

NEPOTISM AND MERITOCRACY

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ABSTRACT

Despite the crucial importance of a well-functioning and impartial public administration for growth and well-being, we know little of how such bureaucracies can be created, and why elites allow them to be. One reason for this dearth of studies is that there are few to none quantitative measures of historical bureaucratic development. This paper analyzes the surnames of civil servants in the Swedish central public administration over 200 years to track nepotism in recruitment. A decline in nepotism is registered during the 19th century. The nobility however continued to thrive in the administration even after reform, due to disproportionate access to education. Paradoxically, birth was thus an important predictor of success in a system that generally was considered meritocratic. This continuity could explain why the old elite accepted reform.¹

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An integral component of a professional bureaucracy is the meritocratic recruitment of civil servants (Rauch and Evans 2000). It is therefore a central part of international organizations' policy recommendations for public management reform in developing countries. Despite reform efforts, patronage and nepotism however continue to constitute pervasive problems in the administrations of many countries. There is frequently a large disconnect between the formal rules for civil service recruitment and the actual practice of patronage and nepotism. We must therefore ask not when or why rules are adopted, but when and why they are followed (Greif 2006). Systematic investigation is however difficult, given that there due to the informal and secret nature of the matter exists few measures of bureaucratic quality, especially over time.

Two issues are in focus in this paper. First, the paper provides quantitative evidence on actual outcomes of civil service recruitment by mapping nepotism in the Swedish central public administration over a span of 200 years. Building on the analysis of shared surnames among civil servants, the data provides a better understanding of the reform process of a country that today ranks as one of the least corrupt in the world, and shows that reform seems to be best described as incremental and gradual. Moreover, it also sheds light on why Sweden was able to move in a more meritocratic direction.

Second, this paper also argues that reform is more likely when designed so that the elite in government and administration loses less from it, as their incentives provide the most important obstacle to reform. Meritocratic recruitment threatens their ability to staff the administration with loyalists, or distribute public jobs as patronage to relatives and supporters. A fundamental puzzle is therefore why elites sometimes agree to give up this prerogative. Theorists such as Max Weber and Pierre Bourdieu as well as students of civil service reform (Fukuyama 2014; Grindle 2012) suggest that while indifferent between individuals meritocratic recruitment does not necessarily imply a leveling of the playing field between social classes. Elites generally have better access to education, which means that it also will have a distinct advantage in the competition for jobs.

The empirical analysis shows that even while nepotism declined in Sweden, the proportion of civil servants belonging to the old aristocratic elite remained extraordinarily high, to the point of being overrepresented even in modern times. Meritocratic recruitment did in Sweden, as in United Kingdom or Prussia (Grindle 2012), not translate into meritocracy in the sense that birth did not matter

for career outcomes. The fact that the entrenched elite did not stand to lose on meritocratic reform could possibly explain why it could be implemented without fierce resistance.

Previous research and theory

The 'natural' organization of a state is patrimonial (Fukuyama 2014:198; Ertman 1997). Historically, rulers saw their dominions as their property, and the ruling was managed by the ruler's household. There was little distinction between private and official property. Servants in the household or proto-state were therefore naturally expected to be loyal to the ruler, not the state itself, and the ruler was free to dismiss servants at his or her discretion. This was the state of affairs for the most part of human history, but some states gradually began to limit the discretionary powers of rulers over the administration. Recruitment came to be based on skill and qualifications, evaluated through competitive examinations, and provisions were made to to shield civil servants from arbitrary dismissal. Imperial China pioneered this type of administration, but it was the 19th century Prussian administration, chronicled by Max Weber, that became the most famous example.

From a societal viewpoint, there are many good reasons to professionalize the bureaucracy and shield it from political influence. It is more efficient, as civil servants are selected primarily for skill. It helps to prevent corruption, as civil servants without fear of dismissal can blow the whistle on corrupt political superiors (Geddes 1991; Grindle 2012; Rauch and Evans 2000; Dahlström et al 2011). It excludes patronage, the recruitment of civil servants based on political or personal loyalty, as well as nepotism, recruitment based on kinship. That is not to say that there could be meritocratic elements to patronage or nepotism (Bearfield 2009, Grindle 2012); the opposite is however impossible. It also helps rulers to credibly commit to respecting property rights and contracts, which encourages investment and growth (Miller 2000; North 1990).

Economic development is therefore in a long-term perspective seen as a driver for a more efficient and impartial administration, by virtue of creating demand (Fukuyama 2014). Max Weber's main explanation for the rise of the bureaucracy was that it was a rational expression of industrialization. However, the problem with this argument is that even though an efficient bureaucracy may be beneficial to society as a whole, a patrimonial administration may provide private benefits to the ruler.

The incentives of the ruler are not aligned with those of organizations and individuals in the society.

An administration that is bound to the ruler by loyalty creates opportunities for corruption and rent-seeking and can in authoritarian systems serve as a shield from rivals for power. In democracies, patronage jobs can be a powerful tool to win elections. Collective action problems also create vicious circles, as there is little logic for a civil servant to abstain for corruption or push for reform in isolation. Professional, impartial and meritocratic systems have therefore been the exception throughout history, and patronage has proven to be extremely resilient to attempted reforms (Fukuyama 2014; Grindle 2012; Persson, Rothstein and Teorell 2013). It should however be noted that there are reasons for accepting patronage in the administration beyond corruption. The loyalty to superiors induced by patronage recruitment can be a rational solution to problems of measuring candidate quality and performance, which was and is a pressing issue in many countries (Allen 2011, Grindle 2012).

Given that the incentives of rulers or dominant elites often do not favor reform, a recurring theme in theories of institutional evolution is that explanations for voluntary transitions to a more inclusive political system or a more professional bureaucracy must focus on these incentives. North, Wallis and Weingast (2009) argues that each transition must be consistent with the logic of the previous situation; Avner Greif (2006) that rules only will be followed when the institutions make sure that everybody benefits by following the rules; Acemoglu and Robinson (2006) that elites only will relinquish power when threatened with an even worse alternative, such as war that threatens the very existence of the state.² In this vein, it has for instance been argued that the Swedish government and parliament managed to take action to reform the bureaucracy after a disastrous defeat in war against Russia in 1809, since the repercussions of an inefficient administration could be catastrophical (Teorell and Rothstein 2013). External shocks such as the assassination of US president Garfield also makes reform more likely, but is in itself not a sufficient explanation for reform (Fukuyama 2014; Grindle 2012:3).

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² The discussion here focuses on transitions in non-democratic systems. In democracies, turnover of power between political blocks could also provide incentives for professionalizing the bureaucracy. The idea is that a government that is likely to face defeat in an upcoming election could wish to rob the incoming government of opportunities for patronage, so as not to be forced to share the spoils (as when the republican party only after electoral defeat in the congressional elections 1882 passed the famous Pendleton act) (Geddes 1991). Patronage controlled by the own party is the primary preference, but meritocracy is preferred to patronage controlled by the other party.

Moreover, even if the incentives of relevant actors favor reform, limitations in measurement of performance historically limited the organizational alternatives available (Allen 2011), and low state capacity continues to do so today. For instance, it is impossible to sustain a Weberian salaried bureaucracy without the capacity to collect taxes (Sundell 2014a). Reform must also be implemented and accepted in the administration, which may prove to be the biggest hurdle, especially because of the messiness of patronage systems (Grindle 2012) and incentives of other power-holders in the administration, beside the ruler or government. In the following, I outline an explanation for why the incentives of dominant groups sometimes could be consistent with meritocratic reform.

Meritocratic recruitment is usually thought to be achieved through the use of educational requirements for employment, combined with competitive formal examinations. It is in some cases possible to circumvent these institutions, for instance by making special appointments (Cheng, Haggard & Kang 1998; Lewis 2008:52). However, in general, these rules lower discretion in hiring for managers, thereby making patronage and nepotism harder to accomplish. The strength of this type of meritocratic recruitment is however also its weakness. Proponents of New Public Management have criticized the rigidness and inflexibility in hiring, arguing that it only serves to make recruitment of the most suitable people harder (Lewis 2008). There is thus a tradeoff between flexibility and the risk for patronage and nepotism (Schick 1998; Sundell 2014b).

However, a functional meritocratic system may also be skewed to favor certain types of applicants. Most importantly, it favors the educated. It may seem logical, as an advanced education could be a necessary requirement to fulfill the tasks of the position, especially if it is a technical one. But when the education has little connection to the actual tasks of the civil servant, it mainly functions as a way to exclude certain persons from the civil service, which Max Weber realized:

"When we hear from all sides the demand for an introduction of regular curricula and special examinations, the reason behind it is, of course, not a suddenly awakened 'thirst for education' but the desire for restricting the supply for these positions and their monopolization by the owners of educational certificates." (Weber 1948:241)

The features associated with increased meritocracy, specialized examinations and educational requirements, would thus in Weber's view not level the playing field, in comparison to the old patrimonial system, in which birth and kinship were important for recruitment. Instead, he interpreted demands for educational requirements not only as an increased demand for expertise, but also as a

way for the privileged to retain their advantage, as education requires considerable investment of both time and money. All in all, it thus constitutes a "setback for charisma (talent) in favor of property." (Weber 1948:242).

Pierre Bourdieu (1986) studied the interplay between education and class in French elite schools. He argued that the majority of society would resent the elite perpetuating itself by merely transferring economic capital to the next generation through inheritance. The elite will therefore also reproduce through transfer of cultural capital, which is education. Acquiring a first-class education is associated with great costs, because of tuition but also in the form of invested time and delayed income. Economic capital can thus be converted into cultural capital for the next generation, which can convert it back to economic capital, for instance by securing a high-paying job by virtue of holding a degree from an elite university. Holders of educational certificates enjoy considerably more legitimacy than those who only have inherited economic capital. Bourdieu (1998) therefore argued that education reproduces existing class divisions in society, rather than the opposite. There is however some loss – not all children of the new nobility manage to complete the education and the association is therefore primarily statistical.

Sociologist and labour politician Michael Young, who coined the word "meritocracy", envisioned it as a dystopia where a person's worth was determined by his or her inborn intelligence (Young 1959). In reality, merit is to a large extent determined by education, which costs capital to acquire, and is to a large extent inherited (Pfeffer 2008). Even if recruitment to the civil service is "meritocratic", birth will still be an important determinant of the likelihood of eventually landing a job in the administration. There is also ample evidence that systems for meritocratic recruitment were consciously designed to this end. In countries such as Britain, Prussia, France and Japan civil service systems accommodate the old elite by placing high value on certificates from elite educational institutions, to which the old elite had privileged access. According to Merille Grindle (2012:248), "The process of selection changed, but the profiles of those occupying positions changed much less with the introduction of reform."

Recruitment to the British Indian Civil Service is one example. Ostensibly, exams were created to reward merit, but there was also a strong class interest, and a large majority of those actually recruited came from the aristocracy and upper middle classes (Fukuyama 2014:128). However, soon after the introduction of the test, so-called "crammers" sprung up that provided training specifically

tailored to the test. The crammers were so successful that the proportion of Oxbridge graduates among those recruited into the service fell rapidly, to the chagrin of the test designers. Only after decades of tinkering was the desired profile of successful test-takers attained (Dewey 1973).

To summarize, reform is unlikely to happen if it is not in the interest the existing elite. The research described above however shows that in some cases, meritocratic reform can be managed while maintaining privileged positions for the old elite. Meritocratic recruitment can eliminate patronage and nepotism, but will not radically alter the profile of the civil servants.

In the following, I analyze administrative reform in Sweden. Sweden provides an interesting case for several reasons. First, it consistently ranks as one of the least corrupt countries of the world (for instance in rankings by Transparency International and the World Bank), while still managing a large government sector. Qualitative evidence however indicates that corruption (by modern standards) existed in both politics and the administration during the 17th, 18th and possibly 19th centuries (Teorell and Rothstein 2013; Norrhem 1993; Von Platen 1988). Earlier research have suggested that corruption, nepotism and patronage diminished primarily during the 19th century, but with little quantitative evidence (Rothstein 1998; 2011; Teorell and Rothstein 2013). This paper contributes with a new measure of nepotism that allows for tracking changes over time.

Second, conventional rates of social mobility describe Sweden as a country with much fluidity between generations, which usually is attributed to the high income equality and generous welfare state. However, recent research by Gregory Clark (2012; 2014) challenges this view. Clark finds that surnames of old nobility still today are overrepresented in elite vocations such as among lawyers and physicians, and enjoy higher incomes, which implies less intergenerational mobility than previously expected. I therefore also investigate the social makeup of civil servants over time. If nepotism declined, what was the impact on meritocracy in the wider sense? The theories outlined above questions whether meritocratic recruitment actually levels the playing field compared to patronage. Before proceeding to the quantitative analysis, I provide a brief description of the Swedish case.

Recruitment in the Swedish public administration

Swedish civil service history does not hold a single moment as defining as for instance the passage of the Pendleton Act in the United States or the Northcote-Trevelyan report in the United King-

dom. The organization of the public administration and recruitment to it was an important political issue for several hundred years, primarily for reasons of power. The two most powerful actors, the king and the higher nobility, both sought to control appointments, as a safeguard against the other.

The founder of the early modern Swedish state Gustav Vasa (16th century) and his sons to a large extent staffed the bureaucracy with persons of common birth. Their power threatened, the nobility forced later kings to accept that only persons of noble birth could occupy top positions in the bureaucracy (Edler 1915:2; Elmroth 2001:142).³ They did however not push for meritocracy. For instance, Royal Chancellor Axel Oxenstierna during the 17th century built up a large patronage network during the administration. In doing so, he created a staff that was loyal to him first, and to the crown second (Asker 1990; Norrhem 1993).

Relations naturally became more important in such an environment, and allowed more room for the well-connected to promote clients and relatives (Edler 1915:63). Empirical research on the 17th, 18th and 19th centuries unsurprisingly shows that a large portion of civil servants had fathers who had themselves been or were higher civil servants. Connections also seem to have helped for faster career progression (Elmroth 1962:259; Nilsson 1997:21; Norrhem 1993:66-67; Persson 1993).

While both king and higher nobility wished to use patronage for their own means, the impetus for reform often came from lower nobility, who in comparison to the land-rich upper nobility relied more on incomes from public service. For long, the lower nobility had more to fear from arbitrary decisions or favoritism from superiors than competition from commoners. They therefore pushed for more meritocracy and better standards for civil servants. Ironically, the weapon of meritocracy was later used against them by commoners (Edler 1915:248). The reforms thus probably went further than originally planned (Edler 1915:51).

Meritocratic reforms did at first not come in the form of educational requirements. They were introduced for entry into the administration in the middle of the 18th century, but proved to be largely meaningless. The agencies were lax in enforcing them, and higher education was also of very low quality (Rothstein 1998). Many enrolled at university while still children, but were nonetheless awarded degrees. Professors were especially reluctant to fail children from mighty families (Edler

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³ Similarly, the issue of tenure for life was an important piece in the power game. The nobility was in favor to secure top officials from the king. For instance, when Gustav III increased his powers in a coup 1772, he also increased the number of positions in the military without tenure protections, to secure his power (Nilss 1999:115).

1915:62). Entrance examinations were proposed, but were opposed by the lower estates, since they did not trust the administration to carry them out impartially (Edler 1915:234). The academic requirements for entry into the civil service and formal examinations only started to become more important in the 1860's, but the quality of academic education was still bemoaned (Nilsson 2000:7).

Instead, the reform that initially limited patronage and nepotism was the principle of seniority, that the person with the most years of service in the agency should be promoted. The principle applied both in promotion and in transformation of a temporary unpaid position into a permanent one (Nilsson 2000). It provided objective criteria and thus made promotion a more mechanical procedure (Edler 1915:68; Elmroth 1962:263). There were of course drawbacks to using seniority as the guiding principle. The incentive to do a good job disappeared, wh

Ich was also noted in the Northcote-Trevelyan report in the United Kingdom (Edler 1915:108). It had however become the dominant principle at the beginning of the 19th century.

Toward the end of the 19th and beginning of the 20th, the seniority principle increasingly came under attack as inflexible. Newly created agencies for telegraphy, railways and road and waterworks led the way with less regulated procedures for hiring and firing (Nilsson 1999). We do however not yet have any quantitative measures of the extent of patronage or nepotism and therefore do not know when meritocracy improved, and why. Seniority was introduced from the middle of the 18th century. Educational requirements were raised gradually during both the 18th and 19th centuries, but we do not know of any single decisive moment. In the empirical section, I therefore attempt to measure nepotism over time, and also see if the profiles of the employees after reform are similar to before.

Data and research design

The empirical section aims to answer two questions. What was the state of meritocratic recruitment at different points in time, and what were the outcomes of the recruitment, that is the social profile of the employees? In her article on incentives for meritocratic reform, Barbara Geddes (1991:378)

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⁴ The immediate impact of the reform has however been questioned by another historian, Sten Carlsson (1973), who claims that the seniority principle was avoided in many cases and had little effect during the latter half of the 18th century.

states that "In the real world there is no way to measure amounts of patronage". There is, of course. Scholars have for instance approached the problem by asking directly in surveys (Stokes 2005), surveying experts (Dahlström et al 2011) or using proxies such as public employment (Calvo and Murillo 2004). To circumvent the problem of social desirability bias, others have used list experiments in surveys to measure the extent of vote-buying, a related issue (Gonzales-Ocantos et al 2012). The drawback of these methods is that they are difficult to apply retrospectively. Historical research instead has ample evidence of incidents of patronage (see Von Platen 1988 for a Swedish example), but they cannot be quantified for a broader picture.

Nepotism is both similar to and different from patronage. While patronage may be applied to both political supporters and relatives, nepotism is by definition limited to relatives. It has however been a constant throughout history (Fukuyama 2014), and is just as patronage a deviation from the meritocratic ideal. A fully meritocratic system would not allow either patronage or nepotism. If we can observe nepotism, we know for sure that the system is not meritocratic. Since relations are more visible than political loyalties, nepotism should be more easily discovered than patronage for contemporaries. If we can observe nepotism, it is thus likely that patronage also existed, even though nepotism is important in its own right.

Nepotism is easier to measure than patronage as kinship is revealed in family names. The approach has been applied to the study of nepotism in Italian academia (Durante et al 2009; Allesina 2011) and the present-day Spanish civil service (Bagues and Esteve-Volart 2008). The advantage of the approach is that relatively little information is required, mainly the names of the civil servants.

The purpose of the empirical section is to investigate the likely extent of nepotism in the Swedish central public administration over time. More specifically, to compare the relative indications of nepotism in different years. It is from measures of this type impossible to say something about the absolute level of nepotism, but comparisons can show whether there is a trend or not.

I use data based on a calendar of Swedish civil servants, which in different forms have been published since 1735, and by the Royal Swedish Academy of Sciences since 1747.⁵ The calendar holds information on the office, title and name of all civil servants in the central boards and departments,

ed sources are for the years 1765, 1775, 1790 and 1805 "Stockholms Stads-Caler

⁵ Used sources are for the years 1765, 1775, 1790 and 1805 "Stockholms Stads-Calender", for 1820, 1835, 1850 and 1866 "Sveriges och Norriges Stats-Calender", for 1881, 1895, 1910, 1925, 1940, 1955 and 1970 "Sveriges Statskalender"

Chancery, as well as the Svea Court of Appeals and the central boards and agencies. The first two years are 1765 and 1775, and years are then coded with 15-year intervals up until 1970. The reason for not coding every year is that coding has to be done by hand for the most part. Year-to-year changes are furthermore very small, since most people are employed several years. There are of course many changes in the administrative structure of a country over 200 years, which means that many agencies are terminated, amalgamated and created during the period of study, and those that exist over a longer period often change names. To make sure that changes are not caused by differences in the composition of agencies, I have focused on the central agencies and departments. It unfortunately means that the number of observations in some years is quite small, which increases random variation.

Durante and colleagues construct a measure of what they term "familiarism" using surnames in their study of Italian nepotism. The measure is calculated as the probability that two randomly drawn persons of a department (without replacement) share a surname, compared with the same probability in a random draw of the population. The authors then subtract the population probability from the department probability to construct their index (Durante et al 2009:15). However, comparing surnames in the Swedish central public administration with the population in the 19th century would be misleading. Patronyms were much more common among the lower classes than among the upper. Since only some parts of the social strata were recruited to the administration, there were systematic differences in the distribution of surnames. I therefore instead rely on a similar but different measure.

The underlying assumption is that if networks are used to secure jobs for relatives, it should be easier to get a job for a relative at the agency of employment, rather than another. Therefore, if shared surnames are more common among employees working in the same agency than among employees working at different agencies, we could suspect that family connections matter in recruitment somehow. It is thus likely a conservative measure of nepotism, since it is possible that the networks could reach beyond the agency of employment.

⁶ The information was coded by hand up until 1955, when the amount of information made it impractical. From 1955, the coding is based on machine readings of scanned prints, which were then checked for inaccuracies.

⁷ Due to data availability issues, the years 1866 and 1881 were chosen instead of 1865 and 1880.

⁸ The included agencies are listed in the Appendix.

To construct the measure I first calculate the number of dyads of persons in the investigated agencies each year, which is given by the formula d = N(N-1)/2 where d is the number of dyads and N is the number of persons in the administration. Then I calculate the number of dyads within each agency, and summarize. Subtracting the number of dyads within from the total dyads yields the number of dyads for persons not employed in the same agency.

All instances of duplicate surnames within and between agencies are then identified. The number of duplicates within agencies are divided by the number of within-agency dyads, and the between-agency duplicates divided by the number of between-agency dyads. We thus obtain the probability that two randomly drawn (without replacement) persons that work respectively do not work in the same agency share the same surname. From this an odds ratio can be calculated. A measure higher than one could be an indication of nepotism, but should be seen as an underestimation of the true level. For instance, two persons may be related without sharing surnames, for instance a man and his father-in-law. Conversely, two persons can share surnames without being related, but such coincidental name-sharing should be randomly distributed over agencies.

Random variation could however yield a measure that is higher than one by chance. I therefore construct confidence intervals around the estimate by treating each dyad as a unit of analysis in a logistic regression analysis. The dependent variable is whether both persons in the dyad share surnames, and the independent variable is whether the two persons are employed in the same agency or not. Observations are however obviously not independent, as each person takes part in many dyads. It is therefore necessary to cluster the standard errors on both persons in the dyad so as not to produce incorrectly small confidence intervals (Cameron et al 2011).¹⁰

For the second step in the analysis, I calculate the proportion of persons that are nobility and have patronymic names, which probably indicate lower socioeconomic status.¹¹ Nobility are of special

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⁹ Durante and collegues (2009:14) instead subtract one probability from another. But consider a hypothetical situation in which the probability is 0.02 in a department and 0.01 in the population. The level of familiarity is with this approach equal to a situation in which the probability is 0.12 in a department and 0.11 in the population, which is problematic. Maria Charles and David Grusky (1995) discuss a related issue in the context of sex-segregation studies, where the question is if two persons are friends or not, instead of if they share a surname. They note that measures of the type used by Durant and colleagues are affected by the overall distribution of surnames, in this case. Instead, they recommend using multiplicative nonlinear models with odds ratios.

¹⁰ This is done through a STATA package (logit2) provided by Mitchell A. Petersen, obtained at: http://www.kellogg.northwestern.edu/faculty/petersen/htm/papers/se/se_programming.htm

¹¹ The dominant form of surnames was in Sweden for long the patronym. Children took as their surname their fathers first name, with the addition of *-dotter* (daughter) for women or *-son* (son) for men. This name changed every generation. The son of Johan Svensson could for instance be called Erik Johansson, and his son Carl Eriksson, and so on. Nobility used family names, usually derived from the family's coat of arms. During the middle of the 19th century, more

interest, as they constitute the old elite group. Is a possible reduction in nepotism associated with a corresponding decrease in the proportion of nobility in the administration? I then proceed to measure levels of education among the groups, as indicated by the state calendar. Education data is available from second half of the 19th century.

The value of this study hinges on the reliability of the data presented in the state calendar, which has been criticized. Liljedahl (1935:321) claims that the data in the calendar, which is collected by self-reporting from the public administration, is very inaccurate. As a testiment to this, he argues that the fact that a person holds a position does not imply that the person actually did any work there, but only colleted the rents from the office. However, while this may be problematic when for instance studying the actual number of people doing work in an administration, the issue can be expected to be less pressing in this case, given that salaries are paid out to the person officially holding the position. The advantages of holding a position officially, salary and years counting towards promotion, should still be a reason for getting a relative a job, regardless of whether any actual work is required or not. Still, this is the only data available for an extended period of time, which is the focus of this study. But the data limitations and indirect method of measurement means that all results should be seen as crude indications, not perfect measurements.

Results

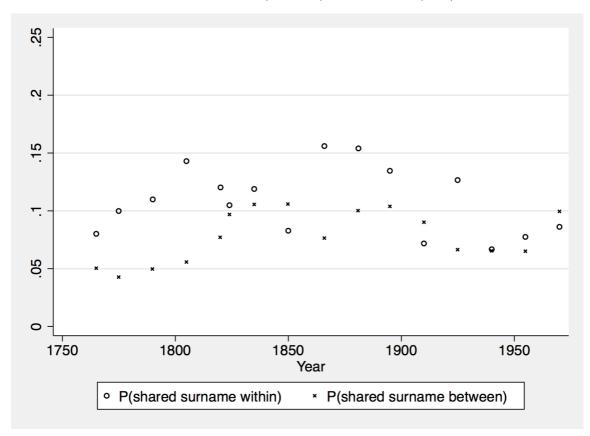
This section answers two main questions. First: what were the indications of nepotism, as measured as name-sharing, over time? Second: What were the proportions of nobility in the administration during the same time, and how did the educational qualifications differ between nobility and non-nobility? First, we turn to the analysis of whether there were indications of nepotism that go beyond random coincidences.

If persons were assigned to agencies just by chance, we would expect that the probability that two randomly drawn persons share surnames would be the same regardless of where they work. However, if relations matter in hiring, we would expect relatives to cluster within agencies. Therefore,

and more families outside of the nobility started to adopt family names, sometimes in the form of a patronymic, and in 1901 a law required all families to adopt a family name. In the administration, only 2.3 percent had names ending with son in 1790, and while the figure rises with time, it is only 4.7 percent in 1895. In 1910 and 1925 the figure is 7.7 respectively 8.6 percent, but by then they were by law required to be family names. The problem of undiscovered nepotism due to changing patronymous surnames should therefore not be a big one.

the probability of namesharing should be higher for persons drawn from within agencies. Figure 1 presents the two probabilities each year.

FIGURE 1, PROBABILITY THAT TWO RANDOMLY DRAWN PERSONS (WITHOUT REPLACEMENT) SHARE SURNAMES, DRAWN FROM WITHIN (CIRCLES) AND BETWEEN (X:ES) AGENCIES.



In all but one investigated year up until 1895, the probability of namesharing is larger within agencies than between. For instance, the Royal Chancery (*Kongl. Canzli-Collegium*) in 1790 employed 126 persons, according to the State Calendar. 15 of these people shared surnames with at least one other person. All three persons named *Gråå* in the entire administration worked there, as well as at least two pairs of brothers (Carl and Gustaf Adlersparre, Carl Johan and Johan Fredrik Agrell). In fact, in 1790 seven percent of all employees shared surnames with at least one other person working in the same agency, and none of them had a patronymic name. But such occurrences could also

be the result of chance. To determine whether that is the case or not, we now turn to the logistic regression analysis. The results are presented in Table 1.

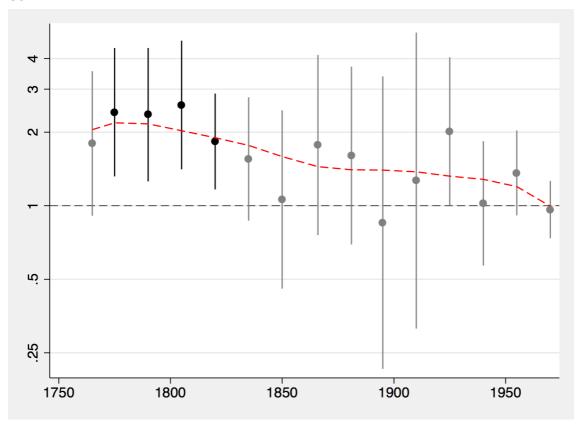
TABLE 1, LOGISTIC REGRESSION. DEPENDENT VARIABLE: SHARED SURNAME. STANDARD ERRORS MULTI-WAY CLUSTERED ON INDIVIDUALS IN DYADS.

Year	OR	abs z	N
1765	1.80	1.69	87986
1775	2.41	2.86	100127
1790	2.36	2.67	79001
1805	2.58	3.07	76242
1820	1.83	2.63	124733
1835	1.55	1.48	73896
1850	1.06	0.14	64964
1866	1.77	1.32	56934
1881	1.60	1.11	33923
1895	0.85	0.23	23213
1910	1.27	0.33	34181
1925	2.01	1.96	63544
1940	1.02	0.07	185119
1955	1.36	1.52	332496
1970	0.96	0.26	1060599

^{**} p<.01 * p<.05

There is indeed, for some years, a significant difference between dyads of persons working within the same agency and persons that do not. Between 1775 and 1805, the odds of two persons in the same agency sharing surnames is more than twice as high as for people working in different agencies. The effect then disappears from 1835 and onwards. Figure 2 plots the coefficient estimates and associated confidence intervals. A simple lowess line (dashed) fitted on the coefficients show the general trend.

FIGURE 2, ODDS RATIOS FOR THE WITHIN-AGENCY VARIABLE, 95% CONFIDENCE INTERVALS. SIGNIFICANT ESTIMATES IN BLACK. LOWESS LINE FITTED ON COEFFICIENTS. LOGARITHMIC Y-SCALE.



The only significant effects are as mentioned found in the late 18th and early 19th century. There are deviations from what would be expected, namely a decreasing trend. The first sampled year, 1765, does not show a significant odds ratio. 1925 show a high coefficient estimate, even if it not is significant. Given the limitations of the method, one should probably not infer too much from observations in specific years. The main takeaway from the analysis is that there seems to be a decline in incidences of nepotism during especially the 19th century. Well into the second half of the 20th century, in 1970, the odds ratio is quite precisely estimated to be very close to one. The results do however not show any sharp break.

Meritocratic recruitment and meritocracy

The conclusion so far is thus that nepotism seems to have decreased during the period of study. Gradually, the administration seems to have professionalized. But how much more meritocratic did it become? Grindle (2012) argues that in several countries, the civil service was designed to fit the old elite, and did thus not constitute a clear break with the past. To investigate this, I calculate two proportions of names among the civil servants: nobility and patronyms. The proportions are presented in Figure 3.

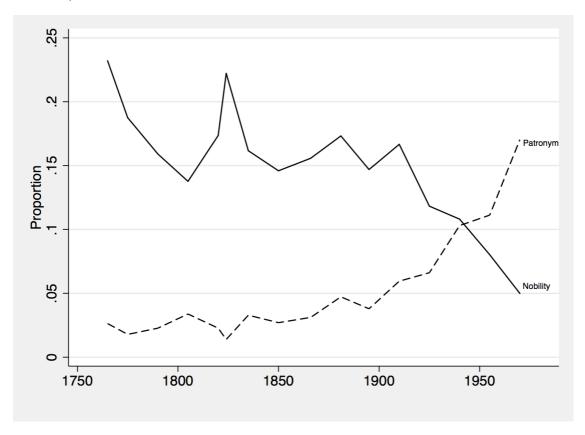


FIGURE 3, PROPORTIONS OF EMPLOYEES WITH DIFFERENT TYPES OF NAMES OVER TIME.

1765, nobility were more than ten times more common than people with patronyms in the selected agencies. 1970, patronyms were instead thrice as common as nobility. This is a dramatic change, but what is also striking is that the change does not happen during the 19th century, but the beginning of the 20th. It is only in 1955 that patronyms become more common than nobility in the selected

agencies, even though the last formal privileges for nobility in the administration were abolished in 1809. This coincides with a large expansion of the bureaucracy, especially in relation to the First World War. Looking at absolute numbers in Figure 4, we find that during the 20th century, the number of nobility employed in the agencies does not decrease. Instead, it is the size of the agencies that increase, and with it persons with patronyms that are probably born at a lower station.



FIGURE 4, NUMBER OF EMPLOYEES WITH NOBLE AND PATRONYMIC NAMES.

There was a leveling, but not really at the expense of nobility. Their numbers were only diluted, not decreased. Furthermore, the numbers presented here probably underestimate the level of dilution, as they only take into account changes in existing agencies, not the addition of newer agencies. During the latter part of the 19th century, several large agencies dealing with infrastructure and communications were created and grew rapidly in size, for instance concerning railways and telecommunications. The administration of course also took on more and more tasks. Nobility therefore declined even more as a proportion of the workforce, but not necessarily in numbers.

The findings presented here are in line with previous research. A study from 1954 mapped the proportion of nobility in departments and selected central agencies during the first half of the 20th century and found it to be 11.9% in 1917, 9.5% in 1927, 8.4% in 1937 and 6.7% in 1947 (Landström 1954:119). The author also notes that the proportion of nobility in the population was about 0.2 percent in 1940, and 0.25 percent in 1898. Nobility were thus overrepresented by a factor of 33 in 1947 and about 50 in 1917. In the Ministry for Foreign Affairs, nobility made up 47 percent in 1917 and 32 percent in 1947.

Gregory Clark (2012; 2014) studies rates of social mobility through the relative representation of elite surnames (including nobility) in high-status professions in Sweden. The idea is that given that there are no formal privileges for nobility left, the elite group should by conventional measures of social mobility have reverted to the mean. Instead, Clark finds that titled nobility (baronial or count families) are overrepresented by a factor of nearly six, and untitled nobility by factor two, in 2012. Among physicians, the overrepresentation is two for titled nobility, and 1.6 for untitled. Persons with patronymic names are instead underrepresented.

Despite recruitment becoming more meritocratic, the old elite group apparently manages to remain largely in place during the course of the 19th century, and well into the 20th. In 1947, Sweden had had democracy with universal suffrage for 26 years, and been governed by Social Democratic governments for 17 of them. Still, the old aristocracy was considerably overrepresented in the administration. If we assume talent to be evenly distributed in the population¹² it implies that even though favoritism and nepotism may have been eliminated from the recruitment process, it was on the whole not a meritocracy. How can this be explained? One reason may be that the elite has good access to education, which means that it will survive also in a system of meritocratic recruitment.

Göran Norrby (2005:143) shows that it became much more common for members of the nobility to acquire university degrees during the 19th century. Among those born in 1770-79, only 5 percent had a university degree. Among those born in 1810-19, the corresponding figure was 20 percent, and it remained between 15 and 20 percent all the way up until persons born in 1930-39 (Norrby 2005:143). This is a tremendous advantage compared to non-nobility – at the start of the 20th century only one percent of the general population had an academic degree (Norrby 2005).

¹² It should be noted that Gregory Clark does not assume this. His argument for the nobility's persistance in the elite is that superior traits are handed down genetically.

Education also became more and more important for a bureaucratic career. Previously, civil servants had held degrees specifically tailored to the administration, but they were undemanding and of low quality. The more advanced *Juris Kandidat* and *Filosofie Kandidat* (Bachelor of law and philosophy, respectively) placed higher demands on the student. In 1850, very few civil servants, regardless of social background, had them. Table 2 presents the proportion of nobles and others in the sample who held an academic degree each year, according to the state calendar.¹³

TABLE 2, PERCENTAGE WITH AN ACADEMIC DEGREE AMONG NOBILITY AND NON-NOBILITY.

	Non-nobility	Nobility
1850	8%	6%
1866	8%	8%
1881	20%	18%
1895	23%	23%
1910	37%	45%
1925	53%	64%
1940	79%	78%

During the course of 100 years, they became the standard among the agencies and departments in the sample. The data shows that among those who managed to land a job in the administration, the level of educational attainment was similar among commoners and nobles. But a much smaller fraction of commoners had the chance of doing so, due to the discrepancy in education in the larger population, at least until the expansion of tuition-free higher education in the period following World War II. Still, nobility were in 2012 overrepresented among students at Sweden's oldest university (Clark 2012). This overrepresentation translates into an advantage in the meritocratic competition.

Conclusions

How does a country transition from the patrimonial state, where kinship and loyalty to the ruler are the defining characteristics of civil servants, to a modern bureaucracy? The question has enormous

¹³ Bachelor or doctorate in law or philosophy (humanities, social sciences, mathematics).

implications both for countries today grappling with patronage, and for our understanding of the development of countries that today enjoy a relatively corruption-free administration. This paper has attempted to describe administrative reforms in one of the today least corrupt countries in the world, explore their effects, and discuss an explanation for why they met with little resistance.

It is however important to note the limitations of the case presented here. There is a general consensus that the important transformation of the Swedish public administration happened before the transition to electoral democracy with political parties. The universal vote was introduced in 1921, while the evidence presented here, as well as in previous research, shows that the administrative transformation took place earlier (Rothstein 1998; 2011). As expected (Shefter 1994; Fukuyama 2014; Grindle 2012), large-scale clientilism was therefore never a big issue in Sweden. The challenges facing reformers in Sweden and countries such as Britain or Prussia were thus probably different from the ones facing the civil service movement in the United States or in democracies riddled with patronage and clientilism today.

Still, the evidence presented here shows that there indeed seems to have been a decline in the extent of nepotism in the Swedish public administration. For several years in the beginning of the sample, name clustering within agencies is so high that chance is an unlikely explanation. It is however impossible to rule out chance as an explanation from the middle of the 19th century and onwards. Furthermore, we cannot discern a sharp break in recruitment practices. The historical accounts show that recruitment to the administration was a bone of contention in Swedish politics for several hundred years, with gradual progress towards a more meritocratic bureaucracy. Reforms were not introduced by a far-sighted and benevolent ruler acting in the public interest, but were rather negotiated between actors seeking to control the administration.

Despite the administration seemingly becoming more meritocratic, birth appears to have been an important determinant of success in the administration during the entire 19th century, and a good part of the 20th as well. Nobility was heavily overrepresented, and was so even in 1970, albeit to a much lower extent. The old elite thus seems to have thrived also in a more meritocratic bureaucracy. It may seem counterintuitive, but is in line with much existing research that shows that in many countries, civil service systems had to be adapted to the needs of the old elite in order for reform to be passed (Fukuyama 2014; Grindle 2012). Some even goes so far as to say that meritocratic systems may have been adopted to preserve the status of the old elite, and shield it from democratic

influences (Shefter 1994). A key component of this process is education, which on the one hand probably raises the level of competence among civil servants, but also restricts the supply of candidates for office (Weber 1948; Bourdieu 1998). This explains why the nobility did not resist reform in the way one would expect controllers of patronage to do today.

The interpretation of meritocratic reform as a process in which a large part of the elite can retain their privileges even after reform holds up to the demands of institutional theorists such as Avner Greif and Douglass North: reform is consistent with the logic of the old situation, which ensures that the new rules will be followed. Unfortunately, this interpretation of history does not easily lend itself to simple policy advice for countries struggling with problems patronage today. The Swedish situation was improved during a very long period of time. The findings thus go against the grain of conclusions from scholars that have argued for a "big bang" (Rothstein 2011) or "big push" to eliminate a "cohort of corrupt individuals" (Aidt 2003:648-649). Rather, Sweden experienced reform that increased meritocracy, while still allowing the persons who stood to benefit from the old system a good place in the new system.

Continuity in the social profiles of civil servants does however not imply that reform is meaning-less. First, even though old divisions may persist under meritocracy, the association between class and status is in Bourdieu's (1998) words statistical – the least able of the elite will not succeed in acquiring an education. Second, even if a meritocratic and a patrimonial system were to end up with the same individuals as employees, a meritocratic system would still be preferable from a societal point of view. Meritocratic recruitment means that employees are not bound to their superiors by loyalty, which changes their incentives while in office (Dahlström and Lapuente 2012, Miller 2000). They are therefore less likely to collude in corruption, or otherwise act partially.

There are no "one size fits all"-solutions to the problems plaguing civil services in corruption-ridden countries today (Pritchett and Woolcock 2004), and different approaches are needed when attempting reform under democracy (Grindle 2012; Fukuyama 2014; Shefter 1994). Reformers must adapt to the social and institutional settings of each country. But they would be wise to observe the basic dynamics underlying all political change, as this case also shows. If reform is to go beyond formal rule-changes and have an impact on actual outcomes, the dominant elite must have some incentives to accept it.

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Appendix 1: agencies and departments included in the sample

Agency/Department	1765	1775	1790	1805	1820	1835	1850	1866	1881	1895	1910	1925	1940	1955	1970	Total
Kungl. Maj:ts Kansli	119	131	126	113	196	141									9	726
Departments																
Civildepartementet							14	16	12	12	14			18	42	128
Ecklesiastikdepartementet							32	15	33	12	12	27	29	35		195
Finansdepartementet							15	14	10	11	9	23	25	38	141	286
Folkhushållningsdepartementet													10			10
Handelsdepartementet												16	16	30	28	90
Industridepartementet															45	45
Inrikesdepartementet														21	39	60
Jordbruksdepartementet											8	19	21	23	39	110
Justitiedepartementet							47	61	39	31	40	13	68	71	128	498
Kommunikationsdepartementet												21	19	24	48	112
Socialdepartementet												26	24	18	55	123
Utbildningsdepartementet															70	70
Utrikesdepartementet							12	15	15	15	21	45	58	120	131	432
Colleges																
Bergskollegium	33	30	28	29	31	23	15									189
Kammarkollegium	97	90	71	64	60	45	37	51	31	20	14	27	32	26	29	643
Kommerskollegium	42	62	57	47	51	26	27	28	18	12	26	64	50	80	81	671
Management agency																
Statskontoret	22	32	30	28	35	44	53	39	25	19	22	31	43	38	140	601
Courts																
Svea Hovrätt	64	60	45	44	47	52	54	48	43	50	56		146	169	314	1192
Kammarrätten	43	43	41	66	80	54	55	51	35	34	40	45	68	105	118	878