

## WHO BECOMES A POLITICIAN?\*

ERNESTO DAL BÓ

FREDERICO FINAN

OLLE FOLKE

TORSTEN PERSSON

JOHANNA RICKNE

Can a democracy attract competent leaders, while attaining broad representation? Economic models suggest that free-riding incentives and lower opportunity costs give the less competent a comparative advantage at entering political life. Moreover, if elites have more human capital, selecting on competence may lead to uneven representation. This article examines patterns of political selection among the universe of municipal politicians and national legislators in Sweden, using extraordinarily rich data on competence traits and social background for the entire population. We document four new facts that together characterize an “inclusive meritocracy.” First, politicians are on average significantly smarter and better leaders than the population they represent. Second, this positive selection is present even when conditioning on family (and hence social) background, suggesting that individual competence is key for selection. Third, the representation of social background, whether measured by parental earnings or occupational social class, is remarkably even. Fourth, there is at best a weak trade-off in selection between competence and social representation, mainly due to strong positive selection of politicians of low (parental) socioeconomic status. A broad implication of these facts is that it is possible for democracy to generate competent and socially representative leadership. *JEL* Codes: H1, H70, J45, P16.

### I. INTRODUCTION

The identity of politicians influences which policies get selected, how well they are implemented, and who benefits from

\*We thank the editors, Andrei Shleifer and Larry Katz, three anonymous referees, and participants in numerous seminars and conferences for their helpful comments. We thank Yosh Halberstam, Richard Öhrvall, Daniele Paserman, Mikael Persson, Martín Rossi, and Juan Vargas for their discussions of the article and gratefully acknowledge financial support from the Torsten Söderberg Foundation and the Swedish Research Council. Jonas Allerup, Johan Arntyr, Sirus Dehdari, Johannes Hermle, Roza Khoban, and Elin Molin provided excellent research assistance.

© The Author(s) 2017. Published by Oxford University Press on behalf of the President and Fellows of Harvard College. All rights reserved. For Permissions, please email: [journals.permissions@oup.com](mailto:journals.permissions@oup.com)

*The Quarterly Journal of Economics* (2017), 1877–1914. doi:10.1093/qje/qjx016.  
Advance Access publication on June 1, 2017.

them.<sup>1</sup> This is indisputable for autocracies where rulers face few constraints. But it is also true for representative democracies, as policy platforms do not constitute complete enforceable contracts. Most voters would therefore like to elect highly able policy makers who can choose and efficiently implement policies to attain a given objective (throughout, we use “able” and “competent” interchangeably). As a collective, voters may also want to elect policy makers who represent diverse interests, so that government will pursue broad objectives.

Whether representative democracy can deliver both high-ability politicians and broad representation is unclear. Visibly inept leaders are elected around the world. Moreover, economic models of politics hold that lower opportunity costs give the less able a comparative advantage at entering public life (Caselli and Morelli 2004) and that this effect may be compounded by free-riding incentives (Messner and Polborn 2004; see also Olson 1965). But even if it is possible to select competent politicians, doing so may make it harder to ensure broad representation when competence is unequally distributed. Related to this, a number of scholars have argued that electoral systems shape the trade-off between accountability—a driver of selection—and representation.<sup>2</sup>

To better understand political selection, and the potential trade-offs it entails, we need to thoroughly describe selection patterns and analyze their determinants. Unfortunately, insufficient data have made it difficult to carry out these tasks.

### *I.A. Three Data Limitations*

First, any study of political selection should account for candidate entry and screening by voters or parties. To study candidate screening, one needs information on both elected and nonelected politicians. While information on the former is sometimes available, information on the latter is remarkably sparse. A few studies have tried to tackle this limitation to advance our knowledge of

1. See, for example, Osborne and Slivinski (1996), Besley and Coate (1997), Pande (2003), Chattopadhyay and Duflo (2004), Jones and Olken (2005), Washington (2008), Besley, Montalvo, and Reynal-Querol (2011), Meyerson (2014).

2. A common idea is that plurality rule fosters better accountability, while proportional representation fosters better representation (Myerson 1993; Powell 2000; Taagepera and Shugart 2000; Persson and Tabellini 2003).

candidate selection.<sup>3</sup> Unfortunately, this literature does not address candidate entry, which requires information on those who never attempted to enter into politics.

Second, the relevant theory stresses the quality of selected politicians. But how to measure quality? Absent direct data on the underlying intelligence or personality of politicians, the existing empirical literature has relied on education or pre-office income (Bäck and Öhrvall 2004; Dal Bó, Dal Bó, and Snyder 2009; Ferraz and Finan 2009; Merlo et al. 2010; Galasso and Nannicini 2011; Besley and Reynal-Querol 2011; Gagliarducci and Paserman 2012). While correlated with ability, these proxies also likely reflect luck or social class.

Third, representation is hard to measure. Previous work has relied on measures like occupation. However, occupation is coarse: many politicians may be lawyers, but if values and loyalties depend on social background, one would like to know if they were brought up as elite or working class. This requires difficult-to-obtain intergenerational information.

In sum, we know of no research that analyzes selection based on a comprehensive bundle of traits that accurately reflect the ability and representativeness of politicians.

### *I.B. Sweden as a Test Bed*

Our study overcomes these limitations by using fine-grained administrative data from Sweden. Clearly, conclusions based on evidence from a single country cannot be extrapolated to the rest of the world, though we take a (very limited) step toward comparisons by studying different Swedish jurisdictions. But Sweden is of interest for its commonalities and differences with other countries. Its politics is based on proportional-representation elections, the most common form in the world. Sweden is also a quintessential advanced democracy. It has remained stable and fully democratic with a top score on the 20-step Polity-IV scale since 1917, a full century during which other states gradually moved toward democracy. Sweden is thus an institutional exemplar many countries around the world may be approaching. When debating the value of democracy it is natural to ask if a democratic transition can improve the ability and representativeness of leaders. If Sweden

3. Examples include Besley, Pande, and Rao (2005), Ferraz and Finan (2009), Galasso and Nannicini (2011), Beath et al. (2014), Tillmann (2014), Jia, Kudamatsu, and Seim (2015), and Folke and Rickne (2016).

displayed incompetent and unrepresentative leaders, advocates of democratization may have to resort to different arguments.

### *I.C. Data*

Our data allow us to undertake the most thorough description to date of basic political selection patterns based on rich measures of individual ability and social background. The ability measures include evaluations of IQ and leadership potential for the 1951–1980 cohorts, done by the military on all males, and an estimate of individual earning capacity for the whole population stemming from a fully saturated Mincer regression developed by [Besley et al. \(2016\)](#). Our social-background data entail reliable intergenerational information, namely, social class as reflected in parental incomes and occupations (a traditional approach in sociology).

We study not only national members of parliament (MPs) but also politicians in municipalities—which provide the bulk of public services—to take advantage of large numbers and within-country variation.

### *I.D. Positive Selection?*

We uncover new statistics on political selection for Sweden as a whole. Standard models of occupational choice predict adverse selection: able people with higher private incomes and more promising careers face a higher cost to enter public life. Nevertheless, we document strong positive selection along all ability measures even though politicians have substantially higher pre-office incomes—hence, higher opportunity costs—than the general population. Selection monotonically improves from those nominated (but not elected) to municipal council, to rank-and-file elected municipal council members, to mayors, and finally to MPs. Mayors and MPs are as positively selected as members of elite occupations in the private and public sectors.

### *I.E. Elitism versus Meritocracy?*

In a world where ability correlates positively with socioeconomic status, the strong positive selection we document could reflect very different regimes. One possibility, “elitism,” is that rich families have privileged access to political power. Then, selection based on privilege will yield an accidentally competent political class. Another possibility, “exclusive meritocracy,” is that politics

selects the competent, which makes the political class (accidentally) elitist. The third possibility, “inclusive meritocracy,” is that politics selects competent politicians broadly representative of all social backgrounds.

To determine which one of these regimes prevails, we ask whether political selection is driven mostly by social origin or by individual traits. Politicians turn out to be positively selected, not only relative to the population, but also relative to their own siblings who share their social background. This strong role for individual ability rules out the pure elitist regime. To discriminate between different meritocracies, we examine the social origin of politicians. Although politicians themselves are disproportionately high-earning, their parents’ social class and earnings approximate a perfect replica of the entire population. This pattern does not look accidental: different political parties represent different segments of the income distribution in a way that reflects their policy stance.

#### *I.F. How Is Inclusive Meritocracy Achieved?*

Swedish politics attracts competent people who are not restricted to the scions of elite families. Two facts could conspire against this outcome. First, competence correlates positively with social class, so one should expect a trade-off between competence and broad representation. Second, politicians have high pre-office earnings and the higher opportunity costs should push toward adverse selection on competence. How can inclusive meritocracy emerge? We answer this question in two ways. First, although ability rises with socioeconomic status on average, politicians remain highly able when recruited from low socioeconomic backgrounds. In fact, relative to their own social class, politicians from lower social backgrounds are even more strongly selected than politicians from higher social backgrounds. This mitigates the trade-off between competence and representation. Second, an analysis of party screening and individual incentives to self-select into politics yields some suggestive take-aways. Parties appear to screen positively, promoting more competent individuals to higher ranks regardless of their social class. In addition, pecuniary considerations appear to matter for self-selection decisions, but a combination of strong intrinsic motivation and high wages for full-time positions preserves the incentives of able individuals to enter politics.

### *I.G. Organization of the Article*

In the next section, we offer background information on the Swedish political system. [Section III](#) describes our data and their sources. In [Section IV](#), we present results on political selection in terms of competence. In [Section V](#), we explore the social background of politicians and characterize Swedish politics as an inclusive meritocracy where selection on competence goes together with broad social representation. [Section VI](#) briefly discusses the drivers of inclusive meritocracy, how competence and inclusivity go together, and forces shaping selection such as individual incentives and party screening. [Section VII](#) concludes. Auxiliary material is collected in the [Online Appendix](#).

## II. BACKGROUND

### *II.A. Sweden's Electoral System*

Sweden has three administrative levels of government. Every four years (three years prior to 1994), elections are run for 290 municipalities, 20 counties, and the nation. All elections take place on the same day with a turnout between 80% and 90%. In each election, citizens cast a separate party ballot, a ranked list with a large number of candidates. This system elects a total of 349 MPs, 1,100 county-council members, and 13,000 municipal-council members. Our article is focused on the first and third groups.

In Sweden's proportional-representation (PR) system, seat shares in the municipal councils and the national parliament closely trace the vote shares of political parties. Until 1998, seats for each party were allocated from the top of the ballot. Since 1998, voters can also cast an optional preference vote for one candidate. But this reform has only allowed a handful of politicians from lower ranks to bypass the party's list order and win a seat.<sup>4</sup>

Based on the distribution of council or parliament seats, a ruling majority (or minority) is formed. These often form within the left bloc (Social Democrats, Left Party, and Green Party) or the center-right bloc (Conservatives, Center Party, Liberal Party,

4. This reflects voter "abstention" from the optional vote, a concentration of votes for candidates at the top of the ballot, and high thresholds. See [Folke, Persson, and Rickne \(2016\)](#) for a thorough analysis of the preference-vote system and its consequences.

and Christian Democrats). Occasionally, the largest local party in a municipality wins more than half of the seats and rules on its own. In our time period, two anti-immigration parties (New Democracy in the 1990s and Sweden Democrats in the 2000s) have also been represented, but these are rarely part of governing majorities. Local parties (running only in one municipality) also exist, but usually hold less than 5% of the seats.

### *II.B. MPs*

All members of the national parliament are full-time politicians, who spend much of their time in the parliament's various committees. The members are elected to office in 1 of 21 constituencies, where most of the members still have their residence. They are nominated on the constituency ballot of their political party, often after an earlier career in municipal politics. Among the parliamentarians elected in 2010, 72% had been elected to a municipal council for the same party at some point after 1982.

### *II.C. Municipal Governance*

The council is the only directly elected body in each municipality. It has a board—the local analog of the national cabinet—to which members are appointed by the governing coalition to mirror the seat distribution. The largest party in the coalition selects the chair: henceforth, the “mayor.” The political opposition usually appoints an executive as well, the “vice mayor.”

The mayor holds an important office: municipalities play a crucial role as service providers in the economy, spending about 25% of Sweden's GDP and employing 20% of its workforce. Municipal politicians are responsible for the areas of K–12 education, child care, elderly care, and local infrastructure, and finance these commitments through a local income tax of around 20%. Being a mayor (or a vice mayor) is thus commonly seen as a more influential and prestigious position than a common member of the national parliament, not only in the major cities of Sweden but also in mid-size municipalities.<sup>5</sup>

Ruling over the Swedish welfare state used to be a Social Democratic prerogative. But in the past few decades, political

5. This is often borne out by revealed preference in the choices by politicians. Zetterberg (1988) makes a general case, and specific instances have been reported, for example, in the mid-size municipalities of Falun (Sveriges Radio 2006), Landskrona (Helsingborgs Dagblad 2006), and Söderhamn (Hela Hälsningland 2010).

competition has grown substantially more intense. This can be illustrated by the changing proportion of left-bloc local governments over time: it increased from 31% in 1991 to 73% in 1998, only to fall back down to 59% in 2002 and 41% in 2006.

#### *II.D. Running for Local Office*

Depending on municipality size (from 2,558 to 780,817 inhabitants), local party members are divided into “clubs,” like the women’s and youth clubs. A citizen who enters politics becomes a party member and joins one or several clubs. All routes to office go through existing parties (short of forming a new party). Local parties compose their municipal electoral ballots without interference of the central party. A local political career may reach the top of the local party hierarchy—for the largest majority and minority parties, becoming mayor or vice mayor—or in a few cases a national parliamentary seat.

Sweden has a strong normative tradition of so-called leisure politicians, where local political service is a spare-time activity complementing one’s work in the regular labor market. Consequently, almost all elected council members receive only piece-rate compensation for time spent in meetings.<sup>6</sup> Previous research has also shown no indirect monetary gains to winning a seat in a municipal assembly (Lundqvist 2013). But the mayor is a full-time political employee, and in most municipalities the vice mayor also gets a part-time salary. The mayor’s wage, determined by the municipal council, is typically in the top 5% of the Swedish earnings distribution. Beyond this economic return, becoming a mayor is associated with high social status and substantial political power.

Monetary costs to running for local office are minimal. All candidates run on a party ballot, and campaign finance is mostly paid by tax money channeled to parties rather than candidates. Individual campaigns for preference votes are modest, with the vast majority spending less than US \$600 at the municipal level. Even these small costs are usually paid by the party or by outside donors, rather than by the individual (SOU 2007).

6. This part-time arrangement may at first seem odd to the reader. However, part-time political service is quite common throughout the world. For example, state legislators in a number of U.S. states only serve around half time on average with quite a modest compensation—see <http://www.ncsl.org/research/about-state-legislatures/full-and-part-time-legislatures.aspx>.



A qualitative literature on Swedish politics suggests that key motives to enter politics are intrinsic concerns with policy or a desire for social interaction in policy circles (Karlsson 2001). However, pecuniary concerns are also present, especially when experienced leisure politicians contemplate full-time appointments (Dahl 2011).

### *II.E. Voter Preferences and Selection*

Swedish citizens value a competent and socially representative political class. When asked about their party choice, voters have ranked politician competence among the top three reasons for the past few decades, along with ideology and issue voting (Statistics Sweden 2010). When asked about what social dimensions merit influential positions, voters rank gender first, closely followed by age, social group, and geographic area (Djerf-Pierre and Niklasson 2010).

As for representation, left-bloc parties traditionally represent blue-collar workers, while center-right parties represent white-collar workers. In a recent survey of newly elected politicians, 48% of Social Democrats saw themselves as working class and 42% as middle class. Among Conservatives, 5% saw themselves as working class, 42% as middle class, and the rest as upper class. Outside these two large parties, the Center party has traditionally represented farmers and people in rural areas. Within parties, social representation is advanced via strategies to increase representation of women, foreign-born, and the young (Freidenvall 2006).

## III. DATA

To characterize political selection, we assemble (to our knowledge) the most detailed and comprehensive data set to date. In this section we briefly summarize our sources, key variables, and sample definitions.

### *III.A. Sources*

Our empirical analysis is based on individual-level data from various sources. Our first data set contains all elected and non-elected individual candidates that ran for national or municipal political office during the period of 1982–2010, over 200,000 unique individuals. Prior to each election, each political party

must report its ordered list, with a personal identification code for each listed politician. These lists are kept by Statistics Sweden and, in some cases, regional electoral authorities. After each election, another record is created with a complete list of all elected politicians from each party. Altogether, our sample has roughly 50,000 elected individuals.

We link these data on politicians to several administrative registers from Statistics Sweden for the whole population (aged 16 and above). For most variables, our data hold annual records from 1979 to 2012 for the entire population, approximately 14 million unique men and women. These data contain detailed demographic and background information (e.g., age, sex, education level, and occupation), as well as earnings. Given this information, we can precisely characterize how the personal traits of politicians relate to those in the entire population.

We use the Multigenerational Register to identify siblings and parents. We use only biological parents and, because the data begin in 1979, we face a natural truncation. Nevertheless, for politicians elected after 2000, we observe the father's income in 1979 for 77% of the sample and the mother's income for 86% of the sample.

Various types of annual earnings for the entire population are available from the Swedish Tax Authority. We also have universal annual information about an individual's sector of employment for the whole period. However, occupation is only recorded on a yearly basis from 2003. To bridge this gap, we complement the occupation data with earlier information from censuses (done every five years).

Our last piece of individual-level data comes from the Swedish Defense Recruitment Agency. Military enlistment tests measure the mental capacities of Swedish men (see further below). Although a mandatory draft was instituted in 1901, full records are only kept for cohorts born 1951 and onward. For quality reasons, we also truncate the data for men born after 1980. For these 30 cohorts, enlistment rates were around 90%.

Electoral results are linked to our data set at the municipal level from records kept by the Swedish Electoral Agency. These give us the vote shares for every party in every election. Data on the party that appointed the mayor was obtained from Kfakta, a database collected by Leif Johansson (University of Lund).

### III.B. *The Enlistment Procedure*

The enlistment process for military service spans two days and evaluates a person's medical status, physical fitness, and cognitive abilities. About 75% of the men in our sample who took the test did so at 18, while about 25% took it at 19 (less than 0.5% were below 18 or above 19). Since enlistment generally occurs in the year of high-school graduation, test scores are not influenced by university training. Because tests were high-stakes—better results gave more rewarding military placements—data quality is considered high. Takers were not informed of their precise results.

We use two scores from the enlistment procedure—the cognitive score and the leadership score. Each of these is standardized on a scale from 1 to 9.

### III.C. *Cognitive Score*

Cognitive ability is scored from a written test, assessing ability in problem solving, induction capacity, and numerical, verbal, spatial, and technology comprehension (Ståhlberg-Carlstedt and Sköld 1981). Army expert Berit Carlstedt (2000) argues that the Swedish enlistment test is a good measure of general intelligence. This differentiates it from others, such as the U.S. Armed Forces Qualification Test, which focuses more on “crystallized” intelligence, that is, teachable skills. We can thus think of the cognitive score as an IQ score. The (stanine) scale is such that a 5 is reserved for the middle 20 percentiles of the test population, while 6, 7, and 8, are given to the next 17, 12, and 7 percentiles, and the top score of 9 to the uppermost 4 percentiles (scoring below 5 is symmetric).<sup>7</sup>

### III.D. *Leadership Score*

Individuals who score a 5 or higher on the cognitive test go through an in-depth evaluation for a possible military leadership position. Trained psychologists administer a semi-structured interview to determine a 1–9 leadership score. Before the interview, the psychologist sees information about the conscript's cognitive test, physical endurance, muscular strength, school grades, and the answers to 70–80 questions about friends, family, hobbies, and

7. In terms of standard deviations, scores translate as follows 1: below  $-1.75$ , 2:  $-1.75$  to  $-1.25$ , 3:  $-1.25$  to  $-0.75$ , 4:  $-0.75$  to  $-0.25$ , 5:  $-0.25$  to  $0.25$ , 6:  $0.25$  to  $0.75$ , 7:  $0.75$  to  $1.25$ , 8:  $1.25$  to  $1.75$ , and 9: above  $1.75$ .

so on. The exact interview manual is classified information, but the test is known to evaluate a conscript's personality in civilian life, and his ability to handle military functions. Specifically, the score summarizes four personality traits: social maturity, psychological energy, intensity, and emotional stability. These are closely related to the well-known Big 5 personality traits (extroversion, conscientiousness, openness, conscientiousness, and neuroticism)—see the [Online Appendix](#), Table B.1.

### III.E. Education

Educational attainment of all individuals is reported by Swedish schools and universities, and records are kept by Statistics Sweden. For people migrating into Sweden later in life, information on schooling is collected through surveys and education levels are categorized into a Swedish standard. These categories are easily translated into years of education.

### III.F. Income

We use a measure of annual disposable income, constructed from individual tax records (there is no joint family taxation) including all income sources and government transfers (wages and in-kind benefits from jobs, pensions, transfers and subsidies, business income, capital income, sickness and parental-leave benefits, etc.).

### III.G. Earnings Score

If ability is priced in the market, it shows up in earnings. Earnings may also reflect a number of other personal characteristics, however, such as education, choice of employment, or time and place of employment. To get at a measure of relative earnings power that more likely reflects personal ability, we construct an earnings score following the approach of [Besley et al. \(2016\)](#). These authors use residuals from a Mincer equation, defined over a large set of socioeconomic characteristics. As estimating a fully saturated model with millions of observations is computationally challenging, we estimate the Mincer equation year by year. Specifically, we estimate:

$$(1) \quad y_{i,m,t} = f(\text{age}_{i,t}, \text{educ}_{i,t}, \text{empl}_{i,t}) + \alpha_{m,t} + \varepsilon_{i,m,t},$$

where the dependent variable  $y_{i,m,t}$  is the disposable income for person  $i$  in municipality  $m$  in year  $t$ . Among the independent

variables,  $age_{i,t}$  is a set of age indicators (over five-year intervals),  $educ_{i,t}$  is a binary indicator for tertiary education, and  $empl_{i,t}$  is a set of indicators for 15 activity codes.<sup>8</sup> The function  $f$  represents a full set of age-education-employment interactions. The regression also includes municipality fixed effects  $\alpha_{m,t}$  to capture systematic income differences across regions or urban and rural areas. This flexible specification allows for different age-earnings profiles across occupational sectors and education levels. For each individual, we compute residuals  $\varepsilon_{i,m,t}$  for each available year, and then average across years. This “individual fixed effect” is our earnings score.

To minimize measurement error and endogeneity, we drop observations for full-time politicians, both in office and after exiting office. We estimate [equation \(1\)](#) separately by gender and retirement status (age over 65 or not) so as not to confound the competence measure with the substantial labor-market differences across these groups.<sup>9</sup>

Does the earnings score measure a competence for politics rather than just ability to generate market income? [Besley et al. \(2016\)](#) address that question and show that earnings scores are indeed correlated with cognitive and leadership ability as well as various measures of political and policy success.

### III.H. Summary Statistics

[Table I](#) reports means of the four ability variables for politicians and the entire population (subject to availability), pooling

8. These are the same as the European NACE code and international ICIC code, namely: “agriculture, hunting and forestry,” “fishing,” “mining and quarrying,” “manufacturing,” “electricity, gas and water supply,” “construction,” “wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods,” “hotels and restaurants,” “transport, storage and communication,” “financial intermediation,” “real estate, renting and business activities,” “public administration and defense; compulsory social security,” “education,” “health and social work,” and “other community, social and personal service activities.” Two categories, “activities of households” and “extra-territorial organization and bodies” have fewer than 30 individual-year observations in them. Because of this, we add the former to “other community, social and personal service activities,” and the latter to “public administration and defense; compulsory social security.”

9. For example, women take on the bulk of parental leave and care activities that raise the gender pay gap when couples have children. As for retirement, there are plenty of senior politicians. Mincer equations of retired and working people differ as retirees do not have a current employment sector. We compute the income residuals of retirees based on the main sector of employment in their working life.

TABLE I  
SUMMARY STATISTICS FOR THE POPULATION AND POLITICIANS

	Population		Politicians			
	Mean	Std. dev.	Nominated	Elected	Mayors	MPs
Women	51.0	50.0	39.9	40.8	24.9	42.2
Age	48.4	18.9	50.3	50.8	52.5	49.6
Foreign born (%)	13.7	34.4	7.4	5.8	2.6	4.1
Leadership score (1–9)	5.3	1.7	5.6	5.9	6.5	6.8
Cognitive score (1–9)	5.1	1.9	5.6	6.0	6.4	6.7
Years of education	11.7	3.0	12.8	13.1	13.2	14.5
Earnings score ( <i>z</i> -score)	0.05	0.94	0.18	0.55	0.97	1.33
Observations	42,096,789		236,950	79,463	1,569	2,086

*Notes.* This table reports descriptive statistics on social attributes and on the various measures of competence. These statistics were computed for the Swedish working-age population (18 or older), and for politicians, pooling individual level data for election years in the 1990s and 2000s (1991, 1994, 1998, 2002, 2006, and 2010). Politicians are divided into four hierarchical categories: nominated (but not elected) for a municipal assembly seat, elected for a municipal assembly seat, mayor, and member of (national) parliament. Observations reports the highest number of individual observations used in the column. For the enlistment measures of ability, only male politicians in the 1951–1980 cohorts are included, which gives a smaller number of observations for these measures. A politician is included once for each election period in which he/she serves, so the observations number is larger than the number of unique individuals.

the election years of 1991, 1994, 1998, 2002, 2006, and 2010 (the patterns we document below remain current: they do not change if we focus on the most recent year). To account for the fact that politicians of different quality may serve for different lengths of time, affecting the composition of the political class, an individual politician's observation is included as many times as he or she was elected. For municipalities, we distinguish between the nominated (but nonelected), elected, and mayors. We also include information on national MPs. Compared to the population, Swedish politicians underrepresent women and the foreign born. Of mayors, less than 30% are women and less than 3% foreign born. We do not address these important forms of underrepresentation any further. But the most striking point of the data is a main topic in our analysis: Swedish politicians are positively selected based on all four ability measures. The progression of mean cognitive and leadership scores from nominated to elected to mayor to MP suggests increasing rates of positive selection.

Table B.2 in the [Online Appendix](#) shows pair-wise correlations between our competence measures for the Swedish male population in 2011. All measures are positively correlated, but not very highly. Years of schooling has correlations of 0.51, 0.30, and 0.076 with the cognitive, leadership, and earnings scores, respectively.

While the best measure of competence is an open issue, these simple correlations highlight the hazards of relying solely on years of schooling as a metric of ability. The leadership score and the cognitive score have a correlation of 0.34, and the earnings score has correlations of 0.20 and 0.17 with the leadership and cognitive scores, respectively. Our different measures thus appear to capture different dimensions of ability.

#### IV. COMPETENCE

In this section, we rely on the universe of municipal and national politicians to answer the question whether selection on competence is positive or—as theory would have us expect—adverse. Our first contribution is to compare the ability characteristics of politicians to those of the general population. We study the four different ability dimensions introduced in [Section III](#). To repeat, the education and earnings scores are available for the full population, while the cognitive and leadership scores are available only for men.

##### *IV.A. Leadership and Cognitive Scores*

The top left graph in [Figure 1](#) shows overlapped histograms for the leadership scores of the general (male) population, three categories of municipal politicians—nominated but not elected, elected, and mayors—and MPs. A clear pattern of positive selection emerges. Leadership scores of the nominated look quite close to those of the population but with a slight shift to the right—scores above the population mean of 5.3 are more highly represented among nominated politicians than in the general population.<sup>10</sup> For elected politicians, the shift to the right is stronger, and even more so for mayors and MPs. For example, mayors have more than a full additional point—70% of a population standard deviation—higher leadership scores than the population (henceforth,  $\sigma$  denotes a population standard deviation).

The top right graph shows a similar result for the cognitive score. Politicians score higher than the average Swede, more strongly so when elected to office, and particularly so when selected for top municipal office and parliament. Mayors score 1.3

10. Because of the large sample, all differences across groups reported in this subsection are strongly statistically significant, with  $p$ -values below .001. A similar pattern holds in other sections of the paper unless noted otherwise.

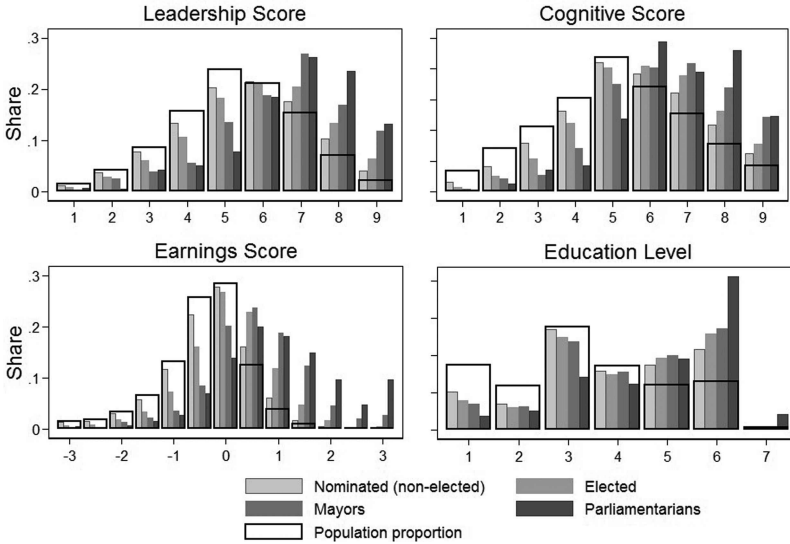


FIGURE I

Distribution of Ability Measures in the Population and among Politicians

The figure shows comparisons of the distribution of the ability variables among the Swedish working-age population (18 or older) and four categories of politicians: nominated—but nonelected—to a municipal council, elected to a municipal council, mayors, and members of parliament (MPs). The two enlistment scores are shown in the top figures; the bottom left figure shows earnings score, and the bottom right education level. Education level is coded into seven groups based on the formal categorization of Statistics Sweden: less than nine years, nine years of primary education, two-year secondary education, three-year secondary education, tertiary education (less than three years), tertiary education (at least three years), and research degree (licentiate or Ph.D.). All figures are created with pooled individual level data for election years in the 1990s and 2000s (1991, 1994, 1998, 2002, 2006, and 2010). For the cognitive and leadership scores, the sample is restricted to men in the 1951–1980 cohorts. Based on a Kolmogorov-Smirnov test, we can reject that the distributions are the same for each panel and for every pair of categories.

points ( $0.68\sigma$ ) higher than the average person, while MPs score 1.6 points (around  $0.84\sigma$ ) higher than the average person.

IV.B. Earnings Scores

The bottom left graph in Figure I displays the distributions of the earnings score. The nominated display a small shift to the right—their mean score is higher by  $0.19\sigma$ . The elected show a clearer shift, with a  $0.58\sigma$  difference. The earnings score of mayors



and MPs surpass that of the population by a full  $\sigma$  and  $1.4\sigma$ , respectively.

The earnings score evidence is important for three reasons. First, it includes both women and men. The strong positive selection is present for both sexes and, if anything, women politicians are more strongly selected than men, especially for higher offices like mayor and MP (see Figure A.1 in the [Online Appendix](#)). Second, strong positive selection on intelligence and leadership alone might just reflect a lower opportunity cost for those who become politicians. But the opposite seems to be true: politicians have higher earnings scores as well as actual (pre-office) earnings—see [Figure III](#) below. Third, previous empirical work that proxies politician qualifications through education reports high levels of achievement, at least for mayors and national legislators, easily above the general population.<sup>11</sup> But if access to higher education merely reflects elite membership, then educational attainment becomes a poor marker of positive political selection. Our earnings score results show positive selection even after conditioning on education level and sector of employment.

#### *IV.C. Education*

The distribution of education attainment over seven levels (in the bottom right of [Figure I](#)) shows a similar pattern, with politicians underrepresented at the bottom levels and overrepresented at higher levels. As reported in [Table I](#), the nominated have one more year of education than the average Swede, and elected politicians and mayors have roughly an additional year and a half. MPs have almost three years of schooling above the population average. In the remainder of the article, we focus on the three noneducational measures of competence.

The key takeaway from these graphs is a strong pattern of positive selection in Swedish politics, which gets more positive at higher political ranks. This flies in the face of the argument that the more competent are less likely to enter politics due to higher opportunity costs and shows that incompetent politicians are less common as leadership positions become more important.

11. See, for example, [Ferraz and Finan \(2009\)](#) on Brazilian mayors; [Merlo et al. \(2010\)](#), [Galasso and Nannicini \(2011\)](#), and [Gagliarducci and Paserman \(2012\)](#) on Italian legislators; [Dal Bó and Rossi \(2011\)](#) on Argentine legislators; or [Dal Bó, Dal Bó, and Snyder \(2009\)](#) on U.S. legislators.

TABLE II  
ABILITY BY SELECTED ELITE OCCUPATIONS

	Leadership score	Cognitive score	Earnings score	Years of schooling	Labor earnings	Obs.
Nominated to mun. council	5.5	5.5	0.07	13.6	286.2	24,535
Municipal councilors	5.8	5.9	0.38	13.8	379.0	8,870
Mayors	6.4	6.2	0.79	13.9	679.4	247
Parliamentarians	6.6	6.4	0.98	14.8	802.2	320*
CEOs (10–24 employees)	6.1	5.8	0.81	13.6	675.6	6,825
CEOs (25–249 employees)	6.4	6.2	1.12	14.2	1,046.2	6,885
CEOs ( $\geq$ 250 employees)	6.8	6.7	1.29	15.4	1,926.0	1,470
Medical doctors	6.5	7.4	1.13	17.1	640.0	29,514
Lawyers and judges	6.5	6.8	0.69	17.0	568.0	5,308
Economists	5.9	7.0	0.38	20.4	530	248
Political scientists	5.8	6.8	0.61	20.4	513.3	306

*Notes.* The table shows ability averages among politicians (nominated but not elected in first row, elected municipal councilors in second row, mayors in third row, and parliamentarians in fourth row) and among individuals in seven occupational categories, which make up other “elite” occupations in Swedish society. The first and second report the means for the two enlistment scores, the leadership score and the cognitive score (measured on a 1–9 scale). The third column reports the means of our earnings score, and the fourth column reports average years of education. The fifth reports the mean of annual labor earnings (in 1,000s Swedish Kronor; 1 SEK US \$0.8), and finally, the last column reports the number of individuals classified into each elite occupation. The data are from 2011 and include the full Swedish working-age population (18–65). Individuals working in universities are identified based on a five-digit industry code that indicates employment at a university. For the cognitive score and the leadership score, data are restricted to men in the 1951–1980 cohorts. \*Removing individuals older than 65 reduces the number of parliamentarians below the full size of parliament.

#### IV.D. Politicians versus High-Status Professions

To gain an additional perspective on selection, we also compare politicians to members of Swedish elite occupations known for attracting talented people. Table II shows our competence measures, as well as earnings, for the four categories of politicians, CEOs, lawyers, medical doctors, and academic social scientists. The positive selection among CEOs increases with company size. Elected politicians have cognitive and leadership scores similar to CEOs with 10–25 employees, a group that is also comparable in size. Mayors have exactly the same scores as CEOs in companies with 25–250 employees, even though mayors earn substantially less. Parliamentarians have leadership and cognitive scores in between CEOs in companies with 25–250 employees and those in companies above 250 employees. Lawyers and academic social scientists outscore CEOs and mayors in terms of cognitive ability. Medical doctors—a prestigious profession in Sweden associated with excellence—clearly show the highest cognitive scores of all. Academic economists and political scientists have the most years of education, rank second and third in cognitive scores but have among the lowest leadership scores.

The patterns in the table make intuitive sense. Academics are smart, but lack leadership, and as a result they accumulate the most years of education, but neither lead organizations nor make life-or-death decisions. Mayors, MPs, and CEOs are marginally less smart, substantially less educated, but have higher leadership scores and, fittingly, do lead public and private organizations.

#### *IV.E. Positive Selection beneath the Aggregate*

Although we find evidence of strong positive selection in the aggregate, one may be concerned that this is an artifact of the selection patterns of a few large municipalities. To examine this possibility, we compare the traits of elected politicians to those of the average person in their respective municipalities. Overall, few municipalities exhibit negative selection, and the vast majority of municipalities select positively: 96% of municipalities on the cognitive score, 86% on the leadership score, and more than 99% on the earnings score. In [Dal Bó et al. \(2016\)](#), we provide a more detailed analysis of the selection patterns across municipalities.

### V. SOCIAL REPRESENTATION

[Section IV](#) showed a strong positive selection of politicians and increasingly so for higher political office. But this pattern could reflect very different selection regimes. Perhaps Swedish politics is elitist rather than meritocratic, with heirs of rich families getting privileged access to political power as well as to education and earning opportunities. Under such “elitism,” the competence of politicians is a side effect and does not play a preeminent role in selection. Under the elitist regime, elite membership by itself (due to wealth or connections, for example) determines selection. The empirical implication (i) is that conditional on elite status, individual ability should matter little for selection. Alternatively, under “exclusive meritocracy,” those from more advantaged social classes still acquire stronger abilities, but it is those abilities rather than privilege that helps them enter politics. This regime is compatible with individual ability shaping selection, but it also implies (ii) that social background is strongly associated with selection.

In this section we establish that Swedish reality is better described by a third regime: “inclusive meritocracy.” In this account positive selection on competence goes together with inclusive social representation. We establish the presence of inclusive meritocracy in two steps. In the next subsection we show the elitist account is untenable; we falsify the above-mentioned empirical implication (i) by showing that even when conditioning on family (and hence, social) background, individual ability matters greatly for selection. In [Section V.B](#) we falsify empirical implication (ii) by showing politicians represent all social backgrounds.

#### *V.A. Elitism or Meritocracy?*

In this subsection we study political selection by holding constant the social background of politicians. To do this, we compare the individual characteristics of politicians not just against the population, but against their own siblings.

*1. Politicians and Their Siblings.* [Figure II](#) compares the distribution of competence traits of elected politicians with that of their siblings. To ease comparison with [Figure I](#), we also include the full population distribution. Clearly, elected politicians have markedly higher cognitive and leadership scores than their siblings, as well as higher earnings scores.

We can also compare the extent of selection between politicians and siblings to that between politicians and the population. The difference versus siblings for leadership scores is equal to 78% of the gap versus the population—for cognitive and earnings scores, the respective numbers are 70% and 74%. These numbers strongly indicate that ability, and not family background, is the key selection criterion.<sup>12</sup> A similar look at mayors and MPs in [Figure II](#) confirms that politicians at higher levels are also drawn from a different ability distribution than their siblings.

[Figure III](#) further illustrates how individual traits beyond family background shape political selection. It classifies politicians by their percentile in the income distribution, compared to the population in their own birth cohort and gender. By definition,

12. Although politicians tend to be the first born of a family more often than their nonpolitician siblings, this difference in birth order does not explain the pattern in [Figure II](#). Our ability measures are only marginally different for first-born versus later-born.

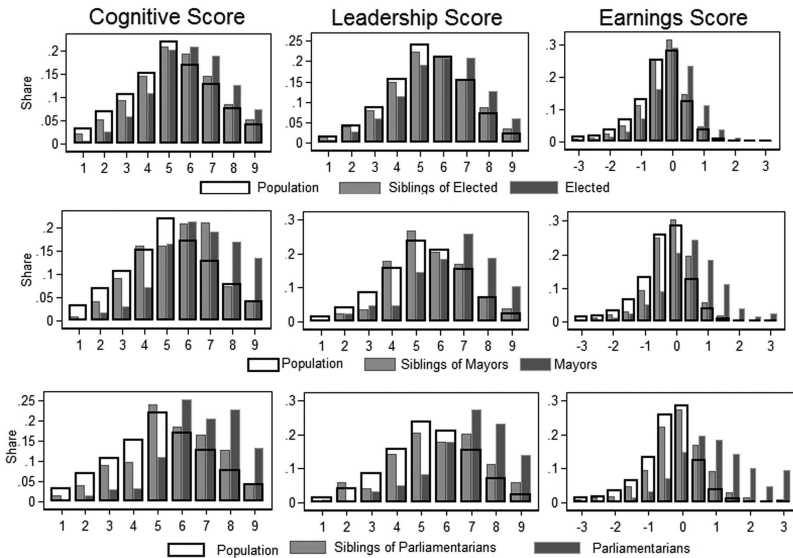


FIGURE II

Distribution of Ability Measures among Elected Politicians, Their Siblings, and the Population

The figure compares the distributions of our ability variables for three categories of politicians (elected to a municipal council, mayors, and MPs) and their siblings. The two enlistment scores are shown in the first two columns, the earnings score in the third column. Only politicians with at least one sibling are included. All figures are created with pooled individual-level data for election years in the 1990s and 2000s (1991, 1994, 1998, 2002, 2006, and 2010). For the cognitive and leadership scores, the sample is restricted to men in the 1951–1980 cohorts.

the population would display a perfect uniform distribution with a density of 0.05 for each 5-percentile bin. The left graph in each row shows that politicians (elected, mayors, and MPs) are disproportionately drawn from higher income percentiles. (Incidentally, but also importantly, this indicates that more able people face higher opportunity costs to enter politics, which would encourage adverse selection.) But the distribution in the right panel for politician siblings is much more similar to the uniform population distribution.

Overall, these patterns indicate that an individual’s own ability traits matter for his/her political fortunes, and rule out the pure elitist account.

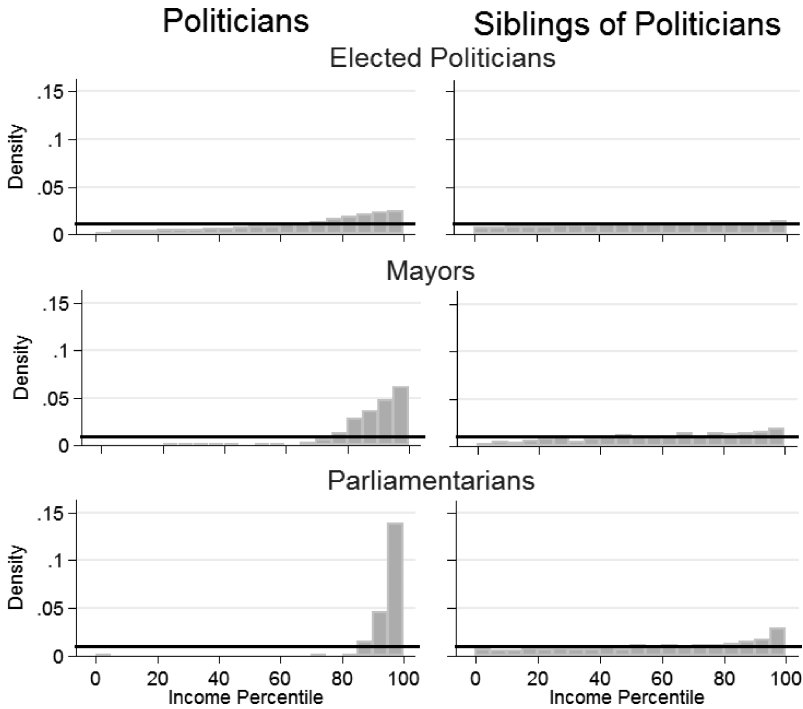


FIGURE III

Distribution of Elected Politicians and Their Siblings across the Percentiles of Population Income

The figure compares the distribution of annual labor incomes of three categories of politicians (elected to a municipal council, mayors, and parliamentarians) to that of their respective siblings. Data from the years 2003, 2007, and 2011 for the adult population (18 or older) was used to compute the percentiles of annual earnings in the population. The proportion of individuals falling into each percentile are shown in the histograms - for ease of exposition, the bars illustrate the average proportion within each five percentile bracket. The income percentiles are calculated by birth year and gender. Only politicians with at least one sibling are included.

### *V.B. Inclusive Meritocracy*

*1. Politicians and Their Parents.* Next we directly examine the relevance of social background and show that it does not matter much for aggregate political selection. Measuring social background by parental income and occupational status (see

below), we find that politicians do not come disproportionately from elites.<sup>13</sup>

For politicians in the most recent decade of our data, we find their parents' incomes and occupations in the earliest year(s) of our data.<sup>14</sup> We use the full population data to allocate individuals into bins comprising 5 percentiles of the annual earnings distribution within each gender and birth year. We then compute the proportion of fathers of politicians with 1979 incomes within each 5-percentile bin.<sup>15</sup> These proportions are shown in the top row of [Figure IV](#). Recall from the first column of [Figure III](#) that for politicians' own incomes these distributions are skewed to the right, reflecting a striking overrepresentation of high earnings. But for the same politicians' fathers, the distribution has a much more uniform shape. This is true especially among elected councilors, whose fathers are almost perfectly representative of the population. (The corresponding figure for mothers' earnings can be found in the [Online Appendix](#), [Figure A.2](#).) A similar—albeit less perfect—pattern of broad representation of parental backgrounds is present among mayors and MPs.

2. *Politicians, CEOs, and Medical Doctors.* Again, it is valuable to compare politicians with other elite professions. To do so, the bottom row of [Figure IV](#) repeats the same exercise as in the top row, but for fathers of medical doctors (left graph) and CEOs of firms with different size (two right-most graphs). These figures show that the 1979 earnings for fathers of doctors and CEOs are

13. Summary statistics for parental incomes together with the four competence measures and the measures of social class appear in the [Online Appendix Table B.3](#).

14. As stated before, for politicians elected after 2000, we observe the father's income in 1979 for 77% of the sample, and the mother's income for 86% of the sample. For those elected in 2010 we match over 90% of politicians. Since the match is less than perfect, one might be concerned about sample selection bias. Compared to the matched politicians, the politicians whose fathers' 1979 income are missing tend to be slightly less competent, although only differences in education levels and cognitive scores are statistically significant. It is reasonable to assume that the fathers of these unmatched politicians came from lower social classes, since ability is largely hereditary and positively correlated with social class. Then we are underestimating the share of politicians that come from humbler origins, a bias which works against finding broad representation.

15. In the uncommon cases that a father has multiple children who become politicians, that father's observation is included as many times as offspring-politicians he produced.

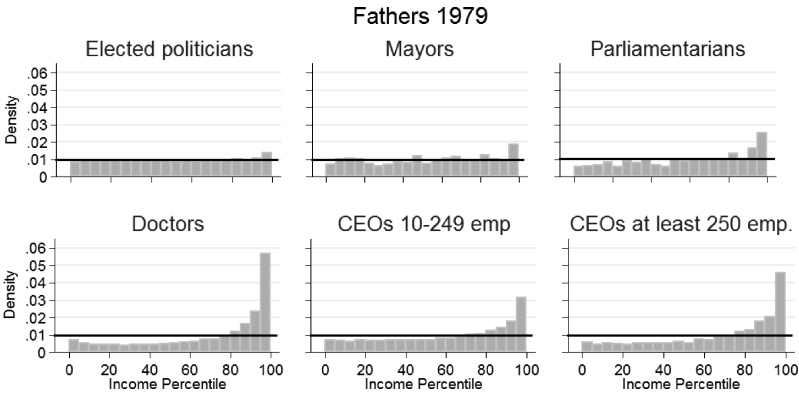


FIGURE IV

Distribution of Fathers of Politicians and Other Occupations across the Percentiles of Population Income

The figure shows the distribution of income among fathers to three types of politicians (elected to a municipal council, mayors, and parliamentarians) and three types of other elite occupations (doctors and CEOs of small or medium and large enterprises) in 2003, 2007, and 2011. The proportion of fathers falling into each percentile are shown in the histograms - for ease of exposition, the bars illustrate the average proportion within each five percentile bracket. The income percentiles are calculated by birth year and gender. Data from year 1979 were used to compute the percentiles of annual earnings for the fathers. Fathers are only included if they are of adult age in year 1979 (18 or older), and politicians are only included if we can find an earnings observation for their father in that year. A father's observation is included as many times as offspring-politicians he produced.

much more skewed to the right than the earnings for fathers of politicians, especially for doctors and large company managers. Naturally, the earnings of the doctors and CEOs themselves (not shown) are also very much skewed to the right.

We can summarize the evidence from [Figure IV](#) in a different way. As measured by intergenerational earnings, social mobility into a political career seems to be high in absolute as well as relative terms, when compared to doctors and CEOs.

*3. Politicians in Different Parties.* The evidence so far concerns elected politicians from all parties. In [Figure V](#), we replicate [Figure IV](#) for those elected to municipal councils in the three largest parties, the Social Democrats, the Conservatives, and the Center (agricultural) party. As the left column shows, politicians in all parties come disproportionately from the top part of the



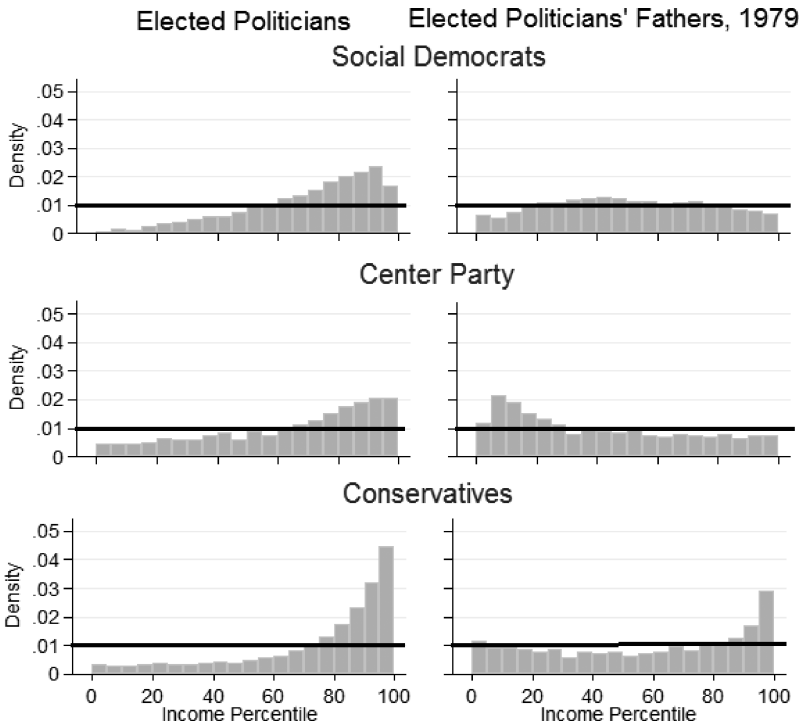


FIGURE V

Distribution of Elected Politicians and Their Fathers across the Percentiles of Population Income, by Party

The figure shows distributions of elected politicians (left) and their fathers (right) across the percentiles of the Swedish income distribution. The income percentiles are calculated by birth year and gender. The top (middle/bottom) figure includes politicians elected to a municipal assembly seat for the Social Democrats (Center/Conservative) party. See the notes for [Figure IV](#) for details on the data used.

income distribution, though more so in the Conservatives than in the Social Democrats or the Center party. In the three right graphs, however, we clearly see representation of different social backgrounds. High-income earners are overrepresented among the fathers of Conservatives, and middle-income earners among fathers of Social Democrats. Finally, low-income earners are overrepresented among fathers of Center party politicians, who are often farmers (on average, 40% as opposed to 5% in other parties) with relatively low earnings.

Figure V makes clear how parties represent different parts of the (parental) income distribution. The aggregation of these diverging party representations renders the almost perfect representation of parental incomes in the top left panel of Figure IV for all elected municipal politicians. Of course, this illustrates the presumption that different parties represent different interests—at least in polities with a multiparty system where the left-to-right dimension is important.

4. *Social Class.* While informative, parental income only captures one aspect of social status. Thus, we also consider data on parental social class as determined by occupational status whenever this information is available. Figure A.3 in the Online Appendix compares distributions of social class for politician parents and the population.<sup>16</sup> That figure corroborates our previous finding: politicians are highly representative of the population. The only notably overrepresented social class is farmers, which reflects the historical role of the Center party. We also see some under-representation of skilled manual workers.

As argued earlier, if parental human-capital investments shape individual competence, a strictly meritocratic system might still favor elites. Meritocracy could then favor the competent within a family, but still be elitist across families as per the exclusive meritocracy description. However, our finding that different social classes are evenly represented rejects this interpretation. Instead, Sweden's political system is both meritocratic and broadly representative, as per the inclusive-meritocracy description.

## VI. DRIVERS OF COMPETENCE AND REPRESENTATION

In this section we address potential drivers of Sweden's inclusive meritocracy. Two facts stand in the way of such a regime.

16. The class division corresponds closely to the EGP social-class scheme (Erikson and Goldthorpe 1992) which has been used by Lindgren, Oskarsson, and Dawes (2016) in their recent study of representation in Sweden. We define six classes as: (i) unskilled manual workers, (ii) skilled manual workers, (iii) lower nonmanual workers, (iv) farmers, (v) intermediate nonmanual workers, and (vi) higher nonmanual workers. We are grateful to Martin Hallsten for sharing his STATA code with us. We are forced to drop the category of self-employed because of data constraints. The data are again from 1979, and 54% of the politicians nominated in 2010 have a father for whom we can define socioeconomic status.

First (as we will document), ability correlates positively with social class. Thus one might expect competence to be in tension with inclusivity. Second, more able people have higher earnings and hence face higher opportunity costs. This should make positive selection on competence difficult in the first place. The first subsection examines whether there are signs of a trade-off between competence and inclusive social representation by examining cross-sectional patterns of municipal politicians. The second subsection examines patterns of selection by socioeconomic status in the aggregate. We explain why there is only a weak trade-off between competence and inclusivity, and why inclusive meritocracy is feasible. The third and fourth subsections answer the question of how positive selection on competence is feasible in the first place, given that the competent face higher opportunity costs.

#### VI.A. *Is There a Competence-Representation Trade-off?*

To characterize local selection and representation, we compare politicians in each council to their municipal population according to a simple index. Let  $x$  denote either a measure of competence or social class with  $K$  categories. We can write this index as

$$S_x = \sum_{k=1}^K p_{k,c} k - \sum_{k=1}^K p_{k,m} k,$$

where  $p_{k,c}$  is the proportion of council members in each category  $k$ , and  $p_{k,m}$  is the corresponding proportion in the municipal population. The intuition is simple. If the trait distribution in a municipality has support from 1 to 9 with a mean of 5, and politicians are positively (negatively) selected on competence, their scores on average are higher (lower) than 5, giving a positive (negative) selection index. Analogously for the case of social class, when this index is zero for a municipality, all its social classes are represented among politicians in proportion to their population prevalence (or excess representation of lower classes balances out excess representation of higher classes). We use this index to gauge municipal selection along each of our ability variables—namely, IQ, leadership, and earnings score—and social class variables—standardized parental income or occupational status.

In Figure VI, we plot the relationship between competence and representation for our various indexes. We also include the

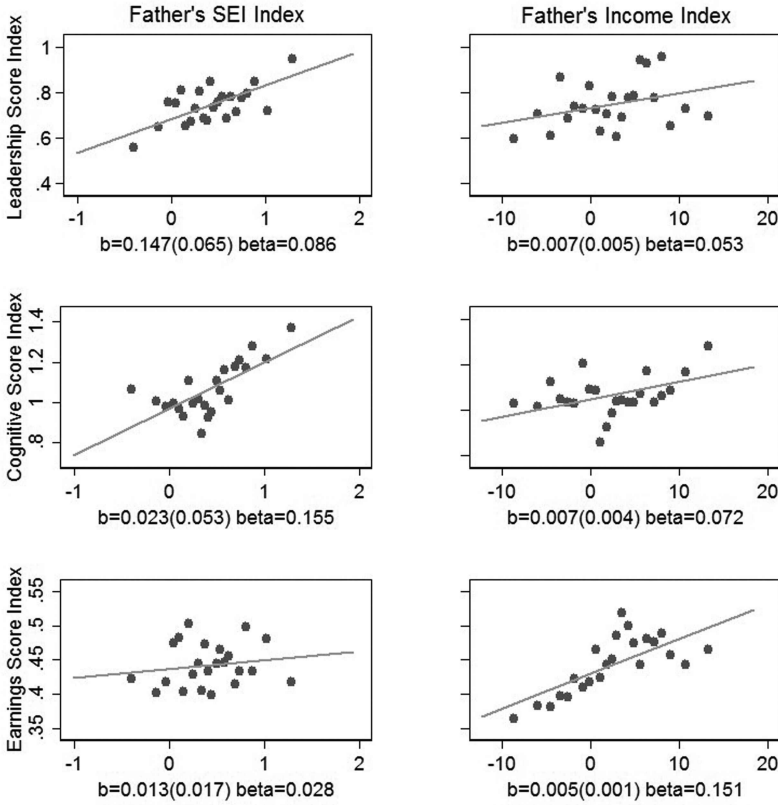


FIGURE VI

Correlations between Municipal Indices of Representation and Selection

The figure shows the relationships between competence selection indices (y-axis) and representation indices (x-axis). The representation index is the average among politicians' father minus the average of the fathers of the adult population (18 or older) in the same municipality. Social class of the father is measured through father's occupational status in the left column of graphs, and through father's income in the right column. Father's income is measured by the income percentile in 1979, by birth year. Social class is measured in 1980 and is given the values 1–6 as: (1) nonskilled manual; (2) skilled manual; (3) lower nonmanual; (4) farmer; (5) intermediary nonmanual; and (6) higher nonmanual. The unit of observation is the municipality and election period. Each dot in the scatterplots corresponds to the binned average among 50 municipality-election observations. Bins are defined over the support of the x-variable to yield the equal 50-observation split. The regression line shows the estimated slope coefficient from an OLS regression of the selection index on the representation index. The slope coefficient is displayed below each graph. Standard errors are reported in parentheses, and beta is the normalized relationship in terms of standard errors. The data include all elections from 1998 to 2010. For the leadership and cognitive scores, data is restricted to men in the 1951–1980 cohorts.

corresponding regression line, and the estimated slope coefficient for each of these six relationships. The estimated slopes are all positive, suggesting a trade-off.

But the slope coefficients are small. For parental social class, the strongest relationship suggests that a  $1\sigma$  higher overrepresentation of upper social classes is associated with a  $0.15\sigma$  higher cognitive score among elected municipal politicians. For the two other competence measures, the relationships are much weaker. For parental income, the strongest relationship suggests that a  $1\sigma$  larger over-representation of high parental income is associated with a  $0.15\sigma$  higher average earnings score. For the cognitive and leadership scores, the estimates are of even smaller magnitudes and not statistically significant.<sup>17</sup> Overall, these correlations suggest a weak trade-off between competence and social background.

### VI.B. Selection by Socioeconomic Background

The flat trade-off between competence and social representation shown in the last subsection may be surprising, given the problems of disentangling innate ability and parental background. Despite Sweden's comparatively uniform education system, parental background likely shapes measured ability via socialization and home resources. If (i) competence correlates positively with socioeconomic status, we should observe a steep trade-off unless (ii) stronger positive selection compensates for lower averages in lower socioeconomic groups. To understand the flat trade-off, and how inclusive meritocracy is feasible, we investigate statements (i) and (ii) by parental socioeconomic background.

1. *Competence and Socioeconomic Status.* For each of our three ability measures, [Figure VII](#) plots the average ability for both the population and each category of politicians (nominated, elected, mayors, MPs) who belong in each quartile of the parental income distribution. The plot suggests that condition (i) holds: there is a positive relationship between parental economic background and ability in the population. For example, among citizens with parents in the bottom income quartile, average leadership scores are 5.1, versus 5.64 among those with parents in the top income quartile, a difference of about  $0.3\sigma$ . The analogous

17. Admittedly, measurement error could be attenuating these estimates. While this is a potential concern, recall that we find support for an inclusive meritocracy even at the aggregate level.

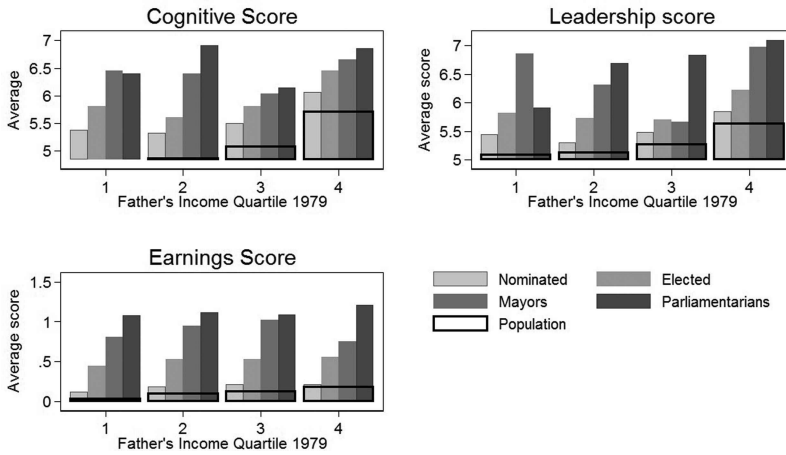


FIGURE VII

Average Ability Measures for Politicians and General Population by Father's Income Quartile

The figure shows average ability for four types of politicians (nominated—but not elected—to a municipal council, elected to a municipal council, mayors, and parliamentarians) and the working-age population, by income quartile of each individual's father ( $x$ -axis), measured in 1980. The data are pooled for all politicians elected in the 2000s (2002, 2006, and 2010), and the general population is also sampled in these same years. For the cognitive and leadership scores, the sample is restricted to men in the 1951–1980 cohorts.

interquartile distances for the cognitive and earnings scores are  $0.45\sigma$  and  $0.16\sigma$ , respectively.<sup>18</sup>

*2. Ability Selection by Parental Background.* The main reason inclusive meritocracy is feasible, and why the trade-off may appear flat, is that qualification (ii) holds: positive selection on ability is stronger in lower social classes, which mitigates the ability cost of recruiting politicians from those classes. Consider cognitive scores: politicians with fathers in the top income quartile outscore the general population with fathers in the same quartile by  $0.39\sigma$ . But elected councilors with fathers in the bottom income quartile outscore the population with fathers in the same quartile by  $0.50\sigma$ . Figure VII shows that this

18. The differences may be kept from becoming larger by the facts that the education system in Sweden is entirely financed by the public sector, that admission to higher education is entirely based on high-school grades, and that education traditionally has been provided in roughly equal quality across the country.

pattern is even more pronounced among mayors and MPs. If a politician of humble origin makes it that high, then that politician is very strongly selected. [Online Appendix](#) Figure A.4 shows similar patterns relying on father's occupational social class.

One striking aspect of these figures is the remarkable stability of positive selection out of all fathers' income levels and social classes. What defeats the trade-off between competence and inclusivity is the fact that every class has competent people, and the strong positive selection washes out average ability differences.

### *VI.C. Individual Self-Selection: Material versus Intrinsic Motives*

As shown before in [Figure III](#), the competent face higher opportunity costs. How, then, are the competent attracted into politics? One possibility is that in Sweden pecuniary incentives do not matter. We further investigate the potential drivers of political selection with the guidance of a simple model of pecuniary and intrinsic incentives. The model and its predictions are presented in Section C of the [Online Appendix](#).

In our model, material motives make wages in office, chances of accessing power, and age-earnings progression in a person's occupation relevant for selection. In the data, we indeed find evidence that material incentives help shape self-selection. The competence of top politicians is higher in municipalities with higher remunerations for mayors and vice mayors, relative to municipal average earnings ([Online Appendix](#) Figure A.5). Also, the competence of top politicians is higher in parties with a higher probability of filling these full-time political positions ([Online Appendix](#) Table B.4). Last, politicians with occupations with steeper age-earnings profiles are less positively selected out of their own occupation than politicians with flatter age-earnings profiles ([Online Appendix](#) Figure A.6). This is not only consistent with the model's notion of opportunity cost. To the extent that the types of jobs held by parents and children are positively correlated, the finding also helps explain the better selection for politicians with low socioeconomic backgrounds discussed in the previous subsection. All three findings are consistent with material motives being relevant for political self-selection, which then reemphasizes the question: how are the competent attracted into politics?

Full-time political positions are very well paid in Sweden, which appears relevant given the evidence in [Online Appendix](#) Figure A.5. But politicians in local parties with close to zero

probabilities to land full-time political jobs are still considerably smarter than the average citizens in the corresponding municipality ([Online Appendix Table B.4](#)). According to our simple model, this aspect of the data is only consistent with strong intrinsic motives to serve in politics.

#### *VI.D. Party Screening: Selection and List Rank*

The next step in the Swedish selection process is that parties screen those individuals who self-select into politics. One way parties do this is by observing their members compete in coming up with good arguments and policy proposals. Such competition may well result in positive selection if more able politicians win out in the tournament and climb to the top of the party. Alternatively, party constituencies (e.g., the youth branch, the female branch, associated unions) can select and promote the more able to higher positions in the party list.

As mentioned in [Section II](#), qualitative work in political science suggests that Swedish political parties actively screen and promote candidates. While we do not strive to identify the exact mechanisms, we now present some quantitative evidence that parties gradually promote the more competent to higher positions.

We consider all party lists in all municipalities, and all electoral periods within our sample. From these, we compute an ability index for all candidates with a certain list rank, for each rank between 1 and 8. The left-column graphs in [Figure VIII](#) show how ability varies by rank for the cognitive score, the leadership score, and earnings score. Starting at the top (list rank 1), all measures more or less steadily decline as we move down the list, with the clearest pattern for the earnings score. In particular, the top-ranked politician has significantly higher ability than every other rank for all three ability measures.

Parties thus seem to screen and promote more able people towards progressively higher positions on their ballots. Given this positive screening, an improvement of those who self-select into political service will typically translate into higher competence of elected politicians.

The middle-column graphs show the promotion patterns by socioeconomic background. In particular, the black (gray) dots refer to politicians whose fathers' incomes were below (above) the median. If anything, the competence-promotion gradient is steeper for politicians from lower social classes. Thus it seems



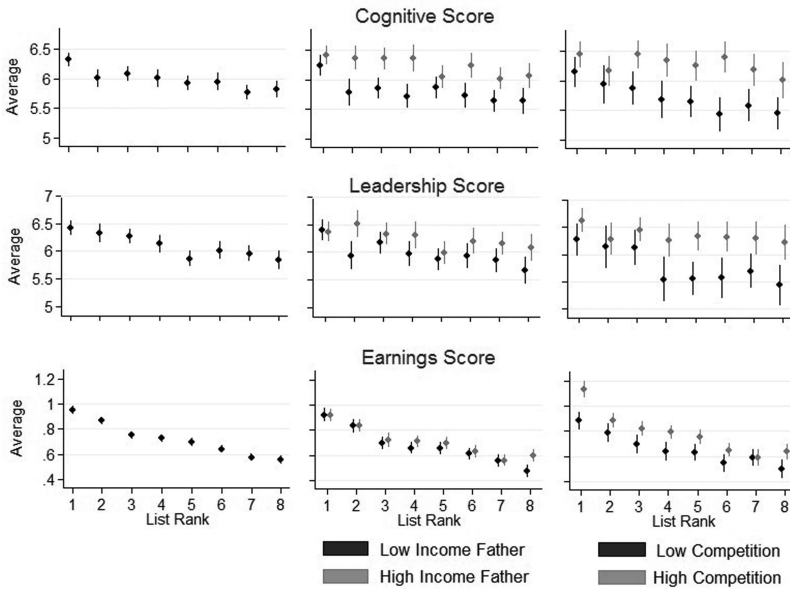


FIGURE VIII

Average Ability by Party List Rank, Divided by Parental Social Background and Municipal Political Competition

The figure shows the averages of three ability variables by ballot rank. The top (middle/bottom) graph shows the means for cognitive score (leadership score/residual earnings measure). The data come from elections held during 1991–2010 (1991, 1994, 1998, 2002, 2006, and 2010). In the left column of plots, the black dots show the mean of the competence variable for the politicians in each ballot rank, and the vertical lines running through each dot denote 95% confidence intervals. In the middle column of plots, similar means and confidence intervals are shown, but the politician observations are split by whether their fathers have incomes below or above the median father in the population. The black dots show the summary statistics for the politicians with low-income fathers, and the gray dots show the statistics for the politicians with high-income fathers. In the right column of plots, similar means and confidence intervals are reported for two groups of municipality-election observations, split by the median of political competition. Political competition is computed as the win margin of the majority bloc of parties, left or center-right. The black dots show the summary statistics for the politicians in low-competition contexts, and the gray dots show the statistics for the politicians in high-competition contexts. For the cognitive and leadership scores, the sample is restricted to men in the 1951–1980 cohorts.

that party screening is one of the mechanisms behind the broad representation we observe.

Finally, we might suspect that the motives for positive screening are stronger with stiffer political competition as measured by

electoral win margins. The right-most graphs in [Figure VIII](#) suggest that positive party screening is indeed stronger in municipalities with stiffer political competition (the gray dots).

All in all, healthy political parties—which can offer positive screening to society—appear to be an important component of Sweden’s inclusive meritocracy in politics.

## VII. CONCLUSION

Research in political economics offers theoretical arguments and empirical evidence for the notion that leaders matter, and that societies benefit from an able and broadly representative leadership. While democracy may be better suited than other political systems to promote representation, it is not clear that it can deliver both able and representative leadership. To shed light on this, we analyze political selection in Sweden, a paradigmatic advanced democracy. We use rich information on ability traits and social background for the universe of national and municipal politicians and the entire Swedish population.

We uncover four facts: (i) Politicians are strongly positively selected for all ability measures, despite facing higher opportunity costs, with a positive relationship between ability and political power. (ii) Positive selection is present even conditional on social and family background: in other words, individual ability matters greatly for selection. (iii) Representation of social background, whether measured by parental earnings or social class, is very even. (iv) At most, there is a weak trade-off in selection between ability and inclusive social representation.

Democracy can thus promote competent leadership, which stems from inclusive meritocracy, rather than from pure elitism or an exclusive meritocracy where the privileged have an upper hand. In Sweden, political parties attract the competent and promote the best to higher ranks, quite independently of social class. As a result, the Swedish system produces plenty of well-selected politicians from low socioeconomic backgrounds. While further research into this process is beyond the scope of our study, a few elements appear to matter. One is a combination of well-paid full-time positions and strong intrinsic motivation to serve in uncompensated ones; another is party governance in reasonable health working within an electoral system allowing parties to represent various segments of society; and a third is availability of

talent across social classes (which may, in turn, reflect universal high-quality education).

Although we cannot easily extrapolate to the rest of the world, our four facts alleviate concerns that political systems encouraging broad representation necessarily select mediocre leaders. Some of the patterns we find may still be specific to Swedish political (and societal) institutions. Data permitting, it would be very interesting to carry out a comparative analysis of other countries with similar or dissimilar political systems.

Our findings suggest that we may have to rethink models of political selection and recruitment. Standard models, which focus on opportunity costs and material motives for holding office, cannot explain positive selection of the type we uncover. The data seem to support a richer view, where intrinsic as well as material motives shape entry into politics, and where screening matters. Political parties play an active role in screening candidates, and our results suggest that candidate ability is an important element in this calculus.

Future work should extend the analysis in several dimensions. There is room for more comprehensive modeling and testing of hypotheses on individual motives in self-selection (the supply of politicians) and on the precise ways parties and voters screen (the demand side). In addition, future research should attempt to quantify intrinsic motivation, and its impacts on selection and performance. Finally, it would be valuable to study how the competence and representativeness of political leaders leave a mark on policy outcomes.

UNIVERSITY OF CALIFORNIA, BERKELEY  
UNIVERSITY OF CALIFORNIA, BERKELEY  
DEPARTMENT OF GOVERNMENT, UPPSALA UNIVERSITY & UCLS  
INSTITUTE FOR INTERNATIONAL ECONOMIC STUDIES, STOCKHOLM  
SOFI, STOCKHOLM UNIVERSITY; DEPARTMENT OF GOVERNMENT, UPPSALA UNIVERSITY; IFN & UCLS

#### SUPPLEMENTARY MATERIAL

An [Online Appendix](#) for this article can be found at *The Quarterly Journal of Economics* online. Data and code replicating the tables and figures in this paper can be found in Dal Bó, Finan, Folke, Persson, and Rickne (2017), in the Harvard Dataverse, [doi:10.7910/DVN/TJONZZ](https://doi.org/10.7910/DVN/TJONZZ).

## REFERENCES

- Bäck, Hanna, and Richard Öhrvall, "Det nya seklets förtroendevalda: om politik-erantal och representativitet i kommuner och landsting" (The new century's representatives: About the number of politicians and representativeness in municipalities and counties)," Technical report, Justitiedepartementet (Department of Justice), 2004.
- Beath, Andrew, Fotini Christia, Georgy Egorov, and Ruben Enikolopov, "Electoral Rules and the Quality of Politicians: Theory and Evidence from a Field Experiment in Afghanistan," NBER Working Paper no. 20082, 2014, <http://www.nber.org/papers/w20082>.
- Besley, Timothy, and Stephen Coate, "An Economic Model of Representative Democracy," *Quarterly Journal of Economics*, 112 (1997), 85–114.
- Besley, Timothy, Olle Folke, Torsten Persson, and Johanna Rickne, "Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden," *American Economic Review*, forthcoming.
- Besley, Timothy, and Marta Reynal-Querol, "Do Democracies Select More Educated Leaders?," *American Political Science Review*, 105 (2011), 552–556.
- Besley, Timothy, Rohini Pande, and Vijayendra Rao, "Political Selection and the Quality of Government: Evidence from South India," Economic Growth Center Discussion Paper 921, Yale University, 2005.
- Besley, Timothy, Jose G. Montalvo, and Marta Reynal-Querol, "Do Educated Leaders Matter?," *Economic Journal*, 121 (2011), F205–F227.
- Carlstedt, Berit, *Cognitive Abilities: Aspects of Structure, Process and Measurement*, PhD diss., University of Gothenburg, 2000.
- Caselli, Francesco, and Massimo Morelli, "Bad Politicians," *Journal of Public Economics*, 88 (2004), 759–782.
- Chattopadhyay, Raghavendra, and Esther Dufo, "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India," *Econometrica*, 72 (2004), 1409–1443.
- Dahl, Svend, *Efter folkrörelsepartiet: Om aktivism och politiska kursomläggningar i tre svenska riksdagspartier (Life after the popular parties: About activism and political re-directions of three parties with parliamentary representation)*, PhD diss., Stockholm University, Stockholm Studies in Politics 140, 2011.
- Dal Bó, Ernesto, Pedro Dal Bó, and Jason Snyder, "Political Dynasties," *Review of Economic Studies*, 76 (2009), 115–142.
- Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne, "Replication Code for 'Who Becomes a Politician?'," Harvard Data-verse, doi:10.7910/DVN/TJ0NZZ.
- Dal Bó, Ernesto, Frederico Finan, Olle Folke, Torsten Persson, and Johanna Rickne, "Who Becomes a Politician?," Research Institute of Industrial Economics Working Paper Series 1133, 2016, <https://ideas.repec.org/p/hhs/iuiwop/1133.html>.
- Dal Bó, Ernesto, and Martín Rossi, "Term Length and the Effort of Politicians," *Review of Economic Studies*, 78 (2011), 1237–1263.
- Djerf-Pierre, Monika, and Birgitta Niklasson, "Vem vill ha jämställdhet? [Who Wants Gender Equality?]," in *Det våras för politiken: trettio två artiklar om politik, media och samhälle* [Springtime for politics: thirty-two articles about politics, the media, and society], Sören Holmberg and Lennart Weibull, eds. (Oxford: Oxford University Press, 2010).
- Erikson, R., and J. H. Goldthorpe, *The Constant Flux: A Study of Class Mobility in Industrial Societies* (Oxford: Clarendon Press, 1992).
- Ferraz, Claudio, and Frederico Finan, "Motivating Politicians: The Impacts of Monetary Incentives on Quality and Performance," NBER Working Paper no. 14906, 2009.
- Folke, Olle, Torsten Persson, and Johanna Rickne, "The Primary Effect: Preference Votes and Political Promotions," *American Political Science Review*, 110 (2016), 559–578.

- Folke, Olle, and Johanna Rickne, "The Glass Ceiling in Politics Formalization and Empirical Tests," *Comparative Political Studies*, (2016), 567–599.
- Freidenvall, Lenita, "Vägen till Varannan damernas. Kvinnorepresentation, kandidaturval och kvotering i svensk politik 1970–2002 [The road to "zippered lists". Female representation, candidate choice and quotas in Swedish politics 1970–2002]," Technical report, Stockholms Universitet, 2006.
- Gagliarducci, Stefano, and M. Daniele Paserman, "Gender Interactions within Hierarchies: Evidence from the Political Arena," *Review of Economic Studies*, 79 (2012), 1021–1052.
- Galasso, Vincenzo, and Tommaso Nannicini, "Competing on Good Politicians," *American Political Science Review*, 105 (2011), 79–99.
- Hela Hälsningland, "Rather Mayor than Parliamentarian (Hellre kommunalråd är riksdagsman)," 2010, <http://www.helahalsingland.se/halsingland/soderhamn/hellre-kommunalrad-an-riksdagsman>.
- Helsingborgs Dagblad, "Torkild Chooses Landskrona rather than Parliament [Torkild väljer Landskrona före riksdagen]," 2006, <http://www.hd.se/2006-05-02/torkild-valjer-landskrona-fore-riksdagen>.
- Jia, Ruixue, Masayuki Kudamatsu, and David Seim, "Political Selection in China: The Complementary Roles of Connections and Performance," *Journal of the European Economic Association*, 13 (2015), 631–668.
- Jones, Benjamin F., and Benjamin A. Olken, "Do Leaders Matter? National Leadership and Growth Since World War II," *Quarterly Journal of Economics*, 120 (2005), 835–864.
- Karlsson, David, "Ny som förtroendevald i kommuner och landsting [New to Local Politics]," in *Att vara med på riktigt - demokratiutveckling i kommuner och landsting* [To participate for real - democratic developments in municipalities and counties], SOU 2001:48, Swedish Government White Paper, Stockholm, Sweden, 2001.
- Lindgren, Karl-Oskar, Sven Oskarsson, and Christopher Dawes, "Can Political Inequalities Be Educated Away? Evidence from a Swedish School Reform," *American Journal of Political Science*, 61 (2017), 222–236.
- Lundqvist, Heléne, "Is It Worth It? On the Returns to Holding Political Office," Working Papers 2013/14, Institut d'Economia de Barcelona, 2013.
- Merlo, Antonio, Vincenzo Galasso, Massimiliano Landi, and Andrea Mattozzi, "The Labor Market of Italian politicians," in *The Ruling Class: Management and Politics in Modern Italy*, Tito Boeri, Antonio Merlo, and Andrea Prat, eds. (Oxford: Oxford University Press, 2010).
- Messner, Matthias, and Matthias K. Polborn, "Paying Politicians," *Journal of Public Economics*, 88 (2004), 2423–2445.
- Meyersson, Erik, "Islamic Rule and the Empowerment of the Poor and Pious," *Econometrica*, 82 (2014), 229–269.
- Myerson, Roger, "Incentives to Cultivate Favored Minorities under Alternative Electoral Systems," *American Political Science Review*, 87 (1993), 856–869.
- Olson, Mancur, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge, MA: Harvard University Press, 1965).
- Osborne, Martin, and Al Slivinski, "A Model of Political Competition with Citizen-Candidates," *Quarterly Journal of Economics*, 111 (1996), 65–96.
- Pande, Rohini, "Can Mandated Political Representation Increase Policy Influence for Disadvantaged Minorities? Theory and Evidence from India," *American Economic Review*, 93 (2003), 1132–1151.
- Persson, Torsten, and Guido Tabellini, *The Economic Effects of Constitutions* (Cambridge, MA: MIT Press, 2003).
- Powell, G. Bingham, *Elections as Instruments of Democracy—Majoritarian and Proportional Visions* (New Haven, CT: Yale University Press, 2000).
- SOU, "Ett decennium med personval (Lessons from a Decade of Preference Voting)," Swedish Government White Paper: 68, 2007.
- Ståhlberg-Carlstedt, Berit, and P. Sköld, "Inskrivningsprov 80 - Testmanual (Enlistment Test 80 - Testing Manual)," Report CH 55001-H7, National Defense Research Establishment Report, 1981.

- Statistics Sweden, "Åttapartivalet 2010, Allmänna valen Valundersökningen [The eight parties election 2010, general election, electoral study]," Official Statistics Sweden Report, 2010.
- Sveriges Radio, "Would Rather Be Mayor than Parliamentarian [Blir hellre kommunalråd än riksdagsman]," 2006, <http://sverigesradio.se/sida/artikel.aspx?programid=161&artikel=973385>.
- Taagepera, Rein, and Matthew Shugart, *Seats and Votes: The Effects and Determinants of Electoral Systems* (New Haven, CT: Yale University Press, 2000).
- Tillmann, Philipp, "Entry into Electoral Races and the Quality of Representation," Unpublished manuscript, University of Rochester, 2014.
- Washington, Ebonya L., "Female Socialization: How Daughters Affect Their Legislator Fathers," *American Economic Review*, 98 (2008), 311–332.
- Zetterberg, Hans, "During Olof Palme's Time—and Afterwards (Under Olof Palmes tid och efteråt)," 1988, <http://zetterberg.org/Press/SvD/sd880229.htm>.