

Speed or Greed? High Wages and Corruption Among Public Servants

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Abstract

Scholars maintain that higher wages for public servants would make the public sector more efficient and reduce the abuse of power. This article challenges this idea and suggests that higher wages may actually increase public corruption. We argue that increasing pecuniary incentives for public service might lead public employees to advance their own self-interests and encourage justifications for accepting bribes. We test our theory empirically using 18,800 observations from 58 countries taken from the sixth wave of the World Values Survey. The findings confirm our theory and suggest a positive association between public servants' wages and the toleration of corruption.

Keywords

corruption, motivation, integrity, public service

Introduction

Corruption in the public sector, defined as the misuse of public power for private gain, is an undesired phenomenon (Andersson & Heywood, 2009; Della Porta & Vannucci, 2012; Lambsdorff, 2007; Rothstein, 2011). Although until the late 1960s it was considered a pathology of developing countries, it

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is now agreed that no nation is exempt from it. Accordingly, anti-corruption endeavors have gained a prominent place on the global agenda and in national politics (Navot & Cohen, 2015). However, though in the 1990s there seemed to be consensus about what was needed to curb public corruption, more recent literature has expressed less agreement about the best practices to adopt (Johnston, 2014; Marquette & Peiffer, 2015; Persson, Rothstein, & Teorell, 2013).

One important question is the role of bureaucrats' wages in curbing corruption. Influenced by Becker and Stigler's (1974) seminal work, some scholars suggest that bureaucrats' wages and corruption are negatively correlated. Becker and Stigler maintained that increasing the wages of public officials would curb their temptation to take bribes because doing so makes the violation of trust very costly. In this vein, scholars argued that government agents might be tempted to embezzle funds to pay off their personal debts (Vian, 2008) or might accept informal payments from citizens (Cohen, 2012) because government wages were too low to make a living. Thus, anticorruption organizations and policy-oriented academics who subscribe to this theory maintain that high wages are a tool for reducing corruption in the public sector and speeding up decision making. Although empirical evidence for this theory is mixed (Dahlström, Lapuente, & Teorell, 2012; Lambsdorff, 2007; Treisman, 2007), some studies have produced more concrete results that support Becker and Stigler's work (Di Tella & Schargrodsky, 2003; Van Rijckeghem & Weder, 2001; van Veldhuizen, 2013).

However, even early theorists did not all share the opinion that high wages reduce corruption (Braibanti, 1962, p. 371). Much of the theoretical debate surrounding Becker and Stigler's theory revolves around the mechanism between high wages and honest behavior. First, given that the theory assumes that agents are motivated by the fear of losing their jobs if caught taking bribes, some argue that the relationship between wages and the reduction of corruption depends on the existence of effective auditing. However, such auditing does not always exist (Di Tella & Schargrodsky, 2003). In a similar vein, Ades and Di Tella (1997) claimed that such incentives play a minor role in controlling corruption because of difficulties in measuring performance. Second, high wages in the public sector are a costly measure, making it a problematic and potentially unpopular solution. Furthermore, studies suggest that large sums of money are required for this approach to be an effective sole measure against corruption (Van Rijckeghem & Weder, 2001), making it an unrealistic solution. Finally, even if a country has effective auditing, the necessary budget, and the public will, high wages may crowd out behaviors that are based on intrinsic motivation. As Ostrom (2005) maintained, bureaucrats who receive higher salaries exert less effort in fulfilling their duties than they

would have otherwise. Similarly, external incentives may have a negative effect on the willingness of people who are public service oriented to join the public sector (Georgellis, Iossa, & Tabvuma, 2011).

Our article focuses on the relationship between the motivation to serve the public and corrupt public behavior. Based on 18,800 respondents from 58 countries taken from the World Values Survey (WVS), we analyze whether and to what extent pecuniary incentives are correlated with the view that bribery is justifiable. These questions are particularly interesting given the increasing disappointment with anti-corruption measures (Johnston, 2014; Persson et al., 2013) and the interest in the similarities and differences between the public and private sectors.

Following the traditionalist scholars in public administration and the more recent paradigm of public service motivation (Perry & Wise, 1990), we question the assumption that we can motivate agents in the public sector in the same ways we do in the private sector. More specifically, we examine the idea that pecuniary incentives prompt agents to serve the public in an expeditious and efficient manner (hence the word speed in our title) and that this is a fruitful way to motivate them. 1 We argue that the effort to encourage public employees by paying them higher wages may not lead to the intended results. High wages may not automatically produce the kinds of public servants we need. Indeed, sometimes they may have the opposite effect. In other words, if public servants come to believe that such incentives are not only legitimate but also desirable, high wages may erode their willingness to serve the public and increase their tolerance of corruption. Therefore, we claim that embracing this tenet of New Public Management and its anticorruption tools may not only undermine the kinds of virtues that are needed in the public sector (e.g., Moynihan, 2010; Perry & Wise, 1990) but also increase the toleration of corruption.

Related Literature

Bureaucrats' behavior and their motivation to serve the public are crucial factors in every democracy. Indeed, the desire of public servants to do their job properly is one of the main reasons for the success of bureaucratic mechanisms (J. Q. Wilson, 1989, p. 159). However, in reality the relation between serving the public and the bureaucrat's behavior is usually mediated through incentives. In most cases, bureaucrats' incentives are the main factor that influences their behavior (Cohen & Gershgoren, 2013). This insight also underlies the idea that institutions play a crucial role in public life—because institutions are actually incentives. However, what kinds of incentives induce bureaucrats to serve the public?

The question of incentives is inherently related to the question of human motivation. Although in the past, scholars were influenced by the writings of Woodrow Wilson (1887) and Max Weber's reasoning (Perry & Hondeghem, 2008), more contemporary scholars, especially public choice theorists, "doubted whether a distinctive esprit de corps would guide administrators to act altruistically" (Sager & Rosser, 2009, p. 1139). Niskanen (1971), for example, claimed that bureaucrats attempt to maximize their organizational budgets to increase their own wages. However, other prominent scholars such as Anthony Downs noted more positive, self-interested motivations such as pride in performance (Horton, 2008, p. 21).

In the late 1980s and early 1990s, partly as a reaction to public choice theory, some scholars identified and underscored commitment to the public as a factor in motivating bureaucrats (Perry & Wise, 1990) and managers in public service (Donaldson, 1990). One of the triggers for the re-appearance of this classic idea was precisely the fear that public choice theory undermines public service (Perry & Wise, 1990). Another trigger was that some of the more prominent predictions of public choice theory about the future of public service did not accord with reality. For example, politicians and bureaucrats supported de-regulation whereas public choice predicted that "insufficient regulation would persist in equilibrium" (Leighton & López, 2013, p. 106). Since then, there has been a lively debate about the motivations behind the behavior of public servants (Moynihan, 2010; Perry & Hondeghem, 2008, pp. 2-3; Rayner, Williams, Lawton, & Allinson, 2011). Perry and Wise's (1990) classic study about the motivational bases of public service was actually an attempt to think about the "motivational alternatives to merit pay," meaning the practice of encouraging public employees by paying them based on their performance rather than at a fixed rate (Perry, Hondeghem, & Wise, 2010). In particular, there has been a strong interest in the effects of external motivations on the kind of people who would join the public sector and on the behavior of public servants (Cowly & Smith, 2014; Georgellis et al., 2011; Kwon, 2014).

Whatever the motivations to serve the public are, scholars seem to agree that there is always the danger that bureaucrats will abuse their public power for private gain. Even if public servants are motivated or can be motivated by the public interest, and even if we are not purely self-interested creatures but rather "social animals," public servants may succumb to the temptations of power or to other selfish inclinations (Philp, 2007; Sager & Rosser, 2009). Hence, the other side of the question of how to motivate public sector employees to serve the public and which kinds of incentives to provide them is how to encourage them not to abuse their power. At the same time, we must ensure that "the anticorruption program/integrity project" does not paralyze public service or make it inefficient (Segal, 2012).

Independent of these challenges, many contemporary scholars determined that most of the measures against corruption in the public sector recommended during the 1990s were insufficient (Johnston, 2014). According to this line of thinking, if we do not want to exacerbate public corruption by making ill-advised suggestions, a more sophisticated approach to the subject is needed (Persson et al., 2013). Against this backdrop, some scholars have adopted an institutional economic approach (Lambsdorff, 2007), which means deterring corruption by creating an institutional environment that makes such practices unacceptable. Others have emphasized the need to be sensitive to the nature of public life, meaning to develop public integrity and virtues such as responsibility, self-restraint, and sensitivity to context (Dobel, 1999; Philp, 2007). Still others have argued in favor of allowing and encouraging those who have been the victims of corruption to take a meaningful part in the struggle against it (Johnston, 2014). The common theme in these recent studies is skepticism of the "market-economy" logic (Heywood, 2015).

Although previous empirical studies provide mixed or weak empirical evidence about the positive relationship between high wages and the reduction of corruption (Lambsdorff, 2007), recent studies seem to confirm this link, at least under certain conditions. Using data from 31 countries, Van Rijckeghem and Weder (2001) found a negative association between civil service pay and corruption. Di Tella and Schargrodsky (2003) determined that wage hikes could indeed reduce corruption but only with an adequate auditing policy. Using a laboratory experiment, van Veldhuizen (2013) investigated the link between wages and the acceptance of bribes. Like Di Tella and Schargrodsky, he showed that highly paid public officials are less likely to accept bribes and that monitoring may be a necessary measure for ensuring this relationship.

A separate but related body of work examines whether external incentives dampen intrinsic motivation (Frey & Jegen, 2001). For example, one study showed that high rewards might undermine the willingness of intrinsically motivated agents to join the public service, at least in higher education and the National Health Service in the United Kingdom (Georgellis et al., 2011). Finally, Kwon (2014), who investigated perceptions of 800 central government bureaucrats in Korea, determined that high wages might be effective both as an incentive for public officials and as a measure against corruption, making it a solution with no negative side effects.

Theoretical Framework

We argue that higher pecuniary incentives may promote the toleration for bribery in the public sector. Thus, increasing the wages of bureaucrats may

not only be an ineffective measure in combating corruption, but doing so might also attract the wrong kind of people to public service.

Our argument is based on the literature dealing with human motivations (Donaldson, 1990) and motivations to serve the public (Perry & Wise, 1990), and with the crucial role of integrity and stewardship in public life (Dobel, 1999; Philp, 2007; Segal, 2012). In particular, we base our argument on two fundamental assumptions. First, we assume that both internal and external factors influence bureaucrats' motivations and therefore their behavior. Second, we also assume that some people are inherently motivated to advance the public's interests, and their desire is not related primarily to material rewards or self-serving goals (Segal & Lehrer, 2012). As Perry and Wise (1990) noted, some individuals have a "predisposition to respond to motives grounded in public institutions and organizations" (p. 368), whether because of rational, normative, or affective motives. Indeed, such a predisposition should and can be cultivated through education, training, and other measures (Sager & Rosser, 2009; Segal, 2012).

Public integrity, or what is also known as stewardship, is the fundamental virtue tied to public service (Dobel, 1999; Segal, 2012). Although a precise definition of public integrity and stewardship is beyond the scope of this article, suffice it to say that agents with public integrity are guided by a higher calling than their immediate self-interests. They are those who identify with and attempt to advance public values such as moral courage, honesty, self-sacrifice and, of course, effectiveness, and efficiency.

However, those in public service hold positions of power, meaning that the threats to their integrity are numerous and serious. What conditions must be met for public servants to refrain from using inside information to their advantage, favoring their friends, engaging in nepotism, extorting the innocent, and accepting bribes? One of these conditions is proper education and suitable training, what Segal (2012) called "instilling stewardship." Candidates for public service, as well as public servants, should be educated to promote the public interest, restrain their own desires for aggrandizement, and nurture their unselfish inclinations (Sager & Rosser, 2009; Segal, 2012). Societies must also create an environment that supports the virtue of public integrity. Thus, society's expectations of public sector employees, the motivations that society encourages in them, and the incentives that the public sector provides to its employees may have a very strong effect on the conduct of the public sector (Frey, Homberg, & Osterloh, 2013; Moynihan, 2010; Perry et al., 2010; Perry & Wise, 1990).

The attraction of individuals to a public or private organization is a function of their motivation and the kinds of incentives or rewards that the particular organization in the public sector offers (Perry & Wise, 1990). The

danger that prompted this study is that public choice theory and the assumptions of the principal-agent theory lead to a theoretical stalemate. In particular, the use of high wages as an anti-corruption measure presupposes that agents, including bureaucrats, politicians, and the public, are selfish. At the same time, the theory relies on there being a principal who is willing to punish corrupt bureaucrats if and when the principal discovers them abusing their power, as long as it is in his interest to do so (Marquette & Peiffer, 2015). However, in societies that suffer from systemic corruption, no one has an interest in ferreting out or punishing corrupt bureaucrats (Persson et al., 2013, pp. 450-451). Nevertheless, in spite of this problem, the principal-agent model proposes high wages as a measure against corruption.

A particular danger is that external incentives encourage public servants to develop "calculating, instrumental, 'quid pro-quo' relationships with their organization, in which they reduce their identification with its goals . . . " (Segal & Lehrer, 2012, pp. 170-171). A related problem is that the greater the pecuniary rewards that a public organization provides, the more likely the individuals who seek membership in it are motivated by self-interests. The more private-sectorlike incentives the public organization offers, the more likely that the individuals who are attracted to the organization will be motivated by private rather than public interests (Moynihan, 2010, p. 28). Similarly, the willingness of self-motivated individuals to remain in the public sector is a function of the financial and external incentives that the public sector offers. The problem is that individuals who are prompted primarily by the motivation of financial gain seek to advance goals that benefit them (Perry et al., 2010). Accordingly, they are more likely to abuse their power if there is an opportunity to do so. Likewise, people who are motivated by the desire to serve the public might be less attracted to a service that is based on self-interested incentives (Moynihan, 2010). Thus, external incentives such as pecuniary rewards may attract self-interested individuals and repel those who are motivated by the desire to serve the public.

The literature suggests that high wages in public service are also problematic because external interventions crowd out intrinsic motivation if the employees affected perceive these interventions to be controlling. The use of wages as a means of preventing corruption might be such a case of control. No less important, it might be perceived as an attempt to control bureaucrats. In this case, the literature suggests, "both self-determination and self-esteem suffer, and the individuals react by reducing their intrinsic motivation in the activity controlled" (Ostrom, 2005, p. 260). In a similar vein, although wages (and their deprivation) can allegedly control bureaucrats' behavior, they also may forestall self-regulation. Yet, "self-regulation by organizations and their members needs to be part of any comprehensive solution to the corruption problem" (Ashforth, Gioia, Robinson, & Treviño, 2008, p. 676).

Finally, external incentives may send a problematic signal to public servants or those considering such work. Underscoring economic incentives for working in the public sector conveys a message about the public's intentions and expectations, which may affect the motivation of public sector employees, as well as their attitudes toward their duties and their self-interests (Bowles & Polanía-Reyes, 2012). When the public provides financial incentives to public sector employees, they may be unintentionally conveying the message that they expect these employees to be motivated by self-interests rather than the interests of the public. Of course, that does not mean that the public wants or encourages corruption, but it does signal that such behavior is accepted and expected.

Before proceeding, two clarifications might be helpful. First, we do not argue that the conceptualization of corruption as a collective action problem is an entirely fresh approach or that our theory is based on this conceptualization. As a matter of fact, originally, the principal-agent model and the collective action problem were based on similar reasoning. However, several prominent scholars understand the collective action problem as a radically different concept than the principal-agent model, and as being focused on expectations and reciprocity. In this regard, our approach is more similar to the former but is best understood as complementary to both approaches.

Second, the logic of our argument differs from a recent article that deals with a similar subject. Dahlström et al. (2012, p. 659) see diversity (such as different types of recruitment to public service) as the key to preventing corruption. In contrast to them, we argue that the motivation to serve the public is important whether or not it is a different type of motivation. We maintain that regardless of the issue of diversity, the desire to serve the public is important and beneficial on its own right.

Data and Method

We use data from the sixth wave of the WVS conducted between 2010 and 2014, which includes 18,800 respondents from 58 countries who are employed in the public sector.² Such a broad range of countries is particularly well suited to test our predictions about the positive relationship between high wages and toleration for corruption, for two main reasons. First, the large sample is more representative of public sector employees worldwide, so our results carry over to other countries more than other studies that deal with only one country. Second, we control for differences between countries using dummy variables for the countries, thereby ensuring that our results are not driven by differences between countries but rather by differences between public sector employees within countries. The

Variable name	М	SE	Minimum	Maximum
Bribe	1.86	1.82	I	10
Tax evasion	2.21	2.09	1	10
Stealing property	1.74	1.73	1	10
Avoiding paying public fare	2.63	2.39	1	10
Claiming unentitled government benefits	2.68	2.49	1	10
Income	5.13	2.06	1	10
Age	46.28	16.48	16	98
Male	0.49	0.50	0	I
Education	6.56	2.24	1	9
Married	0.66	0.47	0	I

Table I. Summary Statistics.

Note. The sample includes 18,800 public sector employees from 58 countries.

survey is quite representative and contains more than 100 respondents for the vast majority of countries (see Table 1).³

The WVS, which is freely available at www.worldvaluessurvey.org, is one of the largest and well-established surveys in the social sciences. The WVS has been conducted for over three decades by a network of social scientists aiming to understand values and social perceptions. Table 1 summarizes the statistics for the responses from 18,800 individuals working in the public sector in 58 countries with regard to the main variables in the survey. The survey includes an exceptionally large number of respondents from the public sector, creating a sample that is representative of public servants in these countries, and possibly in other countries as well. All of the variables except age are ordinal in nature, meaning they are measured in scales, not as continuous variables. Some factors such as gender and marital status are measured using dummy variables, whereas others such as income and education have 9 or 10 categories each. Income is an important variable in our study and is measured using a scale of 1 (low income) to 10 (high income). The respondents were asked to classify their household income in one of these groups relative to that of other households in their country. Although the WVS does not include data on salaries, we stress that income and wage are strongly correlated (Dreger, López-Bazo, Ramos, Vicente Royuela, & Suriñach, 2015; Hall, 1973).4 In addition, of particular use for our study is the ordinal variable called "bribe," which assesses attitudes toward corruption on a scale of 1 (disagree completely) to 10 (agree completely). The exact wording of the statement is, "Justifiable: Someone accepting a bribe in the course of their duties." The mean value of this variable in the sample is 1.86, meaning that

the average public servant does not approve of the practice of taking bribes. We also explore other proxies for perceptions about corruption including the justifiability of stealing property, tax evasion, avoiding paying a fare on public transport, and claiming government benefits to which one is not entitled. The mean value for these variables ranges from 1.74 for the justifiability of stealing property, to 2.68 for the justifiability of claiming government benefits to which one is not entitled. Our other proxies provide additional support for our claims. In addition, some proxies have higher mean values and higher variances than our baseline dependent variable, which supply more information about the attitudes of the respondents. Income is more evenly distributed, with a mean of 5.13 on the 1 to 10 scale. Other variables presented in Table 1 include education, scoring 6.56 on a scale of 1 to 9; age, which is 46 years on average; and the dummies for gender and marital status, which show that 49% of our sample are males, and 66% of the respondents are married.

We use a multivariate ordinary least squares (OLS) regression to assess the association between income levels and attitudes toward corruption. The specification for the regression is presented in Equation 1:

$$Bribe_{ij} = Income_{ij} + Age_{ij} + Male_{ij} + Educ_{ij} + Married_{ij} + C_j + e_{ij},$$
 (1)

where $Bribe_{ij}$ is an ordinal variable that describes attitudes toward corruption. Subscripts i and j denote the individual level and country level, respectively. $Income_{ij}$ is an ordinal variable indicating the individual's income level. Age_{ij} is the respondent's age. $Male_{ij}$ is a dummy variable for gender (1 for men and 0 for women). $Educ_{ij}$ is an ordinal variable that describes the highest educational level of the respondent, and $Married_{ij}$ is a dummy variable for marital status. C_j is a dummy variable for country, which captures the prevailing attitudes toward corruption shared by all citizens of a specific country. These dummy variables control for all country-specific effects. For example, if people report their income differently in different countries, the dummy variable for country will capture this fact. Finally, e_{ij} is the residual. Throughout the empirical analysis, we cluster the standard errors at the country level, to deal with heteroscedasticity.

Results

Table 2 presents our main results. In column 1, we present the results of a univariate OLS regression where income is the independent variable, and attitudes toward bribery is the dependent variable. The coefficient on income equals 0.033 and is marginally statistically significant. Given that differences between countries might play a major role in the analysis, in column

			(3)	(4)
	(1)	(2)	Age ≥ 45	Age < 45
Income	0.033* (0.018)	0.035** (0.014)	0.050 (0.058)	0.167*** (0.062)
Age	_	-0.009*** (0.001)	-0.006 (0.004)	0.012 (0.008)
Male	_	0.083** (0.036)	0.029 (0.039)	0.113** (0.051)
Education	_	-0.044*** (0.009)	-0.033*** (0.010)	-0.051*** (0.013)
Married	_	-0.110** (0.044)	-0.057 (0.044)	-0.146* (0.076)
Constant	1.698*** (0.133)	2.718*** (0.082)	2.678*** (0.296)	1.928*** (0.269)
Country dummies	No	Yes	Yes	Yes
Adjusted R ²	.001	.148	.135	.151
No. of observations	18,800	18,637	9,515	9,122

Table 2. Main Results.

Note. Standard errors are clustered at the country level and are in parentheses.

2 we include dummy variables for the countries and introduce the full set of control variables. The coefficient for income, which is similar to the one presented in column 1, is now highly statistically significant and equals 0.035. This positive association between income and the toleration of corruption is not consistent with the findings in the most contemporary literature, which documents the opposite relationship. However, the magnitude of the estimated effect is relatively small—An increase of one in the ordinal income variable is associated with a 0.035 increase in the toleration of corruption. The positive association between income and toleration for taking bribes remains even after we control for confounding factors and the dummy variables for the countries.⁵

In addition, there are varying associations between attitudes toward corruption and each of the control variables. Age seems to be negatively associated with a leniency toward corruption, as is educational level and being married. However, men seem to be more lenient toward corruption.

In columns 3 and 4 of Table 2, we divide the sample by the median age (45) to determine whether income affects the young or the old. Although income has a negligible effect on older respondents (column 3), it has a significant impact on younger public servants (column 4). An increase of one category in income level is associated with a statistically insignificant increase of 0.05 in the toleration of corruption for older respondents but a statistically significant increase of 0.167 for younger respondents. This result suggests that tenure in the public sector affects attitudes toward corruption. Income has a strong impact on those who are newcomers to public sector

^{*, **,} and *** denote the level of statistical significance (10%, 5%, and 1%, accordingly).

employment, but little effect on veteran employees. Focusing on column 4, we can see that young unmarried men are those most prone to be more accepting of the idea of taking bribes.

Given that our dependent variable is an ordinal one, a linear regression might not be the most suitable model. Therefore, to check the robustness of our results, we repeated the analysis using an ordered logit model. Table 3 presents the results, which are very similar to those of Table 2 and provide additional evidence for the positive association between income and the toleration of corruption. Indeed, as columns 1 and 2 of Table 3 show, the coefficients in the ordered logit model tend to be slightly larger in magnitude than those columns in Table 2. In addition, Table 3 exhibits similar results with respect to the effect of age on the association between income and attitudes toward corruption (columns 3 and 4). As an additional robustness check, we used the tobit model, which might be more appropriate when the dependent variable is skewed to the minimum values. The results of estimating the tobit model are very similar to the results of the logit model, both qualitatively and quantitatively (results available on request).

In the second part of our analysis, we assessed whether a predilection for individualism or collectivism has an effect on attitudes toward corruption. To make this assessment, we collected information from the survey about the respondents' feelings toward their country. We chose this variable from the survey because we hypothesized that those who felt a stronger sense of belonging would be more willing to act in accordance with the public's will and in society's interests. Column 1 in Table 4 adds this variable to the model. We can see that the tendency toward patriotism is strongly associated with attitudes toward corruption—a 1-point increase on the patriotism scale is associated with a 0.25 drop in the tolerance of corruption. We then divided the sample according to the patriotic tendency of the respondents based on whether they scored above or below the average score on this variable (columns 2 and 3, respectively). We can see that in both cases, income is positively associated with toleration for the practice of taking bribes, though the effect for patriotic individuals is not statistically significant. In addition, less patriotic individuals are 3 times more affected by income compared with patriotic individuals (the coefficient is 0.066 and 0.020, respectively). We therefore conclude that a sense of belonging does affect the toleration of corruption.

As an additional robustness check, we explored whether income is correlated with other perceptions that might proxy for toleration of bribery or corruption (Table 5). For this purpose, we chose four additional dependent variables to include in Equation 1, instead of the variable "bribe." The first variable is the perceptions regarding the justifiability of cheating on taxes

	(1)	(2)	(3)	(4)
			Age ≥ 45	Age < 45
Income	0.038 (0.025)	0.047** (0.019)	-0.041 (0.080)	0.114** (0.064)
Age	_	-0.016*** (0.002)	-0.022*** (0.007)	0.0003 (0.009)
Male	_	0.107** (0.045)	0.071 (0.065)	0.128** (0.058)
Education	_	-0.067*** (0.013)	-0.067*** (0.016)	-0.066*** (0.016)
Married	_	-0.097 (0.060)	-0.071 (0.078)	-0.147 (0.093)
Country dummies	No	Yes	Yes	Yes
Pseudo-R ²	.001	.067	.067	.061
No. of observations	18,800	18,637	9,515	9,122

Table 3. Results of the Ordered Logit Model.

Note. Standard errors are clustered at the country level and are in parentheses.

Table 4. Collectivism and the Toleration of Corruption.

		(2)	(3)	
	(1)	Patriotic	Less patriotic	
Income	0.038** (0.014)	0.020 (0.014)	0.066*** (0.023)	
Patriotism	-0.250*** (0.042)	<u> </u>	<u> </u>	
Age	-0.009*** (0.001)	-0.009*** (0.001)	-0.010*** (0.002)	
Male	0.082** (0.035)	0.053* (0.038)	0.138*** (0.047)	
Education	-0.043*** (0.009)	-0.033*** (0.009)	-0.060*** (0.013)	
Married	-0.105** (0.044)	-0.108** (0.048)	-0.116* (0.060)	
Constant	2.327*** (0.124)	2.766*** (0.099)	2.513*** (0.125)	
Country dummies	Yes	Yes	Yes	
Adjusted R ²	.155	.128	.186	
No. of observations	18,368	11,036	7,332	

Note. Standard errors are clustered at the country level and are presented in parentheses. *, **, and *** denote the level of statistical significance (10%, 5%, and 1%, accordingly).

(column 1); the second is whether it is justified to avoid paying a fare on public transportation (column 2); the third is "claiming government benefits to which you are not entitled" (column 3). Finally, column 4 in Table 5 tests whether income influences the perceptions regarding the justifiability of stealing property. As reported in Table 5, income is positively associated with all of these variables, suggesting that the perceptions regarding the justifiability of accepting a bribe hold for other corrupt or immoral behavior.

^{*, **,} and *** denote the level of statistical significance (10%, 5%, and 1%, accordingly).

Table 5. Other Corruption Measures.

	(1)	(2)	(3)	(4)
	Cheat on taxes	Avoid paying public fare	Claim unentitled government benefits	Steal property
Income	0.023** (0.011)	0.015 (0.012)	0.018 (0.017)	0.039*** (0.012)
Age	-0.014*** (0.002)	-0.016*** (0.003)	-0.013*** (0.002)	-0.008*** (0.001)
Male	0.113*** (0.035)	0.051 (0.054)	0.035 (0.055)	0.045 (0.036)
Education	-0.040*** (0.009)	-0.047*** (0.010)	-0.057*** (0.013)	-0.037*** (0.009)
Married	-0.118*** (0.039)	-0.122*** (0.045)	-0.067* (0.037)	-0.110** (0.044)
Constant	4.319*** (0.110)	5.326*** (0.137)	5.178*** (0.160)	2.685*** (0.100)
Country dummies	Yes	Yes	Yes	Yes
Adjusted R ²	.113	.132	.140	.141
No. of observations	17,194	18,600	18,510	18,663

Note. Standard errors are clustered at the country level and are presented in parentheses.

Table 6. Income Measures and Corruption.

	(1)	(2)	(3)	(4)	
	Baseline	Chief earners	Social class	Working age	
Income	0.035** (0.014)	0.038** (0.014)	_	0.036** (0.016)	
Social class	_	_	0.080*** (0.030)		
Age	-0.009*** (0.001)	-0.009*** (0.002)	-0.010*** (0.002)	-0.010*** (0.002)	
Male	0.083** (0.036)	0.012 (0.074)	0.077** (0.035)	0.089** (0.042)	
Education	-0.044*** (0.009)	-0.037*** (0.010)	-0.047*** (0.010)	-0.043*** (0.010)	
Married	-0.110** (0.044)	-0.043 (0.044)	-0.101** (0.043)	-0.115** (0.054)	
Constant	2.718*** (0.082)	2.845*** (0.103)	3.234*** (0.174)	2.654*** (0.098)	
Country dummies	Yes	Yes	Yes	Yes	
Adjusted R ²	.148	.129	.148	.146	
No. of observations	18,637	10,207	18,721	15,563	

Note. Standard errors are clustered at the country level and are presented in parentheses.

Table 6 presents the results of three checks for robustness we conducted about the income variable. Column 1 of Table 6 provides the baseline results of Table 2, column 2, yielding an estimate of 0.035. Next, column 2 of Table 6 focuses on a subsample of the respondents. We are concerned only with the respondents who reported that they were the chief wage earners in their households. For these respondents, the correlation between

^{*, **,} and *** denote the level of statistical significance (10%, 5%, and 1%, accordingly).

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income and salary will be much higher than for the entire population. The results of column 2 show a coefficient of 0.038, which is higher than the baseline results and also highly statistically significant. Therefore, the link between higher income and greater tolerance of corruption strengthens when we focus on individuals who are the chief wage earners. In column 3 (Table 6), we estimate our model using a proxy variable for income level. The proxy is the individual's subjective self-classification as lower, middle, or upper class on a scale of 1 through 5, where 1 is lower class and 5 is upper class. The results of this proxy mirror the results of our income variable. People who classify themselves as upper class (which is a proxy for higher income) tend to be more tolerant of corruption. Finally, we restricted the sample to include only working age individuals, meaning those below the age of 65 (Table 6, column 4). We used this method for two reasons. First, for those individuals the correlation between income and wages is expected to be higher. Second, wealth is correlated with age, and we wanted to control for differences in wealth. The results of column 4 are almost identical to the baseline results, with a coefficient of 0.036. Summing up the results of Table 6, we believe that using income levels as a proxy for wages is reasonable, and that differences between income and wages do not seem to drive the results.

Our results confirm that high wages for public servants increase their propensity to tolerate bribery. These findings indicate that high wages may have the effect of crowding more virtuous people out of public service. This finding is consistent with the stewardship theory and the public service motivation approach, but accords less with public choice theory and agency theory. It is also consistent with empirical findings suggesting that intrinsic motivation leads some bureaucrats to be conditional cooperators willing to serve the public faithfully as long as other bureaucrats also act in a similar way. More generally, the results also concur with—although do not necessarily confirm—experimental work about human altruism. In other words, our findings are consistent with the idea that public officials may be motivated to serve the public to the extent that doing so accords with the norms of reciprocity and conditional obligations to others (Bowles & Gintis, 2000; Fehr & Fischbacher, 2003; Henrich et al., 2001; Ostrom, 2005). As Bicchieri and Xiao (2008) suggested, agents are willing to "do the right thing" if they expect that most other agents will do the same, meaning serve the public faithfully even without high wages and refrain from taking bribes.

Finally, the findings support the idea that corruption is better conceived as a collective action problem, not just a principal-agent issue. The former stresses inter-subjective dynamics, including trust in others and their expected behavior (Marquette & Peiffer, 2015). When high wages,

self-interest, and greed are seen as normal because others are expected to be motivated by these factors, even bureaucrats who are committed to serving the public may be more tolerant of bribery. Likewise, politicians and the public may be less willing to punish corrupt bureaucrats. Thus, our empirical findings highlight the challenges of anti-corruption efforts and support the contention that high wages may be a less efficient measure against corruption than is usually argued.

Conclusion

The idea that paying people well promotes trustworthy behavior goes back to the Enlightenment. According to Adam Smith, we cannot trust "people of a very mean or low condition . . ." to take care of our most important concerns such as our health and reputation. Those who care for us should receive good wages to compensate for their lengthy education and give them an incentive to dedicate their time to ensuring our well-being (Smith, 1776/2008, Chapter x, p. 101). Similarly, 200 years later many scholars suggest that public officials and those who enforce regulations should be well paid so they will not succumb to the temptation of bribery. The practical implication of this argument is that increasing bureaucrats' wages would reduce corrupt practices in public administration.

We demonstrate the possible limitations of this argument. Furthermore, we argue that incentives based on material rewards might crowd out those who seek positions in the public sector to serve others. Such practices may erode public integrity and the public sector ethos. Our findings reveal the possibility that high wages for public employees are at best a questionable measure against public corruption. It also has deflationary consequences for the assumption that all agents are self-interested and accordingly should be treated with caution. More specifically, it may lead to the implementation of policies that are more harmful than beneficial (Perry & Wise, 1990; Segal, 2012). Finally, we demonstrate that people with a stronger sense of belonging tend to be less affected by pecuniary incentives, a finding that also accords with theories about intrinsic motivation.

Our study also contributes another perspective and empirical findings to the question of whether extrinsic rewards in the public sector could crowd out desirable motivations. The crowding-out theory suggests that extrinsic rewards could have a negative effect on job matches in the public sector and undermine the desire to serve the public interest. Although we did not examine the crowding-out effect, our findings are consistent with the concern that such an effect occurs when the public sector uses material rewards to motivate its employees (Moynihan, 2010; Perry & Wise, 1990).

Another potential contribution of our article is to the debate about the principal-agency conceptualization of corruption. Since the mid-1970s, scholars analyzing public corruption with economic tools have regarded it as an agency problem (Banfield, 1975; Becker & Stigler, 1974; Rose-Ackerman, 1975). Consequently, they suggest monitoring and providing external incentives to agents, that is, to public sector employees. More recently, however, political scientists have raised doubts about the utility of such a conceptualization, particularly when there is no "principled principal" (Persson et al., 2013). Similarly, public administration experts have criticized the principal-agent theory for failing to consider the element of intrinsic motivation that is of great importance in the public sector (Larkin, Pierce, & Gino, 2012). They also reject the idea that public sector employees are simply self-centered agents. Our article suggests other limitations of the principal-agent framework. On one hand, the kinds of incentives it encourages may be corrupting. On the other hand, there are other measures that we might adopt to curb corruption such as promoting service to the public that the principal-agent theory ignores.

There are, of course, questions that our research left untouched. We would like to mention three. First, does tolerance of bribery actually have behavioral implications? Here we only examined perceptions, not behavior or experience with corruption and bribery. Second, what are the exact mechanisms at play in the relationship between high wages and the tendency of agents to tolerate public corruption or bribery? More specifically, are those with an intrinsic motivation changed while being in the public sector, or do those who join the public sector already lack the motivation to serve the public? Third, could raising wages to a very high level compensate for the decline in intrinsic motivation and/or the tendency toward corruption? Empirical studies do indicate that if wages were much higher, they would not have a corrupting effect. Such a possibility is also consistent with the tenets of the crowding-out theory (Frey et al., 2013).

In ancient times, philosophers such as Aristotle (1996, p. 136) asserted, "The state should be so administrated and so regulated by law that its magistrates cannot possibly make money." Nevertheless, we are not saying that public servants should make minimum wages. Such a radical step would make public office suitable only for the wealthy. We do not even recommend a reduction of wages for public employees as a next immediate step to curb corruption, because such a step, which would come before a normative change, would probably discourage good people from joining public service or demoralize public servants. However, we do believe that it is time to consider seriously that the current conceptualization of wages as a means of fighting corruption may actually have a corrupting effect. Moreover, we want

to restore the discourse that conceives of the relations between incentives in the public sector and the prevention of corruption differently. If and when this dialogue is reopened, we can consider the optimum payment to public servants in a detailed manner.

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Notes

- The word *speed* in the title of the article does not refer to "speed money" (bribery) but rather to spurring bureaucrats on to serve the public efficiently. In other words, we are juxtaposing the idea of high salaries as promoting good behavior with the possibility that they encourage greed among bureaucrats and toleration of corruption.
- 2. The countries included in the sixth wave are Australia, Russia, the United States, Taiwan, Cyprus, Germany, Japan, South Korea, The Netherlands, New Zealand, Singapore, Spain, Sweden, Estonia, Ghana, India, Iraq, Kazakhstan, Jordan, Kirgizstan, Lebanon, Libya, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Algeria, Azerbaijan, Argentina, Armenia, Brazil, Belarus, Chile, China, Colombia, Ecuador, Peru, Philippines, Poland, Romania, Ruanda, Slovenia, South Africa, Zimbabwe, Thailand, Trinidad, Turkey, Ukraine, Uruguay, Bahrain, Egypt, Hong Kong, Kuwait, The Palestinian Authority, Qatar, and Yemen.
- 3. Only in Morocco (40), Ecuador (97), and Chile (87) were there are fewer than 100 respondents (with the number of respondents in parentheses).
- 4. The World Values Survey (WVS) does not include data on individual earnings. To ensure that differences between household and individual income were not driving the results, we tested whether the results held if we excluded individuals who were not the chief earners in their households from the sample (see Table 6).
- The effect of income on toleration for accepting bribes remains even after introducing additional control variables such as attitudes toward trust and altruism (results available on request).
- 6. The WVS classifies lower class as 5 and upper class as 1. To present the results in a more intuitive way, we switched the order of this variable so that upper class was 5 and lower class was 1.
- 7. We tried other age thresholds and obtained similar results.

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