

Do higher earnings outweigh government's calling?

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Abstract

We analyze how wages for public service workers affect the likelihood workers will leave their job. To do so, we make use of rich administrative data from statistics Netherlands. By making use of propensity score matching (one-to-one, nearest neighbor matching) on several background and job characteristics, we are able to match workers in the public sector to their equal counterparts. After calculating the wage gap between those two workers, we find that in some sectors differences in hourly wages contribute to explain why public service workers leave or stay for some public service sectors (national government, municipalities, defense military, health care, and education). For other sectors wage differences play a minor role (water management, provinces, and justice). These results indicate that primary labor conditions may be more important for some branches of government than previously thought.

Key words: wage differentials, public sector

JEL Codes: J31, J45, H7.

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This paper uses confidential microdata from Statistics Netherlands (CBS). The datasets we use can be obtained by filing a request directly to [CBS](https://www.cbs.nl). The above mentioned authors are willing to help others to get access to these datasets.

1 Introduction

Institutional quality is a key determinant in economic development (Siyakiya, 2017). It underpins economic transactions (Estache and Martimort, 1999), safeguards the protection of property rights (North, 1997), and fosters investments in physical and human capital (OECD, 2023). Public service workers are central to maintaining and enhancing the quality and effectiveness of these processes. Consequently, the performance and behavior of public service workers significantly impact institutional quality.

Attracting and retaining talented public service workers is therefore essential to sustain high institutional quality. An important question that arises is how to do this. Traditionally, economists emphasize the competitiveness of salaries as a key factor. However, financial incentives may steer attention towards tasks that are rewarded most at the expense of other useful services for society (Baicker and Jacobson (2007)). In addition, public service workers are not solely motivated by financial incentives; there is also the concept of "public sector motivation," which influences their decisions to work for the government (Ritz, Neumann, and Vandenabeele (2016)). This raises the relevant question of to what extent wages impact the mobility of public service workers.

We use rich administrative data from statistics Netherlands over the period 2013-2022 to compare hourly wages of Dutch public service workers. In particular, our rich administrative data gives us access to hourly wage data at a variety of government sectors, namely general government bodies, law enforcement and defense, and education. The general government bodies consist of centralized and decentralized government bodies as well as the health care sector⁴. Law enforcement and defense includes the justice and police department as well as both branches of military personnel (civilian and military). Within the education sector we can distinguish primary, secondary, vocational and university education.⁵

In addition to this wage data on various public service employees, the data contains extensive information on job characteristics such as contract status, number of hours worked and total wage income. Furthermore, it includes personal characteristics such as education level, place of residence, gender, age, and migration background.

To ensure robust wage comparisons between individuals, we use both job and personal characteristics to match public service workers from a particular government sector to workers in another sector. This matching is performed using the nearest-neighbor method (one-to-one, without

⁴ This paper does not distinguish between different subbranches of the health care sector.

⁵ Higher vocational education (in Dutch: HBO) is not included as reliable hourly wages are not available during the entire period.

replacement). Our results indicate that the propensity score matching method are balanced on average.⁶

Using the matched data, we compare hourly wage differences between civil service workers and their matched peer. Additionally, we track whether these workers remain employed by the same government body or leave within a year.⁷ These insights allow us to analyze whether wage differences are associated with employee exit rates. To test this relationship, we conduct a multivariate ordinary least squares regression, controlling for both background and job characteristics.

Public service workers earning lower wages than their matched peers exhibit a higher likelihood of leaving government sectors such as the national government, municipalities, police, defense, and health care. Conversely, higher wages are associated with increased retention in municipalities, police, and the defense sector. In the case of provinces, water management, and the justice department, wage differences do not significantly affect exit rates. Lastly, for the education sector we find that public service workers who earn a relatively higher wage are more likely to leave. This is counterintuitive to what we expected, but could be explained by less favorable secondary work conditions.⁸

Our contribution to the literature is twofold. First, by utilizing detailed administrative data, it achieves precise calculations of wage gaps across a large cohort of public service workers. This granularity enables a comprehensive analysis of the relationship between wage differences and exit rates, complementing earlier research that focus on financial incentives and their impact on the applicant pool (Delfgaauw & Dur, 2007). Second, this analysis extends beyond the legislative branch to investigate the influence of financial incentives on mobility across various public subsectors. The findings reveal that wage differences play a critical role in explaining employee departures in certain sectors, providing insights that are potentially generalizable to other developed countries with similar wage bargaining structures.

The setup for the rest of the paper is as follows. Section II provides an overview of the earlier literature. Section III describes the institutional framework on wage bargaining in the Netherlands. Section IV provides the summary statistics and section V presents the regression analysis. Lastly, section VI concludes.

⁶ One exception is in education level for the police.

⁷ We exclude workers above the age of 60 to make sure that retirement is not one of the reasons that public sector workers leave.

⁸ Using self-reported data on secondary labor conditions, we find that workers in the education sector more often feel emotionally exhausted and face burn-out complaints when compared to other sectors (TNO, sd).

2 Literature review

We discuss the literature on wage differentials between public and private sector employment. We first set out how the labor market position of public service workers differ from those in the private sector. Thereafter we analyze how incentives differ between the public and the private sector.

2.A Differences in labor market position

Market forces and profit incentives are largely absent within the government sector. Therefore rent seeking behavior could play a prominent role within the government. Politicians could, for instance, reward close connections with better paying jobs. Politicians will only bear the cost of this behavior if voters condemn this behavior. This is not per se the case (Shleifer and Vishny (1994) or Boycko, Shleifer, and Vishny (1996)).

To counteract rent seeking behavior, governments have enacted rigid public service workers rules. These rules restrict the discretion politicians have over hiring and firing public service workers (Evans (1995)). However, these rules may negatively impact productivity of civil servant workers as rigid labor contracts mitigate the importance of performance measures. Whether this is the case depends on the effectiveness of financial incentives.

2.B Differences in incentives

Performance pay may incentivize public service workers to increase their productivity. Completing particular tasks within a given amount of time could potentially mitigate negative effects of rigid labor contracts. Financial incentives, however, may also crowd out particular dimension of work, causing unwanted size effects. This could be problematic since public service workers should serve the entire society and not just the subset of tasks that yield the highest financial rewards.

Several papers show that financial incentives affects the task priority of public service workers. Baicker and Jacobson (2007) find that police officers will focus more on drug crime than other crime once they may keep the revenue of seized assets after a drug arrest. In addition, Khan, Khwaja, and Olken (2014) find that performance pay for tax inspectors raises both the amount of taxes collected and bribe rates. In terms of school performance, Muralidharan and Sundararaman (2012) find that incentivized payment gives teachers an incentive to train their students better for the exam. On the other hand, Glewee, Illias, and Kremer (2010) finds that financial incentives crowd out general instructions as this is no exam material. Henceforth performance pay causes public service workers to

focus on the incentivized dimension of their job at the expense of the non-incentivized dimension (Holmstrom and Milgrom (1987) and Parrillo (2013)).⁹

In addition, a focus on financial incentives affects the type of workers drawn to the government. Ritz, Neumann, and Vandenabeele (2016) suggests that workers are attracted to government service because of nature of the work (i.e. public sector motivation). Higher financial rewards may attract workers because of the financial benefits and not because they care about the public cause (Delfgaauw and Dur, 2007; Prendergast, 2007)). Therefore financial incentives may crowd out intrinsic motivation. Empirical evidence, mostly performed in developing countries, is mixed on this issue.¹⁰

This paper contributes to this literature by analyzing how different wages for particular groups may affect the probability of leaving the public sector. In particular, strong differences in wage levels could trickier public service workers to leave the government sector. On the other hand, if gross wages do not play a prominent role, increasing wages will not lead to less people that leave. Second, as far as we know, we are one of the very few papers who analyze how financial incentives affect the public sector in developed countries. Since the institutional quality in developed countries is generally higher, public service workers may think that their contribution is more marginal when compared to developing countries. As a result, intrinsic motivation might be less important and financial incentives more important for public service workers.

⁹ Because of this, performance pay within government sectors is limited. The absence of incentives also has implications for the wage structure within government bodies. The salaries of public service workers are often based on rigid pay scales, which are generally more compressed than those pay scales in the private sector (Borjas (2015)).

¹⁰ Dal Bó, Finan, and Rossi (2013) and Ashraf, Bandiera, and Lee (2015) find that increasing wages or stressing prosperous career perspective does not lead to a less social applicant pool. On the other hand, Deserrano (2015) finds that financial incentives can crowd out the social motivation applicant pool. Finally, Cowley and Smith (2014) find that public service workers are more intrinsically motivated and Banuri and Keefer (2013) find that public service workers are more social.

3 Institutional framework

Since we are going to compare wages between workers, it is important to analyze how the Dutch wage bargaining process. The Dutch wage bargaining process is characterized by high adjusted coverage rate of collective labor agreements. Wage bargaining mainly takes place at the industry level with limited government intervention. The wage bargaining process in the Netherlands is therefore similar to other major European countries like Spain, Denmark and Germany. For a more elaborate discussion on the institutional framework we refer to Appendix A.

4 Summary statistics

We use rich administrative microdata from statistics Netherlands (CBS) over the period 2013-2022.¹¹

These datasets give access to administrative wages and the total amount of hours worked for each individual-job combination in the Netherlands. For each of these combinations, the total wage sum is defined as the income on which payroll taxes and social premiums are paid. The total number of hours worked is defined as the sum of regular hours worked and overtime.¹² Based on these variables, we are able to calculate hourly wages.

In addition, this rich administrative datasets also contains information on personal and job characteristics. We have data on gender, migration background (first/second generation immigrant), education level (low/middle/high)¹³, residential areas (labor market regions)¹⁴, and age (year and month of birth). For job characteristics we have data on contract status (temporarily or fixed) and the number of hours worked per week (part-time factor¹⁵).

We exclude workers that have an hourly wage that is lower than the legal minimum wage as well as workers that work zero hours.¹⁶ In addition, we exclude workers above the age of 60 due to retirement considerations.¹⁷ We also exclude workers that are enrolled at a Dutch education institution since they may have other sources of income (e.g. student loans or student grants). Lastly, we exclude workers with nontypical contracts that are only available in very specific sectors in the Dutch economy.¹⁸

¹¹ We use the following datasets from CBS: gbpersoontab, polisbus, gbaadresobjectbus, and hoogsteopltab.

¹² Hence, vacation and leave hours are excluded when calculating the number of hours worked.

¹³ We use the SOI definition that distinguishes eighteen education levels which we use for our matching algorithm (see section 4.A). A brief description of each level is described in appendix B. In the main text, we will abstract from using all sixteen levels and focus on three broader categories: low-, middle, and high-educated.

¹⁴ These residential areas are split into 35 labor market regions, which are described in appendix C. In the main text, we will not refer to all 35 regions but to four broader categories: North-, East, South, and West-Netherlands

¹⁵ The part-time indicates the average amount of regular hours worked per week and is divided into six categories. These six categories are: i) less than 12 hours, ii) between 12 and twenty hours, iii) between twenty and twenty-five hours, iv) between 25 and 30 hours, v) between 30 and 35 hours, and vi) more than 35 hours.

¹⁶ Due to some administrative omissions, it is possible that workers earn less than the minimum wage. This group is rather small (less than three percent) and is mainly present in the private sector. People that work zero hours could be in the data due to severance payments or wage raises that are paid after the contract ended.

¹⁷ The average retirement age in the Netherlands fluctuates between 60 to 63 for public service workers (CBS). By excluding this group, retirement is most likely not the reason that public service workers leaves their job. Rutten, van Vuuren, and Knoef, (2023) provides an extensive overview of changes in Dutch pension policies.

¹⁸ These specific contracts concern director-owner, interns, sheltered workshops, temporary workers, and on-call workers.

On the basis of collective labor agreement codes and sector codes, we are able to distinguish three public sector groups. These sectors are government bodies, law enforcement and defense, and education (see Table 1). The government bodies consist of national government and local government bodies (provinces, water management, and municipalities). In addition, we also have data on the health care sector. The data on the health care sector, is rather limited as it does not allow to us to make a distinction between different branches of the health care sector.¹⁹ The category law enforcement and defense consists of civil law enforcement like the police and the justice department. In addition, it contains data on military personnel (both military and civilian personnel).²⁰ The education sector consists of primary and secondary education as well as vocational education and universities.²¹

Main category	Sub categories
Government bodies	National government, provinces, municipalities, water management ²² , health care
Law enforcement and Defense	police, justice department, Defense military personnel, Defense civilian personnel
Education	Primary education, secondary education, vocational training ²³ , universities

Table 1 Overview of main government sectors and their corresponding subcategory.

4.A Propensity score matching method

To match workers from a particular government sector to another sector, we use propensity score matching. We match each individual employee within a government sector with the most comparable worker in a different sector. Workers are matched on the following job- and background characteristics: education level, contract status, gender, age, migration background, region of residence, and the number of hours worked per week.

¹⁹ The health care sector in our dataset consists of the following subbranches: Child services, general practitioners, (academic) hospitals, mental health care, disability care, nursing and home care, social work, and other medical professions.

²⁰ The main difference is that military personnel are trained combatants involved in defense operations and governed by military law and hierarchical command structures. Civilian personnel, by contrast, perform non-combat support roles such as administration, logistics, and technical services, operating under civilian labor laws with generally lower exposure to physical risks.

²¹ One educational body is excluded as the hour registration does not have complete data availability for the period 2013-2022. This body is HBO (higher vocational education). The number of hours worked is not properly registered for the entire period. Hourly wages are therefore too high for this group.

²² In Dutch: waterschappen

²³ In Dutch: MBO

We use nearest neighbor matching²⁴ as our propensity score matching method. We match workers from one of the subcategories to workers who are *not* employed in that particular subcategory (see table 1). This means that public servant workers in a particular subcategory could be matched to workers in both the public and private sector. We match these workers one to one and without replacement.

Table 2-4 show how well the workers match. Analyzing the government sector, we find that the gender differences for all subcategories are in the range of one to two percentage points. In addition, there are no differences in terms of birthyear, birth month, the percentage that has a permanent contract, and the six working hour categories. For the three education levels, we find differences in the range of two to three percentage points. These differences are similar for migration background. Lastly the regional differences are somewhat larger.²⁵ However, the differences are still rather limited (for most groups around 3%-points).

The category law enforcement and defense show similar results. One exception to this is education level. Particularly for the police the percentage points difference is substantially (17%-points). This is due to the very specific education level police and that they are widespread in the Netherlands (see also section IV.B). Lastly, the subcategories for the education sector are balanced. All background variables are rather similar.

Overall, We observe that both workers and background characteristics match well. This holds for all sectors (government bodies, law enforcement and defense, and education). Therefore, we conclude that our matched groups are well-balanced.

4.B Limitations

Using the nearest neighbor matching method to compare wages from worker to worker has several drawbacks. One of them is that we only match on observable characteristics. When comparing wages, we ideally would also like to match on ability levels next to education. Particularly for older workers it is possible that the ability level is higher than their education level. As a result, not matching on education level may create wage differences between workers that are not controlled for. However, such a measure is not available and therefore we have to assume that, on average, the wages between the subcategories and matched workers are balanced.

A second important caveat is that not all background characteristics are available to all workers. This especially holds for older workers for which we do not have data on their education level or immigrants workers who obtained their educational degree in a foreign country. Those education

²⁴ To do so, we make use of the R package *matchit*.

²⁵ The main reason as we only report on the four larger regions than the subcategories

records are also not available in our dataset. As a consequence, those workers are dropped from the population. This particularly affects university employees as they have a relatively large foreign educated staff. In addition, most police workers follow a very specific education training program that does not fit in the regular SOI definition. However, after consulting both representatives from the police and documents from the data provider (CBS) we can confidentially assign them to a middle education level.

Third, we do not observe secondary labor market conditions. Secondary labor conditions could play an important role for employees. Particularly in the education sector secondary labor conditions are seen as less favorable compared to other government sectors (TNO, sd). This may lead to a higher exit probability among public service workers even though they earn a relatively higher wages.

Fourth, in our total wage sum we cannot distinguish between regular wage, bonuses, and severance payments. Large severance payments may lead to both relatively higher wages and a higher exit probability. Therefore we should be cautious when we find high small, yet significant exit rates correspond with large wage differences. In addition, in case we find negative effects on the exit probability correspond to high wage differences this effect is likely underestimated due to severance payments.

Government	(1)		(2)		(3)		(4)		(5)	
	national	Matched	provinces	Matched	Municipality	matched	Water	matched	Health care	matched
% male	49%	52%	52%	54%	43%	46%	65%	66%	17%	17%
birthyear (average)	1976	1975	1974	1974	1975	1974	1975	1974	1977	1976
birth month (average)	6	6	6	6	6	6	6	6	6	6
% permanent contract	84%	84%	85%	85%	84%	85%	85%	85%	71%	70%
Working hours categories (average)	5	5	5	5	5	5	5	5	4	4
% high education	79%	80%	88%	88%	76%	74%	74%	71%	56%	59%
% middle education	19%	19%	10%	11%	20%	23%	24%	26%	39%	33%
% low education	2%	2%	2%	1%	3%	3%	2%	3%	5%	8%
% North-Netherlands	9%	9%	20%	13%	11%	10%	12%	11%	12%	10%
% East-Netherlands	17%	19%	21%	20%	20%	21%	25%	22%	23%	22%
% South-Netherlands	12%	18%	16%	19%	19%	20%	17%	20%	21%	20%
% West-Netherlands	61%	54%	43%	47%	50%	49%	47%	47%	44%	48%
% Native	78%	81%	87%	87%	81%	83%	89%	89%	84%	83%
% western migration background	9%	9%	7%	7%	7%	8%	6%	6%	7%	8%
% non-western migration background	13%	10%	6%	6%	12%	9%	5%	6%	9%	9%
average hourly wage	€ 33,51	€ 34,19	€ 38,08	€ 35,40	€ 30,91	€ 31,97	€ 32,79	€ 32,77	€ 25,21	€ 25,11
% left one year later	10%		10%		11%		9%		20%	
Total number of observations	767192	767192	76111	76111	1075513	1075513	73666	73666	1877921	1877921

Table 2 Propensity score matching results for the government sector

Law enforcement and defense	(1)		(2)		(3)		(4)	
	Law	matched	Police	Matched	Defense (civilian)	Matched	Defense (military)	Matched
% male	34%	36%	62%	63%	68%	70%	88%	88%
birthyear (average)	1974	1973	1974	1973	1976	1975	1986	1986
birth month (average)	6	6	6	6	6	6	6	6
% permanent contract	87%	88%	87%	86%	82%	83%	49%	50%
Working hours categories (average)	5	5	5	5	6	6	6	6
% high education	95%	96%	28%	37%	58%	59%	36%	38%
% middle education	4%	4%	70%	53%	38%	35%	61%	55%
% low education	1%	0%	1%	10%	4%	6%	2%	7%
% North-Netherlands	8%	8%	8%	10%	6%	8%	12%	11%
% East-Netherlands	18%	18%	21%	22%	19%	20%	26%	25%
% South-Netherlands	16%	19%	18%	21%	16%	19%	23%	21%
% West-Netherlands	58%	55%	53%	47%	59%	54%	39%	42%
% Native	81%	83%	87%	86%	83%	85%	88%	90%
% western migration background	9%	10%	7%	7%	9%	7%	7%	5%
% non-western migration background	9%	8%	6%	8%	8%	8%	5%	6%
average hourly wage	€ 44,80	€ 37,50	€ 26,85	€ 26,59	€ 28,70	€ 31,29	€ 25,21	€ 22,70
% left one year later	6%		19%		6%		10%	
Total number of observations	37899	37899	76111	76111	92281	92281	288546	288546

Table 3 Propensity score matching outcomes for the law enforcement and defense sector.

Education	(1)		(2)		(3)		(4)	
	Primary	Matched	Secondary	Matched	Vocational	Matched	University	Matched
% male	15%	14%	40%	41%	39%	42%	46%	46%
birthyear (average)	1978	1977	1975	1974	1974	1973	1979	1977
birth month (average)	6	6	6	6	6	6	6	6
% permanent contract	73%	74%	75%	77%	74%	77%	51%	49%
Working hours categories (average)	4	4	4	4	4	4	5	5
% high education	92%	91%	91%	90%	85%	83%	94%	94%
% middle education	7%	8%	8%	9%	13%	16%	5%	5%
% low education	1%	1%	2%	1%	2%	1%	1%	1%
% North-Netherlands	10%	10%	12%	10%	13%	11%	9%	9%
% East-Netherlands	25%	22%	24%	22%	26%	23%	21%	20%
% South-Netherlands	20%	21%	18%	20%	24%	22%	16%	17%
% West-Netherlands	46%	47%	47%	48%	38%	45%	54%	54%
% Native	91%	89%	85%	85%	84%	84%	76%	80%
% western migration background	5%	6%	8%	8%	7%	8%	15%	11%
% non-western migration background	4%	6%	6%	7%	9%	8%	9%	8%
average hourly wage	€ 26,61	€ 28,42	€ 31,83	€ 32,22	€ 30,78	€ 31,67	€ 30,69	€ 32,86
% left one year later	20%		15%		14%		20%	
Total number of observations	1486799	1486799	867910	867910	311261	311261	422976	422976

Table 4 Propensity score matching outcomes for the education sector

4.C Graphical Evidence

To gain insight in how wages affect the exit probability, we plot the percentage of workers that leave and their corresponding wage category. We create wage categories by calculating the wage differences in percentages between the hourly wages of public service worker and the matched worker. Thereafter We create eleven wage categories w . The categories run from a wage difference from less than minus 45 percent negative wage difference up to a positive plus 45 percent wage difference between the public service worker and the matched worker. In between we have intervals of 10% intervals ($-45\% \leq w \leq -35\%$, ... , $35\% \leq w \leq 45\%$). We create these wage categories for all of the above mentioned subcategories within the government (government bodies, law enforcement and defense, and education). In case wage differences play a large role in the decision of public service workers to leave, we expect a steep decreasing trend line. If this is not the case, we would expect a horizontal trendline. We show the results in figures 1-3 for government bodies, law enforcement and defense, and education, respectively.

Figure 1 shows that for most government bodies there is a horizontal relationship between the probability that someone leaves one year later and the wage category. However, the formula of the trendline is in most sectors slightly negative, indicating that there is positive relationship between relatively hourly wages and the probability that the public service worker leaves one year later. An exception to this pattern is water management. The trendline is positive for this government body. A second exception is the health care sector Figure 1 (E). Here we observe a steep declining trend line, indicating that negative (positive) wage differences for public service workers are positively associated with a large (small) probability of leaving one year later.

For the categories law enforcement and defense we observe steep negative trendlines for the police and defense military personnel (Figure 2 (B) and Figure 2 (D)). For the justice department we also observe a negative trendline, but the slope is not as steep. Lastly, we observe a positive slope for public service workers in the defense civilian sector. This is mainly caused by the upper three wage categories who have a higher probability to leave. The exit probability for the other groups wage groups is approximately the same.

For half of the education subcategories we find that public service workers who earn substantially less *and* substantially more are both more likely to leave (Figure 3). Analyzing primary and secondary education we observe a higher exit rate both for workers with a substantially negative wage difference and a substantially positive wage difference. The exit rate in between is roughly constant. Vocational education shows a somewhat similar pattern, albeit somewhat less extreme. Lastly, university personnel shows a slight negative decreasing trendline. This is mainly driven by high exit

rates among workers with a large negative wage difference. The exit rate is roughly constant for all other wage groups.

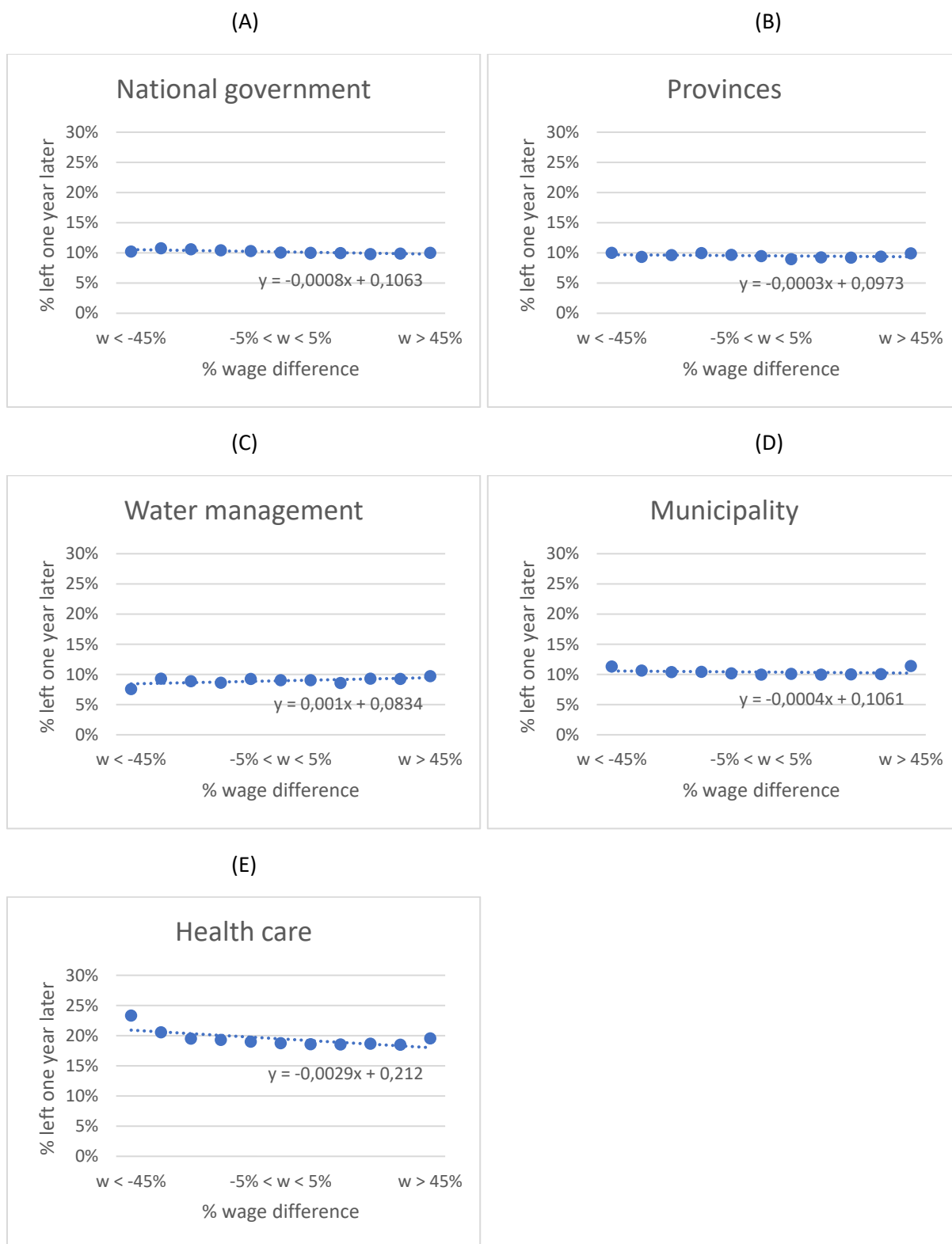


Figure 1 Relation between percentage wage differences and the exit probability one year later for government bodies. The government bodies shown are a) national b) provinces, c) water management, d) municipalities, and e) health care.

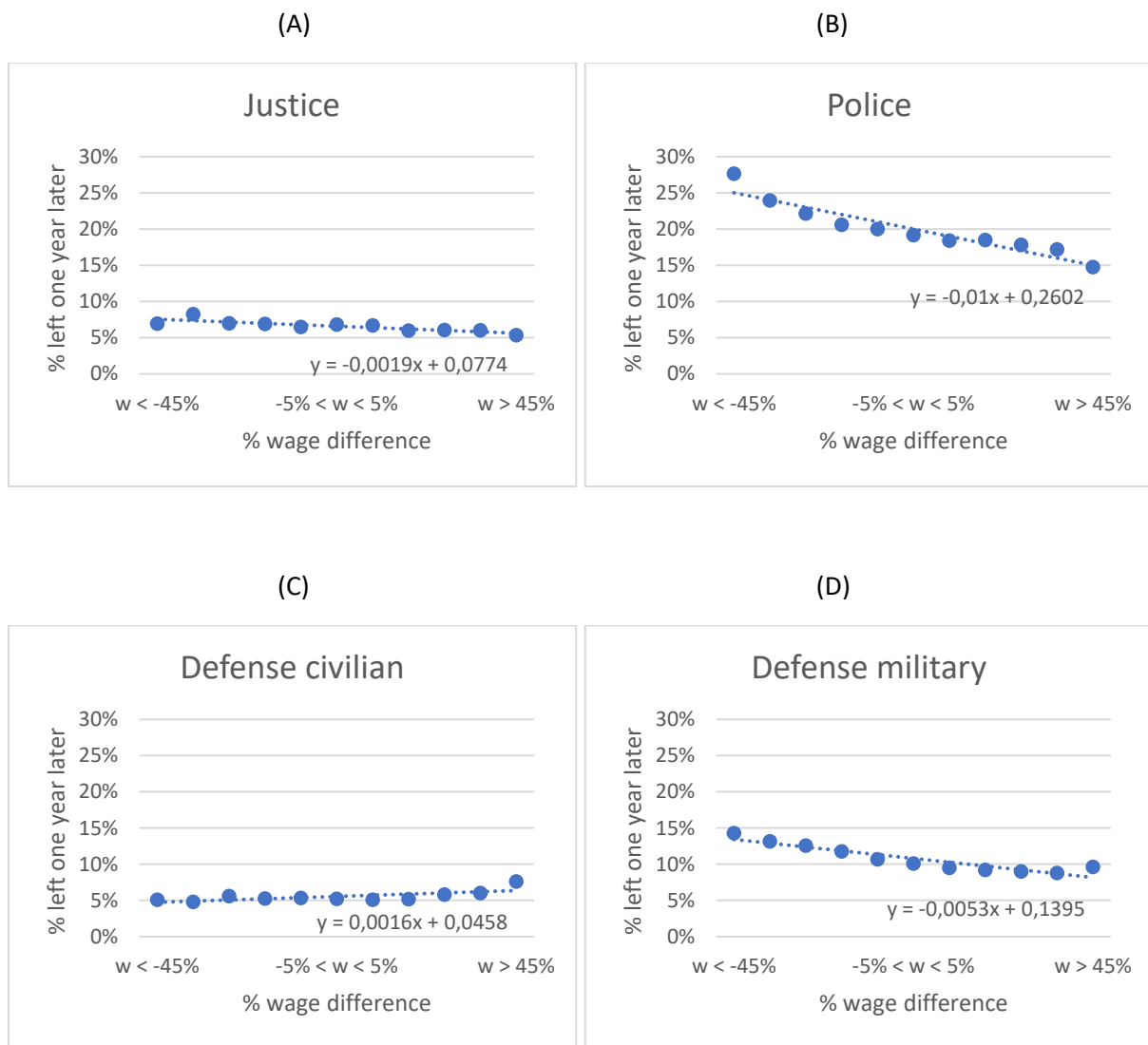
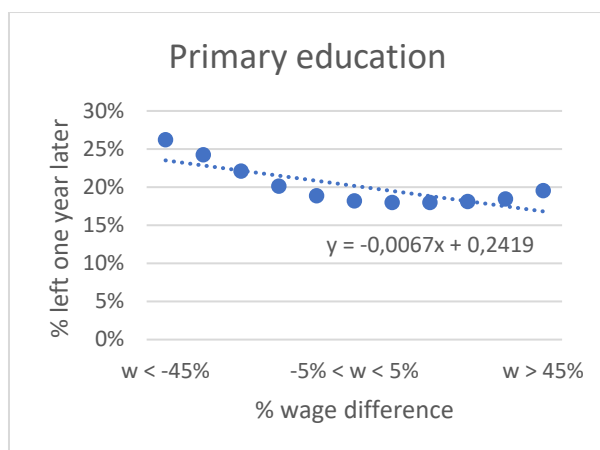
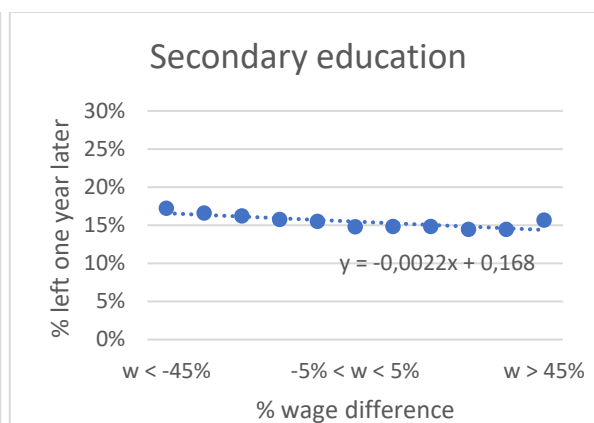


Figure 2 Relation between percentage wage differences and the exit probability one year later for law enforcement and defense. categories shown are a) justice b) police, c) defense civilian, and d) defense military.

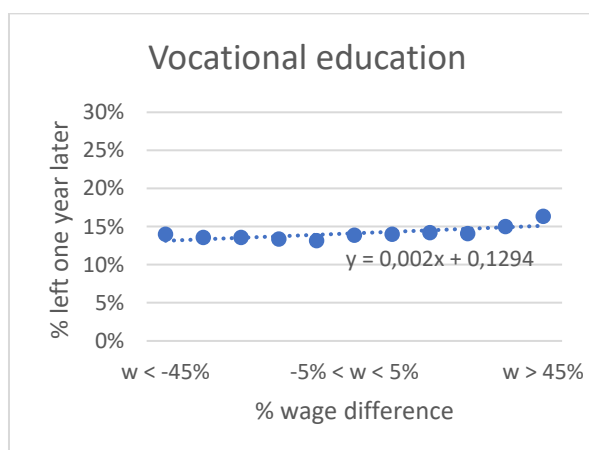
(A)



(B)



(C)



(D)

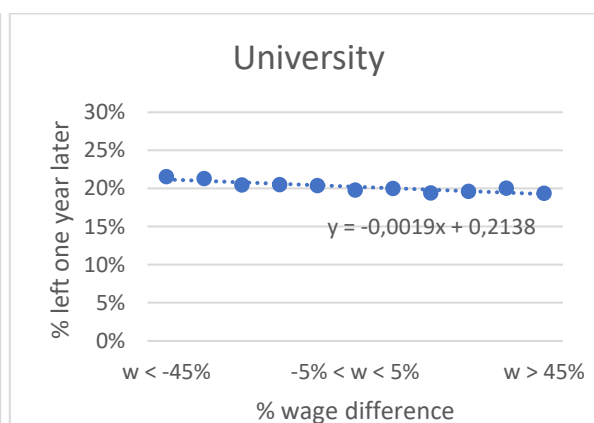


Figure 3 Relation between percentage wage differences and the exit probability one year later for education sectors. categories shown are a) primary education b) secondary education, c) vocational education, and d) university.

5 Regression analysis

We analyze the effect of wage differences on individual exit rates. To do so, we run the following regression equation:

$$y_{i,t+1} = \alpha + \lambda_t + \sum_{j=1}^{j=10} \beta_j w_{ij} + \beta_2 X_{it} + \epsilon_{it} \quad (1)$$

In regression (1), α denotes the intercept. λ_t denote year dummies to control for the business cycle. In addition, we have eleven wage category dummies w_j who are defined according to the previous section (see section 4.B). The wage category between minus five and plus five percent is the reference category and is therefore not included in the regression. We have several control variables X_{it} to control for personal and job characteristics. One of the personal characteristics we include is gender since males and females may react differently to financial incentives (Erbasi and Arat (2012)). In addition, we control for ethnicity (native, western immigrant, and non-western immigrant), residential region (North, East, South, and West), and education level (low, middle, and high education). Both education level and ethnicity could affect labor mobility (van den Berg and ter Weel, (2015) and Blinder (1973)). The same holds as well for labor market regions (Greenwood (1997)). We also control for the job characteristics contract status (permanent / temporarily contract), and average number of hours worked per week as job characteristics may also affect exit rates (D'Addio and Rosholm, 2005). Lastly, ϵ_{it} denote the error term. We cluster standard errors at the individual level.

Our dependent variable $y_{i,t+1}$ is a dummy variable equal to unity in case a public service worker leaves the sector one year later. If this is not the case, the variable equals zero. The main variables of interest are the wage category dummies. These categories indicate whether the hourly wage of the public service worker in a particular sector is lower or higher when compared to the worker they are matched with. In case the percentage wage difference is negative for the public service worker, a positive coefficient indicates that it is more likely a public service worker leaves.²⁶ In case the percentage wage difference is positive, we would expect a negative sign as this indicates a public service worker is less likely to leave.²⁷ In case wage differences do not matter, we would not expect significant results for all of these wage category dummies. Table 5-7 show the main results.²⁸ In addition, we run regression (1) for different gender categories (male / female), migration background

²⁶ Therefore we expect a positive coefficient by (one) the following dummy variables: $w < -45\%$, $-45\% \leq w < -35\%$, $-35\% \leq w < -25\%$, $-25\% \leq w < -15\%$, $-15\% \leq w < -5\%$

²⁷ Therefore we expect a negative coefficient for the following dummy variables: $5\% \leq w < 15\%$, $15\% \leq w < 25\%$, $25\% \leq w < 35\%$, $35\% \leq w < 45\%$, , and $w \geq 45\%$.

²⁸ Appendix D provides the full regression results for each subcategory.

(Native, western immigrant, non-western immigrant), and education level (low-, middle-, and high education level). We present these results in appendix E.

Table 5 shows that public service workers for the national government leave when they receive a substantially lower wage (less than 15 percent). Our subgroup analysis (appendix E) shows that this is driven by workers with a native migration background and high educated workers. The results do not differ much between gender. For other wage categories within the national government the results are insignificant, except for the highest wage category. Here we find a positive and significant coefficient of 0.5%-point.

Analyzing the provinces and water management, we find less evidence of large wage differences on exit probabilities. Most coefficients are not significant at the 5% level, except for public service workers employed at the provinces who earn less than 45%. This result is largely driven by high educated workers and natives (appendix E). In addition, we do not find that gender differences play a role in these government bodies as the results are roughly similar.

Lastly, both municipalities and the health care sector show that public service workers with a relatively lower wage have a higher exit probability. In addition, we observe that workers that receive a higher wage have a lower exit probability in the municipality sector. This is mainly driven by native workers and low and middle educated workers (appendix E).

Table 6 shows that wage differences do not have a significant effect on the exit probability of public service workers in Defense (civilian) or in the justice department. For police and defense military, however, we find that wage differences have a large effect on the exit probability. We find for both sectors that public service workers with a negative wage gap of at least 15% have a positive effect on the exit probability of public service workers. Most of these coefficients are significant at the one percent level. In case of a positive wage gap, the exit probability decreases. These coefficients are in both sectors significant at the five percent level. The subgroup analysis (appendix E) reveals differences between the police and defense military personnel. The exit probability for women in the defense military sector is not affected by positive wage differences whereas for male personnel this is the case. For the police sector this gender difference does not play a role. In this sector we find significant results for both male and female workers.

For the education sector we find that public service workers with a relatively higher wage are more likely to leave the sector (Table 7). This holds for all education sectors (primary, secondary, vocational education, and universities). These effects are largely driven by middle- and high educated workers in all sectors (Appendix E). This subgroup analyses (Appendix E) also shows that workers with a non-

Dependent variable /government bodies	National		Provinces		Water management		Municipalities		Health care	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
$w < -45\%$	0.010***	0.000	0.012**	0.028	-0.004	0.422	0.021***	0.000	0.022***	0.000
$-45\% \leq w < -35\%$	0.010***	0.000	0.002	0.750	0.008	0.157	0.012***	0.000	0.008***	0.000
$-35\% \leq w < -25\%$	0.007***	0.000	0.003	0.545	0.005	0.314	0.008***	0.000	0.004***	0.005
$-25\% \leq w < -15\%$	0.005***	0.005	0.005	0.349	-0.002	0.684	0.007***	0.000	0.005***	0.001
$-15\% \leq w < -5\%$	0.003*	0.093	0.002	0.705	0.004	0.414	0.003**	0.017	0.003*	0.068
$5\% \leq w < 15\%$	0.000	0.790	-0.006	0.238	-0.002	0.684	0.000	0.901	-0.001	0.417
$15\% \leq w < 25\%$	0.000	0.900	-0.002	0.686	-0.008*	0.087	-0.003**	0.039	-0.001	0.492
$25\% \leq w < 35\%$	-0.001	0.724	-0.003	0.496	-0.001	0.832	-0.003**	0.017	0.001	0.385
$35\% \leq w < 45\%$	0.001	0.602	-0.003	0.583	-0.004	0.500	-0.004***	0.005	0.001	0.380
$w \geq 45\%$	0.005***	0.000	0.002	0.659	-0.007*	0.083	0.005***	0.000	0.020***	0.000
Personal characteristics	YES		YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES		YES	
$Adj. R^2$	3.8%		3.0%		3.6%		1.9%		4.9%	
Number of observations	767,192		76,111		73,666		1,075,513		1,877,921	

Table 5 The effect of earning a lower wage on the probability of leaving for several government bodies. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Dependent variable /sector	Justice		Police		Defense (military)		Defense (civilian)	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
$w < -45\%$	0.004	0.628	0.030***	0.000	0.030***	0.000	0.004	0.178
$-45\% \leq w < -35\%$	0.018**	0.037	0.015***	0.000	0.025***	0.000	-0.002	0.495
$-35\% \leq w < -25\%$	0.004	0.563	0.008***	0.000	0.022***	0.000	0.006*	0.086
$-25\% \leq w < -15\%$	0.002	0.770	0.003**	0.043	0.016***	0.000	0.001	0.867
$-15\% \leq w < -5\%$	-0.004	0.543	0.003*	0.064	0.007***	0.008	0.001	0.756
$5\% \leq w < 15\%$	-0.001	0.882	-0.005***	0.001	-0.006***	0.009	-0.002	0.531
$15\% \leq w < 25\%$	-0.006	0.355	-0.007***	0.000	-0.011***	0.000	-0.002	0.623
$25\% \leq w < 35\%$	-0.004	0.594	-0.013***	0.000	-0.013***	0.000	0.005	0.232
$35\% \leq w < 44\%$	-0.002	0.800	-0.018***	0.000	-0.017***	0.000	0.004	0.309
$w \geq 45\%$	-0.003	0.576	-0.045***	0.000	-0.013***	0.000	0.015***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	3.6%		52.7%		12.1%		4.4%	
Number of observations	37,899		679,715		288,546		92,281	

*Table 6 The effect of earning a lower wage on the probability of leaving for law enforcement and defense. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.*

Dependent variable /sector	Primary		Secondary		Vocational		University	
	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
$w < -45\%$	0.006***	0.000	0.001	0.540	-0.005	0.102	0.002	0.365
$-45\% \leq w < -35\%$	0.002	0.187	-0.001	0.585	-0.010***	0.004	-0.004	0.209
$-35\% \leq w < -25\%$	0.000	0.834	-0.001	0.432	-0.008***	0.005	-0.007**	0.010
$-25\% \leq w < -15\%$	-0.002	0.099	0.000	0.972	-0.007***	0.007	-0.003	0.330
$-15\% \leq w < -5\%$	-0.002	0.155	0.003	0.117	-0.008***	0.002	0.001	0.818
$5\% \leq w < 15\%$	0.004***	0.009	0.005***	0.004	0.003	0.226	0.004	0.148
$15\% \leq w < 25\%$	0.006***	0.000	0.008***	0.000	0.005*	0.055	0.002	0.435
$25\% \leq w < 35\%$	0.009***	0.000	0.008***	0.000	0.005	0.118	0.005*	0.081
$35\% \leq w < 44\%$	0.013***	0.000	0.010***	0.000	0.013***	0.000	0.011***	0.001
$w \geq 45\%$	0.026***	0.000	0.025***	0.000	0.025***	0.000	0.015***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	18.6%		11.2%		8.3%		12.0%	
Number of observations	1,486,799		867,910		311,261		422,976	

Table 7 The effect of earning a lower wage on the probability of leaving for several education sectors. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

western migration background are not as sensitive to wage differences when compared to native public service workers and public service workers with a western migration background.

5.B Effect size of wage differentials

To determine the effect size of wage differentials on exit probabilities we compare the coefficients on the wage dummies with the coefficients on personal and job characteristics (Appendix D). For most sectors we find that age (younger than 35 years) and education level have a larger effect on the exit probability than wage differences (the police sector excluded). The importance of region and migration background differs per subcategory. In addition, for most sectors we find that the job characteristics dummies on number of hours worked (less than twenty) and permanent contract have a larger effect on the exit probability than wage differentials. Therefore we conclude that, although wage differentials are an important component in explaining exit probabilities, there are other personal and job characteristics that are more important.

5.C Difference between wage categories

We showed in section V.A. that workers that receive a lower wage in the health care sector and in the national government are more likely to leave. In addition, public service workers employed by municipalities, the police and defense military are not only more likely to leave if they receive a lower wage but are also more likely to stay in case they receive a higher wage.

To further investigate the determinants of earning a relatively low wage in the public sector, we estimate a logistic regression model. The dependent variable comprises 11 wage difference categories, while the independent variables include job characteristics, personal attributes, and year fixed effects. The coefficients indicate which characteristics of public sector employees are associated with having a relative wage advantage (positive coefficient) or wage disadvantage (negative coefficient) in the public sector relative to the reference group. For example, Table 8-11 show that men have a lower wage advantage in the national government compared to women (negative coefficient), while non-western immigrants have a higher wage advantage in the national government compared to natives (positive coefficient)

Overall, our findings suggest that older workers, those with lower levels of education, men, and part-time employees have lower wage advantages in the public sector in contrast to younger individuals, those with higher educational attainment, women, and full-time workers. An exception to this pattern is found in the health care sector: here, part-time workers, men and those with lower educational levels fare better than fulltime workers, women and those with higher educational levels.

We find mixed results across government sectors for ethnic background. In the national government, both Western and non-Western immigrants have a bigger wage advantage in the public sector

compared to native-born workers. However, in the provinces and water management authorities, native workers enjoy a bigger wage advantage. In municipalities and the health care sector, non-Western immigrants fare better than natives, while Western immigrants are relatively worse off. These findings highlight the complex and heterogeneous nature of wage differentials by ethnicity across public sectors.

Dependent variable /sector	National		Provinces		Water management		Municipalities	
	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score
Non-western immigrant	4.69%***	53.71	-0.25%*	-1.69	-1.70%***	-8.71	2.51%***	51.11
Western immigrant	1.37%***	23.79	-1.56%***	-9.72	-3.52%***	-14.63	-0.02%	-0.43
<i>Age</i> ≤ 25	3.26%***	23.89	2.00%***	4.81	0.06%	0.18	0.24%*****	2.55
25 ≤ <i>Age</i> ≤ 35	1.22%***	20.41	-0.58%***	-4.76	-1.97%***	-12.96	-2.53%***	-59.35
35 ≤ <i>Age</i> ≤ 45	-0.47%***	-9.89	-1.74%***	-12.96	-2.41%***	-15.35	-3.02%***	-69.14
45 ≤ <i>Age</i> ≤ 55	-0.16%***	-3.24	-0.70%***	-6.43	-1.21%***	-9.46	-1.15%***	-31.93
Maledummy	-2.25%***	-53.21	-0.76%***	-9.33	1.77%***	12.06	-2.11%***	-68.94
North-Netherlands	2.36%***	37.37	1.06%***	9.14	0.18%	1.44	1.24%***	29.27
East-Netherlands	1.17%***	26.28	0.59%***	5.86	-0.21%**	-2.18	0.25%***	8.09
South-Netherlands	1.65%***	30.88	-0.68%***	-6.40	-0.49%***	-4.41	0.11%***	3.59
Middle Education	0.62%***	5.25	3.27%***	6.92	1.51%***	4.24	1.78%***	21.82
High Education	1.01%***	8.44	4.99%***	9.00	1.97%***	5.28	2.32%***	27.63
< 12 hour workweek	-5.94%***	-28.39	-5.53%***	-10.50	-7.35%***	-10.90	-5.34%***	-53.46
12 ≤ hour workweek < 20	-6.78%***	-43.22	-3.85%***	-12.17	-4.77%***	-13.03	-4.22%***	-56.37
20 ≤ hour workweek < 25	-5.17%***	-52.60	-2.83%***	-13.25	-3.83%***	-15.25	-2.87%***	-59.75
25 ≤ hour workweek < 30	-5.38%***	-57.45	-2.39%***	-14.57	-4.02%***	-16.80	-2.41%***	-55.07
30 ≤ hour workweek < 35	-3.11%***	-52.90	-1.48%***	-12.20	-2.21%***	-14.20	-1.61%***	-46.11
Permanent contract	1.51%***	27.09	2.58%***	12.48	3.07%***	13.57	3.98%***	61.10
Year dummies	YES		YES		YES		YES	
Number of observations	767192		76111		73666		1075513	

Dependent variable /sector	Health care	
	Average marginal effect	Z-score
Non-western immigrant	0.64%***	15.12
Western immigrant	-1.31%***	-27.91
<i>Age</i> ≤ 25	5.72%***	73.97
25 ≤ <i>Age</i> ≤ 35	1.96%***	43.04
35 ≤ <i>Age</i> ≤ 45	-0.10%**	-2.46
45 ≤ <i>Age</i> ≤ 55	0.39%***	9.54
Maledummy	3.32%***	74.64
North-Netherlands	1.14%***	28.58
East-Netherlands	0.47%***	15.37
South-Netherlands	0.48%***	15.17
Middle Education	-5.59%***	-123.72
High Education	-10.54%***	-184.79
< 12 hour workweek	5.24%***	75.58
12 ≤ hour workweek < 20	4.63%***	74.32
20 ≤ hour workweek < 25	2.73%***	56.45
25 ≤ hour workweek < 30	2.09%***	44.76
30 ≤ hour workweek < 35	1.61%***	37.39
Permanent contract	-1.27%***	-48.84
Year dummies	YES	
Number of observations	1877921	

Table 8 Logistics regression of on background and job market characteristics on relative wage. Characteristics are shown for the following sectors: national government, provinces, water management, municipalities, and health care.

Dependent variable /sector	Justice		Police		Defense Military		Defense Civilian	
	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score
Non-western immigrant	2.36%***	7.29	2.51%***	51.11	1.83%***	21.04	-1.25%***	-6.28
Western immigrant	-0.68%***	-3.98	-0.02%	-0.43	0.38%***	6.37	-1.24%***	-6.65
<i>Age</i> ≤ 25	6.10%***	6.31	0.24%**	2.55	4.61%***	22.39	0.27%	0.68
25 ≤ <i>Age</i> ≤ 35	4.17%***	7.60	-2.53%***	-59.35	3.06%***	19.11	-3.74%***	-20.68
35 ≤ <i>Age</i> ≤ 45	2.26%***	6.96	-3.02%***	-69.14	3.10%***	19.57	-2.27%***	-13.75
45 ≤ <i>Age</i> ≤ 55	0.68%***	3.85	-1.15%***	-31.93	1.94%***	14.83	-0.03%	-0.15
Maledummy	-0.97%***	-6.85	-2.11%***	-68.94	-2.04%***	-31.56	1.50%***	10.27
North-Netherlands	-0.12%	-0.69	1.24%***	29.27	-0.08%*	-1.72	-0.12%	-0.53
East-Netherlands	-0.18%	-1.53	0.25%***	8.09	0.19%***	5.22	0.84%***	5.88
South-Netherlands	-0.19%	-1.56	0.11%***	3.59	0.42%***	10.35	0.54%***	3.64
Middle Education	3.03%***	3.25	1.78%***	21.82	1.42%***	10.99	-1.23%***	-4.91
High Education	1.45%**	1.96	2.32%***	27.63	2.22%***	14.66	-4.94%***	-23.62
< 12 hour workweek	-2.37%***	-3.08	-5.34%***	-53.46	2.06%***	17.95	-10.90%***	-12.11
12 ≤ hour workweek < 20	-2.33%***	-3.69	-4.22%***	-56.37	1.91%***	10.89	-7.81%***	-20.62
20 ≤ hour workweek < 25	-2.06%***	-6.68	-2.87%***	-59.75	0.32%***	1.27	-6.57%***	-19.92
25 ≤ hour workweek < 30	-3.34%***	-8.12	-2.41%***	-55.07	1.66%***	10.29	-6.16%***	-18.36
30 ≤ hour workweek < 35	-1.44%***	-7.17	-1.61%***	-46.11	1.26%***	11.20	-4.76%***	-19.39
Permanent contract	0.43%***	2.70	3.98%***	61.10	2.48%***	25.26	0.45%***	2.85
Year dummies	YES		YES		YES		YES	
Number of observations	37899		1075513		288546		92281	

Table 9 Logistics regression of on background and job market characteristics on relative wage. Characteristics are shown for the following sectors: justice, police, Defense military, and defense civilian

Dependent variable /sector	Primary		Secondary		Vocational		University	
	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score	Average marginal effect	Z-score
Non-western immigrant	-0.15%***	-2.66	-0.33%***	-6.46	0.34%***	4.72	1.96%***	18.64
Western immigrant	-0.98%***	-18.33	-0.82%***	-17.37	-0.57%***	-7.40	-0.08%	-1.16
<i>Age</i> ≤ 25	7.93%***	61.73	3.65%***	33.04	0.95%***	5.55	13.11%***	29.48
25 ≤ <i>Age</i> ≤ 35	5.76%***	63.84	2.93%***	44.62	-0.92%***	-14.60	8.52%***	29.65
35 ≤ <i>Age</i> ≤ 45	1.61%***	33.68	0.71%***	16.74	-0.18%***	-3.15	3.34%***	22.48
45 ≤ <i>Age</i> ≤ 55	1.17%***	25.09	0.95%***	21.43	0.76%***	12.03	1.81%***	15.29
Maledummy	-1.09%***	-31.51	0.07%**	2.44	-0.23%***	-5.27	-1.03%***	-18.74
North-Netherlands	0.27%***	6.83	0.73%***	16.96	0.50%***	7.55	0.69%***	7.77
East-Netherlands	0.05%**	1.96	0.33%***	10.16	0.18%***	3.53	-0.81%***	-12.67
South-Netherlands	0.98%***	29.12	-0.32%***	-9.13	0.43%***	8.10	-0.56%***	-8.17
Middle Education	2.11%***	15.32	2.24%***	16.95	2.46%***	11.49	4.62%***	10.64
High Education	-2.16%***	-25.14	1.82%***	15.13	3.50%***	15.02	8.45%***	15.93
< 12 hour workweek	1.76%***	31.19	2.51%***	30.34	0.15%	1.33	-3.82%***	-26.80
12 ≤ hour workweek < 20	0.46%***	11.29	2.08%***	33.58	1.07%***	12.50	-2.18%***	-19.56
20 ≤ hour workweek < 25	-0.02%	-0.69	1.02%***	21.72	0.59%***	8.52	-0.60%***	-6.44
25 ≤ hour workweek < 30	-0.28%***	-7.48	0.26%***	7.13	-0.16%***	-2.90	-1.19%***	-12.15
30 ≤ hour workweek < 35	0.16%***	3.83	-0.49%***	-11.91	-0.89%***	-12.74	-1.04%***	-15.33
Permanent contract	-2.27%***	-62.97	-0.98%***	-30.80	-0.72%***	-15.15	1.92%***	22.27
Year dummies	YES		YES		YES		YES	
Number of observations	1486799		867910		311261		422976	

Table 10 Logistics regression of on background and job market characteristics on relative wage. Characteristics are shown for the following sectors: primary education, secondary education, vocational education, and university education.

6 Discussion and Conclusion

This paper analyzes how wage differences affect the exit probability for different government sectors. We use nearest neighbor matching method to match public service workers of different government bodies to similar workers that are employed in other sectors. We conclude that the matching is balanced and that therefore it is possible to compare hourly wages between public service workers and their matched counterparts.

We find that public service workers in the health care sector and in the national government workers tend to leave when they earn a lower wage than their matched peer. This also holds for municipalities, defense military personnel and police workers. In addition, we observe for those three sectors that public service workers that earn a higher wage are less likely to leave. For public service workers in the justice department, water management, and provinces we find that wage differences barely have an effect on exit rates. Only in case of extreme wage differences (more than 45 percent) we sometimes find significant results. This effect might be driven by severance payments as we cannot distinguish those payments from the total wage sum. Lastly, In the education sector (primary, secondary, vocational and university) we find that public service workers earning a higher wage than their peers have a higher exit probability.

The results of the education sector seem counterintuitive as one would expect civil service workers with lower hourly wage to leave. Worse perceived secondary labor conditions could be an explanation for this phenomenon. As an example, most public service workers in education do not get any compensation for overtime and face more burn-out complaints than public service workers in other sectors. This phenomenon could explain our reported results for the education sector, although further research should confirm whether this is the case.

Overall, our results indicate that wage differences contribute in the exit rate of public service workers. These findings could extend to countries with similar wage bargaining structures (Germany, Spain, and Denmark). In addition, it complements earlier research that analyzes how financial incentives have an effect on performance or on the application pool. Although financial incentives like performance pay may yield counterintuitive results, a lack of competitive wages could still negatively affect the loyalty of public service workers. Therefore the discussion for public service wages should be broader than only performance pay or the effects on the application pool.

A potential area for further research is to analyze how an increase in government salaries affect the exit rate. A second point for follow up research is to analyze which professions earn a relatively lower wage within the government sector. Our administrative dataset does not allow to distinguish professions, but it may show interesting patterns (for instance for ICT workers). In a similar vein, this

paper analyzes how wage differences affect exit probabilities for the entire health care sector. In practice, the health care consists of multiple subsectors like hospitals, mental health care, and social work. Further research could analyze in which subsectors negative wage differences are more strongly associated with higher exit rates as there might be large heterogeneity between subsectors within the health care sector.

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Appendix A: Institutional framework

We compare the adjusted coverage rate, the union density rate, the level of bargaining, and the size of government intervention with other countries. In this manner, we are able to place the Dutch wage bargaining process in international perspective.

The union coverage rate indicates the importance of collective labor agreements. Wage bargaining over labor contracts takes place at different levels in different countries. It can take place at the individual level (one workers and one employer), the organizational level (an organization representing wage earners collectively and an employer), or at the institutional level (organizations representing wage earners collectively and organizations representing employers collectively). In most OECD countries, a large proportion of wages is regulated by collective agreements. These agreements are the result of a bargaining process between labor unions and employer's organizations.

Figure 1 shows that the Netherlands has one of the highest union coverage rate with low union density rate. This makes the Netherlands very similar to Spain. Denmark also has the same union coverage rate yet a higher union density rate. Germany, on the other hand, has roughly the same union density rate, but a lower union coverage rate.

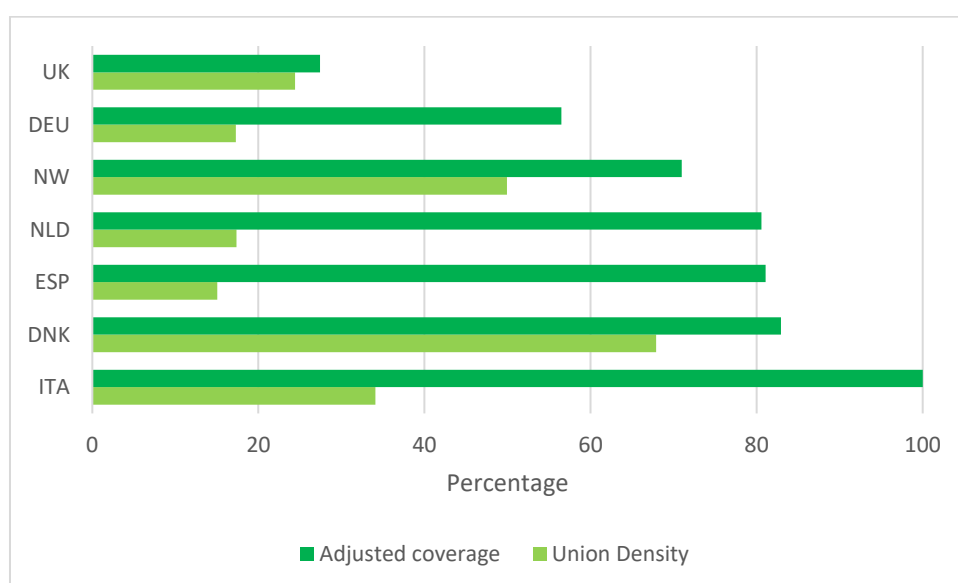


Figure 1 Average union density (union members as a percentage of employees) and adjusted coverage rate (the number of employees covered by a collective agreement as a proportion of the number of eligible employees equipped for the period 2012-2019. Source: OECD (2023).

Figure 2 shows that the level of wage bargaining is roughly similar to other European countries. In other words, a level of three indicates that bargaining takes place at the industry level (not the state or the firm). Therefore there is limited involvement by centralized organizations and companies. This

is a similar score compared to other countries European countries in figure 1 except the UK. The UK is characterized by fragmented wage bargaining, where most of the bargaining takes place at the company level.

In terms of government intervention, the Netherlands has a score of two. This signals that the government influences wage bargaining by providing an institutional framework of consultation and information exchange, by conditional agreement to extend private-sector agreements.²⁹ Only the United Kingdom is less involved in the bargaining process with a score of 1 (no government intervention).

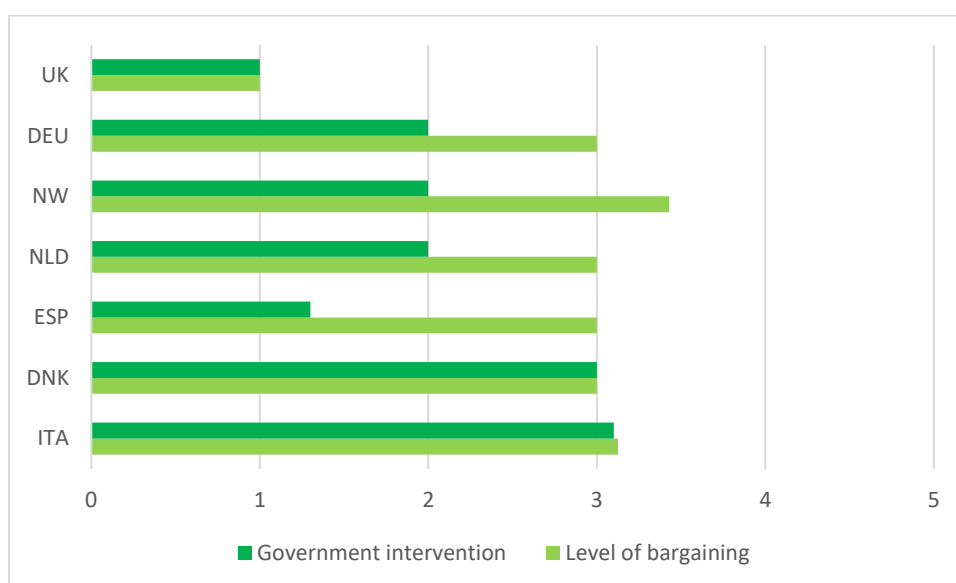


Figure 2 shows the average interference of government with the wage bargaining process and the average (de)centralized level of bargaining for the years 2012-2019. A level of one means strong government intervention and a highly centralized level of bargaining. A level of five indicates no government intervention and a highly decentralized level of bargaining. Source: OECD (2023).

All in all, the above figures indicate that the Dutch process of wage bargaining is characterized by high adjusted coverage rate of collective agreements. This link is stronger than expected when analyzing the union density rate. In addition, wage bargaining mainly takes place at the industry level with limited government intervention. This makes the Dutch wage bargaining process similar to that of Spain, Denmark and Germany.

²⁹ In addition, the government may provide a conflict resolution mechanism which links the settlement of disputes across the economy and / or allows the intervention of state arbitrators or parliament.

Appendix B: overview of education levels

This appendix provides an overview of the SOI education levels that we use in the matching procedure. For simplicity, we only focus on three education levels in the main text. Table xx shows these three education levels used in the main text. These are indicated by the numbers one, two, and three. These three education consist of several subcategories which are indicated by the three following numbers numbers. These categories are presented below. To describe these categories, we first present the Dutch name and the approximate translation in English, respectively.

1. Low education

1111	Basisonderwijs gr1-2 / First two years of primary school
1112	Basisonderwijs gr3-8 / Last six years of primary school
1211	Praktijkonderwijs / practical training
1212	vmbo basis of vmbo kader / Lower secondary education
1213	Mbo1 / lower secondary education
1221	vmbo-g/t / middle secondary education
1222	Havo-, vwo-onderbouw / three years of higher secondary education

2. Middle education

2111	Mbo 2 / lower tertiary education
2112	Mbo 3/ lower tertiary education
2121	Mbo 4/ lower tertiary education
2131	Havo-Bovenbouw / last years of higher secondary education
2132	VWO-bovenbouw / last years of higher secondary education

3. Higher education

3111	Hbo- associate degree / bachelor's degree
3112	Hbo-bachelor / bachelor's degree
3113	Wo-bachelor / bachelor's degree
3211	Hbo-master / master's degree
3212	Wo-master / master's degree
3212	Doctor / PhD degree

Appendix C: Overview of Regions

Table xxx below presents the total labor market regions which are used in the matching procedure.

Number of regions	Regional numbers	regional name (alphabetical order)
1	AM09	Achterhoek
2	AM14	Amersfoort
3	AM23	Drechtsteden
4	AM03	Drenthe
5	AM11	Flevoland
6	AM38	FoodValley
7	AM02	Friesland
8	AM12	Gooi en Vechtstreek
9	AM35	Gorinchem
10	AM01	Groningen
11	AM18	GrootAmsterdam
12	AM21	Haaglanden
13	AM32	Helmond-De Peel
14	AM19	HollandRijnland
15	AM26	Midden-Brabant
16	AM07	Midden-Gelderland
17	AM20	Midden-Holland
18	AM33	Midden-Limburg
19	AM13	Midden-Utrecht
20	AM15	Noord-HollandNoord
21	AM29	Noord-Limburg
22	AM27	Noordoost-Brabant
23	AM36	RegioZwolle
24	AM08	RijkvanNijmegen
25	AM22	Rijnmond
26	AM10	Rivierenland
27	AM06	Stedendriehoek en Noordwest Veluwe
28	AM05	Twente
29	AM25	West-Brabant
30	AM17	Zaanstreek/Waterland

31	AM24	Zeeland
32	AM34	Zuid-Holland Centraal
33	AM37	Zuid-Kennemerland en IJmond
34	AM30	Zuid-Limburg
35	AM28	Zuidoost-Brabant

Table 11 Overview of labor market regions.

Appendix D: Full regression table

Primary education	Coefficient	p-value
α	0.202***	0.000
$w < -45\%$	0.006***	0.000
$-45\% \leq w < -35\%$	0.002	0.187
$-35\% \leq w < -25\%$	0.000	0.834
$-25\% \leq w < -15\%$	-0.002*	0.099
$-15\% \leq w < -5\%$	-0.002	0.155
$5\% \leq w < 15\%$	0.004***	0.009
$15\% \leq w < 25\%$	0.006***	0.000
$25\% \leq w < 35\%$	0.009***	0.000
$35\% \leq w < 45\%$	0.013***	0.000
$w \geq 45\%$	0.026***	0.000
<i>Personal characteristics</i>		
Maledummy	0.028***	0.000
Middle Education	0.040***	0.000
High Education	0.089***	0.000
$Age \leq 25$	0.090***	0.000
$25 \leq Age \leq 35$	0.031***	0.000
$35 \leq Age \leq 45$	-0.013***	0.000
$45 \leq Age \leq 55$	-0.010***	0.000
Non-western immigrant	0.013***	0.000
Western immigrant	0.006***	0.000
North-Netherlands	0.020***	0.000
East-Netherlands	0.013***	0.000
South-Netherlands	-0.005***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.298***	0.000
$12 \leq \text{hour workweek} < 20$	0.062***	0.000
$20 \leq \text{hour workweek} < 25$	0.014***	0.000
$25 \leq \text{hour workweek} < 30$	0.011***	0.000
$30 \leq \text{hour workweek} < 35$	0.006***	0.000
Permanent contract	-0.227***	0.000
Year dummies	YES	
$Adj. R^2$	18.6%	
Number of observations	1486799	

*Table 1 The effect of wage differentials on the probability of leaving the primary education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.*

Secondary education	Coefficient	p-value
α	0.170***	0.000
$w < -45\%$	0.001	0.540
$-45\% \leq w < -35\%$	-0.001	0.585
$-35\% \leq w < -25\%$	-0.001	0.432
$-25\% \leq w < -15\%$	0.000	0.972
$-15\% \leq w < -5\%$	0.003	0.117
$5\% \leq w < 15\%$	0.005***	0.004
$15\% \leq w < 25\%$	0.008***	0.000
$25\% \leq w < 35\%$	0.008***	0.000
$35\% \leq w < 45\%$	0.010***	0.000
$w \geq 45\%$	0.025***	0.000
<i>Personal characteristics</i>		
Maledummy	0.021***	0.000
Middle Education	0.030***	0.000
High Education	0.057***	0.000
$Age \leq 25$	0.135***	0.000
$25 \leq Age \leq 35$	0.052***	0.000
$35 \leq Age \leq 45$	0.007***	0.000
$45 \leq Age \leq 55$	0.001	0.226
Non-western immigrant	0.018***	0.000
Western immigrant	0.008***	0.000
North-Netherlands	0.003**	0.041
East-Netherlands	-0.004***	0.000
South-Netherlands	-0.014***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.244***	0.000
$12 \leq$ hour workweek < 20	0.093***	0.000
$20 \leq$ hour workweek < 25	0.031***	0.000
$25 \leq$ hour workweek < 30	0.015***	0.000
$30 \leq$ hour workweek < 35	0.002	0.157
Permanent contract	-0.205***	0.000
Year dummies	YES	
$Adj. R^2$	11,2%	
Number of observations	867910	

Table 2 The effect of wage differentials on the probability of leaving the secondary education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Vocational education	Coefficient	p-value
α	0.182	0.000
$w < -45\%$	-0.005	0.102
$-45\% \leq w < -35\%$	-0.010***	0.004
$-35\% \leq w < -25\%$	-0.008***	0.005
$-25\% \leq w < -15\%$	-0.007***	0.007
$-15\% \leq w < -5\%$	-0.008***	0.002
$5\% \leq w < 15\%$	0.003	0.226
$15\% \leq w < 25\%$	0.005*	0.055
$25\% \leq w < 35\%$	0.005	0.118
$35\% \leq w < 45\%$	0.013***	0.000
$w \geq 45\%$	0.025***	0.000
<i>Personal characteristics</i>		
Maledummy	0.004***	0.007
Middle Education	0.024***	0.000
High Education	0.041***	0.000
$Age \leq 25$	0.113***	0.000
$25 \leq Age \leq 35$	0.040***	0.000
$35 \leq Age \leq 45$	0.015***	0.000
$45 \leq Age \leq 55$	0.008***	0.000
Non-western immigrant	0.011***	0.000
Western immigrant	0.008***	0.001
North-Netherlands	-0.015***	0.000
East-Netherlands	-0.003**	0.032
South-Netherlands	0.007***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.208***	0.000
$12 \leq$ hour workweek < 20	0.053***	0.000
$20 \leq$ hour workweek < 25	0.013***	0.000
$25 \leq$ hour workweek < 30	-0.001	0.572
$30 \leq$ hour workweek < 35	-0.002	0.227
Permanent contract	-0.173***	0.000
Year dummies	YES	
$Adj. R^2$	8.3%	
Number of observations	311261	

*Table 3 The effect of wage differentials on the probability of leaving the vocational education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.*

University	Coefficient	p-value
α	0.155***	0.000
$w < -45\%$	0.002	0.365
$-45\% \leq w < -35\%$	-0.004	0.209
$-35\% \leq w < -25\%$	-0.007**	0.010
$-25\% \leq w < -15\%$	-0.003	0.330
$-15\% \leq w < -5\%$	0.001	0.818
$5\% \leq w < 15\%$	0.004	0.148
$15\% \leq w < 25\%$	0.002	0.435
$25\% \leq w < 35\%$	0.005*	0.081
$35\% \leq w < 45\%$	0.011***	0.001
$w \geq 45\%$	0.015***	0.000
<i>Personal characteristics</i>		
Maledummy	0.002	0.152
Middle Education	-0.041***	0.000
High Education	-0.008	0.270
$Age \leq 25$	0.223***	0.000
$25 \leq Age \leq 35$	0.135***	0.000
$35 \leq Age \leq 45$	0.042***	0.000
$45 \leq Age \leq 55$	0.007***	0.000
Non-western immigrant	0.043***	0.000
Western immigrant	0.024***	0.000
North-Netherlands	-0.009***	0.000
East-Netherlands	0.012***	0.000
South-Netherlands	-0.020***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.231***	0.000
$12 \leq$ hour workweek < 20	0.126***	0.000
$20 \leq$ hour workweek < 25	0.060***	0.000
$25 \leq$ hour workweek < 30	0.035***	0.000
$30 \leq$ hour workweek < 35	0.011***	0.000
Permanent contract	-0.141***	0.000
Year dummies	YES	
$Adj. R^2$	12.0%	
Number of observations	422976	

Table 4 The effect of wage differentials on the probability of leaving the university education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Justice	Coefficient	p-value
α	0.131***	0.000
$w < -45\%$	0.004	0.628
$-45\% \leq w < -35\%$	0.018**	0.037
$-35\% \leq w < -25\%$	0.004	0.563
$-25\% \leq w < -15\%$	0.002	0.770
$-15\% \leq w < -5\%$	-0.004	0.543
$5\% \leq w < 15\%$	-0.001	0.882
$15\% \leq w < 25\%$	-0.006	0.355
$25\% \leq w < 35\%$	-0.004	0.594
$35\% \leq w < 45\%$	-0.002	0.800
$w \geq 45\%$	-0.003	0.576
<i>Personal characteristics</i>		
Maledummy	0.007**	0.019
Middle Education	-0.019	0.428
High Education	-0.038*	0.096
$Age \leq 25$	0.090***	0.002
$25 \leq Age \leq 35$	0.055***	0.000
$35 \leq Age \leq 45$	0.021***	0.000
$45 \leq Age \leq 55$	0.003	0.352
Non-western immigrant	0.003	0.532
Western immigrant	0.002	0.600
North-Netherlands	-0.019***	0.000
East-Netherlands	-0.013***	0.000
South-Netherlands	-0.015***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.409***	0.000
$12 \leq$ hour workweek < 20	0.160***	0.000
$20 \leq$ hour workweek < 25	0.017***	0.009
$25 \leq$ hour workweek < 30	-0.004	0.328
$30 \leq$ hour workweek < 35	-0.006*	0.066
Permanent contract	-0.064***	0.000
Year dummies	YES	
$Adj. R^2$	3.7%	
Number of observations	37899	

Table 5 The effect of wage differentials on the probability of leaving the judiciary sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Police	Coefficient	p-value
α	0.038***	0.000
$w < -45\%$	0.030***	0.000
$-45\% \leq w < -35\%$	0.015***	0.000
$-35\% \leq w < -25\%$	0.008***	0.000
$-25\% \leq w < -15\%$	0.003**	0.043
$-15\% \leq w < -5\%$	0.003*	0.064
$5\% \leq w < 15\%$	-0.005***	0.001
$15\% \leq w < 25\%$	-0.007***	0.000
$25\% \leq w < 35\%$	-0.013***	0.000
$35\% \leq w < 45\%$	-0.018***	0.000
$w \geq 45\%$	-0.045***	0.000
<i>Personal characteristics</i>		
Maledummy	0.008***	0.000
Middle Education	0.002	0.254
High Education	0.008***	0.000
$Age \leq 25$	-0.010***	0.000
$25 \leq Age \leq 35$	-0.004***	0.000
$35 \leq Age \leq 45$	-0.003***	0.000
$45 \leq Age \leq 55$	-0.002***	0.000
Non-western immigrant	0.007***	0.000
Western immigrant	0.002**	0.019
North-Netherlands	-0.005***	0.000
East-Netherlands	-0.002***	0.000
South-Netherlands	-0.002***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.197***	0.000
$12 \leq$ hour workweek < 20	0.061***	0.000
$20 \leq$ hour workweek < 25	0.026***	0.000
$25 \leq$ hour workweek < 30	0.034***	0.000
$30 \leq$ hour workweek < 35	0.014***	0.000
Permanent contract	-0.019***	0.000
Year dummies	YES	
$Adj. R^2$	52,7%	
Number of observations	679715	

Table 6 The effect of wage differentials on the probability of leaving the the police sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Defense military	Coefficient	p-value
α	0.101***	0.000
$w < -45\%$	0.030***	0.000
$-45\% \leq w < -35\%$	0.025***	0.000
$-35\% \leq w < -25\%$	0.022***	0.000
$-25\% \leq w < -15\%$	0.016***	0.000
$-15\% \leq w < -5\%$	0.007***	0.008
$5\% \leq w < 15\%$	-0.006***	0.009
$15\% \leq w < 25\%$	-0.011***	0.000
$25\% \leq w < 35\%$	-0.013***	0.000
$35\% \leq w < 45\%$	-0.017***	0.000
$w \geq 45\%$	-0.013***	0.000
<i>Personal characteristics</i>		
Maledummy	0.030***	0.000
Middle Education	-0.015***	0.000
High Education	-0.045***	0.000
$Age \leq 25$	-0.018***	0.000
$25 \leq Age \leq 35$	0.000	0.992
$35 \leq Age \leq 45$	-0.043***	0.000
$45 \leq Age \leq 55$	-0.073***	0.000
Non-western immigrant	0.008***	0.004
Western immigrant	0.003	0.198
North-Netherlands	0.011***	0.000
East-Netherlands	0.001	0.695
South-Netherlands	0.003**	0.027
<i>Job characteristics</i>		
< 12 hour workweek	0.320***	0.000
$12 \leq$ hour workweek < 20	0.237***	0.000
$20 \leq$ hour workweek < 25	0.249***	0.000
$25 \leq$ hour workweek < 30	0.488***	0.000
$30 \leq$ hour workweek < 35	0.400***	0.000
Permanent contract	-0.003	0.198
Year dummies	YES	
$Adj. R^2$	12.1%	
Number of observations	288546	

Table 7 The effect of wage differentials on the probability of leaving the defense (military) sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Defense Civilian	Coefficient	p-value
α	0.072***	0.000
$w < -45\%$	0.004	0.178
$-45\% \leq w < -35\%$	-0.002	0.495
$-35\% \leq w < -25\%$	0.006*	0.086
$-25\% \leq w < -15\%$	0.001	0.867
$-15\% \leq w < -5\%$	0.001	0.756
$5\% \leq w < 15\%$	-0.002	0.531
$15\% \leq w < 25\%$	-0.002	0.623
$25\% \leq w < 35\%$	0.005	0.232
$35\% \leq w < 45\%$	0.004	0.309
$w \geq 45\%$	0.015***	0.000
<i>Personal characteristics</i>		
Maledummy	0.019***	0.000
Middle Education	0.008*	0.063
High Education	0.008**	0.046
$Age \leq 25$	0.043***	0.000
$25 \leq Age \leq 35$	0.001	0.608
$35 \leq Age \leq 45$	-0.013***	0.000
$45 \leq Age \leq 55$	-0.015***	0.000
Non-western immigrant	0.008***	0.009
Western immigrant	0.001	0.847
North-Netherlands	0.005	0.134
East-Netherlands	0.000	0.933
South-Netherlands	0.008***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.356***	0.000
$12 \leq$ hour workweek < 20	0.076***	0.000
$20 \leq$ hour workweek < 25	0.045***	0.000
$25 \leq$ hour workweek < 30	0.101***	0.000
$30 \leq$ hour workweek < 35	0.083***	0.000
Permanent contract	-0.043***	0.000
Year dummies	YES	
$Adj. R^2$	4.4%	
Number of observations	92281	

*Table 8 The effect of wage differentials on the probability of leaving the defense (civilian) sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.*

National	Coefficient	p-value
α	0.119***	0.000
$w < -45\%$	0.010***	0.000
$-45\% \leq w < -35\%$	0.010***	0.000
$-35\% \leq w < -25\%$	0.007***	0.000
$-25\% \leq w < -15\%$	0.005***	0.005
$-15\% \leq w < -5\%$	0.003*	0.093
$5\% \leq w < 15\%$	0.000	0.790
$15\% \leq w < 25\%$	0.000	0.900
$25\% \leq w < 35\%$	-0.001	0.724
$35\% \leq w < 45\%$	0.001	0.602
$w \geq 45\%$	0.005***	0.000
<i>Personal characteristics</i>		
Maledummy	-0.004***	0.000
Middle Education	0.020***	0.000
High Education	0.030***	0.000
$Age \leq 25$	0.097***	0.000
$25 \leq Age \leq 35$	0.072***	0.000
$35 \leq Age \leq 45$	0.029***	0.000
$45 \leq Age \leq 55$	0.008***	0.000
Non-western immigrant	-0.007***	0.000
Western immigrant	0.003**	0.016
North-Netherlands	-0.021***	0.000
East-Netherlands	-0.018***	0.000
South-Netherlands	-0.013***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.217***	0.000
$12 \leq$ hour workweek < 20	0.068***	0.000
$20 \leq$ hour workweek < 25	0.003	0.105
$25 \leq$ hour workweek < 30	-0.001	0.259
$30 \leq$ hour workweek < 35	-0.004***	0.000
Permanent contract	-0.101***	0.000
Year dummies	YES	
$Adj. R^2$	3.8%	
Number of observations	767192	

Table 9 The effect of wage differentials on the probability of leaving the national government sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Provinces	Coefficient	p-value
α	0.124***	0.000
$w < -45\%$	0.012**	0.028
$-45\% \leq w < -35\%$	0.002	0.750
$-35\% \leq w < -25\%$	0.003	0.545
$-25\% \leq w < -15\%$	0.005	0.349
$-15\% \leq w < -5\%$	0.002	0.705
$5\% \leq w < 15\%$	-0.006	0.238
$15\% \leq w < 25\%$	-0.002	0.686
$25\% \leq w < 35\%$	-0.003	0.496
$35\% \leq w < 45\%$	-0.003	0.583
$w \geq 45\%$	0.002	0.659
<i>Personal characteristics</i>		
Maledummy	0.003	0.219
Middle Education	0.004	0.644
High Education	0.030***	0.000
$Age \leq 25$	0.100***	0.000
$25 \leq Age \leq 35$	0.070***	0.000
$35 \leq Age \leq 45$	0.019***	0.000
$45 \leq Age \leq 55$	0.005*	0.083
Non-western immigrant	0.009*	0.082
Western immigrant	-0.001	0.730
North-Netherlands	-0.006**	0.047
East-Netherlands	-0.003	0.237
South-Netherlands	0.017***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.167***	0.000
$12 \leq$ hour workweek < 20	0.056***	0.000
$20 \leq$ hour workweek < 25	0.007	0.168
$25 \leq$ hour workweek < 30	-0.002	0.538
$30 \leq$ hour workweek < 35	0.006**	0.050
Permanent contract	-0.079***	0.000
Year dummies	YES	
$Adj. R^2$	3.0%	
Number of observations	76111	

Table 10 The effect of wage differentials on the probability of leaving the provinces. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Water management	Coefficient	p-value
α	0.138***	0.000
$w < -45\%$	-0.004	0.422
$-45\% \leq w < -35\%$	0.008	0.157
$-35\% \leq w < -25\%$	0.005	0.314
$-25\% \leq w < -15\%$	-0.002	0.684
$-15\% \leq w < -5\%$	0.004	0.414
$5\% \leq w < 15\%$	-0.002	0.684
$15\% \leq w < 25\%$	-0.008*	0.087
$25\% \leq w < 35\%$	-0.001	0.832
$35\% \leq w < 45\%$	-0.004	0.500
$w \geq 45\%$	-0.007*	0.083
<i>Personal characteristics</i>		
Maledummy	0.000	0.995
Middle Education	-0.004	0.613
High Education	0.022***	0.002
$Age \leq 25$	0.084***	0.000
$25 \leq Age \leq 35$	0.049***	0.000
$35 \leq Age \leq 45$	0.016***	0.000
$45 \leq Age \leq 55$	0.001	0.734
Non-western immigrant	0.019***	0.001
Western immigrant	0.017***	0.000
North-Netherlands	-0.006*	0.059
East-Netherlands	0.000	0.945
South-Netherlands	-0.014***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.321***	0.000
$12 \leq$ hour workweek < 20	0.052***	0.000
$20 \leq$ hour workweek < 25	0.011**	0.036
$25 \leq$ hour workweek < 30	0.019***	0.000
$30 \leq$ hour workweek < 35	0.018***	0.000
Permanent contract	-0.087***	0.000
Year dummies	YES	
$Adj. R^2$	3.6%	
Number of observations	73666	

Table 11 The effect of wage differentials on the probability of leaving water management. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Municipality	Coefficient	p-value
α	0.136***	0.000
$w < -45\%$	0.021***	0.000
$-45\% \leq w < -35\%$	0.012***	0.000
$-35\% \leq w < -25\%$	0.008***	0.000
$-25\% \leq w < -15\%$	0.007***	0.000
$-15\% \leq w < -5\%$	0.003**	0.017
$5\% \leq w < 15\%$	0.000	0.901
$15\% \leq w < 25\%$	-0.003**	0.039
$25\% \leq w < 35\%$	-0.003**	0.017
$35\% \leq w < 45\%$	-0.004***	0.005
$w \geq 45\%$	0.005***	0.000
<i>Personal characteristics</i>		
Maledummy	0.018***	0.000
Middle Education	-0.011***	0.000
High Education	-0.001	0.532
$Age \leq 25$	0.071***	0.000
$25 \leq Age \leq 35$	0.033***	0.000
$35 \leq Age \leq 45$	0.015***	0.000
$45 \leq Age \leq 55$	0.007***	0.000
Non-western immigrant	-0.007***	0.000
Western immigrant	0.001	0.648
North-Netherlands	0.029***	0.000
East-Netherlands	0.000	0.826
South-Netherlands	-0.012***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.165***	0.000
$12 \leq$ hour workweek < 20	0.059***	0.000
$20 \leq$ hour workweek < 25	0.023***	0.000
$25 \leq$ hour workweek < 30	0.021***	0.000
$30 \leq$ hour workweek < 35	0.015***	0.000
Permanent contract	-0.065***	0.000
Year dummies	YES	
$Adj. R^2$	1.9%	
Number of observations	1075513	

Table 12 The effect of wage differentials on the probability of leaving the national government sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Health care	Coefficient	p-value
α	0.218***	0.000
$w < -45\%$	0.022***	0.000
$-45\% \leq w < -35\%$	0.008***	0.000
$-35\% \leq w < -25\%$	0.004***	0.005
$-25\% \leq w < -15\%$	0.005***	0.001
$-15\% \leq w < -5\%$	0.003**	0.068
$5\% \leq w < 15\%$	-0.001	0.417
$15\% \leq w < 25\%$	-0.001	0.492
$25\% \leq w < 35\%$	0.001	0.385
$35\% \leq w < 45\%$	0.001	0.380
$w \geq 45\%$	0.020***	0.000
<i>Personal characteristics</i>		
Maledummy	0.018***	0.000
Middle Education	-0.005***	0.001
High Education	-0.007***	0.000
$Age \leq 25$	0.085***	0.000
$25 \leq Age \leq 35$	0.042***	0.000
$35 \leq Age \leq 45$	0.019***	0.000
$45 \leq Age \leq 55$	0.010***	0.000
Non-western immigrant	0.039***	0.000
Western immigrant	0.015***	0.000
North-Netherlands	0.012***	0.000
East-Netherlands	0.003***	0.000
South-Netherlands	-0.010***	0.000
<i>Job characteristics</i>		
< 12 hour workweek	0.137***	0.000
$12 \leq$ hour workweek < 20	0.065***	0.000
$20 \leq$ hour workweek < 25	0.011***	0.000
$25 \leq$ hour workweek < 30	0.018***	0.000
$30 \leq$ hour workweek < 35	-0.002**	0.015
Permanent contract	-0.140***	0.000
Year dummies	YES	
$Adj. R^2$	4.9%	
Number of observations	1877921	

*Table 13 The effect of wage differentials on the probability of leaving the national government sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. Clustered standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.*

Appendix E: Subgroup analysis

This appendix provides subgroup analysis that complements the findings in section V.A.. We run regression (1) on subgroups for each government subcategory. Those subgroups are gender (male / female), migration background (native, western immigrant, non-western immigrant), and education level (low-, middle-, and high education).

National government

National government	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.009***	0.000	0.010***	0.000	0.012***	0.000	0.007	0.181
$-45\% \leq w < -35\%$	0.010***	0.000	0.011***	0.000	0.013***	0.000	0.009	0.138
$-35\% \leq w < -25\%$	0.006**	0.014	0.008***	0.001	0.009***	0.000	0.003	0.661
$-25\% \leq w < -15\%$	0.004*	0.059	0.005**	0.034	0.006***	0.001	0.002	0.776
$-15\% \leq w < -5\%$	0.003	0.112	0.002	0.340	0.003*	0.067	0.009	0.126
$5\% \leq w < 15\%$	-0.001	0.777	0.000	0.883	0.000	0.931	0.001	0.897
$15\% \leq w < 25\%$	0.001	0.573	-0.002	0.450	0.000	0.935	0.002	0.716
$25\% \leq w < 35\%$	0.001	0.531	-0.003	0.196	-0.001	0.650	-0.001	0.870
$35\% \leq w < 45\%$	0.002	0.475	0.000	0.848	0.001	0.658	-0.007	0.288
$w \geq 45\%$	0.005**	0.011	0.004*	0.063	0.005***	0.001	0.006	0.189
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
$Adj. R^2$	3.80%		3.90%		3.80%		3.80%	
Number of observations	377268		389924		601429		66415	

Table 12 The effect of earning a lower wage on the probability of leaving for several subgroups within the national government. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

National (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.002	0.608	0.020*	0.099	0.010**	0.011	0.010***	0.000
$-45\% \leq w < -35\%$	-0.001	0.906	-0.006	0.596	0.002	0.678	0.012***	0.000
$-35\% \leq w < -25\%$	-0.002	0.649	0.019*	0.079	0.011***	0.003	0.006***	0.004
$-25\% \leq w < -15\%$	-0.001	0.756	0.007	0.486	0.006*	0.096	0.004**	0.026
$-15\% \leq w < -5\%$	-0.004	0.346	-0.003	0.750	0.002	0.520	0.003	0.123
$5\% \leq w < 15\%$	-0.005	0.277	-0.003	0.780	0.000	0.938	-0.001	0.712
$15\% \leq w < 25\%$	-0.002	0.708	-0.004	0.645	0.000	0.973	0.000	0.936
$25\% \leq w < 35\%$	0.002	0.761	0.002	0.837	-0.005	0.154	0.000	0.862
$35\% \leq w < 45\%$	0.007	0.210	0.006	0.539	0.003	0.395	0.000	0.985
$w \geq 45\%$	0.007*	0.069	0.014*	0.090	0.009***	0.001	0.004**	0.013
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	3.80%		2.90%		3.80%		3.90%	
Number of observations	99348		14506		143096		609590	

Provinces

Provinces	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.012	0.118	0.013	0.121	0.013**	0.036	-0.006	0.765
$-45\% \leq w < -35\%$	0.012	0.178	-0.010	0.269	0.002	0.807	0.035	0.254
$-35\% \leq w < -25\%$	0.005	0.518	0.001	0.943	0.001	0.873	0.027	0.250
$-25\% \leq w < -15\%$	0.007	0.332	0.002	0.773	0.005	0.384	-0.016	0.413
$-15\% \leq w < -5\%$	0.005	0.477	-0.002	0.766	-0.001	0.801	0.005	0.792
$5\% \leq w < 15\%$	-0.012*	0.062	0.000	0.991	-0.004	0.385	-0.013	0.472
$15\% \leq w < 25\%$	0.008	0.249	-0.013*	0.069	-0.004	0.406	0.013	0.501
$25\% \leq w < 35\%$	0.002	0.761	-0.010	0.190	-0.003	0.531	0.004	0.845
$35\% \leq w < 45\%$	-0.004	0.589	-0.003	0.746	-0.006	0.298	0.028	0.211
$w \geq 45\%$	0.001	0.853	0.001	0.832	0.001	0.744	0.004	0.777
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	3.10%		3.00%		3.00%		2.60%	
Number of observations	39566		36555		66297		5354	

Table 13 The effect of earning a lower wage on the probability of leaving for several subgroups within the provinces. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% level, ** at the 5% level, and * at the 10% level.

Provinces (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.027	0.291	0.002	0.973	0.003	0.858	0.013**	0.029
$-45\% \leq w < -35\%$	-0.023	0.363	-0.033	0.233	-0.021	0.233	0.004	0.588
$-35\% \leq w < -25\%$	0.023	0.335	0.031	0.616	0.011	0.529	0.002	0.682
$-25\% \leq w < -15\%$	0.029	0.223	0.041	0.398	0.013	0.409	0.004	0.482
$-15\% \leq w < -5\%$	0.050**	0.030	0.056	0.249	-0.001	0.963	0.002	0.729
$5\% \leq w < 15\%$	-0.012	0.556	0.027	0.475	-0.002	0.891	-0.007	0.198
$15\% \leq w < 25\%$	0.019	0.374	0.079**	0.041	0.008	0.545	-0.005	0.374
$25\% \leq w < 35\%$	-0.012	0.575	0.012	0.708	-0.006	0.655	-0.003	0.629
$35\% \leq w < 45\%$	0.009	0.691	-0.009	0.760	0.001	0.947	-0.003	0.625
$w \geq 45\%$	0.008	0.643	0.034	0.211	0.000	0.976	0.002	0.667
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	4.10%		4.80%		3.10%		3.00%	
Number of observations	4460		1154		7972		66985	

Water management

Water management	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	-0.002	0.785	-0.008	0.479	-0.005	0.350	0.013	0.652
$-45\% \leq w < -35\%$	0.010	0.142	0.007	0.574	0.007	0.238	0.010	0.725
$-35\% \leq w < -25\%$	0.008	0.196	0.002	0.874	0.006	0.264	-0.013	0.638
$-25\% \leq w < -15\%$	0.003	0.608	-0.013	0.191	-0.002	0.659	-0.010	0.662
$-15\% \leq w < -5\%$	0.006	0.286	0.001	0.934	0.003	0.580	0.050*	0.053
$5\% \leq w < 15\%$	-0.002	0.748	-0.002	0.810	-0.002	0.741	0.013	0.569
$15\% \leq w < 25\%$	-0.010*	0.091	-0.007	0.423	-0.008	0.108	-0.003	0.899
$25\% \leq w < 35\%$	0.002	0.733	-0.007	0.430	-0.002	0.672	-0.005	0.836
$35\% \leq w < 45\%$	-0.004	0.594	-0.006	0.559	-0.002	0.769	-0.019	0.404
$w \geq 45\%$	-0.004	0.400	-0.014*	0.052	-0.007	0.101	-0.010	0.569
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	4.20%		3.10%		3.60%		2.80%	
Number of observations	48028		25638		65557		4424	

Table 14 The effect of earning a lower wage on the probability of leaving for several subgroups within water management. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Water management (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	-0.001	0.974	0.032	0.129	0.017*	0.073	-0.011*	0.085
$-45\% \leq w < -35\%$	0.027	0.422	0.046	0.488	0.011	0.265	0.007	0.336
$-35\% \leq w < -25\%$	0.003	0.916	-0.003	0.400	0.019**	0.039	0.001	0.915
$-25\% \leq w < -15\%$	0.017	0.531	0.002	0.933	0.005	0.563	-0.004	0.477
$-15\% \leq w < -5\%$	-0.020	0.435	-0.042	0.957	0.012	0.131	0.002	0.719
$5\% \leq w < 15\%$	-0.019	0.408	-0.019	0.165	0.007	0.362	-0.005	0.448
$15\% \leq w < 25\%$	-0.020	0.417	-0.055	0.539	0.007	0.370	-0.013**	0.039
$25\% \leq w < 35\%$	0.021	0.441	-0.039*	0.067	0.011	0.194	-0.004	0.514
$35\% \leq w < 45\%$	-0.019	0.473	-0.069	0.183	0.014	0.154	-0.008	0.255
$w \geq 45\%$	-0.001	0.966	-0.014**	0.016	0.006	0.368	-0.011**	0.029
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	4.30%		6.40%		4.40%		3.30%	
Number of observations	3685		1375		17797		54494	

Municipality

Municipality	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.023***	0.000	0.019***	0.000	0.022***	0.000	0.019***	0.000
$-45\% \leq w < -35\%$	0.013***	0.000	0.012***	0.000	0.012***	0.000	0.012**	0.034
$-35\% \leq w < -25\%$	0.007***	0.001	0.009***	0.000	0.008***	0.000	0.013**	0.012
$-25\% \leq w < -15\%$	0.009***	0.000	0.006***	0.001	0.008***	0.000	0.013***	0.009
$-15\% \leq w < -5\%$	0.004*	0.062	0.003*	0.092	0.003*	0.061	0.011**	0.026
$5\% \leq w < 15\%$	-0.001	0.486	0.001	0.732	0.000	0.943	0.009*	0.073
$15\% \leq w < 25\%$	-0.002	0.340	-0.004**	0.041	-0.003*	0.063	0.008	0.105
$25\% \leq w < 35\%$	-0.003	0.184	-0.004**	0.026	-0.004**	0.014	0.009	0.117
$35\% \leq w < 45\%$	-0.007***	0.005	-0.003	0.123	-0.005***	0.003	0.008	0.135
$w \geq 45\%$	0.003*	0.092	0.004***	0.003	0.005***	0.000	0.009**	0.023
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	3.00%		1.50%		1.80%		1.90%	
Number of observations	465650		609863		873347		77317	

Table 15 The effect of earning a lower wage on the probability of leaving for several subgroups within municipalities. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Municipality (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.016***	0.000	0.028***	0.003	0.031***	0.000	0.019***	0.000
$-45\% \leq w < -35\%$	0.015***	0.000	0.020**	0.039	0.019***	0.000	0.010***	0.000
$-35\% \leq w < -25\%$	0.007*	0.058	0.018**	0.038	0.013***	0.000	0.007***	0.000
$-25\% \leq w < -15\%$	0.000	0.985	0.017**	0.035	0.012***	0.000	0.006***	0.000
$-15\% \leq w < -5\%$	0.002	0.636	0.003	0.697	0.004	0.171	0.003**	0.048
$5\% \leq w < 15\%$	-0.006	0.116	-0.009	0.201	0.000	0.952	0.000	0.899
$15\% \leq w < 25\%$	-0.009**	0.025	-0.009	0.188	-0.001	0.686	-0.003*	0.076
$25\% \leq w < 35\%$	-0.006	0.137	-0.013*	0.075	-0.009***	0.002	-0.001	0.511
$35\% \leq w < 45\%$	-0.006	0.186	-0.017**	0.032	-0.008***	0.009	-0.002	0.187
$w \geq 45\%$	0.002	0.507	-0.012**	0.037	-0.001	0.635	0.007***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	3.20%		3.30%		3.60%		1.60%	
Number of observations	124849		36484		218715		820314	

Health care

Health care	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.014***	0.000	0.022***	0.000	0.021***	0.000	0.026***	0.000
$-45\% \leq w < -35\%$	0.005	0.148	0.009***	0.000	0.009***	0.000	0.004	0.512
$-35\% \leq w < -25\%$	0.001	0.784	0.005***	0.004	0.002	0.131	0.015***	0.010
$-25\% \leq w < -15\%$	0.006	0.111	0.004***	0.005	0.004***	0.004	0.003	0.565
$-15\% \leq w < -5\%$	0.003	0.325	0.002	0.116	0.002	0.270	0.006	0.266
$5\% \leq w < 15\%$	0.001	0.878	-0.001	0.344	-0.001	0.438	-0.004	0.496
$15\% \leq w < 25\%$	0.001	0.815	-0.001	0.407	-0.001	0.540	0.001	0.912
$25\% \leq w < 35\%$	-0.002	0.647	0.002	0.285	0.001	0.732	-0.001	0.881
$35\% \leq w < 45\%$	0.006	0.160	0.000	0.812	0.002	0.254	-0.003	0.601
$w \geq 45\%$	0.019***	0.000	0.019***	0.000	0.020***	0.000	0.015***	0.001
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	5.10%		4.90%		4.50%		4.90%	
Number of observations	310978		1566943		1576084		128466	

Table 16 The effect of earning a lower wage on the probability of leaving for several subgroups within the health care sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Health care (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.022***	0.000	0.022***	0.000	0.018***	0.000	0.025***	0.000
$-45\% \leq w < -35\%$	0.005	0.306	0.013**	0.029	0.006**	0.016	0.010***	0.000
$-35\% \leq w < -25\%$	0.012**	0.019	0.007	0.255	0.004*	0.057	0.003*	0.093
$-25\% \leq w < -15\%$	0.007	0.164	0.011*	0.059	0.004	0.107	0.004**	0.021
$-15\% \leq w < -5\%$	0.008	0.119	0.003	0.576	0.002	0.452	0.003	0.109
$5\% \leq w < 15\%$	0.002	0.715	-0.008	0.237	-0.001	0.508	0.000	0.987
$15\% \leq w < 25\%$	-0.001	0.786	-0.007	0.286	-0.005**	0.049	0.003	0.210
$25\% \leq w < 35\%$	0.011**	0.037	-0.005	0.505	-0.001	0.823	0.004*	0.078
$35\% \leq w < 45\%$	0.002	0.748	-0.013	0.101	-0.001	0.593	0.005**	0.025
$w \geq 45\%$	0.019***	0.000	0.035***	0.000	0.015***	0.000	0.022***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	7.00%		6.00%		5.90%		4.40%	
Number of observations	173371		96368		735683		1045870	

Justice

Justice	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.020*	0.100	-0.006	0.538	0.004	0.631	0.014	0.644
$-45\% \leq w < -35\%$	0.025*	0.080	0.014	0.186	0.017*	0.074	0.038	0.313
$-35\% \leq w < -25\%$	0.012	0.345	0.000	0.987	0.008	0.348	-0.011	0.686
$-25\% \leq w < -15\%$	0.008	0.488	-0.002	0.848	0.001	0.879	-0.024	0.332
$-15\% \leq w < -5\%$	0.006	0.616	-0.009	0.267	-0.008	0.242	-0.031	0.216
$5\% \leq w < 15\%$	0.019	0.113	-0.011	0.189	-0.002	0.834	-0.012	0.631
$15\% \leq w < 25\%$	-0.007	0.508	-0.006	0.468	-0.007	0.342	-0.024	0.336
$25\% \leq w < 35\%$	0.010	0.404	-0.011	0.199	-0.004	0.607	-0.024	0.339
$35\% \leq w < 45\%$	0.008	0.488	-0.008	0.376	0.001	0.914	-0.037	0.137
$w \geq 45\%$	0.007	0.424	-0.008	0.200	-0.002	0.676	-0.025	0.217
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	4.20%		3.40%		3.70%		3.60%	
Number of observations	12959		24940		30801		3582	

Table 17 The effect of earning a lower wage on the probability of leaving for several subgroups within the justice department. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Justice (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	-0.008	0.682	0.202	0.326	-0.009	0.798	0.001	0.942
$-45\% \leq w < -35\%$	0.012	0.578	0.428	0.324	0.011	0.738	0.016*	0.075
$-35\% \leq w < -25\%$	-0.007	0.722	-0.111	0.262	-0.034*	0.100	0.005	0.522
$-25\% \leq w < -15\%$	0.024	0.256	0.035	0.830	0.063**	0.048	-0.002	0.749
$-15\% \leq w < -5\%$	0.038*	0.077	-0.042	0.640	-0.008	0.722	-0.005	0.505
$5\% \leq w < 15\%$	0.007	0.737	0.041	0.648	0.048	0.092	-0.004	0.561
$15\% \leq w < 25\%$	0.010	0.644	-0.049	0.485	0.015	0.554	-0.007	0.311
$25\% \leq w < 35\%$	0.008	0.732	0.017	0.873	0.040	0.220	-0.008	0.259
$35\% \leq w < 45\%$	0.000	0.986	0.137	0.241	0.018	0.566	-0.005	0.468
$w \geq 45\%$	0.010	0.525	0.057	0.416	0.081***	0.000	-0.008	0.136
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	5.00%		8.80%		6.30%		3.80%	
Number of observations	3516		216		1664		36019	

Police

Police	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.025***	0.000	0.037***	0.000	0.030***	0.000	0.020***	0.001
$-45\% \leq w < -35\%$	0.011***	0.000	0.022***	0.000	0.016***	0.000	0.000	0.949
$-35\% \leq w < -25\%$	0.006***	0.005	0.012***	0.000	0.009***	0.000	-0.009	0.174
$-25\% \leq w < -15\%$	0.003	0.191	0.005*	0.080	0.004**	0.013	-0.003	0.613
$-15\% \leq w < -5\%$	0.001	0.773	0.007***	0.008	0.004**	0.018	-0.015**	0.024
$5\% \leq w < 15\%$	-0.004**	0.035	-0.007***	0.005	-0.005***	0.001	-0.016**	0.014
$15\% \leq w < 25\%$	-0.006***	0.002	-0.009***	0.001	-0.007***	0.000	-0.009	0.163
$25\% \leq w < 35\%$	-0.011***	0.000	-0.016***	0.000	-0.013***	0.000	-0.021***	0.002
$35\% \leq w < 45\%$	-0.019***	0.000	-0.018***	0.000	-0.018***	0.000	-0.023***	0.001
$w \geq 45\%$	-0.052***	0.000	-0.035***	0.000	-0.047***	0.000	-0.043***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	53.30%		51.80%		52.90%		52.30%	
Number of observations	422457		257258		590511		45751	

Table 18 The effect of earning a lower wage on the probability of leaving for several subgroups within the police force. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Police (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.048***	0.000	0.017	0.206	0.028***	0.000	0.041***	0.000
$-45\% \leq w < -35\%$	0.028***	0.000	0.024	0.109	0.011***	0.000	0.027***	0.000
$-35\% \leq w < -25\%$	0.016**	0.015	0.003	0.845	0.002	0.262	0.023***	0.000
$-25\% \leq w < -15\%$	0.000	0.954	0.020	0.122	0.001	0.630	0.010***	0.000
$-15\% \leq w < -5\%$	0.008	0.202	0.018	0.163	0.002	0.263	0.006**	0.033
$5\% \leq w < 15\%$	0.008	0.237	0.003	0.811	-0.005***	0.004	-0.008**	0.010
$15\% \leq w < 25\%$	-0.006	0.403	-0.014	0.287	-0.009***	0.000	-0.007**	0.028
$25\% \leq w < 35\%$	-0.001	0.923	-0.040***	0.003	-0.014***	0.000	-0.014***	0.000
$35\% \leq w < 45\%$	-0.009	0.200	-0.034***	0.014	-0.021***	0.000	-0.015***	0.000
$w \geq 45\%$	-0.016***	0.003	-0.051***	0.000	-0.054***	0.000	-0.022***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	50.00%		51.60%		53.90%		49.30%	
Number of observations	43453		10094		497017		190604	

Defense military

Defense military	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.028***	0.000	0.04***	0.000	0.029***	0.000	0.046***	0.000
$-45\% \leq w < -35\%$	0.027***	0.000	0.02**	0.029	0.026***	0.000	0.011	0.357
$-35\% \leq w < -25\%$	0.022***	0.000	0.02***	0.006	0.024***	0.000	0.011	0.339
$-25\% \leq w < -15\%$	0.014***	0.000	0.02***	0.002	0.015***	0.000	0.031***	0.005
$-15\% \leq w < -5\%$	0.006**	0.045	0.01**	0.046	0.007**	0.012	0.014	0.192
$5\% \leq w < 15\%$	-0.008***	0.001	0.01	0.176	-0.008***	0.002	0.007	0.470
$15\% \leq w < 25\%$	-0.012***	0.000	0.00	0.723	-0.013***	0.000	0.009	0.377
$25\% \leq w < 35\%$	-0.015***	0.000	0.01	0.453	-0.014***	0.000	-0.006	0.557
$35\% \leq w < 45\%$	-0.019***	0.000	0.00	0.841	-0.019***	0.000	-0.012	0.263
$w \geq 45\%$	-0.016***	0.000	0.01	0.139	-0.015***	0.000	-0.007	0.355
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	13.30%		8.20%		12.10%		12.10%	
Number of observations	255075		33471		254622		19400	

Table 19 The effect of earning a lower wage on the probability of leaving for several subgroups within defense military. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Defense military (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.037***	0.006	-0.025	0.411	0.037***	0.000	0.023***	0.000
$-45\% \leq w < -35\%$	0.048***	0.001	-0.053*	0.097	0.034***	0.000	0.016***	0.001
$-35\% \leq w < -25\%$	0.027**	0.034	-0.032	0.280	0.035***	0.000	0.007	0.103
$-25\% \leq w < -15\%$	0.028**	0.025	-0.029	0.296	0.022***	0.000	0.008**	0.037
$-15\% \leq w < -5\%$	0.001	0.957	0.004	0.879	0.013***	0.000	-0.004	0.350
$5\% \leq w < 15\%$	0.001	0.944	-0.056**	0.015	-0.005	0.107	-0.006	0.130
$15\% \leq w < 25\%$	0.002	0.882	-0.052**	0.022	-0.010***	0.001	-0.010**	0.014
$25\% \leq w < 35\%$	-0.024**	0.049	-0.065***	0.003	-0.013***	0.000	-0.009**	0.023
$35\% \leq w < 45\%$	-0.002	0.871	-0.066***	0.004	-0.017***	0.000	-0.012***	0.006
$w \geq 45\%$	0.010	0.302	-0.058***	0.002	-0.012***	0.000	-0.011***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	11.70%		10.60%		11.60%		14.00%	
Number of observations	14524		6383		176969		105194	

Defense civilian

Defense civilian	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.005	0.194	0.005	0.446	0.004	0.238	0.001	0.937
$-45\% \leq w < -35\%$	-0.001	0.753	-0.005	0.464	-0.001	0.836	-0.013	0.300
$-35\% \leq w < -25\%$	0.003	0.419	0.015**	0.035	0.004	0.262	0.014	0.270
$-25\% \leq w < -15\%$	0.000	0.947	0.005	0.499	-0.001	0.834	0.016	0.203
$-15\% \leq w < -5\%$	0.000	0.972	0.004	0.558	0.000	0.910	0.001	0.918
$5\% \leq w < 15\%$	-0.004	0.289	0.002	0.773	-0.001	0.759	-0.014	0.255
$15\% \leq w < 25\%$	-0.001	0.847	-0.005	0.481	-0.002	0.582	0.000	0.974
$25\% \leq w < 35\%$	0.003	0.465	0.006	0.394	0.004	0.377	0.025*	0.085
$35\% \leq w < 45\%$	0.004	0.388	0.005	0.515	0.003	0.520	0.012	0.389
$w \geq 45\%$	0.013***	0.000	0.015***	0.006	0.015***	0.000	0.010	0.292
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	6.60%		3.10%		4.40%		5.10%	
Number of observations	63178		29103		76610		8429	

Table 20 The effect of earning a lower wage on the probability of leaving for several subgroups within defense civilian. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Defense civilian (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.013	0.323	0.020	0.215	0.001	0.838	0.005	0.261
$-45\% \leq w < -35\%$	-0.006	0.627	-0.001	0.946	-0.001	0.858	-0.004	0.391
$-35\% \leq w < -25\%$	0.018	0.206	0.003	0.856	0.010*	0.094	0.003	0.477
$-25\% \leq w < -15\%$	-0.001	0.912	-0.008	0.607	-0.004	0.483	0.004	0.328
$-15\% \leq w < -5\%$	0.010	0.451	-0.018	0.261	0.000	0.947	0.004	0.404
$5\% \leq w < 15\%$	-0.004	0.755	0.006	0.713	-0.002	0.678	-0.003	0.529
$15\% \leq w < 25\%$	0.000	0.980	-0.001	0.938	0.000	0.949	-0.004	0.448
$25\% \leq w < 35\%$	-0.007	0.577	0.007	0.699	-0.006	0.328	0.012**	0.028
$35\% \leq w < 45\%$	0.009	0.564	0.006	0.783	0.002	0.738	0.006	0.312
$w \geq 45\%$	0.020*	0.061	0.026	0.103	0.010**	0.047	0.016***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	4.10%		4.40%		4.40%		4.60%	
Number of observations	7242		3792		35186		53303	

Primary education

Primary education	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.007**	0.050	0.005***	0.001	0.006***	0.000	0.013*	0.051
$-45\% \leq w < -35\%$	0.006	0.139	0.001	0.511	0.002	0.144	0.007	0.351
$-35\% \leq w < -25\%$	0.006	0.130	-0.001	0.356	-0.001	0.406	0.012*	0.066
$-25\% \leq w < -15\%$	0.002	0.613	-0.003**	0.050	-0.002	0.168	-0.004	0.596
$-15\% \leq w < -5\%$	0.002	0.568	-0.002*	0.088	-0.002*	0.093	0.000	0.997
$5\% \leq w < 15\%$	0.015***	0.000	0.002	0.206	0.003**	0.014	0.004	0.538
$15\% \leq w < 25\%$	0.006	0.110	0.006***	0.000	0.006***	0.000	0.011	0.103
$25\% \leq w < 35\%$	0.010**	0.028	0.009***	0.000	0.009***	0.000	0.011	0.124
$35\% \leq w < 45\%$	0.016***	0.000	0.013***	0.000	0.014***	0.000	0.013*	0.069
$w \geq 45\%$	0.027***	0.000	0.026***	0.000	0.026***	0.000	0.028***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	17.60%		18.80%		18.80%		17.50%	
Number of observations	217484		1269315		1346914		73407	

Table 21 The effect of earning a lower wage on the probability of leaving for several subgroups within the primary education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Primary (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	-0.001	0.933	-0.003	0.815	0.001	0.898	0.007***	0.000
$-45\% \leq w < -35\%$	-0.011	0.151	-0.013	0.342	-0.009	0.116	0.003*	0.061
$-35\% \leq w < -25\%$	0.005	0.481	-0.009	0.466	-0.005	0.331	0.000	0.916
$-25\% \leq w < -15\%$	-0.009	0.182	0.000	0.992	-0.002	0.667	-0.002*	0.079
$-15\% \leq w < -5\%$	0.005	0.426	-0.008	0.426	-0.001	0.788	-0.002	0.141
$5\% \leq w < 15\%$	0.005	0.450	0.007	0.540	0.005	0.374	0.003	0.014
$15\% \leq w < 25\%$	0.007	0.330	-0.013	0.230	0.000	0.970	0.007***	0.000
$25\% \leq w < 35\%$	0.013*	0.080	-0.005	0.679	0.003	0.647	0.009***	0.000
$35\% \leq w < 45\%$	0.007	0.386	0.009	0.493	0.014**	0.027	0.013***	0.000
$w \geq 45\%$	0.029***	0.000	0.055***	0.000	0.055***	0.000	0.025***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	15%		5.60%		12.40%		19.20%	
Number of observations	66478		15623		97750		1373426	

Secondary education

Secondary education	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.002	0.581	0.001	0.621	0.001	0.472	-0.003	0.698
$-45\% \leq w < -35\%$	0.000	0.982	-0.002	0.507	0.000	0.958	-0.005	0.504
$-35\% \leq w < -25\%$	0.002	0.585	-0.003	0.187	0.000	0.895	-0.007	0.335
$-25\% \leq w < -15\%$	0.001	0.802	0.000	0.986	0.002	0.221	-0.005	0.462
$-15\% \leq w < -5\%$	0.001	0.816	0.004*	0.077	0.004*	0.054	0.001	0.897
$5\% \leq w < 15\%$	0.000	0.899	0.008***	0.001	0.005***	0.003	0.002	0.784
$15\% \leq w < 25\%$	0.005*	0.064	0.010***	0.000	0.009***	0.000	0.002	0.754
$25\% \leq w < 35\%$	0.008***	0.006	0.008***	0.001	0.008***	0.000	0.013*	0.057
$35\% \leq w < 45\%$	0.006*	0.058	0.012***	0.000	0.009***	0.000	0.015**	0.029
$w \geq 45\%$	0.021***	0.000	0.026***	0.000	0.026***	0.000	0.020***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	11.90%		10.90%		11.10%		11.00%	
Number of observations	343390		524520		740936		71043	

Table 22 The effect of earning a lower wage on the probability of leaving for several subgroups within the secondary education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Secondary (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.002	0.843	-0.029	0.106	0.000	0.969	0.000	0.801
$-45\% \leq w < -35\%$	-0.009	0.299	0.012	0.526	-0.004	0.623	-0.001	0.508
$-35\% \leq w < -25\%$	-0.012	0.154	-0.018	0.207	0.003	0.665	-0.002	0.414
$-25\% \leq w < -15\%$	-0.024***	0.001	-0.002	0.850	-0.001	0.841	0.000	0.903
$-15\% \leq w < -5\%$	-0.006	0.428	-0.016	0.166	0.003	0.601	0.003	0.101
$5\% \leq w < 15\%$	0.003	0.716	-0.007	0.528	0.015***	0.005	0.004**	0.024
$15\% \leq w < 25\%$	0.004	0.549	-0.005	0.661	0.015***	0.006	0.008***	0.000
$25\% \leq w < 35\%$	-0.004	0.613	-0.006	0.618	0.007	0.217	0.008***	0.000
$35\% \leq w < 45\%$	0.013	0.101	-0.002	0.855	0.017***	0.009	0.010***	0.000
$w \geq 45\%$	0.021***	0.001	0.028***	0.003	0.048***	0.000	0.023***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	11.50%		7.40%		10.80%		11.30%	
Number of observations	55931		14002		68182		785726	

Vocational

Vocational	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	-0.001	0.910	-0.008**	0.049	-0.006*	0.061	-0.007	0.532
$-45\% \leq w < -35\%$	-0.010**	0.048	-0.009**	0.039	-0.009**	0.015	-0.024	0.061
$-35\% \leq w < -25\%$	-0.008*	0.072	-0.008**	0.034	-0.007**	0.021	-0.024**	0.036
$-25\% \leq w < -15\%$	-0.011**	0.012	-0.005	0.151	-0.007**	0.016	0.000	0.978
$-15\% \leq w < -5\%$	-0.007*	0.084	-0.009**	0.012	-0.009***	0.002	-0.007	0.517
$5\% \leq w < 15\%$	0.000	0.975	0.005	0.154	0.003	0.340	0.001	0.916
$15\% \leq w < 25\%$	-0.003	0.499	0.010***	0.004	0.005	0.115	0.013	0.242
$25\% \leq w < 35\%$	0.000	0.926	0.008**	0.044	0.005	0.102	0.013	0.273
$35\% \leq w < 45\%$	0.007	0.174	0.017***	0.000	0.013***	0.000	0.008	0.507
$w \geq 45\%$	0.024***	0.000	0.025***	0.000	0.025***	0.000	0.028***	0.002
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
Adj. R^2	8.20%		8.50%		8.30%		8.10%	
Number of observations	122663		188598		260869		22696	

Table 23 The effect of earning a lower wage on the probability of leaving for several subgroups within the vocational education sector. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

Vocational (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.006	0.586	-0.044*	0.064	-0.005	0.563	-0.005*	0.093
$-45\% \leq w < -35\%$	-0.006	0.589	0.015	0.580	-0.016*	0.088	-0.010***	0.008
$-35\% \leq w < -25\%$	-0.005	0.630	0.011	0.614	-0.009	0.279	-0.009***	0.005
$-25\% \leq w < -15\%$	-0.015	0.118	-0.003	0.869	-0.012*	0.095	-0.007**	0.021
$-15\% \leq w < -5\%$	-0.005	0.584	0.022	0.254	-0.008	0.277	-0.009***	0.002
$5\% \leq w < 15\%$	0.010	0.287	0.026	0.146	0.013*	0.067	0.001	0.670
$15\% \leq w < 25\%$	0.006	0.546	-0.011	0.512	0.020***	0.007	0.003	0.288
$25\% \leq w < 35\%$	-0.006	0.549	0.021	0.264	0.015***	0.047	0.002	0.446
$35\% \leq w < 45\%$	0.022**	0.049	0.035*	0.084	0.016***	0.058	0.012***	0.001
$w \geq 45\%$	0.028***	0.000	0.032**	0.031	0.038***	0.000	0.023***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	9.30%		6.20%		9.10%		8.20%	
Number of observations	27696		5002		40267		265992	

University

University	Gender				Migration background			
Dependent variable /subgroup	Male		Female		Native		Western	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.005	0.189	0.000	0.992	0.005*	0.088	-0.011	0.158
$-45\% \leq w < -35\%$	-0.006	0.209	-0.002	0.583	-0.005*	0.098	0.000	0.954
$-35\% \leq w < -25\%$	-0.004	0.317	-0.009**	0.013	-0.006*	0.055	-0.015*	0.054
$-25\% \leq w < -15\%$	-0.003	0.408	-0.002	0.639	-0.003	0.321	-0.002	0.837
$-15\% \leq w < -5\%$	0.000	0.901	0.001	0.777	0.000	0.885	0.005	0.516
$5\% \leq w < 15\%$	0.006	0.160	0.003	0.479	0.002	0.525	0.010	0.226
$15\% \leq w < 25\%$	0.002	0.596	0.002	0.552	0.001	0.836	0.009	0.330
$25\% \leq w < 35\%$	0.006	0.209	0.005	0.214	0.006*	0.078	0.008	0.385
$35\% \leq w < 45\%$	0.016***	0.001	0.006	0.173	0.008*	0.021	0.018*	0.060
$w \geq 45\%$	0.014***	0.000	0.016***	0.000	0.014***	0.000	0.017**	0.011
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	11.80%		12.30%		12.30%		10.40%	
Number of observations	194203		228773		312276		63830	

Table 24 The effect of earning a lower wage on the probability of leaving for several subgroups at universities. Positive signs indicate that the probability of leaving increases. Negative signs for wage categories indicate that the probability of leaving decreases. The regression controls for various background characteristics. We Cluster standard errors at the individual level. *** denotes significance at the 1% lever, ** at the 5% level, and * at the 10% level.

University (continued)	Migration background		Education level					
Dependent variable /subgroup	Non-western		Low		Middle		High	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P--value	Coefficient	P-value
$w < -45\%$	0.003	0.779	0.017	0.739	0.018	0.161	0.001	0.761
$-45\% \leq w < -35\%$	0.000	0.969	0.055	0.284	0.023*	0.071	-0.006*	0.067
$-35\% \leq w < -25\%$	-0.006	0.539	0.010	0.806	0.018*	0.074	-0.009***	0.002
$-25\% \leq w < -15\%$	-0.003	0.754	-0.010	0.763	0.019**	0.031	-0.004	0.139
$-15\% \leq w < -5\%$	0.002	0.844	0.036	0.309	0.021**	0.013	-0.001	0.724
$5\% \leq w < 15\%$	0.016	0.146	-0.022	0.484	0.027***	0.001	0.003	0.351
$15\% \leq w < 25\%$	0.009	0.413	-0.002	0.954	0.013	0.130	0.002	0.561
$25\% \leq w < 35\%$	-0.002	0.894	-0.012	0.705	0.013	0.170	0.005*	0.094
$35\% \leq w < 45\%$	0.027**	0.038	0.042	0.228	0.033***	0.001	0.009***	0.008
$w \geq 45\%$	0.029***	0.001	0.057**	0.029	0.040***	0.000	0.013***	0.000
Personal characteristics	YES		YES		YES		YES	
Job characteristics	YES		YES		YES		YES	
Year dummies	YES		YES		YES		YES	
$Adj. R^2$	9.40%		16.00%		8.10%		12.00%	
Number of observations	37870		2877		21206		398893	