



M.Sc. with specialization in Social Data Science

Meritocracy or Political Appointment?

**Analyzing Administrative Continuity During Denmark's
Systemskiftet of 1901**

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Abstract

This thesis investigates political executives' preferences when selecting employees for the civil service system. This choice is typically conceptualized as a continuum that spans from merit appointment indicative of the classic Weberian bureaucracy on one end and politicization where civil servants come and go with the government on the other. The choice forms a trade-off between distribution of high levels of competency and loyalty, where merit appointment is associated with the former and political appointment with the latter. Former investigations about political executive preferences usually take the starting position that political executives want to maximize control, which should lead to preference for political appointment if institutional and political constraints allow for it. This theoretical notion is tested in this thesis. It uses Danish employment data from central administration between 1866-1936. It is argued that the change of system in 1901 offers a most likely situation as the institutional and political conditions were favorable for the newly elected government to politicize employment in the central administration. However, this outcome did not appear to happen, suggesting a potential revision of the theoretical notion that favorable rule-based institutions and political circumstances suffice as underlying preference for political appointment. This thesis contributes to the field of managerial performance. Further, it contributes by making a dataset of employment data spanning 1850-1936 available for use in similar or other fields of interest.

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Introduction

The functioning of democratic systems depends critically on bureaucratic institutions to carry out political directives and contribute to policy development. To achieve these goals, it is essential that the bureaucracy is equipped with relevant expertise and experience to function effectively. These conditions highlight the importance of selecting personnel made of the “right stuff” for positions in the central administration (Christensen *et al.*, 2014). Such selection processes fundamentally involve a balancing act between providing said qualifications while securing that the civil service carries out the directions from the political executive faithfully (Krause *et al.*, 2006, p. 771). The latter requires either that civil servants are capable of acting neutrally while control of governance changes hands between parties, or that the institutional setup is sufficiently flexible for the executive to make discretionary dismissals and/or political appointments of loyalists (Moe, 1985).

The traditional merit system associated with Weber’s ideal type bureaucracy, where employees can expect tenure and promotion to occur within the organization (Bruun, 2020, p. 151), is typically thought to distribute high levels of competence due to its capacity to generate expertise through long-term experience (Kaufman, 1956, p. 1060). Loyal execution from the civil servants is mainly secured through mutual dependence as employees are incentivized to act according to the preferences of the executive (Christensen *et al.*, 2014, p. 215). However, since the executive branch of the state has institutionalized an increasing share of the private sphere, the civil service system has grown in size and complexity, limiting the executive resources available for monitoring the efforts of civil servants (Boix, 2001; Lane, 2020). Therefore, the political executive might prefer political appointments, thereby employing personnel with people whom they believe will act loyal to them based on past collaborative experiences or shared political orientations (Moe, 1985, p. 245; Krause *et al.*, 2006, p. 771). However, political appointments necessarily entail lower levels of experience, meaning all else equal, this type of selection is expected to be inversely related to expertise compared to the traditional merit system (Krause *et al.*, 2006, p. 771).

In sum, selection of civil servants forms a trade-off between expertise and loyalty. The actual decision is not taken in a vacuum as it is constrained by both institutional and political circumstances (Christensen *et al.*, 2014). In terms of the former, there might exist specific rules of how the civil service system employs its workers (Choi and Whitford, 2011, p. 110), where the latter can include tacit acceptance from the legislative branch or an independent organizations (Horn, 1995, p. 104-105).

The theoretical expectations concerning preference for either of the ideal-typical selection processes usually take the starting position that political executives strive to maximize control, thereby arguing that if the institutional setup is sufficiently flexible and the power distribution is favorable, political appointments would be preferred (Christensen *et al.*, 2014, p. 216; Lewis, 2008). However, this is not a thoroughly tested concept, and what politicians actually prefer remains an open empirical question.

This thesis strives to contribute to the discussions about the selection process of civil servants by testing the rational choice-based expectation about political executive preference for control expressing itself in politicization when the surrounding conditions allow for it. It does that by employing a unique panel dataset that was constructed for this purpose, consisting of 70 years of employment data from the Danish central administration spanning between 1866–1936. It is argued that Denmark poses a most likely case for politicization due to the events of 1901 and the conditions preceding, leading to the institution of negative parliamentarism (Knudsen, 2001). The change of system ended a 35-year period of landowner party dominance of the executive branch (Wendel-Hansen, 2025b). The new party in government, in contrast, represented the peasantry, which were publicly exposed by several civil servant employees, creating legitimate concern from the new government party that faithful execution from the civil service would prove problematic (Waaben, 1948). This, combined with an institutional setup that from the Constitution's beginning had allowed for discretionary dismissals (Knudsen, 2000a, p. 544), meant all relevant dimensions of interest therefore point towards further politicization after 1901. The research question therefore seeks to answer:

How did the 1901 system change affect the use of political appointments in the Danish civil service?

To answer this question, an interrupted time series analysis with 1901 functioning as the intervention variable was conducted. The dependent variable is employee turnover rates and function as a proxy for political appointments as politicization of the civil service system is associated with higher turnover rates (Ban and Ingraham, 1990; Krause

et al., 2006).

The findings contribute to ongoing discussions about political executive preferences for bureaucratic selection and the conditions under which politicization occurs. The findings are discussed in light of institutionalism thereby further contributes to the discussion about the potential motivations for institutional change. The thesis contribution is further underpinned by making a dataset containing employment data spanning 1850-1936¹ readily available to be used in similar contexts, for example within studies related to managerial performance, or it could be used to study how societal events shape the state as more movements or demands get institutionalized as the state's business.

¹While the complete dataset covers the period 1850–1936, this thesis analyzes the subset from 1866–1936 in accordance events preceding 1901.

Background

On July 24, 1901, Denmark appointed its first Venstre government. At the request of King Christian IX, the conservative Sehested government resigned, and a new government led by Johan Henrik Deuntzer was formed (Knudsen, 2000b, p. 4–5). From that point forward, Denmark was governed according to the principle of negative parliamentarism, which holds that a government cannot remain in office if a parliamentary majority is opposed to it (Knudsen, 2001, p. 117). This event, known as the system change (*systemskiftet*), marked the formal end of a more than thirty-year-long constitutional struggle (Wendel-Hansen, 2025a).

Prior to 1901, and following the adoption of the Constitution in 1849, the monarch formally retained the right to appoint and dismiss ministers (Danmarkshistorien.dk, 2025). However, as Denmark evolved into a constitutional monarchy, the King typically exerted influence rather than directly selecting governments (Jørgensen, 1948, p. 16). Crucially, the principle of parliamentarism, that a government must have the confidence of the lower house, had not yet been institutionalized. As a result, ministers could remain in office even if they lacked majority support in parliament (Wendel-Hansen, 2025a).

This political ambiguity laid the foundation for a long-standing conflict between two emerging political factions. On one side stood Højre, which represented landowning interests and opposed lower-house-based parliamentary control. On the other was Venstre, aligned with the peasant population and strongly supportive of parliamentarism (Knudsen, 2000a, p. 522).

Tensions intensified following the constitutional revision of 1866. This revision introduced a privileged voting system for the upper house (Landstinget), while maintaining universal suffrage for the lower house (Folketinget) (Knudsen, 2020a, p. 306–307). The result was a structural imbalance that gave disproportionate influence to landowners and conservative elites, allowing Højre to dominate Landstinget despite Venstre repeatedly securing majorities in Folketinget (Knudsen, 2000a, p. 544–545). The power relationship between the two chambers remained unresolved. However, the King sided

with the landowning elite and used his influence to shield Højre from demands for parliamentarism, enabling the formation of Højre governments despite Venstre's repeated majorities in Folketinget (Knudsen, 2000a, p. 523).

This imbalance also had implications for the structure and operation of the civil service system. As with the appointment of ministers, the Constitution formally vested the King with authority to appoint, dismiss, and relocate civil servants (Waaben, 1948, p. 108–109). In practice, however, this power came to be exercised primarily by the responsible ministers. A notable example is found in the Ministry of Culture, where under absolutism the King had been presented with a list of three candidates for clerical appointments. After the adoption of the Constitution, it became standard practice to present only a single candidate, typically reflecting the minister's preference, though in some cases, the King still exercised his formal right to decide (Knudsen, 2000a, p. 521). This institutional framework thus enabled a politicized civil service from its inception (Knudsen, 2000a, p. 544).

Two important distinctions characterized the civil service corps in the decades leading up to 1901. One was its internal composition: the corps consisted of officials who often shared similar social and academic backgrounds, a homogeneity that was, in part, the result of educational restrictions limiting access to administrative positions (Jørgensen, 1948, p. 16). The other was the lack of institutional separation between the political system and the civil service. A significant share of the Parliament consisted of civil servants, and between 1865 and 1901, approximately half of all ministers had a civil service background (Knudsen, 2000a, p. 537).

The constitutional conflict culminated in the 1901 election, in which Venstre secured 76 seats and Højre only 8 (Wendel-Hansen, 2025b). Even leading Højre figures acknowledged the necessity of a Venstre-led government (Knudsen, 2020b, p. 33). The election outcome effectively ended a 35-year period of continuous Højre control of government and the civil service. It also initiated a process of institutional separation between politics and administration, as civil servants ascending to ministerial positions became extremely rare (Waaben, 1948, p. 142).

Philosophy of Science

The scientific philosophical position of this thesis is based on critical rationalism. Critical rationalism is an approach to scientific inquiry developed by Karl Popper (Ingemann, 2013, p. 73). It entails a process that is implicitly underpinned by a trial and error approach by attempting to accumulate knowledge by falsifying existing theoretical concepts. Ontologically, it is grounded in the realistic position which entails that reality exists independently of the observer (Hviid Jacobsen *et al.*, 2015, p. 166).

The epistemological principles involve that knowledge develops through falsification rather than verification as the former is significantly more feasible. The argument rests on the analogy of the black swan that posits that observing n amount of white swans will not preclude the observation $n + 1$ to be black (Ingemann, 2013, p. 73-74). The implications of this is that theories should face maximum criticism through testing of their validity as scientific propositions cannot be definitively proven true. Instead current knowledge is considered accepted for now, where the robustness of this provisional acceptance, correspondence to the degree it has been under scrutiny. Therefore, criticism is essential for scientific progress (Ingemann, 2013, p. 76).

The knowledge under scrutiny in this thesis relates to empirical findings by Lewis (2008) that suggest that institutional and political constraints account for variation in application of political appointment versus merit appointment in the American federal administration. These findings have been used to model expectations about political executives' preferences for either system. For instance, Christensen *et al.* (2014) argue that political executives may prefer control over who employs positions in central administration, which is afforded more by political appointment than adhering to the merit system. Therefore, political appointment should be the preferred choice when institutional and political conditions allow for it. Precisely how this notion will be tested using the Danish case will be described in following sections.

Methodologically, the thesis adheres to critical rationalistic ideals by employing a hypothetico-deductive approach. If the hypotheses are then confirmed, the theoretical notion under investigation may retain its status as acceptable for now. In contrast, if findings do not align with expectations, it suggests a revision or clarification of

propositions, potentially affording more realistic expectations about the preferences of political executives related to selecting civil servants.

Theoretical Framework

This theoretical framework establishes expectations for increased volatility in Denmark's central administration following the 1901 systemskifte. It draws on three complementary theoretical perspectives. First, Weber's ideal-typical bureaucracy provides a conceptual foundation, highlighting divergences in the Danish ministerial system after its introduction. Second, principal-agent theory frames the delegation of political authority as a trust relationship, demonstrating how Denmark's deviations from Weberian principles exacerbated opposition mistrust in the civil service. Finally, theories of bureaucratic politicization suggest that political executives will exercise control preferences under favorable political and institutional conditions. I argue that the systemskifte represented one of the most significant power shift in Danish political history since the 1849 Constitution and that the institutional shift toward negative parliamentarism created more volatile governments, potentially leading to both immediate and lasting effects on civil servants' survival rates in central administration.

4.1 The ideal-typical Bureaucracy

The most well-known conceptualization of bureaucracy is formulated by Max Weber. In his ideal-typical version, bureaucracy functions as the organizational embodiment of legal-rational authority. This form of authority derives its legitimacy from established rules, procedures, and laws rather than from traditional customs or charismatic leadership (Bruun, 2020, p. 150).

Weber's ideal-typical concept consists of several components. These include, that the civil servant is formally selected based on technical qualifications. After which he/she will receive a fixed wage and enter into an organizational hierarchy with clear division of competencies and skills. They are expected to maintain professional neutrality in the sense that they only obey their professional civil servant duties. Under satisfactory conditions, career civil servants have prospects for advancement within the organizational hierarchy and can expect a tenured position (Bruun, 2020, p. 151). It is important to highlight that Weber did not expect his ideal-typical constellation to

represent itself in its entirety empirically. He also refrains from any normative judgment about whether systems with higher congruence to the ideal-type would be inherently better. He does, however, argue that systems that adhere closely to the ideal-type have high capacity for precision, stability, discipline, and reliability in execution of tasks it is responsible for. Further, he argues that closely related systems have a strong democratic component as decisions are based on clearly defined rules independent of personal regard, making the outcome adhere to the democratic disposition of equality before the law (Bruun, 2020, p. 151; Weber, 2003, p. 321).

Within this bureaucratic framework, Weber further articulated an important separation between the political executive and the administrative civil service (Palonen, 2022). Weber distinguished between politicians who make value-laden policy decisions based on partisan interests and civil servants who implement these policies through neutral, technical expertise. This politics-administration dichotomy establishes distinct spheres of responsibility: political officials determine 'what' should be done based on values and democratic mandates, while bureaucrats determine 'how' it should be accomplished based on technical rationality and legal rules (Bruun, 2020, p. 152; Palonen, 2022, p.434-435). This separation serves as a foundational principle for modern democratic governance systems, allowing for both responsive political leadership and consistent administrative execution in its ideal-typical conception. However, empirical research increasingly challenges this neat dichotomy, with scholars like Christensen (2024) demonstrating that in complex modern welfare states, civil servants necessarily act in increasingly political ways, with administrative and political realms becoming more deeply intertwined than Weber's traditional model suggests.

The transformation of Danish governance in 1848, which included a shift from collegiate system to a ministerial system did introduce several components recognizable from Weber's ideal-type of bureaucracy. These included the concentration of responsibility towards a leading figure, the minister who oversees the implementation of policy within a defined domain. Each ministry was constituted by a hierarchical order in which the minister, distributed some of his authority to lower levels of administration through personal, such as permanent secretaries and division heads (Jørgensen, 1948, p. 17). In addition to these alterations the new system entailed high levels of continuity, whereby both the previous as well as the new adhered to Weber's ideal-typical characteristics. This included a working force composed of highly educated and specialized employees with the prospect of promotion within the organizational setup (Jørgensen, 1948, p. 16).

However, in the early adaptation of the ministerial principles, Danish governance differed substantially from the Weberian ideal. The most significant deviation resulted

from the lack of division in the work between the politician and the civil servant. In the years between the signing of the constitutional act and the change of system in 1901, it was not uncommon for a politician in the Danish parliament to also be employed as a civil servant (Knudsen, 2000a, p. 537). These circumstances do not, of course, predetermine incongruence with the Weberian ideal of civil servants obeying only civil service duties, since each role was accompanied by different norms, rules, and responsibilities. However, it nonetheless created an institutional setup where a civil servant could gain from acting politically. This was exacerbated by the historical tendency at the time, namely that a culminating career position for a top civil servant was the role of the minister (Knudsen, 2000a, p. 537). For example, a civil servant who simultaneously held a parliamentary position might prioritize political aspirations when drafting policy recommendations, subtly aligning administrative work with partisan interests rather than maintaining strict neutrality as their civil service role would dictate.

This lack of institutional separation between civil service and political office was further complicated by the political context of the time. The 35-year period of uninterrupted Højre governments meant that much of the senior civil service had advanced their careers under administrations ideologically opposed to Venstre. As a result, when Venstre entered office in 1901, they did so with limited trust in the civil service's political neutrality (Waaben, 1948). This mistrust was exacerbated by the fact that during the most intense phases of the constitutional conflict, several prominent civil servants had publicly sided with Højre in opposition to parliamentary government (Knudsen, 2001, p. 107). The blurred lines between administrative and political spheres did not merely permit partisan entanglement, they gave Venstre reason to doubt whether the administration would faithfully implement the agenda of a government it had historically opposed. This mistrust is reflected in statements by several leading Venstre figures who questioned the central administration's capacity to act faithfully under a potential Venstre-led government, expressing outright worry that officials would conspire against it (Waaben, 1948, p. 131).

A second significant deviation from the Weberian ideal was the absence of institutional guarantees for tenure within the Danish civil service (Knudsen, 2000a, p. 544). From the inception of the ministerial system, political disagreements persisted over the extent to which the civil service should be organized as a free and independent administrative corps, where "free" implied protection from politically motivated dismissals by ministers (Waaben, 1948, p. 109-110). These debates were never conclusively settled. Instead, a compromise emerged whereby civil servants who were prematurely or unexpectedly dismissed were granted a pension proportionate to their completed years of service (Waaben, 1948, p. 113). While this arrangement may have had a modest deterrent effect against arbitrary dismissals, it did not preclude the possibility of politi-

cization. The formal capacity to replace civil servants for political reasons remained intact.

This institutional flexibility is crucial for understanding the situation in 1901. When Venstre came to power with a substantial parliamentary majority under the new principle of Folketing-based parliamentarism, they faced no credible threat of political dismissal from rival parties. Nor were they significantly constrained from below: the public mood had turned sharply against the civil service during the culminating years of the constitutional feud, where the civil service corps was increasingly perceived as obstructive, elitist, and aligned with Højre's interests (Knudsen, 2001, p. 107-108). As a result, any potential public backlash to a reform of the civil service was likely to be limited. In institutional terms, the mechanisms to politicize or restructure the civil service were available, in political terms, the conditions were favorable.

Taken together, these deviations, the lack of institutional separation between politics and administration, and the absence of guaranteed tenure meant that the Danish civil service in 1901 deviated significantly from Weber's ideal of a neutral and rule-bound bureaucracy. This institutional context is key to understanding why the *systemsiftet* raised expectations of immediate political intervention in the civil service. However, the *systemsiftet* was more than just a transfer of power. It marked a foundational reordering of political authority and institutional norms (Knudsen, 2001). To understand not only the potential for immediate dismissals but also the possibility of a longer-term shift toward a more volatile or politically responsive civil service system, principal-agent theory is employed.

4.2 Principal-Agent Approach to Public Administration

The principal-agent paradigm acts as an analytical tool to understand how organizations manage their resources (Breux *et al.*, 2002, p.93). The paradigm distinguishes between two central actors: the principal and the agent. The principal has an objective consisting of a level of quantity or complexity that precludes the objective from being solely handled by the principal. The objective is therefore delegated to an agent who receives compensation for solving tasks related to the objective (Breux *et al.*, 2002, p.93). The principal-agent relationship is then formally bounded by a contract, which strives to reduce tension between the actors stemming from fundamentally different motivations (Breux *et al.*, 2002, p.93).

The collaboration within the legislative power of democracy between ministers and civil servants can be considered a principal-agent (PA) relationship. In this perspective, the government acts as the principal, while the civil service system acts as the agent. The efficiency of policy implementation is to a significant extent determined by how the agent is incentivized (Lane, 2020). However, several factors constrain this outcome, which stem from the risk of incongruence between the design of the contract *ex ante* and its performance *ex post* (Lane, 2020; Laffont and Martimort, 2002). These constraints can be subcategorized into issues of *ex ante* opportunism and *ex post* opportunism (Steinle *et al.*, 2014, p. 127).

Ex ante opportunism refers to the agent potentially misrepresenting their abilities or intentions, signaling higher effort levels than they can deliver. This behavior, known as *faking*, is difficult to prevent, as any mismatch between the agreement and the performance can be rationalized as bad luck or unforeseen circumstances (Lane, 2020).

Ex post opportunism, by contrast, relates to the agent's ability to seek additional benefit relative to their actual input. This includes shirking (e.g., reduced effort or time commitment) and more adverse forms of rent-seeking such as corruption or patronage (Lane, 2020).

The PA framework emphasizes information asymmetry as a key condition enabling these behaviors. This arises because the agent typically has more detailed knowledge about the technical and procedural aspects of the task (Coats, 2002, p. 447). In a Weberian perspective, a functioning bureaucracy must possess both technical knowledge (*Fachwissen*) and internal organizational knowledge (*Dienstwissen*) (Weber, 1918, pp. 352–353).

The former refers to subject-matter expertise (e.g., law, engineering), while the latter concerns understanding the internal workings of administrative hierarchies and work-flows. Together, these knowledge domains form the basis of the information asymmetry between political leadership and civil service.

This imbalance became increasingly pronounced during the expansion of Western bureaucratic states, including Denmark, as their administrative apparatus grew more complex and specialized throughout the modern era (Boix, 2001). The resulting informational advantage held by the civil service thereby intensified as the state's functions expanded and diversified (Knudsen, 2000a, p. 528).

According to Niskanen (1971), information asymmetry leads to bureaucratic inefficiency. Agents are not incentivized to reveal true marginal costs and instead seek budget maximization. This can result in oversupply of services and inefficient public goods provision. These risks, rooted in incentive misalignment, motivated later New Public Management (NPM) reforms, where competition and outsourcing pressure agents to reveal their actual cost structures (Lane, 2020, p. 9).

In summary, principals seek to avoid two risks: *adverse selection*, where unfit agents are hired, and *moral hazard*, where capable agents underperform (Lombard and Morris, 2012, p. 649-650). To mitigate adverse selection, principals rely on proxies such as reputation, education, or experience. However, agents can still strategically signal high motivation or compliance to gain access to roles or benefits (Lane, 2020). An all-encompassing contract could, in theory, minimize both adverse selection and moral hazard. But such contracts are rare and costly due to high *transaction costs* i.e., the costs of specifying, enforcing, and monitoring the contract rather than producing the actual output (Hefetz and Warner, 2012, p. 291-292).

From a principal-agent perspective, the 35-year period of Højre governments (1866–1901) likely reduced incentive for moral hazard in the Danish civil service. Principal-agent theory suggests that repeated interactions alter incentive structures and information dynamics between principals and agents (Holmstrom, 1979). Although bureaucrats retained a knowledge advantage over their political superiors (Weber, 1918, pp. 352–353), the extraordinary duration of party continuity transformed their relationship into what game theorists describe as a “repeated game” (Fudenberg *et al.*, 1990).

Although Højre's control entailed numerous shifts in individual ministers who served as direct principals, Højre as a party likely served as institutional memory, preserving expertise across officeholders and providing continuity in principal-agent relations. In such sustained interactions, the risk of moral hazard diminishes because poor performance cannot be blamed on external factors indefinitely (Holmstrom, 1979,

p. 89-90). Bureaucrats would have expected their true capabilities to be revealed over time, incentivizing greater effort. Therefore, long-term contracts offer increased capabilities for monitoring hazardous behavior, as long-term observations reveal otherwise unobservable effort levels by the agent (Holmstrom, 1999, p. 3).

However, this view has important caveats. Long-term use of the same agents can grant them "monopoly status," which may be exploited for personal gain (Gregersen, 2013, p. 78). This results from organizations not having sufficient access to information to restrain the agents' discretionary capacity (Migué *et al.*, 1974, p. 32), sustaining information asymmetries and rent-seeking opportunities.

Nonetheless, principal-agent theory generally holds that extended collaboration reduces moral hazard (Gregersen, 2013, p. 79). The long timeframe created strong career incentives, as civil servants sought to preserve future utility through continued employment (Holmstrom, 1999, p. 4). This aligns with game-theoretical insights that cooperation becomes sustainable in repeated games when long-term gains outweigh short-term opportunism (Radner, 1981). While repeated interactions did not eliminate information asymmetry, they significantly curtailed incentives for exploiting it (Radner, 1981). Further, credible sanctions became more effective, as misconduct could threaten entire careers rather than just single terms. Finally, the possibility of advancement to ministerial positions strengthened alignment incentives, an incentive that effectively disappeared after 1901 (Knudsen, 2000a).

When parliamentarism was introduced following 1901 more frequent changes in governing parties, this stable principal-agent relationship was disrupted. For administrations ideologically distant from Højre, such as Socialdemokratiet and Radikale Venstre, the inherited bureaucracy presented heightened moral hazard concerns, as civil servants potentially retained either loyalty to previous principals or established policy preferences. This new political reality is according to this theoretical framework is expected to necessitate alternative strategies to secure responsive performance from the bureaucracy in the absence of the disciplining effects that long-term, repeated interactions had previously provided.

4.3 Appointment of Civil Servants

The selection of the top civil servants can be understood through two opposing ideal-typical systems: the merit-based civil service and the political appointment system. These systems represent fundamentally different approaches to bureaucratic organiza-

tion and accountability. The former describes an administrative organization where career civil servants are recruited based on professional merit and effectively receive tenure, preventing their dismissal even when there are changes in executive power (Krause *et al.*, 2006; Kaufman, 1956). The latter refers to a situation where the selection criteria are related to party affiliation and political connections where the appointee may have had a career within the party or an affiliated organization or is connected to a particular political executive (Moe, 1985).

Each system's advantages and limitations fundamentally stem from how it provides competence to the civil service system. Here, the merit system is claimed to facilitate neutral competence constituted by high levels of objective bureaucratic expertise. Personnel outside the political sphere are expected to possess more advanced policy expertise entailing significant experience in public management and with the formation of relationships with key stakeholders (Krause *et al.*, 2006, p. 771). Proponents of the merit system typically consider political appointments to be inversely related to this bureaucratic expertise and objective delivery of competence, as they lack formal training and are seen as more influenced by the institutions that brought them to their position (Krause *et al.*, 2006; Ban and Ingraham, 1990). Furthermore, it is argued that high reliance on political appointment is associated with lower performance levels as turnover rates increase, which decreases the institutional memory, thereby creating more vague understandings of the system's objectives (Ban and Ingraham, 1990, p. 122).

Political appointments does serve a purpose, namely to ensure high levels of loyal responsiveness between the political executives and the civil service system (Moe, 1985). In this view, the bureaucratic knowledge discrepancy, along with the lack of shared political affiliation between top civil servants and political executives, forms the basis of a potential agency problem (Christensen *et al.*, 2014, p. 218). This potential agency problem corresponds with the principal-agent analysis presented earlier, whereby a newly governing party might perceive inherited civil servants as possessing potentially misaligned incentives. Therefore, political incumbents are incentivized to make smaller reorganizations of the civil service system and push for legislation that allows for further appointment of political affiliates (Moe, 1985, p. 245).

As a result, the selection of top civil servants represents a fundamental tension in governance: political executives must balance the technical expertise and institutional memory provided by career bureaucrats against the loyal responsiveness offered by appointed allies.

In terms of the interests of political executives, it is generally assumed that they want to maximize control over the civil service system (Mayntz and Derlien, 1989, p.384).

Such control offers several advantages, as it may lead to greater assurance that the principal's preferences are executed faithfully. Furthermore, although it compromises the ideal-typical distribution of responsibilities, having control over employment facilitates preemptive dismissals as a blame-avoiding strategy during political firestorms (Hood, 1998, p.452).

However, the choice can be restricted by political and institutional conditions and by the concentration of power. A selection process can, for example, entail some procedural requirements such as commitment to open competition or a quota system (Choi and Whitford, 2011, p. 110). There may also be a need for political acceptance or tacit approval from other organizations or political bodies (Choi and Whitford, 2011, p. 110).

Empirical findings from Lewis (2008) suggest that institutional and political constraints account for part of the variation between either merit or political appointment in the American federal administration. This is further echoed by empirical evidence from Danish local politics, which hints that dismissal of top civil servants is more likely following an election where a singular party gains a large majority of the votes (Christensen *et al.*, 2014, p. 232).

These theoretical notions about the nexus between political executives and constraints are relevant for understanding the conditions surrounding the 1901 systemskifte, wherein Venstre assumed office with substantial parliamentary support. Based on this theoretical framework, it is expected that the pendulum would swing toward politicization following the 1901 systemskifte. The extraordinary political transition, with Venstre gaining power after 35 years of uninterrupted Højre governance, created both the motivation and opportunity for administrative reorganization. Venstre's substantial parliamentary backing under the newly established principle of parliamentarism provided the political conditions favorable for asserting greater control over the civil service.

Furthermore, the shift toward a more volatile political environment, with more frequent changes in governing parties accessing central administration, would theoretically produce higher rates of administrative turnover compared to the pre-systemskifte period, as successive governments would attempt to reduce the risk of moral hazard by selecting individuals with whom they were affiliated and whom they expected to remain loyal to their political interests.

4.4 Hypotheses

The preceding theoretical framework enables the generation of specific expectations regarding administrative volatility following Denmark's 1901 systemskifte. At its core, this research tests the theoretical claim that under favorable institutional conditions and power distributions, political incumbents should favor political appointments or discretionary dismissals to enhance bureaucratic responsiveness (Lewis, 2008; Mayntz and Derlien, 1989; Christensen *et al.*, 2014). This expectation is operationalized by examining turnover, as politicization is associated with higher employee turnover (Krause *et al.*, 2006, p. 232; Ban and Ingraham, 1990).

Central to both hypotheses is Denmark's institutional context. The Constitution of 1849 provided the necessary flexibility for discretionary dismissals, deviating from Weber's ideal-typical tenure protection (Bruun, 2020, p. 151). This institutional arrangement, which granted ministers considerable latitude in personnel decisions while offering only proportional pension compensation for dismissed officials (Waaben, 1948, p. 113), created the foundational conditions for potential politicization. The absence of robust tenure guarantees constitutes the essential institutional precondition for both immediate and sustained administrative volatility (Knudsen, 2000a, p. 544).

For immediate effects following the systemskifte, the power distribution was decisively favorable for Venstre. After 35 years of Højre governance, much of the civil service had developed under administrations ideologically opposed to Venstre (Knudsen, 2001, p. 107). As the principal-agent analysis demonstrates, this created significant potential for moral hazard (Lane, 2020, p.650), with civil servants potentially retaining loyalties to previous principals. This risk was particularly acute given that prominent civil servants had publicly opposed parliamentary principles during the constitutional conflict (Waaben, 1948, p. 131), giving Venstre legitimate reason to doubt whether the bureaucracy would faithfully implement its agenda. Combined with strong parliamentary backing and limited threat of political consequences, these conditions created both motivation and opportunity for swift administrative intervention. Thus:

Hypothesis 1. *The 1901 systemskifte led to a statistically significant and immediate increase in civil servant turnover, as the incoming Venstre government sought to mitigate principal-agent risks by appointing officials more likely to align with its political objectives.*

For longer-term effects, the establishment of parliamentarism fundamentally altered the principal-agent dynamics in Danish governance. Unlike the previous 35-year period of Højre dominance, the post-1901 system featured more frequent transitions of power between parties. Principal-agent theory in conjunction with insight derived from game-theory suggests that repeated interactions in “repeated games” offer incentives for agents to reduce moral hazard and align with principals’ interests (Radner, 1981; Fudenberg *et al.*, 1990). However, with the introduction of more volatile governance, this disciplining mechanism for civil servants weakened considerably. Each new governing party would face similar incentives to ensure bureaucratic responsiveness through personnel changes. The constitutional flexibility allowing discretionary dismissals, combined with this new pattern of political alternation, would therefore be expected to produce sustained higher levels of administrative volatility. Thus:

Hypothesis 2. *The period following the 1901 systemskifte was characterized by persistently elevated civil servant turnover relative to the pre-1901 era, as successive governments increasingly relied on discretionary personnel changes to address recurring principal-agent challenges under conditions of intensified political alternation.*

By testing these hypotheses, this research evaluates a core rational choice perspective: that political appointments are preferred by strategic actors when institutional conditions provide sufficient flexibility and power distributions are favorable (Mayntz and Derlien, 1989, p.384; Lewis, 2008). The 1901 systemskifte and subsequent implementation of parliamentarism offers a crucial historical case to examine whether political principals indeed behave as theoretically predicted when facing problematic agency relationships under changing institutional dynamics.

A potential absence of effect will question whether institutional transformation is based on micro-oriented behaviors characteristic of rational-choice institutionalism, such as utility-maximization via cost-benefit analysis (Cambell, 2020). Conversely, rejecting the alternative hypothesis could indicate institutional inertia and path dependency, typically attributed to historical institutionalism (Cambell, 2020). The findings will be analyzed in light of the juxtaposition of these two contrasting theoretical propositions.

Methods and Materials

5.1 Research design

The research design employed in this thesis is based on a single case, namely the Danish civil service system between 1866-1936. I argue that this case can be considered a crucial case. According to Levy (2008), the defining characteristic of a crucial case is that the theoretical propositions under investigation include relatively clear predictions. This is similarly reflected by Gerring (2007), who argues that if a theoretical notion includes deterministic or probabilistic predictions about a given phenomenon, empirical evidence for or against the causal mechanism offers high-stakes leverage on the support of that theory.

The theoretical assumption in this investigation does include a predictable outcome, namely, that under weak ruled institutions and favorable power distributions, political executives should prefer political control over civil service systems, resulting in politicization (Lewis, 2008; Christensen *et al.*, 2014). In this light, the present case can be further subcategorized as a most likely case design, which can be adequately described by the inverse Sinatra inference analogy that posits: "If I cannot make it here, I cannot make it anywhere" (Levy, 2008, p. 12). This entails that all relevant dimensions are predicted to achieve a certain outcome (Gerring, 2007, p.232). In this case, the Danish constitution offered sufficient flexibility for discretionary dismissals (Knudsen, 2000a), and Venstre gained an absolute majority of votes in a system that came to acknowledge parliamentarism, meaning they had the political capacity as well. The causal mechanism in question should therefore most likely result in more politicization.

It is important to note that the amount of leverage findings have on theory depends on how the case is interpreted. In this case, I expect the causal mechanism to operate and the case is most likely, meaning that if a significant effect from *systemsiftet* is

established, the findings have mostly contributed to reassuring the assumption; however, it might be that the Danish case is an edge case and the causal mechanism will only operate in these very favorable conditions (Gerring, 2007). On the other hand, if an effect is not found, it could be a strong indication that the theoretical assumption in question needs revision.

5.1.1 longitudinal research design

The research design consists of a longitudinal design with panel data. Longitudinal examinations refer to instances where data related to the same phenomenon is collected at multiple periods in time (Andreß *et al.*, 2013). The main advantage is that it enables investigations that approach causality as opposed to basic correlation via techniques such as *Granger causality*. Here, past values of X are used to predict values of Y . If the inclusion increases the explained variation in Y , X is referred to as Granger causing Y (Key and Lebo, 2015). For this case, longitudinal designs are employed in conjunction with interrupted time series analysis, further outlined in a later section, which effectively allows the effect of systemskiftet to be estimated while controlling for past trends.

This thesis employs a panel dataset, which entails measurement of the same unique observations over a period of time (Andreß *et al.*, 2013). This type of data adds another layer facilitating an even closer move towards causality as it enables control for within-observation variance (Andreß *et al.*, 2013). Further, it permits questions not answered by standard cross-sectional data. For instance, it is possible to estimate the effect of specific variables on poverty. However, if the intention is to model an individual's risk of staying poor, unique individual observations across time are necessary (Andreß *et al.*, 2013).

To answer the research question of this thesis, panel data is needed due to way politicization is operationalized in this thesis.

5.2 Operationalization

The metric used to measure political appointment results is based on theoretical consideration. Empirical evidence suggests that politicization leads to higher turnover rates resulting in lower tenure rates (Ban and Ingraham, 1990, p. 111-112; Krause *et al.*, 2006). Average tenures as the dependent variable is sensitive to expansions, meaning that when organizations grow, average tenure all else equal reduces as n in the denominator increases. Since Danish central administration grows significantly in the

years of interest (Stjernqvist, 1948), controlling for employee numbers would create endogeneity by including elements of the dependent variable on the right-hand side of the equation. Therefore, turnover rates (or often interchangeably called exit rates) are calculated instead, which express the proportion of employees who leave relative to the total workforce over a given time period regardless of the reason (Jensen *et al.*, 2019; De Winne *et al.*, 2019). Turnover rates are calculating as follows:

$$\text{Turnover rate}_{it} = \frac{\text{Number of employees who left in period } t \text{ from unit } i}{\text{Number of employees employed in unit } i \text{ at period } t - 1}$$

Constructing this metric necessitates panel data, despite significantly increasing data collection complexity, as it requires information on which specific individuals left the central administration. Without panel data, exits could be obscured if departures were offset by an equal number of new hires.

The main independent variables are related to the immediate effect of *systemsiftet* on turnover rate and a variable capturing variations in the trend of turnover rate over time. The former is a dichotomous variable that changes value from 0 to 1 after 1901. The latter is constructed as an interaction variable that effectively restricts the coefficient to exclusively contribute with explanatory power after *systemsiftet*, which is further outlined in the following section related to the interrupted time series.

5.3 Data

The dataset, used to answer the thesis' research question, consists of 1137 unique employees in the Danish central administration, derived from the *Hof- og Statskalenderen* for the period 1866–1936. Each individual is assigned a consistent identifier across years, enabling longitudinal analysis of civil service career trajectories.

The conceptualization of "central administration" employed in this research acknowledges definitional ambiguities and follows methodological precedents established by Henry Stjernqvist (1948). Most significantly, in accordance with Stjernqvist (1948)'s framework, the Ministry of Foreign Affairs and the war ministries are excluded from analysis. This demarcation addresses the distinctive organizational structures of these ministries, which, for extended historical periods, distributed responsibilities unlike other ministerial departments, operating under an overarching director where perma-

nent secretaries were subordinate, rather than each department being led independently by a permanent secretary (Jørgensen, 1948). Additional exclusions encompass institutions peripheral to ministerial chains of command (e.g., authorities related to public transportation or customs) and offices administering provisional geographical areas (such as auditing offices exclusively dedicated to Holstein and Slesvig). Similarly excluded are administrative bodies with organizational structures diverging significantly from Weberian bureaucratic principles or where employee engagement patterns are questionable, including the "Directionen for Livrente- og Forsørgelsenanstalten" and "Bestyrelsen for Pensioneringen af militærets Underklasser samt invalid forsørgelsen." However, the dataset incorporates various directorates such as "Hovedrevisoraterne" from the Ministry of Finance and the Ministry of Agriculture's business and fisheries directorate. Position-level demarcations have been implemented where, prior to 1882, lower-ranking positions like "copister" and "cancelister" are largely omitted since Hof Stat primarily documented positions of "fuldmægtige" and above. Following the Civil Service Act of 1919, these positions were reorganized, with some functions transferred to the newly created "assistant" role (Stjernqvist, 1948).

While these methodological boundaries introduce certain limitations, particularly regarding statistical power due to reduced sample size, they establish high position continuity across temporal periods, facilitating robust comparative analysis. The temporal boundaries of the dataset extend from 1866, which marks the beginning of constitutional change that led to a 35-year period of Højre governmental dominance (Wendel-Hansen, 2025a), to 1936, creating periods of equal length before and after the intervention. Although a more extensive temporal window might have yielded additional insights, the current 71-year period is deemed sufficiently robust to investigate the effects of the 1901 reforms while optimizing research resource allocation. The resulting demarcations and temporal scope defined the empirical space as illustrated in Table 5.1, which presents the ministries included in the analysis along with their respective time periods.

5.3.1 Record linkage

Hof-og Statskalenderen is OCR-scanned and made publicly available for 68 out of the 71 years included in this study. For these cases, data extraction consisted of simple copy-pasting of names while adding additional information such as ministry affiliation and position. For the remaining years, Hof-og Statskalenderen was accessed physically via the Royal Danish Library in Aarhus. This approach resulted in approximately 9219 entries, which subsequently underwent a process of record linkage in order to match the same individuals across years.

Ministry	Start Year	End Year
Labor and Social Affairs	1925	1936
Finance	1866	1936
Joint Affairs	1866	1858
Commerce	1909	1936
Interior	1866	1936
Justice	1866	1936
Church Affairs	1917	1936
Culture	1866	1936
Agriculture	1897	1936
Public Works	1896	1936

Table 5.1.: Ministries and their year ranges. Note: The "Public Works" ministry was dissolved from 1897 to 1901.

The OCR scans demonstrated adequate quality in character recognition. The primary limitation involved whitespace identification, resulting in names being split at random. Table 5.2 illustrates the output from copying and pasting each name, highlighting the inconsistent formatting. All entries were therefore processed through a large language model (LLM) (GPT-4.1) to correct whitespace placement.

Another challenge relates to a common characteristic in the records where seniority typically leads to names being abbreviated. Therefore, the LLM was also instructed to return each name in its abbreviated form.

Name in 1880	Name in 1881
Andreas Frederik A s m u s s e n	Andreas Frederik Asmus sen
C . F . S c h w a r t z k o p f	(Not listed in 1881)
H a n s C h r i s t i a n M a t t h i a s K r a r u p O l l g a a r d	Hans Christian Matthias Krarup Øllgaard
F . C . B r u u n	F. C. Bruun
I . A . F . d e J o n q u i ö r e s	J. A. F. de Jonquières
A . C . P . L i n d e	A. C. P. Linde
J e n s S t e p h a n V i l h e l m W e r l a u f f .	Jens Stephan VilhelmWerlauff.
Gotfred B u r m a n - B e c k e r , (—)	Gotfred Burman-Beder, Christian Arnold Conrad Wineken

Table 5.2.: Comparison of Name Spellings: Ministry of Culture 1880 vs. 1881

Without robust string similarity metrics, names like "A s m u s s e n" and "Asmus sen" or "K r a r u p O l l g a a r d" and "Krarup Øllgaard" would not be recognized as representing the same individual. These spelling and whitespace inconsistencies motivated the use of fuzzy matching.

The record linkage process was employed through the `recordlinkage` Python pack-

Indenrigsministeriet.	
Minister.	2det Departement.
Hs. Excell. G. W. R. Steel (S.K.*D.M.), til Dronninglund, Kammerherre.	J. E. Schou (C.*D.M.), (S.V.2.), Generaldirecteur for Post- og Telegraphvæsenet samt Statsjernbanedriften, og Departementschef. 18/6 75.
1ste Departement.	
G. P. M. Bach (C.*D.M.), Departementsdirecteur. 12/10 69.	
Contoir for Commune- og Næringsager m.m.	Contoir for offentlige Arbejder.
Sager vedkommende Valgene til Rigsdagen. Sager om Meddelelse af Indfødsret og Løsning af det underaaetlige Forhold; Communalforholdene, Indkvarteringsvæsenet, Kristjorser, Fattigvæsen; Næringsvæsen; Gneret paa Dyndestler; Underkøstelser til Industriens Fremme; og overhovedet alle under Ministeriet hørende Sager vedkommende Industri og Omsætningsforhold; Sager vedkommende Grøntland; alle Ministeriet i Almindelighed vedkommende Secretariatsager.	Alle Sager angaaende de under Indenrigsministeriet hørende offentlige Arbejder, altsaa Jernbanesager, Bygningssager, Sager vedkommende de under Ministeriet henlagte Kongelige Haver, Veie, Vandbygningssager, Digevæsen, Færgesvæsen, Havne og Kanalsager samt Sager angaaende Udbyning af Seiløb; Sager angaaende Civilistens Mellemværende med Statskassen. Tilflynet med Børns og unge Mennekers Arbeide i Fabriker.
Cancelliraad P. H. Schou (R.*), Contoirchef. 20/7 67.	Erhard Florian Larsen, Contoirchef. 7/1 80.
Nepert Jacob Jacoby, 20/6 78, } Fuldmægtige.	Henrik Michael Frederik Victor Sophus }
Hugo Gmønt Hørring, 20/11 80, }	Hallre Damflet, 20/10 78, }
	Gert Wilhelm Johannes Dreyer, 7/1 80, }
Landvæsencontoir.	Contoirerne for Post- og Telegraphvæsenets Overbestyrelse.
Landvæsen, Hæstevæsen, private Forst- og Jagtsager, Sanflugtsvæsen, Inddømminger og Vandafledning; Overbestyrelsen af Stutterivæsenet og Veterinær- og Landbohøjskolen, samt af Redningsvæsenet; Sager angaaende Egge-domme mellem Heste og Kreaturer.	Sager vedrørende Post- og Telegraphvæsenet.
Johan Christopher Høppe, Contoirchef. 20/11 80.	Justitiraad N. H. Lund (R.*D.M.), (R.St.Stan.2.), (N.St.O.2*), (S.N.3.), Contoirchef, 12/4 53; fungerer tillige som Committet for Postvæsenet.
Conrad Alexander Fabricius de Tengst, 20/7 79, } Fuldmægtige.	Christian Christoffer Lund, Contoirchef. 1/1 81.
Orla Hønebech-Wulff, 7/6 80, }	Christian Holbjørnsen Deegen Vermehren, 20/12 74, }
	Frederik Andreas Thiele, 10/4 79, }
	Christian Christoffer Grøbe, 19/7 80, }
	Louis Joseph Fleron, 1/1 81, }
	Christian Drorson, Cancellist.
Matriculcontoir.	
Matriculaffager.	
Kammeraad, Landinspector P. G. L. Birk (R.*), Chef. 1/12 67.	
Oluf Absalon Bøgh, Fuldmægtig. 20/12 67.	

Figure 5.1.: Record regarding Ministry of Internal Affairs 1881

age, supplemented by fuzzywuzzy for string similarity computations. The fuzzywuzzy package’s token_sort_ratio function was employed for name-to-name matching scenarios, offering particular efficacy in handling variations in name ordering and cases where middle names were either truncated or repositioned within entries. For abbreviated name comparisons, the Jaro-Winkler similarity metric was utilized, which advantageously assigns greater weight to matching characters at the beginning of strings (Dutta, 2025), a characteristic particularly valuable when processing individuals sharing common surnames but with abbreviated forenames.

The matching procedure followed a structured four-step hierarchical process, designed to accommodate the institutional context of Danish civil service careers:

1. Within-ministry name matching using moderate similarity thresholds
2. Within-ministry abbreviated name to full name matching
3. Cross-ministry name matching with elevated similarity thresholds
4. Cross-ministry abbreviated name to full name matching with strict similarity requirements

This hierarchical approach reflects the empirical observation that cross-ministerial career transitions were relatively uncommon, thus necessitating more stringent match-

ing criteria when identifying potential matches across different administrative units to minimize risk of false positives.

The resulting panel dataset, together with the complete code used to construct it, is publicly available on GitHub¹, supporting transparency, reproducibility, and potential reuse in related studies of bureaucratic careers or historical administrative data.

5.3.2 Descriptive Statistics



Figure 5.2.: Summary statistics for the dataset covering Danish ministry employees 1866–1936

To validate whether the record linkage performed as intended, average tenures are compared to those reported by Stjernqvist (1948) in a similar analysis. Although that earlier study collected data only at intervals of 10 to 20 years and begins in 1885, it provides a useful benchmark to assess whether the automatic approach used in this thesis aligns with the manual method applied over 70 years ago.

Figure 5.3 suggests that Stjernqvist (1948)’s data and the dataset collected in this thesis yield roughly similar tenure lengths, offering reassurance that the data adequately represents employees in central administration during the years of interest.

However, it is important not to draw definitive conclusions, related to the thesis research question, from this figure alone, as it does not account for the increasing number of

¹https://github.com/bigtunis/central_administration_panel

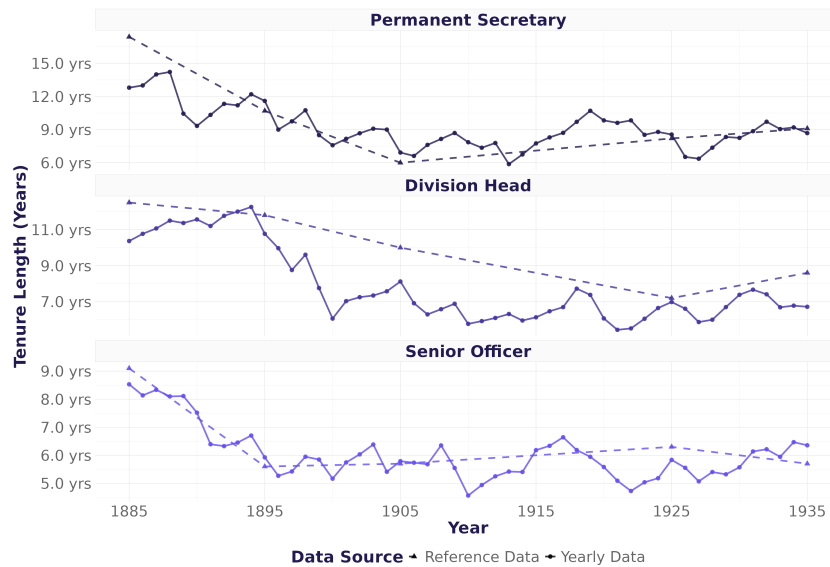


Figure 5.3.: Average tenure for each of the included positions

employees in Danish central administration over time. For example, while tenure levels appear generally higher before 1901, the influx of new employees will naturally lower average tenure length. This is especially relevant since the number of cases n grows substantially during the data collection period, as shown in Figure 5.4. Another important caveat is that the data is highly unbalanced across ministries and positions, with the Finance Ministry typically being about the same size as all other ministries combined, as illustrated in Figure 5.5.

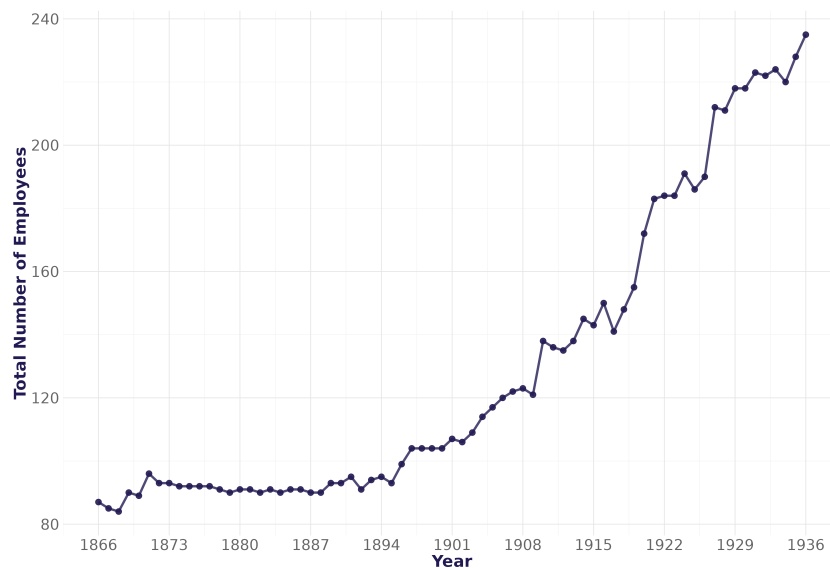


Figure 5.4.: Total number of employees over time.

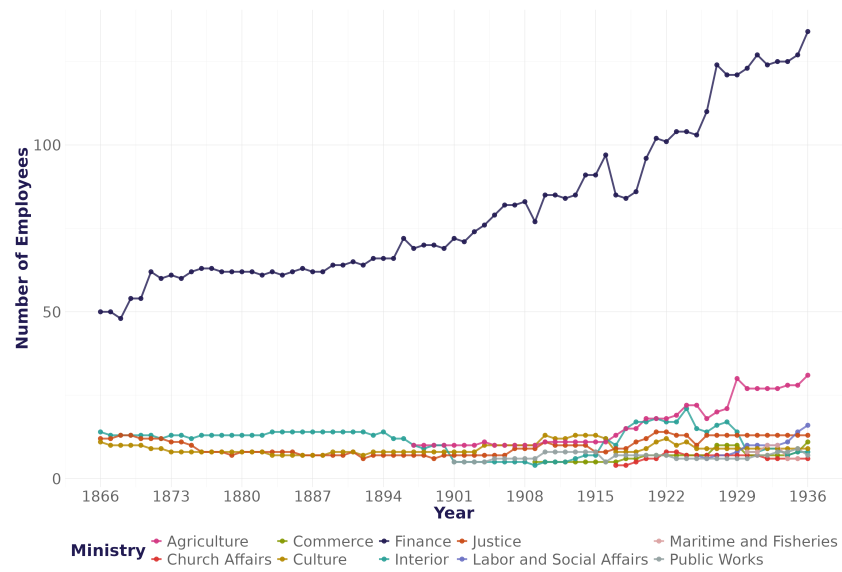


Figure 5.5.: Distribution of employees across ministries.

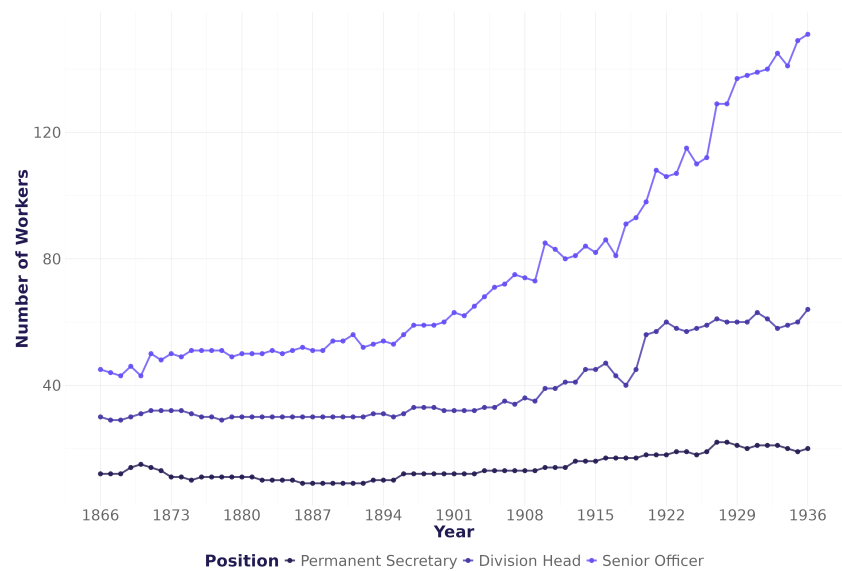


Figure 5.6.: Distribution of employees by position.

This imbalance is further reflected in the three different positions present in the data, as shown in Figure 5.6. This reflects the hierarchical nature of the ministerial system. These imbalances pose challenges for potentially fruitful methods such as fixed-effect models that control for cross-sectional and cross-temporal differences across ministries (Lawrence and Chung, 2015, p. 212). Similarly, interaction effects involving position are questionable because sufficient n is required in each subgroup to accurately estimate a potential effect (Leon and Heo, 2009). Consequently, the following analysis groups all observations across roles and ministries.

5.4 Interrupted time series analysis

The analysis conducted in this thesis is based on interrupted time series analysis (ITS). ITS is a quasi-experimental method for determining causal effects using longitudinal data (Kontopantelis *et al.*, 2015). It is thereby segmented along with a group of methods that employ observational data without non-equivalent control groups with the intent of establishing causality (Miller *et al.*, 2020). It is a viable and powerful method for causal inference when fully randomised controls do not occur naturally or are not feasible to construct due to restriction of resources (Miller *et al.*, 2020, p. 4).

ITS has been employed in numerous fields such as political science where it has been used to establish the effect of gun-control (Britt *et al.*, 1996), and in implementation studies to uncover the effect of a smoking ban on violent incidents in psychiatric organisations (Robson *et al.*, 2017). In other cases, ITS has demonstrated how shocking events can affect individuals despite high levels of geo-spatial distance, evident in the higher rates of stress-related diagnoses afforded to Danish citizens following 9-11 and the Utøya mass shooting (Hansen *et al.*, 2016; Hansen *et al.*, 2017).

Instead of employing randomized control, ITS models are fitted with data stemming from repeated collection of the same phenomenon around a discrete point of intervention (Miller *et al.*, 2020, p.4; McDowall, 1980, p.2). Data is then segmented into pre- and post-intervention episodes in order to estimate the effect of the intervention on both the immediate level of the trend following the intervention and the intervention's effect on the change in slope of the pre-intervention trend. This is achieved typically via linear regression models with interaction terms (Linden, 2015).

One of the main benefits of ITS is that it controls for trends that preceded the intervention (Kontopantelis *et al.*, 2015, p. 1). This contrasts with a basic t test employed to test for difference before and after any discrete event, as such a test would ascribe any trend preceding the intervention as an outcome of the intervention itself. This

would create issues in situations where a time series models a phenomenon that is steadily increasing through a given period, as any random cut-off point could create a significant difference between pre- and post, since the intervention is confounded by the underlying trend. Since ITS estimates the effect of the intervention on a preexisting trend, the pretreatment environment is controlled for, increasing estimation accuracy of any potential true effect (Kontopantelis *et al.*, 2015, p. 1).

The usage of ITS in the thesis enables estimation of both the immediate effect of systemskiftet, as well as potential long-term effects on turnover rates. The following model will be estimated:

$$Y_t = \beta_0 + \beta_1 T_t + \beta_2 X_t + \beta_3 (T_t - T_{cutoff}) X_t + \varepsilon_t$$

where Y_t represents the annual turnover rate at time t , T_t is a continuous variable measuring years since the beginning of the observation period (starting at 1), X_t is a binary indicator equal to 1 for years from 1901 onward and 0 for earlier years, T_{cutoff} represents the intervention time point (1901), and ε_t is the error term.

The coefficient β_1 captures the baseline trend in turnover rates prior to the intervention, β_2 represents the immediate level change following systemskiftet in 1901, and β_3 indicates the change in trend after the intervention. The interaction term $(T_t - T_{cutoff}) X_t$ equals zero for all years before 1901, then counts the number of years since the intervention for the post-intervention period, allowing the model to estimate whether systemskiftet created a sustained change in the yearly trend of turnover rates.

This model specification exclusively uses the pre-intervention period as control. This means that the counter-factual reality of what potentially would have happened in case systemskiftet did not occur is estimated by projecting the pre-intervention trend and estimating the difference between this hypothetical trend and the actual empirical trend following systemskiftet. The choice to exclude control variables is affected by the old and scarce nature of the data, which precluded introducing time-variant variables related to potentially relevant factors such as national economy or age of the employees. Any potential rejection of the proceeding null-hypotheses must therefore be discussed in light of possible confounding factors.

Results

The main substantive question this thesis attempts to answer is whether systemskiftet led to higher levels of politicization in the appointment of civil servants in the Danish central administration. Since politicization is associated with higher levels of turnover rates (Ban and Ingraham, 1990), turnover rates function as a proxy for politicization. An interrupted time series design was employed, that can detect both immediate changes and shifts in long-term trends following the systemskiftet. The results from the fitted interrupted time series model are shown in Table 6.1.

Parameter	Estimate	Std. Error	<i>t</i> -value	<i>p</i> -value
Intercept (Baseline level)	0.1063***	0.0130	8.16	<0.001
Time (Baseline trend)	−0.0005	0.0006	−0.76	0.451
Post-event (Level change)	0.0078	0.0180	0.43	0.667
Time after event (Trend change)	0.0007	0.0009	0.84	0.404

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

$R^2 = 0.014$, Adjusted $R^2 = -0.031$, $F(3, 66) = 0.311$, $p = 0.817$

Table 6.1.: Interrupted Time Series Analysis of Turnover Rates (1866–1936)

The results of ITS presented in Table 6.1 show that systemskiftet did not have a statistically significant effect on either the immediate level of employee exit proportions or on the post-intervention trend. While a small increase in the immediate exit proportion can be observed at 0.78 percentage points, this change is not statistically significant ($p = 0.667$). Similarly, while the slope of exit proportions shows a small change in trajectory from slightly decreasing before 1901 (−0.05 percentage points per year) to a small increase afterward (+0.02 percentage points per year), the effect of systemskiftet was not statistically significant ($p = 0.404$).

The lack of significance is further underpinned by the model's explanatory power with an R^2 of 0.014 resulting in only 1.4% of the variance in the data explained by the model. This is reflected in the adjusted R^2 (−0.031), which penalises instances where non-relevant covariates are introduced to the model. Finally, the F -statistic measures whether all

coefficients excluding the intercept are equal to zero. The adhering null-hypothesis cannot be rejected ($p = 0.817$), solidifying that the model fails to account for significant variance in the exit rate of Danish civil servants in the central administration.

It is important to reflect on the conventional alpha level of 0.05 given one's sample size, as small n tends to increase p -value relative to very large n where relationships tend to approximate $p < 0.05$ even for small effects (Lakens *et al.*, 2018). However, in this case the p -values associated with the immediate effect and the effect on the pre-intervention slope deviated by a large degree from conventional alpha levels, and the model had very little explanatory power, strongly suggesting that this is not a borderline case of significance that warrants a discussion about setting an appropriate alpha level. In contrast, it seems more relevant for the coming discussion to minimize ambiguities as to whether an effect might be present in a meaningful way. In order to approach this, two one-sided t -tests (TOST), also known as equivalence tests, were conducted. Here lower and upper bounds for what can be a meaningful difference between groups are determined by the examiner. The null-hypothesis is that the effect falls outside the predetermined bounds, while the alternative hypothesis is that the effect is within the bounds (Lakens, 2017).

In the following specification, the bounds for meaningful differences were set at 5 percent, which resulted in the following: both the immediate effect ($t(69) = -2.342$, $p = 0.011$) and the trend change effect ($t(69) = -55.216$, $p < 0.001$) were statistically equivalent to zero within the equivalence bounds of ± 5 percentage points. Further, The raw effect estimates were minimal (short-term: 0.78%, long-term: 0.07%), further supporting the conclusion of practical equivalence between pre- and post-systemskiftet periods. This means that not only did the null hypothesis significance test framework fail to reject the null hypothesis that the effect was equal to zero, but the TOST showed that the turnover rates before and after systemskiftet were statistically equivalent within ± 5 percent, suggesting that systemskiftet did not have a meaningful effect on turnover rates.

These findings are further corroborated by a Cox proportional hazard analysis (COX) using systemskiftet as a covariate (see Appendix C). While hazard of exit increased slightly, it did not find systemskiftet to have a statistically significant effect. Furthermore, the median survival before and after systemskiftet were both ≈ 5 years, and Kaplan-Meier curves showed very similar trajectories (see Appendix D). Finally, permanent secretaries might be more at risk of the direct effects of politicization due to their increased political exposure, suggesting a potential for heterogeneous effects. Low n prevented statistical inference however, a visualization showing survival curves for permanent

secretaries at random 10-year periods showed similar trends as survival curves for permanent secretaries employed one year prior to systemskiftet (see Appendix B). It is important to point out that the ITS and COX models measure different aspects of employment. Where the former focuses on both immediate changes in turnover rate and turnover rate trends over time, the latter compares tenure length before and after systemskiftet. However, if significant politicization expressed as higher employment volatility did increase following systemskiftet, both models should be able to detect it. The findings from the main ITS analysis therefore seem to be model-independent, further supporting the conclusion that systemskiftet did not lead to higher levels of politicization in appointments as operationalized in this thesis, while it is acknowledged that several other approaches might be relevant.

Discussion

7.1 Summary of findings

The analysis provided compelling evidence that systemskiftet did not lead to increased politicization expressed as higher turnover proportion per year. The results thereby contradict the theoretical expectation that underpinned both of this thesis' hypotheses, both examined via interrupted time series analysis. Hypothesis 1 entailed an expectation that systemskiftet would cause an immediate effect following the change of government that caused systemskiftet. While the coefficient of the systemskiftet was positive, the null-hypothesis could not be rejected as the p -value was equal to 0.667. This pattern was similarly reflected in hypothesis 2, which entailed expectation of long-term effect of systemskiftet expressed as higher turnover rates over time compared to the period preceding it. The coefficient of the explaining variable acted in accordance with the theoretical expectations, however as the p -value was equal to 0.404 the null-hypothesis could not be rejected.

Not being able to reject the null-hypothesis can be considered a case of absence of evidence, however it cannot be considered evidence of absence. To minimize any ambiguity before discussing the theoretical implications of the results, an equivalence test was conducted specifically *two one-sided t tests* (TOST). The equivalence bounds were set to $\pm 5\%$, meaning that equivalence between before and after systemskiftet is considered to be within a 5 percent differential in turnover proportion. For the short-term effect, the equivalence test was significant ($t(69) = -2.342$, $p = 0.011$), while for the long-term effect, the test was highly significant ($t(69) = -55.216$, $p < 0.001$). In both cases, hypothesis of non-equivalence can be rejected, thereby concluding that if systemskiftet had any effect on turnover proportion, it was below the predetermined threshold of practical significance.

These findings were further corroborated by a Cox proportional hazard analysis using *systems skiftet* as covariate. Here the null hypothesis could not be rejected and median survival before and after *systems skiftet* was similar at ≈ 5 years. In addition, the Kaplan-Meier survival curve visually attested to very similar tenure length in Danish central administration before and after *systems skiftet*. Finally, while the low n of permanent secretaries did not afford analysis by statistical inference, visual descriptive analysis did not attest to heterogeneous effects, as the proportion of secretaries surviving a ten-year period following *systems skiftet* was equal to that of several ten-year periods before despite the fact that upper management would likely be more exposed to dismissals during changes in political executives due to their direct connection to the political leadership.

The sum of these analyses leads to both a rejection of the initial hypotheses while providing strong evidence against further politicization following *systems skiftet* when operationalized as higher turnover proportions. The combination of traditional hypothesis testing and equivalence testing (TOST) offers robust support for concluding that *systems skiftet* did not meaningfully alter the pattern of administrative turnover in the Danish central administration.

7.2 Discussion of findings

The results challenge the basic underpinnings of the theoretical framework, which generally rests on rational choice institutional logic. The rational choice institutional perspective posits that institutions consist of formal and informal rules bounded together by more or less stable preferences (North, 1990, p. 3). It takes a micro-perspective on the formation, preservation and potential transformation of institutions which are thought to be established on the basis of individual actors pursuing and maximizing their expected utility (Cambell, 2020, p. 869). The hypotheses related to this thesis are grounded in these perspectives, formulating an overall expectation that political executives strive to maximize faithful responsiveness and competency via control over central administration, manifested as political appointments. The argument rested on the fact that the Danish constitution did afford discretionary dismissals by political executives (Knudsen, 2000a, p. 544) and under these circumstances the executive (principal) would favor controlling employment as a way of minimizing the civil servant's (agent) incentive to act opportunistically due to misalignment of preferences between the two parties. By instating employees affiliated with the executive or the political

agenda of the executive, this could reduce some of the incentives brought upon by differentiated interests while also rigging the incentive of the employee who could reduce risk of termination by aligning actions with the principal's preferences (Christensen *et al.*, 2014). Systemskiftet acted as crucial case for testing this expectation as there was overtly varying political preference between the newly formed Venstre government and several of the employees at the central administration who had publicly supported the former Højre government during the most contentious period of *administrative crisis* (Waaben, 1948). However, despite these favorable conditions for further politicization, systemskiftet did not translate to higher turnover rates as would be expected in cases of political appointment (Ban and Ingraham, 1990; Krause *et al.*, 2006, p. 771).

It begs the question: what explains that a party such as Venstre who had historically been highly skeptical of the central administration apparently did not employ the available tool of control even under weak institutional restrictions? Similarly, what explains that an environment constituted by shifting governments of varying parties did not produce higher turnover rates than a 35-year period of a single party dominance, despite that the singular party had higher capacity to reduce opportunism via a repeated game situation theoretically reducing the need for continuously reinstating loyalists?

Different interpretations of potential explanations will deviate from the original theoretical framework to varying degrees. For instance, while the underpinnings of the framework consisted, as previously mentioned, of rational choice theory, the lack of effect given the circumstances could be indicative that the phenomenon under investigation is more closely related to historical institutionalism.

Historical institutionalism posits that institutional effects on decision making emanate from historical experiences. The result is that once institutions are established, often under contentious circumstances, and agreed upon via formal rules, or tacitly by the involved actors they are increasingly difficult to resist leading to path dependencies (Cambell, 2020, p. 874). The Danish civil service system under democratic rule most definitely subscribes to this conception. Its creation is rooted in the transformation from collegial management system that constituted public administration under absolutism to the modern European ministerial system established one year prior to signing of the constitution in 1849 (Jørgensen, 1948). The notion that highly decorated civil servants should be separated from the king by a ministerial layer was contested heavily by the civil servants themselves from the idea's inception (Waaben, 1948). However, the new civil servant system was established after which it proved difficult to reform. Shortly after the transformation to the ministerial system, there were several unsuccessful attempts to limit civil servant autonomy (Knudsen, 2000a; Knudsen, 2001). Venstre failed to pass legislation prohibiting civil servants from being elected to Rigsdagen. Sim-

ilarly, their advocacy for mandatory office hours for civil servants was not implemented until later in the 20th century (Knudsen, 2000a, p.542-543). Additionally, attempts to cancel civil servants' pension rights related to unpredictable termination failed to pass in Landstinget. Finally, Venstre's proposal, prior to *systemskiftet*, to transform the civil service into a directorat-like structure, where civil servants would come and go with the government, was also rejected (Knudsen, 2000a, p.544). Some reform efforts did pass but proved ineffective. While Venstre successfully implemented changes that paved the way for non-academic employees into the system, the *de facto* requirement of a law degree for upper management positions remained cemented (Knudsen, 2000a, p.542-543). Similarly, a law passed in 1860 that sought to prohibit civil servants from receiving salary from other employment did not achieve its intended effect (Knudsen, 2001, p. 101).

These failed attempts to significantly reform the civil service system in conjunction with the results of this thesis could be considered a strong argument for historical institutionalism as they serve as strong indications of clear levels of path dependencies and institutional inertia (Cambell, 2020, p. 874). However, it is important to recognize the distinctions between the aforementioned examples of failed reforms and the results of this thesis. The former required a majority vote in the legislative branch while the latter did not, as the only thing restricting ministers from exercising discretionary dismissals was the financial obligation to provide pensions for dismissed civil servants (Knudsen, 2000a, p. 544).

The observed pattern of administrative continuity could therefore reflect two distinct causal mechanisms. On one hand, the persistence of established personnel practices despite radical political change aligns with historical institutionalism's emphasis on path dependency. On the other hand, the absence of formal legislative constraints on discretionary dismissals opens the possibility that continuity reflects rational strategic choice rather than institutional inertia. Political executives possessed both legal authority and demonstrated willingness to challenge civil service norms (Knudsen, 2000a; Knudsen, 2001), yet consistently opted against increased dismissals.

Such restraint suggests a strategic cost-benefit calculation where the expertise value of career civil servants likely outweighed concerns about their potential political misalignment. As highlighted in the preceding theoretical framing, civil servants possess both technical knowledge and organizational expertise (Weber, 1918, p. 352–353), assets that would have been increasingly valuable as the modern state expanded its administrative reach (Boix, 2001). The value of this expertise in the Danish case was likely magnified by the substantial differences in governing experience between the new Venstre government and the established central administration (Waaben, 1948, p. 134).

If analyzed within a rational choice framework, it becomes plausible that Venstre's decision to maintain the existing civil service reflected a pragmatic assessment that the risks of collaboration with potentially opposed bureaucrats were outweighed by their substantial experience and expertise. While principal-agent theory suggests that political executives should prefer loyal agents, this calculation is moderated by the practical availability of suitable replacements. In 1901, only a small proportion of the population possessed relevant educational backgrounds for civil service positions (Waaben, 1948). Furthermore, as Venstre primarily represented the peasantry, the overlap between individuals loyal to Venstre and those possessing the requisite skills for civil service was likely limited. This would align with Christensen *et al.* (2014)'s finding of increased politicization in Danish municipal settings 75 years later, when the workforce contained a much larger pool of highly educated individuals potentially loyal to various parties.

These same theoretical frameworks can explain why subsequent governments also maintained merit-based appointments. From a historical institutionalist perspective, Venstre's initial decision not to politicize the civil service may have created new path dependencies, institutionalizing a norm of administrative neutrality that constrained future governments. Alternatively, from a rational choice perspective, subsequent governments likely conducted similar cost-benefit calculations and reached comparable conclusions about the value of expertise versus loyalty. Additionally, as civil servants demonstrated their ability to serve governments of different political orientations professionally, the perceived risk of disloyalty would likely decrease for subsequent governments, further strengthening the rationale for retaining merit appointments.

There is empirical evidence that could support both theoretical explanations. The dramatic decline in civil servants transitioning to ministerial positions after 1901 (Knudsen, 2000b) suggests the emergence of new institutional norms separating political and administrative spheres, evidence consistent with historical institutionalism's emphasis on evolving informal constraints. Simultaneously, historical records show a notable shift in how Venstre politicians characterized the central administration over time, evolving from describing bureaucrats as a "common enemy" prior to taking power to referring to them as a "trusted ally" after governing together (Waaben, 1948, p. 134). This change in rhetoric indicates a conscious reevaluation of bureaucratic value and perceived risk consistent with rational calculation.

Ultimately, this analysis confronts a classic case of observational equivalence. The same empirical pattern, stable merit based appointments despite political transitions, can be produced by different causal mechanisms. Whether institutional inertia constrained political actors or those actors rationally chose continuity after evaluating

their options cannot be definitively determined from turnover patterns alone. This limitation highlights the value of combining quantitative analyses of personnel patterns with qualitative historical evidence of political discourse and decision making to better distinguish between competing theoretical explanations.

7.3 Technical discussion

One potential concern might be the relatively small sample size with approximately 100-200 civil servants per year, and using turnover rates might entail overly high levels of noise and thereby mask meaningful patterns. Similarly, having only one observation per year over a 70-year period could theoretically limit statistical power to detect changes following systemskifte.

However, these limitations are largely mitigated by the nature of the dataset which represents if not the complete population then very close to it (Stjernqvist, 1948). Unlike traditional statistical inference where samples are drawn from larger populations, this analysis examines nearly all relevant civil servants during the period. The constraints cannot be overcome by collecting more data on civil servants as this represents the available historical record. No additional employees could be affected nor can the historical data collection methods be altered.

The statistical approach also aligns with accepted practices in similar research domains. Studies of municipalities, for example, often rely on comparable numbers of observations yet produce valuable statistical inferences (Foged, 2016; Petersen and Houlberg, 2016). The timeframe captures sufficient years both before and after the intervention to establish trends providing adequate basis for interrupted time series analysis (Penfold and Zhang, 2013, p. 38). Finally, the results were model independent as both the interrupted time series analysis and Cox proportional hazard resulted in similar conclusions.

If additional research were conducted, the most valuable approach might involve qualitative investigation to gather supplementary information about individual employees such as age at departure. Such data would provide better indication of whether departures represented dismissals, retirements, or other causes. However, this granular biographical research on hundreds of historical civil servants falls well beyond the resource scope of the current investigation and would require extensive archival work across decentralized historical records.

The absence of effect might suggest systemskifte expressed itself through alternative mechanisms of politicization beyond turnover rates. Venstre had historically viewed embedsstanden as an elitist group of privileged individuals disconnected from ordinary citizens (Knudsen, 2000a, p. 540-541). However, dependency on their expertise might have necessitated more subtle approaches to reform rather than outright dismissals.

One potential expression of reform could be changes to the civil service structure itself rather than personnel turnover.

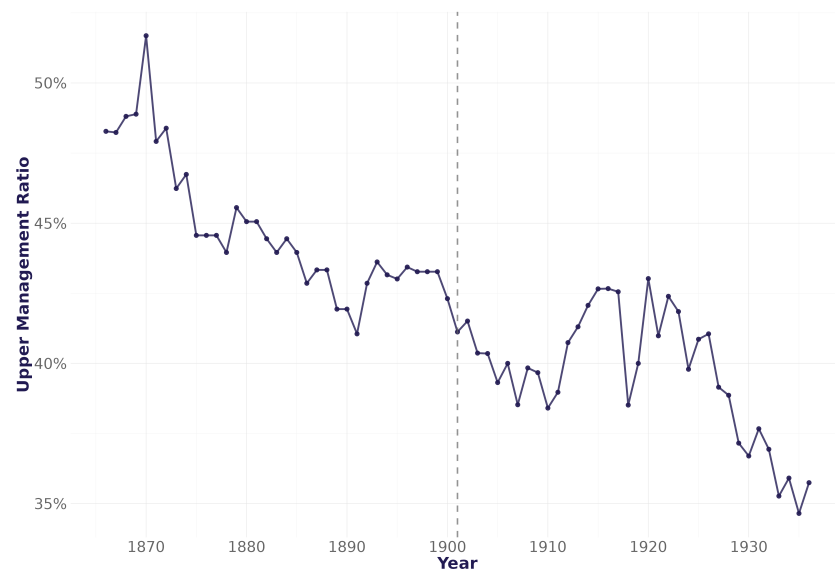


Figure 7.1.: Proportion of higher to lower level employees over time

As figure 7.1 suggests a potentially interesting trend with a declining proportion of senior management positions after 1901. This could indicate that while Venstre retained existing personnel, they may have restructured the hierarchy, diluting power concentration at upper levels and creating a flatter organizational structure more aligned with their democratic values.

It must be emphasized that this observation is not based on statistical inference and does not control for confounding factors such as the general growth of central administration during this period or precisely when the downward slope began. The visual pattern merely suggests a potential direction for further investigation rather than a conclusive finding.

This potential structural shift highlights how the dataset created for this analysis could support alternative operationalizations of politicization beyond turnover metrics. Future research might examine changes in recruitment patterns, promotion trajectories, department restructuring, or reallocation of responsibilities between hierarchical levels. Systematically analyzing these dimensions might reveal more subtle expressions

of how *systemskitte* transformed the relationship between political leadership and administrative apparatus while maintaining personnel continuity.

7.4 Implications

The results align with some of the established theory about politicization of the civil service system which describes it as primarily a modern phenomenon (Halligan, 2021). This analysis provides empirical support for assertions that significant politicization did not occur prior to 1940 despite opportunities to do so. The Danish case demonstrates stability in administrative personnel through major political transitions contrary to what theoretical models might predict.

On the other hand, these findings contradict theoretical notions that weak rule-based institutional constraints combined with favorable power dynamics should lead to higher degrees of politicization (Lewis, 2008; Christensen *et al.*, 2014, p. 218). The Danish case challenges core assumptions in rational choice institutionalism about how political actors behave when institutional barriers to politicization are low.

The Constitution afforded Venstre and subsequent governments considerable capacity to dismiss civil servants as they wished with minimal procedural obstacles. Furthermore, Venstre enjoyed absolute parliamentary majority following *systemskitte* providing optimal conditions for administrative reorganization. Yet despite documented mistrust of a central administration developed under Højre (Waaben, 1948, p. 134), they chose not to exercise these dismissal powers. Similarly striking, shifting parties as executive did not generate higher turnover than observed during the stable 35-year period of Højre governments.

This unexpected restraint suggests the need for a more refined theoretical understanding of the factors that influence political executives' calculations regarding merit versus political appointment. As demonstrated in the previous discussion, when the value of expertise and specialized knowledge outweighs concerns about potential disloyalty, rational political actors may opt for administrative continuity despite ideological differences. This analysis indicates that the empirical evidence by (Lewis, 2008) requires additional variables beyond institutional constraints and power dynamics in order to form the basis of an accurate theory regarding the nexus between constraints and preference in appointments.

Factors such as the availability of qualified loyal replacements, the demonstrated adaptability of civil servants, and the technical complexity of governance tasks may sig-

nificantly alter the political executive's calculation regarding the optimal appointment strategy. The Danish case suggests that in contexts where expertise is scarce and governance challenges complex, the rational choice may favor merit retention even when institutional barriers to politicization are minimal. Identifying these interacting factors requires expanded comparative research examining cases where similar institutional conditions produced divergent politicization outcomes.

The findings suggest that administrative stability can emerge through multiple pathways, not just through formal institutional protections. Denmark's experience shows how a politically neutral civil service developed despite constitutional provisions that would have allowed for politically motivated dismissals. This historical case suggests that practical factors like specialized expertise, institutional knowledge, and mutual dependency can sometimes be sufficient to produce administrative continuity even during significant political transitions. For contemporary governance discussions, this historical example provides a valuable counterpoint to assumptions that strict formal rules are the primary determinants of political executive opting for either political or merit appointment.

Conclusion

This thesis aimed to test the theoretical assumption that political executives will exercise their preference for political appointments and discretionary dismissals of civil servants when the surrounding rule-based institutions allow for it and when power distribution favors the executive (Lewis, 2008; Christensen *et al.*, 2014). Denmark was selected and interpreted as a crucial case, specifically a most likely case (Levy, 2008; Gerring, 2007), due to having a constitution that has facilitated political appointment since its inception (Knudsen, 2000b) and due to *systemsiftet* along with the events preceding it, resulting in the institutional transition towards negative parliamentarism (Knudsen, 2001). Before 1901, the king had continuously shielded the executive party in first chamber *Højre* from parliamentarism by allowing them to form government for a stable period of 35 years (Wendel-Hansen, 2025a). In a principal-agent perspective, this facilitated a "repeated game" situation that allowed for stronger cooperation between political executive and central administration, disincentivizing opportunistic agent behaviour (Holmstrom, 1979; Gregersen, 2013), thereby reducing the need for political appointments (Krause *et al.*, 2006). In contrast, when the king relinquished his influence over government formation as a result of a major *Venstre* election victory, *Venstre* representing the peasantry took office in 1901 under significant mutual skepticism between them and the central administration due to overtly different political orientations and sociological backgrounds between the parties (Waaben, 1948). In sum, the odds for further politicization of the civil service system were stacked.

To test this expectation, a unique panel dataset consisting of 71 years of employment data from the Danish central administration was constructed. Turnover rates were operationalized as the dependent variable using an interrupted time series analysis to estimate both immediate effect of *systemsiftet* and the long-term effect from a more shifting political landscape. However, the traditional null hypothesis significance test framework failed to reject the null hypothesis, indicating no statistically significant evidence that *systemsiftet* increased turnover rates. Furthermore, equivalence tests (TOST) supported the alternative hypothesis, namely that within bounds of $\pm 5\%$, turnover rates before and after *systemsiftet* were statistically equivalent. The results, in conjunction with the framing of Denmark as a most likely case, therefore challenge

the notion that political executives should favor politicization based solely on weak rule-based institutions and favorable power distributions.

These expectations rest implicitly on rational choice institutionalism that posits that institutional effects and transformations are underpinned by individual actors making calculated decisions (Cambell, 2020). However, the findings in this thesis suggest that historical institutionalist logics might be present, indicated by the striking continuity in turnover rates and median tenure rates (see Appendix C and Appendix D) following *systemskiftet*. Ultimately, the data does not allow us to infer why exactly Venstre did not seem to opt for further politicization as it is a case of observational equivalence. For instance, it is similarly likely that rational choice logic acted as the primary motivation for the newly elected government of Venstre, who might have updated their beliefs about the civil service in relation to available alternatives in the workforce, reaching the conclusion that continuity in personnel despite potential risk of disloyalty was still the optimal choice in terms of maximizing utility through the expertise and experience of existing employees. Therefore, making specific revisions to theoretical propositions about political executives' preferences for either merit-based or political appointments would require further investigation, either through qualitative research or by including potentially interacting variables such as educational levels in a cross-sectional comparative quantitative analysis.

Future Research

Besides further examining the causes related to appointment of civil servants, this thesis affords several other directions for future research through the data it has made publicly available. Such research can fundamentally be divided into predictor versus outcome-oriented research.

Outcome-oriented research follows the approach in this thesis by using some phenomenon as the predictor, in this case *systemsiftet* and employment data as the outcome. There exist several interesting pathways within this context. For instance, several other events begin or end at discrete temporal timestamps. These include wars such as The Second Schleswig War or The First World War. Interrupted time series analysis could test whether the central administration expands or contracts following war, thereby contributing to classic state theoretical notions about wars being the driving force of state development (Tilly *et al.*, 2017). Similar crises involve the Wall Street Crash of 1929, which may have led to reorganizations in central administration as poor economic conditions may have created pressure for social reforms.

Predictor-oriented research could instead use the employment data as predictor. For instance, one might investigate whether legislative success, i.e., passing of bills, is dependent on high levels of employment retention in upper management. This would probe whether expertise and experience acquired through continuation of employment in central positions leads to higher levels of governance efficiency. Further, it might be possible to highlight whether increasing numbers of reforms related to ministry creates demand for more employees or whether increasing numbers of employees leads to higher production of bills passed, thereby approaching a potential chicken and egg type problem.

These examples are by no means all-encompassing examples of the possibilities afforded by the dataset. The main point is to highlight that the torch for further research in political science or beyond is passed on.

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Interrupted Time Series Analysis Plot

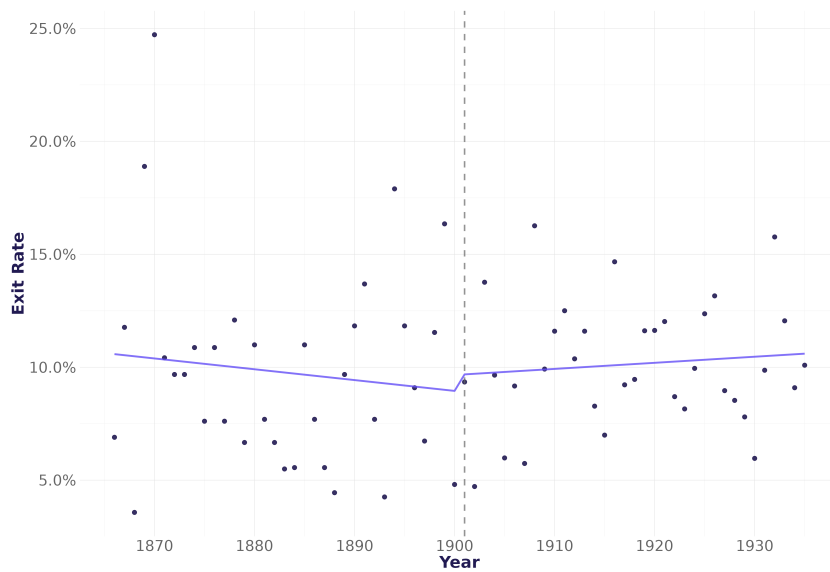


Figure A.1.: Interrupted Time Series Analysis Plot visualized

Descriptive Plot of Permanent Secretary Survival Curves

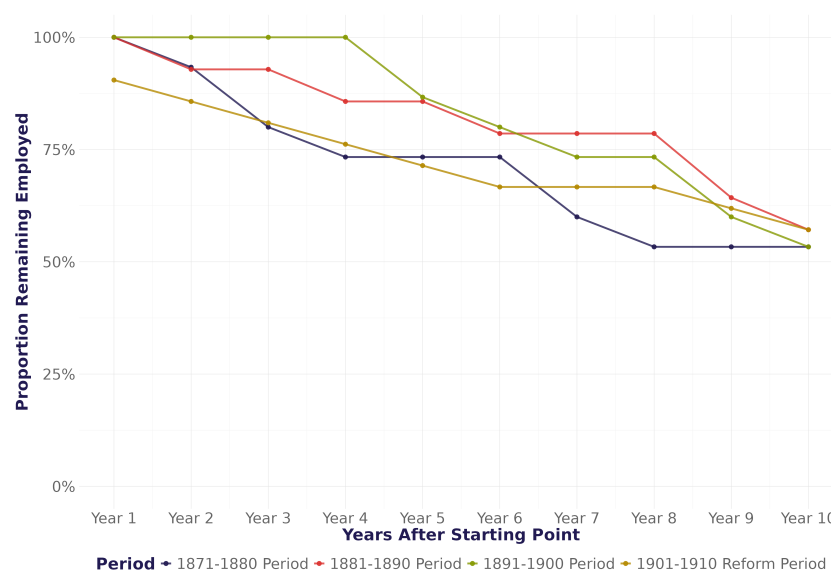


Figure B.1.: Permanent Secretary Survival Curves after 10 years at different periods in time

Note: While the period beginning shortly after 1901 includes two immediate exits, qualitative investigation revealed that one of these was an employee aged 67, meaning voluntary exit is likely.

Cox Proportional Hazards Model Results

Parameter	Estimate	Std. Error	z-value	p-value
System Change (Post-1901)	0.025	0.070	0.36	0.72

Hazard Ratio = 1.03 (95% CI: 0.89 – 1.18)

Concordance = 0.52, Likelihood ratio test $p = 0.72$

Median Survival: Before = 5.2 years, After = 5.4 years

Table C.1.: Cox Proportional Hazards Model Results for Exit Hazard (1866–1936)

Kaplan-Meier Survival Curve

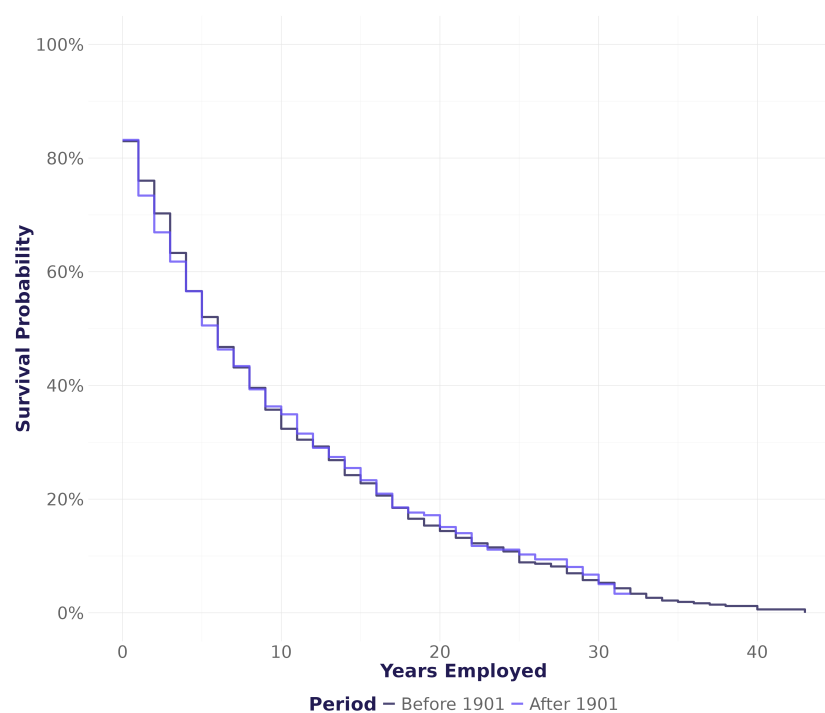


Figure D.1.: Kaplan-Meier Survival Curve