes compared to people with mid-level socioeconomic status. We evaluate these two hypotheses simultaneously, with education and income as indicators of socioeconomic status. As mentioned in the methods section, we include education and income as separate measures because we want to assess the individual contribution of these socioeconomic status factors (Galobardes et al. 2006a, 2006b). Testing for the effects of income and education separately also allows for a more meaningful interpretation, since low levels of education are sometimes combined with high levels of income, and vice versa.

We performed a 3 income (low, mid, high) × 3 education (low, mid, high) Type 2 ANOVA with respondents' mean stereotype valence scores as the dependent variable. Note that a higher score on respondents' mean stereotype valence indicates they selected more positively rated stereotypes; a lower score indicates more negatively rated stereotypes. Figure 1 shows mean stereotype valence scores per levels of income (left panel) and education (right panel). Income is not statistically related to stereotype valence, F(2, 1,069) = 0.71, p = .492, partial  $\eta^2 = 0.001$ . Education also shows no significant relationship, F(2, 1,069) = 2.99, p = 0.051, partial  $\eta^2 = 0.006$ . Results remain non-significant when adding the control variables of sex, age, political orientation, and minority status to the ANOVA. No interaction effect between income and education was found in this analysis. We reject both hypotheses based on our empirical findings, as neither income nor education is significantly related to stereotype valence.

# **Exploratory Analyses**

For exploratory analyses, we used generalized OLS (GLM) to identify which variables in our data were related to stereotype valence. To measure the contribution of additional socioeconomic



Note: Mean stereotype valence by levels of subjective income. People with lower subjective income have more negative stereotypes. Error bars show 95% confidence intervals.

#### Figure 1 Stereotype Valence by Subjective Income

status indicators, occupational sector, and control variables in our sample, we added all variables to the model, with respondents' mean stereotype valence scores as the outcome variable. We used the False Discovery Rate (FDR) Benjamini-Hochberg procedure to account for multiple testing (Benjamini & Hochberg, 1995; for full ANOVA table, including FDR Q-values, see Appendix D). The variables we discuss below had *p*-values of below .05 and *q*-values below .05, which we deem appropriate for the exploratory nature of the analysis. This q-value means that we accept 5 percent of the significant effects we find to be false-that is, we accept a 5 percent chance that one of the results presented below is not true in the population. The analysis shows that stereotype valence is related to two variables: subjective income and occupational sector. For these variables, we performed separate Type 2 ANOVAs-see Appendix B for additional sample descriptives and group sizes of these variables. We present the results below.

**Socioeconomic Status:** Subjective Income. Looking at additional factors of socioeconomic status, we find that *subjective* income is related to stereotype valence, F(2, 1, 172) = 6.75, p = .001. The associated effect size is small: partial  $\eta^2 = 0.011$ . The results remain robust when adding the control variables sex, age, political orientation, and minority status to the ANOVA, F(2, 1, 029) = 6.67, p = .001, partial  $\eta^2 = 0.013$ . Figure 2 shows the mean stereotype valence scores across the three groups of subjective income. Post hoc pairwise comparison shows that respondents with low subjective income (M = 3.07, SD = 1.23) are significantly less positive about public sector workers as compared to those with high subjective income (M = 3.43, SD = 1.17; p = .001), but not significantly different from mid-levels of subjective income (M = 3.29, SD = 1.14; p = .056).

As an additional avenue of exploration, we looked at the specific *characteristics* that respondents selected as typical of public sector workers. Table 2 presents correlations between the three subjective income levels, and the 10 stereotypes that were, on average, rated as negative (i.e., with a mean desirability score of less than three). This shows an interesting trend: We find that having low subjective income



Note: Mean stereotype valence by levels of subjective income. People with lower subjective income have more negative stereotypes. Error bars show 95%

#### Figure 2 Stereotype Valence by Subjective Income

confidence intervals.

levels is positively correlated with specific negative stereotypes, namely, strict (p < .001), arrogant, authoritative, corrupt, lazy (all p < .01), and difficult (p < .05). For mid- and high-level subjective income, the correlations with these specific traits are either nonsignificant or significantly negative. Thus, although there are no large differences in terms of absolute stereotype *valence*, we do find large differences in the *types* of stereotypes that the different groups have.

Next to subjective income, we analyzed employment status and measures of childhood socioeconomic status: parents' level of education and parents' occupation at the time of respondents' age 14. None of these show a significant relation with stereotype valence.

**Occupational Sector**. Our analysis shows that sector of occupation is significantly related to stereotype valence. Occupational sector is by far the strongest predictor in the model, F(6, 1,019) = 9.35, p < .001,

Table 2	Correlation	Table of	Subjective	Income	and the	10 Negative	Stereotypes
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	Low Subje	ctive Income	Mid Subjec	tive Income	High Subjec	tive Income
	r	p	r	p	r	р
Arrogant	0.08	.006**	-0.03	.235	-0.03	.380
Authoritative	0.08	.006**	-0.04	.135	-0.02	.578
Boring	0.04	.193	-0.01	.860	-0.02	.422
Conservative	-0.03	.338	-0.03	.292	0.05	.074
Corrupt	0.10	.001**	0.00	.938	-0.07	.011*
Difficult	0.07	.011*	-0.04	.220	-0.02	.494
Go home on time	0.01	.783	0.08	.005**	-0.09	.002**
Inflexible	0.01	.743	-0.01	.798	0.00	.990
Lazy	0.09	.003**	0.00	.865	-0.06	.036*
Strict	0.10	.001***	-0.01	.635	-0.06	.043*

Note: Stereotypes were selected as negative if they had mean desirability scores below three.

\*\* *p* <.01.

\* *p* < .05.



# Occupational sector

Note: Mean stereotype valence by sector of occupation. People working in core public sector jobs are most positive about public sector workers. Error bars show 95% confidence intervals.

# Figure 3 Stereotype Valence by Occupational Sector

partial  $\eta^2 = 0.052$ . Mean stereotype valence scores for each of the occupational sector groups are shown in figure 3. Post hoc pairwise comparison shows that, compared to those working for local or central government (M = 3.92, SD = 1.03), almost all other groups had significantly lower stereotype valence scores. Those working in the private sector (M = 3.09, SD = 1.17; p < .001), the self-employed (M = 3.12, SD = 1.28; p < .001), and those working in the nonprofit sector (M = 3.36, SD = 1.16; p = .048) were significantly less positive in their stereotypes about public sector workers. The same was true for those working in the public sector but not for central or local government (e.g., in education or healthcare): Their stereotype valence scores were also significantly lower than for those working in central or local government (M = 3.29, SD = 1.12; p = .001). These results remained robust upon adding the controls of sex, age, political orientation, and minority status to the ANOVA, F(6, 887) = 7.47, p < .001, partial  $\eta^2 = 0.048$ .

Moreover, looking at respondents' history of working in the public sector, we see that respondents who *used* to work in central or local government in their past are now more negative in their stereotypes, too; F(4, 1, 170) = 7.78, p < .001, partial  $\eta^2 = 0.026$  (M = 3.29, SD = 1.11; see figure 4).

Looking at the specific stereotypes, we find that the most striking differences are between those working in central and local government on the one hand, and private sector workers on the other. Table 3 presents correlations between the occupational sectors and the ten stereotypes that were, on average, rated as negative (i.e., with a mean desirability score of less than three). We find that working in the private sector correlates strongly to viewing public sector workers as conservative, inflexible, and going home on time (i.e., having a nine-to-five mentality; all p < .001) and arrogant and boring (p < .05). For those working in central or local government, these significant correlations are also present, but in the opposite direction.

## Discussion

Stereotypes of public sector workers have received more attention in recent studies (De Boer 2020; Willems 2020). However, to date, no studies have explicitly looked at differences across societal groups. Focusing on socioeconomic status and occupational sector, we

<sup>\*\*\*</sup> *p* <.001.



# Public sector work history

Note: Mean stereotype valence by working in the public sector, now or in the past. People currently working in central or local government are more positive than others about public sector workers. Error bars show 95% confidence intervals.

#### Figure 4 Stereotype Valence by Occupational Sector History

Table 3	Correlation	Table of	Occupational	Sector and	d the 10	) Negative	Stereotypes
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	Central/Lo	ocal Gov.	Other F	Public Sector	State Co	ompany	Priva	te Sector
	r	р	r	р	r	p	r	р
Arrogant	-0.06	.030*	0.00	.890	-0.03	.249	0.07	.026*
Authoritative	-0.08	.009**	0.00	.874	-0.01	.707	0.02	.581
Boring	-0.05	.101	0.01	.838	-0.08	.006**	0.06	.038*
Conservative	-0.05	.123	0.04	.131	-0.05	.105	0.10	.001***
Corrupt	-0.04	.204	-0.01	.697	0.00	.930	0.02	.533
Difficult	-0.07	.020*	-0.04	.180	-0.02	.546	0.01	.801
Go home on time	-0.07	.013*	0.04	.153	-0.11	.000***	0.11	.000***
Inflexible	-0.08	.006**	0.00	.876	-0.07	.010*	0.12	.000****
Lazy	-0.10	.001***	-0.03	.340	-0.04	.189	0.05	.082
Strict	-0.04	.199	-0.03	.361	0.07	.015*	-0.06	.044*
	Se	elf-employed		Nor	nprofit		Still Studyir	ng
	r	p		r	p	r		р
Arrogant	0.01	.73	5	-0.01	.776	-0.0	2	.463
Authoritative	0.01	.72	3	0.01	.745	0.0	0	.867
Boring	-0.03	.26	3	-0.02	.400	0.0	0	.925
Conservative	-0.01	.74	3	0.01	.662	-0.0	5	.095
Corrupt	0.01	.71	5	-0.02	.478	0.0	3	.248
Difficult	0.06	.03	7*	0.05	.084	-0.0	1	.699
Go home on time	-0.06	.05	9	-0.01	.720	-0.1	2	.000****
Inflexible	-0.01	.82	3	0.02	.396	-0.1	1	.000***
Lazy	0.07	.01	2*	-0.03	.387	-0.0	2	.462
Strict	0.01	.68	9	0.03	.371	0.0	7	.012*

Note: Stereotypes were selected as negative if they had mean desirability scores below three

\*\*\* *p*<.001.

\*\* p<.01. \* p<.05.

p<.05.

investigated whether people's stereotypes of public sector workers differ between different groups of citizens.

#### Stereotypes, Education, and Income

Our findings are threefold. First, we find no relation between stereotypes and socioeconomic status as measured by income and education, the most frequently used indicators of socioeconomic status (Braveman et al. 2005). While literature indicates that attitudes toward government are related to education (Berman 1997; Christensen and Lægreid 2005; Foster and Frieden 2017) and to income (Berman 1997; Catterberg and Moreno 2005; Porumbescu 2017), our data do not support these hypotheses for public sector worker stereotypes. One way of interpreting this finding is that while education is related to other attitudes toward government, this relation does not extend to stereotypes. In terms of income, our null findings may in part be due to the group sizes and classifications: We had only 51 respondents who classified as "high" income according to Statistics Netherlands, and the large majority was classified as "low" N = 685; (Van den Brakel and Ament 2010). As such, the objective operationalization of income that we used may not adequately capture the socio-economic status differences in our sample.

<sup>\*\*\*\*</sup> p<.0001.

# Stereotypes and Subjective Income

Second, in our exploratory analyses we find a relation between stereotypes and subjective income. Some scholars have argued that *subjective* measures of SES can be more informative than objective measures (Howe et al. 2011; Operario, Adler, and Williams 2004). This finding therefore in part complements the findings on socioeconomic status described above. We find that scoring low on subjective income is significantly related to having more negative stereotypes of public sector workers. However, the effect size of this relation is small. Looking at stereotype *contents* sheds more light on the relation. In further analyses, we find that respondents with low subjective income levels are more likely to have specific stereotypes about public sector workers, namely, that they are arrogant, authoritative, corrupt, lazy, strict, and difficult.

To interpret these findings for subjective income, we may turn to psychological research on what determines people's stereotypes. Notably, Fiske's seminal research on stereotypes (e.g., Fiske 2015) builds upon the notion that stereotype contents can be predicted from social structure, power and status relations, and intergroup dependence between the stereotyper and the one being stereotyped. For example, outgroups that potentially pose a threat to oneself or one's ingroup are stereotyped as less warm (Fiske 2015). This notion helps make sense of our findings in terms of stereotype contents: The differences between low, mid, and high levels of subjective income may illustrate a different power relation between citizens with low status and government workers, versus citizens with higher status and government workers. This argument would therefore resonate with the reasoning for our original hypotheses. Our findings, however, suggest that group differences lie not so much in stereotype valence, but in stereotype contents. Future studies are needed to see whether this finding replicates, and if so, which mechanisms contribute to it.

# Stereotypes and Occupational Sector

Our third, exploratory finding concerns respondents' occupational sector. We find a strong relation between the sector in which people work and their stereotype valence: Compared to central and local government employees, almost all other sectors are significantly less positive in their stereotype valence scores, with private sector workers and the self-employed being most negative. Those working in the public sector but not in central or local government, too, are significantly less positive. In terms of stereotype contents, private sector workers view public sector workers as conservative, inflexible, going home on time (i.e. 9 to 5 mentality), arrogant, and boring. For those working in central or local government, we find the opposite: They are *less* likely to select these characteristics as typical of public sector workers.

It is perhaps not surprising that central and local government workers are positive—for them, our questions pertained to their ingroup. For other sectors, such as private sector workers, they pertain to an outgroup. Those who work for central or local government have more insight into the workings of government and bureaucracy, and understand the reasons for, for example, red tape. Thus, while others might infer from the slowness of bureaucracy that the public sector worker is lazy or inflexible, central and local government workers would know this to be due to the characteristics of the organization, not of the individual workers. In essence, this would be the fundamental attribution error at play (Gilbert and Malone 1995), where outsiders structurally attribute the behavior of others to their personality and underestimate the role of situational context.

While plausible, the above might not be a sufficient explanation: Those who used to work for central or local government, but not anymore, seem to drop significantly in their positivity. So, are central and local government workers realistic in their stereotypes, or perhaps overly optimistic? It points to a second potential reason for central and local government workers' positivity: to maintain a positive self-image. This central tenet motivates all humans, and leads to numerous self-serving biases in judging the self and the ingroup (Steele 1988; Stone and Cooper 2001). This may also explain why people working in other public sectors like education and healthcare do not view public sector workers as positively-they might not identify as strongly with being a public sector worker, but more as, for example, a teacher or a nurse. Indeed, in our study, the Dutch word used for public sector worker ("ambtenaar") may be associated more with some public sector jobs (like central and local government employees) than with others (like teachers and healthcare personnel).

It should be noted that we studied stereotypes about public sector workers in general, which may be different from stereotypes about specific public sector occupations such as teachers, police, or tax officials. This may have led respondents to picture different specific occupations. However, literature suggests that stereotypes about the general category of public sector workers also exist (Goodsell 2004; Van de Walle 2004). Our data, too, support the idea that there are generalized stereotypes about public sector workers. The agreement among respondents concerning which characteristics they deem typical of public sector workers is quite high: The five most frequently selected characteristics were chosen by a large percentage of respondents (ranging from 40.3 percent to 22.5). This suggests that even for the broad category of public sector workers, a stereotypical image exists. And although inevitably inaccurate, such generalized stereotypes may still affect people's perceptions of government and the civil service, and ultimately, their perceived legitimacy of government (Tyler 2006).

# Limitations

There are three limitations to this study, which call for replication and further research. First, the use of online survey panels for data collection brings with it the risk of self-selection bias. Participants in online panels may differ from the general public, as not everyone is willing or able to partake in such panels. This risk is inherent to using online panels, but perhaps more broadly to using human participants—in interview studies, too, for example, self-selection bias is a risk. We used quotas on sex, age, and education levels to ensure that the sample approximate population margins for these factors. Additionally, our use of a panel provider that recruits from a variety of panels may have helped reduce such a bias.

Second, since our research took place in the Netherlands and we used quotas to match the population margins for a representative sample, group sizes were not always equal. To account for this, we corrected for unbalanced designs in our statistical analyses. Future work can try to replicate our findings with larger and betterbalanced group sizes. Additionally, our findings may be bound by the national context, as stereotypes about public sector workers may be different in other countries. Yet, our study offers a stepping stone for assessing whether and why citizens within a country may differ in their views of public sector workers. In many countries, people with different socio-economic backgrounds have different experiences with government, which may inform their stereotypes. A next step would be to replicate this study in other countries (Bryan, Tipton, and Yeager 2021, see also Haque, Van der Wal, and Van den Berg 2021). This will help us understand when, why, and how stereotype differences come about, by allowing us to compare country-level factors such as bureaucratic and media culture, corruption levels, political and welfare systems, or socioeconomic inequalities.

Lastly, our study is correlational and the effect sizes are modest. We cannot—and do not—infer causality or causal directions. It does, however, enable us to identify patterns. This is a key aspect of the analytical cycle: Like in epidemiological research, patterns of co-occurrence can help to identify causal relations and underlying mechanisms (Bithell 2005). As the formation of stereotypes is an intricate psychological process, causal relations are likely not wholly clear-cut and unidirectional. Occupational sector may inform one's stereotypes, but it is equally plausible that stereotypes contribute to one's choice of occupation. More likely, these two factors form a two-way street, where stereotypes can inform occupation choices, and socialization within that occupation in turn informs stereotypes. Regarding socioeconomic status, while it is highly unlikely that having negative public sector worker stereotypes makes one poor, it is also unlikely that having limited economic resources *directly* causes negative stereotypes. Rather, there will be confounding or mediating factors to explain the correlation between the two.

Our study is thus an important first step to inform further research into the more intricate causal relationship between factors that explain stereotyping. It needs replication and different methods to assess the robustness of the findings across time, contexts, and people. Still, our correlational findings can inform future avenues of research into the causes as well as the consequences of negative public sector worker stereotyping. We describe potential implications and avenues for future research below.

# Avenues for Future Research and Practice

There are a number of implications for future research and for practice. First, it is important to understand the causes and consequences of negative stereotypes. Looking at consequences, literature on stereotypes and stereotype threat suggests—but does not yet provide a strong evidence base—that negative stereotypes can lead to reduced motivation, wellbeing, and performance among public sector workers (Chen and Bozeman 2014; Schmader and Hall 2014; Steele 1988). A focus on what causes negative stereotypes can then help to identify potential remedies. For instance, negative stereotypes may be caused in part by procedural factors, such as high administrative burden (Brodkin and Majmundar 2010; Christensen et al. 2019), or differential treatment of citizens with low status (Harrits 2018; Raaphorst and Groeneveld 2018). Then, lowering administrative burdens may help to improve the image of public sector workers.

Alternatively, we may look for ways to activate people's *positive* stereotypes. Our data indicate that respondents also have positive associations with public sector workers, and it seems negative and

positive views can exist simultaneously within individuals. This resonates with recent work showing that people also associate traits like caring, hardworking, and helpful with public sector workers (De Boer 2020; Willems 2020).

At the same time, it is important to realize that the context of public sector workers is unique compared to other contexts of stereotype research. We cannot expect citizens to readily change their beliefs about public sector workers: They are entitled to their critical views of those who govern them, and a critical stance toward one's government can in fact be said to be a desirable attitude for citizens (Hardin 2002; Van de Walle 2013). This makes it different from gender or ethnicity stereotypes, where the focus is on changing people's negative stereotypes. Focusing on how to deal with problematic *consequences* of stereotypes may therefore prove to be a more fruitful endeavor than trying to change the stereotypes themselves. Taking into account group differences in negative stereotyping can inform our understanding of the different consequences, as well as potential strategies for dealing with them.

Occupational sector differences can inform research about the role of stereotypes in public-private partnerships and outsourcing, in attracting high quality personnel (Keppeler and Papenfuß 2020), or in the challenges that public sector workers face if they want to move into private sector jobs (London Chamber of Commerce and Industry and Hays 2011). Second, stereotype differences between socioeconomic status groups may inform our understanding of how stereotypes affect citizen-state interactions. In the context of street-level bureaucracy, clients expressing negative stereotypes may contribute to bias in the street-level bureaucrats' discretionary decision-making (Moseley & Thomann 2021). Additionally, research suggests that the social status of the stereotyper may differentially affect how public sector workers respond to being negatively stereotyped (Major, Quinton, McCoy, and Schmader 2000). Together, this could lead to lowered quality of service delivery to specific groups of citizens or arbitrariness in services provided. Furthermore, citizens' negative stereotypes may bias how they evaluate public encounters, for instance in how they interpret and attribute negative service outcomes or administrative burden (Barnes and Henly 2018), leading to reduced satisfaction. Negative stereotypes may also lead to negative expectations of public service provision, and thus keep citizens from seeking public services (James 2011). For vulnerable citizens, dependency on public services is often not a choice-in their case, having negative stereotypes of the public employees they have no choice but to depend upon for crucial services may even affect their psychological wellbeing, much like in patient-physician relationships (Berglund et al. 2012; Sloan et al. 2020).

# Conclusion

Negative stereotypes about public sector workers seem to be widespread. Negative stereotypes could harm the public sector by demotivating public sector workers or by scaring off talented workers to apply for a public sector job. It can also affect the way in which citizens perceive and interact with public sector workers, thus affecting the quality of service they receive. This article is the first to study how different groups in society differ in their stereotypes of public sector workers. We found that people with low subjective income hold more negative stereotypes of public sector workers. This could create a negative spiral: Negative stereotypes could lead to lower service quality, leading to more negative stereotypes, and so on. As citizens with low income are often the ones who are dependent on government services, the public sector must find ways to understand and break this feedback loop. The results also indicate that public sector workers are most positive about themselves, while other occupational groups are far less positive about them. Our findings trigger a range of questions in the realm of public sector worker stereotypes. What could be done to improve the image of public sector workers? What are the problematic consequences and how can these be countered? In conclusion, this study provides insights into how different groups in society view public sector workers. We call on researchers and practitioners alike to join in the endeavor, to further our understanding.

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# Appendix A: List of Traits and its Compilation

The data collection of this study was embedded in a larger research project, mapping stereotypes across four countries: the Netherlands, South Korea, Canada, and the United States. This research entailed two studies, the first of which served to compile the list of traits that was to be used in the second study. For the first study, the total sample size was 920 (217 in the Netherlands, 205 in South Korea, 282 in Canada, 216 in the United States). Respondents were asked: "Please list as many specific characteristics or traits as you think are typical of the following occupational group (max. 5)." They answered this question for public sector workers, but also for police officers, tax officials, judges, and private sector workers – this too was for the purpose of the larger data collection project.

Based on frequency analyses, we used the top 15 most frequently listed traits in each country. Removing duplicates led to the following list of 36 traits. The raw data of this presurvey can be found via the Open Science Framework Preregistration of the larger project: https://osf.io/snzqv/.

The final list of 36 traits was used in the second study of the project, held among a completely new sample. The data collection for the current project was embedded within that second study.

- 1. Arrogant
- 2. Authoritative
- 3. Boring
- 4. Calm
- 5. Caring
- 6. Conservative

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  - 7. Corrupt
  - 8. Courageous
  - 9. Difficult
  - 10. Educated
  - 11. Empathetic
  - 12. Fair
  - 13. Friendly
  - 14. Go home on time
  - 15. Good
  - 16. Hardworking
  - 17. Have high job security
  - 18. Helpful
  - 19. Honest
  - 20. Impartial
  - 21. Independent
  - 22. Inflexible
  - 23. Integrity
  - 24. Intelligent
  - 25. Knowledgeable
  - 26. Lazy
  - 27. Loyal
  - 28. Patient
  - 29. Responsible
  - 30. Serious
  - 31. Serving
  - 32. Stable
  - 33. Strict
  - 34. Strong
  - 35. Trustworthy
  - 36. Well paid

# Appendix B: Additional Sample Descriptives and Correlations

Additional sample descriptives are presented in the table below. Correlation scores between all (dummy) variables are presented on the next pages.

#### Table B1 Additional Sample Descriptives

		Sample N	Sample %
Socioeconomic status			
Income	Low	685	58.30%
	Mid	343	29.19%
	High	51	4.34%
Subjective income	Low	192	16.34%
	Mid	511	43.49%
	High	472	40.17%
Employment status	In paid employment	623	53.02%
	Studying	112	9.53%
	Unemployed	78	6.64%
	Unfit for/unable to work	80	6.80%
	Retired	184	15.66%
	Doing housework, taking care of children or others	58	4.94%
Occupational sector	Central or local government	84	7.15%
	Other public sector	175	14.89%
	State company	55	4.68%
	Private company	393	33.45%
	Self employed	129	10.98%
	Non-profit sector	63	5.36%
	Still studying or never worked	127	10.81%
Political orientation	Left-wing	211	17.96%
	Center	220	18.72%
	Right-wing	385	32.77%
	Nonvoter	228	19.40%
Part of a minority	No	950	80.85%
	Yes	135	11.49%
	I do not know	90	7.66%

	-	2	m	4	- 2	9	7	8	6	10	11	12
1 200												
I. Aye												
<ol><li>Stereotype valence</li></ol>	-0.02											
3. Sex male	0.04	0.01										
4. Sex female	-0.03	-0.01	-0.99****									
5. Sex did not say	-0.06*	0.03	-0.08**	-0.08**								
6. Edu low	0.24****	0.03	-0.09**	0.09**	-0.04							
7. Edu mid	0.03	-0.08**	-0.04	0.04	0.01	-0.31****						
8. Edu high	-0.20****	0.06	0.11***	-0.11***	0.02	-0.46****	-0.70****					
9. Income low	-0.07	-0.02	-0.15****	0.15****	0.04	0.15****	0.15****	-0.25****				
10. Income mid	0.07*	0.03	0.11***	-0.10***	-0.03	-0.12****	-0.11***	0.20****	****06.0-			
11 Income hiah	00.00	-0.02	0.11***	-0.10***	-0.02	-0.07*	-0.10**	0.14****	-0.29****	-0.15****		
12 Politics left	0.06	-0.02	-0.05	0.04	0.05	-0.03	0.07	0.00	0.08*	-0.05	-0.06	
13. Politics center	0.17****	0.10**	00.0	00.0	-0.03	-0.01	-0.05	0.05	-0.03	0.03	-0.01	-0.26****
14. Politics right	0,03	-0.08*	0.07*	-0.07*	-0.05	-0.05	-0.03	0.06*	-0.14***	0.13****	0.04	-0.38****
15. Politics non-voter	-0.26****	0.01	-0.04	0.03	0.04	**60.0	0.06*	-0.13****	0.12***	-0.13****	0.02	-0.27 * * * *
16. Minority ves	-0.25****	0.04	0.01	-0.01	0.00	-0.08**	-0.05	0.10***	-0.01	-0.03	0.08*	0.01
17. Minority no	0.33****	-0.05	0.03	-0.02	-0.09**	0.03	0.04	-0.05	-0.06*	0.08**	-0.04	0.03
18. Minority do not know	-0.20****	0.03	-0.06*	0.04	0.13****	0.05	0.00	-0.04	0.10**	**60.0-	-0.03	-0.07 *
19. Sector central/local gov	**60.0	0.16****	0.01	-0.01	0.02	-0.03	0.01	0.01	-0.06	0.03	0.05	-0.05
20. Sector other public	0.12***	-0.01	-0.12***	0.12***	0,00	-0.05	-0.07*	0.10**	-0.02	0.02	0.01	0.06
21 Sector state company	-0.15****	0 10**	0.05	-0.05	-0.02	0 01	-0.04	0.03	0.01	0.01	-0.05	0.03
22. Sector private	0.17****	-0.14***	0.13****	-0.13***	0.02	0.01	0.06*	-0.07*	-0.12***	0.11 * * *	0.03	0.02
23 Sector self-employed	-0.06	-0.06	10.01	0.01	20.0 20.03	-0.07	0.02	0.00	200	-0.06	20.0 TU UT	20:0
21. Sector pon-profit	0.00 **000	0.00	20.0-	- 0.0	CO 0-	-0.02	-0.01	2000	000	-0.06		-0.02 -0.02
25. Sector nover worked/	0.00	0.01	-0.02	0.02	0.01	0.02	10.01	0.02 -0.05	0.04	-0.00	-0.06	-0.02
sudvina		0.0	0.0	0.0		0	-	0	<u>.</u>		0	0
26. Currently in centr/local	0.06*	0.15****	0.02	-0.02	0.02	-0.05	0.01	0.03	-0.06*	0.04	0.05	-0.05
		)					-		)			0
27. Past in centr/local gov	0.07*	-0.01	-0.10***	0.10***	-0.01	-0.08**	-0.06*	0.12****	-0.03	0.03	0.02	0.05
28. Currently in other public	-0.10***	0.05	0.08**	-0.08**	0.00	-0.03	+90.0-	0.08**	-0.02	0.01	0.03	-0.02
sector												
29. Past in other public	-0.05	-0.01	-0.03	0.04	0.00	-0.07*	-0.04	0.09**	0.03	-0.03	-0.01	0.02
sector												
30. Never worked in public	0.02	-0.10***	0.03	-0.03	0.00	0.15****	0.11***	-0.21****	0.05	-0.03	-0.05	-0.01
sector												
31. Subj income low	0.02	-0.09**	-0.08**	0.08**	0.02	0.05	0.11***	-0.14****	0.27****	-0.26****	-0.06 *	0.04
32. Subj income mid	0.07*	-0.01	-0.05	0.05	-0.01	0.13****	0.04	-0.13****	0.22****	-0.16****	-0.15****	0.06
33. Subj income high	-0.09**	0.08**	0.11***	-0.11***	0.00	-0.17****	-0.12****	0.24****	-0.43****	0.36****	0.20****	-0.09 * *
34. Empl status in paid work	-0.22****	-0.07*	0.00	0.00	-0.02	-0.21****	-0.03	0.18****	-0.13****	0.10**	0.09**	-0.03
35. Empl status studying	-0.42***	0.06	0.02	-0.04	0.09**	-0.05	-0.01	0.05	0.08**	-0.06	-0.06	-0.02
36. Empl status unemployed	-0.11***	0.01	0.01	-0.01	0.02	-0.02	0.03	-0.01	0.09**	-0.08*	-0.04	-0.03
37. Empl status unfit/unable	0.11***	-0.05	-0.09**	0.09**	-0.02	0.17****	0.02	-0.15****	0.08**	-0.06	-0.06	0.11***
to work												
38. Empl status retired	0.58****	0.09**	0.12****	-0.12****	-0.03	0.13****	-0.02	-0.08**	-0.07 *	0.06	0.03	-0.03
39. Empl status household/	0.08**	-0.03	-0.15****	0.15****	-0.02	0.16****	0.05	-0.17***	0.11***	**60.0-	-0.05	0.06
caretaker												

24	– 0.10 * *	-0.08*	-0.12*** 0.02	0.16****	0.01	0.02 0.04 -0.05 -0.06 0.00 0.03 *	
23	-0.10 * -0.14 * * *	-0.11 * * *	-0.17**** 0.11***	0.16****	0.01	0.09 -0.01 -0.05 -0.08 -0.01 -0.01 -0.01 -0.00	
22	-0.30 -0.30 -0.20 -0.20 -0.20 -0.30	-0.24****	-0.36**** 0.00	-0.02	0.41 * * * *	-0.04 0.04 0.15*** 0.18**** 0.03 -0.05 -0.01	
21	-0.19 -0.06 * * * * * * * * * * * * * * * * * * *	-0.07	-0.11*** 0.36****	0.10**	-0.18****	-0.02 -0.04 0.05 0.05 -0.01 -0.01 -0.05	
20	-0.11*** -0.36**** -0.12***	-0.14***	1.00****	-0.18****	-0.45****	-0.07* 0.01 0.04 0.03 -0.10** 0.03 0.03 0.03	
19	-0.14*** -0.7* -0.24*** -0.11***	1.00****	-0.14**** -0.11***	-0.12***	-0.29***	-0.02 -0.01 0.02 -0.03** -0.07** -0.05	
18	-0.01 -0.01 -0.04 -0.07* -0.04 -0.04	-0.01	0.04 -0.02	-0.02	0.00	0.05 -0.01 -0.03 -0.05 -0.03 -0.03 -0.03 -0.09**	
17	-0.59*** -0.02 -0.12*** -0.10**	-0.02	0.00 -0.11***	-0.06	0.12****	-0.01 -0.03 0.03 -0.04 -0.12**** -0.12**** 0.06*	
16	-0.74*** -0.10*** 0.03 -0.05 0.16***	0.03	-0.04 0.15****	0.08**	-0.15****	-0.04 0.04 -0.02 0.09** -0.05 -0.05 -0.11**	
15	0.05 -0.16**** -0.19**** -0.03 -0.03 -0.03 -0.03 0.10**	-0.02	-0.05 -0.06	-0.02	0.10**	0.06 0.06 -0.10*** -0.04 0.13**** 0.13**** -0.04 -0.16***	
14	-0.40**** -0.08***** -0.03***********************************	0.02	-0.02 0.04	0.01	-0.03	-0.05 -0.08** 0.12*** -0.09** -0.06 -0.04 -0.01	
13	-0.39**** -0.39**** -0.03**** -0.04 -0.05 -0.04 0.00 0.00 0.00	0.05	0.03 0.03	-0.01	-0.06	-0.04 -0.02 0.05 -0.07* -0.01 -0.03 -0.03 0.19***	
	<ol> <li>Age</li> <li>Stereotype valence</li> <li>Sex male</li> <li>Sex female</li> <li>Sex did not say</li> <li>Edu low</li> <li>Edu low</li> <li>Edu nigh</li> <li>Income low</li> <li>Income low</li> <li>Income high</li> <li>Income high</li> <li>Income of the high</li> <li>Income high</li> <li>Income high</li> <li>Income of the high</li> <li>Politics left</li> <li>Politics center</li> <li>Politics right</li> <li>Politics right</li> <li>Politics non-voter</li> <li>Minority ves</li> <li>Minority ves</li> <li>Sector other public</li> <li>Sector state company</li> <li>Sector never worked/</li> <li>Sector never worked/</li> </ol>	stuaying 26. Currently in centr/local	gov 27. Past in centr/local gov 28. Currently in other public	29. Past in other public	30. Never worked in public	<ol> <li>31. Subji income low</li> <li>32. Subji income nid</li> <li>33. Subji income high</li> <li>34. Empl status in paid work</li> <li>35. Empl status unemployed</li> <li>37. Empl status unfit/unable</li> <li>37. Empl status retired</li> <li>38. Empl status nuscehold/</li> <li>39. Empl status household/</li> </ol>	caretaker

	25	26	27	28	29	30	31	32	33	34	35	36	37	38
1. Age														
2. Stereotype valence														
3. Sex male														
4. Sex female														
5. Sex did not sav														
6. Edu low														
7. Edu mid														
8. Edu high														
9. Income low														
10. Income mid														
11. Income hiah														
12 Politics left														
13 Politics center														
14. Politics right														
15. Politics non-voter														
16. Minority yes														
17. Minority no														
18. Minority do not know														
19. Sector central/local														
gov														
20. Sector other public														
21. Sector state														
company														
22. Sector private														
23 Sector self-employed														
24. Sector pon-profit														
25. Sector power worked/														
zu. Jeului lievel wulkeur														
stuaying	5													
20. Currenuy III cenur Ional anu														
10cal gov 27 Bast in sontr/local acti	×***7 - 0	C 20***												
27. Past In centr/local gov	-0.1/***	-0.12 × × × ×	****//7 0											
28. Currenuy in ouner	-0.09	-0.10	-0.10											
public sector 20 Pact in other muhlic		×+++ ⊂	****	15***										
cortor sector	10.04													
30 Never worked in	0 26****		-0 43****	****8C U-	-0 42***									
bublic sector	0	1	2		1									
31 Subi income low	0 07 *	-0.02	-0 08**	-0.03	000	**60 0								
37 Subi income mid	-0.06	-0.01		0.04	0.03	100	****0č UT							
33 Subi income high	0.00	0.03	0.06	*900	20.0 20.0	-0.0-								
34. Empl status in paid	-0.41***	0.11***	0.08**	0.03	-0.03	-0.11***	-0.11***	-0.03	0.11***					
work														
35. Empl status studying	0.55****	-0.08**	-0.08**	0.04	0.02	0.06	-0.06*	-0.02	0.06*	-0.36****				
36. Empl status	0.10***	-0.06*	-0.07*	0.01	-0.02	0.09**	0.14****	-0.01	-0.10**	-0.30****	-0.09**			
	÷	+000			+000		++++0	000	*****	++++OC 0	++0000			
37. Empl status unnuv unable to work	0.U0	-0.00	-0.02	-0.04		0.03	0. 19	-0.0-	-0.14.5.5	-0.30	-0.04	-0.0/		
38 Emplistatus retired	-0 12***	0 03	0 04	-0.02	0.02	-0.05	+0 07*	0.04	0 01	-0 49****	-0 15****	-0 12****	-0 12****	
39. Emplistatus	0.15****	-0.05	-0.03	-0.04	-0.05	0.10***	0.06*	0.04	++60.0-	-0.26***	-0.08**	-0.06*	-0.06*	-0.10***
household/caretaker														
**** <i>p</i> < .0001.														
*** <i>p</i> < .001.														
** <i>p</i> < .01.														
* <i>p</i> < .05.														

# Appendix C: Regression Analyses with Weighted and Unweighted Data

To assess whether results differed when weighting the data by education population margins, we performed regression analyses with both weighted and unweighted data. Below are the results of the regression analyses, first analyzing income and education, then subjective income, and then occupational sector. Comparing results indicates that differences are minimal: Estimates are similar in direction and magnitude, so are t-values and significance scores.

Table C1	Linear Model	Predicting	Stereotype	Valence from	n Education	and	Income
----------	--------------	------------	------------	--------------	-------------	-----	--------

	В	SE	t	p
Unweighted data				
Intercept	3.36	0.09	38.64	.000****
Education				
Mid	-0.21	0.11	-2.01	.044*
High	-0.04	0.10	-0.39	.697
Income				
Mid	0.07	0.08	0.83	.405
High	-0.12	0.17	-0.68	.496
				Adjusted $R^2 = 0.003$
Weighted data				
Intercept	3.40	0.09	37.86	.000****
Education				
Mid	-0.21	0.11	-1.96	.050
High	-0.03	0.11	-0.32	.750
Income				
Mid	0.04	0.08	0.43	.670
High	-0.11	0.20	-0.53	.595
-				Adjusted $R^2 = 0.003$

\*\*\* *p* <.001.

\* *p* <.05.

#### Table C2 Linear Model Predicting Stereotype Valence from Subjective Income

	В	SE	t	p
Unweighted data				·
Intercept	3.07	0.08	36.40	.000***
Subjective income				
Mid	0.23	0.10	2.30	.022*
High	0.36	0.10	3.64	.000***
2				Adjusted $R^2 = 0.010$
Weighted data				
Intercept	3.04	0.09	33.12	.000***
Subjective income				
Mid	0.26	0.11	2.45	.014*
High	0.38	0.11	3.52	.000***
-				Adjusted $R^2 = 0.011$

\*\*\* p < .001.

\* *p* <.05.

	В	SE	t	p
Unweighted data				
Intercept	3.92	0.13	31.46	.000***
Occupational sector				
Other public sector	-0.63	0.15	-4.17	.000***
State company	-0.15	0.20	-0.73	.466
Private sector	-0.83	0.14	-6.06	.000***
Self-employed	-0.80	0.16	-4.99	.000***
Non-profit sector	-0.57	0.19	-2.97	.003**
Still studying	-0.40	0.16	-2.46	.014*
				Adjusted $R^2 = 0.047$
Weighted data				
Intercept	3.92	0.12	32.59	.000***
Occupational sector				
Other public sector	-0.68	0.15	-4.49	.000***
State company	-0.13	0.18	-0.71	.477
Private sector	-0.84	0.13	-6.27	.000***
Self-employed	-0.81	0.16	-4.92	.000***
Non-profit sector	-0.58	0.19	-3.01	.003**
Still studying	-0.42	0.16	-2.70	.007**
				Adjusted $R^2 = 0.048$

\*\*\* p <.001. \*\* p <.01.

\* p <.05.

# Appendix D: Results of Exploratory Generalized OLS (GLM)

Results of exploratory generalized OLS (GLM) to identify which variables in our data were related to stereotype valence. To measure the contribution of additional socioeconomic status indicators, occupational sector, and control variables in our sample, we added all variables to the model, with respondents' mean stereotype valence scores as the outcome variable. FDR Q-values are included.

	Sum of Squares	df	Mean Square	F	р	Partial $\eta^{\scriptscriptstyle 2}$	q
Education	1.61	2	0.80	0.63	.543	0.002	1.008
Income	2.06	2	1.03	0.81	.447	0.003	0.969
Sex	0.30	2	0.15	0.12	.889	0.000	1.051
Age group	2.04	5	0.41	0.32	.902	0.003	0.977
Minority	0.73	2	0.37	0.29	.752	0.001	1.222
Party	7.48	3	2.49	1.95	.121	0.009	0.524
Occupational sector	30.21	6	5.04	3.93	.001**	0.036	0.013
Subjective income	12.37	2	6.18	4.83	.008**	0.015	0.052
Employment status	10.15	5	2.03	1.59	.162	0.013	0.527
Father's education	3.48	2	1.74	1.36	.257	0.004	0.668
Mother's education	0.10	2	0.05	0.04	.963	0.000	0.963
Father's employment type	5.53	9	0.62	0.48	.888	0.007	1.154
Mother's employment type	5.85	9	0.65	0.51	.869	0.007	1.255
Residuals	799.80	625	1.28				
							Adjusted $R^2 = 0.04$

\*\* p<.005.