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## Public sector employees: risk averse and altruistic?

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September 2009

# Public Sector Employees: Risk Averse and Altruistic?

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## ABSTRACT

### Public Sector Employees: Risk Averse and Altruistic?\*

We assess whether public sector employees have a stronger inclination to serve others and are more risk averse than employees in the private sector. A unique feature of our study is that we use revealed rather than stated preferences data. Respondents of a large-scale survey were offered a substantial reward and could choose between a widely redeemable gift certificate, a lottery ticket, or making a donation to a charity. Our analysis shows that public sector employees are significantly less likely to choose the risky option (lottery) and, at the start of their career, significantly more likely to choose the pro-social option (charity). However, when tenure increases, this difference in pro-social inclinations disappears and, later on, even reverses. Our results further suggest that quite a few public sector employees do not contribute to charity because they feel that they already contribute enough to society at work for too little pay.

JEL Classification: H1, J45, M52

Keywords: public service motivation, risk aversion, revealed preferences data

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# 1 Introduction

It is often argued that preferences and work motivations of public sector employees differ from those of private sector employees. Some of these differences stem from sectoral differences in the nature of jobs. Many jobs in the public sector involve helping people in need or contributing to society at large, rendering these jobs attractive to people who have a strong willingness to serve others or the public interest.<sup>1</sup> Another, less honorable motivation for seeking a job in the public sector is avoidance of risk. In most countries, employers in the public sector offer higher job security and less volatile wage compensation than employers in the private sector (Clark and Postel-Vinay 2009, Bonin et al. 2007). As a result, highly risk-averse people may find it attractive to opt for a job in the public sector (Bellante and Link 1981).

This paper employs a unique dataset to assess whether public sector employees have a stronger inclination to serve others and are more risk averse than people employed in the private sector. In contrast to previous empirical studies, we explore revealed preferences rather than stated preferences. Our data come from a questionnaire held in 2000 covering more than 3000 employees in The Netherlands. Upon completing the questionnaire, each participant was offered a reward worth 25 guilders (11,34 euro; about 15% of daily disposable household income in 2000). Participants could choose between receiving a widely redeemable gift certificate, receiving a national lottery ticket, or donating the reward to a charity of their choice. We hypothesize that, as compared to private sector employees, public sector employees more likely choose to donate to charity (the safe and pro-social choice) and less likely choose the lottery ticket (the risky choice) rather than choose the gift certificate (the safe and selfish choice).

Our results lend strong support to the hypothesis that public sector employees are more risk averse than private sector employees. People holding a public sector job are much less likely to choose the lottery ticket rather than the gift certificate. This holds both before and after controlling for income, gender, age and several other observable characteristics. The difference is substantial: Our estimation results imply that the odds for a public sector

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<sup>1</sup>See the large literature in public administration on ‘public service motivation’ (e.g. Perry and Wise 1990, Perry 1996, Rainey and Steinbauer 1999, Wright 2001) and several recent theoretical studies in economics (e.g. Dixit 2001, Besley and Gathak 2005, Francois 2007, Delfgaauw and Dur 2008). Perry et al. (2009) and Francois and Vlassopoulos (2008) provide overviews of these literatures.

worker of choosing the lottery ticket rather than the gift certificate are 0.68 times the odds for a private sector worker.

We find only weak evidence for the hypothesis that public sector employees more likely choose the pro-social option of donating to charity rather than choose the selfish option of taking the gift certificate. On the contrary, our analysis reveals that, after controlling for observable individual characteristics, public sector employees are significantly *less* likely to donate to charity. The odds for a public sector worker of donating his reward to charity rather than taking the gift certificate are 0.74 times the odds for a private sector worker. Behind this average figure is a remarkable relation between inclinations to donate to charity and employee's tenure in a public sector organization. Employees who have just started a job in the public sector are significantly *more* likely than their private sector counterparts to donate to charity rather than to take the gift certificate. However, within a few years, this difference disappears and later on even reverses. Importantly, we find no tenure effects for private sector workers' inclination to donate to charity, nor does tenure affect the likelihood of choosing the risky option in either of the sectors. Moreover, the tenure effect for public sector worker's inclination to donate to charity remains intact when we allow for public-sector specific age effects.

This tenure effect is well in line with the observations made by Blau (1960: 347, 348) in his study of case workers in a public welfare agency. He finds that "the attitudes of most new case workers toward clients were strongly positive, if somewhat sentimental and idealistic (...) the new case worker was typically full of sympathy for clients' problems. But as he encountered clients who blamed him personally for not helping them enough, even though agency procedure limited him, and clients met his trusting attitude by cheating and lying, the newcomer tended to experience a 'reality shock' (...) This disillusioning experience might make a worker bitter and callous, or induce him to leave the job, and even those who did not have either of these extreme reactions tended to change their orientation to clients." "In sum, experience increased the case worker's ability to serve recipients but decreased his interest in doing so." (Blau 1960: 359). Likewise, Van Maanen (1975) reports swift declines in motivation among police recruits during their first year in a big-city department, which are partly accounted for by more pessimistic beliefs about the likelihood of receiving favorable responses from the community to 'working especially hard.' Similar findings are reported by De Cooman et al. (2009) using data from a repeated survey among Flemish

teachers who just started their professional career. They find that, within two years time, "work values became somewhat less ideological and more self-oriented." Further, teachers "attached greater importance to extrinsic values, including rewards, security, career, and recognition, and less importance to altruistic values including social service, though these changes were relatively small." (p. 105-106)<sup>2</sup>

It is important to note that our analysis gives an indication of people's *marginal* willingness to accept risk and to make charitable contributions; it does not reveal people's overall risk aversion or pro-social attitude. The two need not coincide. For instance, employees in the private sector may generally be more risk tolerant than public sector employees, but exhibit more risk averse behavior at the margin because in their professional life they are already exposed to more risk than public sector employees. Likewise, public sector employees may be less willing to donate their reward to charity as they already serve the public interest in their professional life on a day-to-day basis. Unfortunately, we lack data on how much risk people face and how much they contribute to the public interest in daily life. However, we do find some indirect evidence for the idea that public sector employees less likely donate to charity because they feel they already contribute a lot to society at work. One of the questions in the survey asked people whether they consider their salary to be sufficient for the work that they do. People responding negatively to this question less likely donate their reward to charity rather than take the gift certificate. Importantly, this effect is significantly stronger for employees in the public sector, both statistically and economically (the effect is twice as large). This suggests that public sector employees consider the contributions they make on the job as a substitute for making charitable donations. Feeling underpaid explains a large part of the average difference between pro-social inclinations in the sectors. This is partly due to the stronger effect of feeling underpaid on public sector employees' likelihood to donate. Further, a much larger fraction of employees in the public sector feel that they are underpaid (56% in the public sector as compared to 42% in the private sector). Comparing dissatisfied employees in the public and private sector, we find no significant difference in the early stages of the career, while later on public sector employees are significantly less likely to donate. Satisfied public sector employees significantly more often choose to

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<sup>2</sup>Similar patterns have been observed among volunteers, see Tschirhart et al. (2001) and references therein.

donate in the early stage of their career, while later on there is no significant difference with their private sector counterparts.

Although we can only assess people's risk and pro-social attitude at the margin, we do think our results are of great relevance for recent debates about remuneration of employees in the public sector (see, e.g., Burgess and Ratto 2003, National Commission on the Public Service 2003, OECD 2005 and 2008). First, measuring tolerance for additional risk of public sector employees gives some indication of the effects of introducing or strengthening pay-for-performance for workers in the public sector. Making employees' pay more dependent of their performance usually increases the risks employees face, as their performance not only depends on their effort, but also on random events. Our results suggest that public sector employees have a stronger distaste for taking risks than their counterparts in the private sector, implying that (with the current workforce) pay-for-performance is a more costly instrument to induce effort in the public sector than in the private sector. Second, measuring pro-social inclinations at the margin gives an idea about how much society can rely on public sector employees' altruistic motivations when additional helping opportunities arise. Our results give rise to some pessimism: Many public sector employees feel that they are underpaid relative to the contributions that they make, which makes them hesitant to provide further contributions.

We proceed as follows. The next section briefly describes earlier studies on differences in preferences and motivations between public and private sector employees. Section 3 describes the data. Section 4 presents the main results and Section 5 concludes.

## 2 Related literature

A rich literature in public administration and a growing number of studies in economics have examined differences in preferences and motivations between public and private sector employees. Existing empirical studies can be divided into two groups: those that use stated preferences or motivations (e.g., by asking respondents how important job security or helping other people is to them) and those that infer preferences and motivations from stated behavior (e.g., self-reported donations to charity, self-reported purchase of insurance, stated willingness to pay for a hypothetical lottery, et cetera). Our study is the first using revealed preferences data rather than stated prefer-



ences data; that is, we use data on what people actually do, not on what they say they do or what they claim is important to them. This has some clear and well-known advantages. In particular, stated preferences data may be vulnerable to self-stereotyping, self-serving biases, lack of attention by respondents, and strategic motives (Roszkowski and Grable 2007, Dohmen et al. 2009). For instance, it has been shown that in experiments with hypothetical payments subjects appear more generous and more risk-preferring than when real money is at stake (Camerer and Hogarth 1999).

Most studies comparing public and private sector workers have assessed in how far public sector workers have a particular willingness to serve the public interest, to help others, and to make personal sacrifices in order to do so. For instance, Rainey (1982) and Lewis and Frank (2002) find that public sector workers more often rate work attributes such as ‘Useful to society’ and ‘Help others’ as (very) important (see also Kilpatrick et al. 1964, Buchanan 1975, Crewson 1997, Houston 2000, and Steijn 2008 among others). Houston (2006) uses data on self-reported pro-social behavior, such as volunteering, donating blood, and making charitable contributions. He finds that nonprofit and public sector employees are more likely to report being a volunteer and blood donor, while no such relation is found for charitable contributions. Likewise, Brewer (2003) shows that public sector employees report higher levels of participation in nonpolitical civic affairs. Recently, Gregg et al. (2009) exploit British panel data and find that individuals who are more inclined to donate labor (as measured by stated unpaid overtime) select into the non-profit sector.

Other studies have examined whether public and private sector workers differ in risk preferences. Studies using stated preferences about job security find mixed evidence (see e.g. Rainey 1982, Crewson 1997, Houston 2000, and Lewis and Frank 2002). By contrast, Bellante and Link (1981) use answers to questions like the condition and insurance of cars owned, the use of seat belts, the extent of medical coverage, and smoking and drinking habits to construct a measure of risk aversion. They find that, thus defined, risk-averse people are more likely to be employed in the public sector than in the private sector. Likewise, Roszkowski and Grable (2009) use data on clients of financial planners who had completed a test of financial risk tolerance. They find that public sector employees score significantly lower than private sector employees, even after controlling for a rich set of observables. Similar results are obtained by Hartog et al. (2002) for The Netherlands and by Guiso and Paiella (2008) for Italy using large-scale survey data on people’s willingness

to pay for a hypothetical lottery and for a hypothetical risky security, respectively. Several recent papers in economics have added to this body of evidence using the 2004 wave of the German Socio-Economic Panel data, which contains questions on people's attitude towards risk-taking. Bonin et al. (2007) show that working in the public sector implies a significantly lower earnings risk than working in the private sector and that individuals who are less risk tolerant more likely end up working in an occupation with low earnings risk. Using the same data, Luechinger et al. (2007) and Pfeifer (2008) directly estimate the effect of self-reported risk attitude on sector of employment and report similar findings: people who are less willing to take risk are more likely to be found in the public sector.

### 3 Data and empirical strategy

We use data from the TNO Work Situation Survey (TAS), a Dutch survey developed by TNO (an independent research organization, partly funded by the Dutch government) in cooperation with the Ministry of Social Affairs and Employment. The survey was conducted in 2000 among about 8000 employees and self-employed persons in all sectors of the economy. The response rate was 53%, resulting in 4334 respondents (see Smulders et al. 2001 and Bakhuis Roozenboom et al. 2007).<sup>3</sup> The survey includes a rich set of demographic variables and data on a wide range of work-related topics, such as employment conditions, pay, hours worked, job and pay satisfaction, attitude towards work, intention to leave, job security, health-related issues, and workplace characteristics.

Our key variable of interest is the type of reward chosen by the respondents for completing the survey (see Appendix A for the exact question and possible answers).<sup>4</sup> Respondents could choose between receiving a widely redeemable gift certificate, receiving a national lottery ticket, or donating the reward to a charity of their choice. All types of reward had the same face value: 25 guilders (11.34 euro), about 15% of daily disposable household

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<sup>3</sup>See for more information in English: [http://www.eurofound.europa.eu/ewco/surveys/national/countries/netherlands2005\\_6\\_tas.htm](http://www.eurofound.europa.eu/ewco/surveys/national/countries/netherlands2005_6_tas.htm)

<sup>4</sup>The survey was repeated in 2002 and 2004. We do not use these data in our analysis because in 2002 the data-collecting company did not report data on our key variable and in 2004 the reward for respondents was substantially lower and differed between completing the internet questionnaire (10 euros) and the written questionnaire (7,50 euros).

income in 2000.

Since respondents indicated their main economic sector in the survey, but not whether their organization belongs to the public or private sector, we recoded the main economic sectors into public or private, using a data file we obtained on request from Statistics Netherlands. The sectors thus included in the public sector are education, hospitals, nursing homes, welfare work, and central and local government. Four economic sectors contain a substantial mix of private and public organizations; we omit these sectors from our analyses.<sup>5</sup> Furthermore, we confine ourselves to employees, leaving out the self-employed, owners of firms, and (unpaid) family workers. We also restrict the sample to respondents between 20 and 64 years of age, because there are very few respondents under 20 years of age and 65 is the regular Dutch retirement age. These selections leave us with a sample of 3126 respondents.

Our empirical strategy is to examine whether an otherwise comparable respondent differs in his choice of reward depending on the sector of employment. If public sector workers are more altruistic and more risk averse at the margin, we should find that public sector workers are more likely to donate the reward to charity and less likely to choose the lottery ticket rather than to opt for the gift certificate. Since our dependent variable has three potential categorical outcomes (lottery ticket, charity, gift certificate) we analyze our data using a multinomial logistic regression model. We take gift certificate as our reference category, as this is the safe and selfish alternative.<sup>6</sup>

Obviously, the choice of the reward does not only depend on a respondent's risk preferences and pro-social attitude, but also on other characteristics such as income. People with a low income may be more likely to choose the gift certificate, as this could be exchanged for basic necessities such as food or clothing. Therefore, we control for net monthly income in the regression analyses, as well as for whether the respondent is the breadwinner of his household. Since our categorical income measure is somewhat crude,

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<sup>5</sup>These four sectors are: Other type of industry (which also comprises workers in sheltered employment), other type of transport and communication (which includes public transport), other type of healthcare (among others general practitioners and midwives) and culture, sports, and recreation.

<sup>6</sup>We also ran binary logistic regression models (grouping charity and gift certificate as the safe options; grouping gift certificate and lottery as the selfish options; taking only the gift certificate as the selfish option, dropping the lottery ticket; and taking only the gift certificate as the safe option, dropping the charity). All these models produced results similar to the multinomial logistic regression model and are for brevity not reported.

especially in the highest category, we also add managerial position to our analysis. This is likely to pick up some additional income effects. Moreover, we include the following demographic controls: Age, sex, region, education, marital status, and the number of children living at the home.

An important issue is whether public and private sector employees had different attitudes before they sorted into their sector of employment or changed their attitudes afterwards. To account for such tenure effects, we add employee's tenure at the organization and interact it with the employee's sector of employment.<sup>7</sup> Finally, we check whether feelings of underpayment affect employee's choice of reward using the question "Is your salary sufficient for the work that you do?" and we also interact this variable with the employee's sector of employment.

Table 1 contains the descriptive statistics of our subsample. Some interesting differences between public and private sector employees are visible. First of all, private sector employees choose the lottery ticket (48%) more often than public sector employees (36%). Public sector employees on the other hand choose to donate to charity (23%) somewhat more often than private sector employees (21%). Further, there are substantial differences in socio-demographic variables. Public sector workers are slightly older on average than private sector employees, 44 versus 42 years old, and are far more often female, 42% versus 18%. Public sector employees are (therefore) also less likely to be the breadwinner in the household than private sector employees (67% versus 79%). The majority of public sector employees completed higher vocational education or university studies (66%), against only a minority of private sector employees (36%). Nevertheless, the differences in income are not that large. There is, however, a large difference in the answers to the question "Is your salary sufficient for the work you do?". Less than half of public sector employees answers this question in the affirmative (44%), while more than half of the private sector employees is satisfied with their salary (58%). Finally, tenure among public sector employees in our sample is also longer than that of private sector employees, 13.8 versus 11.8 years.

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<sup>7</sup>Unfortunately, we lack data on respondent's sectoral tenure.

## 4 Results

Table 2 reports the results of our multinomial logistic regression analyses.<sup>8</sup> In model 1 we take up the public sector dummy as the sole explanatory variable. Public sector employees are, as expected, significantly less likely than private sector employees to choose the lottery ticket rather than the gift certificate. However, in contrast to our expectations, public sector employees are also less likely than private sector employees to opt for a donation to charity rather than for the gift certificate. This effect, however, is not significant and relatively small. Model 1 only explains little variation in the choice of reward. Although it does fine in predicting the choice of the lottery ticket, it performs extremely poor in predicting the choice of the charity. As we noticed in the previous section, there are many more differences between public and private sector employees than just sector of employment. Therefore, we add several controls in model 2.

Remarkably, model 2 shows results quite close to model 1: Compared to private sector employees, public sector employees are 0.74 times less likely to choose the charity rather than the gift certificate. This time, the effect is significant at the 5%-level. Public sector employees are also significantly less likely to choose the lottery ticket over the gift certificate, as in the previous model. Our estimation results imply that the odds for a public sector worker of choosing the lottery ticket rather than the gift certificate are 0.68 times the odds for a private sector worker.

The choice for the lottery ticket is significantly related to some of the demographic variables. Women are less likely to choose the lottery ticket over the gift certificate, as are employees with a higher level of education. Couples with children living at home are more likely to choose the lottery ticket than singles. However, the larger the number of children, the less likely employees choose the lottery ticket. Finally, income and other variables affecting people's budget do not really matter.<sup>9</sup> Income does, however, matter for donating to charity. All budget-related variables show that as people's budget increases, the odds of choosing the charity over the gift certificate

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<sup>8</sup>For ease of presentation, we treated managerial position, income, and education as continuous variables in table 2. We also ran regressions using the ordinal categories of these variables. This gave nearly the same results at the same significance levels.

<sup>9</sup>The results for the control variables are close to those of Hartog et al. (2002) and Dohmen et al. (2009), except for the effect of education, which is positive in these earlier studies.

increase as well. A higher income or higher managerial position increases the odds of choosing the charity over the gift certificate significantly, as does not being the breadwinner. Furthermore, some of the demographic variables also have an effect. Couples with children living at home are less likely to choose the charity over the gift certificate than singles, although this effect is only significant at the 10%-level. Older employees are more likely to choose the charity over the gift certificate, as are employees with a higher level of education.<sup>10</sup> Lastly, note that the fit of model 2 is substantially better than that of the previous model.<sup>11</sup>

Model 3 examines whether and if so how public sector workers' risk and pro-social attitudes develop during their career. As we discussed in the Introduction, several earlier studies have found that altruistic motivations decline with tenure among public sector employees (Blau 1960, Van Maanen 1975, and Cooman et al. 2009). We therefore add to model 2 employee's tenure at the organization as well as tenure interacted with the employee's sector, and similarly for tenure squared to allow for nonlinear effects.<sup>12</sup> Tenure does not affect the chances of taking the lottery ticket rather than the gift certificate in either of the sectors. Figure 1a plots the point-estimates of the combined public sector dummies against tenure. Clearly, public sector employees are significantly more risk averse than private sector employees for almost all levels of tenure and there is no clear pattern in this difference over people's tenure. However, we do find strong tenure differences for public sector employees in the odds of taking the charity rather than the gift certificate, while there is no such tenure effect for private sector employees. Figure 1b, which is again based on the estimation results of model 3, shows that at the start of their careers, public sector employees are more likely to donate to charity rather than take the gift certificate than their private sector counterparts, although this effect is not significant. After a few years, this (insignificant)

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<sup>10</sup>Houston (2006) reports similar findings for these socio-demographic variables, except for gender. He obtains a significant positive effect of being female on the odds of donating to charity, whereas we find a negative, but not significant effect.

<sup>11</sup>We included ethnic minority, firm size, and age squared as additional controls in previous regressions. However, as those variables had no significant effect, we left them out of our final regressions.

<sup>12</sup>We also ran regressions including interaction terms of age and public sector so as to rule out that any possible tenure effects are actually driven by respondent's age. The interaction effect with age was never significant, nor did it change the effects and significance of tenure. Obviously, since our data are cross-sectional, we can not completely rule out that tenure effects are intertwined with cohort effects.

positive effect has disappeared and even reverses. Indeed, during the main part of their careers, public sector employees are significantly less likely to donate to charity than private sector employees.

One of the reasons for a negative effect of tenure on pro-social inclinations of public sector employees might be that their tenure-wage profile is flatter than that of private sector employees, which may give rise to growing feelings of underpayment. We control for these feelings of underpayment using the variable “Is your salary sufficient for the work that you do?” and its interaction with the public sector dummy. We are particularly interested in whether public sector employees’ likelihood of donating to charity is more strongly affected by feelings of underpayment than that of private sector employees. This would support the idea that donations to charity and contributions to society at the workplace are considered as substitutes by public sector employees.

Model 4 shows no significant effect of feeling underpaid on the odds of choosing the lottery ticket over the gift certificate. The other coefficients explaining the choice of the lottery over the gift certificate are not much affected. Figure 2a plots the point-estimates of the combined public sector dummies for employees who think their salary is sufficient for the work they do. During the main part of their career public sector employees are significantly less likely to choose the lottery ticket over the gift certificate than private sector employees. This pattern is almost identical for employees who do feel underpaid, as we can see in figure 2b.

We find striking effects of feelings of underpayment on the odds of choosing the charity over the gift certificate. Employees who feel underpaid are significantly less likely to donate to charity, and particularly so in the public sector. The odds for a dissatisfied employee of donating his reward to charity rather than taking the gift certificate are 0.68 and 0.41 times the odds for a satisfied employee, in respectively the private and public sector.<sup>13</sup> As is clear from table 2, this difference between private and public sector workers is also statistically significant. We thus find a clear indication that public sector employees consider donations to charity as a substitute for their job-related net contribution to society. Further, it can be seen from table 2 that among the satisfied employees, public sector employees are significantly more likely to donate than private sector employees at the start of their career. How-

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<sup>13</sup>The odds for the public sector can easily be computed using the estimated coefficients in table 2.

ever, as before, within a few years this effect disappears, see figure 2c. Figure 2d plots the point estimates of the public sector dummy for dissatisfied employees. Clearly, among these employees, there is no significant difference in pro-social inclinations between public and private sector employees at the start of their career. As tenure increases, public sector employees become less and less inclined to donate to charity. After about seven years, the difference becomes statistically significant. Comparing figures 1b, 2c, and 2d, it follows that controlling for feelings of underpayment hardly affect the tenure profile in public sector employee's inclination to donate to charity. Inspection of the data shows that, somewhat surprisingly, there is no clear relationship between feelings of underpayment and tenure. Hence, other factors seem to play a role here, e.g. Blau (1960)'s disillusionment effect, which we discussed in the Introduction.

## 5 Conclusion

Summarizing, we have found clear support for the hypothesis that public sector employees are more risk averse than private sector employees. However, in contrast to our expectations, we have also found that public sector employees are on average less inclined to make charitable contributions than private sector employees. This effect is partly due to the fact that many more people in the public sector feel underpaid. Moreover, we have found that feelings of underpayment have much larger repercussions for the odds of donating to charity in the public sector than in the private sector, suggesting that public sector employees consider the contributions they make on the job as a substitute for charitable donations. Our findings suggest that many public sector employees feel that they already donate a lot to society by exerting effort on the job for relatively little pay and, therefore, are less willing to make any further contributions than their private sector counterparts. Lastly, we have found a clear effect of tenure on pro-social inclinations in the public sector, which arises independently of feelings of dissatisfaction about pay. As public sector employees' tenure increases, they become less and less inclined to make charitable contributions, while there is no tenure effect for private sector employees. Such evolution of preferences for public sector employees is well in line with studies by Blau (1960), Van Maanen (1975), and De Cooman et al. (2009) documenting swift declines in altruistic motivations with tenure among public sector employees.



## A Appendix

Final question of the survey:

Below you can indicate if you would like to receive a gift certificate or a state lottery ticket (without jackpot). When you choose for one of these options we need your name and address. You can also choose a charity, in that case we donate f. 25,- (11,34 euro) for every completed questionnaire to one of the organizations below. If you choose to donate to charity you do not need to fill out a name and address.

1  Gift certificate (f 25,-)

2  Lottery ticket

Name:

Address :

Postal code and Place :

Charity:

3  Amnesty International

4  Unicef

5  Ronald McDonald House Charities

6  War Child

7  Carnation Foundation

8  Wilhelmina Foundation

9  Hart Foundation

10  Animal protection

11  Greenpeace

THANK YOU FOR YOUR COOPERATION!

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Table 1: Descriptive statistics

<b>Variable</b>	<b>Obs</b>	<b>Public Sector</b>	<b>Private Sector</b>	<b>Total</b>
Reward:	3126			
Gift certificate		41.0%	31.3%	34.3%
Lottery ticket		35.7%	48.1%	44.2%
Charity		23.3%	20.7%	21.5%
Sex: Male (%)	3122	57.6%	82.4%	74.8%
Age:				
Mean (years)	3126	44.2	41.9	42.6
Standard Deviation		(8.8)	(9.3)	(9.2)
Education:	3058			
No education attended/finished		0.2%	0.6%	0.5%
Primary school		0.7%	2.8%	2.2%
Lower secondary school		6.2%	21.4%	16.6%
Intermediate secondary school or intermediate vocational training		26.9%	39.6%	35.6%
Higher secondary school or higher vocational training		50.7%	28.2%	35.2%
(Post-) University		15.2%	7.5%	9.9%
Net monthly income:	2997			
Less than fl. 500,-		0.6%	0.6%	0.6%
fl. 500,- until fl. 1000,-		1.9%	1.5%	1.6%
fl. 1000,- until fl. 1500,-		3.8%	3.0%	3.3%
fl. 1500,- until fl. 2000,-		7.4%	4.4%	5.4%
fl. 2000,- until fl. 2500,-		11.8%	9.9%	10.5%
fl. 2500,- until fl. 3000,-		14.3%	19.3%	17.7%
fl. 3000,- until fl. 3500,-		16.6%	18.4%	17.8%
fl. 3500,- until fl. 4000,-		13.6%	15.0%	14.5%
fl. 4000,- until fl. 5000,-		19.7%	15.7%	17.0%
fl. 5000,- until fl. 6000,-		5.6%	6.2%	6.0%
fl. 6000,- or more		4.7%	5.9%	5.5%
Breadwinner: Yes (%)	3105	67%	79%	76%
Marital Status:	3125			
Married/cohabitating without children living at home		25.9%	25.0%	25.3%
Married/cohabitating with children living at home		53.5%	59.9%	58.0%
Single parent		6.0%	2.2%	3.4%
Single		14.6%	12.8%	13.4%
Number of children living at home				
Mean	3125	1.2	1.2	1.2
Standard Deviation		1.2	1.1	1.2

(Continued on the next page)

Table 1: Descriptive statistics (continued)

<b>Variable</b>	<b>Obs</b>	<b>Public Sector</b>	<b>Private Sector</b>	<b>Total</b>
Managerial position/employer?:	3113			
No		69.8%	62.1%	64.5%
1-4 employees		10.3%	16.7%	14.7%
5-9 employees		5.5%	9.3%	8.2%
10-19 employees		6.2%	5.4%	5.7%
20-49 employees		4.8%	4.0%	4.2%
50 employees		3.4%	2.5%	2.8%
Province:	3126			
Groningen		5.0%	3.1%	3.7%
Friesland		4.1%	4.3%	4.3%
Drenthe		4.5%	4.2%	4.3%
Overijssel		6.9%	7.4%	7.3%
Gelderland		12.5%	12.4%	12.4%
Utrecht		3.0%	3.9%	3.6%
Noord Holland		15.2%	16.8%	16.3%
Zuid Holland		23.6%	23.4%	23.4%
Zeeland		3.1%	2.4%	2.6%
Noord Brabant		12.3%	13.3%	13.0%
Limburg		7.8%	7.2%	7.4%
Flevoland		2.0%	1.6%	1.7%
Tenure:				
Mean (years)	3098	13.8	11.8	12.4
Standard Deviation		(10.1)	(10.3)	(10.3)
Salary sufficient for the work you do? : Yes (%)	2887	44.5%	58.3%	53.9%
<b>Total number of observations</b>		<b>966</b>	<b>2160</b>	<b>3126</b>

Note: Table 1 reports the descriptive statistics of the unweighted subsample used in our regression analysis.

Table 2: Results of multinomial logistic regression

Lottery ticket <sup>a</sup>	Model 1		Model 2		Model 3		Model 4	
	B	exp B	B	exp B	B	exp B	B	exp B
Public Sector	-.568*** (.089)	0.567	-.379*** (.102)	.684	-.507** (.209)	.602	-.431* (.244)	.650
Female			-.543*** (.138)	0.581	-.546*** (.139)	.580	-.570*** (.145)	.566
Age (years)			.008 (.005)	1.008	.013** (.006)	1.013	.016** (.006)	1.016
Education			-.129** (.055)	.879	-.147*** (.057)	.863	-.144** (.059)	.865
Income			.025 (.030)	1.025	.030 (.031)	1.030	0.026 (.033)	1.026
Breadwinner (1=No)			.116 (.132)	1.123	.116 (.133)	1.123	.173 (.139)	1.189
Marital Status:								
- Married/cohabitating without children living at home			.257 (.167)	1.293	0.262 (.168)	1.299	.253 (.176)	1.288
- Married/cohabitating with children living at home			-.497** (.194)	1.644	-.515*** (.195)	1.673	.457** (.203)	1.580
- Single parent			-.044 (.299)	.957	-.064 (.303)	.938	-.158 (.313)	.854
- Single			0 <sup>a</sup>	.	0 <sup>a</sup>	.	0 <sup>a</sup>	.
Children living at home (number)			-.215*** (.065)	.807	-.216*** (.066)	.806	-.204*** (.068)	.815
Managerial position			.053 (.037)	1.055	.053 (.037)	1.055	.049 (.039)	1.050
Regional Dummies	No		Yes		Yes		Yes	
Tenure					-.016 (.017)	.984	-.014 (.018)	.986
Tenure_Squared					.000 (.001)	1.000	.000 (.001)	1.000
Tenure*Public Sector					.020 (.031)	1.020	-.002 (.032)	1.002
Tenure_Squared*Public Sector					.000 (.001)	1.000	.000 (.001)	1.000
Salary sufficient for work you do? (1=No)								
Public Sector*Salary sufficient for work you do? (1=No)					-.057 (.116)	.944	-.057 (.116)	.944
Intercept			.430*** (.049)		.193 (.482)		-.041 (.511)	
% Correct Predicted Lottery			75.1%		76.0%		74.0%	

(Continued on the next page)



Table 2: Results of multinomial logistic regression (continued)

<b>Charity<sup>a</sup></b>									
Public Sector									
Female									
Age (years)									
Education									
Income									
Breadwinner (1=No)									
Marital Status:									
- Married/cohabitating without children living at home									
- Married/cohabitating with children living at home									
- Single parent									
- Single									
Children living at home (number)									
Managerial position									
Regional Dummies									
Tenure									
Tenure_Squared									
Tenure*Public Sector									
Tenure_Squared*Public Sector									
Salary sufficient for work you do? (1=No)									
Public Sector*Salary sufficient for work you do? (1=No)									
Intercept									
% Correct Predicted Charity									
Nagelkerke R2									
McFadden R2									
Likelihood Ratio Test Final Model, Chi-Square (df)									
Pearson Chi-Square (df)									
Deviance Chi-Square (df)									
% Correct Predicted without model									
% Correct Predicted with model									
<b>Total number of observations</b>									

Note: cell entries are the unstandardized parameter estimates (B) and odds ratios (exp B). Standard errors are in parentheses. Regression results based on the unweighted subsample.

<sup>a</sup>Base Outcome = Gift Certificate

\*=significant at 10%-level, \*\*=significant at 5%-level, \*\*\*=significant at 1%-level.

<sup>a</sup> = Base Category

Figure 1a: Point Estimate Public Sector for Lottery Ticket (vs Gift Certificate)  $\pm 2*SE$

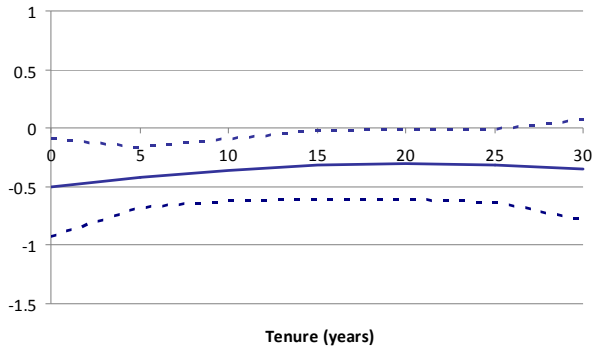


Figure 1b: Point Estimate Public Sector for Charity (vs Gift Certificate)  $\pm 2*SE$

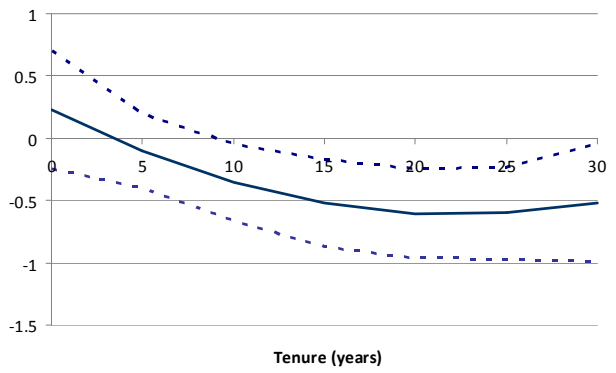


Figure 2a: Point Estimate Public Sector for Lottery Ticket (vs Gift Certificate)  $\pm 2*SE$   
Employees satisfied salary/work

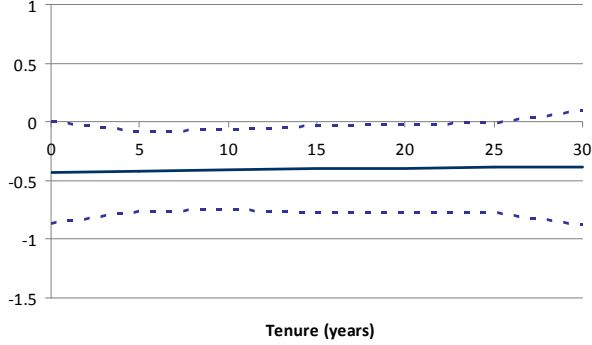


Figure 2b: Point Estimate Public Sector for Lottery Ticket (vs Gift Certificate)  $\pm 2*SE$   
Employees dissatisfied salary/work

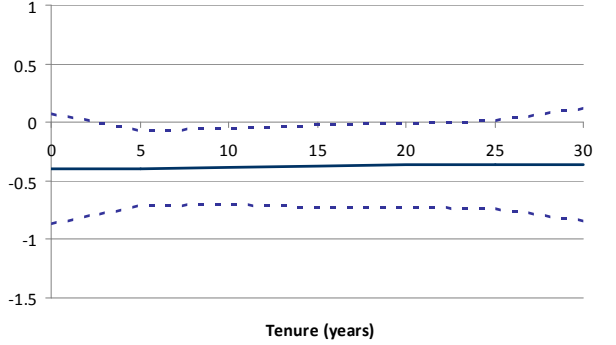


Figure 2c: Point Estimate Public Sector for Charity (vs Gift Certificate)  $\pm 2*SE$   
Employees satisfied salary/work

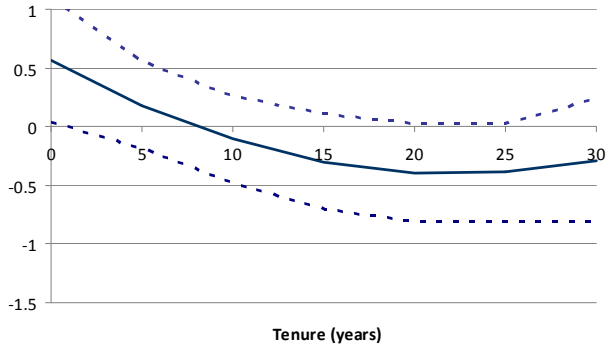


Figure 2d: Point Estimate Public Sector for Charity (vs Gift Certificate)  $\pm 2*SE$   
Employees dissatisfied salary/work

