

Who Feels They Can Understand and Have an Impact on Political Processes? Socio-demographic Correlates of Political Efficacy in 46 Countries, 1996–2016

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Abstract

While recent research has produced robust objective evidence of unequal representation in democracies, there is little evidence about whether this inequality is consistent with individuals' subjective perceptions of their own political efficacy. To answer this question, we use all available data on political efficacy from the International Social Survey Programme modules for 46 countries (1996–2016) to investigate trends and correlates of external and internal political efficacy. We focus on socio-demographic characteristics that are central to recent literature on unequal representation: gender, education, and income. Our individual-level findings show that education and income are positively associated with both external and internal efficacy while being female is associated with lower levels of internal efficacy but unrelated to external efficacy. We complement these individual-level analyses with a contextual investigation of how descriptive representation contributes to efficacy gaps. Focusing on gender, we show that women feel that they have more of a say in governmental decisions in contexts with a higher level of female representation among elected representatives. We conclude by noting how future research can leverage cross-national data to identify contextual mechanisms that may have an impact upon persistent social gaps in political efficacy across contexts and over time.

There is strong evidence of global unequal representation in objective measures of substantive and descriptive representation. Initial work from the United States showed important inequalities in wealth and economic policy (Bartels, 2008; Gilens, 2012; Gilens & Page, 2014). More recent work shows that unequal representation on multiple objective measures is a global phenomenon that is relevant for several key socio-demographic characteristics, including gender, education, and income (Elkjær & Klitgaard, *in press*; Elsässer, Hense, & Schäfer, 2021; Hakhverdian, 2015; Lupu & Warner, 2022a, 2022b; Reher, 2018; Rosset & Stecker, 2019; Schakel & Van der Pas, 2021). There is little research, however, on whether these patterns of unequal representation in objective measures are consistent with individuals' subjective perceptions of their capacities to understand and influence politics.

We address these gaps in the literature by examining whether the key socio-demographic groups that tend to obtain lower levels of representation in objective measures also have lower levels of subjective political efficacy. In addition, we complement this individual-level analysis of the association between key socio-demographic characteristics and individuals' perceptions of their political efficacy with an analysis of the best available data on descriptive representation across contexts.

This investigation of how key socio-demographic characteristics relate to people's sense of their own political efficacy

is a fundamental building block for advancing research on unequal representation. From a normative perspective, a central concern of political theory has been the responsiveness of governments to all citizens, who should be “considered as political equals” (Dahl, 1971, p. 1). Prominent work by scholars such as Lijphart (1997) and Pateman (1970) has argued that governments should not be systematically more responsive to some groups and individuals than others. As noted in Chamberlain's (2012) longitudinal study of efficacy in the United States, there should be a normative concern in democratic societies if the population feels its voice is unheard. From this perspective, systematic socio-demographic variance in the degree to which people consider themselves to be political equals would indicate that—at least in the eyes of citizens—the normative ideal of equal responsiveness has not been attained. Yet to date, the burgeoning cross-national literature on unequal representation has focused on objective measures only, without also assessing whether there are systematic socio-demographic gaps in individuals' subjective perceptions of their capacity to engage in and influence political processes.

A key attitudinal measure that captures individuals' perceptions of the connection between citizens and the state is political efficacy. Campbell, Gurin, and Miller (1954, p. 187) defined efficacy as “the feeling that individual political action

does have, or can have, an impact upon the political process.” Subsequent research identified two distinct dimensions of efficacy, namely *external efficacy*, referring to “beliefs about the responsiveness of governmental authorities and institutions to citizen demand,” and *internal efficacy*, defined as “beliefs about one’s own competence to understand, and to participate effectively in, politics” (Niemi, Craig, & Mattei, 1991, pp. 84–85). Taken together, these two dimensions of political efficacy allow researchers to assess who feels they can understand and have an impact on political processes. The importance of investigating people’s subjective sense of their own political efficacy was clearly articulated by Morrell (2003, p. 589): “Simply put, efficacy is citizens’ perception of powerfulness (or powerlessness) in the political realm.”

To examine whether empirically established representational inequalities are reflected in citizens’ perceptions of their own political efficacy, we analyze socio-demographic correlates of both external and internal efficacy. Specifically, we analyze all available International Social Survey Programme (ISSP) data on political efficacy (1996–2016) for 46 countries and investigate the three socio-demographic characteristics that are the focus of recent cross-national findings of unequal representation: gender, education, and income. Our individual-level findings identify socio-demographic-based efficacy gaps for most measures, showing that the objective measures of unequal representation identified in recent studies are generally consistent with people’s subjective perceptions. We complement this comprehensive individual-level analysis with a context-level assessment of whether descriptive underrepresentation on socio-demographic parameters available for analysis (i.e., gender) is systematically related to political efficacy. Taken together, our individual-level and context-level analyses show the importance of leveraging new data-gathering efforts on the socio-demographic characteristics of political leaders to advance future research on the relationship between political efficacy and descriptive representation.

Unequal Representation and Political Efficacy

A growing body of research has found that people with different socio-demographic characteristics are not equally represented by governments or political outcomes. The earliest and most clearly established line of research on this topic focused on the association between wealth and representation in the United States and found that the rich are better represented than the poor (Bartels, 2008; Gilens, 2012; Gilens & Page, 2014). Cross-national studies have extended this work and found similar patterns worldwide (Elkjær & Klitgaard, *in press*; Lupu & Warner, 2022a, 2022b; Traber, Hänni, Giger, & Breunig, 2022). Recent studies have documented unequal representation in additional socio-demographic characteristics, including education (Elsässer, Hense, & Schäfer, 2021; Rosset & Stecker, 2019; Schakel & Van der Pas, 2021), gender (Reher, 2018), race and ethnicity (Sobolewska, McKee, & Campbell, 2018), disability (Reher, 2022), and sexual identity (Magni & Reynolds, 2021).

This body of work has focused on objective measures of representation of citizens’ preferences, such as congruence in ideology between citizens and their representatives, and responsiveness of policy outcomes to citizens’ preferences (Lefkofridi, 2020; Persson, *in press*; Wlezien, 2017; Wlezien & Soroka, 2016). From the perspective of Hanna Pitkin’s (1967) classic distinction between different types of

representation, this line of work focuses on *substantive representation*, meaning the representation of the preferences and interests of distinctive social groups. However, when studying the underrepresentation of lower-status socio-demographic groups (i.e., women, and those with less education and income), it is also important to consider the role of what Pitkin (1967) described as *descriptive representation*, meaning the personal similarity between the representative and the represented. Both types of representation are closely connected, as research in specific contexts and time periods has suggested that the numerical underrepresentation of certain social groups in terms of their socio-demographic characteristics (e.g., gender and ethnicity) can yield a policy that conflicts with these groups’ interests (Broockman, 2013; Hakhverdian, 2015; Schwindt-Bayer & Mishler, 2005).

A growing line of work on descriptive representation has provided accumulating evidence of its effects on pro-democratic attitudes and substantive representation in specific country contexts. For example, research in the U.S. context has shown the importance of race-based descriptive representation for political trust (Gay, 2002), and of class-based descriptive representation for substantive representation of the working class in the U.S. Congress (Carnes, 2012, 2013). Subsequent comparative research investigating 18 Latin American legislatures showed robust evidence that descriptive representation for social class impacts on the substantive representation of class-based interests (Carnes & Lupu, 2015). Related country-specific research has shown that education-based descriptive representation is also consequential for political outcomes, including for perceptions of democratic quality in Norway (Mayne & Peters, 2023), and for substantive representation in the Netherlands (Aaldering, 2017; Hakhverdian, 2015). In their discussion of societal and political changes in relation to the representation of disadvantaged groups, Elsässer and Schäfer (2022) build on this literature to argue for the importance of researching descriptive representation in relation to social class, along with the traditional focus in this line of work on gender and ethnic minorities (e.g., Mansbridge, 1999; Phillips, 1995; Rocha, Tolbert, Bowen, & Clark, 2010; Young, 2002).

Investigating whether unequal representation in *objective* measures of substantive and descriptive representation are reflected in individuals’ *subjective* reports of political efficacy is important because inequalities in efficacy could contribute to a vicious cycle that exacerbates the underrepresentation of traditionally lower-status groups. The potential for this type of vicious cycle is noted in prior research which suggests that political efficacy contributes to democratic functioning (Craig, Niemi, & Silver, 1990; Easton & Dennis, 1967; Erber & Lau, 1990; Finifter, 1970). Regarding political attitudes, research has shown that political efficacy is consistently positively associated with attitudes of political trust and political interest (Bientsman, Hense, & Gangl, 2022; Citrin & Green, 1986; Miller, 1974; Niemi, Craig, & Mattei, 1991). Regarding political participation, researchers have found a strong association between political efficacy and all types of political behaviors, including electoral turnout (Abramson & Aldrich, 1982; Davis & Hitt, 2017; Finkel, 1985; Karp & Banducci, 2008; Kölln, 2016), and civic and political participation beyond the electoral arena (Oser, Grinson, Boulianne, & Halperin, 2022; Verba, Scholzman, & Brady, 1995). Taken together, this research implies potential links that have not yet been systematically investigated among socio-demographic

characteristics, political efficacy, political behavior, and (under)-representation.

Despite mounting evidence of unequal representation in objective measures of substantive and descriptive representation, little is known about whether the underrepresented social groups discussed most prominently in this research (e.g., women, and those with less education and lower income) perceive *themselves* as less capable of engaging in political processes. Systematic research on people's subjective sense of their own capacity to effectively engage in political processes is necessary for advancing research on these topics because awareness is an essential condition for underrepresented groups to voice dissatisfaction with their lack of representation. If underrepresented groups do not feel this way, it is unlikely that they could mobilize or be mobilized to ask for better representation.

There are logical reasons why these substantively underrepresented groups may not report lower levels of political efficacy. For example, Zaller's (1991, 1992) work on the influence of elite discourse on mass attitudes and the diffusion of information to a mass audience suggests that underrepresented groups may not necessarily perceive their objective underrepresentation. In the economic policy domain, for example, the less affluent might not perceive the empirically established fact that their preferences are less well-represented. Further, even if they do perceive the objective evidence of unequal representation, they might not interpret it as reflecting poorly on their own capacity to understand or influence political processes.

There are, however, indications that groups' political efficacy reflects in part how well they are represented objectively. Specifically, related recent experimental research on gender-based descriptive representation in the U.S. context suggests that diffusion of information on descriptive representation can have an impact on political efficacy, as providing citizens with corrected information on high levels of women's inclusion in political institutions increases feelings of external efficacy (Stauffer, 2021). To date, however, systematic research has not yet been conducted to assess the subjective perceptions of the political efficacy of key socio-demographic groups across contexts and over time.

Research Question and Hypotheses

Integrating these literatures, our main *research question* is whether subjective measures of political efficacy follow patterns of socio-demographic inequality evident in objective measures of representation. Our focus of inquiry is individual-level associations between political efficacy and the key socio-demographic characteristics of gender, education, and income.

Individual-level Hypotheses

To inform our hypotheses on the expected associations between political efficacy and individuals' key socio-demographic characteristics, we synthesize select findings from prior research on political efficacy that included socio-demographic characteristics as control variables. This review of previous research clarifies that the literature does not inform clear or consistent expectations about whether external or internal efficacy will show the largest gaps.

Gender: Early empirical studies consistently indicated that men reported higher efficacy levels than women

(Campbell, Gurin, & Miller, 1954). Subsequent findings on gender are mixed, with some studies showing no association between gender and either external or internal efficacy (Hayes & Bean, 1993). More recent studies have shown no significant relationship between gender and external efficacy (Karp & Banducci, 2008; Wolak, 2018) but a lower level of internal efficacy for women than men (Fraile & de Miguel Moyer, 2022; Wolak, 2018). In general, the literature suggests that women have lower levels of political efficacy than men, particularly for internal efficacy, with the potential that this association has changed over time.

Education: For external efficacy, prior research suggests a consistent positive association with education (Karp & Banducci, 2008; Wolak, 2018). Findings in the literature are less consistent for internal efficacy, with some studies (e.g., Hayes & Bean, 1993) finding no significant relationship with education, while others (e.g., Karp & Banducci, 2008; Wolak, 2018) report a positive significant relationship. In general, prior research indicates a positive relationship between political efficacy and education.

Income: Prominent studies on the determinants of political efficacy have not consistently included income measures in their analyses (e.g., Karp & Banducci, 2008; Wolak, 2018). The most comprehensive study we are aware of on the connection between political efficacy and income measures placed a theoretical focus on external efficacy and found a strong and stable positive association over time (Rennwald & Pontusson, 2022). The literature, therefore, informs an expectation of a positive association between efficacy and income.

Taken together, this review of the literature focused on individual-level expectations informs three hypotheses about the association between political efficacy and key socio-demographic characteristics:

- H1. Women have lower levels of political efficacy than men, particularly for internal efficacy.
- H2. Education is positively associated with political efficacy.
- H3. Income is positively associated with political efficacy.

Empirical evidence from different contexts and time periods indicates that levels of political efficacy may have shifted over time for certain socio-demographic groups, particularly for women. Thus, a systematic longitudinal investigation of these associations is necessary. Research on longitudinal trends in political efficacy in the literature has focused primarily on the United States based on the American National Election Studies (ANES) time trend series from 1952 to the present. This research has indicated a long-term decline in political efficacy in the United States—particularly external efficacy—that has often been interpreted as a secular trend that is potentially generalizable to other contexts (Abramson & Aldrich, 1982; Chamberlain, 2012). However, for the observation period for which systematic cross-national data are available in the current study (1996–2016), ANES (2023) data suggest relative stability in levels of both external and internal efficacy. Due to the lack of robust cross-national literature on this topic, our analysis of longitudinal trends is primarily exploratory, with the intention of establishing baseline findings to inform future research.

Context-level Hypothesis

We complement our focus on individual-level hypotheses with an investigation of whether contextual measures of objective representation are systematically associated with the political efficacy of distinctive social groups. As detailed below, our contextual analysis leverages the best comprehensive data currently available on objective representation measures, which allows us to investigate the impact of descriptive representation for gender. Specifically, we investigate whether the degree of female representation in parliament is related to women's levels of political efficacy in a given context. The only prior research we are aware of that has conducted similar analyses are studies that used data on the United States to analyze state-level descriptive representation. [Atkeson and Carrillo \(2007\)](#) found a positive effect of female descriptive representation on external efficacy (using internal efficacy as a control variable); and [Wolak \(2018\)](#) found a positive effect on internal efficacy, but no effect on external efficacy. As it is feasible that women's external and internal efficacy would both be higher in contexts with greater female representation, this is the logic we use in articulating our hypothesis on descriptive representation for gender.

H4. A higher degree of female representation in parliament increases women's levels of political efficacy.

Data and Methods

We test our expectations by conducting a cross-national and longitudinal investigation using individual-level data from the [ISSP \(2023\)](#).¹ The analysis uses ISSP data for every module that includes consistent measures of political efficacy: 1996, 2004, 2006, 2014, and 2016 ($n > 200,000$).² The statement on *external efficacy* notes: "People like me don't have any say about what the government does." The statement measuring *internal efficacy* notes: "I feel that I have a pretty good understanding of the important political issues facing our country." We coded the efficacy variables so that a low score (1) indicates low efficacy and a high score (5) indicates high efficacy. These five-point scales for external and internal efficacy are the dependent variables of our analyses.

These ISSP measures of external and internal efficacy are classic indicators in the literature, dating back to the American National Election Study's (ANES) first survey of these topics in 1952, and have been validated in subsequent studies ([Acock & Clarke, 1990](#); [Acock, Clarke, & Stewart, 1985](#); [Craig, Niemi, & Silver, 1990](#); [Niemi, Craig, & Mattei, 1991](#)). As the optimal multi-indicator measurements of political efficacy are still subject to debate ([Chamberlain, 2012](#); [Morrell, 2003](#)), the ISSP single-item measures have the advantage of conceptual and analytical clarity ([Allen, Iliescu, & Greiff, 2022](#)). Distinct from more recently developed, innovative measures of efficacy—such as [Esaïsson, Kölln, and Turper \(2015\)](#) measure of the perceived responsiveness of targeted

¹ See [Supplemental Data](#) for the online Appendix, which includes additional information on data and supplementary analyses. Replication files including data and code for producing all findings presented in the article and Appendix are available at the Open Science Framework <<https://doi.org/10.17605/OSF.IO/YBZP2>>.

² Years indicate the ISSP module name, and the fieldwork date ranges for some country-modules extend beyond the calendar year of the ISSP module name (see [Appendix A](#) for documentation).

actors—our theoretical focus is on generalized measures that relate to affectively charged beliefs. An important advantage of using these indicators for conducting a robust cross-national and longitudinal analysis is that the ISSP's political efficacy survey questions are identical for the 1996–2016 dataset and 46 countries in the study, allowing us to conduct the most comprehensive investigation to date of the socio-demographic correlates of political efficacy.

As noted, our main focus in the current study is on the association between political efficacy and the three key individual-level socio-demographic correlates that have received the most attention in research on objective representation, namely gender ([Reher 2018](#); [Wolak 2018](#)), education ([Elsässer, Hense, & Schäfer, 2021](#); [Hakhverdian, 2015](#); [Rosset & Stecker, 2019](#); [Schakel & Van der Pas, 2021](#)), and income ([Elkjær & Klitgaard, in press](#); [Giger, Rosset, & Bernauer, 2012](#); [Lupu & Warner, 2022a, 2022b](#); [Traber, Hänni, Giger, & Breunig, 2022](#)). Furthermore, these are also the three socio-demographic indicators for which consistent measures are available in the ISSP data for these characteristics across countries and over time. Additional socio-demographic characteristics are also worthy of theoretical and empirical attention on this topic, such as race and ethnicity ([Sobolewska, McKee, & Campbell, 2018](#); [Wolak, 2018](#)), disability ([Reher, 2020, 2022](#)), and sexual identity ([Magni & Reynolds, 2021](#)). Empirical analysis of these characteristics is not possible using ISSP data, however, as the survey does not include consistent questions on these topics.

We complement this individual-level analysis with an assessment of whether individuals' levels of political efficacy are also systematically related to objective measures of representation at the contextual level. While the ISSP data are an optimal data source for consistent and high-quality measures of political efficacy across contexts and over time, there are limited relevant available data for assessing the relationship between political efficacy and objective measures of representation. A comprehensive analysis of the correlation between efficacy measures and substantive representation is not possible, as the ISSP lacks consistent measures of individual-level ideology or policy preferences. Assessment of the correlation between efficacy measures and descriptive representation is feasible for one of our key socio-demographic measures, namely gender, as detailed below in our documentation of the context-level analyses.

Individual-level Data and Methods

The pooled mean of external efficacy is 2.70 (SD = 1.30) and of internal efficacy is 3.30 (SD = 1.08). These average levels of political efficacy are relatively close to the scale's midpoint, and internal efficacy is somewhat higher than external efficacy, which is consistent with the literature (e.g., [Wolak, 2018](#)). The correlation between the pooled means of external and internal efficacy measures are relatively low (gamma correlation = 0.10), which is also consistent with prior findings (e.g., [Balch, 1974](#); [Craig & Maggionto, 1982](#); [Wolak, 2018](#)), and supports our analytical approach of treating these two indicators as separate dependent variables. Consistent with trends in U.S. data for this time span ([ANES 2023](#)), mean levels of both external and internal efficacy are relatively stable over the observation period (see [Appendix C](#) for pooled and country-specific mean trend figures).

In terms of socio-demographics, the ISSP questionnaire includes standard questions about gender (0 = male, 1 =

female; $M = 0.53$, $SD = 0.50$), age (continuous years, $M = 47.14$, $SD = 17.23$), and education (schooling years, 0–21; $M = 11.94$, $SD = 3.83$). For income, we follow recent research (cf. Armingeon & Weisstanner, 2022; Donnelly & Pop-Elches, 2018) to create a cross-nationally comparable standardized variable ($M = 0$; $SD = 1$). To provide an example of the substantive impact of a one-unit shift in income using this measure, the mean income in the United States for Module 5 is \$58,546.66, and one standard deviation is \$38,753.63. See Appendix D for question wording of the education and income variables, and additional information on the values corresponding to income quantities of interest in selected countries.

For the individual-level regression analyses, we estimate linear regressions with fixed effects for country and module, with standard errors clustered by country and module. We first run separate bivariate models for each efficacy-socio-demographic measure combination of gender, education, and income. By estimating the bivariate regression models, we aim to capture the full effect of the socio-demographic indicators on political efficacy. If women are on average less highly educated or have a lower income, for example, controlling for education and income might bias downward the gender gap in political efficacy. We then estimate two full models (one for each type of efficacy) that include all three socio-demographic variables. We include age as a control variable, in line with prior research (Karp & Banducci, 2008; Verba, Scholzman, & Brady, 1995; Wolak, 2018). The observational nature of our research design means that we cannot infer causality. While it is plausible to infer that individuals' education and income levels precede their sense of political efficacy, the opposite causal direction is also possible. We apply ISSP national weights (design or post-stratification weights) when available, as well as weights that adjust for country sample size. To assess longitudinal trends in the correlates of efficacy, we include interactions between survey modules and the three key socio-demographic characteristics.

Multilevel Data and Methods

To test our hypothesis on the relation between female representation in parliament and women's levels of political efficacy, we use data on the percentage of female MPs for the relevant country years in the lower (or unicameral) chamber of the legislature, as compiled by the Varieties of Democracy (V-Dem) project (Coppedge et al., 2021). This type of multilevel analysis requires the inclusion of relevant contextual factors in the model as control variables. For this purpose, the multilevel regression analyses include control variables that take into account the contextual electoral system, the level of economic inequality in the country, and contextual measures of economic activity.

We merged these context-level control variables from various sources with the ISSP individual-level data. Specifically, for *electoral system*, we use a categorical measure from the V-Dem project of whether the electoral system for the lower or unicameral chamber of the legislature is majoritarian, proportional, or mixed (Coppedge et al., 2021). We also conducted a robustness test that replaced this categorical electoral system variable with a measure of district magnitude, also measured by V-Dem, and the findings are substantively similar (see Appendix H). To measure *economic inequality*, we use the Gini index of inequality in equivalized household income using the Standardized World Income Inequality Database

(Solt, 2020). Finally, as a measure of *economic activity*, we use Gross Domestic Product (GDP) as measured by the World Bank in current U.S. dollars (The World Bank, 2021). Additional detail on these aggregate-level data is provided in Appendix J ("Descriptive Statistics and Data Sources").

To properly take into account the nested structure of the data in our analysis, we estimate multilevel linear regressions in which individuals (Level 1) are nested within studies conducted in specific country years (Level 2), which are nested within countries (Level 3). While not a causal analysis, this multilevel approach allows us to directly test whether the context of underrepresentation is associated with political efficacy. We use this three-level modeling approach because observations are not independent within each study, and studies are not independent from other studies conducted in the same country. In this multilevel data structure, in addition to individual-level measures (e.g., gender, education), we also add controls for context-level variables, documented by country-year (e.g., percent of female MPs, GDP). We take time-based heterogeneity into account in several ways. First, the percentage of female MPs in the V-Dem data is an indicator that varies over time. Second, we specify the multilevel analysis to acknowledge that individuals are nested in specific ISSP country-year studies (Level 2 of the three levels of the multilevel analysis). And third, we control for a specific year of data gathering.

Currently, gender is the only socio-demographic characteristic of those investigated here for which comprehensive data are available for an analysis of the role of descriptive (under)-representation. However, two new major data construction efforts are underway to gather systematic socio-demographic data on political leaders. Specifically, Gerring, Oncel, Morrison, and Pemstein (2019) Global Leadership Project has collected data on a variety of types of political leaders, with a first round of data collection in 2010–2013, and a second round in 2017–2018. Although the currently available data from this project do not offer a large enough sample size to permit valid estimation with our dataset, it will be important to assess whether this project's future data releases can be used to obtain valid results. A separate data collection effort, the Global Legislators Database, focuses on the socio-demographic characteristics of legislators (Carnes et al., 2022; Carnes & Lupu, in press). Although the dataset produced by this project is not yet publicly available, analyses based on data derived from legislators who served during one legislative session in 2016 and 2017 (Carnes et al., 2022) show the potential to use these data to break new ground in future research on descriptive representation.

Results

Individual-level Findings

Table 1 shows OLS estimates for external efficacy to the left and internal efficacy to the right. For each dependent variable, we show the results of models that focus on one main socio-demographic indicator at a time before presenting the estimates of a model that includes all socio-demographic indicators. Beginning with external efficacy, the findings for gender show a marginally significant and substantively small gender gap for the bivariate association, but this relationship is not significant in the full model. Those with more education and income report higher external efficacy. Specifically, and focusing on the full model, one year of formal education

Table 1. Socio-demographic Characteristics and Political Efficacy

	DV: External efficacy				DV: Internal efficacy			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Female	-0.044*			-0.014	-0.295***			-0.277***
	(0.015)			(0.013)	(0.021)			(0.020)
Education		0.055**		0.048**		0.043***		0.051***
		(0.007)		(0.007)		(0.003)		(0.003)
Income			0.152***	0.090***			0.114***	0.071***
			(0.012)	(0.009)			(0.011)	(0.008)
Age				-0.001				0.009***
				(0.001)				(0.001)
Constant	2.482***	1.921***	2.479***	2.053***	3.298***	2.702***	3.109***	2.399***
	(0.069)	(0.108)	(0.070)	(0.105)	(0.022)	(0.040)	(0.023)	(0.046)
Country F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Module F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	211,508	196,008	170,135	157,140	207,052	191,939	166,907	154,168

Note. Entries correspond to estimates from linear regressions with country and module fixed effects. Clustered standard errors by country and module in parentheses. Ordered logit specification yields the same substantive results (see Appendix E). Significance levels: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

is associated with a .048 point increase in external efficacy, while an increase of one unit in income yields a .090 point increase in external efficacy.

For internal efficacy, the gender findings differ from those observed for external efficacy. Women, on average, report a significantly lower level (-.277) of internal efficacy than men. In contrast, the results for education and income are similar to those for external efficacy, as both measures are positively and substantively associated with internal efficacy. The coefficients of the full model suggest that one additional year of education is associated with a .051 increase in internal efficacy, while a one-unit increase in income is associated with a .071 increase in internal efficacy.

Taken together, these findings show that those with more education and income clearly have higher external and internal efficacy in comparison to those who have less education and income. For gender, the findings show no gender gap for external efficacy, but for internal efficacy, women report substantially lower levels than men. Figure 1 visualizes these effects by plotting predicted levels of external (left) and internal (right) efficacy by respondents' sex, and based on their education and income.

Further, the predicted levels of efficacy based on all three socio-demographic characteristics together show a clear difference between the more privileged group (men with education and income one standard deviation above the mean), with external and internal efficacy values of 2.97 and 3.72, respectively, compared to the less privileged group (women with education and income one standard deviation below the mean), with external and internal efficacy values of 2.40 and 3.91, respectively.³

To assess the cross-national generalizability of these findings, we estimate six separate linear regressions for each country: one for each combination of socio-demographic

indicator-efficacy type combination (see Appendix F for average marginal effects plots). These country-specific analyses support our conclusions based on the pooled sample. In particular, women have significantly lower levels of internal efficacy than men, while those with less education and income report significantly lower external and internal efficacy than higher-status individuals. From these analyses, we conclude that the observed associations between citizens' socio-demographic characteristics and political efficacy are relatively consistent across countries.

We assess longitudinal patterns of the individual-level findings by using country-module interaction terms. Similar to the mean values for political efficacy over time (cf. Appendix C), the average marginal effects plots in Figure 2 show over-time stability in the magnitude of the association between the three socio-demographic characteristics and the efficacy measures taking confidence intervals into account. While the results indicate that the magnitude of the association between education and external efficacy decreased meaningfully in the most recent module, further research is needed as data become available to assess whether this data point is part of a longitudinal trend. Taken together, these findings indicate that gaps in political efficacy related to socio-demographic characteristics have remained stable between 1996 and 2016.

Multilevel Findings

As noted, the multilevel models in Table 2 take into account the nested structure of the data by estimating linear regressions in which individuals (Level 1) are nested within country-year studies (Level 2), which are nested within countries (Level 3). To test the hypothesis of descriptive representation by female gender, we then interact the percentage of female MPs with the demographic variable of the percentage of women in the population for external efficacy (Model 2) and for internal efficacy (Model 4). The hypothesis tested by these models is that a higher degree of female representation in parliament increases women's levels of political efficacy (H4).

The findings in Table 2 show that this hypothesis is supported for external efficacy but not for internal efficacy.

³ We computed these predicted levels of efficacy using the 'margins' command in Stata. Specifically, following the fully specified regression analyses reported in Table 1 (Models 4 and 8), we predict levels of external and internal efficacy by setting the socio-demographic characteristics to high-status values for each independent variable, and then to low-status values. See the replication file in the Open Science Framework for further detail <<https://doi.org/10.17605/OSF.IO/YBZP2>>.

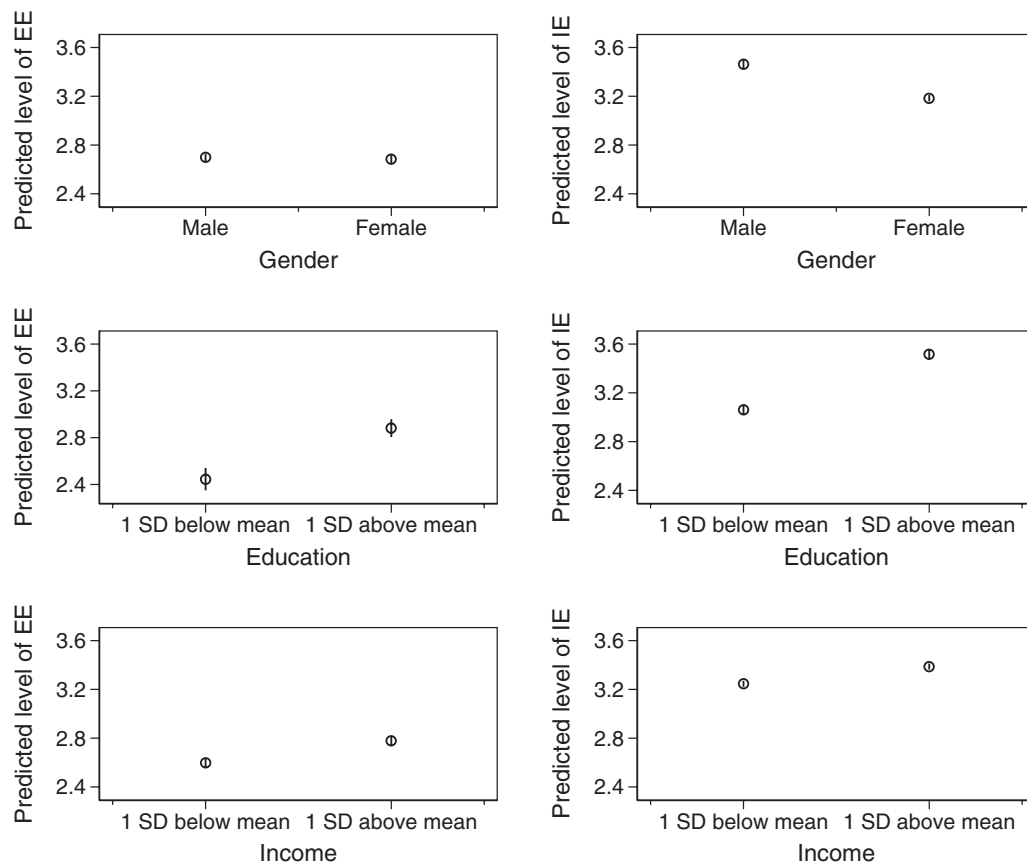


Figure 1. Socio-demographic characteristics and predicted levels of political efficacy. External Efficacy Internal Efficacy. *Note.* Predicted efficacy levels based on model results are presented in Table 1. Spikes indicate 95% confidence intervals.

Specifically, a higher degree of female representation in parliament increases women's levels of external efficacy but is not significantly associated with their levels of internal efficacy. Figure 3 plots the average marginal effects of the cross-level interaction term on external efficacy.

The average marginal effects plot in Figure 3 clarifies that although there is no overall gender gap in external efficacy (Table 1, Model 4), this finding is conditional on female representation in parliament in respondents' national contexts. That is, while women are less likely to feel that they have a say in political decisions when their political context is dominated by men, our findings show that women are just as likely as men to believe that they have a say in contexts that have a higher proportion of female representation in parliament. Taken together, this evidence indicates that women feel that they have more of a say in governmental decisions in contexts with a high level of female representation among elected representatives.

Discussion

In this study, we asked and answered the question: 'Who feels they can understand and have an impact on political processes?' at a moment when there is much new evidence of unequal representation across social groups in objective measures of substantive and descriptive representation. We contribute to this line of research by assessing whether findings of unequal representation based on objective measures are consistent with individuals' subjective perceptions of their own political efficacy. In addition, we complement our

investigation of individual-level associations between political efficacy and key socio-demographic characteristics (i.e., gender, education, and income) with a contextual analysis of the relation between the degree of female representation in parliament and women's levels of political efficacy.

Our individual-level findings show that individuals with less education and income report lower external and internal efficacy than their higher-status counterparts. For gender, the findings show no gender gap for external efficacy, while women consistently report lower internal efficacy than men. These results apply across a diverse range of countries and are persistent over time. Socio-demographic groups that are disadvantaged in terms of objective measures of political representation, thus, appear to be keenly aware of this, as reflected in their relatively low efficacy levels.

The multilevel findings show that a higher degree of female representation in parliament is associated with increased levels of external efficacy for women. While not a causal analysis, these results directly support the proposition that the context of objective (under)-representation for the specific topic of descriptive representation by gender is systematically related to political efficacy. These findings raise a specific question for next-step research on the distinction between external and internal efficacy in relation to descriptive representation. Notably, our results are consistent with Atkeson and Carrillo's (2007) findings on state-level research in the United States of an effect of female descriptive representation on external efficacy, but our findings differ from Wolak's (2018) state-level research in the United States which showed an effect on internal but not external efficacy. An important area

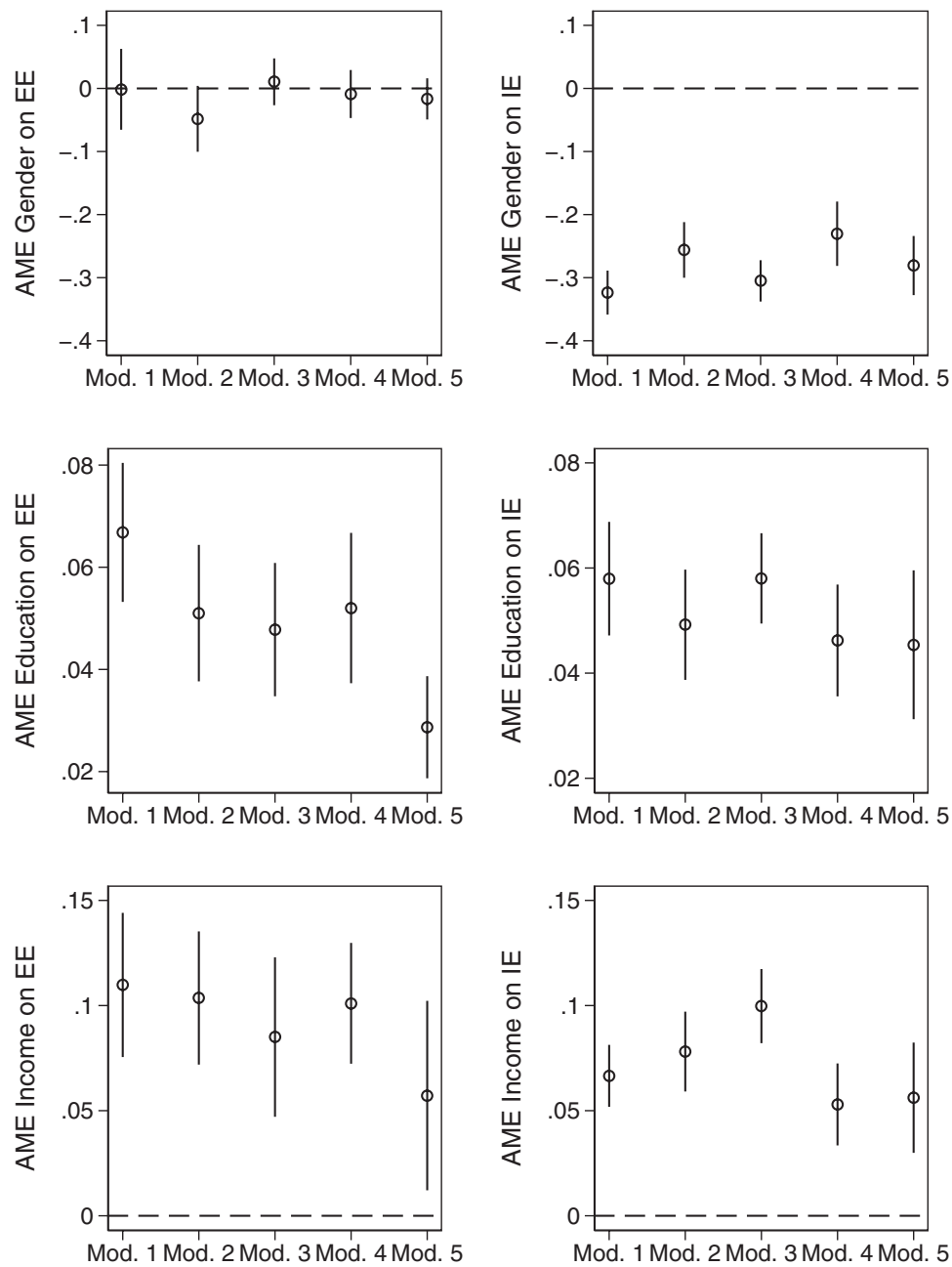


Figure 2. Political efficacy marginal effects over time for gender, education, and income. External Efficacy Internal Efficacy. *Note.* Plots display the average marginal effects (AMEs) of the relationship between the three key socio-demographic characteristics (gender, education, and income) and external/internal political efficacy with module interactions. The results exclude information from surveys that overlap temporally with surveys from other modules ($n = 4$; for details see [Appendix B](#)).

of future research will be to assess whether local/regional versus national descriptive representation may have differential effects on individuals' sense of whether they can understand or have an impact on political processes. These results also point to the importance of continuing to advance research on the connection between political efficacy and descriptive representation on additional socio-demographic characteristics (e.g., education and income-related measures) as new data become available.

Building on the current study's contributions, a fruitful direction for future research is to investigate alternate possible reasons for the associations we find between political efficacy and socio-demographic characteristics, beyond the

context of underrepresentation. In addition to focusing on the nature of laws that are passed, one could also investigate the impact of greater marginalization of lower-status groups, greater difficulties in daily life, and fewer financial and social resources. Extending our focus on gender, for example, one could make use of indicators of societal gender equality, such as the Gender Equality Index that is produced by the European Institute for Gender Equality ([EIGE, 2023](#)). In supplementary analyses, we explored the impact of this indicator on gender gaps in political efficacy. The results are in line with expectations, indicating a smaller gender gap in contexts of higher gender equality (see [Appendix I](#)). However, estimates based on currently available data are uncertain given the sparseness

Table 2. Cross-level Interactions: Descriptive Representation by Gender

	DV: External efficacy		DV: Internal efficacy	
	(1)	(2)	(3)	(4)
Female gender	-0.082*** (0.019)	-0.084*** (0.019)	-0.309*** (0.023)	-0.311*** (0.023)
% Female MPs	-0.011* (0.005)	-0.008 (0.005)	0.002 (0.003)	0.004 (0.003)
Female gender x % Female MPs	0.003*** (0.001)	0.003*** (0.001)	0.001 (0.001)	0.001 (0.001)
Age	-0.001*** (0.000)	-0.001*** (0.000)	0.009*** (0.000)	0.009*** (0.000)
Education	0.046*** (0.001)	0.047*** (0.001)	0.051*** (0.001)	0.050*** (0.001)
Income	0.088*** (0.003)	0.090*** (0.003)	0.071*** (0.003)	0.071*** (0.003)
Year	0.009* (0.004)	0.005 (0.005)	-0.001 (0.002)	-0.002 (0.002)
Electoral system, Proportional		-0.054 (0.252)		-0.104 (0.132)
Electoral system, Mixed		0.202 (0.255)		-0.111 (0.134)
Gini		0.007 (0.009)		0.005 (0.004)
GDP		0.086* (0.043)		0.016 (0.023)
N	157,140	150,879	154,168	147,944

Note. Entries correspond to estimates from multilevel linear regressions in which individuals (Level 1) are nested within studies conducted in specific country years (Level 2), which are nested within countries (Level 3). Reference category for electoral system: majoritarian. Significance levels: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

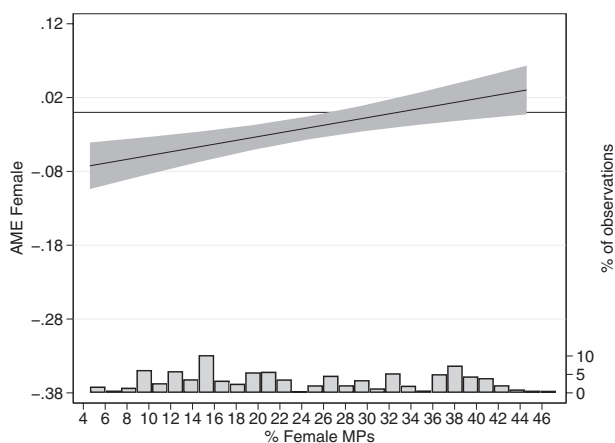


Figure 3. Descriptive representation of women and external efficacy. Note. Average marginal effects of the interaction term in Table 2, Model 2.

of the dataset. As the first year of available EIGE data is 2013, we expect researchers to be able to use these data in the coming years to obtain valid results on the connection between objective measures of gender equality and political efficacy.

Returning to our opening discussion of democratic political theory, the persistence of these socio-demographic-based gaps is clearly suboptimal in relation to the democratic ideal

of governance in which individuals are considered political equals (Dahl, 1971, p. 1). Until recently, the conventional wisdom in the study of political efficacy—based primarily on analyses of U.S. data—has been that political efficacy is an intrinsically personal characteristic (e.g., Easton & Dennis, 1967; Iyengar, 1980) and aggregate-level analyses show no relation between political efficacy and contextual factors (Chamberlain, 2012). However, recent comparative analysis of a survey conducted in the U.S. states in 2014 by Wolak (2018) provides new evidence of a variety of contextual factors that affect individuals’ external and internal efficacy. We also find some evidence of variation between national contexts. The current study’s contributions, therefore, lay the foundation for future cross-national research on how contextual factors influence citizens’ capacity in Dahl’s (1971) terms to consider themselves as political equals.

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Conflict of interests

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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Supplementary Data

Supplementary data are available at *International Journal of Public Opinion Research* online. Replication files are available at the Open Science Framework, <https://doi.org/10.17605/OSF.IO/YBZP2>.

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