

Attracting Public Service Motivated Employees. How to design compensation packages in diverse societies*

Lotte Bøgh Andersen, Aarhus University and Danish Institute of Governmental Research

Tor Eriksson, Aarhus School of Business and CCP

Nicolai Kristensen, Danish Institute of Governmental Research

Lene Holm Pedersen, Danish Institute of Governmental Research

Paper prepared for the 32nd EGPA Annual Conference in Toulouse France, 8-10 September 2010. Permanent study group 3: Public Personnel Policies.

ABSTRACT

Most public sector managers want to attract the most motivated employees, but it is hard to design public personnel policies, which accomplish this. In order to improve public sector recruitment and retention, this paper investigates the relationship between public service motivation and preferred compensation packages. This might enable public sector managers to design compensation packages, which are focused on the employees they want in their organization. Based on a web survey of 3094 public and private employees, we find that public service motivation is associated with a lower preference for bonus, a higher preference for short training and a higher preference for health insurance. These findings are not, however, consistent across the public service motivation dimensions, and they depend on the specific context in which the employees work. Although the results cannot be directly generalised, they still imply that further research in the area could help public managers attract employees with high public service motivation.



Financial support from the Nordic Center of Excellence is gratefully acknowledged.

1. Introduction

Many public administration scholars argue that money matters less and non-pecuniary benefits matter more, to public employees compared to private employees (Rainey, 1982, Wittmer 1991, Crewson, 1997). Since the public sector hardly can compete with the private sector when it comes to paying the highest wages, it is time to discuss more systematically, how public managers can continue to attract employees, who want to be useful to society (Lewis and Frank 2002). The changing character of the workforce also makes it dangerous to count on an automatic attraction to the public sector. If public and private employees become more diverse in terms of competencies and personal characteristics such as age, gender and ethnicity, they may also have more differentiated preferences. If private and public organisations both try to attract the best employees, how can public sector managers design public personnel policies, which attract the most motivated employees and accommodate the diversity of employee preferences?

One way is trying to attract employees strategically with high public service motivation. Francois (2000) thus argues that government bureaucracy is better to obtain public service motivated effort from employees than a private firm is. Public service motivated individuals are oriented towards “delivering service to people with the purpose of doing good for others and society”, (Hondeghem and Perry 2009: 6), and the literature suggests that public service motivation positively affects performance (Brewer, 2008). Crewson (1997) argues that to develop a better understanding of public sector motivation and behaviour, we need to explore preferences on reward characteristics. This paper contributes to this by investigating the relationship between public service motivation and preferred compensation packages.

Compensation can be many things. The literature has already explored the relationship between public service motivation and monetary incentives (Crewson, 1997; Bright,

2005; Perry et al. 2009), but less tangible benefits such as health insurance and continuous training can also be part of the bargain. The literature suggests that financial incentives such as pay mean less for employees possessing public service motivation (Perry and Wise, 1990: 371). Other factors such as continuous training may therefore be relatively more important. There exists neither theoretical discussion nor empirical knowledge about a relationship between the total compensation package and public service motivation. The lacking empirical evidence on this issue may in part be due to the challenging measurement of the relative preference for different elements in the compensation package. Most employees want higher salaries as well as more training, health insurance and flexibility, and it is difficult to find a scale to compare the trade-offs between the different elements in the compensation package.

However, recent developments within personnel economic (Eriksson & Kristensen, 2010) highlight experimental vignettes as a way to measure this difficult concept. The method is used in this paper to analyse the relationship between public service motivation and preferred elements in the compensation package. We investigated 3094 Danish public and private employees using a web based survey. The most important conclusion is that public service motivated individuals have a higher relative preference for short-duration continuous training, whereas the results on the expected negative association between public service motivation and bonuses are mixed. Health insurance seems to put the respondents in a dilemma: It gets them back to “doing good” faster if they need surgery, but it may clash with their identification with the public sector.

After this introduction, the theoretical argument behind the expectations is elaborated, followed by a short section on methods and data. Then we present the results and afterwards discuss them in a separate section. The paper ends with a discussion of how public managers should design compensation packages in a diverse society and an assessment of the need for further research.

2. Types of Compensation for Public Service Motivated Employees – Some Theoretical Considerations

The first step is to make clear, what we mean by public service motivation and compensation packages. A compensation package is the specific mix of pecuniary and non-pecuniary goods offered to the employee by the employer. This package consists of three main components: Fixed pay, flexible pay and benefits (Igalens & Roussel 1999). Benefits can for example be goods and services supplied at a reduced price or offered freely to employees (such as computer or telephone), schemes (such as pension plans and health insurance cover paid for by the employer) and advantages linked to the work process (such as flexibility or continuous training).

Perry and Wise defined public service motivation as “an individual’s predisposition to respond to motives grounded primarily or uniquely in public institutions and organisations” (Perry and Wise 1990: 368). As the definition indicates, the concept was originally related closely to public sector organisations. Especially in countries where the private sector also produces publicly financed service, it is, however, more fruitful to allow public service motivation to exist also in the private and voluntary sectors (Steen, 2008). The concept can thus be seen as linked to a public service identity rather than to the public sector in terms of ownership. Public service motivation therefore relates to a pre-defined notion of the public; it concerns the interests of a political entity (Vandenabeele 2007: 547), which may be the national state, but also the relevant municipality or (as the other extreme) the global society. Importantly, this motivation goes beyond self-interest and is related to doing good for others and society (Hondeghem and Perry 2009: 6).

Public service motivation has different dimensions, relating to different motives behind the urge to do good for others and society. The dimensions, which we discuss

in this paper, are shown in Table 1 and may be differently associated with preferences for compensation elements as discussed below. In addition to public service motivation, we also include a variable – *user-orientation* - measuring how much the employees are oriented towards helping the *specific other* via the provision of public services. This type of motivation is included because we expect it to a strong motivation for employees with a high level of contact with the individual users of publicly financed services.

Table 1. Investigated motivation dimensions

Dimension	How the dimension is understood
<i>Commitment to public interest</i>	Obligation- and loyalty-based motivation for providing public services and thereby serving society
<i>Compassion</i>	Emotion-based motivation for providing services for others or society (especially needy groups)
<i>Attraction to policy making</i>	Motivation to improve the political decisions (and participate in the public sphere) in order to improve conditions for others or society
<i>User- orientation</i>	Motivation to help the specific other in the provision of public services

The next step is to consider the expected associations between the two core variables. Designing compensation packages, which attract and motivate public service motivated employees, has been discussed for more than 20 years. In 1990, Perry and Wise (1990:371) argued, “public organisations that attract members with high levels of public service motivation are likely to be less dependent on utilitarian incentives to manage individual performance effectively”. Building on this proposition, Bright (2005: 142) hypothesised that public service motivation would be negatively related to public

employees' preferences for monetary incentives. As expected, he found a significant negative relationship between public service motivation and the respondents' preferences for monetary rewards, while controlling for the effects of education level, age, gender, minority status and management level of the respondents (Bright, 2005: 149). The preferences for monetary incentives were measured by asking the respondents to rate the desirability of (1) receiving a higher salary and (2) remaining at their current salary level (from highly undesirable to highly desirable). However, his study did not differentiate between different types of extrinsic incentives. Egger-Peitler et al (2007) confirmed his result in an analysis of the correlation between the public service motivation dimensions and respondents' preferences for more specific types of incentives. They found that respondents with higher public service motivation seem to be more critical towards monetary incentives. Perry et al (2009: 11) argue that employees may react negatively to the implementation of performance pay because of their disapproval of external control. The argument is that they are putting in a lot of effort to do good for others and society, not to get a bonus. Bonuses are, in other word, seen as incompatibility with more powerful motivations that lead many people to pursue public service in the first place.

The argument and the studies mentioned above suggest that there is a negative association between bonus preference and public service motivation. Still, it is also possible that monetary incentives and public service motivation are independent types of motivation. A negative association implicitly assumes either that extrinsic factors crowd out public service motivation or that these types of motivation are clashing from the beginning. However, it may also be possible that employees who respond to public service motivation can be concerned with the utility of both society and themselves, indicating that their compensation package preferences and public service motivation may be independent. Still, the general expectation in the literature is that individuals

with a high level of public service motivation have a lower willingness to pay for bonuses than individuals with a low level of public service motivation have.

However, we argue that this profitably can be developed a bit more, in terms of relating the bonus preference to the different dimensions of public service motivation. For example, this preference is probably only associated with *attraction to policymaking* for relatively few employees, because bonuses would never be given for participation in political decisions for the majority of employees. This is primarily relevant for bureaucrats working with policy formulation as discussed below. Still, we expect the relative bonus preference to be negatively associated with *user-orientation*, *compassion* and *public interest*, because individuals motivated in this way will want to put a lot of effort into doing good for others and society, not to get a bonus, seeing bonuses as incompatible with their motivation.

The discussion of bonuses is based on the symbolic aspect of bonuses, and knowing that the preference for bonuses also relates to risk aversion, we control of course for factors known to affect this aspect (gender, age and education). In general, we control for these personal characteristics in all estimations, because they may affect both the preferences for monetary incentives (Bright 2005) and public service motivation (Pandey & Stazyk 2008).

Continuous training is expected to have two aspects, which are relevant for the association to the public service motivation dimensions. First, individuals are (although to a varying degree, as discussed below) expected to assume that continuous training improves the quality of their work. Providing all the public service motivation dimensions (and *user-orientation*) concern “doing good for others and society”, this will imply that a high score on these dimensions are associated with a high preference for continuous training. This also applies to *attraction to policymaking*, because employees are expected to see the training as beneficial in their efforts on this account

as well. The second aspect of continuous training is, however, that the employees cannot deliver service while they receive training. In the extreme, we would not expect employees with high public service motivation to want continuous training 365 days each year, because they would then be unable to provide services. Nevertheless, for relatively limited periods of training, we expect that all the public service motivation dimensions and *user-orientation* will be positively related to the relative preference for continuous training.

Health insurance also puts individuals with high public service motivation in a dilemma: It gets them back to “doing good” faster if they for example need surgery, but it may clash with their identification with the public sector and public sector organisation as a way to serve the interests of the public.¹ We have therefore very different expectations for the different dimensions of this element in the compensation package. For *commitment to public interest*, we expect a negative association, because this dimension can be interpreted as a norm-based motivation for providing public services and thereby serving the entire society. Jumping the queue for publicly financed services will hardly be seen as contributing to this. In contrast, we expect a positive association between the relative preference for health insurance and the dimensions *user-orientation* and *compassion*, because getting back to work more quickly, clearly benefits the specific individual user of one’s services or - in the case of *compassion* - the needy recipient. The expectations regarding bonus, continuous training and health insurance are summed up in Table 2.

¹ Until recently, hospitals in Denmark were almost all public and health provision remains overwhelmingly a public sector matter.

Table 2: The association between relative preferences for compensation package, elements and public service motivation dimensions and user-orientation.

	<i>User-orientation</i>	<i>Compassion</i>	<i>Public Interest</i>	<i>Attraction to policymaking</i>
Bonus	Negative	Negative	Negative	No association
Health insurance	Positive	Positive	Negative	No association
Continuous training	Positive	Positive	Positive	Positive

The abovementioned dynamics are described in general terms although the associations between public service motivation dimensions and relative preference may very well be (at least to some degree) contingent on the more specific context in which the individuals are situated. We have already hinted at two ways in which the specific contextual contingencies (Perry et al. 2009: 11) may be taken into account. First, we mentioned that the dynamics concerning bonuses might be different for direct service producers compared to bureaucrats working with policy formulation. For these bureaucrats, bonuses will be more relevant for the *attraction to policymaking* dimension and less relevant for the other dimensions. If the analysis is made separately for these two groups, we might expect an association between *attraction to policymaking* and preference for bonuses for policy bureaucrats, while the associations with the other three dimensions should be stronger for producers of public service.

Second, part of the expected resistance to health insurance is that it may clash with public service motivated persons' identification with the public sector and public sector organisation as a way to serve the interests of the public. This should be especially strong for persons presently working with public health care, because the initial identification with this could have been strengthened. Additionally, for these employees – if they are public service oriented - accepting a compensation package with health insurance could be seen as having double standards.

3. Method and Data

Data Description

The units of analysis are Danish employees between 25 and 64 years old belonging to a web panel of an opinion-research agency (YouGov Zapera). The sample includes both public and private employees, and data were collected in May 2009 using a web-survey. The representativeness of web-panels can be seriously questioned, and the levels of public service motivation may very well be different from Danish employees in general. However, we do not have any reasons to believe that the relationship between public service motivation and preferred compensation package should differ between Danish employees in this sample and in general.

An invitation to participate was sent out to 10,000 members of the response panel; 6,300 responded of which 3,094 fitted our screening criteria. Definitions of the used variables, means and standard deviations can be seen in table A1 in Appendix A. Given our selection criteria, it is not surprising that the final sample consist of relatively highly educated respondents – approximately 50 percent have 3-4 years of college education or higher education, cf. table A1 in Appendix A, whereas corresponding percentage among all Danish employees between 25 and 65 years is 25.1. The female labour-market participation rate is high in Denmark; nevertheless women are a little over-represented in this sample (51 percent versus 47 percent among Danish employees in general), but as we control statistically for age, gender and education, the estimated relationships should be unbiased. In the econometric analysis, we also limit the sample to individuals who work between 30 and 73 hours per week.

Measuring Public Service Motivation

The measurement of the dimensions *public interest*, *compassion*, and *attraction to policymaking* is based on a translated version of the abbreviated version of Perry's initial scale tested by Coursey and Pandey (Perry, 1996, Coursey & Pandey, 2007). These items and their wording (which can be seen in appendix A) have previously proved successful in creating consistent indexes in a Danish context (Andersen & Pedersen, 2010). The same holds for the *user-orientation* dimension inspired by items developed by Vandenaabeele (2008). However, we have changed the wording from "customers" to "users" as public employees in Denmark rarely uses this word in relation to specific recipients of the services (Andersen & Pedersen, 2010).

The Vignette Approach

The theoretical expectations are tested in a survey experiment using vignettes. Respondents are offered a series of fictive choices between two alternating job-compensation packages. Faced with two job-compensation packages, A and B, the respondent is asked to choose one for the other and this exercise is repeated up to 10 times per respondent, each time with different values among the variables that describes the job-compensation package.

To further flesh out the idea, consider the example given below. The vignette has all attributes describing the job in the left-most column. These do not change between vignettes but the value they have changes between choice situations. This yields variation in data that allow us to identify parameter values (further details on the introductory text and attribute levels are given in Appendix C). In the example, the person may choose Job A in which one is offered a complete health insurance – something the alternative, Job B, does not offer. However, opting for the health insurance comes at a cost since Job B offers a higher wage (5% more than Job A),

home-pc and internet connection, 5 days of training per year, flexible work hours and a 50% chance of an annual bonus equivalent to one month's pay.²

Figur 1. Vignette Example

	Job A	Job B
Home-pc + ADSL internet	No	Yes
Work related training	No continuous training	Yes, 5 days/year
Health insurance	Complete insurance including access to operation and medical specialist	No health insurance is offered
Work hours flexibility	Work hours are decided by the company with no possibility for changes	You may freely decide on your work hours
Annual bonus (equivalent to one month's pay)	No chance of bonus	Yes, with 50% chance
Monthly wage before tax	As in current job	As in current job + 5%

Which job-compensation package do you prefer? A or B?

The starting point for estimating Willingness to Pay (WtP) for the job attributes is a simple utility function, U,

$$U_{njt} = \beta_n x_{njt} + \varepsilon_{njt} \tag{1}$$

² In some of the vignettes, we also had the weekly working hours changing. Here we keep weekly work hours constant, as the vignettes already are relatively complex.

where utility from alternative j in choice situation t by individual n is given by equation (1). β is a parameter vector and x is a matrix with vignette characteristics and background variables interacted with vignette characteristics. The coefficients β_n are distributed with density $f(\beta|\theta)$, where θ refers to the mean and covariance of β . The error term ε_{njt} is assumed to be IID extreme value distributed over people, alternatives and time. This model is the mixed logit model with a so-called continuous mixing distribution (see Revelt and Train, 1998; Train, 2003), which can be estimated using simulated maximum likelihood.

An estimate of Willingness-to-Pay is usually obtained by dividing a parameter for a given characteristic with a parameter for cost, e.g. Revelt and Train (1998). Here, we use the wage-parameter as the implicit “cost”. The idea of WtP is to answer the following question: How much of, say, flexibility, should you have to compensate you fully for a wage decrease of 5%?³ In other words, we hold utility constant by compensating the loss of wage through an increase in one (or several) compensation features other than the wage.

Estimation of a *mixed* logit – and not just a standard logit – yields interesting new insights. Notably, we obtain a measure of how much respondents appear to agree about the value of each of the attributes in the vignettes. If agreement is “high”, the

³Technically, we differentiate equation (1) and set it equal to zero. Constant utility is then obtained by increasing the amount of (at least) one benefit while lowering the wage -- provided all features of the package are considered “positive”, which is the case here.

distribution will be concentrated around the mean value and vice versa if respondents place very different levels of utility on a given attribute.⁴

In appendix D, we present an example of the full results of a mix logit analysis, whereas the result section focuses on the main findings alone. In table D1, the parameter estimates for the vignette are at the top of the table. In addition to the mean, we also report the standard deviation (SD), which is informative about whether or not there are large dispersions in the valuation of the vignette attributes. It is clear from the SD-estimates that indeed, there are significant and substantial variation in the parameters and hence allowing the parameters to have a distribution (and not just estimate their mean value) is relevant and improves the model's fit. Mean Willingness-to-Pay (WtP) can be computed as the ratio of the mean parameter for a given vignette attribute, say, "Small health package", and the wage. Actual levels of WtP can be found in Eriksson and Kristensen (2010). All the analyses are similar to the one shown in appendix D; the only difference is that they investigate interactions with different dimensions of public service motivation.

4. Results

In accordance with the research question, this section focuses on the associations between the public service motivation dimensions and the WtP for bonuses, continuous education and health care insurance. For simplicity and in order to insure a reasonable number of observations in each group, we compute indicator variables for whether or not each respondent has a "high" level of public service motivation. This is

⁴ Another more technical reason is that the mixed logit does not build on an implicit assumption about Independence of Irrelevant Alternatives (IIA) – as the logit model does. The IIA property is described in detail in most econometric textbooks, such as Greene (2008).

done for each of the four dimensions: *user-orientation*, *compassion*, *public interest* and *attraction to policy* (“high” is defined as being above the median). Table 3 shows the WtP for the compensation packages for the four different dimensions (see Appendix C for details about the content of the packages). Table 4 and 5 below show the results for the analyses of employees working in specific sectors: health and administration. In the following, these results are discussed in detail.

Table 3 Extra WtP for Vignette Attributes Among Individuals with High PSM

	(1) High user Orientation	(2) High Compassion	(3) High Public Interest	(4) High Attraction to Politics
Small health package	42%	--	--	--
Large health package	98%	59%	--	--
Some flexibility	--	--	--	--
High flexibility	--	--	--	--
Training 2 days	--	--	--	131%
Training 5 days	34%	33%	--	--
Training 2 weeks	--	--	--	--
Bonus w. 25% chance	--	--	--	--
Bonus w. 50% chance	--	-38%	--	--
PC+internet	--	--	--	--

Note: Only differences in WtP significant at the 5% level are reported.

Table 4 Extra WtP for vignette attributes among health care workers with High PSM.

Occupation in Public Health Sector	(1) High user Orientation	(2) High Compassion	(3) High Public Interest	(4) High Attraction to Politics
Small health package	--	--	--	--
Large health package	lower	--	--	--
Some flexibility	--	--	--	--
High flexibility	--	higher	--	--
Training 2 days	--	--	--	--
Training 5 days	--	higher	--	--
Training 2 weeks	--	--	--	lower
Bonus w. 25% chance	--	--	--	--
Bonus w. 50% chance	--	--	--	--
PC+internet	--	--	--	--

Table 5 Extra WtP for vignette attributes among administrator High PSM.

Occupation within Administration	(1) High user Orientation	(2) High Compassion	(3) High Public Interest	(4) High Attraction to Politics
Small health package	--	--	--	--
Large health package	--	--	--	--
Some flexibility	--	--	--	--
High flexibility	--	--	--	--
Training 2 days	--	--	--	--
Training 5 days	--	--	--	--
Training 2 weeks	--	--	--	--
Bonus w. 25% chance	--	--	--	lower
Bonus w. 50% chance	--	--	--	lower
PC+internet	--	--	--	--

Note: Only differences in WtP significant at the 5% level are reported.

5. Discussion

If public sector managers are to attract employees with high levels of public service motivation, they can consider designing compensations which appeal specifically to the employees they want to recruit. In the following, we discuss how bonus, training and health insurance can be used to attract employees with high public service motivation.

Bonus

Considering bonuses, employees with high *user-orientation*, *compassion* and *public interest* were expected to have a negative WtP for bonuses, as the extrinsic rewards are not expected to be seen as consistent with their motivation to provide public service. However, employees with high levels of *attraction to policymaking* were only expected to have a negative WtP if they worked in administration, as mainly administrators have the possibility of doing others good by influencing political decision-making. For the employees in other sectors, *attraction to policymaking* is not related closely to their jobs and hence not likely to be associated with their relative willingness to pay for the different elements in the compensation packages.

Although table 4 shows that employees with high *compassion* (as expected) have a lower WtP for bonuses, the WtP for bonuses is not associated with the dimensions

user-orientation and *public interest*. This may be because *compassion* is based on an affective identification with the recipients whereas *user-orientation* and *public interest* to a higher extent are based on normative reasons to do good for others (Andersen & Pedersen, 2010; Perry & Wise, 1990). If the primary source of motivation is identification with socially exposed groups, a bonus implies a cognitive shift. In contrast, if the motivation is normatively based, the contradiction is less evident; bonuses may not be seen as detrimental as long as they are not given for behaviour, which is against the norms. You can both follow the norm and get a bonus. Nevertheless, bonuses for “benevolence” may do away with the “warm glow” some individuals get from this type of behaviour (Francois and Vlassopoulos, 2008:23). Especially for *user-orientation*, one may argue that there is no conflict between doing good for the customer and doing good for the company and oneself. If the customer receives a good service, he is (1) better off (that is, you have actually helped him) and (2) more likely to return to the company, and these motives can probably coexist for a given employee. However, if an employee feels that he acts out of compassion, he might perceive a bonus as immoral.

When we include the specific job context in table 4 and 5, we find that administrators with high *attraction to policymaking* as expected have a significantly lower WtP for bonuses. This is not the case for health care providers. This result for administrators is in line with research, which shows that the performance of people with interesting job tasks is likely to be influenced negatively by performance pay (see Weibel et al., 2009 for a meta-analysis). In our case, administrators with a high *attraction to policymaking* may find their work more interesting than employees working in other sectors have (because they actually have better opportunities to affect policies).

These results indicate that some aspects of public service motivation are associated with a lower relative priority of extrinsic motivation factors, but the results show that the association is even more context dependent than expected. The lesson for public

managers is that bonuses should be used carefully for all types of employees, but the reasons will be different for administrators than for other types of employees.

Continuous training

Considering training, dual mechanisms were expected to be at stake. On one hand, training increases the competences and hence improves the possibility for doing good for others in the provision of services. On the other hand, training means the employee is away from “doing good” for a period. Hence, we expected to find a positive WtP for limited periods of training across all the public service motivation dimensions. The results in table 4 show that employees who have high *user-orientation* or high *compassion* are willing to pay more for 5 days on training than other employees. Employees with high *attraction to policymaking* are willing to pay considerably more for 2 days of training. Again, employees with high *public interest* do not have preferences for training that vary from other employees. The separate analysis for health care shows that health care workers with high *compassion* have an extra high WtP for two days of training (table 4). The implication for the employer who wants to attract or sustain workers with high public service motivation is that continuous education should be offered for shorter periods.

Health insurance

In line with the expectations for continuous education, health insurances were expected on one hand to make it possible for the employees to get more quickly back to work. However, it was also expected to potentially clash with the public sector employees’ identification with the public sector. This would particularly be the case in the health sector. Here the employees on one hand may want to get back to the needy recipient, but at the same time, the employees in the health sector are the ones who

will suffer if private hospitals draw physicians and nurses away from the public hospitals.

The results generally confirm the expectation. Employees with high *user-orientation* have a higher WtP for both the small and the large health package, whereas employees with high *compassion* have a higher WtP for the large health package. The reason why employees with higher *user-orientation* have a higher WtP than employees with high *compassion* may be that *user-orientation* generally is higher in the private sector (Andersen & Pedersen, 2010). Health insurances are more common in the private sector, and employees sort into jobs with characteristics that they value, so it is not surprising that employees with high *user-orientation* show the highest WtP for health (Eriksson & Kristensen, 2010).

The separate analysis of public health care employees shows that these employees have a lower relative WtP for complete health insurance covering. This may be due to the clash between the public health sector in Denmark and the private hospitals. They are competitors, and the logic is fundamentally different; professional evaluation and patient need versus profit. However, this difference should not be overrated. When firm professional norms apply, private and public professionals tend to behave very similarly (e.g. Andersen & Jakobsen, forthcoming). The perception of a clash between professionalism and profit may, however, combine with the competition with private hospitals and make employees in the health sector less willing to pay for health insurance, if this implies that they should go to a private hospital. The implication is that health insurance coverage should not be used as a fringe for employees in the public part of the health sector.

The *public interest* dimension is not correlated with the relative preference for health insurance or with any of the other elements in the compensation packages. This very consistent result cuts across all types of compensation, and it is quite surprising, because the dimension *public interest* has been seen as being at the core of the public

service motivation construct (Andersen & Pedersen, 2010). *Compassion*, on the other hand, which is more emotional and arises from identification with socially exposed, seems incompatible with doing good for oneself in terms of getting a bonus.

6. Conclusion

The paper has investigated the relationship between public service motivation and preferred compensation packages, and the main finding is that public service motivation is associated with lower preference for bonus (for some dimensions of public service motivation), a higher preference for short training and (except for public health care workers) a higher preference for health insurance. However, these findings are not consistent across the public service motivation dimensions. Surprisingly, *commitment to public interest* is not correlated with relative preference for any of the investigated elements in the compensation packages. Another important finding is that the relationship between public service motivation and preference for compensation package elements depends on the specific context of the employees. Employees in the health sector with high *user-orientation* have relatively lower WTP for complete health insurance covering and administrators with high *attraction to policymaking* have relatively lower WtP for bonuses.

The study has its limitations of course. Prominent among these, is the low statistical generalisability to all Danish employees (because we used a web panel, which is not representative) and to employees in other countries (because Denmark may differ in terms of the role of the state etc.). However, these limitations relate primarily to descriptive inference, and the relationships between public service motivation and compensation package element may very well be more general. However, we need further research before we can say this conclusively, but this paper has presented methods for such an investigation (vignettes and mixed logit).

Despite the limitations, the study has several implications. The findings suggest that we may be able to adjust our compensation systems to fit the preferences of highly motivated employees, provided that the paper has demonstrated a relationship between public service motivation and preferred elements in the compensation package. Our results imply that public managers should generally use bonuses carefully, and that short training can be used to all employees and health insurance to employees who are not working in the public health care sector. Before we draw too firm implications, we must have more evidence, enabling us to make conclusions that are more general on the association between public service motivation and preferences for compensation package elements.

Appendix A

Table A1: Means and min/max of background variables

	Share (in %)		
	or Mean	Min	Max
<i>Female</i>	50.7	0	1
<i>Education</i>			
high school	10.0	0	1
vocational education (carpenter etc)	21.3	0	1
short term college (< 3 years)	15.6	0	1
medium term college (3-4 years)	33.1	0	1
university (5 years or more)	20.1	0	1
<i>Monthly gross income (DKK)</i>	34,918	2,500	2,000,000
<i>Monthly gross income (USD)</i>	6,390	458	366,028
<i>Married/cohab</i>	76.0	0	1
<i>Number of children below 6 years of age</i>			
0 children	77.9	0	1
1 child	14.0	0	1
2 children	6.8	0	1
3 children	1.2	0	1
4 children or more	0.2	0	1
<i>Number of children 6 years or older</i>			
0 children	65.2	0	1
1 child	17.6	0	1
2 children	13.8	0	1
3 children	3.2	0	1
4 children or more	0.2	0	1
<i>Urbanization</i>			
country-side	12.3	0	1
<10,000 inhabs	20.4	0	1
10,000-49,999 inhabs	24.9	0	1
50,000-99,999 inhabs	12.8	0	1
100,000 or more inhabs	28.6	0	1
<i>Age</i>	43.4	25	64
<i>Years of labor market experience</i>	19.8	0	48
<i>Years of tenure at current employer</i>	9.2	0	44
<i>Years of tenure in current position</i>	5.8	0	41
<i>Union member</i>	82.6	0	1
<i>Hours worked per week</i>			
according to contract	36.5	30	70
in reality	39.1	30	73

	Share (in %)	Min	Max
	or Mean		
<i>Sector</i>			
private	✔ 57.0	0	1
governmental (public)	✔ 12.8	0	1
regional/municipality (public)	✔ 30.2	0	1
<i>Minutes it commute home-work</i>	✔ 27.5	1	240
<i>Firm Size (workplace)</i>			
less than 10 employees	✔ 10.7	0	1
10-24 employees	✔ 14.3	0	1
25-99 employees	✔ 28.0	0	1
100-499 employees	✔ 25.0	0	1
500 employees or more	✔ 22.0	0	1

Table A2

		(1)	(2)	(3)	(4)	(5)
		Strongly disagree	Partly disagree	Neither disagree nor agree	Partly agree	Strongly agree
<i>User orientation</i>	The individual user is more important than formal rules	4,6	16,5	17,9	40,7	20,4
	It gives me energy to know I helped the user/customer	0,6	0,7	6,6	25,0	67,1
	If the user/patient is satisfied, the job is done	1,7	5,3	13,2	37,4	42,4
<i>Public Interest</i>	I contribute to my community	0,2	1,4	8,7	33,7	56,0
	Meaningful public service is very important to me	0,5	2,1	13,1	34,7	49,5
	I would prefer seeing public officials do what is best for the whole community even if it harmed my interests	1,5	6,5	22,4	44,3	25,5
	I consider public service my civic duty	1,0	4,9	24,7	43,9	25,5
<i>Compassion</i>	It is difficult for me to contain my feelings when I see people in distress.	1,0	5,9	13,1	47,7	32,3
	To me, considering the welfare of others is one of the most important values	1,3	5,9	21,9	45,5	25,4
	I have little compassion for people in need who are unwilling to take the first step to help themselves (R)	7,1	21,7	26,1	34,5	10,6
	I am often reminded by daily events about how dependent we are on one another	1,2	6,5	30,2	41,8	20,3
<i>Attraction to politics</i>	I associate politics with something positive	4,5	16,5	33,0	36,5	9,5
	The give and take of public policy making doesn't appeal to me	1,8	8,6	23,1	33,9	32,6
	I do not care much about politicians (turned)	5,0	21,8	31,9	30,1	11,3

Appendix B

Table B1: Principal component analysis of all items on pro-social motivation (pattern matrix)

	Component			
	1(C)	2(ATP)	3(UO)	4(PI)
I associate politics with something positive	0.290	0.739	0.078	-0.008
The give and take of public policymaking doesn't appeal to me (R)	0.162	0.680	0.051	-0.064
I do not care much about politicians (turned)	0.001	0.848	0.009	0.112
I contribute to my community	0.658	-0.090	0.114	0.130
Meaningful public service is very important to me	0.619	0.159	-0.054	-0.257
I would prefer seeing public officials do what is best for the whole community even if it harmed my interests	0.759	0.002	-0.120	-0.016
I consider public service my civic duty	0.766	-0.068	-0.012	-0.121
It is difficult for me to contain my feelings when I see people in distress.	0.099	0.059	0.126	-0.674
To me, considering the welfare of others is one of the most important values	0.177	0.037	0.101	-0.719
I have little compassion for people in need who are unwilling to take the first step to help themselves (R)	0.154	0.121	0.133	-0.681
I am often reminded by daily events about how dependent we are on one another	0.245	0.078	0.174	-0.681
The individual user is more important than formal rules	-0.187	-0.007	0.631	-0.141
It gives me energy to know that I helped the user/patient	0.216	-0.043	0.695	0.026
If the user/patient is satisfied, the job is done	-0.036	0.040	0.818	0.085

R: Reversed.

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalisation.

Appendix C - Details about the Vignettes

Table C1: Attributes and attribute levels

Attribute	Possible Values
Home-pc + ADSL internet	-Yes -No
Work related training	-No continuous training -Yes, 2 days/year -Yes, 5 days/year -Yes, 10 days/year
Health insurance	-No health insurance is offered -Access to a few free consultations at medical specialist including psychologist -Complete insurance including access to operation and medical specialist
Work flexibility	-Work hours are decided by the company with no possibility for changes -You may choose your work hours within certain limits -You may freely decide on your work hours
Annual bonus (equivalent to one month's pay)	-No chance of bonus -Yes, with 25% chance -Yes, with 50% chance
Monthly wage before tax	-As in current job -As in current job +/- 5% -As in current job +/- 10% -As in current job +/- 15%

Appendix D - Example of logit parameters

Table D1: Mixed Logit parameter

		Coef.	Std. Err.	z
<i>Mean</i>	Wage	9.563	0.745	12.830
	Small health package	0.760	0.143	5.330
	Large health package	0.717	0.178	4.020
	Some flexibility	2.877	0.213	13.480
	High flexibility	2.898	0.215	13.480
	Training 2 days	0.415	0.191	2.170
	Training 5 days	1.469	0.193	7.610
	Training 2 weeks	0.613	0.205	2.990
	Bonus w. 25% chance	1.318	0.195	6.750
	Bonus w. 50% chance	1.405	0.183	7.690
	PC+internet	0.959	0.122	7.840
<i>SD</i>	Small health package	0.140	0.313	0.450
	Large health package	1.206	0.197	6.110
	Some flexibility	1.513	0.164	9.220
	High flexibility	1.907	0.175	10.920
	Training 2 days	1.416	0.233	6.090
	Training 5 days	1.276	0.235	5.440
	Training 2 weeks	-1.283	0.250	-5.130
	Bonus w. 25% chance	0.299	0.248	1.200
	Bonus w. 50% chance	1.277	0.248	5.150
PC+internet	-0.801	0.129	-6.190	
<hr/>				
Interaction terms with PSM (mean)		Coef.	Std. Err.	z
High user orientation \times	Small health package	0.316	0.152	2.080
	Large health package	0.703	0.196	3.580
	Some flexibility	-0.271	0.189	-1.430
	High flexibility	0.121	0.182	0.660
	Training 2 days	0.147	0.207	0.710
	Training 5 days	0.501	0.206	2.440
	Training 2 weeks	0.140	0.218	0.640
	Bonus w. 25% chance	0.166	0.181	0.920
	Bonus w. 50% chance	-0.108	0.177	-0.610
PC+internet	-0.220	0.124	-1.780	

(continued from last page)

Interaction terms with observables (mean)		Coef.	Std. Err.	z
Female x	Small health package	0.256	0.148	1.730
	Large health package	-0.041	0.189	-0.220
	Some flexibility	0.406	0.187	2.170
	High flexibility	0.425	0.178	2.390
	Training 2 days	0.356	0.204	1.750
	Training 5 days	0.268	0.200	1.340
	Training 2 weeks	0.401	0.213	1.880
	Bonus w. 25% chance	-0.028	0.178	-0.160
	Bonus w. 50% chance	0.102	0.174	0.590
	PC+internet	-0.106	0.120	-0.880
Age 57 or above x	Small health package	-0.172	0.234	-0.740
	Large health package	0.175	0.295	0.590
	Some flexibility	0.641	0.300	2.140
	High flexibility	0.243	0.294	0.820
	Training 2 days	-0.068	0.313	-0.220
	Training 5 days	0.074	0.305	0.240
	Training 2 weeks	0.055	0.324	0.170
	Bonus w. 25% chance	0.017	0.284	0.060
	Bonus w. 50% chance	-0.595	0.283	-2.100
	PC+internet	-0.373	0.198	-1.890
Short term college or lower education x	Small health package	0.134	0.149	0.900
	Large health package	0.409	0.190	2.150
	Some flexibility	-0.267	0.187	-1.430
	High flexibility	-0.479	0.180	-2.660
	Training 2 days	-0.049	0.204	-0.240
	Training 5 days	-0.503	0.201	-2.500
	Training 2 weeks	-0.555	0.216	-2.570
	Bonus w. 25% chance	0.054	0.179	0.300
	Bonus w. 50% chance	-0.290	0.176	-1.650
	PC+internet	-0.120	0.122	-0.990

Number of observation: 20.100

Number of individuals 2.877

Note: Parameters significant at the 5% level in bold.

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