The literature on public bureaucracies has established that two characteristics of civil services are important for their performance and efficiency: (1) the meritocracy of recruitment (influenced by educational requirements, competitive examinations, and independent commissions) and (2) the level of political control (influenced by political appointments, dismissals, and procedural regulations). Despite the relevance of those characteristics and their complex interaction, there is relatively little research on their historical origins from a comparative perspective. Considering the high level of path dependence in bureaucratic organization, this paper explains divergence in both dimensions by analyzing the political strength of social groups in the 19th and early 20th centuries. Several case studies and a cross-national empirical test are conducted to examine the theory’s validity.

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The most recent version of this paper may be obtained at the following URL: http://www.janvogler.net/PE_of_Bureaucracy.pdf
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1 Introduction

Public bureaucracies are relevant for the functioning of states—they are the primary tool for implementing policies and crucial to governing.\(^1\) Despite the bureaucracy’s importance for the political system, its organization and performance vary markedly across countries.\(^2\) The significant variation in institutional structures is contrary to Max Weber’s expectations of a relatively uniform rationalization process, leading to a modern bureaucracy strictly based on the principles of specialization, hierarchy, and meritocracy. According to his work, we would expect the public administrations of advanced industrialized countries to be more institutionally homogeneous than they are.\(^3\) What can explain the significant variation in bureaucratic institutions?

Scholars of political science, history, and public administration have found that bureaucracies are characterized by a high level of path dependence. Institutions that were locked in historically often persist well into the present day. The 19th and early 20th centuries are widely considered the critical time period for the emergence of modern bureaucracies and persisting differences between them.\(^4\) Considering the intensity of political conflicts at this time, it is puzzling that almost no scholars in political science have put social groups at the center of their analysis of how different bureaucracies emerged. Yet, there is evidence that social groups have had significant influence on state structures. For example, Acemoglu and Robinson\(^5\) and Ansell and Samuels\(^6\) show that the relative strength of social groups had decisive influence on the design of political institutions.

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\(^2\)Dahlström et al. 2015; Kopecký, Mair, and Spirova 2012; Peters 2001; Dahlström and Lapuente 2017.
\(^3\)Olsen 2006; Olsen 2008; Weber 1978, Ch. 11.
\(^5\)Acemoglu and Robinson 2005.
\(^6\)Ansell and Samuels 2014.
Similarly, Korpi argues that social groups have shaped the welfare state. Therefore, the main question addressed here is: what explains variation in bureaucratic institutions and characteristics across countries, specifically with respect to the meritocracy in recruitment and the level of political control? How did social groups historically shape those aspects of the public administration?

The argument presented here is that three groups had a major impact on the design of bureaucratic systems: the landed elites, the middle class, and the working class each had their unique interests in the organization of the state and their relative power is crucial for explaining cross-national divergence in administrative institutions. The traditional or landed elites wanted to maintain their privileged status in and access to the public administration. Thus, they were aiming for high levels of social selectivity and political control through non-democratic institutions. The middle classes were the strongest force for recruitment based on educational qualifications as they expected to succeed in such a merit-based system. Based on their historical experience with political control through the nobility and fearing future working class domination, they wanted to shield the administration from political influence. Finally, anticipating that they would dominate in numbers, the working class aimed for high levels of political control through democratic institutions. When political power was concentrated in a single group, it would implement institutions in full accordance with its preferences. When two or more groups shared political power, they often had to make compromises with respect to the institutional design of the public administration. This theory will be elaborated in more detail below.

This paper is structured as follows. First, two important dimensions of bureaucratic organization are identified. Then, their complex interaction is discussed. After a brief

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7Korpi 2006.
literature review, a theory based on the historical influence of social groups is introduced. Finally, to test the theory, a cross-national statistical analysis and multiple case studies are conducted.

2  Puzzle and Literature Review

Cross-national variation in two important dimensions of bureaucratic organization cannot be fully explained by the current literature. One of these dimensions is the level of “meritocracy in recruitment,” which can be defined as the selection of candidates based on their qualification and education, i.e. their preparedness for the job, rather than other aspects. This is an important factor of bureaucratic organization because meritocracy reduces corruption and increases both business entry and economic growth rates.$^8$ A meritocratic system can be undermined through (1) social selectivity or (2) patronage.

Moreover, various contributions to the literature deal with the level of political control that bureaucracies are subject to—a factor that is relevant for both normative and empirical reasons. The means for political control include budget constraints, administrative law, and passing highly specific bills. These mechanisms and the principal-agent problem in general have been investigated in much detail.$^9$ However, the most direct way in which politicians can control bureaucracies is through political appointments and dismissals,$^{10}$ which potentially also enable patronage and could undermine bureaucratic competence.$^{11}$ Thus, for this paper we define “political control” as the extent to which


$^9$McCubbins and Schwartz 1984; McCubbins, Noll, and Weingast 1987; Calvert, McCubbins, and Weingast 1989; Epstein and O’Halloran 1994; Huber and Shipan 2002; Clinton, Lewis, and Selin 2014; Gailmard and Patty 2012; Meer 2009; Tullock 2005. There are disagreements about the precise effect of political control on bureaucratic efficiency, but there is a general agreement that it matters, see Krause, Lewis, and Douglas 2006.

$^{10}$Wood and Waterman 1991.

$^{11}$Gilmour and Lewis 2006; Lewis 2009; Gallo and Lewis 2012; Hollibaugh, Horton, and Lewis 2014.
political principals can hire and fire the occupants of the (higher) civil service offices.

The level of meritocracy and the degree of political control are not the only characteristics of bureaucratic organization that have an impact on administrative performance. Yet, both these dimensions have received significant attention by scholars of public bureaucracies and are related to each other. Therefore, remarkable cross-national variation in both characteristics is an important phenomenon demanding an explanation.

There is an interaction between the extent of appointments and the meritocracy in recruitment as patronage—potentially enabled by appointments—can undermine meritocracy. However, there is not perfect linearity between these dimensions because there can be hybrid systems, combining many appointments with high meritocracy in recruitment at different levels of the administration. Moreover, even with the same number of political appointments and dismissals, bureaucracies can potentially have very different educational requirements, difficulty of examinations, and levels of social selectivity. Thus, while there is a relationship between meritocracy and political control, it is not a perfectly linear one. The fact that these two characteristics interact but are simultaneously not perfectly aligned—shown in Figure 1—makes it necessary to treat them jointly instead of lumping them together in a single dimension or ignoring one of them.

Accordingly, two questions about bureaucratic organization motivate this research. First, what explains the extent of political appointments and dismissals, especially at higher levels? Second, what explains the level of meritocracy in recruitment for the remaining civil servants? The analysis will focus on central government institutions but also take other developments into account.

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12 Geddes 1994, Ch. 6.
14 The organization of the central government bureaucracy often heavily influences decentralized structures, see Raphael 2000, pp. 76-77.
The organization of bureaucracies in each dimension varies significantly.\textsuperscript{15} Figure 1 shows estimates from expert surveys conducted by the Quality of Government (QoG) Institute for variation in both factors across a total of 27 countries that enjoyed domestic political autonomy in the early 20th century.\textsuperscript{16} Countries that did not enjoy domestic political autonomy at this time cannot be considered in this paper as external factors may have a significant impact on their bureaucratic organization.\textsuperscript{17} Even though most countries formally have meritocratic recruitment systems, factual variation in meritocracy is significant, making the expert estimates a more reliable measurement than an exclusive analysis of formal institutions.\textsuperscript{18} Data by the QoG Institute generally correspond with other classifications of public administrations.\textsuperscript{19}

![Figure 1: Scatterplot — Meritocracy and Political Control](image)

\textsuperscript{15}Dahlström 2009; Dahlström, Lapuente, and Teorell 2012.
\textsuperscript{16}Dahlström et al. 2015.
\textsuperscript{17}The labels are based on ISO 3166-1 alpha-3 codes.
\textsuperscript{18}Dahlström and Lapuente 2017, p. 14.
\textsuperscript{19}Müller 2000; Müller 2006; Kopecký, Mair, and Spirova 2012.
The graph is based on expert estimates of two statements. With respect to the level of meritocracy, experts were asked to rate the frequency/likelihood of the following statements: “When recruiting public sector employees, the skills and merits of the applicants decide who gets the job.” With respect to the level of political control, they were asked to rate the following: “The top political leadership hires and fires senior public officials.”

As the measurements of meritocracy and political control are continuous, defining scope conditions for categories is somewhat arbitrary. However, while acknowledging that there are further nuances, we can generally differentiate three types of administrative systems in Figure 1: (1) low-meritocracy, high-control systems in the upper left corner; (2) high-meritocracy, high-control systems in the upper right corner; and (3) high-meritocracy, low-control systems in the lower right corner.

While the current literature on the emergence of modern bureaucracies includes many excellent studies, it has three weak spots with respect to explaining the above variation. First and most importantly, many studies do not pay attention to either meritocracy, political control, or the interaction of those dimensions by ignoring one or both of them. For example, Silberman presents a rigorous cross-country study of public bureaucracies, differentiating between organizational and professional systems. In this classification scheme, organizational bureaucracies have strict hierarchies, well-defined career paths, and more coherent organizational cultures while professional bureaucracies have more horizontal structures, less strong organizational cultures, and rely more on external expertise. He identifies uncertainty about leadership succession as the key explanatory factor. However, his scheme does not distinguish between different levels of meritocracy as it can be high or low under both systems.

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20 Dahlström et al. 2015, pp. 8-9.
21 Silberman 1993.
22 This is also true for Hollyer 2011 because he uses a relatively simple dichotomous variable to measure
Second, despite overwhelming evidence that social groups shaped public institutions, with some notable exceptions, most existing studies do not explicitly theorize about the active and significant role social groups had in terms of bureaucratic reform. For example, Hollyer argues that governments introduce meritocratic recruitment when the opportunity costs of not doing so increase due to a rising number of highly educated citizens. This explanation treats highly educated citizens as passive actors while there is a large body of historical evidence showing that the professional middle class often was a driving force in reforming bureaucracies (see section 5).

Third, there are many excellent studies on the long-term impact of historical developments on public bureaucracies, but they are often focused on a single case. This limits their potential for explaining cross-country variation. For example, political competition between the executive and the legislative branch of government in the United States may have affected the speed and extent of the removal of patronage policies. However, this explanation is restricted to presidential political systems with a significant institutional independence between legislative and executive branch. Moreover, Tolbert and Zucker investigate the determinants of civil service reform in American cities and also discuss the potential impact of the strength of the migrant working-class and the middle classes on reform speed. Yet, their analysis is limited to American cities and therefore does not speak to national-level institutions or dynamics in other countries. Similarly, the analysis of Grindle is focused on Latin America.

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24 Tolbert and Zucker 1983.
26 Also, Gorski 2003 explains some aspects of the modern bureaucratic state through the long-term impact of the Reformation, arguing against the focus on military and political revolutions.
27 Carpenter 2001; Skowronek 1982.
29 Tolbert and Zucker 1983.
30 Grindle 2012.
The work of Shefter comes closest to our approach. He presents a study of political mobilization strategies and differentiates between externally and internally mobilized parties. The strategy chosen depends on the sequence of bureaucratization vs. democratization. Despite the importance of his work and his partial focus on the middle classes as an important force for bureaucratic autonomy, Shefter concentrates on party strategies (which may vary between parties in the same system) and does not address the institutional framework that governs meritocracy and political control.

To summarize, while it consists of many excellent contributions, the existing literature on the emergence of public bureaucracies cannot fully account for the variation and complex interaction of meritocracy and political control. Many studies only consider one of the two dimensions and thereby ignore their non-linear relationship. Furthermore, several accounts disregard the active role that social groups played. Finally, a large number of contributions primarily refer to the American historical context and often have reduced explanatory power when applied to systems with fundamentally different institutional characteristics.

3 Theory

Even though early modern bureaucracies already emerged in the late 18th and early 19th centuries in Prussia and Austria, they were (1) focused on the military domain, (2) geographically limited, and (3) far from the endpoint of the critical emergence period. In most countries, massive qualitative and quantitative transformations in the 19th and early 20th centuries shaped the administrative state far more than any preceding

\[31\text{Shefter 1994.}\]
developments.\textsuperscript{32} Indeed, modern bureaucracies were sharply different from previous administrations, which means prior developments are relatively negligible for this analysis.\textsuperscript{33}

It is widely accepted in the literature on administrative history that bureaucracies exhibit high levels of path dependence in their institutional characteristics. Accordingly, we need to understand their origins to explain differences in their present-day organization.\textsuperscript{34} There is a large body of literature investigating the path dependence and self-reinforcement of bureaucracies and other social institutions.\textsuperscript{35} Based on the literature, we will make the assumption of path dependence but also critically assess this assumption in each of our case studies.

The period of interest was one of intense conflict between different social groups.\textsuperscript{36} A rising middle class fought for a liberal political-economic order, landed elites defended their traditional privileges, and the working class aimed for capturing and reshaping state institutions. Using three groups is a simplification, but it is analytically useful and appropriate for a time when these groups were more homogeneous than at any time afterwards.\textsuperscript{37} Acemoglu and Robinson justify this simplification through Occam’s Razor, which requires reduction to analytically essential categories.\textsuperscript{38} Even though there also was internal disagreement in these groups, the intensity of external conflict typically overshadowed it. Furthermore, these groups also indirectly incorporate several social movements of the time, such as the labor movement. However, the scheme presented here is relatively broad and cannot account for all case-specific deviations. This disadvantage

\begin{thebibliography}{9}
\bibitem{32} Doyle 1992, Ch. 11; Fischer and Lundgreen 1975, p. 462; Hintze 1975; Mann 1993, Ch. 13; Raadschelders and Rutgers 1996.
\bibitem{33} Raphael 2000, p. 12.
\bibitem{34} Silberman 1993; Carpenter 2001; Raadschelders and Rutgers 1996; Painter and Peters 2010. For similar approaches see Acemoglu, Johnson, and Robinson 2001 and Nunn 2008.
\bibitem{35} Greif 1998; Greif 2006; Mahoney 2000; David 1994; Raadschelders 1998.
\bibitem{36} Ansell and Sannuel 2014; Mommsen 1969.
\bibitem{37} Similar approaches are often used in political economy, see Iversen and Soskice 2006. Moore 1974 also uses the same classification scheme.
\bibitem{38} Acemoglu and Robinson 2005, p. 16.
\end{thebibliography}
must be accepted when developing a general theory that applies to a large number of countries.

3.1 Traditional and Landed Elites:

The traditional elites, i.e. citizens who either had birthright privileges and/or largely derived their income from agriculture, typically were the most advantaged group of society. They often used their privileges to slow down socio-economic changes which they anticipated would erode their economic basis.39 A slow but steady decline in status throughout much of the 19th century,40 made many land owners interested in alternative occupations in the state apparatus.41 Additionally, their younger sons, who often did not inherit any land, also needed a source of income.42 Thus, the key interest of traditional elites was the maintenance of a bureaucracy that largely excluded other groups, meaning the highest possible level of social selectivity and low levels of meritocracy. When forced to make a compromise, they would try to achieve the highest level of social selectivity possible in a *formally* meritocratic system.

Moreover, the landed elites were also interested in high levels of political control through non-democratic institutions, which they dominated, and aimed at shielding the bureaucracy from parliamentary and democratic influence.43

Based on this discussion and the assumption of path dependence, we can derive two hypotheses.

**Hypothesis 1:** In countries where the traditional/landed elites historically had more political influence, we expect lower present-day levels of meritocracy.

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39 Acemoglu and Robinson 2006.
43 Klimó 1997, pp. 16-17.
**Hypothesis 2:** In countries where the traditional/landed elites historically had more political influence, we expect higher present-day levels of political appointments and dismissals.

### 3.2 The Middle Class(es):

The middle classes, consisting of professionals and entrepreneurs, were interested in administrative reform for multiple reasons. As economic and social climbers, they were no longer willing to accept a low level of representation in the state apparatus. Furthermore, the bureaucracy was often seen as a tool of other groups, working against their interests.\(^{44}\) The *professional* middle class wanted competitive entry for two reasons. First, as the best-educated members of society, they would have the greatest chances of success. Second, both professional and entrepreneurial middle class members often had to rely on state services for their business activities and thus suffered if public servants were incompetent.\(^ {45}\)

Similarly, the *entrepreneurial* middle class, fearing rising taxes through bureaucratic incompetence, corruption, and inefficiency, also had a strong interest in meritocracy. Although in the 19th century states typically generated most of their income from tariffs, they often imposed additional taxes.\(^ {46}\) The middle classes opposed both high tax rates, an indirect form of expropriation in part caused by inefficient bureaucracies.\(^ {47}\) Accordingly, the highest priority for them in terms of bureaucratic organization was a meritocratic recruitment system.

Furthermore, both the historical experience of control by the landed elites and the

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\(^{44}\)Rürup 1992, pp. 159-160; Kingsley 1944.

\(^{45}\)Skowronek 1982, pp. 51-52.


anticipation of possible (democratic) control by the working class—likely associated with the implementation of economic policies against middle-class interests—made the middle classes interested in achieving bureaucratic impartiality. When political actors anticipate that other groups may gain power, they will create a system that prevents future partisan use.\textsuperscript{48} Although there is no direct linear relationship (see section 2), high levels of meritocracy generally put some limits on political control. For both reasons, the middle classes generally pushed for a system with the lowest possible level of control.

Based on this discussion and the assumption of path dependence, we can derive two hypotheses.

**Hypothesis 3:** In countries where the middle classes historically had more political influence, we expect higher present-day levels of meritocracy.

**Hypothesis 4:** In countries where the middle classes historically had more political influence, we expect lower present-day levels of political appointments and dismissals.

### 3.3 The Urban Working Class:

The working class ideology of socialism called for state interventions in the economy and ultimately the capturing and reshaping of political institutions (often referred to as the “dictatorship of the proletariat”) to enable the redistribution of capital amongst others.\textsuperscript{49} To achieve this goal, the working class primarily needed a high level of political control of the bureaucracy through democratic institutions. Its representatives would seek such control even when some non-democratic institutions existed in parallel.

Additionally, as many workers faced poor working conditions in private industries, the working class was in favor of an open recruitment system with no mechanisms of

\textsuperscript{48} Moe 1989, p. 274.

social selectivity, potentially increasing meritocracy. However, due to their generally low formal education, many working class members were also interested in low educational requirements.⁵⁰ Accordingly, there was some ambiguity in working-class interests—they wanted both lower educational requirements, reducing meritocracy, and open recruitment, increasing meritocracy. This means that the effect of working class influence on meritocracy is ambiguous.

Based on this discussion and the assumption of path dependence, we can derive one hypothesis.

**Hypothesis 5:** In countries where the working class historically had more political influence, we expect higher present-day levels of political appointments and dismissals.

### 3.4 Mechanisms of Influence and Single-Group Dominance vs. Political Compromises

How do these preferences translate into the design of administrative institutions? Considering the different visions the three groups had for the administrative state, their respective *political influence* was a key factor in shaping the modern bureaucracy.⁵¹ Political influence is defined here as the *ability to alter policies via formal and informal channels*. For instance, both the occupation of formal political offices and the ability to informally put pressure on elected officials through money or threats of violence would be channels of influence. Due to the goal of generalizability, this theory is not limited to any particular form of promoting political interests. For example, if we only considered a specific mechanism of political influence—such as formal party organizations—,

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⁵⁰Hoffmann 1972, Ch. 1; Smelser 1991; Wehler 1994, pp. 88-89.

⁵¹A comparable argument about how the organization of Eastern European states is influenced by the relative strength of parties has been made by Grzymala-Busse 2007.
we would likely reduce the theory’s explanatory power to political systems with a high
degree of party institutionalization. While the theory is not limited to any specific causal
mechanism, the case studies will explore and analyze concrete mechanisms of political
influence. Moreover, as the theory does not account for external factors such as coloniza-
tion or empires, it can only be applied to countries which historically enjoyed domestic
political autonomy.

When a single group dominates in terms of its political influence, we expect this group
to create a public bureaucracy in full accordance with its preferences. However, there is
also the possibility that two social groups are forced to make a political compromise.\textsuperscript{52} In
any such compromise, the respective classes would seek to achieve their primary interest
but also be willing to accommodate the other group’s interests to some extent. Insofar,
hybrid systems with high levels of political control and high levels of meritocracy rep-
resent historical political compromises in which the interest of at least two groups were
accommodated. The case studies that follow below illustrate such compromises.

4 Cross-National Analysis

We begin the empirical section with a cross-national statistical analysis. Two caveats
need to be addressed. First, there are many limitations to cross-country regressions,\textsuperscript{53} in-
cluding the possibility of finding only spurious correlation. Thus, we need to complement
the results of the statistical analysis by in-depth case studies, which demonstrate that
social groups did in fact shape public institutions in accordance with the hypothesized
interests (see section 5). Second, as the theory does not speak to issues of colonialism and
imperialism, the sample has been restricted to countries which enjoyed domestic political

\textsuperscript{52}Moe 1989, p. 273; Przeworski and Wallerstein 1982.
\textsuperscript{53}Levine and Zervos 1993.
autonomy in the early 20th century.\textsuperscript{54}

The key challenge is measuring the historical political power of social groups. For instance, we could use the seat share of parties in parliament as proxy for the relative strength of social groups, but this and comparable measurements are associated with a variety of problems. (1) The power of parliamentary coalitions heavily depends on many other institutions (e.g., parliamentary vs. presidential governments). (2) Most possible measurements do not account for informal power channels. Fortunately, as discussed below, a good measurement of the political power of traditional elites at the beginning of the 20th century exists, which allows us to test hypotheses 1 and 2 here.

Additionally, an empirical test of hypotheses 3 and 4 is presented in the appendix. Due to the ambiguous interests of the working class with respect to meritocracy, we do not include a statistical analysis of their historical influence, but we discuss their impact in the case study section and in the additional case studies in the appendix.

\section*{4.1 Key Dependent and Independent Variables}

The QoG Institute provides a dataset based on expert surveys (in 2014) that includes estimates of (1) the meritocracy of recruitment and (2) the level of appointments/dismissals for many countries on a continuous 1-7 scale.\textsuperscript{55} Figure 1 already showed the distribution of those variables. Since the empirical test is restricted to domestically autonomous countries in the early 20th century, approximately 30 units are included. Given the bounds of the dependent variable, Tobit regression models will be utilized.

To measure the level of traditional/landed elite influence, we use the inverse of the “range of consultation variable” by the \textit{Varieties of Democracy (VoD) Project}. This

\textsuperscript{54}Ethiopia was excluded from the analysis as the social conditions in the country do not fit the theoretical framework.

\textsuperscript{55}Dahlström et al. 2015.
variable is based on expert answers to the following question: “When important policy changes are being considered, how wide is the range of consultation at elite levels?” The possible answers show that it measures the extent to which the traditional elites consult with the leading members of other social groups, specifically and explicitly business and labor leaders, before they make important decisions. In the historical period under consideration, political systems, in which neither the interests of business nor labor were taken into account, were dominated by the landed elites. Thus, the inverse of this variable shows to which extent the traditional elites can make important policy decisions unilaterally and without consulting other social groups. The variable is converted to an interval scale by the VoD Project.\textsuperscript{56} Due to its focus on the elite level and the absence of factors such as the extent of suffrage or the system of government, this measurement should not be confused with measurements of democracy.

The analysis will be conducted for the year 1913 as, for most countries in this study, the pre-World War One period marks the climax of the emergence of modern bureaucracies.\textsuperscript{57} Accordingly, the strength of social groups at this moment in time is crucial for their final shape. However, as the year in which the test is conducted is to some extent arbitrary, analyses for all years between 1910 and 1925 were conducted. With the exception of the war years (1914-1918/1919), almost all analyses produce statistically significant results. Detailed numbers are provided in the appendix.

\textsuperscript{56}Coppedge et al. 2016.
\textsuperscript{57}Raadschelders and Rutgers 1996.
4.2 Covariates

We need to account for additional variables, including both historical factors and more recent developments.\(^{58}\) Please note that we control for more recent developments because their relevance is highlighted in the literature on public bureaucracies, but this could lead to post-treatment bias. Due to the possibility of post-treatment bias, we always present results both with and without controls and readers are advised to be cautious when interpreting the results of models with controls. Fortunately, the results hold regardless of specification.

Due to the very small number of observations, which is 30 or less in most cases—meaning a very low number of degrees of freedom—, we introduce at most two explanatory variables simultaneously.

**Divided Party Control of Government:** If the government is controlled by multiple parties, there is greater likelihood of policy conflict, which could increase the degree of political control.\(^{59}\) Alternatively, political competition among the branches of government controlled by different parties could also reduce the ability or incentives of politicians to control the bureaucracy.\(^{60}\) The variable represents the country-specific average as of 1990.\(^{61}\)

**Legislative Party Cohesion:** How cohesively party members vote for policies could serve as proxy for the organizational coherence of parties. A high level could indicate a high ability for political control. The variable represents the country-specific average as

\(^{58}\)We do not include control variables for GDP or level of democratization because those measurements would be highly correlated with the political power of the middle classes and the urban working class respectively. As such, their inclusion would lead to high multicollinearity with measurements of social-group power.

\(^{59}\)Huber and Shipan 2002.

\(^{60}\)Lewis 2003; Wood and Bohte 2004; Johnson and Libecap 1994.

\(^{61}\)Coppedge et al. 2016.
MID Count: Military conflicts could push countries to modernize their bureaucracies. Therefore, the number of militarized interstate disputes a state was involved in (1863-1913) is included.

University Students: Historically high levels of educated citizens could change the incentives of governments to introduce meritocratic recruitment. Similar incentives could also apply in the present. Therefore, two control variables capturing the number of university students per 100,000 people are included. The first one refers to the historical level in 1913, the second one to the average after 1990.

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</tr>
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</table>

Table 1: Descriptive Statistics: Empirical Analysis

4.3 Results

The results show that the inverse of the range of elite consultation in 1913—as proxy for the political power of the traditional elites—is strongly negatively associated with the present-day level of meritocracy in recruitment and strongly positively related to the present-day level of political appointments. These results provide strong complementary evidence in support of the theory introduced here. Further details can be found in

64 Jones, Bremer, and Singer 1996.
65 Hollyer 2011.
66 Hollyer 2009.
67 Vanhanen 2003; Coppedge et al. 2016.
Figure 2, Figure 3, Table 2, and Table 3. As mentioned earlier, additional analyses were conducted for a large number of years and detailed results are included in the appendix.

In any statistical analysis that relies on observational data, there is the danger of finding a spurious correlation. This danger is also present here. Furthermore, we cannot perfectly identify causality through the regressions above. Thus, we need additional evidence to answer the question of whether social groups historically shaped public administrations in accordance with the theory. Below we conduct multiple case studies that complement the empirical analysis.

Figure 2: Meritocracy of Recruitment (2014) and the Inverse of the Range of Consultation (1913) from Empirical Minimum to Maximum (90-% Confidence Intervals)
Figure 3: Political Appointments (2014) and the Inverse of the Range of Consultation (1913) from Empirical Minimum to Maximum (90-% Confidence Intervals)
Table 2: Merit Recruitment (2014) and the Inverse of the Range of Consultation (1913)

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<td>Merit Recruitment (QOG)</td>
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<td>-0.835***</td>
<td>-0.811***</td>
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<td></td>
<td>(0.186)</td>
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<td></td>
<td></td>
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</tr>
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<td></td>
<td></td>
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<tr>
<td>University Students 1913</td>
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<td></td>
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<td></td>
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<td>University Students Avg. 1990–</td>
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<td></td>
<td></td>
<td></td>
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<td>(0.243)</td>
<td>(0.311)</td>
<td>(0.305)</td>
<td>(0.516)</td>
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<td>27</td>
<td>27</td>
<td>21</td>
<td>25</td>
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</tbody>
</table>

Note: Tobit Regression

*p<0.1; **p<0.05; ***p<0.01
Table 3: Political Appointments (2014) and the Inverse of the Range of Consultation (1913)

<table>
<thead>
<tr>
<th></th>
<th>Political Appointments (QOG)</th>
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<tr>
<td>Leg. Party Coh. Avg. 1990–</td>
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<td>University Students 1913</td>
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<td>University Students Avg. 1990–</td>
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<td>Constant</td>
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<td>Observations</td>
<td>28</td>
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*Note: Tobit Regression*  
*p<0.1; **p<0.05; ***p<0.01
5 Case Studies

In section 4, we have found support for the expected correlation of historical social group influence and the present-day design of administrative systems. However, did social groups really have a decisive influence on the design of public bureaucracies? The following case studies are meant to both validate the theoretical claims about group preferences and to examine whether social groups really were the driving force behind the design of public administrations.68 As the theory is intentionally not limited to a single type of political influence (e.g., formal party organizations), the case studies are also meant to shed light on the specific mechanisms that were utilized by social groups to implement their interests with respect to the administrative state.

The primary goal of the case selection was to achieve variation in explanatory factors and outcomes. Considering the complex interaction of the two dimensions that was discussed in section 2, it is necessary to include cases covering at least three different types of bureaucracies. For example, Italy has a high-control, low-meritocracy bureaucratic system, the Netherlands have a low-control, high-meritocracy civil service, and the United States score highly on both dimensions. This makes the US a crucial case for assessing the explanatory power of the theory. The cases also cover both situations of single-group dominance (Italy, Netherlands) as well as compromises between two social groups (the US). Finally, Russia is a special case because, after the 1917 revolution, there were no politically influential social groups left. Accordingly, this case is included to understand the consequences of such circumstances. Two additional case studies on Germany and the United Kingdom, showcasing the possibility of compromises between the landed elites and the middle classes, are included in the appendix.

68Gerring 2006.
5.1 Italy (1861-1914)

Prior to 1861, Italy was politically fragmented. As the Kingdom of Sardinia (Piedmont) was the actor behind national unification, its bureaucracy expanded to the other regions. At first glance, Italy appears like a deviant case. It is often seen as a historically liberal state with a strong entrepreneurial middle class. However, its present-day bureaucracy is characterized by high political control and low meritocracy. How can these apparent inconsistencies be explained?

First, there was no coherent (middle-class) party organization in 19th-century Italy, only loose parliamentary coalitions. Second, in addition to the influence that the traditional elites had on the initial state institutions, they also maintained disproportionately high political power through various informal mechanisms. Third, in part due to late industrialization, the distinction and conflict between the (entrepreneurial) middle class and the aristocracy was weaker than in other countries. As a result, the middle class did not develop a strong class identity distinct from the traditional elites. These circumstances meant that middle-class interests did not have as strong an impact on the organization of the state as it might be assumed.

The landed elites (of Piedmont) had significant influence on the early structures of the bureaucracy, resulting in hierarchy as the main organization principle. Through their extensive political connections, the traditional elites were able to maintain a disproportionate share of government positions and a patronage system with their clients in the broader state apparatus for decades after 1861. The patronage interests of the northern

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70 Di Mascio 2012; Golden 2003; Müller 2000; Müller 2006.
and southern landed elites complemented each other in this respect.\textsuperscript{74} The practice of patronage was also clearly visible in the relationship of parliament and bureaucracy.\textsuperscript{75}

Even though the social composition of the Italian administration became increasingly more diverse in the late 19th century,\textsuperscript{76} the system did not become much more meritocratic. As Cardoza writes, “blue-blooded patrons intervened on behalf of their local clients [...] who needed help in matters of hiring, transfers, and promotions within the state administration.”\textsuperscript{77} Although the nobility was unable to maintain its power in the long run,\textsuperscript{78} the trajectory that the bureaucracy had been put on meant that high levels of political control and low levels of meritocracy prevailed.

Starting in the 1900s, administrative law also played a role in maintaining influence on the bureaucracy.\textsuperscript{79} However, Klimo points out that it was only weakly defined for most of the previous period. Uncertainty about legal proceedings increased the importance of maintaining good relationships to political patrons.\textsuperscript{80}

To summarize, due to the absence of strong party organizations, Italy’s landed elites were able to exert disproportionately high influence on the emerging bureaucracy through informal channels, including direct connections to the monarchy. They used their informal political networks to promote patronage recruitment and high levels of political control. Many formal and informal institutions of the early public administration have endured. This also includes institutions governing recruitment and appointments. Italy has one of the highest levels of appointments in Western countries with 34.6 per ministry and 900 in total (in 2007).\textsuperscript{81} Even though there were ups and downs in bureaucratic organization

\textsuperscript{74}Shefter 1994, pp. 52-53.  
\textsuperscript{75}Klimó 1997, p. 52; Meriggi 1988, pp. 148-149.  
\textsuperscript{76}Lewanski and Toth 2011, pp. 221, 229-230.  
\textsuperscript{77}Cardoza 2002, p. 86.  
\textsuperscript{78}Cardoza 2002; Lewanski and Toth 2011, pp. 225-230.  
\textsuperscript{79}Lewanski and Toth 2011, p. 221.  
\textsuperscript{80}Klimó 1997, pp. 54-56, 74. Also see Mattarella 2016, pp. 18-19.  
\textsuperscript{81}Dahlström 2009, p. 15.
and the number of appointments over time, these changes are small compared to cross-
national variation. Thus, the present-day Italian bureaucracy is largely plagued by the
same problems as it was in the 19th century.\textsuperscript{82}

5.2 United States (1865-1925)

The American bureaucracy before 1883 was known as the “spoils system” and character-
ized by high levels of political control and low levels of meritocracy.\textsuperscript{83} The entrepreneurial
and professional middle classes, including some civil servants, were very dissatisfied with
this situation.\textsuperscript{84} For example, the American Manufacturers’ Association demanded that
meritocratic recruitment should be introduced to increase efficiency.\textsuperscript{85} For the professional
middle class, merit recruitment would make it easier to occupy public leadership roles.\textsuperscript{86}

Beginning in the 1860s, Republican congressman Thomas Jenckes was one of the
strongest advocates of reform, also seeking support of businessmen interested in increased
government efficiency.\textsuperscript{87} Even though no reforms were passed in the 1860s and 1870s, the
movement gained momentum.\textsuperscript{88} The strong middle-class interest in meritocracy was also
visible in the membership in the \textit{National Civil Service Reform League} (1881)—initially
it consisted mostly of professionals, later many entrepreneurs joined.\textsuperscript{89} Influenced by
liberalism—including laissez-faire economics—the reformers wanted to introduce middle-
class morality and economic efficiency to the administration.\textsuperscript{90}

\textsuperscript{82}Cassese 1999; Golden 2003; Lewanski and Toth 2011, pp. 224, 228; Müller 2000; Müller 2006.
\textsuperscript{83}Ingraham 1995, pp. 20-25; Shefter 1994, Ch. 3; Silberman 1993, pp. 243-249; Van Riper 1958, Ch. 3.
\textsuperscript{84}Anagnoson 2011, p. 127; Mann 1993, p. 471; Skowronek 1982, pp. 42-52; Sproat 1968, Ch. 9.
\textsuperscript{85}Hoogenboom 1968, pp. 42-43; Nelson 1982, p. 120.
\textsuperscript{86}Skowronek 1982, p. 54.
\textsuperscript{87}Hoogenboom 1961, p. 640; Hoogenboom 1968, p. 28; Köttgen 1928, pp. 198-199; Skowronek 1982,
pp. 47-51.
\textsuperscript{88}Sproat 1968, p. 260.
\textsuperscript{89}Hoogenboom 1960; Hoogenboom 1968; Stewart 1929. However, some of the reformers had an anti-
monopoly point of view and that entrepreneurs did not form the leadership but just had a strong
supportive role (Skowronek 1982, p. 52).
\textsuperscript{90}Van Riper 1958, pp. 82-87; Skowronek 1982, p. 51.
In January 1883, the *Pendleton Civil Service Reform Act* was passed by Congress, with the strongest support from liberal middle-class Republicans. It introduced meritocratic recruitment, though initially just for a small proportion of civil servants. Resistance against it primarily came from Democrats, which represented a coalition of Northern workers and Southern traditional elites.\(^91\) Even though the working class never reached full political strength in the US, their interests were always represented to some extent due to the complex system of checks and balances. The working class controlled politics in major cities and had influence on federal elections as well.\(^92\) They distrusted the institutions of an impersonal, expert-led bureaucracy with high levels of discretion and believed it should either be pushed back or—if de-bureaucratization was impossible—brought under democratic control.\(^93\)

Even though the liberal reformers wanted to *minimize* political control, the Pendleton Act reaffirmed political appointments at the higher bureaucratic levels\(^94\)—a decision that still shapes the American civil service until this day.\(^95\) In part due to the advent of mass political participation in the early 19th century and the creation of a ‘democratically controlled bureaucracy’, influenced by Jacksonian ideas, political control could not be abandoned entirely. Why did the middle classes agree on such a system? They were open to such a compromise because, for them, the *dispersion of political control among multiple government agencies* was an alternative to the reduction of appointments. The new recruitment system also put much less emphasis on academic achievements than the English one and was more open to lower social groups. For all of the above reasons, we have to view the Pendleton Act as a compromise between the interests of different groups,

\(^{91}\)Stewart 1929, pp. 33-34; Van Riper 1958, Ch. 5.
\(^{92}\)Banfield and Wilson 1966, Ch. 9.
\(^{93}\)Sanders 1999, Ch. 11.
specifically the urban working class and the middle classes.\textsuperscript{96}

Several presidents from both parties gradually extended the number of classified civil servants between 1883 and 1923.\textsuperscript{97} Theodore Roosevelt, in particular, is seen as a president who governed based on the understanding of a labor-capital compromise. As a former member of the US Civil Services Commission, he had a strong interest in the expansion of meritocracy but never even came close to fully removing political control.\textsuperscript{98} In the coming decades reform also spread throughout the American states at different speeds.\textsuperscript{99}

The development of the modern bureaucracy was finalized through several reform acts: the 1920 Civil Service Retirement Act, the 1921 Budget and Accounting Act, and the 1923 Personnel Classification Act. The Budget and Accounting Act meant a unification and codification of budgetary control mechanisms of the bureaucracy. It reflected the desire of entrepreneurs and the Republican party for limited government. The other acts created a pension system and standardized wages across agencies, with the goal of greater bureaucratic efficiency. A broad coalition of the middle classes and their political representatives were key forces favoring these reforms.\textsuperscript{100}

To summarize, we observe a historical compromise between middle-class and working-class political interests in the US. The high level of political control results from the alignment of middle-class interests to disperse political power and working class interest to achieve control through democratic institutions. Other than in the Italian case, parties—especially the liberal wing of the Republican Party—were a crucial force behind civil service reform. The US case study also shows how social groups can use non-governmental

\textsuperscript{97}Ingraham 1995, Ch. 3.
\textsuperscript{98}Silberman 1993, pp. 271-277; White Jr. 2003.
\textsuperscript{99}Ruhl and Camões 2003.
\textsuperscript{100}Kiewiet and McCubbins 1991, pp. 170-174; Shefter 1994, pp. 76-81; Silberman 1993, pp. 277-282; Van Riper 1958, pp. 296-304; Van Riper 1971, p. 132.
organizations, such as the National Civil Service Reform League, to promote their interests. Even though there have been ups and downs in the number of political appointments since the 1920s, the present-day bureaucracy still has an extraordinarily high number (3000-4000). The historical analysis of American bureaucratic structures is relevant because many of them have persisted until the present day.

5.3 The Netherlands (1848-1918)

Throughout the 17th and 18th centuries, the Dutch administration was plagued by patronage. Well into the 19th century, personal connections often remained more important than qualification. However, this changed in the late 19th century. During this time period, there were almost no countries which had a stronger political influence of the middle classes than the Netherlands.

How did the liberal elites shape administrative structures? Throughout the liberal era, there was a movement towards higher educational requirements and competitive examinations. “Patronage on the basis of family, religious or political ties slowly but surely diminished after the 1880s, [and] merit became the dominant principle.” The introduction of competitive examinations was motivated by ensuring a higher competence and efficiency of the civil service. Additionally, the middle classes gave up their political control because “their social and economic status was not at risk.”

Furthermore, a new administrative culture, considering the civil service as a non-

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101 Lewis 2011.
104 Randeraad and Wolfram 2001, pp. 103-104.
105 Meer, Kerkhoff, and Osch 2014, p. 6; Dijkstra and Meer 2011, p. 151.
106 Dijkstra and Meer 2011, pp. 151-152; Dinecco 2009, p. 54.
107 Meer, Kerkhoff, and Osch 2014, pp. 7-8.
109 Meer et al. 1991, pp. 204-205.
partisan force prioritizing the “national interest,” developed during the liberal era. Yet, not unexpectedly, middle class members dominated the public administration in terms of personnel. Additionally, the extensions of the franchise between 1887 and 1919 led to further reductions in the incentives for clientelistic exchange.

To summarize, the middle classes—who were firmly in charge of the Dutch state in the 19th century—, institutionalized meritocratic recruitment procedures and limited government control to shield the bureaucracy from future political influence. Accordingly, the origins of the modern Dutch civil service were (1) the new political culture of the liberal era and (2) the reforms initiated by liberal governments in the 19th and early 20th centuries, especially a movement towards competitive examinations, high educational requirements, and low political control. Until this day, past developments play an important role for bureaucratic organization, specifically also with respect to the training and education of civil servants.

Thus, the present-day Dutch civil service recruitment system is highly competitive and egalitarian. Furthermore, the civil service also still has a low level of appointments, which probably is the reason for the relative absence of patronage.

113 Meer, Kerkhoff, and Osch 2014. Even though merit recruitment remained a persistent principle of the Dutch bureaucracy after the 1880s, the specific criteria of merit evolved together with the functions of the state (Meer, Dijkstra, and Kerkhoff 2016).
114 Thiel 2012, p. 253 Despite some decentralization, high levels of egalitarianism can be observed across different departments (Meer 1997, p. 58; Meer, Kerkhoff, and Osch 2014, p. 4; Dijkstra and Meer 2011, pp. 154-155).
116 Müller 2000; Müller 2006. However, Thiel 2012 and Meer and Raadschelders 1999 are more skeptical about the absence of patronage.
5.4 (Soviet) Russia (1917-1925)

In the 19th century, Russia attempted to modernize its public administration, which was complicated by the size of the country, its low population density, and poor infrastructure. Many administrative powers were delegated to local landed elites. As the Russian state was mainly supported by “a declining landowning nobility,”\(^{117}\) there was a strong element of social selectivity and patronage in the comparatively small central bureaucracy. However, members of the professional middle class were not excluded.\(^{118}\)

The Bolsheviks, who seized power in 1917, were extremely aggressive in their fight against resistance. As there was no primary social group on which the regime could rely and the rulers feared the counter revolution, the Bolsheviks murdered many members of the landed elites and the middle classes or forced them to emigrate. Even after the Bolshevik’s victory in the civil war, uncertainty about the stability of the regime perpetuated. As a response, bureaucratic organization was comparatively hierarchical.\(^{119}\) Indeed, the leadership had a “mania for checking and control.”\(^{120}\)

The new rulers faced many difficulties in subordinating the machinery of the state, including direct sabotage of their work by civil servants. This initially resulted in a large number of arrests and the creation of an *Extraordinary Commission for Combating Counter-Revolution, Speculation, and Sabotage (Cheka)*. Control of the bureaucracy was subsequently maximized through various institutions, especially the Communist Party apparatus.\(^{121}\)

There was a high level of persistence in bureaucratic organization, with entry continuously based on connections/loyalty and comparatively high levels of political control.

\(^{117}\) Hough and Fainsod 1979, p. 5.

\(^{118}\) Raphael 2000, pp. 41, 68-70; Baberowski 2014, pp. 17-21.

\(^{119}\) Baberowski 2014; Kenez 2006, Ch. 2; Fainsod 1963, Ch. 4-5.

\(^{120}\) Sternheimer 1980, p. 321.

This contributed to the image of an overly large and inefficient bureaucracy.\textsuperscript{122} The level of control was pushed to its limits under Stalin, when members of the party and administration that he perceived as not loyal were not only removed from their offices but often executed. Stalin’s behavior was driven by the perceived fragility of his regime, too.\textsuperscript{123}

To summarize, after gaining political power, unchecked by any strong social groups, the Bolsheviks were able to create a bureaucracy fully dominated by the Communist Party. They did not only use their formal political power but also terror and intimidation to achieve this goal. In many ways, the bureaucracy of present-day Russia is a direct successor of the Soviet administrative state. For example, in terms of personnel there was significant continuity: Gimpel’son found in 2003 that 50 percent of all civil servants at federal-level agencies in had been there since the time of Brezhnev (1964-1982).\textsuperscript{124} There also is persistence of administrative culture and institutions.\textsuperscript{125} Thus, meritocracy remains low and political control high.

5.5 Summary of the Case Studies

The case studies have shown that social groups historically had enormous influence on the design of bureaucracies. The middle classes generally were the strongest force for meritocracy and the reduction of political influence. On the other hand, the landed elites and the working class shared a strong interest in political control—through non-democratic versus democratic institutions respectively. Also, while the landed elites sought high social selectivity, the working classes favored open recruitment and low educational requirements.

\textsuperscript{122}Gladden 1972, pp. 343-348; Obolonsky 1999, p. 574; Fainsod 1963, Ch. 4-6, 12. Deviating from Fainsod 1963, Jerry Hough developed a more pluralistic perspective on the Soviet system—see Hough and Fainsod 1979—, but from a comparative perspective, the relationship between state and bureaucracy was always very hierarchical.

\textsuperscript{123}Baberowski 2012; Baberowski 2014; Hough and Fainsod 1979, pp. 170-178.

\textsuperscript{124}Gimpel’son 2003, pp. 71, 76.

\textsuperscript{125}Obolonsky 1999.
The case of Russia presents an interesting deviation from this pattern because the absence of social-group dominance led to a bureaucracy under full control of Communist Party elites.

There is a wide range of mechanisms through which social groups pushed for their interests. (1) The absence of strong party organizations allowed the Italian landed elites to exert high levels of informal political influence; (2) in the US, both non-governmental organizations and parties were crucial to civil service reform; (3) in the Netherlands, direct control of the state by the middle classes made the institutionalization of meritocracy possible; (4) in (Soviet) Russia, the Bolsheviks used both formal political power as well as terror to create a bureaucracy under full political domination. Thus, the case studies clearly demonstrate that we cannot limit this study to a specific causal mechanism.

Two additional case studies are included in the appendix and show the possibility of a compromise between the nobility and the middle class.

<table>
<thead>
<tr>
<th>Country</th>
<th>Time Period of Bureaucratic Emergence</th>
<th>Dominant Social Groups</th>
<th>Resulting Bureaucratic System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>1861-1914</td>
<td>Landed elites</td>
<td>High level of control through political appointments, patronage recruitment system</td>
</tr>
<tr>
<td>United States</td>
<td>1865-1925</td>
<td>Compromise of: (1) Middle classes (2) Urban working class</td>
<td>High level of control through political appointments, dispersed among multiple agencies, meritocratic recruitment system</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1848-1918</td>
<td>Middle classes</td>
<td>Low level of political control, meritocratic recruitment system with relatively high degree of egalitarianism</td>
</tr>
<tr>
<td>(Soviet) Russia</td>
<td>1917-1925</td>
<td>No social group dominance → state dominance</td>
<td>Very high level of control through political appointments, patronage recruitment system</td>
</tr>
</tbody>
</table>

Figure 4: Summary of the Case Studies
6 Conclusion

This article presents and tests a novel theory of how social constellations in the 19th and early 20th centuries have an impact on present-day bureaucracies. The middle classes historically were the strongest force for meritocracy and low political control. On the other hand, the working class and the traditional elites typically pushed for high control, through democratic and non-democratic institutions respectively. While the landed elites generally aimed for high social selectivity, the working class had more ambiguous interests—simultaneously seeking lower educational requirements and more open recruitment. The case studies have demonstrated that many different mechanisms—ranging from formal party organizations to terror and intimidation—were used to affect bureaucratic organization. The historical outcomes still largely determine variations we observe today.

This study was conducted in response to several gaps and weak spots in the existing literature. First, many previous studies treat political control and meritocracy as two sides of the same concept. However, as discussed in detail above, there is a more complex interaction between them. In order to understand this interaction, we need to develop a theory that can account for more than just two outcomes. Second, while several contributions have indirectly touched upon social groups, the explicit interests that they have with respect to bureaucratic institutions remained under-theorized. Furthermore, even though there are many excellent studies on American bureaucratic history, the scope of these studies often reduces their comparative explanatory power.

This study addresses all of the points above by considering the complex interaction of bureaucratic institutions, explicitly theorizing about the interests of social groups, and analyzing multiple cases from a comparative perspective. An empirical test complements
the case studies.

What are the implications of these results? Most importantly, other aspects of the modern state—including educational systems and military institutions—may be subject to similar historical dynamics. Future investigations could look at these and other aspects of the modern state and examine the extent to which they were shaped by social groups. Additionally, this article may be of special relevance to political actors in developing countries, especially in places that currently suffer from low meritocracy and bureaucratic inefficiency. Identifying the social groups that have the greatest interest in bureaucratic reforms could open political opportunities for administrative reform.

Some critics might argue that our approach neglects the many reforms that bureaucracies experienced later, such as a general trend of “politicization.”¹²⁶ This criticism is valid. However, cross-country variation in terms of meritocracy and political control is so remarkable that within-country changes over time are comparatively small. Additionally, even if there are general trends that affect many bureaucracies, the point of departure still matters tremendously. The case studies have illustrated these points in much detail. Nevertheless, future research could explore the interaction of initial configurations and subsequent reforms more directly. Similarly, the long-term effect that the World Wars had on public administrations would be a worthwhile additional area of investigation. Finally, this paper cannot account for regional differences in bureaucratic characteristics.¹²⁷

However, this is another promising avenue for future research.

¹²⁷ Charron, Dahlström, and Lapuente 2016; Folke, Hirano, and Snyder 2011.
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7 Appendix

In the appendix, we present additional empirical evidence and further discuss claims that were made in the paper. In subsection 7.1, we show that the results of the statistical analyses are robust when choosing different years for measuring the key explanatory variable. In subsection 7.2, we test the hypotheses that are related to the historical influence of the middle classes. In subsection 7.3, we present two additional case studies which both portray compromises between the landed elites and the middle classes.

7.1 Additional Empirical Analysis: The Years 1910-1925

Table 4 and Table 5 show that the results that we have obtained in section 4 are statistically significant for a large number of years. The table shows the coefficient and p-value of the elite consultation variable for different models (M1-M6) for all years between 1910 and 1925. While the years 1914-1918 yield some results that are less statistically significant, World War One causes short-term changes in the relevant variables that reflect unique developments during the war years. Therefore, we can discount those outliers.
<table>
<thead>
<tr>
<th>Year</th>
<th>$\beta_1$ (M1)</th>
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<th>$\beta_1$ (M3)</th>
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<th>$\beta_1$ (M5)</th>
<th>$\beta_1$ (M6)</th>
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Table 4: Meritocracy and the Inverse of the Range of Consultation: Robustness Checks for the Years 1910-1925
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<td>0.011</td>
<td>0.019</td>
<td>0.018</td>
<td>0.025</td>
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</table>

Table 5: Political Control and the Inverse of the Range of Consultation: Robustness Checks for the Years 1910-1925
7.2 Additional Empirical Analysis: The Middle Classes

7.2.1 Measuring Historical Middle-Class Influence

In this section, we test hypotheses 3 and 4 on the historical influence of the middle classes. Finding an independent variable poses a challenge as it needs to be highly correlated with historical middle-class influence. The *historical level of property rights* is a good proxy for two reasons. First, the foremost economic policy goal of the middle classes was the strengthening of property rights, as a protection against attempts by either the traditional elites or the working class or both to increase taxes or expropriate middle class members. By measuring the extent to which they were able to achieve their goal, we capture both formal and informal influence. Second, high levels of property rights are also associated with greater economic security for the middle classes, further strengthening their position.\(^{128}\) These claims are summarized in Figure 5. A continuous measurement of historical property rights levels is provided by Coppedge et al.\(^{129}\)

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**The relationship of property rights and middle-class political influence**

**Relationship 1: Property rights as policy goal**
- Middle classes fear expropriation either through (1) authoritarian state dominated by the landed elites or (2) democratic state dominated by the working class
- Formal channels of influence
- Informal channels of influence
- Property rights as policy outcome, showing level of formal and informal middle-class political influence

**Relationship 2: Property rights as basis for political power**
- Property rights as policy, protecting the wealth and income of the middle classes
- Increased economic security and stability
- Economic security increases ability to mobilize resources and political bargaining power → influence

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An argument that may be put forward against this measurement is that strong market

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\(^{129}\) Coppedge et al. 2016.
economies could lead to both high levels of property rights protection and high levels of meritocracy, a potentially complex form of endogeneity. This argument is valid but also fully compatible with the theory. Indeed, in strong market economies we would expect a strong middle class and, as the case studies have shown, the middle classes were the primary agents for bureaucratic reform. Acknowledging the importance of agency, the middle classes must be seen as the driving force behind the institutionalization of meritocracy.

7.2.2 Results of the Statistical Analysis

The results show that the level of property rights protection in 1913—as proxy for the political power of the middle classes—is strongly positively associated with the present-day level of meritocracy in recruitment and strongly negatively related to the present-day level of political appointments. These results provide strong complementary evidence in support of the theory introduced here. Further details can be found in Figure 6, Figure 7, Table 6, and Table 7.

7.2.3 Additional Empirical Analysis: The Years 1910-1925

As done for the previous analysis, in order to ensure that the results of the statistical analysis are robust regardless of the choice of year, the regressions using the level of property rights as measurement of middle-class influence were conducted for a large number of years (1910-1925).

Table 8 shows the results of multiple Tobit regressions with the level of meritocracy as the key dependent variable and property rights as the key independent variable for all years from 1910 to 1925. Models 1-7 each include the same control variables as models 1-7 in the previous subsection. As shown, the results are robust for all years.
Table 6: Merit Recruitment (2014) and Property Rights (1913)

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<tr>
<th>Dependent variable:</th>
<th>Merit Recruitment (QOG)</th>
</tr>
</thead>
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<td>(1) (2) (3) (4) (5) (6)</td>
</tr>
<tr>
<td>Div. Party Ctrl. Avg. 1990–</td>
<td>0.013 (0.320)</td>
</tr>
<tr>
<td>Leg. Party Coh. Avg. 1990–</td>
<td>0.204 (0.178)</td>
</tr>
<tr>
<td>MID Count 1863–1913</td>
<td>0.006 (0.009)</td>
</tr>
<tr>
<td>University Students 1913</td>
<td>0.036 (0.029)</td>
</tr>
<tr>
<td>University Students Avg. 1990–</td>
<td>0.013 (0.010)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.307*** 2.390*** 2.370*** 2.324*** 2.272*** 2.029***</td>
</tr>
<tr>
<td>Observations</td>
<td>28 27 27 21 25 27</td>
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<tr>
<td>Log Likelihood</td>
<td>−38.092 −36.111 −35.473 −29.133 −32.336 −35.340</td>
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</table>

Note: Tobit Regression

*p<0.1; **p<0.05; ***p<0.01
Table 7: Political Appointments (2014) and Property Rights (1913)

<table>
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<tr>
<th>Dependent variable:</th>
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</thead>
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<tr>
<td>Property Rights 1913</td>
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<tr>
<td>Div. Party Ctrl. Avg. 1990−</td>
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<td>Leg. Party Coh. Avg. 1990−</td>
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<tr>
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<tr>
<td>University Students 1913</td>
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<tr>
<td>Log Likelihood</td>
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</table>

*Note: Tobit Regression*  
*p<0.1; **p<0.05; ***p<0.01*
Similarly, Table 9 shows the results of multiple Tobit regressions with the level of political control as the key dependent variable and property rights as the key independent variable for all years from 1910 to 1925. Models 1-7 each include the same control variables as models 1-7 in the previous subsection. In some cases, the years 1914-1918 do not reach the highest levels of statistical significance. However, we can discount those outliers as the events of World War One dramatically influenced the level of property rights in a large number of countries.
Figure 7: Political Appointments (2014) and Property Rights (1913) from Empirical Minimum to Maximum (90-% Confidence Intervals)
<table>
<thead>
<tr>
<th>Year</th>
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<th>$\beta_1$ (M2)</th>
<th>$\beta_1$ (M3)</th>
<th>$\beta_1$ (M4)</th>
<th>$\beta_1$ (M5)</th>
<th>$\beta_1$ (M6)</th>
<th>p (M1)</th>
<th>p (M2)</th>
<th>p (M3)</th>
<th>p (M4)</th>
<th>p (M5)</th>
<th>p (M6)</th>
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Table 8: Meritocracy and Property Rights: Robustness Checks for the Years 1910-1925
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Table 9: Political Control and Property Rights: Robustness Checks for the Years 1910-1925
7.3 Additional Case Studies

Two additional case studies which highlight the possibility of a compromise between the landed elites and the middle classes follow.

7.3.1 Prussia/Germany (1805-1914)

Fueled by military rivalries, Prussia developed early modern bureaucratic structures beginning in the 18th century.\textsuperscript{130} Military defeats and a crisis of state finances triggered a further professionalization (1806-1820).\textsuperscript{131} Due to the weakness of the monarchy, the bureaucracy was strongly influenced by the landed elites and the middle classes, though the nobility was dominant at upper levels.\textsuperscript{132} The middle classes pushed for meritocratic recruitment; yet the landed elites rejected this because they wanted to preserve their preferential access. The conflict was settled through a compromise in which the noblemen accepted higher education requirements but maintained their position and the exclusion of the lower classes.\textsuperscript{133} Between 1820 and 1848, the middle classes lost some ground in terms of their share of positions,\textsuperscript{134} and many entrepreneurs thought of the bureaucracy as inefficient and restrictive, resulting in a desire to increase meritocracy.\textsuperscript{135}

The 1848 revolution was important insofar as it led to the institutionalization of “political civil servants”—an institution meant to protect the revolution against reactionary bureaucrats. Even though initially a creation of the middle classes against the landed elites in the unique situation of the revolution, conservative forces—when they returned to power—soon adopted the idea and made it part of their own agenda.\textsuperscript{136} In addition

\textsuperscript{130}Raphael 2000, pp. 53-67; Wunder 1986, pp. 21-22.
\textsuperscript{131}Nipperdey 1996, p. 21; Unruh 1977.
\textsuperscript{132}Bleek 1972, pp. 18, 26; Henning 1984; Koselleck 1967; Nolte 1990; Rosenberg 1958.
\textsuperscript{133}Bleek 1972, pp. 39-40; Mann 1993, p. 450; Raphael 2000, pp. 53-54; Wunder 1986, pp. 66-67.
\textsuperscript{135}Bleek 1972, pp. 27-36; Hattenhauer 1993, pp. 236-237.
\textsuperscript{136}Hartung 1961, p. 252; Ule 1964, p. 294.
to this institution that was readily adopted by the traditional elites, the Prussian constitution, which was an outcome of the revolution led by the middle classes, included two articles reflecting middle-class interests. Article 4 asserted that entry to the civil service should be open to every citizen. Article 98 asserted that there should be protection from arbitrary dismissal. However, these successes remained nominal because, when the revolution failed, the landed elites regained the upper hand and never implemented them.\textsuperscript{137}

Comparable to Prussia, the German Empire founded in 1871 was also characterized by a compromise of aristocracy and middle classes.\textsuperscript{138} Initially, Reich Chancellor Otto von Bismarck governed with the latter’s representative, the National Liberal Party.\textsuperscript{139} The industrial elite also enjoyed informal access to aristocrats in high political positions.\textsuperscript{140} Yet, Bismarck generally wanted to preserve a social order with disproportionate aristocratic influence. Similar to other conservative forces,\textsuperscript{141} during the creation of the Reich Civil Service Law (1871-1873), Bismarck tried to further increase the extent of political dismissals, but he failed due to middle-class resistance in parliament.\textsuperscript{142} This was a clear indication that the middle classes were willing to use their influence in parliament to reduce political control of the bureaucracy.

Recruitment in the German Empire remained decentralized. Thus, in Prussia, there was another important compromise between the aristocracy (which controlled the Prussian government and the House of Lords) and the middle classes (which dominated the Prussian House of Representatives): in 1879, a law was passed that prescribed merito-

\begin{itemize}
\item \textsuperscript{137}Fenske 1973, p. 340; Fenske 1985, p. 13.
\item \textsuperscript{138}Eley 1984; Rogowski 1987, p. 1125; Rosenhaft and Lee 1994, p. 16.
\item \textsuperscript{139}Craig 1980, pp. 62-64; Wehler 1994, pp. 80-83.
\item \textsuperscript{140}Augustine 1991.
\item \textsuperscript{141}Pollmann 1985, p. 340.
\item \textsuperscript{142}Hartung 1961, p. 255; Kugele 1978, p. 14; Morsey 1972, p. 103; Stoltenberg 1955, pp. 115-122.
\end{itemize}
ocratic recruitment procedures, including the requirement of a law degree and multiple examinations through an independent commission. However, these requirements also meant the systematic exclusion of the lower classes. What were the interests of these “lower classes?” There was a plurality of opinions among working-class members with respect to the civil service, but many in the working class argued that the bureaucracy should be subject to democratic control. Additionally, working class representatives demanded more open recruitment and advancement without educational restrictions.\footnote{Hoffmann 1972, Ch. 1.}

To summarize, the German bureaucracy was characterized by a compromise between landed elites and the middle classes, with a strong position of the former. The landed elites exerted influence through direct control of the executive, while the middle classes participated in political decision-making primarily through party organizations in the legislature.\footnote{As elaborated above, the industrial elite also enjoyed informal channels of influence Augustine 1991.} The strong formal and informal representation of aristocratic and landed elite interests left little space for the working class to implement their vision of the administrative state. The historical events described here are still relevant for the present day because “[t]he German civil service achieved its final shape, which is decisive until this day, during the period of the German Empire.”\footnote{Wunder 1986, p. 106.} This includes both the organization of recruitment\footnote{Bleek 1972, p. 12; Wunder 1977.} and the level of political control.\footnote{Echtler 1973, pp. 46-47; Kugele 1978.} Until the present day, the German bureaucracy has relatively high meritocracy, elements of social selectivity, and an intermediary level of political control.\footnote{In 2007 there were 10 political appointments per German minister and 160 in total, see Dahlström 2009, p. 15.}
7.3.2 United Kingdom (1854-1918)

England’s public administration in the 18th and early 19th centuries was—to a considerable extent—a patronage system under the control of the landed elites.\textsuperscript{149} However, throughout the 19th century, the middle classes gained more power and were able to push through reforms. The entire political system as of 1832, with the House of Lords dominated by the aristocracy, and the House of Commons dominated by the middle classes represented a compromise.\textsuperscript{150}

The middle classes opposed the administrative system because of corruption and inefficiency. They wanted to end the dominance of the landed elites and introduce meritocratic recruitment.\textsuperscript{151} Strong public interest in the topic was activated by the highly critical Northcote-Trevelyan Report of 1853/1854.\textsuperscript{152} The \textit{Administrative Reform Association}—founded as a response to the report in 1855—primarily consisted of professionals and entrepreneurs. Even though reforms of the bureaucracy were not its only goal, it spoke out against aristocratic mismanagement in both government and administration and lobbied for competitive examinations.\textsuperscript{153} In 1857, it even brought a resolution for open competition into the House of Commons.\textsuperscript{154}

However, the traditional elites were interested in maintaining the system and excluding the lower classes.\textsuperscript{155} Accordingly, the leading conservative politician Benjamin Disraeli—whose party represented landed-elitist interests—spoke out against competitive examinations. At the other end of the political spectrum, the liberal politician William

\textsuperscript{149}Bendix 1978, p. 237; Cohen 1965; Jennings 1971, pp. 24-25; Kingsley 1944, Ch. 2; MacDonagh 1977, pp. 197-203. According to O’Gorman 2001, p. 58, the extent of patronage is sometimes overestimated; yet even in his own judgment it was “considerable.”

\textsuperscript{150}Moore 1974, Ch. 1; Perkin 2002, p. 261.

\textsuperscript{151}Helsby 1956, p. 36; Kingsley 1944, Ch. 3; MacDonagh 1977, pp. 202-207; Perkin 2002, Ch. 8.

\textsuperscript{152}Campbell 1955, pp. 25-29.

\textsuperscript{153}Anderson 1965; Shefter 1994, pp. 46-47.

\textsuperscript{154}MacDonagh 1977, p. 209.

\textsuperscript{155}Campbell 1955, p. 31; Cohen 1965, p. 107; Black 1970, p. 261.
Gladstone was in favor of introducing meritocracy.\textsuperscript{156} He had also originally asked Northcote and Trevelyan to assess the state of the administration.\textsuperscript{157} The middle-class representatives achieved a partial victory, when an independent commission, checking the qualifications of prospective civil servants, was established in 1855. Yet, many ways to circumvent meritocracy remained.\textsuperscript{158}

More than a decade later, liberal Chancellor of the Exchequer Robert Lowe asked Prime Minister Palmerston to address the issue more comprehensively. Consequently, in 1870, open competitive examinations were finally adopted.\textsuperscript{159} Nevertheless, the traditional elites also were able to maintain high social selectivity because recruitment was mostly limited to graduates from Oxford and Cambridge. Also, the higher ranks of the British civil service remained primarily occupied by men of privilege and there were almost no opportunities to rise from the lower ranks. Thus, the system clearly was a compromise, partially reflecting the interests of the traditional elites.\textsuperscript{160}

Similar to Germany, the British case was a compromise between the middle classes and the landed elites. However, due to the relative weakness of non-democratic institutions (such as the monarchy), there was increasingly little space for the landed elites to maintain patronage control. Additionally, due to the growing political strength of the middle classes — primarily through the Liberal Party, but even within the Conservative Party —, the landed elites finally agreed to end patronage and reduce appointments.\textsuperscript{161}

\textsuperscript{156}Cohen 1965, pp. 113-115; MacDonagh 1977, pp. 202-204.
\textsuperscript{157}Köttgen 1928, p. 171.
\textsuperscript{159}Campbell 1955, p. 38; Cohen 1965, pp. 121-122; Kingsley 1944, pp. 75-76.
\textsuperscript{160}Cohen 1965, p. 130; Kelsall 1956, pp. 155-156; Kingsley 1944, Ch. 3-4; Mann 1993, p. 470; Raphael 2000, pp. 171-172; Shefter 1994, pp. 47-48; Silberman 1993, p. 287.
\textsuperscript{161}Shefter 1994, pp. 48-51. Köttgen 1928, 186, Fn. 2 reports that in 1914, there were about 300 civil servants who were not career bureaucrats and that this number was lower in 1928, probably closer to 60-70 as suggested by Kingsley 1944, p. 9 for the year 1944.
The organization of the British bureaucracy is highly path dependent, especially its recruitment patterns. Furthermore, with an average of just 3.5 appointments per minister and a total of 80 appointments (in 2007), political control is comparatively low and patronage uncommon.

162 Richards 2003; Silberman 1993, pp. 291-292.
164 Dahlström 2009, p. 15; Müller 2000; Müller 2006.