

# Political change and administrative turnover in meritocratic systems

Jostein Askim

Tobias Bach

Jørgen Grønnegård Christensen

## Abstract

A change of government or minister constitutes a stress test for the relationship between ministers and bureaucrats. The new political masters may question the loyalty of incumbent bureaucrats and seek to replace them. However, the relationship between political changes and administrative turnover is poorly understood in meritocratic systems. This article analyses how changes of either government or minister affect the turnover of permanent secretaries in Denmark and Norway (1970-2020). Whereas ministers are completely reliant on career bureaucrats in pure meritocratic systems, they are supported by political appointees in hybrid meritocratic systems. The article investigates whether the effect of political changes on administrative turnover is mediated by the presence or absence of political appointees. Changes of government increase the risk of administrative turnover in Norway (hybrid system), but there are no such effects in Denmark (pure system), suggesting that political appointees potentially undermine the permanence of career bureaucrats.

## Keywords:

administrative turnover  
meritocracy  
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political appointees  
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A change of government constitutes a stress test for the relationship between executive politicians and the permanent bureaucracy, with the new political masters potentially questioning the ability and willingness of civil servants to serve them loyally, thus creating an incentive to replace the top layer of civil servants with people of their own choosing. Appointment of civil servants based on partisanship or personal loyalty is a trademark of systems with politicised politician-bureaucrat relations (Peters and Pierre 2004; Lewis 2008; Meyer-Sahling 2008; Ennser-Jedenastik 2014). In politicised systems, a change of government or minister consequently goes hand in hand with turnover among top civil servants.

The archetypal meritocratic system separates political and administrative careers (Dahlström and Lapuente 2017), with a change of government or minister not resulting in a particularly high level of turnover among top civil servants. While incoming politicians may wish to replace incumbent civil servants, those desires are curbed by embedded rules and norms concerning civil servants' political neutrality and serial loyalty to governments of different ideological leanings (Hood and Lodge 2006; Christensen and Opstrup 2018). However, political neutrality does not transform civil servants into apolitical technocrats. Indeed, providing ministers with political-tactical advice is an essential aspect of civil servants' everyday work in merit-based systems (van Dorp and 't Hart 2019). In contrast to politicised systems, where political-tactical advice is primarily provided by political appointees (Christiansen et al. 2016), politicians in merit-based systems have to rely on the permanent civil service for advice that is professionally sound and politically relevant.

Studies have questioned the generalised claim made about separation of the careers of politicians and civil servants in merit-based systems such as the United Kingdom, Denmark

and Sweden. While some studies found positive associations between political change and administrative turnover (Cooper 2020; Dahlström and Holmgren 2019; Boyne et al. 2010), other studies found no such effects (Christensen et al. 2014), or a lower risk of administrative turnover (Petrovsky et al. 2017). The contradictory nature of these findings suggests that more research is required on the connection between political change and administrative careers in meritocratic contexts. Comparative analyses are needed to unveil the institutional mechanisms that diminish the new political masters' incentives to replace holdover civil servants.

We are contributing to this body of research in several ways. While most students of politicisation have analysed how *changes of government* affect administrative turnover (Dahlström and Holmgren 2019; Cooper 2020; Lewis 2008; Boyne et al. 2010), few have analysed whether a *change of minister* – the political superior of top civil servants – likewise affects the risk of administrative turnover (Staronova and Rybář 2021; Christensen et al. 2014; Petrovsky et al. 2017). Our first question is consequently whether changes of either government or minister increase the risk of turnover of permanent secretaries in the year in which the change takes place and in the subsequent year. Our hypothesis (H1) is that this is the case for both types of political event, but our analysis of the period 1970-2020 in Denmark and Norway reveals that only changes of government increase the risk of administrative turnover. The implication is that administrative turnover in connection with changes in political leadership is more plausibly driven by partisanship and ideology than by personal patronage.

While the abovementioned studies focus on single countries, this article systematically compares administrative turnover in two meritocratic systems, Denmark and Norway. Our second research question asks whether the risk of administrative turnover following political

events is affected by the presence (Norway) or absence (Denmark) of political appointees wedged between ministers and career civil servants. We develop two competing hypotheses. The “*setting-up-a-new-team*” hypothesis (H2a) assumes a loyalty mechanism resulting in a higher risk of turnover in systems with a pure merit civil service compared to a hybrid merit civil service with political appointees inserted between ministers and career civil servants. The competing “*indispensability*” hypothesis (H2b) underlines ministers’ dependence on career civil servants to manage their portfolios, resulting in a lower turnover risk for career civil servants in systems with a pure merit civil service relative to a hybrid merit civil service. The results support the indispensability hypothesis: permanent secretaries are more at risk of replacement in Norway’s hybrid than in Denmark’s pure merit civil service system. In doing this, we are responding to a demand for comparative analyses of how institutional differences affect the opportunities ministers have to politicise the bureaucracy (Dahlström and Holmgren 2019).

In the next section, we review the literature on civil service politicisation and present our hypotheses, after which we lay out the comparative research design, methodology and data. In the following sections, we test the hypotheses empirically and interpret and discuss the results.

### **Politicisation and administrative turnover in meritocratic bureaucracies**

Politicisation of the civil service frequently refers to “the substitution of political criteria for merit-based criteria in the selection, retention, promotion, rewards, and disciplining of members of the public service” (Peters and Pierre 2004, 2). The turnover of political appointees after a change of government has been of interest to empirical politicisation research for some time (Lewis 2008; Meyer-Sahling 2008), with the research recently

expanding to cover the replacement of civil servants following a change of government (Doherty et al. 2019).

Research into the relationship between political events and administrative turnover is in short supply for meritocratic systems, and it has produced mixed results. Petrovsky et al. (2017) show that for agency heads in Britain, a change in the party control of government is associated with a lower administrative turnover. Christensen et al. (2014) find no partisan bias in the discretionary dismissal of permanent secretaries and agency heads in Denmark. However, Dahlström and Holmgren (2019) find that agency heads in Sweden face a higher risk of turnover, the greater the ideological distance between the appointing and the incumbent government. Cooper (2020) finds that a change in the governing party results in higher turnover among British permanent secretaries. These mixed results from single-country studies suggest that we need a better understanding of possible explanations for variation among meritocratic systems regarding the relationship between political events and administrative turnover.

But why should this kind of politicisation be a concern in meritocratic systems? While dismissing and appointing civil servants on party political grounds is against the rules and politically frowned upon, in many cases ministers have discretionary authority to ensure that top civil servants are persons with whom they have a good working relationship (Christensen et al. 2014). Analysing how changes of minister affect administrative turnover can therefore yield insights into the relationship between politicians and civil servants, irrespective of whether a system is considered politicised or meritocratic. For instance, it has been demonstrated that changes of minister affect administrative turnover in politicised systems, even if outgoing and incoming ministers belong to the same party (Staronova and Rybář

2021). Finally, analysing the effect of *ministerial* change on administrative turnover is of critical importance as it cannot be concluded that a civil service system is free of politicisation simply because administrative turnover is unrelated to a change of *government*.

#### *Political events and administrative turnover*

Our theory is that a change of both government and minister increases the risk of administrative turnover in meritocratic systems (H1, see Table 2). First, a new government takes over permanent secretaries and other senior civil servants embedded in the ministerial organisation. From a government's perspective, those civil servants are dedicated to the established political order and the outgoing government's political agenda. In a "new political governance" context (Aucoin 2012), characterised by constant media attention, intense political competition and political polarisation, a new government is prompted to strengthen its control over the bureaucracy. In this context, the new political masters may view sidelining incumbent civil servants as a necessity in ensuring that new policy priorities are developed and implemented loyally (Aucoin 2012). Arguably, administrative turnover is particularly likely with a change of regime that involves a change in the political ideology of the government (Dahlström and Holmgren 2019; Staronova and Rybář 2021).

Second, while wholesale changes of government involve a change in all ministers, a re-election or the inclusion of a new coalition party will often result in the replacement of some ministers and sometimes a change in the party controlling a ministry too. Indeed, several studies of the connection between political events and administrative turnover focus on ministerial changes or changes in the minister's party, rather than shifts of government (Staronova and Rybář 2021; Christensen et al. 2014; Petrovsky et al. 2017; Enns-Jedenastik 2014; Fleischer 2016). This research acknowledges the fact that, as political executives,

ministers in parliamentary systems are central figures in governing a ministry and setting sectoral policy priorities. Thus, even without a change in party, the new minister may wish to replace incumbent top civil servants, either because they are considered unresponsive to their policy preferences or because of insufficient interpersonal trust, which is important for a well-functioning collaboration between politicians and senior civil servants. As a consequence, we also expect a change of minister to increase turnover among top civil servants.

*Political events and administrative turnover in pure and hybrid merit-based civil service systems*

Not all merit-based systems are the same. The presence or absence of political appointees constitutes a fundamental difference in the ministerial organisation surrounding the minister. In the pure merit civil service, the minister is served by a career civil servant, the permanent secretary, who doubles as the ministry's chief executive officer. In the hybrid merit civil service, the permanent secretary and a politically appointed state secretary have overlapping advisory responsibilities vis-à-vis the minister (see Table 1). With a partisan background, the state secretary's focus is on providing the minister with political advice and relieving the minister's workload as chief political executive. The permanent secretary concentrates on providing the minister with professional advice and acting as chief executive officer for the entire portfolio (Shaw and Eichbaum 2020; van Dorp and 't Hart 2019).

[Table 1 here]

We suggest that the presence or absence of political appointees has a conditioning effect on the temporal connection between political events and administrative turnover in meritocratic systems. We have developed two competing hypotheses: the setting-up-a-new-team

hypothesis emphasises the interpersonal relationship between minister and permanent secretary, whereas the indispensability hypothesis emphasises effective political control over the ministry.

The setting-up-a-new-team hypothesis assumes that ministers are more dependent on permanent secretaries in pure merit civil service systems than in hybrid merit civil service systems. In pure merit civil service systems, permanent secretaries provide both political and policy advice, whereas ministers can turn to state secretaries for political advice in hybrid merit civil service systems (see also Rhodes 2011, 61-62). Likewise, while ministers in hybrid merit civil service systems can rely on support from politically appointed state secretaries to break ministerial resistance to policy changes, ministers depend solely on their permanent secretaries to implement their policy agenda in pure merit civil service systems. This dependency increases the importance of a well-functioning professional relationship between minister and permanent secretary, based on the permanent secretary's commitment to the minister's political project. Compared to hybrid merit civil service systems, pure merit civil service systems therefore create stronger incentives for ministers to replace their permanent secretary if they are in doubt about the incumbent's loyalty to their political agenda (Christensen et al. 2014). In consequence, we would expect a higher risk of administrative turnover in connection with political events in pure merit civil service systems compared to hybrid merit civil service systems.

The competing indispensability hypothesis similarly assumes that ministers are highly dependent on top civil servants in pure merit civil service systems. However, contrary to the setting-up-a-new-team hypothesis, this dependency strengthens rather than weakens the permanent secretaries' job security. It is the permanent secretary who knows the ministry's



portfolio best and who is therefore positioned to help a minister hit the ground running. “Clicking” on a personal level with the permanent secretary is, consequently, not the minister’s main concern; replacing him or her would leave the new minister vulnerable, especially in a context where there is essentially no one else to whom the minister can turn. According to this reasoning, incumbent permanent secretaries in pure merit civil service systems are indispensable to the incoming government and to new ministers.

In contrast, if new ministers arrive at the ministry with a political appointee, as they do in hybrid merit civil service systems, removing the permanent secretary is less risky. The minister’s dependence on the incumbent permanent secretary is particularly low when political appointees combine political and professional expertise, which is the case in several hybrid merit systems (Askim et al. 2021; Selling and Svallfors 2019; Bach and Veit 2018). Hence, we would expect a lower risk of administrative turnover in connection with political events in pure merit civil service systems compared to hybrid merit civil service systems.

Table 2 sums up the hypothetical effects of political events on the risk of administrative turnover. We distinguish between a simple and a conditional model. The first model distinguishes between a change of government and executive shifts solely involving the appointment of a new minister. The hypothesis (H1) is that governments or ministers have an incentive to replace their top civil servants, resulting in a higher risk of administrative turnover when these political events occur than when they do not.

[Table 2 here]

The second model assumes that the ministerial organisation conditions the effect of political events on the risk of administrative turnover. Since existing empirical research points in different directions when it comes to linking political events with administrative turnover, we

test two competing hypotheses, each with its own theoretical logic. The setting-up-a-new-team hypothesis (H2a) expects turnover risk among top civil servants to be higher in pure merit civil service systems than in hybrid merit systems because incoming politicians have an incentive to replace incumbent civil servants with other career civil servants of their own choice. The indispensability hypothesis (H2b) expects turnover risk to be lower in pure merit civil service systems than in hybrid merit systems because incoming politicians are totally dependent on incumbent civil servants' advice. There is no one else they can turn to to obtain the portfolio-specific mix of professional and political advice that is indispensable to their leadership.

### **Ministerial organisation in Denmark and Norway**

There are basic similarities in the ministerial organisations of Denmark and Norway, which can be attributed to their centuries-long history of common rule (Grøndahl and Grønlie 2004). Ministers enjoy considerable autonomy in governing their portfolio. Ministerial departments are both secretariats to the minister and responsible for overseeing agencies on behalf of the minister. In both countries, ministers depend on permanent secretaries as their link to the departmental bureaucracy. As chief executives, permanent secretaries manage the ministerial department and oversee the operations of the ministry's subordinate agencies. The civil service rests on a long tradition of recruitment and promotion based on professional merit and party political neutrality, and both countries' bureaucracies are among the most professional and least politicised in the world (Nistotskaya et al. 2021).

The procedures for appointing and replacing permanent secretaries are similar in the two countries. Following a public announcement, the selection process starts with a group of leading permanent secretaries (including those of the Prime Minister's Office and the

Ministry of Finance) narrowing down the list of candidates for the minister. In Norway, the selection decision is made by this group (and rubber stamped by the cabinet), while in Denmark, the selection is performed one level up, in a cabinet appointments committee chaired by the prime minister. Civil service law constrains the ministers' authority to replace permanent secretaries. While ministers in Denmark can replace permanent secretaries at will, they must justify their decision. The Norwegian norm is less clear, though outright dismissals of permanent secretaries and other top civil servants are rare in either country. Rather, replacements take the form of a reassignment to other senior level posts such as senior ministerial adviser or ambassador (Christensen 2006; Nerland 1998).

While similar in important respects, this paper focuses on one conspicuous difference in the organisation of ministries' leadership function. In addition to overseeing ministerial departments and agencies, permanent secretaries advise their ministers. In Norway, they do so in a co-chief adviser capacity, alongside one or more state secretaries (Askim et al. 2017; Eriksen 1997). State secretaries were introduced in 1947 to relieve ministers of an excessive workload and they can act on behalf of the minister in any capacity other than voting in cabinet. Without delving into a historical account of this change, we note that this hybrid form of merit civil service in present-day Norway is an integral part of the political-institutional culture. In Denmark, permanent secretaries serve as the sole chief adviser to ministers, providing both policy and political-tactical advice (Christensen and Opstrup 2018; Christiansen et al. 2016). The persistence of a pure merit civil service remains a matter of principle in the Danish political-institutional culture. A comparative analysis of Denmark and Norway thus allows us to systematically test our theoretical claims about the (conditional) effects of, respectively, pure merit and hybrid merit civil service systems on the risk of

administrative turnover. Such a test allows us to shed general light on the interaction between political and administrative executives in meritocratic civil service systems.

As a rule, Danish and Norwegian permanent secretaries do not stay in office until the age of retirement. However, it is practically impossible to systematically assess whether early replacements are caused by push factors, where the minister sacks his or her permanent secretary on a discretionary basis, or by pull factors, where permanent secretaries move to more attractive positions, possibly motivated by their (anticipated) disagreement with the (future) government's or minister's policies. Anecdotal evidence illustrates the complexity of the issue. In 1994, Denmark's Minister of Education concluded that he could not cooperate with his permanent secretary. In 2012, the permanent secretary of Norway's Ministry of Children and Equality was forced to resign because illegal practices in relation to grant payments had cost a minister his position. There is also anecdotal evidence of pull factors being decisive for administrative turnover. In 2014, the permanent secretary in Denmark's Ministry of Finance accepted an offer to take up a position in a major commercial bank. Norway has seen a permanent secretary leave a post in the Prime Minister's office to become ambassador to the EU, then become permanent secretary in the Ministry of Foreign Affairs and subsequently leave that position to become ambassador to Italy. We do not distinguish between push and pull factors as separate explanations but consider them as different aspects of the temporal connection between political events and administrative turnover (cf. Dahlström and Holmgren 2019).

## **Data and methods**

The dependent variable is the duration of permanent secretaries' employment. In collecting this information, we relied on similar sources in both countries. For Norway, we collected

data from *Statskalenderen* (the official handbook containing information on central government employees, published annually until 2011), ministry websites and official press releases. For Denmark, we relied on *Hof- og Statskalenderen* (a similar official handbook, published annually until 2014), *Kraks Blå Bog* (a Danish “Who’s Who”) and ministerial websites.

The data is organised in an annual format, recording the incumbent of the position of permanent secretary in a given ministry and year. This is in common with similar analyses (Dahlström and Holmgren 2019; Petrovsky et al. 2017). Our analysis covers all permanent secretaries from 1970 to 2020, including those appointed before 1970 and incumbents in 2020. As permanent secretaries do not always start or leave their position at the beginning or end of a calendar year, we assigned any year in which an individual still held their position to that individual, even if the individual left the position during that year.

The position of permanent secretary is wedded to a ministerial portfolio. As changes in ministerial portfolios are driven by political factors (Mortensen and Green-Pedersen 2015), the careers of permanent secretaries are affected by portfolio changes. To avoid overestimating the effects of portfolio changes on administrative turnover, our operationalisation of periods of employment focuses on an individual’s entire career as permanent secretary. That career starts when entering a ministry as permanent secretary and ends in the last year that the office of permanent secretary in a ministry is held.<sup>1</sup> Moreover, we control for major structural changes in our analyses (see below).

To test our first hypothesis, we consider two types of political events that entail a change in ministers. First, government change represents a wholesale change of government, involving

a change in the party of the prime minister from right to left or the reverse. This type of event includes neither governments that stay in power after an election nor those that change prime minister within the governing coalition. The implication is that all permanent secretaries have to work for a new minister. The variable “government change” takes on value 1 in the year of a government change (t), in the following year (t-1), and a value of 0 otherwise. This operationalisation acknowledges that there may be a delay in triggering administrative replacements associated with a political event.<sup>2</sup>

Second, ministerial change represents all changes that occur without a simultaneous change of government. This variable includes instances where the outgoing and incoming ministers belong to the same party, resulting from a cabinet reshuffle after an election or a ministerial resignation and simultaneous changes of both minister and party without a wholesale change of government.<sup>3</sup> Similar to government change, the variable “minister change” takes on value 1 in the year of a ministerial change (t), in the following year (t-1), and a value of 0 otherwise. We collected information about political events from the archives of ministers in Norway and governments in Denmark.<sup>4</sup>

We include several control variables (covariates) that potentially affect the risk of administrative turnover:

- Election years. Even without governmental or ministerial turnover following an election, governments define new policy priorities and ministers may question the incumbent permanent secretary’s suitability to put those new priorities into practice.
- Age (at the start of the spell of employment) and gender of permanent secretaries.
- Major structural changes in ministerial portfolios. We do not automatically consider the termination of a ministry as an instance of administrative turnover (Cooper 2020).

The dismantling of a ministry may end the careers of some permanent secretaries, with others continuing in another ministry.

For Norway, we relied on the Norwegian State Administration Database (NSDA) to chart ministries that were terminated. This database assigns unique identification numbers to every ministry (Rolland and Roness 2011), with the number remaining unchanged in cases of minor structural changes, and hence the coding in NSDA prioritises continuity. For Denmark, we coded portfolio changes together with permanent secretaries' careers and gave priority to continuity in ministerial structures in order to ensure comparability with the Norwegian data. The variable "ministry termination" takes on value 1 in the final year of a ministry's existence and value 0 otherwise. Tables 3 and 4 summarise descriptive statistics for Denmark and Norway respectively.

[Table 3 here]

[Table 4 here]

To estimate the effect of political turnover on administrative turnover, we use Cox proportional hazard regressions, a common estimation method used in similar studies (Dahlström and Holmgren 2019; Christensen et al. 2014; Petrovsky et al. 2017; Fleischer 2016). These models can manage right-censored observations and do not require ex-ante assumptions about the distribution of the baseline hazard as a function of time (Box-Steffensmeier and Jones 2004). Moreover, these models can manage time-varying covariates, i.e. covariates that take on different values at different points in time, such as the covariates for years with political events ( $t$ ) and the subsequent year ( $t-1$ ).

Cox regressions assume that the effects of the covariates are constant over time. We reviewed the proportional hazards assumption using  $\chi^2$  tests of scaled Schoenfeld residuals. These tests indicated a violation of the proportional hazards assumption for both countries in relation to the age of individuals at the start of the period of employment ( $p < 0.05$ ). As one would expect, the effect of this covariate on turnover risk increases over time. We also detected a violation of the proportional hazards assumption for ministry termination in Denmark. To address this problem, we included an interaction term with time for those variables (Box-Steffensmeier and Jones 2004).

### **Results: Political events, administrative turnover and the effect of ministerial organisation**

The analysis offers separate models for Denmark and Norway as we address a differential effect of political events on administrative turnover depending on the model of ministerial organisation. Figure 1 plots Kaplan-Meier survival curves showing the survival probability as a function of permanent secretaries' time in office. At the beginning of the observation period, all permanent secretaries are in office. The plotting points indicate the proportion of office holders that leave office at a given time. The shape of the survival curves in both countries is very similar, with slight differences in the median survival time (eight years in Denmark, seven years in Norway). This difference is not statistically significant.

[Figure 1: Kaplan-Meier survival curves for administrative turnover in Denmark and Norway]

Turning to the explanatory analysis, we provide five models for each country. Model 1 includes two operationalisations of each political event, one for the year of observation and one for the event taking place in the previous year ( $t-1$ ). In the subsequent models, we control



for potentially relevant covariates, including election years (model 2), age at the start of the spell (model 3), gender (model 4) and ministry termination (model 5). The models provide hazard ratios, with a value above one indicating a higher risk of turnover with increasing values of the covariate, and values below one indicating a lower risk of turnover with increasing values of the covariate. The inclusion of robust standard errors clustered by ministry takes into consideration the fact that turnover risks for permanent secretaries may differ between ministries.

Table 5 demonstrates that neither governmental nor ministerial change have a statistically significant effect on turnover risk among permanent secretaries in Denmark. This finding is robust across all model specifications. We therefore find no statistical evidence at conventional levels of significance for our theoretical expectation (H1) regarding a positive effect of political events on the risk of administrative turnover in Denmark.

Table 6 presents the regression analysis for Norway. In distinction from Denmark, a change of government leads to a significantly higher risk of turnover for permanent secretaries in all models. In model 5, including all covariates, government change increases the risk of turnover among permanent secretaries by 71% relative to years without a change. To illustrate this difference, we plotted the average survival rate for permanent secretaries in years with and without a change of government in Norway. Figure 2 shows that the risk of replacement after a change of government increases significantly after approximately five years of employment as permanent secretary. The median survival time is six years in years with a change of government, and nine years in years without a change of government. Put differently, after nine years of employment, there is a 50% chance of permanent secretaries being removed

when there is no change of government, and an 80% chance when there is a change of government.

[Table 5 here]

[Table 6 here]

[Figure 2: Kaplan-Meier survival curves for administrative turnover in Norway]

We also find a statistically significant effect of ministerial change on the risk of administrative turnover in Norway, albeit in the opposite direction from that we expected. However, as the ministerial change covariate violates the proportional hazards assumptions, we included an interaction term with time, which makes the result difficult to interpret. A plot of the effect of ministerial change on hazard ratios over time shows that the lower risk of turnover associated with ministerial change diminishes over time (see figure A1 in appendix). The decrease in turnover risk becomes statistically insignificant after approximately eight years in office. Finally, we do not find a significantly higher risk of administrative turnover in the years following a change of minister.

For Norway, our results provide mixed support for our hypothesis regarding the effects of political events on administrative turnover (H1). We find a clear and robust positive effect of governmental change on the risk of administrative turnover, which is in line with our hypothesis. In contrast, we find a statistically significant negative effect of ministerial change on the risk of administrative turnover for permanent secretaries in the first eight years of their tenure, which does not support our theoretical expectation.

Moreover, we find no empirical support for the setting-up-a-new-team hypothesis (H2a). As can be gleaned from figure 3, which plots the hazard ratios for the independent variables for both countries, we find no significant effect of political events on administrative turnover in Denmark, whereas we do find such an effect for governmental change in Norway. Hence, our results provide partial support for the indispensability hypothesis (H2b), which assumed a lower risk of administrative turnover in a pure merit civil service compared to a hybrid merit civil service.

[Figure 3: Hazard ratios for the covariates with 95% confidence intervals (based on model 5 in the main regression tables for both countries).]

We conducted several statistical tests to assess the robustness of our findings and our substantive findings remain the same across various model specifications, with very few exceptions (see below). We performed logistic regressions with the same set of variables. We also estimated models with different sub-populations, excluding permanent secretaries who had reached the age of retirement in both countries and excluding acting permanent secretaries in Norway (we do not have this information for Denmark). Again, the results are substantially similar to the main models.

We further estimated models with additional controls or different specifications of covariates. The results are substantially similar when estimating the same models including dummies for decade of appointment, controlling for potential noise from period effects. Models that differentiate between ministerial changes with and without a change in the party controlling the ministry also confirm our substantive results. The results were also robust when we introduced controls for single-party vs. multi-party governments (based on the notion that a single party government can more easily impose the party line and replace unwanted civil

servants) and majority vs. minority cabinets (assuming that minority cabinets face more restrictions in replacing civil servants).

Finally, we estimated models where the at-risk period for permanent secretaries was operationalised as any year spent working under a government that is ideologically hostile to the government that appointed them (i.e. with a prime minister from the other party block; conservative or social democrat, see footnote 2). In neither of the two countries does ideological incongruence between the appointing and current government have a significant effect on the risk of administrative turnover. Using this model specification instead of governmental and ministerial change, the politicisation effect in Norway thus disappears altogether. Moreover, the effects of governmental and ministerial change in our main models remain unchanged when adding the ideological incongruence covariate, confirming the robustness of our results.

### **Discussion: Politicisation of the civil service in meritocratic systems**

In parliamentary systems, like those of Western Europe, the relationship between the government and top civil servants is subtle, particularly in systems with a strong meritocratic tradition. Our first question consequently explored whether changes of either government or minister affected the careers of ministerial permanent secretaries in Denmark and Norway between 1970 and 2020. Both countries' bureaucracies are among the world's most meritocratic (Dahlström and Lapuente 2017; Nistotskaya et al. 2021), displaying profound similarities. Nevertheless, our first proposition was that a change of government and a change of minister constitute political events that increase the risk of permanent secretary turnover. The results were too inconclusive to reject or corroborate the hypothesis outright. A change of

government coincides with a higher, and statistically significant, turnover of permanent secretaries in Norway, but not in Denmark.

A change of government can thus lead to a higher risk of turnover for permanent secretaries, the most senior career civil servants in a meritocratic system. This result tallies with the finding in a recent study from the United Kingdom (Cooper 2020). The fact that Denmark might constitute an exception in this context aligns with a study that shows the absence of formal politicisation in the Danish civil service (Christensen et al. 2014). Comparative studies using perception data from civil servants show that archetypal meritocratic countries are not a unitary block, but rather display different levels of perceived political influence on personnel decisions (Bach et al. 2020).

Our analysis also shows that a simple change of minister did not result in a higher turnover risk for permanent secretaries in either country. This is an important extension of the research as no prior study has systematically distinguished between the effects of governmental and ministerial change on administrative turnover. The takeaway is that a change in minister is not sufficient to trigger a replacement of the incumbent permanent secretary. In contrast to more politicised systems (Staronova and Rybář 2021), a more dramatic political event is required to influence bureaucratic careers in meritocratic systems. This result questions the importance of personal loyalty as the driver of administrative turnover in meritocratic systems. The unique design of our research, contrasting governmental and ministerial changes, ensured that we would not overlook such personal politicisation. However, we were unable to find supportive empirical evidence. In our interpretation, administrative turnover is driven by changes of government as the new political masters appoint civil servants based on partisan, not personal, loyalty (Peters and Pierre 2004).

We developed two competing hypotheses about how the relationship between political events and administrative turnover might be conditional upon having politically appointed state secretaries co-leading ministerial organisations. We only found a higher risk of administrative turnover in Norway, a hybrid merit civil service system with politically appointed state secretaries, but not in Denmark, a pure merit civil service system. This implies a rejection of the setting-up-a-new-team hypothesis (H2a), which assumes a personal loyalty mechanism that induces ministers to replace permanent secretaries with career civil servants of their own choice, and support for the indispensability hypothesis (H2b), which assumes ministers' dependence on their permanent secretaries to control the portfolio as they have nobody else to resort to for the mixture of professional-political advice they demand. We thus conclude that hybrid meritocratic systems with politically appointed state secretaries display a stronger connection between government change and administrative turnover than pure meritocratic systems without politically appointed state secretaries. In the latter situation, gaining control over the ministerial bureaucracy is more important to incoming ministers than questioning the loyalty of the incumbent permanent secretary, who is assumed to follow established norms of serial loyalty and party-political neutrality. To validate our findings, future research should include other meritocratic countries or study how institutional changes such as introducing political appointees affects the connection between political changes and administrative turnover.

A robustness check confirmed that the higher turnover risk is limited to the period immediately after the change of government and not driven by the ideological (mis)match between the appointing and incumbent government. This can be interpreted as contradicting the results of a study from Sweden, where a different group of top civil servants - agency

chief executives - had shorter tenures if replaced under “an ideological opponent of the appointing government” (Dahlström and Holmgren 2019, 831).

As regards the controls, one notable result is the substantial effect of ministry terminations on administrative turnover in Denmark and Norway. Such terminations are clearly political events, but they are different from governmental and ministerial turnovers and difficult to interpret within the context of the politicisation literature. It is highly implausible that ministry terminations are deliberately used to discreetly dismiss permanent secretaries. Nevertheless, ministry terminations are important in understanding political-administrative relations in several ways. First, governments use portfolio changes to set and signal governmental priorities. In doing so they redirect ministerial operations in a way that fits with current contingencies, including internal coalition politics (Mortensen & Green-Pedersen, 2015). This is a much more direct way to set political priorities than replacing incumbent permanent secretaries. Second, political reorganisations involving the closure and creation of departmental ministries by definition entail adaptations at the highest bureaucratic level, as the demand for top civil servants immediately changes. In particular, a ministry termination addresses the issue of the fate of redundant permanent secretaries. Who gets a chance to continue her or his career? We are not pursuing this line of reasoning here but consider it to be a potentially fruitful line of inquiry.

## **Conclusion**

The article contributes to the emerging insight that administrative turnover is less than fully isolated from political events in highly meritocratic countries (Cooper 2020; Dahlström and Holmgren 2019; Boyne et al. 2010). Based on a study of Denmark and Norway in the period between 1970 and 2020, the article investigates how changes of either government or minister

affect the turnover of permanent secretaries in the year of the change and the subsequent year. That a change of ministers did not increase the risk of administrative turnover suggests that, in a meritocratic context, more dramatic political changes, such as wholesale changes of government, are necessary to affect the careers of top civil servants. It also indicates that, contrary to more politicised contexts such as Slovakia (Staronova and Rybar, 2020), in these Scandinavian countries the social mechanism that connects changes in the political leadership to administrative turnover has more to do with partisan than personal politicisation.

The study subsequently investigated whether the effect of political changes on administrative turnover is different in pure and hybrid merit civil service systems. The fact that changes of government increased the risk of administrative turnover in Norway (a hybrid merit system), but not in Denmark (a pure merit system), suggests that having a model with politically appointed state secretaries co-leading the ministerial organisation potentially undermines the permanence of career officials.

In highlighting the relevance of institutional differences between meritocratic systems for the relationship between politics and administration, the paper strongly emphasises the relevance of comparative analyses of relationships between ministers and top civil servants. While our analysis demonstrated an important difference between systems with and without political appointees wedged between ministers and permanent civil servants, further comparative research should include other aspects such as patterns of interaction, mutual expectations and conceptions of roles (see for example Christiansen et al. 2016). These analyses are essential for a comprehensive understanding of differences and similarities in the relationship between politics and administration in meritocratic systems.



The empirical analysis rests on assumptions that affect the interpretation of the results and impact on how far we can generalise the results of this study. Perhaps the most fundamental assumption is that, essentially, permanent secretaries cling to their office and do not want to leave their posts, with any turnover thus resulting from decisions made by politicians.

However, we have little doubt that, while permanent secretaries are sometimes replaced against their will by political leaders, other scenarios are also entirely possible (Bourgault and Dion 1989), and we provide anecdotal evidence for push and pull factors driving the careers of permanent secretaries. Obviously, some permanent secretaries quit because they are at, or close to, the age of retirement. Research into Danish permanent secretaries shows that a large majority of those who leave their position several years before retirement age move to another position in the public sector (Christensen et al. 2014), for example, staying on in an advisory function for a few more years.

An interview-based study in another meritocratic system, Estonia, found that most top civil servants leave voluntarily, either because they have grown tired of their position or organisation, or because of conflicts with political or administrative superiors (Rattus and Randma-Liiv 2019). Other permanent secretaries are *de facto* fired, although not for party political or personal reasons, as our research design assumes, but rather because of some sort of performance crisis, because they had not done their job properly or because they are made victims of a blame avoidance game. The problem for the external observer is that, in the absence of valid sources, it is difficult to distinguish between the scenarios (Dahlström and Holmgren 2019, 825; Cooper 2020, 316). Nevertheless, the difference between these scenarios is of normative and theoretical importance.

Finally, despite the advances made by this article, it is clear that a more complete understanding of the relationship between political events and administrative turnover is likely to necessitate a range of different methods and a more holistic theoretical approach. For example, addressing cultural factors could add to the understanding of this study's results. The Danish and the Norwegian civil services rest on the same set of values when it comes to the interaction between the political executive and departmental civil servants (Ministry of Finance 2015; Ministry of Local Government and Modernization 2019). One crucial difference is that the relationship between politicians and civil servants is a more salient issue in Denmark than it is in Norway. In the mid-1990s, the Norwegian parliament asked for clarification of the relationship between the civil service and the political leadership in ministerial departments. In 2000, the government prepared a report on this issue for parliament. In the following 20 years, no government-commissioned report or study has probed beyond the surface of political-administrative relationships and the issue has received minimal political, scholarly and public attention (The Norwegian Ministry of Local Government and Modernization 2021).

In Denmark, this issue has been subject to continuous parliamentary scrutiny since the 1970s, as evidenced by recurring parliamentary questions, voting on parliamentary resolutions, and media reports where members of parliament have raised concerns. The government has been repeatedly forced to set up independent task forces to analyse the problem and provide recommendations. Their reports have formed the basis for a series of understandings between parties in parliament framing the interaction between the political executive and civil servants. Denmark's Union of Lawyers and Economists has also set up similar task forces and their recommendations have been explicitly taken into consideration by the government. Denmark's corps of civil servants has thus effectively contributed to regulation of the

relationship between civil servants and the political executive (Christensen 2006).<sup>5</sup> The greater prominence of the delicate relationship between politics and administration potentially has a deterrence effect on politicians' ambitions to replace top civil servants. More generally, the civil service does not exist in a political vacuum. It is therefore important whether the parliamentary discourse has taken a form that effectively puts constraints on the government resorting to party political appointments as has been the case in Denmark for decades.

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## Notes

<sup>1</sup> In a small number of cases, individuals moved to other positions for several years and then resumed another position as permanent secretary. We considered these as separate spells of employment in the dataset. In total, 11 out of 108 (10%) permanent secretaries had two spells of employment in Norway, and six out of 157 (4%) permanent secretaries had two spells of employment in Denmark.

<sup>2</sup> Political change constituting a potential career risk for top civil servants can alternatively be measured as policy incongruence (Dahlström and Holmgren 2019); the assumption is that top civil servants have a heightened risk of being replaced when they serve under a government or minister from a party other than (or not allied to) the one that appointed them (see also Christensen et al. 2014). The downside of coding the whole period until an ideologically congruent (“friendly”) political principal resumes power as risk period is that the researcher accumulates noise that is irrelevant in a politicisation perspective; various push and pull factors may affect a civil servant’s career a few years after the appointment.

<sup>3</sup> These changes may result from the formation of a new coalition with a prime minister with the same ideological affiliation, or from a party leaving or joining a coalition in the middle of the mandate period. For instance, in Norway, the Progress Party left the government in 2020, which continued as a minority cabinet until the next election.

<sup>4</sup> The archive of ministers in Norway (“Statsrådsarkivet”) is published by the Norwegian Centre for Research Data (NSD). In Denmark, we used the overview of Danish governments and cabinet ministers published by the government (<https://www.stm.dk/regeringen/regeringer-siden-1848>).

<sup>5</sup> A new union-based task force initiated its deliberations in the winter of 2022 (Djøf 2022).

## References

- Askim, Jostein, Rune Karlsen, and Kristoffer Kolltveit (2017). 'Political appointees in executive government: Exploring and explaining roles using a large-N survey in Norway' *Public Administration*, 95:2, 342-358.
- Askim, Jostein, Rune Karlsen, and Kristoffer Kolltveit (2021). 'Public Office as a Stepping-Stone? Investigating the Careers of Ministerial Advisors' *Political Studies Review*, 19:4, 539-557.
- Aucoin, Peter (2012). 'New Political Governance in Westminster Systems: Impartial Public Administration and Management Performance at Risk' *Governance*, 25:2, 177-199.
- Bach, Tobias, Gerhard Hammerschmid, and Lorenz Löffler (2020). 'More Delegation, More Political Control? Politicization of Senior Level Appointments in 18 European Countries' *Public Policy and Administration*, 35:1, 3-23.
- Bach, Tobias, and Sylvia Veit (2018). 'The Determinants of Promotion to High Public Office in Germany: Partisan Loyalty, Political Craft, or Managerial Competencies?' *Journal of Public Administration Research and Theory*, 28:2, 254-269.
- Bourgault, Jacques, and Stephane Dion (1989). 'Governments come and go, but what of senior civil servants? Canadian deputy ministers and transitions in power (1867–1987)' *Governance*, 2:2, 124-151.
- Box-Steffensmeier, Janet M., and Bradford S. Jones (2004). *Event history modeling: a guide for social scientists*. Cambridge: Cambridge University Press.
- Boyne, George A., Oliver James, Peter John, and Nicolai Petrovsky (2010). 'Does Political Change Affect Senior Management Turnover? An Empirical Analysis of Top-Tier Local Authorities in England' *Public Administration*, 88:1, 136-153.
- Christensen, Jørgen Grønnegård (2006). 'Ministers and mandarins under Danish parliamentarism' *International Journal of Public Administration*, 29:12, 997-1019.
- Christensen, Jørgen Grønnegård, Robert Klemmensen, and Niels Opstrup (2014). 'Politicization and the Replacement of Top Civil Servants in Denmark' *Governance*, 27:2, 215-241.
- Christensen, Jørgen Grønnegård, and Niels Opstrup (2018). 'Bureaucratic dilemmas: Civil servants between political responsiveness and normative constraints' *Governance*, 31:3, 481-498.
- Christiansen, Peter Munk, Birgitta Niklasson, and Patrik Öhberg (2016). 'Does politics crowd out professional competence? The organisation of ministerial advice in Denmark and Sweden' *West European Politics*, 39:6, 1230-1250.
- Cooper, Christopher A. (2020). 'Politics and the permanency of permanent secretaries: testing the vitality of the Westminster administrative tradition, 1949–2014' *British Politics*, 15:3, 311-325.
- Dahlström, Carl, and Mikael Holmgren (2019). 'The Political Dynamics of Bureaucratic Turnover' *British Journal of Political Science*, 49:3, 823-836.
- Dahlström, Carl, and Victor Lapuente (2017). *Organizing Leviathan: Politicians, Bureaucrats and the Making of Good Government*. Cambridge: Cambridge University Press.
- Djøf (2022). 'Karsten Dybvad bliver formand for Djøfs nye ekspertudvalg om politikere og embedsmænd [Karsten Dybvad to become chairman of new expert committee on politicians and civil servants]', accessed 03.03.2022.

- <https://www.djoef.dk/presse/pressemeddelelser/2022/karsten-dybvad-bliver-formand-for-dj-oe-fs-nye-ekspertudvalg-om-politikere-og-embedsm-aend.aspx>.
- Doherty, Kathleen M, David E Lewis, and Scott Limbocker (2019). 'Executive Control and Turnover in the Senior Executive Service' *Journal of Public Administration Research and Theory*, 29:2, 159-174.
- van Dorp, Erik-Jan, and Paul 't Hart (2019). 'Navigating the dichotomy: The top public servant's craft' *Public Administration*, 97:4, 877-891.
- Enns-Jedenastik, Laurenz (2014). 'Political Control and Managerial Survival in State-Owned Enterprises' *Governance*, 27:1, 135-161.
- Eriksen, Svein (1997). 'Norway: Ministerial Autonomy and Collective Responsibility' in Jean Blondel and Ferdinand Müller-Rommel (eds.), *Cabinets in Western Europe*. London: Palgrave MacMillan, 210-224.
- Fleischer, Julia (2016). 'Partisan and professional control: Predictors of bureaucratic tenure in Germany' *Acta Politica*, 51:4, 433-450.
- Grøndahl, Øyvind Nordbrønd, and Tore Grønlie (2004). 'From the Swedish ideal to EU direction. Scandinavian central state administrative reform in the 1980s and 1990s, in a post 1945 perspective' *Jahrbuch für europäische Verwaltungsgeschichte*, 16, 151-196.
- Hood, Christopher, and Martin Lodge (2006). *The politics of public service bargains. Reward, competency, loyalty and blame*. Oxford, New York: Oxford University Press.
- Lewis, David E. (2008). *The politics of presidential appointments: political control and bureaucratic performance*. Princeton, NJ: Princeton University Press.
- Meyer-Sahling, Jan-Hinrik (2008). 'The changing colours of the post-communist state: The politicisation of the senior civil service in Hungary' *European Journal of Political Research*, 47:1, 1-33.
- Ministry of Finance (2015). *Seven key duties for civil servants in central government*. Copenhagen: Ministry of Finance.
- Ministry of Local Government and Modernization (2019). *Om forholdet mellom politisk ledelse og embetsverk [On the relationship between the political leadership and the civil service]*. Oslo: Ministry of Local Government and Modernization.
- Mortensen, Peter B., and Christoffer Green-Pedersen (2015). 'Institutional Effects of Changes in Political Attention: Explaining Organizational Changes in the Top Bureaucracy' *Journal of Public Administration Research and Theory*, 25:1, 165-189.
- Nerland, Sigbjørn (1998). 'Politiske verv og embetsmannskarrierer: en gjennomgang av karriererne til den norske sentralforvaltningens toppledere med utgangspunkt i årene 1936, 1956, 1976 og 1996' *Nordisk Administrativ Tidsskrift*, 79:1, 37-48.
- Nistotskaya, Marina, Stefan Dahlberg, Carl Dahlström, Aksel Sundström, Sofia Axelsson, Cem Mert Dalli, and Natalia Alvarado Pachon (2021). *The Quality of Government Expert Survey 2020 (Wave III): Report*. Gothenburg: The QoG Working Paper Series 2021:2.
- Peters, B. Guy, and Jon Pierre (2004). 'Politicization of the civil service. Concepts, causes, consequences' in B. Guy Peters and Jon Pierre (eds.), *Politicization of the civil service in comparative perspective*. London, New York: Routledge, 1-13.
- Petrovsky, Nicolai, Oliver James, Alice Moseley, and George A. Boyne (2017). 'What Explains Agency Heads' Length of Tenure? Testing Managerial Background, Performance, and Political Environment Effects' *Public Administration Review*, 77:4, 591-602.

- Rattus, Reelika, and Tiina Randma-Liiv (2019). 'Leaving the Senior Civil Service – public service bargain and beyond: The case of Estonia' *Public Policy and Administration*, 34:4, 453-474.
- Rhodes, Roderick (2011). *Everyday Life in British Government*. Oxford: Oxford University Press.
- Rolland, Vidar W., and Paul G. Roness (2011). 'Mapping Organizational Change in the State: Challenges and Classifications' *International Journal of Public Administration*, 34, 399-409.
- Selling, Niels, and Stefan Svallfors (2019). 'The Lure of Power: Career Paths and Considerations among Policy Professionals in Sweden' *Politics & Policy*, 47:5, 984-1012.
- Shaw, Richard, and Chris Eichbaum (2020). 'From ménage à trois back to pas de deux? Ministerial advisers, civil servants and the contest of policy ideas' *International Review of Public Policy*, 2:3, 264-280.
- Staronova, Katarina, and Marek Rybář (2021). 'Personal or Party Roots of Civil Service Patronage? Ministerial Change Effects on the Appointments of Top Civil Servants' *Administration & Society*, 53:5, 651-679.
- The Norwegian Ministry of Local Government and Modernization (2021). 'Om forholdet mellom politisk ledelse og embetsverk [On the relationship between the political leadership and the civil service]', accessed 17.09.2021. <https://www.regjeringen.no/no/dokumenter/om-forholdet-mellom-politisk-ledelse-og-embetsverk/id2626841/?ch=7>.

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**Notes on contributors:**

**Jostein Askim** is Professor of Political Science at the University of Oslo. His research focuses on administrative reform, coordination in the executive, and political leadership. His articles have appeared in journals including *Journal of Public Administration Research and Theory*, *Public Administration*, and *Public Policy and Administration*. [jostein.askim@stv.uio.no]

**Tobias Bach** is Professor of Political Science at the University of Oslo. His research focuses on politics-administration relations and bureaucratic politics in an internationally comparative perspective. His articles have appeared in journals including *Governance*, *Journal of Public Administration Research and Theory*, *Public Administration*, and *Regulation & Governance*. [tobias.bach@stv.uio.no]

**Jørgen Grønnegård Christensen** is Professor Emeritus of Political Science at Aarhus University. His research focuses on the relationship between politicians and civil servants and on the organisation of central government. His articles have appeared in journals including *Governance*, *Journal of Public Administration Research and Theory*, and *Public Administration*. [jgc@ps.au.dk]

ORCID:

Jostein Askim: ORCID: 0000-0002-5675-6937

Tobias Bach: ORCID: 0000-0003-1888-8450

## Appendix

[Figure A1: Relative hazards of administrative turnover for time-dependent covariates]



## Tables

Table 1: The meritocratic ministerial organisation

	The pure merit civil service	The hybrid merit civil service
Departmental leadership (below the minister)	<ul style="list-style-type: none"> <li>• permanent secretaries with civil servant status</li> <li>• ministerial advisor(s) without executive authority</li> </ul>	<ul style="list-style-type: none"> <li>• politically appointed state secretary wedged between minister and permanent secretary</li> <li>• permanent secretaries with civil servant status</li> <li>• ministerial advisor(s) without executive authority</li> </ul>
Main functions of permanent secretary	<ul style="list-style-type: none"> <li>• policy advice</li> <li>• political-tactical advice</li> <li>• departmental management</li> </ul>	<ul style="list-style-type: none"> <li>• policy advice</li> <li>• departmental management</li> </ul>
Country examples	<ul style="list-style-type: none"> <li>• Denmark</li> <li>• The Netherlands</li> </ul>	<ul style="list-style-type: none"> <li>• Norway</li> <li>• Sweden</li> <li>• Germany</li> </ul>

Table 2. Hypothesised links between political events and administrative turnover in merit bureaucracies

Political events	Causal logic	Expected effect on administrative turnover
<b>Simple model of the effect of political events on administrative turnover</b>		
<b>Regime change</b> A change of governing party/-ies	The incoming government replaces incumbent senior civil servants to ensure the loyal development and implementation of its policy goals	Turnover risk is higher in conjunction with a change of regime or executive (H1)
<b>Executive change</b> A change of minister independent of change of government	The incoming minister replaces incumbent senior civil servants with senior civil servants enjoying his/her trust	
<b>Model with ministerial organisation conditioning the effect of political events on administrative turnover</b>		
Merit bureaucracies take two forms <ul style="list-style-type: none"> <li>• Pure merit civil service with the government/ministers served exclusively by career civil servants</li> <li>• Hybrid merit civil service with political appointees wedged in between ministers and career civil servants</li> </ul>	<b>The setting-up-a-new-team hypothesis</b> Incoming politicians in pure merit civil service systems are more dependent on senior civil servants than in hybrid merit systems and therefore have an incentive to set up a new team where they replace incumbent civil servants with civil servants of their own choice.	Turnover risk among senior civil servants in conjunction with political events is higher in systems with a pure merit civil service than in hybrid merit civil service (H2a).
	<b>The indispensability hypothesis</b> In pure merit civil service systems, the dependence of incoming politicians on incumbent senior civil servants is higher than in hybrid merit systems, making incumbent senior civil servants indispensable in pure merit civil service systems.	Turnover risk among senior civil servants in conjunction with political events is lower in systems with a pure merit civil service than in hybrid merit civil service (H2b).

Table 3: Descriptive statistics (Denmark).

	N	Mean	SD	Min	Max
Permanent secretary turnover	1188	0.11	0.32	0	1
Government change	1188	0.18	0.39	0	1
Government change (t-1)	1188	0.18	0.38	0	1
Minister change	1188	0.21	0.41	0	1
Minister change (t-1)	1149	0.21	0.41	0	1
Election year	1188	0.37	0.48	0	1
Age at start of spell	1187	47.98	5.80	37	64
Gender (1=female)	1188	0.04	0.20	0	1
Ministry termination	1188	0.02	0.15	0	1

Table 4: Descriptive statistics (Norway).

	N	Mean	SD	Min	Max
Permanent secretary turnover	786	0.11	0.32	0	1
Government change	786	0.23	0.42	0	1
Government change (t-1)	786	0.23	0.42	0	1
Minister change	786	0.19	0.40	0	1
Minister change (t-1)	750	0.18	0.39	0	1
Election year	786	0.24	0.43	0	1
Age at start of spell	786	51.38	5.75	41	66
Gender (1=female)	786	0.18	0.39	0	1
Ministry termination	786	0.02	0.15	0	1

Table 5: Cox analysis of permanent secretary turnover in Denmark

	Dependent Variable				
	Turnover of Permanent Secretary				
	(1)	(2)	(3)	(4)	(5)
Government change (t)	1.20 (0.18)	1.04 (0.21)	0.95 (0.20)	0.94 (0.20)	0.82 (0.22)
Government change (t-1)	1.26 (0.25)	1.34 (0.25)	1.22 (0.28)	1.22 (0.28)	1.11 (0.26)
Minister change (t)	1.12 (0.21)	1.06 (0.21)	1.07 (0.20)	1.07 (0.20)	1.06 (0.20)
Minister change (t-1)	0.88 (0.24)	0.88 (0.24)	0.92 (0.21)	0.92 (0.22)	0.89 (0.22)
Election year		1.32 (0.19)	1.29 (0.19)	1.31 (0.19)	1.19 (0.18)
Age at start of spell			0.96 (0.03)	0.96 (0.03)	0.96 (0.03)
Age at start of spell X Time			1.01*** (0.00)	1.01*** (0.00)	1.01*** (0.00)
Gender				2.11*** (0.26)	2.57*** (0.28)
Ministry termination					27.55*** (0.36)
Ministry termination X Time					0.89*** (0.04)
Observations	1,149	1,149	1,148	1,148	1,148
Log Likelihood	-504.53	-503.60	-495.59	-493.94	-466.95

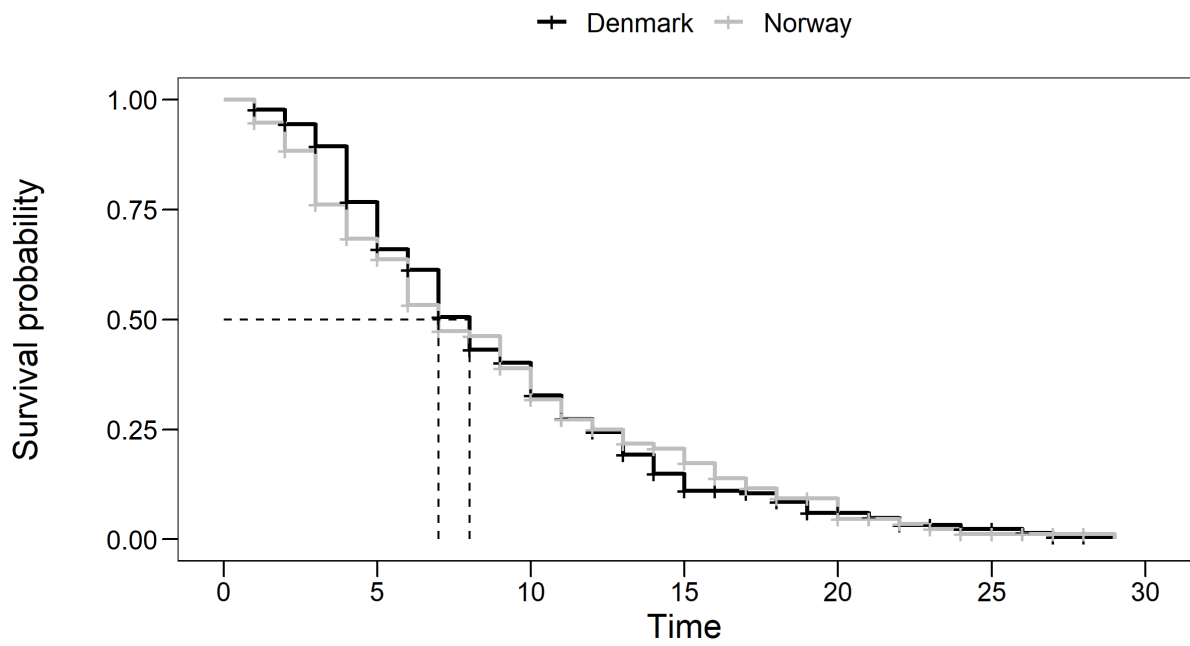
*Notes:* Estimates reported as hazard ratios. Robust standard errors clustered by ministry reported in parentheses. \* $p < 0.1$ ; \*\*  $p < 0.5$ ; \*\*\* $p < 0.01$ . We centred “age at start of spell” at the mean value for unique observations (48.42 years) in order to facilitate the substantive interpretation of our results.

Table 6: Cox analysis of permanent secretary turnover in Norway

	Dependent Variable				
	Turnover of Permanent Secretary				
	(1)	(2)	(3)	(4)	(5)
Government change (t)	1.77*** (0.18)	1.97*** (0.20)	1.81** (0.25)	1.82** (0.25)	1.71** (0.26)
Government change (t-1)	0.95 (0.57)	0.91 (0.55)	0.93 (0.58)	0.93 (0.57)	0.95 (0.52)
Government change (t-1) X Time	0.95 (0.06)	0.95 (0.06)	0.95 (0.07)	0.95 (0.07)	0.95 (0.06)
Minister change (t)	0.26*** (0.46)	0.26*** (0.46)	0.27*** (0.47)	0.27*** (0.47)	0.22*** (0.45)
Minister change (t) X Time	1.12*** (0.04)	1.12*** (0.04)	1.11** (0.05)	1.11** (0.05)	1.12** (0.04)
Minister change (t-1)	0.99 (0.32)	0.99 (0.32)	0.96 (0.32)	0.95 (0.32)	0.93 (0.33)
Election year		0.81 (0.25)	0.87 (0.23)	0.87 (0.23)	0.78 (0.25)
Age at start of spell			1.01 (0.04)	1.01 (0.04)	1.01 (0.04)
Age at start of spell X Time			1.02*** (0.01)	1.02*** (0.01)	1.02*** (0.01)
Gender				1.08 (0.25)	1.02 (0.24)
Ministry termination					4.30*** (0.56)
Observations	750	750	750	750	750
Log Likelihood	-296.43	-296.17	-280.79	-280.76	-277.37

*Notes:* Estimates reported as hazard ratios. Robust standard errors clustered by ministry reported in parentheses. \* p<0.1; \*\* p<0.5; \*\*\* p<0.01. We centred “age at start of spell” at the mean value for unique observations (53.03 years) in order to facilitate the substantive interpretation of our results.

FIGURE 1 Kaplan-Meier survival curves for administrative turnover in Denmark and Norway



Cumulative number of events

Denmark	0	41	85	115	123	130	135
Norway	0	33	60	73	84	87	88
	0	5	10	15	20	25	30

FIGURE 2 Kaplan-Meier survival curves for administrative turnover in Norway

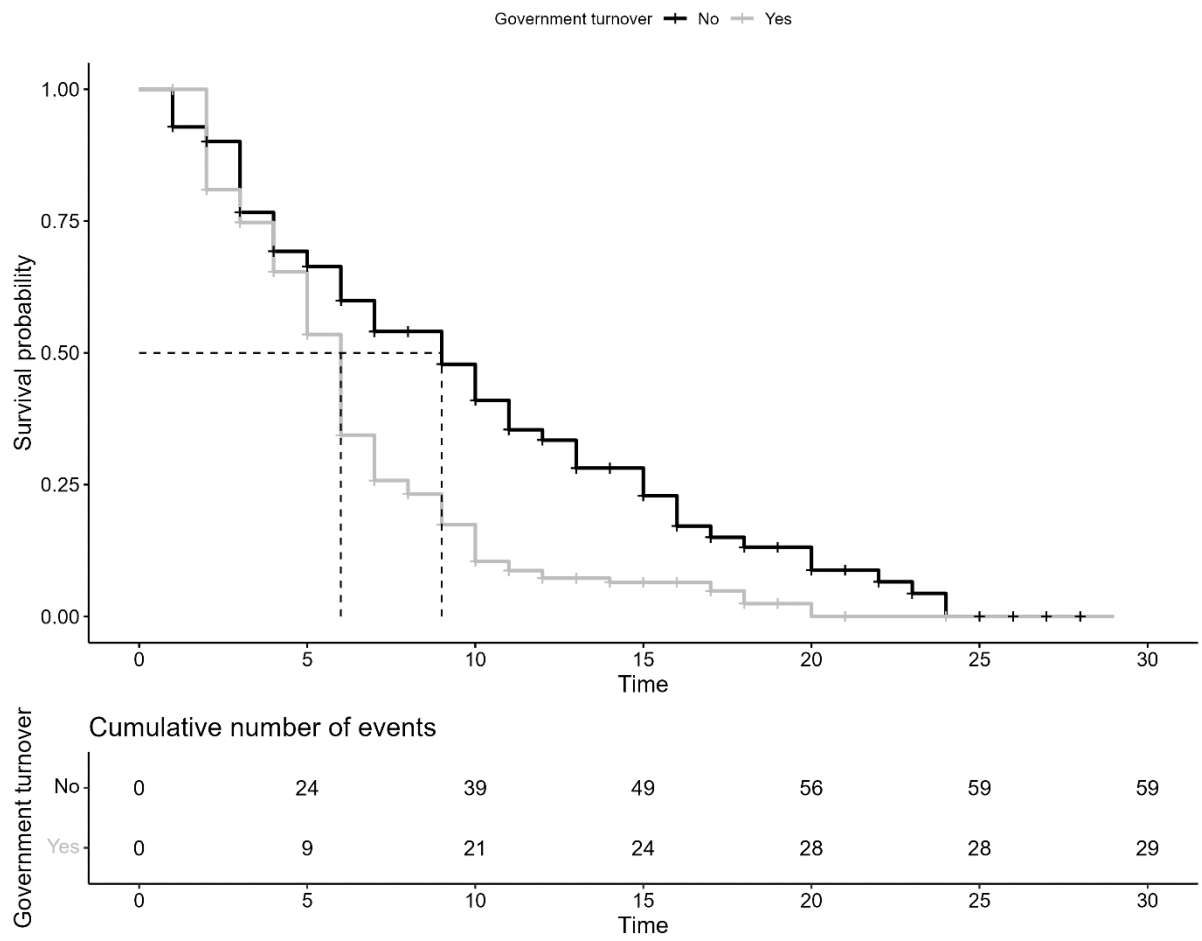




FIGURE 3: Hazard ratios for the covariates with 95% confidence intervals (based on model 5 in the main regression tables for both countries).

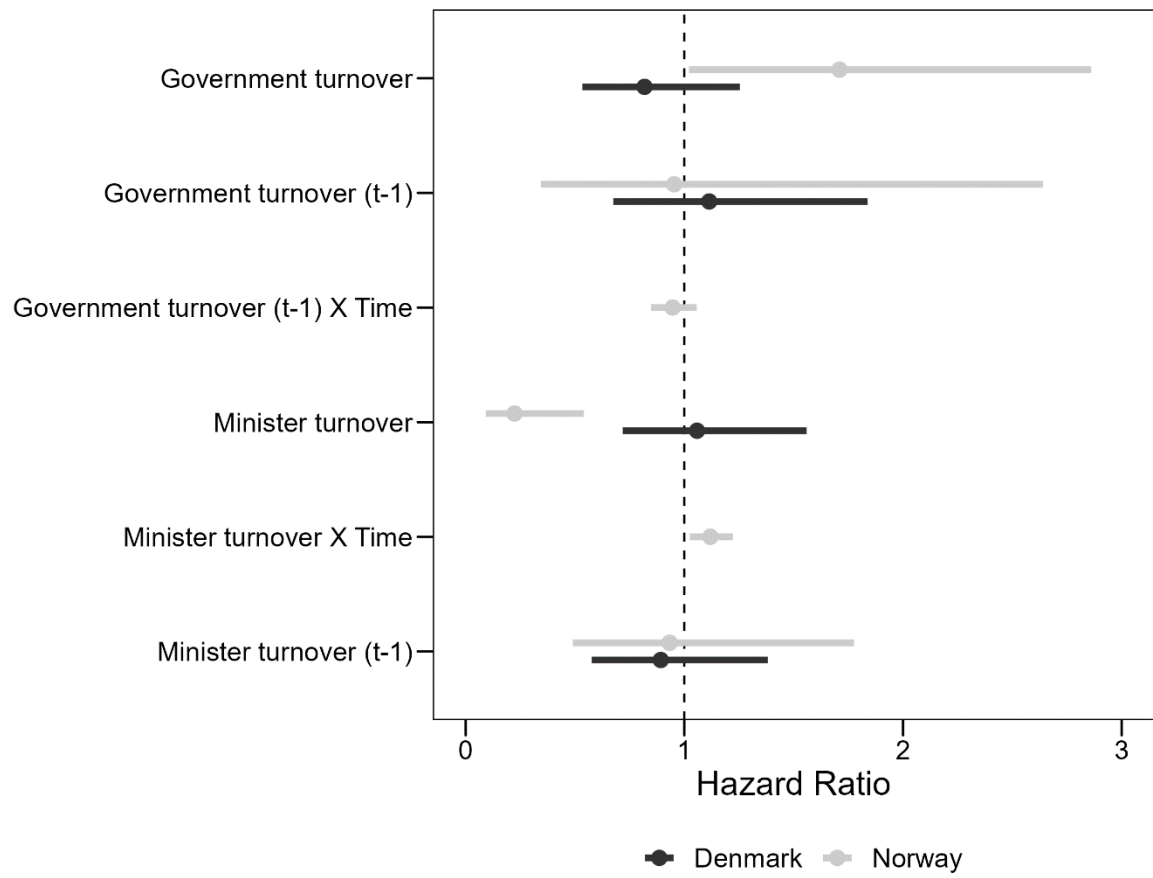


FIGURE A1: Relative hazards of administrative turnover for time-dependent covariates

