Behavior, motivation and selection of bureaucrats

ERASMUS UNIVERSITY ROTTERDAM
Erasmus school of Economics
Department of Economics

Supervisor: Prof. Robert Dur

Name: Maurizio Talarico
Exam number:
E-mail address: maurizio.talarico@yahoo.it

Key-words: civil servants, motivation, political opinion, self-selection, public sector.

Summary

This thesis offers an overview of three characteristics which distinguish bureaucrats from other workers: political and social opinion, motivation and selection. Before approaching data, some important related findings are revised in order to provide a theoretical framework. In particular, the Bureau Voting Model (BVM) postulates a certain voting behavior of bureaucrats. Regarding motivation, the basis is given by the Public Service Motivation (PSM) hypothesis which claims that "propensity to serve the other" motivates civil servants to exert effort.

The data used to perform the analysis is provided by a broad survey, the World Values Survey, that covers many different countries with a reasonable number of observations for each country. The adoption of logit method is motivated by the greater adaptability to surveys, this method is preferred to the common least squares.

The first part of the analysis carries out -at the same time- the study of opinion and motivation of public employees. Their behavior, preferences and attitudes are analyzed through 70 regressions covering aspects like political opinion, attitude toward minorities and women, presence in charitable associations and trust in institutions. Such broad overview, controlled for demographic and social characteristics, draws a tangible distinction between bureaucrats and other workers. Some evidence is found in favor of the BMV: civil servants vote more often and for left-wing candidates. Also the PSM hypothesis seems to be confirmed, indeed public employees participate more often in nonprofit associations, trust the other people and, take greater care of public goods like environment.

The second part focuses on self-selection, trying to prove that bifurcated selection exists. The referring model from Prendergast, postulates that bifurcated self-selection should originate from intrinsic motivation. The more motivated are those characterized by extreme opinions, this happens because their feeling of importance is greater. The empirical analysis does not show that happier bureaucrats are strong-minded. Indeed, only in one regression sector of employment (SE) multiplied by opinion gap (OPG) affects satisfaction. Apparently, everyone with well-defined ideas enjoys greater satisfaction, no matter what job sector.

Index

1. Introduction

This thesis purposes an empirical overview of bureaucrats. The exercise is aimed at verifying how previous findings and theories fit in with the large database available. Indeed, there are three different fields of study to derive a complete profile of bureaucrats. The first step is a description of political and social preferences of civil servants and, this section investigates their behavior by exploring the differences. In the second step I verify if motivation differs in the public sector: this section permits to test at international level results for Public Service Motivation (PSM) already obtained with smaller samples. The last step looks for empirical support to the Prendergast's theoretical model that postulated bifurcated selection in the bureaucracy.

The economical and social relevance of a work in this field is the exploration of public servants' differences in respect to others, and the explanation of the consequences expected from such diversities. Indeed, argumentations like attractiveness of public sector and motivation of bureaucrats are always relevant to the government; especially nowadays, when the discrepancy in terms of job security and competition between public and private sector explodes.

The dataset used is the World Values Survey, in particular the 2005 wave that includes a specific request regarding the employment sector. This survey ensures a good amount of observations from many different countries and a reasonable set of questions. All regressions are performed in Eviews using the logit model which is particularly indicated for surveys. This method provides, given a certain set of characteristics, the likelihood of a certain answer. The answer is the dependent variable, and the characteristics are the explanatory variables.

Several theoretical and empirical articles have been considered to write this paper. Recent research found that civil servants vote at higher rates and are more often left-wingers than other people (Jensen et al., 2009). Previous studies showed that they are actually interested in politics and authors argued that they prefer more than general population expenditure policies (Frey and Phommerhene, 1982, Garand et at., 1991). This work confirms previous findings extending the comparison to topics like

environment, economic policies and attitude towards foreigners. Furthermore, empirical evidence from the American National Election Study and General Social Survey highlighted that public employees tend to belong more often to voluntary and charitable organizations (Brewer, 2003 and Houston, 2005). This thesis confirms at international level that bureaucrats are more civic-minded using a sample not limited to United States.

On the theoretical side, the Prendergast's self-selection model was studied to verify its match with empirical evidence. The bifurcated self-selection postulates that those who are more or less "preferred" by the government are more likely to run for a public position because they consider their contribution to be greater (Prendergast, 2007). However, the dataset does not display clear evidence in favor of the model, even if some interesting aspects regarding opinion gap emerged.

The first chapter provides an overview of related literature exposing the different methodological approaches and mentioning the previous research outcomes. Furthermore, the literature concerning the median voter will be briefly revised in order to provide a theoretical framework to the hypothesis adopted forward.

The second chapter presents the data used and the methodological approach, providing the reader with an explanation of the logit model and the reasons for adopting it. In addition, the control variables for the first part of the analysis are presented for the econometric relevance and also from the economic point of view.

The third chapter reports results from the comparison between civil servants and private workers. Significant and insignificant outcomes are explained, outcomes already present in literature are underlined, the new output is exposed and a brief interpretation is given. This section concludes with a summary of results and some ideas for further research.

The fourth chapter introduces happiness and satisfaction research, therefore presenting some new control variables and explains their role. Based on such theoretical setting this part shows the empirical results as regards workers' satisfaction and happiness. But, more important, it provides an empiric exam for the Prendergast's model with respect to three important political and economical variables.

The fifth and last chapter draws conclusions, after a brief summary of the main findings, providing the final outcome of this work and synthetically proposes new research possibilities related to public work-force.

2. Literature review

There is plenty of theoretical and empirical literature on the differences between civil employees and private sector workers. Issues like voting behavior with respect to general population, motivation in the public sector and bureaucrats' selection have always been important for any policy maker.

2.1 Voting behavior and opinion of bureaucrats

Frey and Pommerehne (1982) made the first formal attempt to demonstrate that voting participation rates of public employees are greater; indeed, the authors claimed the existence of some bureaucrats' influence on elections. Their results confirmed something already assumed by authors but never proved before: civil servants vote at higher rates and their choices are significantly different from general view, this may effectively affect electoral outcomes.

Bennet and Orzechowski (1983) confirmed previous findings. Starting from the hypothesis of a link between voting participation and expected net benefits of voting, they provide theoretical and empirical evidence of greater voting rates among bureaucrats. In fact, it is a *rational choice* for them to vote: they have greater potential gains from election outcomes.

Recent research supports that bureaucrats vote at a higher rate, *Corey and Garand (2002)* analyzed the 1996 national elections in the United States. They concluded that voting rates among bureaucrats are greater and there is "something" -beyond demographic and social characteristics- that is wrongly captured by control variables. Researchers proposed self-interest and self-selection process as potential reasons for their results.

By turning attention to voting preferences, the most intuitive insight is that public servants may prefer increasing expenditure policies. *Garand et al. (1991)* found that American bureaucrats vote at higher rates, are less likely to be conservative and are often in favor of increasing the public budget. Their analysis provides an empirical framework to the Bureau Voting Model (BMV)[1].

Recently, *Brewer (2003)* has stated that social capital among civil servants is greater. Based on larger levels of tolerance, trust, altruism, humanitarianism and civic participation the author claims that rational choice and self-interest are not the only reasons motivating bureaucrats to vote: civic-mindedness and sense of community are also crucial to defining their voting behavior.

Contemporaneous research enlarges the horizons to other aspects which may differentiate civil servants from other people. *Houston (2005),* in his paper concerning public employees motivation, finds that bureaucrats are more likely to take part in charitable initiatives and donate blood. His findings support the Public Service Motivation hypothesis (PSM) which theorizes the existence of a certain propensity to serve the others and contributes to explain higher participation rates.

Yang (2005) studies civil servants' trust in citizens, he thinks that civic participation might be increased by developing public employees' trust. The author claims that mutual trust can be achieved by the public sector; this paper identifies those skills of bureaucrats useful to raise trust level and suggests to improve the neutral view of people that most of public employees have.

Finally, *Jensen et al. (2009)* reaffirm that civil servants are more often left-wingers, their study over 18 countries providing strong evidence to this effect, but fails to prove that they actually vote at higher rates and vote for left candidates.

[1] Such model theorizes that bureaucrats prefer greater public spending and therefore participate more often than general population in elections, the obvious corollary is that their votes tend to support the candidate that promises greater budgets to public administration.

2.2 Motivation in the public sector

The literature about motivation in the public sector is large and partly related to PSM theory. However, many different aspects impact on motivation, *Pinder (1997)* highlighted the role of individual qualities like life goals and needs; on the other hand, *Wright (2001)* focused on work place characteristics. Job security is also a crucial aspect that distinguish civil servants from other workers as sustained by *Balwin (1991)* and by *Frank and Lewis (2002)*.

Crewson (1997) noted that intrinsic rewards are crucial in the public sector, he claimed the existence of a certain level of commitment toward the organization. Also *Prendergast (2007)* sustained that it is intrinsic motivation that drives public employees' efforts. This argument is closely related to intrinsic motivation arguments and PSM that theorizes a certain preference to be useful to the community. This hypothesis is present also in *Crewson (1997)* and *Houston (2005),* as well as broadly known in the research contest.

However, *Gabris and Simo (2005),* in their attempt to isolate PSM, stated that "(PSM)...is virtually impossible to visualize and isolate". They actually doubt if the effect of PSM will be effectively measurable in the future.

Frank and Lewis (2002) recognized job security as the most important extrinsic motivation for bureaucrats; in general civil servants differ from general population in their aspiration to serve the society. Their paper does not report significant evidence of greater effort by any sector, it is anyway interesting to note that "self-reported work rates" from bureaucrats are slightly greater. Finally, income aspirations do not significantly split the workers' pool, for instance, "pay and advancement opportunities" does not play a more important role in the private sector.

Burgess and Ratto (2003) compared incentives in the public and private sector, they concluded that Performance Related Pay (PRP) incentives are less useful in the public sector. This happens because such sector is characterized by many different tasks and presence of multi-principals. Furthermore, measures of results can be harder and the role of intrinsic motivation difficult to assess. They then suggest that group tasks and

organization are important solutions to consider. In fact, monetary incentives might be less motivating than team rewards.

Finally, *Weibel et al. (2009)* analyzed the effect of PRP in the public sector and concluded that they are only significant when the task assigned is not interesting. On the other hand, when the mission is interesting extrinsic incentives might even disturb the employees. This happens because PRP incentives have a crowding-out effect on intrinsic motivation. When such crowding-out effect prevails on the obvious increase in the extrinsic motivation then the output declines. Specifically, PRP incentives harm self-selection of bureaucrats, they motivate employees to exert their greater effort only if their performance can be measured.

2.3 Public sector selection

As mentioned before, *Frank and Lewis (2002)* found that job security is still a very attractive aspect of bureaucracy; however, the willingness to be civil servants steadily declined in the last decades. But, authors sustain that this sector is still interesting for ethnic minorities and woman, therefore the share of white men in the public administration is going to fall. Also democrats and more educated people seem to be more attracted, but they are not more likely to be bureaucrats than the others do, especially if teachers are removed from the sample.

According to *Gabris and Simo (2005),* people who enter the bureaucracy should be characterized by a "strong support for social equality", but also by many other features like "adhere to civil service neutrality", "maintenance of state values" and "desire to further the public broadly conceived". However, when assessing PSM, the authors do not find any strong evidence of such features among civil servants.

From a theoretical point of view, *Prendergast (2007)* postulates that public employees self-select themselves according to their "opinion gap" respect to the principal (the government). In other words, their willingness to be civil servants is fed by the feeling of being important in processes and, their biasness with respect to principal improves their performance motivating them.

2.4 The median voter model

The median voter model hypothesizes that the only Nash Equilibrium for two candidates running an election is to adhere to the median voter opinion, thereby ensuring both candidates with the 50% of preferences. A deviation from the median position would reduce the share of the candidate, *Black (1948)* and *Dows (1957)*.

This model is still very famous, *Holcombe (1989)* reviewed critics and praises to the model, finally stating that the Median Voter can be recognized as a model of demand aggregation in the public sector. However, when the Agenda Control model is included, the outcomes may divergence from those preferred by the median voter.

Milanovic (2000) empirically employed the model to study income inequality and re-distribution. He did not find evidence in favor of the model. His conclusion is therefore that the median voter does not provide a valid explanation to approach democratic decisions regarding distribution.

Congleton (2002) defined the median voter a "fundamental property of democracy" underlining simplicity and flexibility among its strengths. The author recognized that the median voter does not work in any circumstance, but he also claims that extensive empirical support has been found in favor of the model[2].

[2] Further evidence in favor of the Median Voter has been reported by the American journalist M. Klaus in his article "Fifty-fifty forever" on slate.com. http://www.slate.com/id/2073262/

3. Analysis

The following section depicts how to compare civil servants with workers from private sector, it provides the tools to understand tables and interpret them. Section 3.1 "Data", describes the dataset and the reasons for using such data. Section 3.2 "Methodology", describes: methodology, motivations to adopt the logit model, and the interpretation of results using the logistic method. This section includes also a brief description of the main control variables.

3.1 Data

The data source is the World Values Surveys that is defined the "World's most comprehensive investigation of political and socio-cultural change"[3]. The data available spaces from political opinions to beliefs and values, the survey has been carried out in different waves since 1981[4]. However, I can only use the last wave (2005-2008) since it is the only one including a direct question regarding sector of employment. Such question allows to control for differences between civil servants and other workers. Consequently, I cannot assess the opinion change over time.

Breath is the strength of this survey, I use the ballot-A of the 2005 wave which includes the following 43 countries: Andorra, Argentina, Australia, Brazil, Bulgaria, Burkina Faso, Chile, China, Cyprus, Egypt, Ethiopia, Finland, Germany, Ghana, India, Indonesia, Italy, Japan, Jordan, Malaysia, Mali, Mexico, Moldova, Morocco, Peru, Poland, Romania, Rwanda, Serbia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Trinidad Tobago, Turkey, Ukraine, USA, Vietnam,

[3] Source: http://www.worldvaluessurvey.org/

[4] The VWS provide information on individual beliefs about politics, the economy, religious, social and ethical topics, personal finances, familial and social relationships, happiness and life satisfaction. Within each country, samples are selected randomly "from all administrative regional units after stratification by region and degree of urbanization" (Inglehart et al, 2000, p. 7).

Zambia. It is interesting to note how the survey covers not only OECD countries but also some developing countries from all continents. For instance, average per capita GDP ranges from $1041 per year of Rwanda to $46859 of USA[5].

The survey provides individual data and it is carried out with a face to face interview. The minimum number of questionnaires issued are 1000 per country, the sample considers only people older than 15, the upper threshold depends on country.

3.2 Methodology

As common procedure with surveys I use the logit model that proves more appropriate than least squares to evaluate qualitative choices from survey data. Basically, this procedure predicts the likelihood that an individual with a given characteristic will provide a certain answer to the questionnaire[6]. Coefficients of explanatory variables define how this probably varies for each explanatory variable.

As usual in these studies, country specific dummies are included in each equation. This step allows control of social and cultural differences which may affect results, but also structural characteristics like inflation. The use of control variables is aimed at monitoring exogenous factors which may impact outcomes; by keeping them constant it is easier to evaluate the effect on the dependent variable due to a change in the variable for sector of employment (SE). Furthermore, the larger the set of control variables the lower the probability of endogeneity due to omitted regressors[7].

The following equation represents the basic regression performed to study the opinion and motivation of bureaucrats. The dependent variable (Y) is different each time in order to study how SE affects different aspects. Each time, the dependent variable

[5] Source: World Economic Outlook Database-April 2009, International Monetary Fund. The reported values represent the gross domestic product based on purchasing power parity per capita.

[6] Pindyck R., Rubinfeld D. (4th edition).(1998). *Econometric models and Economic Forecast*. McGraw-Hill International Editions.

[7] Bruni L., Stanca L., (2005), "Watching alone: relational goods, television and happiness". Journal of Economic Behavior & Organization Vol. 65 (2008) 506–528.

represents a new field of comparison between public employees and other workers. Eventually, the difference is captured by the "sector of employment" variable SE. Practically, all the equations look for significance of employment sector:

$$Y = \alpha + \beta_0 \text{Gender} + \beta_1 \text{Age} + \beta_2 \text{Age}^2 + \beta_3 \text{Education} + \beta_4 \text{Education}^2 + \beta_5 \text{Health} + \beta_6 \text{Class} + \beta_7 \text{Sector of Employment}$$

For simplicity, this representation does not include all the country dummies. These demographic and social variables are included to make sure that the different opinions of civil servants arise clearly from the sample. Indeed, everything that could distinguish bureaucrats from other workers is separately considered. The different characteristics are listed in the table below.

Table 1: independent variables overview

Variable	*Average*	*Median*	*Standard deviation*
Age	39.42	38	12.17
Education	19.9	19	6.37
Gender*	1.41	1	0.49
Health**	2.03	2	0.8
Social Class***	3.39	3	0.97

* Gender ranges from 1 (male) to 2 (female), therefore I have more males than females in the sample.

** Self-reported Health ranges from 1 (very good) to 4 (poor).

*** Self-reported Social Class ranges from 1 (upper class) to 5 (lower class).

Table 2: independent variables average per sector of employment

Variable	*Public worker*	*Private worker*
Age	40.35 (11.28)	38.45 (12.28)
Education	22.13 (6.81)	19.36 (5.87)
Gender	1.48 (0.50)	1.38 (0.48)
Health	2.00 (0.77)	2.01 (0.79)
Social Class	3.06 (0.90)	3.33 (0.97)
Observations	7238	18005

Note: the values in parenthesis are the standard deviations.

3.2.1 Age

Age (AGE) and age squared permit verification of whether older people react differently, then to see if such reaction dies out or increases over time. For instance, many researchers argue that old people form different opinions.

Mulligan and Sala I Martin (1999) presented an interest group model that shows how the elderly may result a winner from the political process because he is more "single-minded" and because we are all destined to be old[8].

Rhodebeck L. (1993) showed how old Americans represent a politically influential group that shares group-specific interests; this implies different opinion toward certain topics and also a different way to evaluate candidates. Her analysis, however, did not find any intergenerational break concerning "hot" topics like health care and social security. Despite the group interest that old people have regarding these two issues, different political orientation and financial situation define more political choices. Elderly appears to be compact only when evaluating candidates: the author points out how old

[8] Mulligan C., Sala I Martin X. (1999). "Gerontocracy, retirement and social security". NBER working paper No. 7117 May 1999.

people consider the former "hot" topics more than the young people when assessing candidates[9].

Finally, it is important to remind that coefficient for age represents the effect of one year more over the depend variable, the same is true for the education.

3.2.2 Education

I use the age of education completion (EDU) as a proxy for education; I also consider the squared value to verify the impact of higher levels of education. Instruction has important effects on individuals; more education pushes up the *social capital* significantly (Helliwell, 2003). Social capital refers to connections with other people in their network; many different definitions of social capital have been formulated over time[10]. However, the basic aspect to consider now, is its potential effect on opinions: greater social skills combined with and due to higher education can make the respondent more open-minded, especially towards immigrants and diversity in general.

Furthermore, the effects of education are partly absorbed by other control variables like health. *Ross and Chia-Ling (1995)* showed a clear relation between education self-reported health and physical functioning. Their paper confirms a relation already known in literature; its main contribution is given by the explanations of such relation[11]. Indeed, the authors sustained that aspects like work and economic conditions, social-psychological resources and healthier lifestyle improve health[12].

---

[9] Rhodebeck L. (1993). "The politics of greed? Political preferences among the elderly". The Journal of Politics, Vol. 55, No. 2 (May, 1993), pp. 342-364.

[10] For instance Putnam defines social capital as "features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p. 67).

[11] Even controlling for work and economic conditions the authors find a clear link which can be related to explanatory variables not included in the model. Clearly, education contributes to provide a set of instruments useful to maintain a good health: learning, reasoning, solving problems may help to keep the brain in shape (Ross and Chia-Ling).

[12] Ross C. and Chia-Ling W. (1995). "The links between education and health". American Sociological Review, Vol. 60, No. 5 (Oct., 1995), pp. 719-745.

Finally, it is noticeable that education does not account for personal aspects like "home education" for which I cannot account. Together personal traits this form of education defines respondent's opinion in a way that cannot be controlled solely by personal characteristics or country dummies[13].

3.2.3 Gender

Gender is very important; the opinion diversion between women and men has been extensively studied in literature. *Tremblay and Trimble (2003)* postulated many significant differences regarding free enterprise, welfare system, health care and crime punishment. Their book highlighted how women tend to dislike competition more than men; at the same time they care more about the welfare system and support more expenditure on welfare and health care. Regarding crime, women seem to be more worried but, at the same time, less tough in punishment[14].

3.2.4 Health

I control for health to make sure that self-reported state of health does not affect the study. For instance, health is linked with social capital; therefore a good score in self-reported health might reflect a good level of social capital[15]. Health has to be controlled since it may directly change the respondents' opinion over many policy questions.

---

[13] Veehoven R. (2004) "Felici nelle avversità", in: Bruni L. e Becattini, G. "Felicità ed economia: Quando il benessere e ben vivere". *Edizioni Angelo Guerini e Associati*, Milano, Italia, ISBN 88-8335-482-6, pp.257-277.

[14] Tremblay M., Trimble L. (2003). *Women and electoral politics in Canada*. Oxford University press Canada. Chapter 9 "Women to the Left? Gender Differences in Political Beliefs and Policy Preferences".

[15] Kawachi I. et al. (1999). "Social capital and self-rated health: A contextual analysis". American journal of public health. August 1999, Vol. 89, No. 8.

3.2.5 Social class

Self reported social class is used to study political opinion. In fact, it controls those opinions which may be biased by the social position perceived. Different authors have already explored and shown the decline of social class as explanatory variable[16], but, it is still interesting to note if such relation exists and eventually evaluate its strength.

In order to compare civil servants with workers employed in the private sector I restrict my sample excluding the following categories: retired/pensioned, housewife not otherwise employed, student, unemployed, others. This is done to keep only those with a paid job. Furthermore, I drop who did not answer the question for SE[17] that makes the distinction between civil servants and other workers. After these restrictions I am left with approximately 24000 observations, from the original 60579 observations.

4. Results for opinion and motivation analysis

The comparison between bureaucracy and private sector covers many aspects: from importance of free time to tolerance towards minorities and immigrants. However, the most important differences are given by political and social opinions. In fact, civil servants are insiders with a different prospective of public institutions.

By comparing bureaucrats and other workers in many fields, this section analyzes opinion and social characteristics of bureaucrats, and, at the same time, motivation in the public sector. Questions regarding politics and economics are useful to verify the assumptions of the Bureau Voting Model; questions regarding trust in people, attitude toward environment and membership in non-profit association are useful to look for intrinsic motivation and, sustain the Public Service Motivation theory if possible.

The importance of being a bureaucrat varies a lot, in many cases sector of employment (SE) is really important, providing strong evidence of a difference between

[16] Clark T. et al. (1993). "The declining political significance of social class". International Sociology, Vol. 8, No. 3, 293-316 (1993).

[17] SE "Are you working for the government or public institution, for private business or industry, or for a private non-profit organization?".

civil servants and other workers. In other cases, the role of SE is marginal or even not significant. Therefore, in order to make the interpretation easier, coefficients are compared. But, it is always important to remember that some of them are not binary, education and age for instance. In these cases "being a bureaucrat" is compared with "being one year older" or "having one year more of education". Clearly, large magnitudes of coefficients for age and education indicate a stronger influence of these two variables respect to binary variables with similar coefficients.

4.1 Leisure time and participation in extra-working activities

Leisure time is more important for civil servants than for other workers, sector of employment (SE) is the second largest coefficient after self-reported state of health. Indeed, being civil servants has approximately half of the impact of recording one step more in the 1 to 4 scale for state of health (table 1).

Not surprisingly, all the indicators of participations in "extra-working" activities seem to confirm the greater interest of public employees in leisure time:

1. Active membership in sport and recreational organizations is more likely for civil servants than for other workers even though a very important coefficient in this case is gender. Indeed, gender is approximately three times more likely to define the respondent's opinion (table 2);
2. Active membership in art, music or educational organizations is mostly defined by sector of employment: who works for the government is more active in such voluntary organizations and, the coefficient for SE is the largest (table 3);
3. Active membership in environmental organizations not surprisingly follows the path already drawn, civil servants are more likely to be part of these voluntary associations, other control variables like gender result less important (table 4);
4. Active membership in humanitarian or charitable organizations confirm the tendency already defined by the previous regressions, bureaucrats are significantly more active than the others, the most important control variable is gender closely followed by sector of employment (table 5).

To conclude, it is evident that participation in voluntary and recreational organizations links to employment sector, and this is in line with the literature (Houston, 2005 and Brewer, 2003). The tables confirm also the hypothesis that civil servants have a stronger preference for free time than the other workers, but, more interestingly, confirms that they are more involved in non-profit activities, this can be linked to Public Service Motivation and intrinsic motivation.

4.2 Attitude towards minorities and immigrants

It can be interesting to verify if civil servants have different opinions regarding ethnicity and different people. In this case, differences can be affected by level of education, but also other factors which cannot be directly controlled. For instance, it seems obvious that an immigrant represents a greater "threat" for a worker in the private sector, because, in most countries civil servants need to be citizens.

Public workers are less likely to mention "immigrants and foreign workers" or "people of a different religion" as neighbors they would not like to have (tables 6 and 7). In both cases, the magnitude of SE coefficient is large, only country specific dummies are larger. Its magnitude could be compared with approximately 5 years more of education.

When the same question is asked regarding "people of different race", no clear relation with respect to sector of employment is found (table 8). Again, the more significant coefficients are always from country dummies; probably the respondent's nationality defines his or her opinion more than any other variable. Indeed, nationality indicates a general tendency specific to each country.

The position regarding requirements for somebody seeking citizenship differs slightly if the respondent is a private or public worker. Having ancestors from the country and adopting the country's customs are less important factors for civil servants (tables 9 and 10), however coefficients are not particularly large if compared to 1 year more of education: the more educated are less restrictive. Again, country dummies are far more important than the other independent variables. These results are in line with what has

already been found (Frank and Lewis, 2002) in the sense that the public sector is closer to minorities.

On the other hand, being born on the country's soil and abiding by the country's laws are requirements not directly linkable to the employment sector (tables 11 and 12).

Finally, if asked directly about potential enrichment from ethnic diversity, workers from different sectors differ slightly: the general tendency is confirmed but several control variables like gender and 1 year more of education seem to be twice as important; as usual, country dummies define the opinion more than anything else (table 13).

4.3 Attitude towards women

Women are often discriminated against in many countries. As above, it is clear that characteristics of society and beliefs have a strong influence on respondents' opinion. I rely on country dummies to check for differences across societies; however, beliefs and values can substantially differ also within the same society.

Not surprisingly, the most important control variables are gender and country dummies. When asked about job priority civil servants seem to be less discriminative (table 14). This picture is confirmed by opinions regarding the importance of university instruction for girls compared to boys, women's ability in political choices and their potential as business executives (tables 15, 16 and 17).

Finally, public workers are more likely to believe that equal rights are an essential characteristic of a democracy, however, the role of SE is approximately similar to one level up on the health scale (table 18). Again, findings from past papers seem to confirm this pattern, woman are more attracted by the public sector and there should be a link with the fact that bureaucrats discriminate against them less (Frank and Lewis, 2002).

4.4 Political interest, activism and opinion

As mentioned above, I expect several differences between civil servants and other workers when called to express their political view. Obviously, public employees are more likely to be interested in politics since their job often relates closely with policy choices (Frey and Pommerehene, 1982 and Bennet and Orzechowski, 1983). Furthermore, it is consistent that people interested in politics may be also more attracted by the public sector.

4.4.1 Political interest

When asked about importance of politics in their life, bureaucrats answer more often "very important" than the others (table 19). Nevertheless, other control variables like health (the healthier the more interested) and country dummies seem to be much more relevant than sector of employment. This is comparable with one year more of education: the more educated the more interested in politics. Actually, in this field, education can cover also some "information" aspects, indeed, instruction increases the understanding of institutions and comprehension can be associated with interest.

4.4.2 Political activism and participation

The picture is sensibly clearer when looking for answers relative to political activism and activities done in the past. Indeed, who works for the public sector would take (or have already taken) political actions such as signing a petition, joining a boycott or attending a peaceful demonstration with a greater probability. A similar picture emerges when also asking about those political actions done in the last five years (tables 20, 21, 22, 23, 24 and 25). Sector of employment is one of the most important coefficients together with gender: women are more interested in politics; and education: which is the most important regressor, one year only of education is already more important than any other control variable.

The same trend is confirmed when looking at participation in the last elections: being one year older is as important as being a civil servant. As expected, being a bureaucrat increases the probability of a positive answer; older people, on the other hand, vote less often. The two coefficients are then similar in magnitude but opposed in sign (table 26). This is in line with results from the U.S. national elections (Corey and Garand, 2000).

4.4.3 Basic political opinions

A notable difference between civil servants and other workers appears when observing political opinions. Generally speaking, the former group seems to be more leftist than the latter, such relation is evident comparing the coefficients (table 27): the employment sector is almost as important as gender (woman are more often leftist).

Consequently, opinions relative to government's ownership of business and industry, government's responsibility towards people and good versus bad effects of competition, distinguish civil servants from other workers. Public employees sustain public ownership of firms, an active role of the government to ensure that everybody is provided for and consider competition harmful (tables 28, 29, 30). The coefficient for gender is again the largest, confirming that women dislike competition and private ownership more; sector of employment is the second coefficient in terms of magnitude together with one step further in the social class scale. Similar results are present also in other papers (Garand et at., 1991 and Jensen et al., 2009).

On the other hand, no evidence emerges facing the problem of income inequality, it seems that being a civil servant does not constitute a significant reason to dislike income inequality (table 31). In fact, social class is the most important coefficient now, as predictably, who belongs to the lower class wants to distribute the income more equally.

Questions regarding the favorite political system lead to two more diversions. "Having experts and not government making decisions according to what they think is best for the country" is a more attractive option for workers of the private sector (table 32); no other control variable is so important and this seems to confirm a preference of public workers for politics (see also table 19). "Having the army rule" is less attractive

for civil servants than other workers; this might imply a preference for a more democratic system since army rule is a totalitarian form of government (table 33). It has to be said that in both tables the role of specific country dummies is very important; this implies that social and cultural differences of countries count more than personal traits.

When directly asked about a democratic political system respondents do not show any opinion difference due to sector of employment (table 34). Also the opposite question: "how good is having a strong leader who does not have to bother with parliament and elections?" does not split bureaucrats in the workers' pool (table 35).

4.4.4 Essential characteristics of a democracy

A very interesting section of the World Values Survey asks respondents directly about essential characteristics of a democracy. The different opinions are reported on a 1 to 10 scale, where 1 represents "not an essential characteristic of democracy" and 10 represents "an essential characteristic of democracy". Again, it is noticeable how opinion with respect to democracy differs between workers belonging to different sectors of employment.

A significant difference is reported for the democracy requirement "people chose their leaders in free elections": public workers consider freedom of elections more important than others (table 36). Even so this result has to be read carefully, control variables like country, gender and health are greater, also age and education, which are not binary, have relatively great coefficients considering that they only account for one year variation in age and education.

A similar pattern appears for democracy requirements like: unemployment benefits (table 37), prosperity of economy (table 38) and equal rights between women and men (table 18). Bureaucrats assign greater importance to the these characteristics; in all cases the coefficient for sector of employment is the second most important explanatory variable after country dummies. Indeed, the other control variables differ in magnitude and sign according to the question analyzed.

For certain democracy characteristics no difference emerges between public and private sector. As already seen in table 31 regarding income inequality, policies oriented

to transfer money from rich to poor do not separate public employees from the workers' pool (table 39). As before, the largest coefficient is that for social class. Also regarding the requirement "civil rights protect people's liberty against oppression" no evidence is given by employment sector (table 40). The same for the question of "severe punishment of criminals" (table 41). At last, no evidence of differences due to sector of employment arises from the issue "people can change the laws in referendum" (table 42).

Not surprisingly, for the question: "how important is it for you to live in a country that is governed democratically?" coefficients indicate a stronger preference of civil servants for democracy, this makes sense with the fact that they vote more and consider politics more important than the others (table 43).

4.4.5 Foreign affairs opinion

Regarding foreign affairs the survey highlights a greater interest from public employees: they know more often about millennium goals (table 44) and the coefficient's magnitude is great as gender which reports men to be more informed.

No significant differences emerge between public and private workers when the survey asks about per person amount of foreign aid allocated (table 45) and, if respondents would be willing to pay higher taxes in order to increase foreign aid to poor countries (table 46). However, at 10% level of significance, civil servants seem to sustain that more foreign aid should be given (table 47).

Somehow surprisingly, public employees consider themselves to be more worried about their own country's problems than reducing poverty in the world; this apparent contradiction may reflect that they feel more committed to solving their country's troubles (table 48). Only the coefficient for social class results important: obviously, people from the lower class care more about their own country.

4.5 Trust in institutions

An interesting field of comparison between public and private employees is their attitude towards institutions. Obviously, being insiders, bureaucrats are expected to trust more public institutions. On the other hand, it is rather hard to forecast if trust in press and international institutions may differ significantly between workers from different sectors.

As predictable, public workers have more trust in armed forces and police (tables 49 and 50); those results are reflected in the large coefficients regarding sector of employment. It is quite stimulating to note that women have a clear preference for armed forces rather than the police: this is reflected in the large and positive coefficient of gender for the first equation that turns to be slightly negative in the second regression[18].

Looking more in depth at the public sector, it is noticeable that a similar trend is verifiable also for institutions like courts (table 51), the government (table 52) and civil service (table 53). Regarding courts, most of the demographic control variables are not significant, only employment sector scores significance. The picture improves substantially looking at the government: now most of coefficients are significant as the working sector is the second largest after health. Finally, a similar pattern appears in the case of civil service: workers from public administration believe more in civil service. On the other hand, there is no significant difference among worker's opinions regarding political parties and parliament (tables 54 and 55).

As mentioned above, predictions of any opinion diversion regarding press and TV are hard. Indeed, those regressions do not show many significant coefficients and the sector of employment does not constitute an exception (tables 56 and 57).

Analyzing international organizations like major companies or the United Nations leads to mixed results. Civil servants have significantly more trust in The European Union (or appropriate regional institution), the United Nations, the environmental organizations and the humanitarian/charitable organizations (tables 58, 59, 60, 61). Coefficients for employment sector are always among the most important, only gender

[18] However, in the second regression such negative value is considerable only at 10% level of significance.

and health are occasionally larger, as already seen before, healthy people and women have more trust. On the other hand, it is not possible to find any evidence concerning major companies and women organizations[19] (tables 62 and 63).

Finally, public workers trust more than other people on average; however this effect is small, especially if compared to control variables like gender, that is three times larger, and country dummies, also very large (table 64). This result is particularly interesting if confirmed, indeed bureaucratic trust in citizenship is associated with civil participation, but no evidence of greater trust from the public sector was found (Yang, 2005).

4.6 Attitude towards the environment and environmental policies

By turning attention to environmental problems it is interesting to note that civil servants seem to be more worried. This is why they report different answers regarding many environmental aspects:

1. When asked about water quality, air quality and sewage systems, civil servants are more likely to consider these problems very seriously. In all three cases, coefficients for sector of employment are quite important, like two years more of education for example (tables 65, 66 and 67);
2. Considering environmental issues in the world as a whole, the dominant trend has confirmed that problems like: global warming, loss of plant or animal species and pollution of water, concern bureaucrats more than others (tables 67, 69 and 70).

These findings are interesting because of the great average value of coefficients for sector of employment. They are large as gender, women generally care more about the environment. Surprisingly, health is not that important when the attention goes to global environmental problems.

Given these results, it is quite interesting to understand why civil servants care more than other workers about pollution. One possible explanation is that they are more likely to detect private companies and industries as mainly responsible for environmental

[19] Considering a 10% level of significance it can be assumed that civil servants trust more than other workers women organizations.

problems. In this case, it is understandable why private workers are less worried: they are more likely to be employed in industries. Another possibility is that bureaucrats assign more importance to public goods[20], and their respect for the environment can be interpreted as a sign of Public Service Motivation.

4.7 Summary and implications of the results

4.7.1 Summary

Many particular aspects emerged in the comparison between workers from the public and the private sector. Some of them were expected, but others need to be studied carefully. These results allow to get a picture of bureaucracy, confirming that political opinions of bureaucrats are different from the general population. Civil servants form a specific category, with a certain voting behavior and well-defined opinions in many fields. It also appeared clear that motivation in the public sector is different. Indeed, tables demonstrated that participation in non-profit associations and respect for public goods, like the environment, are greater among bureaucrats. These are generally considered signs of civic-mindness and Public Service Motivation, and findings provide some evidence in this sense.

As expected, public workers have a stronger preference for free time, this being confirmed by the great participation in extra-working activities. Why is this not totally unexpected? In many countries, bureaucrats are seen as less competitive, sometimes, in a disparaging way, lazy. Obviously, the evidence just found does not imply that they are lazy; it simply asserts that leisure is more important for them. Understanding whether such a preference is due to less competition in the public sector is hard and would require a more specific analysis at country level. At the same time, argumentations related to

[20] In this case, for public good I do not necessarily mean the strict definition non rivaled and non excludable. I consider a sub-category of public goods, the *environmental goods* like landscapes, clean air, public parks, etc..

greater job security in public administration can be valid to the extent that a deeper country analysis is performed to check for differences.

It is probably harder to explain why among the public sector discrimination is lower. The survey shows that bureaucrats are more open, less discriminative toward immigrants and women; this matches particularly well with the fact that woman and minorities prefer the public sector (Frank and Lewis, 2002).

As previously mentioned, a person who works for a private firm has good reasons to perceive immigrants as competitors; on the other hand, public employees have no reason to worry about immigrant competition[21]. Furthermore, the greatest interest reported by civil servants for foreign affairs and foreign aid might partly explain their open attitude towards immigrants[22].

As far as women discrimination is considered, the interpretation is even harder. The importance of specific country dummies is relevant; they absorb all the society aspects for which I cannot account, religion for instance[23]. A distinction emerges anyway: public servants discriminate against women less. Stricter anti-discrimination rules and control in public administration can be realistic reasons, as well as a greater level of education not captured by the education coefficient.

---

[21] Evidently, it is assumed that in most countries only citizens can run for a job in the public sector. Moreover, this hypothesis is confirmed by recent goings on reported by the press. For instance, the recent controversy due to the presence of foreign workers brought from abroad to realize a project in Great Britain: http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/4549925/Union-agreed-working-conditions-for-Italian-workers-in-British-jobs-row.html

[22] Evidence from the politics section points out how civil servants tend to be more left wing; this may also contribute to explaining the puzzle. As common knowledge, in most countries the left-wing should support minorities and be less conservative. However, such conclusion holds to the extent that voters perceive the left wing as more open towards immigrants.

[23] Despite the great amount of data about religion I did not use religion denomination as a control variable. The cost of such exclusion is a greater approximation, probably absorbed by country dummies. However, counting religion would be very hard since it is hard to understand how faith modifies opinions and how the same religious beliefs are perceived in different countries. The last aspect is particularly important; in fact, consider that in some countries a well-defined distinction between religion and public sector has been historically made, and, on the other hand, in other countries, religion is part of the public sector.

When attention turns to the respondent's interest in politics, a bigger gap between civil servants and other workers is drawn. The former have significantly different opinions on many topics, their greater interest lead them to vote at higher rates and to be more active. In fewer words, they are more often left-wingers, trust public institutions and like deeper governmental intervention. All of these aspects may reflect their status of "insiders"; it is also important to note that variables like gender and health have valuable effects on respondents. As a matter of fact, women are more likely to support the left-wing and associated policies; also healthy people have a peculiarity: they trust more, this may reflect greater optimism[24] and other hidden variables such as social capital[25]. These results align with the rich literature on the topic, from older papers (Frey and Pommerehne, 1982) about voting rates and self-interest to recent papers (Jensen et al., 2009) about political opinion and vote orientation (BVM).

Lastly, turning our attention towards environmental concerns, I am faced again with a significant diversion of civil servants from the workers' pool. Their attitudes are more pro-environment, they are more worried about national and international environmental issues. This observation is not easy to explain, however they do not face problems such as competition and squeezing costs as often as people from the private sector do. Their salaries generally do not depend on factors such as productivity and profitability. So, potential explanations of the puzzle can be given by more analysis which may reveal other explanatory variables or may simply testify a greater sense of environmental goods. This can be also linked to social skills and Public Service Motivation, as mentioned above.

[24] Helliwell J. F. (2002) "How's life? Combining individual and national variables to explain subjective well-being" *Economic Modelling* 20 (2003) pg. 331-360.

[25] Helliwell, J.F., (2001). Social capital, the economy and well-being. In: Banting, K., Sharpe, A., St-Hilaire, F. (Eds.), The Review of Economic Performance and Social Progress. Institute for Research on Public Policy and Centre for the Study of Living Standards, Montreal and Ottawa.

4.7.2 Implications of the results

As the previous summary pointed out, these findings determine even more questions. It is hard to address all of them. Literature treats the various forms of women's discrimination extensively, and the outcome of this thesis just confirms how discrimination persists and highlights the different opinions of bureaucrats. Some hypothesis to explain the gap have been formulated. However, further research may shed light on the reasons for greater discrimination in the private sector. A similar analysis might be interesting regarding minorities, and the potential explanations given above need to be verified.

Similarly, environmental issues deserve to be treated separately since there is a difference between civil and private workers. As stated, the distinction may be due to greater emphasis to returns in the private sector; but this opinion gap might present other unexplored results such as greater sense of public goods.

Probably, the most interesting result is the support found in favor of the Bureau Voting Model (BVM) that postulates three assumptions:

- Civil servants vote at a higher rate;
- They sustain public spending and governmental intervention in the economy;
- They vote for candidates in favor of public expenditure in comparison to the general population;

Two of the three assumptions have been verified. Table 26 certifies the first assumption: bureaucrats have voted at higher rates in the last elections; tables from 27 to 29 support the second assumption, civil servants declare themselves left-wingers more often, they also advocate for public intervention in the economy and for public ownership of firms. Due to lack of data in many countries, no attempt has been made to verify the third assumption.

Similar conclusions can be claimed for the Public Service Motivation (PSM) hypothesis. Indeed, table 5 shows that public employees report greater participation in charitable association, this fact has been already interpreted as a sign of PSM (Brewer, 2003 and Houston, 2005). This is not all, the greater respect for minorities and women (section 4.2 and 4.3); and the greater respect for environmental goods (section 4.6) may

also reflect the presence of a certain attitude to serve the public and respect the community and its goods.

All the regressions employed so far permitted the analysis of the motivational and the behavioral side of bureaucracy, the first and the second point of this thesis. So far, only self-selection in the public sector is left. In order to study this aspect a new model is needed. Starting from the hypothesis that civil servants apply for public jobs in order to keep up, or improve their well-being, the following analysis runs a life satisfaction and happiness comparison between the bureaucratic and the private sector. The basic idea is that public employees who report certain characteristics like "being left-wingers" or having an "extreme opinion" should feel happier with their job. The second characteristic, in particular, may provide evidence in favor of the Prendergast's bifurcated self-selection model.

5. Further analysis for self-selection of bureaucrats

This section addresses self-selection in the public sector and completes the analysis carried out in the previous chapters. Literature emphasizes that self-selection in the public sector differs from other sectors, this can be linked to different motivation (intrinsic motivation) and different political opinions (bureaucrats are left-wingers and prefer spending policies, for example).

The assumption for the following regressions is that satisfaction of bureaucrats should be associated with their political preferences. If happier bureaucrats are characterized by extreme ideas and left-wing attitudes the model proposed by Prendergast may be confirmed. Indeed, the author claims that self-selection is bifurcated since those with extreme opinions feel to be more important when employed in the public sector. In addition, the study of happiness and satisfaction is per se interesting, for instance, it helps when Pareto-efficient improvements are not possible and when policy makers face a trade-off.

5.1 Brief introduction to happiness research

The secret of well-being has been extensively studied since the time of ancient Greeks. During the fourth century before Christ, Epicurus defined happiness as "absence of pain" and purposed a quite life-style as best way to obtain it. The concept evolved, especially considering that people showed incredible adaptability skills to pain and unpleasant experiences. Nowadays, happiness is commonly defined as the self-estimation that individuals produce about their life[26].

During the 20th century well-being was directly linked to economic performance and, at personal level, income. However, in 1974, a striking fact was revealed: despite the great economic growth after Second World War the average happiness in western societies was not improved; income was a source of happiness at individual level but inconsistent at aggregate level. This was the Easterlin's paradox[27].

The paradox was solvable with the already known hypothesis of relative income[28]. Once people can satisfy all their basic needs, absolute income does not "buy" happiness any more, only the position respect to the others matters: relative income becomes more important than absolute income. This explained why, in rich societies, the average happiness did not follow the economic growth[29].

During the last 30 years welfare economics and happiness research mushroomed. New determinants of well-being have been evaluated, and even the role of income per-capita, as indicator of countries' performance, has been extended by the well-known human development index (HDI).

---

[26] Veehoven R. (2004). "Felici nelle avversità", in: Bruni L. e Becattini, G. "Felicità ed economia: Quando il benessere e ben vivere". *Edizioni Angelo Guerini e Associati*, Milano, Italia, ISBN 88-8335-482-6, pp.257-277.

[27] Easterlin, R. (1974). "Does economic growth improve the human lot? Some empirical evidence". In David, R. abd Reder, R. (Eds.), *Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz.* New York: Academic Press.

[28] Duesenberry J. S. (1952). "Income, saving and the theory of consumer behavior". Cambridge, Massachusetts, Harvard University Press.

[29] Clark A., Frijters P., Shields M. (2006) "Income and Happiness: Evidence, Explanations and Economic Implications". *Paris-Jourdan Sciences Economiques*, working paper n° 2006-24.

5.2 A basic model of happiness

Nowadays many surveys report questions concerning happiness and/or life satisfaction, the World Values Survey reports both of them in two different ways:

1. Happiness is evaluated in a 1 to 4 scale where 1 corresponds to "very happy" and 4 corresponds to "not at all happy"[30];
2. Life satisfaction is evaluated in a 1 to 10 scale where 1 indicates "completely dissatisfied" and 10 indicates "completely satisfied".

Such abundance of data permits an accurate analysis and a comparison between the two indicators which have been considered equivalent so far. Since they are highly correlated they will be studied using a set of control variables borrowed from the wide literature on the topic.

The basic idea is that bureaucrats run for positions in the government because of intrinsic motivation which satisfies them in their public mission. So, according to Prendersgast, employees with very different opinions (large opinion gaps) in respect to their principal's policy are more motivated, the consequent step is that they should be more satisfied. Therefore, the model checks if large opinion gaps are associated with greater happiness and/or satisfaction. In order to do that, equations for happiness and life satisfaction are performed. They share the same control variables and structure, both of which are verified for different policy preferences: political preference (V114), income distribution opinion (V116), role of competition (V119). If the opinion gap crossed with sector of employment results significant the model's prediction should be true. The following equation is the regression run for happiness:

$$Hap = \alpha + \beta_0 sex + \beta_1 age + \beta_2 age^2 + \beta_3 edu + \beta_4 edu^2 + \beta_5 health + \beta_6 trust + \beta_7 R.S. + \beta_8 rel + \beta_9 inc + \beta_{10} inc^2 + \beta_{11} hon + \beta_{12} OP + \beta_{13} S.E. + \beta_{14} OP*SE + \beta_{15} OPG + \beta_{16} OPG*SE$$

[30] For convenience the scale has been re-coded in the opposite way, therefore 1 represents "not at all happy" and 4 stays for "very happy". This is in order to be consistent with the life satisfaction scale and provide easier tables to read.

Where:

1) Hap = self-reported happiness (1 not at all happy - 4 very happy)
2) Health = self-reported state of health (1 very good - 4 poor)
3) Edu = age at education completion
4) Trust = trust in other people (1 most people can be trusted – 2 need to be careful)
5) RS = relational status (1 married - 5 single)
6) Rel = religion (1 a religious person to 3 an atheist)
7) Hon = honesty (1 cheating on taxes never justifiable – 10 always justifiable)
8) Inc = income decile
9) OP = opinion (V114 or V116 or V119)
10) OPG = opinion gap (ex. V114 respect to government policy)
11) SE = sector of employment (1 public – 2 private)

Exactly the same regression is run for life satisfaction, the basic idea is that the depend variable should be associated with the coefficient (β_{16}) for opinion gap crossed with sector of employment, this might confirm the model.

The table below describes all the control variables and the reasons for including them, the tables report their average values and standard deviations.

Table 3: independent variables average per sector of employment

Variable	*Public worker*	*Private worker*
Age	40.35 (11.28)	38.45 (12.28)
Education	22.13 (6.81)	19.36 (5.87)
Gender	1.48 (0.50)	1.38 (0.48)
Health	2.00 (0.77)	2.01 (0.79)
Income decile	5.48 (2.09)	4.99 (2.19)
Relational status	2.36 (2.02)	2.64 (2.17)
Trust	1.71 (0.45)	1.76 (0.42)
Honesty	2.47 (2.44)	2.41 (2.43)
Religion	1.35 (0.59)	1.38 (0.59)
Observations	7238	18005

Note: values in parenthesis are standard deviations.

5.2.1 Age

Many happiness studies affirmed that happiness, over time, tends to decline until a certain point between 35 and 45 years old, and goes up afterwards. The U-shaped graph that could be drawn from such analysis had been largely discussed and lately accepted as the basic relation pattern between age and happiness or satisfaction. To motivate this correspondence, researchers argue that a higher level of stress due to career prospective and family responsibilities can negatively affect people's well-being from 35 to 45 years old. The partial vanishing of such preoccupations over time, the greater appreciation due

to adaptation to circumstances, and renunciation of some aspirations, contribute to explain the following rise of happiness[31].

5.2.2 Gender

Most studies conducted report a happiness gap between man and woman in favor of the latter (Blanchflower and Oswald, 2004). Such difference has no clear explanation; therefore it is sustained that greater average aspirations of boys may harm their well-being when faced with subsequent eventual failures. The previous section has already shown a gender gap regarding political and social opinions; a similar gap could be easily reported for aspirations. Furthermore, literature has found that *material goals* are associated with lower well-being, hence the gender puzzle is partly explainable assuming an aspiration gap[32].

5.2.3 Health

Health is obviously associated with greater happiness and satisfaction, such relation is evident and commonly accepted in literature[33]. Therefore, the model will always include self-reported health as a control variable.

5.2.4 Relational status

Being married is generally associated with greater levels of happiness; also being in a relationship can ensure better levels of well-being. The importance of a relationship

---

[31] Blanchflower D., Oswald A. (2004) "Well-being over time in Britain and USA", *Journal of Public Economics*, 88 (2004) 1359-1386.

[32] Kasser, T., Ryan, R.M., 1996. Further examining the American Dream: differential correlates of intrinsic and extrinsic goals. Personality Soc. Psychol. Bull. 22, 280–287.

[33] Helliwell J. (2002) "How's life? Combining individual and national variables to explain subjective well-being" *Economic Modelling* 20 (2003) pg. 331-360.

is proved both for men and women and the model includes a variable to account for the current relationship status (Blanchflower and Oswald, 2004).

5.2.5 Education

Education improves many aspects of life. As already mentioned in the previous section, instruction can push up income prospectives and can help both trust and health, (Helliwell, 2003). The following model considers both education and its squared value to account for greater levels of instruction. The variable taken is the same as before: age of education completion.

5.2.6 Trust, honesty and religious beliefs

The World Values Survey allows a consideration of some personal aspects which may play an important role in well-being. Indeed, he who can trust more other people and institutions more can potentially enjoy a better life than those worried about everything (Helliwell, 2003).

A similar analysis is valid for religious beliefs. In this case, it is important to remember that faith and the social interactions related with religious activism have a positive impact on satisfaction and happiness. It is remarkable that social interaction plays an important role in people's well-being when looking at religion as a control variable (Bruni and Stanca, 2004). In order to control for religion, I use the answers to question "independently of whether you attend religious services or not, would say you are":

1. a religious person
2. not a religious person
3. an atheist.

Finally, studies underline that being honest and reject cheating are related with higher happiness. This is explainable just considering how the concept of utility has evolved over time. Evaluating satisfaction or happiness requires more than only

considering utility gained from observable consumption as the "revealed preference" approach suggests. When studying happiness, researchers have to deal also with *procedural utility*; such expansion of the utility concept considers how targets are reached and overtakes the consequentialism assumptions[34].

5.2.7 Income

Income has been often reported as one of the most important indicators of well-being. However, the already mentioned Easterlin's paradox, clearly shows how inadequate is absolute income. In general, rich people report higher levels of happiness and satisfaction, this is obvious, but it is not obvious that income has decreasing marginal returns. Furthermore, at a certain level, income matters only because of its relative component: the "reference groups[35]" and comparisons with peers become more important than absolute income (Clark and al., 2006).

Finally, two more aspects need to be considered. The first attains the "rising aspiration" theory which states that once targets are reached people naturally raise the bar, and desires become harder to be achieved (Frey and Stutzer, 2002). The second aspect regards human ability to adapt, after having obtained a greater welfare level people

[34] The bias inducted by a limited concept of utility is broadly discussed in: Frey B., Stutzer A. (2002) "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature*, Vol. 40, No. 2 (June, 2002), pg. 402-435. Authors point out the importance of overtaking the mere consumption-leisure approach of utility; such approach is considered not sufficient to evaluate well-being. Although most of economic models relay on consumption/production to assess welfare in societies, Frey and Stutzer critique its basic assumption of agents' behavior based only on consequences (Consequentialism). They sustain that a more accurate evaluation of well-being should include procedural utility and experienced utility (the ex post utility). Such theoretical framework represents the basis to include controls for honesty and cheating aversion.

[35] Reference group means relatives, neighbors, colleagues, and in a broad view, anyone who can represent a potential source of social comparison.

adapt very quickly, such effect together "hedonic treadmill"[36] effect reduces happiness gains from income and the highly related consumption.

5.2.8 Other variables not included

Since this study is only limited to work force -comparing the public sector with the private one- it does not include any variable to control for unemployment, however it is important to say that being unemployed is the greatest "economic" source of stress[37]. Apparently, also past unemployment scars[38], unfortunately I cannot check for past employment status since there is no data available.

On the other hand, variables such as inflation, national level of unemployment and level of democracy are considered only through country dummies. Inflation is well-known to be a source of stress, but, not as big as the "misery index[39]" postulates. *Di Tella, McCulloch and Oswald (2001)* proceeded to calculate a "misery index" weighted for happiness and reported evidence against the 1-to-1 relation between unemployment and inflation: inflation is over-evaluated[40]. Regarding quality of institutions and democracy, evidence found in Switzerland confirms that more democratic Cantons help

---

[36] The "hedonic treadmill" is the adaptation to the new state, the return to a certain level of happiness after a positive or negative shock. This argumentation was introduced by Brickman and Campell in 1971).

[37] Clark A., Oswald A. (1994) "Unhappiness and unemployment", *The Economic Journal*, Vol.104, No.424 (May,1994), pp. 648-659. And also: Winkelmann L., Winkelmann R. (1997) "Why are the unemployed so unhappy? Evidence from panel data". *Economica* (1998) 65, 1-15.

[38] Clark A., Gerogellis Y., Sanfey P. (2000) "Scarring: the psychological impact of past unemployment". *Economica* (2001) 68, 221-241.

[39] The "misery index" is described in most of economic books, it postulates an equal trade-off between unemployment and inflation.

[40] Di Tella R., ;MacCulloch R., Oswald A. (2001) "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness" *The American Economic Review*, Vol.91, No.1 (March, 2001), pg. 335-341. Such results have been lately confirmed by the following paper: Becchetti L., Castriota S., Osea Giuntella G. (2005) "The effects of Age and Job Protection on the Welfare Costs of Inflaction and Unemployment: a Source of ECB anti-inflation bias?", *University of Rome Tor Vergata, Faculty of Economics*.

their citizens to feel more satisfied[41]. However, the lack of specific and uniform data for each country relegates these variables together in the "country" effects controlled by dummies.

5.3 Happiness of bureaucrats

The methodology used to study happiness and life satisfaction of bureaucrats is the same as before, therefore I do not explain again how to interpret logit equations. In this case, the attention goes to the effect of three different independent variables on happiness and life satisfaction of workers. These variables are respectively:

- V114, political opinion, that ranges from 1 (left) to 10 (right);
- V116, income inequality, that ranges from 1 (income should be made more equal) to 10 (larger income differences as incentives for individual effort);
- V119, competition opinion, that ranges from 1 (competition is good) to 10 (competition is harmful).

The comparison between public employees and other workers takes place on different levels. First, I check how the studied variable, V114 for instance, affects happiness in general. This is done to see how workers react and how being left-wingers affects satisfaction and/or happiness. Secondly, I look at the public sector, to perform such test I multiply the studied variable by SE that represents sector of employment[42], the resultant cross-term allows us to verify if being left-wingers in the public sector is either better or worse than being left-wingers in general. Obviously, I check if sector of employment has an effect on happiness per se, this permits me to see if working for the government is associated with greater well-being.

---

[41] Frey B., Stutzer A. (2000) "Happiness, Economy and Institutions" *The Economic Journal*,110 (October), 918-938.

[42] The variable V243 has been re-coded in order to ensure an easier read of tables, now 0 stays for private worker and 1 stays for public workers.

Using the same regression, it is possible to check if Prendergast's model finds support in the sample. Such operation requires the introduction of a new variable to measure the opinion gap of each respondent from median voter in his/her country, the underlining hypothesis is that the government follows the median voter. Obviously, these added terms derives from those just listed: V114, V116 and V119. For the purpose of creating the new variables I simply take the absolute value of the opinion gap of the *i* respondent in respect to the national median voter:

with V114 for example: $V114med_i = |V114_i - MED_i|$

Where: V114 is the new variable, and MED is the median answer for V114 in the country of respondent *i*.

Again, I check if the effect of the new variable is significant per se, basically verifying if an extreme opinion in any direction has a positive or negative impact on happiness and satisfaction. As before, a cross-term controls whether this is somehow related with public sector, significant results in this direction could confirm Prendergast's hypothesis.

5.3.1 V114 political opinion gap

Many authors and my previous findings (table 27) confirmed that bureaucrats are more likely to be left-wingers. This can be associated with the fact that left parties generally assign greater importance to the public sector. A potential use of my regression is to check if being a left-winger and a civil servant at the same time is associated with happiness and/or satisfaction. The regressions may also help to test the Prendergast's theoretical model for the World Values Survey sample.

In the happiness equation, relatively weak results are found (table 71). Most of control variables are significant and in line with dominant literature, but all those variables linked with sector of employment (SE) are not significantly different from zero. This implies that being a bureaucrat is not associated with greater happiness (SE). Furthermore, there is no evidence that being left-wingers in the public sector makes the bureaucrats happier (SE*V114) and that, having a large opinion gap in respect to the

median voter affects happiness (V114med*SE). Looking at the political position per se I found some significance, but from a careful observation it is noticeable that such coefficient is the smallest one (V114). Indeed, being a right-winger is marginally associated with a greater likelihood of being happy.

Results from life satisfaction table are more interesting (table 72), apparently, workers associate their professional life more with satisfaction than happiness. This appears clear observing how sector of employment (SE), therefore being a bureaucrat, is significantly associated with greater life satisfaction, its effect is large and comparable with that one of belonging to a higher income decile. Turning the attention to cross terms, I found that being a left-winger in the public sector is linked to a tiny increase in satisfaction (SE*V114), such effect is approximately comparable with that one of feeling more honest (HON). The variable aimed at verifying if sharp political opinions of bureaucrats matter fails to be different from zero (V114med*SE), therefore no evidence in favor of Prendergast's self-selection model is found in this sample. Political opinion (V114) matters more for satisfaction than for happiness. Political opinion gap (V114med) is also significant and, surprisingly, its coefficient is a bit larger than the one for politics: an extreme position is more important than the position itself. Apparently, what matters is to be sure of beliefs and have a well-defined political opinion.

Finally, the study of control variables confirms previous findings in literature. Gender regressors show that being a woman increases the likelihood of feeling happy and satisfied (SEX). At the same time age tends to decrease well-being but such fall dies out year by year, the U-shaped happiness path seems to be confirmed (AGE and AGE^2). Regarding relational status, I find that marriage, and more consolidated relationships in general, imply greater well-being. Not surprisingly health (HEALTH) is a key control variable, the effect on step further in the self-reported health scale is almost three times larger than that one of one decile income rise. On the other hand, education coefficients are not significant, this is in line with other studies conducted on the same survey (Helliwell, 2003), in fact, the author emphasizes that the weakness of the education variable EDU[43] might cause these failures (AGE and AGE^2). Turning attention to

[43] EDU only says the age of full time education completion.

beliefs it is noticeable that religion (REL), trust (TRUST) and honesty (HON) are all significantly different from zero and associated with greater levels of well-being. It is quite impressive to note that the effect of religious beliefs and trust are comparable with the well-being rise given by one decile more of income. Finally, the effect of income is confirmed to be important, each step forward on the income scale ensures greater happiness and satisfaction, the effect is large and significant. However, the strength of the effect decreases when higher deciles are reached confirming marginal decreasing returns for income (INC and INC^2).

This analysis for control variables is general and can be considered valid also for the following equations, minor changes in coefficients will be however highlighted.

5.3.2 V116 income inequality opinion

Question V116 requires respondents to say how they place their view regarding income on a 1 to 10 scale. Specifically, 1 stays for "income should be made more equal", 10 indicates "we need larger income differences as incentives for individual effort". Income has already been studied in the previous section, interestingly, there was no evidence of equality preferences from bureaucrats. Therefore, I do not expect cross-terms to be large or even significant. But, it is interesting to verify whether people with a well-defined position are more likely to enjoy greater levels of happiness and satisfaction.

The regression for happiness confirms my expectations (table 73): sector of employment (SE) does not result significant. The cross-terms to test the public sector respectively for: effects of equality opinion (V116*SE) and equality opinion gap (V116med*SE) do not significantly differ from zero. On the other hand, he who believes that income inequality is an incentive has some probability of enjoying greater levels of happiness (V116) and, he who reports a stronger opinion gap is even more likely to be happier. Both effects are significant.

The equation for life satisfaction reports similar outcomes (table 74), however, life satisfaction is more linked to sector of employment than happiness but, an interesting difference with respect to table 73 emerges: the effect of a well defined opinion is larger (V116med), and this is reflected also in the significant cross-term coefficient that checks

for opinion gap in the public sector (V116med*SE). This circumstance provides some evidence in favor of Prendergast's self-selection hypothesis, however, a caution approach requires remembering that the previous tables do not report similar evidence, and that opinion gap matters on life satisfaction per se. Regarding the other variables this equation confirms findings on happiness: sector of employment is not significant (SE), and its crossed effect with income equality opinion not even (V116*SE).

5.3.3 V119 attitude toward competition

Finally, I looked at competition effects on happiness. According to my previous findings public workers tend to dislike competition more often than other workers. This means that I expect people employed in the public sector to be happier when they dislike competition, at the same time I try to verify if strong minded people are more likely to be happy and satisfied as seen for politics and equality.

The equation for happiness (table 75) reports weaker results than the following for satisfaction. Indeed, sector of employment is not significant (SE), and also when crossed with competition attitude (V119*SE) and opinion gap (V119med*SE) it fails to be significant. Apparently, being in the public sector has no effect on happiness, this trend confirms the previous findings reported in tables 71 for politics and table 73 for equality opinion. At the same time, this equation shows that a competitive view does not affect bureaucrats' happiness.

The last regression (table 76), studies the effects of a competitive view on life satisfaction. In line with all the satisfaction equations this one reports good outcomes in terms of significance. As already seen regarding political opinion, being a bureaucrat is associated with a higher likelihood of being satisfied. However, the cross-terms do not show any evidence that civil servants' satisfaction is affected by their attitude toward competition[44]. In contradiction, the attitude towards competition matters: V119 reports a significant coefficient indicating that he who likes competition is less likely to be

[44] The variable for competition view in the public sector (V119*V243) is significant at 10% level, however the coefficient is very small, indicating just a low effect on the dependent variable given by a different consideration of competition.

satisfied, such effect is comparable to that of being a man for example. Ultimately, opinion gap (V119med) scores a positive and significant coefficient that confirms what already found: strong minded people are more likely to report greater levels of life satisfaction.

To conclude this section, the idea that strong-minded bureaucrats enjoy higher levels of happiness and life satisfaction is not confirmed. Apparently, having a strong opinion helps well-being independently from sector of employment. This is interesting, especially considering that opinion gap variables are based on the Median Voter model, which basically postulates the "tyranny" of the median voter.

6. Conclusions

This thesis studied three prominent characteristics of bureaucracy: opinion and behavior of civil servants, motivation and selection. The abundant previous literature provided a solid framework, therefore, most of the empiric evidence from the fourth chapter "Results for opinion and motivation analysis" -regarding opinion differences and motivation- just confirmed and sometimes expanded on fields already explored. However, this exercise was carried out with a broad selection of countries and questions, the effect is that findings from separate researches have been put together as in a puzzle. Furthermore, new fields of comparison between civil servants and other workers were opened with significant differences found. For instance, what can we expect in terms of environmental policies, given that bureaucrats' attitude often differ from general opinion? Some interpretations of these new results were provided, but the space for new research is large.

More interestingly, theoretical models regarding voting behavior and motivation of bureaucrats gained support in this sample. The Bureau Voting Model (BVM) postulates higher voting rates and pro-spending voting attitudes from civil servants, outcomes confirm the assumptions. The Public Service Motivation hypothesis (PSM) is also supported, in fact civil employees belong more often to charitable institutions and nonprofit organizations as some authors already noted. Moreover, their positive attitudes

towards environment, which is a public good, and toward minorities, can also be considered signs of PSM.

The third field of comparison required the introduction of new variables borrowed from happiness research. Not surprisingly, left-wingers enjoy their job more in the public administration than right-wingers. This happens for two reasons: there are more left-wingers in the public sector, and bureaucracy often advocates public spending and other policies generally associated with the left-wing. However, it is obvious that not all sectors of bureaucracy are similar. For instance, assuming that teachers have generally different opinions in respect to policemen seems plausible, meaning that further research may find differences regarding motivation and voting behavior within the public sector. As a consequence, different public administrations should follow different strategies to attract and motivate people.

Finally, the bifurcated self-selection model was empirically tested. I assumed that bureaucrats with stronger intrinsic motivations enjoy their job more, this can be linked to the Prendergast insight that growing opinion gaps are associated with greater effort. However, evidence from the World Values Survey did not show evidence in such sense, indeed, only table 74 provides some evidence of bifurcated selection. Apparently, strong-minded people are more satisfied "independently" from the job they have. Obviously, this result is consistent to the extent that the Median Voter model reflects government policies. Another crucial assumption is that civil servants really play a role in the policy application: otherwise, greater opinion gaps would always be associated with lower satisfaction.

Further research may account for governmental policies employing different theoretical instruments and, if possible, real data for governmental actions. Also the definition of opinion gap could be extended, introducing a vector for example. This operation would be useful to provide a broader concept of opinion gap, including more fields of diversion from the principal's policy. However, a similar vector can suffer an important disturbance: it may include highly related issues leading to overlapping and biased estimation of the opinion gap. Indeed, the arbitrary choice of weights and included variables might undermine the model.

7. References

Baldwin, J. N. (1991). Public versus private employees: Debunking stereotypes. *Review of Public Personnel Administration*, *11*(1-2), 1-27.

Becchetti L., Castriota S., Osea Giuntella G. (2005). The effects of Age and Job Protection on the Welfare Costs of Inflation and Unemployment: a Source of ECB anti-inflation bias?. *University of Rome Tor Vergata, Faculty of Economics*.

Bennett J. T., Orzechowski W. P. (1983). The voting behaviour of bureaucrats: Some empirical evidence. *Public Choice 41:271-283 (1983).* Martinus Nijhoff Publishers, The Hague.

Black D. (1948). On the rationale of group-decision making. *The Journal of Political Economy, Vol. 56, No. 1 (Feb., 1948), pp. 23-34*. The University of Chicago Press.

Blanchflower D., Oswald A. (2004). Well-being over time in Britain and USA. *Journal of Public Economics, 88 (2004) 1359-1386.*

Brewer A. (2003). Building Social Capital: civil attitudes and behaviour of public servants. *Journal of Public Administration Research and Theory, Vol. 13, no. 1, pp 5-26*. 2003 Journal of Public Administration Research and Theory inc.

Bruni L., Stanca L., (2005). Watching alone: relational goods, television and happiness. Journal of Economic Behavior & Organization Vol. 65 (2008) 506–528.

Burgess S., Ratto M. (2003). The role of incentives in the public sector: issues and evidence. *Oxford Review of Economic Policy, Vol. 19, no. 2*. 2003 Oxford University Press and The Oxford Review of Economic Policy limited.

Clark A., Frijters P., Shields M. (2006). Income and Happiness: Evidence, Explanations and Economic Implications. *Paris-Jourdan Sciences Economiques, working paper n° 2006-24*.

Clark A., Gerogellis Y., Sanfey P. (2000). Scarring: the psychological impact of past unemployment. Economica (2001) 68, 221-241.

Clark A., Oswald A. (1994). Unhappiness and unemployment. The Economic Journal, Vol.104, No.424 (May,1994), pp. 648-659.

Clark T. et al. (1993). The declining political significance of social class. International Sociology, Vol. 8, No. 3, 293-316 (1993).

Congleton R. D. (2002). The Median Voter Model. *Encyclopedia of Public Choice*. Centre for Study of Public Choice George Mason University.

Corey E. C., Garand J. C. (2002). Are government employees more likely to vote?: An analysis of turnout in the 1996 U.S. National election. *Public Choice III, 259-283, 2002*. 2002 Kluvert Academic Publishers.

Crewson, P. E. (1997). Public-service motivation: Building empirical evidence of incidence and effect. *Journal of Public Administration Research and Theory*, *7*(4), 499-518.

Di Tella R., ;MacCulloch R., Oswald A. (2001) "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness" The American Economic Review, Vol.91, No.1 (March, 2001), pg. 335-341.

Downs, A. (1957) *An Economic Theory of Democracy*. New York: Harper Collins.

Duesenberry J. S. (1952). Income, saving and the theory of consumer behaviour. Cambridge, Massachusetts, Harvard University Press.

Easterlin, R. (1974). Does economic growth improve the human lot? Some empirical evidence. In David, R. abd Reder, R. (Eds.), Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz. New York: Academic Press.

Frank S. A., Lewis G. B. (2002). Who wants to work for the Government?. P*ublic Administration Review July/August 2002, Vol. 62, No. 4*.

Frank S. A., Lewis G. B. (2004). Government employees: working hard or hardly working?. *The American Review of Public Administration 2004; 34; 36*. Published by Sage on behalf of American Society for Public Administration.

Frey B. S., Pommerehne W. W. (1982). How powerful are public bureaucrats as voters?. *Public Choice 38: 253-262 (1982)*. 1982 Martinus Nijhoff Publishers, The Hague.

Frey B., Stutzer A. (2000). Happiness, Economy and Institutions. *The Economic Journal,110 (October), 918-938*.

Frey B., Stutzer A. (2002) "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature, Vol. 40, No. 2 (June, 2002), pg. 402-435*.

Gabris G. T., Simo G. (1995). Public sector motivation as an independent variable affecting career decisions. *Public Personnel Management, Vol. 24, No. 1 (Spring 1995)*. Presented for deliver at the annual conference on teaching public administration, St. Louis, Missouri, April 27th, 1993.

Garand J. C., Parkhurst C. T., Jourdan Seoud R. (1991) "Bureaucrats, policy attitudes, and political behaviour: extension of the Bureau Voting Model of government growth". *Journal of Public Administration Research and Theory, J-Part, 1 (1991) 177-212*.

Helliwell J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. Economic Modelling 20 (2003) pg. 331-360.

Helliwell, J.F., (2001). Social capital, the economy and well-being. In: Banting, K., Sharpe, A., St-Hilaire, F. (Eds.), *The Review of Economic Performance and Social Progress*. Institute for Research on Public Policy and Centre for the Study of Living Standards, Montreal and Ottawa.

Holcombe R. G. (1989). The median voter model in public choice theory. *Public Choice 61: 115-125, 1989.* 1989 Kluwer Academic Publishers.

Houston D. J. (2005). "Wolking the walk" of public service motivation: public employees and charitable gifts of time, blood, and money. *Journal of Public and Administration theory J-Part 16: 67-86.* Published by Oxford University Press.

Inglehart, R., 2000. World Values Surveys and European Values Surveys 1981–1984, 1990–1993, 1995–1997. Inter-University Consortium for Political and Social Research, Ann Arbor.

Jensen J. L., Sum P. E., Flynn D. T. (2009). Political orientation and behaviour of public employees: a cross-national comparison. *Journal of Public Administration research and theory*. Published by Oxford University Press on behalf of the Journal of Public Administration research and theory inc.

Kasser, T., Ryan, R.M., 1996. Further examining the American Dream: differential correlates of intrinsic and extrinsic goals. Personality Soc. Psychol. Bull. 22, 280–287.

Kawachi I. et al. (1999). Social capital and self-rated health: A contextual analysis. American journal of public health. August 1999, Vol. 89, No. 8.

Milanovic B. (2000). The median voter hypothesis, income inequality and income redistribution: an empirical test with the required data. *European Journal of Political Economy, Vol. 16 (2000) 367-410*.

Mulligan C., Sala I Martin X. (1999). Gerontocracy, retirement and social security. *NBER working paper No. 7117 May 1999.*

Pinder, C. C. (1998). Work motivation in organizational behaviour. Upper Saddle River, NJ: Prentice Hall.

Pindyck R., Rubinfeld D. (4th edition).(1998). Econometric models and Economic Forecast. McGraw-Hill International Editions.

Prendergast C. (2007). The motivation bias of bureaucrats. *The American Economic Review (March 2007), Vol. 97, No. 1*.

Putnam, R.D., (1995). Bowling alone: America's declining social capital. Journal of Democracy 6, 65–78.

Rhodebeck L. (1993). The politics of greed? Political preferences among the elderly. The Journal of Politics, Vol. 55, No. 2 (May, 1993), pp. 342-364.

Ross C. and Chia-Ling W. (1995). The links between education and health. American Sociological Review, Vol. 60, No. 5 (Oct., 1995), pp. 719-745.

Tremblay M., Trimble L. (2003). Women and electoral politics in Canada. Oxford University press Canada. Chapter 9 "Women to the Left? Gender Differences in Political Beliefs and Policy Preferences".

Veehoven R. (2004). Felici nelle avversità. In: Bruni L. e Becattini, G. "Felicità ed economia: Quando il benessere e ben vivere". Edizioni Angelo Guerini e Associati, Milano, Italia, ISBN 88-8335-482-6, pp.257-277.

Weibel A., Rost K., Osterloh M. (2009). Pay for performance in the public sector-benefits and (hidden) costs.

Winkelmann L., Winkelmann R. (1997). Why are the unemployed so unhappy? Evidence from panel data. *Economica (1998) 65, 1-15*.

Wright, B. E. (2001). Public-sector work motivation: A review of the current literature and a revised conceptual model. *Public Administration Review, 11*(4), 559-586.

Yang K. (2005). Public administrator's trust in citizens: a missing link in citizen involvement efforts. *Public Administration Review (May/June 2005), Vol. 65, No. 3*.

7.1 Internet references

Klaus M., 2004. "Fifty-fifty forever". Slate, November, 29, 2004. http://www.slate.com/id/2073262/ (downloaded 14th August 2009).

Sawer P., Squires N., 2009. "Union agree working conditions for Italian workers in "British jobs" row". Telegraph, February, 08, 2009. http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/4549925/Union-agreed-working-conditions-for-Italian-workers-in-British-jobs-row.html (downloaded 14th August 2009).

7.2 Resources

http://www.worldvaluessurvey.org/

http://www.imf.org/external/pubs/ft/weo/2009/01/index.htm

8. Appendix

8.1 List of variables

8.1.1 Control variables for civil servants

1. SEX, gender (1 male, 2 female)
2. AGE, age
3. EDU, age did you finish full time education
4. HEALTH, self-reported health (1 very good – 4 poor)
5. SC, self-reported social class (1 upper class – 5 lower class). Used mostly in political/social opinions equations
6. SE, sector of employment (1 government or public institution – 2 private business or industry).
7. V2 = *x country*, country specific dummies

8.1.2 Dependent variables

They are always reported next to table number:

Ex. *Table 1, importance of leisure time (V6) scale of values*

8.1.3 Control variables for happiness

5. SEX, gender (1 male, 2 female)
6. AGE, age
7. EDU, age did you finish full time education
8. HEALTH, self-reported health (1 very good – 4 poor)
9. RS, relational status (1 married – 5 single)
10. INC, Income decile, (1 lowest decile – 10 highest decile)
11. TRUST, trust (1 most people can be trusted – 2 need to be very careful)
12. REL, to be religious (1 a religious person – 3 an atheist)
13. HON, cheating on taxes (1 never justifiable – 10 always justifiable)

8. SE, sector of employment (1 government or public institution – 2 private business or industry)

Independent variables studied each time:

3. V114, political opinion (1 left – 10 right)
4. V116, income equality preference (1 income should be made more equal – 10 larger income differences are incentives for individuals)
5. V119, Competition view, (1 competition is good, 10 competition is harmful)

8.1.4 Dependent variables

3. Happiness, HAPPY (1 not at all happy – 4 very happy)
4. Life satisfaction, LS (1 completely dissatisfied – 10 completely satisfied)

8.1.5 Extra notes

4. All tables include significance levels according to the following scheme: * is 1% significance level, ** is 5% significance level, *** is 10% significance level
5. Standard errors are reported in parenthesis below coefficients
6. The full regression output is available upon request

8.2 Tables summary

8.2.1 Tables for leisure time and participation in extra-working activities

Table	SEX	AGE	EDU	HEALTH	SE
T1 (V6)	-0.049195*** (0.025497)	0.006239* (0.001113)	-0.024158* (0.005939)	0.185350* (0.017255)	0.095530* (0.020657)
T2(V25)	-0.545769* (0.030698)	-0.025216* (0.007456)	0.048246* (0.007022)	-0.136387* (0.020242)	-0.167496* (0.024606)
T3(V26)	0.125032* (0.033417)	-0.036691* (0.008139)	0.091575* (0.007383)	-0.039941*** (0.022446)	-0.278867* (0.027000)
T4(V29)	-0.066001 (0.040153)	0.004218** (0.001705)	0.025523* (0.002837)	-0.095751* (0.026490)	-0.278903* (0.031330)
T5(V31)	0.212206* (0.035118)	0.011173* (0.001514)	0.058174* (0.007061)	-0.070493* (0.023707)	-0.156965* (0.029068)

Notes:

- V6 ranges from 1 (very important) to 4 (not at all important)
- V25, V26, V29, V31 range from 0 (don't belong) to 2 (active member)

8.2.2 Tables for attitude toward minorities and immigrants

Table	SEX	AGE	EDU	HEALTH	SE
T6(V37)	0.040046 (0.036616)	-0.000595 (0.001582)	0.011346* (0.003232)	-0.118887* (0.023851)	-0.058189** (0.029243)
T7(V39)	0.085464** (0.0426)	5.09E-05 (0.001811)	0.030792* (0.008479)	-0.033857 (0.026972)	-0.058724*** (0.032690)
T8(V135)	-0.058118** (0.025103)	0.001892*** (0.001091)	0.003087 (0.002044)	0.112921* (0.017024)	0.156187* (0.021267)
T9(V217)	0.054559** (0.027653)	-0.003739* (0.001217)	0.049920* (0.006585)	0.070302* (0.018536)	-0.054817** (0.023174)
T10(V219)	0.004280 (0.026941)	-0.009304* (0.001192)	0.054902* (0.007627)	0.057920* (0.018170)	-0.045241** (0.023052)
T11(V218)	0.034083 (0.027084)	0.015254** (0.006767)	0.044693* (0.006525)	0.037853** (0.018215)	-0.031333 (0.022960)
T12(V220)	0.083447** (0.032594)	-0.022259* (0.008088)	-0.004428 (0.002968)	0.093049* (0.021858)	0.042312 (0.027853)
T13(221)	0.121476* (0.024419)	0.023766* (0.006168)	0.044437* (0.005703)	-0.105004* (0.016669)	-0.040510** (0.020104)

Notes:

- V37, V39, V135 range from 1 (mentioned) to 2 (not mentioned)
- V127, V219, V218, V220, V221 range from 1 (very important) to 3 (not at all important)

8.2.3 Tables for attitude toward women

Table	SEX	AGE	EDU	HEALTH	SE
T14(V44)	0.735745* (0.028751)	-0.008065* (0.001232)	0.081348* (0.006860)	-0.039625** (0.019030)	-0.076728* (0.023053)
T15(V61)	0.768146* (0.768146)	-0.003730* (0.001089)	0.055843* (0.005880)	-0.013615 (0.016776)	-0.059431* (0.019811)
T16(V62)	0.607608* (0.025675)	0.011877** (0.006236)	0.077067* (0.005748)	-0.012156 (0.016888)	-0.082085* (0.020102)
T17(V63)	0.877782* (0.025720)	0.010133 (0.006195)	0.075258* (0.005706)	0.004710 (0.0167469	-0.081451* (0.019858)
T18(V161)	0.240978* (0.0264489	0.005528* (0.001133)	0.021551* (0.002329)	-0.091638* (0.017415)	-0.091751* (0.021093)

Notes:

- V44 ranges from 1 (agree) to 3 (disagree)
- V61, V62, V63 range from 1 (strongly agree) to 4 (strongly disagree)
- V161 ranges from 1 (not essential characteristic of a democracy) to 10 (essential characteristic of a democracy)

8.2.4 Tables for political interest

Table	SEX	AGE	EDU	HEALTH	SE
T19(V7)	0.275207* (0.0247399	-0.013931* (0.001087)	-0.048538* (0.006195)	0.123119* (0.016842)	0.045408** (0.020083)

Notes: V7 ranges from 1 (very important) to 4 (not at all important)

8.2.5 Tables for political activism and participation

Table	SEX	AGE	EDU	SE
T20(V96)	0.051848*** (0.026663)	-0.042401* (0.006666)	-0.124098* (0.007171)	0.093725* (0.020750)
T21(V97)	0.241237* (0.028032)	-0.054371* (0.007248)	-0.107404* (0.007841)	0.131983* (0.022033)
T22(V98)	0.178713* (0.026443)	-0.038739* (0.006665)	-0.117208* (0.007318)	0.151878* (0.022303)
T23(V1001)	-0.030426 (0.034889)	-0.051309* (0.008951)	-0.129742* (0.010164)	0.163734* (0.028164)
T24(V101)	0.343083* (0.052118)	-0.038964* (0.013525)	-0.094498* (0.012829)	0.246453* (0.041655)
T25(V102)	0.217476* (0.039068)	-0.020160** (0.009940)	-0.117809* (0.012155)	0.165765* (0.031488)
T26(V234)	0.079281** (0.039105)	-0.181967* (0.009692)	-0.049346* (0.009267)	0.179439* (0.037906)

Notes:

- V96, V97, V98 range from 1 (have done) to 3 (would never do)
- V1001, V101, V102 range from 1 (have done) to 3 (would never do) referred to the last 5 years
- V234 ranges from 1 (yes) to 2 (no)

8.2.6 Tables for basic political opinions

Table	SEX	AGE	EDU	SC	SE
T27(V114)	-0.128190* (0.026647)	0.003592* (0.001158)	-0.008490* (0.002245)	-0.113748* (0.015420)	0.076567* (0.022653)
T28(V117)	0.199986* (0.023849)	-0.001819* (0.001045)	-0.020765* (0.005765)	0.130062* (0.013835)	-0.099232* (0.019662)
T29(V118)	-0.071900* (0.023468)	0.002635** (0.001028)	0.018213* (0.005451)	-0.136775* (0.013577)	0.040484** (0.019417)
T30(V119)	0.154536* (0.023714)	-0.004565* (0.001042)	-0.035838* (0.005925)	0.067402* (0.013740)	-0.066206* (0.019557)
T31(V116)	-0.070458* (0.023461)	0.001532 (0.005889)	0.025259* (0.005404)	-0.156001* (0.013588)	0.002155 (0.019432)
T32(V149)	0.031202 (0.026010)	0.001944 (0.006532)	0.003261 (0.006002)	-0.020934 (0.014913)	-0.067881* (0.021124)
T33(V150)	-0.014927 (0.027660)	0.025444* (0.006851)	0.074114* (0.006710)	-0.013297 (0.015677)	-0.044610** (0.022243)
T34(V151)	0.028311 (0.028119)	-0.025072* (0.007010)	-0.032420* (0.006746)	0.071362* (0.016189)	0.006825 (0.022745)
T35(V148)	0.031079 (0.025993)	0.026210* (0.006516)	0.049990* (0.005865)	-0.009283 (0.014837)	-0.027568 (0.020916)

Notes:

- V114, V117, V118, V116 range from 1 to 10 and 1 represents the left-wing policy while 10 represents the right-wing policy
- V119 ranges from 1 (competition is good) to 10 (competition is harmful)
- V149, V150, V151, V148 range from 1 (very good) to 4 (very bad)

8.2.6 Tables for essential characteristics of a democracy

Table	SEX	AGE	EDU	SC	SE
T36(V154)	-0.074080* (0.026371)	0.032067* (0.006433)	0.037806* (0.006305)	0.024128 (0.015063)	-0.046604** (0.021458)
T37(V1550)	0.052579** (0.024166)	0.002578 (0.005967)	0.000722 (0.005758)	0.118877* (0.013841)	-0.050862* (0.019655)
T38(V158)	-0.015085 (0.024744)	0.008197* (0.001070)	-0.001115 (0.002088)	0.054677* (0.014075)	-0.039937** (0.020079)
T39(V152)	0.021197 (0.024041)	0.000948 (0.006008)	-0.014797* (0.005741)	0.163472* (0.013816)	-0.028986 (0.019659)
T40(V157)	-0.060446** (0.025279)	0.030474* (0.006250)	0.031803* (0.005967)	0.041200* (0.014416)	-0.019918 (0.020567)
T41(V159)	0.011222 (0.024663)	0.005857* (0.001078)	-0.017579* (0.006074)	0.074587* (0.014166)	-0.035983*** (0.020156)
T42(V160)	-0.058088** (0.025184)	0.035668* (0.006261)	0.022006* (0.005977)	0.038536* (0.014433)	0.026958 (0.020613)
T43(V162)	0.019134 (0.024868)	0.035583* (0.006108)	0.051713* (0.005763)	NA	-0.061472* (0.020083)

Notes: all tables range from 1 (not an essential characteristic for democracy) to 10 (an essential characteristic for democracy)

8.2.7 Tables for foreign affairs opinion

Table	SEX	AGE	EDU	SE
T44(V165)	0.200566* (0.034667)	-0.022920* (0.008565)	-0.142444* (0.010224)	0.182481* (0.027596)
T45(V175)	-0.030108 (0.051422)	0.004882** (0.002155)	-0.069314* (0.011822)	-0.012402 (0.043467)
T46(V1770)	0.059821 (0.048266)	-0.001245 (0.002076)	-0.082214* (0.012330)	0.030261 (0.042664)
T47(V176)	-0.320765* (0.072922)	0.055042* (0.019100)	0.069707* (0.016085)	-0.108497*** (0.062076)
T48(V178)	-0.046035*** (0.025000)	0.012479** (0.006289)	-0.013591** (0.006026)	-0.045362** (0.021098)

Notes:

- V165, V1770 range from 1 (yes) to 2 (no)
- V175 ranges from 1 (too low) to 3 (too high)
- V176 ranges from 1 (about one and a half as much) to 5 (more than four times as much)
- V178 ranges from 1 (poverty in the world) to 10 (my country's problems)

8.2.8 Tables for trust in institutions

Table	SEX	AGE	EDU	SE
T49(V132)	0.165980* (0.025841)	-0.008596* (0.001126)	0.032022* (0.005763)	0.093620* (0.020272)
T50(V136)	-0.044473*** (0.024709)	-0.005422* (0.001074)	0.032463* (0.005542)	0.072324* (0.019704)
T51(V137)	-0.019203 (0.024792)	0.000769 (0.001077)	0.012150** (0.005524)	0.067714* (0.019869)
T52(V138)	-0.011108 (0.025258)	-0.006424* (0.001100)	0.015291* (0.005567)	0.076974* (0.020001)
T53(V141)	0.009867 (0.024914)	-0.003983* (0.001076)	0.000550 (0.002020)	0.106607* (0.019885)
T54(V139)	0.034094 (0.026138)	0.003391 (0.006561)	0.007060 (0.006089)	0.007513 (0.021147)
T55(V140)	0.069038* (0.026440)	-0.002024 (0.006619)	0.003865 (0.006052)	0.018951 (0.021165)
T56(V134)	-0.020791 (0.025703)	-0.009706 (0.006439)	0.033420* (0.005970)	0.002863 (0.020976)
T57(V1330)	0.027231 (0.025561)	-0.017249* (0.006377)	0.004527 (0.005862)	-0.025453* (0.020996)
T58(V146)	-0.011121 (0.0329769	-0.000755 (0.001498)	-0.042206* (0.009244)	0.067675** (0.028337)
T59(V147)	-0.074637* (0.025116)	7.56E-05 (0.001097)	-0.019944* (0.005677)	0.093242* (0.020614)
T60(V143)	-0.075251* (0.025198)	-0.001381 (0.001097)	-0.023691* (0.005640)	0.042856** (0.020348)
T61(V145)	-0.144786* (0.025106)	-0.001089 (0.001092)	-0.017792* (0.005630)	0.058036* (0.0042)
T62(V142)	0.034883 (0.025736)	0.000268 (0.006472)	0.006948 (0.005975)	0.004895 (0.021074)
T63(V1440)	-0.433135* (0.026250)	-0.007848 (0.006540)	0.004160 (0.006000)	0.036499*** (0.021214)
T64(V47)	0.153005* (0.023500)	-0.013703** (0.005907)	0.005233* (0.002022)	-0.046227* (0.019255)

Notes:

- V47 ranges from 1 (people would try to take advantage) to 10 (people would try to be fair);
- all the other dependent variables range from 1 (a great deal) to 4 (not at all)

8.2.9 Tables for environment and environmental policies

Table	SEX	AGE	EDU	SE
T65(V108)	-0.047395*** (0.026204)	0.003370* (0.001139)	-0.034098* (0.006130)	0.068113* (0.021887)
T66(V109)	-0.105055* (0.025645)	0.004180* (0.001110)	-0.050540* (0.006105)	0.110386* (0.021293)
T67(V110)	0.003532 (0.026012)	0.003673* (0.001132)	-0.030896* (0.006284)	0.069966* (0.021701)
T68(V111)	-0.134486* (0.027500)	-0.003620* (0.001189)	-0.078063* (0.006343)	0.064506* (0.022066)
T69(V112)	-0.108019* (0.026576)	-0.001395* (0.001149)	-0.054031* (0.006192)	0.093740* (0.021559)
T70(V113)	-0.136349* (0.029023)	-0.001963 (0.001252)	-0.071047* (0.006336)	0.092512* (0.023393)

Notes: all dependent variables range from 1 (very serious) to 4 (not at all serious)

8.3 Tables for self-selection of bureaucrats

8.3.1 Tables for happiness

- Table 71, V114 (from 1 = left to 10 = right), political opinion gap on happiness
- Table 73, V116 (from 1 = income should be made more equal to 10 = larger income differences are incentives for individual effort), income distribution policy gap on happiness
- Table 75, V119 (from 1 = competition is good to 10 = competition is harmful), competition opinion gap on happiness

Variable	Table 71 (V114)			Table 73 (V116)			Table 75 (V119)		
	Coeff.	Stand.dev.	Prob.	Coeff.	Stand.dev.	Prob.	Coeff.	Stand.dev.	Prob.
SEX	0.0783	0.0346	0.0238	0.0543	0.0310	0.0802	0.0592	0.0311	0.0572
AGE	-0.0407	0.0093	0.0000	-0.0421	0.0083	0.0000	-0.0450	0.0084	0.0000
AGE^2	0.0004	0.0001	0.0001	0.0005	0.0001	0.0000	0.0005	0.0001	0.0000
HEALTH	-0.9754	0.0251	NA	-0.9723	0.0225	0.0000	-0.9735	0.0225	0.0000
RS	-0.1033	0.0092	0.0000	-0.0903	0.0082	0.0000	-0.0917	0.0082	0.0000
EDU	-0.0103	0.0092	0.2666	-0.0085	0.0077	0.2696	-0.0064	0.0078	0.4115
EDU^2	0.0001	0.0002	0.6351	0.0001	0.0001	0.4730	0.0001	0.0001	0.6309
REL	-0.1429	0.0312	0.0000	-0.1336	0.0285	0.0000	-0.1307	0.0285	0.0000
TRUST	-0.1438	0.0402	0.0004	-0.1790	0.0371	0.0000	-0.1834	0.0371	0.0000
INC	0.1465	0.0339	0.0000	0.1424	0.0304	0.0000	0.1564	0.0305	0.0000
INC^2	-0.0029	0.0031	0.3406	-0.0019	0.0028	0.4898	-0.0029	0.0028	0.2978
HON	-0.0354	0.0081	0.0000	-0.0330	0.0073	0.0000	-0.0322	0.0073	0.0000
V116	0.0338	0.0092	0.0003	0.0242	0.0079	0.0021	-0.0396	0.0099	0.0001
SE	0.1154	0.1032	0.2634	0.0249	0.1224	0.8389	0.0435	0.0624	0.4858

V116*SE	-0.0145	0.0154	0.3478	0.0040	0.0136	0.7712	0.0080	0.0176	0.6515
V116MED	0.0219	0.0145	0.1304	0.0284	0.0125	0.0230	0.0718	0.0153	0.0000
V116MED*SE	0.0247	0.0249	0.3217	0.0123	0.0219	0.5750	0.0005	0.0272	0.9845
V2=WEST GERMANY	2.0021	0.2045	0.0000	1.8682	0.1867	0.0000	1.8632	0.1859	0.0000
V2=ITALY	1.9601	0.2063	0.0000	1.8893	0.1832	0.0000	1.9024	0.1833	0.0000
V2=SPAIN	1.8438	0.1847	0.0000	1.7472	0.1657	0.0000	1.7627	0.1657	0.0000
V2=USA	2.2376	0.1770	0.0000	2.1439	0.1601	0.0000	2.1195	0.1600	0.0000
V2=JAPAN	2.3867	0.1887	0.0000	2.2631	0.1681	0.0000	2.2582	0.1671	0.0000
V2=MEXICO	3.7091	0.1819	0.0000	3.5975	0.1625	0.0000	3.5740	0.1628	0.0000
V2=S AFRICA	2.7244	0.1676	0.0000	2.6189	0.1481	0.0000	2.6271	0.1481	0.0000
V2=AUSTRALIA	2.2099	0.1759	0.0000	2.0639	0.1575	0.0000	2.0607	0.1575	0.0000
V2=SWEDEN	2.5763	0.1784	0.0000	2.4440	0.1608	0.0000	2.4563	0.1607	0.0000
V2=FINLAND	2.4549	0.1840	0.0000	2.3282	0.1650	0.0000	2.3377	0.1651	0.0000
V2=S KOREA	1.7215	0.1803	0.0000	1.6341	0.1633	0.0000	1.6433	0.1632	0.0000
V2=POLAND	2.2523	0.1948	0.0000	2.1412	0.1704	0.0000	2.1443	0.1710	0.0000
V2=SWITZERLAND	2.5297	0.1778	0.0000	2.3849	0.1589	0.0000	2.3777	0.1585	0.0000
V2=BRAZIL	2.5248	0.1810	0.0000	2.4263	0.1630	0.0000	2.4061	0.1634	0.0000
V2=CHILE	2.2365	0.1951	0.0000	2.2655	0.1708	0.0000	2.2613	0.1712	0.0000
V2=INDIA	1.9500	0.2027	0.0000	1.9230	0.1736	0.0000	1.9286	0.1743	0.0000
V2=EAST GERMANY	1.7339	0.2070	0.0000	1.6792	0.1898	0.0000	1.6329	0.1878	0.0000
V2=SLOVENIA	2.2161	0.1998	0.0000	2.0337	0.1703	0.0000	1.9993	0.1702	0.0000
V2=BULGARIA	0.8087	0.2018	0.0001	0.8058	0.1760	0.0000	0.7937	0.1759	0.0000
V2=ROMANIA	0.5273	0.1837	0.0041	0.4068	0.1560	0.0091	0.3928	0.1565	0.0121
V2=CHINA	NA	NA	NA	1.7087	0.1791	0.0000	1.7408	0.1792	0.0000
V2=TAIWAN	1.8587	0.1707	0.0000	1.7847	0.1529	0.0000	1.8036	0.1528	0.0000
V2=TURKEY	2.4537	0.1854	0.0000	2.4012	0.1667	0.0000	2.3833	0.1669	0.0000
V2=UKRAINE	1.5624	0.2000	0.0000	1.5345	0.1686	0.0000	1.5574	0.1689	0.0000
V2=GHANA	2.9144	0.1965	0.0000	2.5774	0.1599	0.0000	2.5886	0.1602	0.0000
V2=MOLDOVA	0.5949	0.1830	0.0012	0.5338	0.1631	0.0011	0.4958	0.1624	0.0023

V2=THAILAND	2.5995	0.1824	0.0000	2.5015	0.1658	0.0000	2.4828	0.1656	0.0000
V2=INDONESIA	2.1186	0.1764	0.0000	2.1005	0.1554	0.0000	2.0962	0.1549	0.0000
V2=VIETNAM	2.0125	0.1981	0.0000	2.0602	0.1797	0.0000	2.0494	0.1804	0.0000
V2=SERBIA	1.0511	0.1875	0.0000	1.0073	0.1649	0.0000	1.0030	0.1648	0.0000
V2=EGYPT	1.3329	0.1678	0.0000	1.2667	0.1488	0.0000	1.2611	0.1491	0.0000
V2=MOROCCO	2.0085	0.1996	0.0000	1.7091	0.1670	0.0000	1.7140	0.1694	0.0000
V2=CYPRUS	2.1576	0.1789	0.0000	2.0806	0.1609	0.0000	2.0630	0.1609	0.0000
V2=TRINIDAD AND TOBAGO	2.8682	0.1948	0.0000	2.7780	0.1652	0.0000	2.7528	0.1655	0.0000
V2=ANDORRA	2.0805	0.1707	0.0000	1.9632	0.1508	0.0000	1.9709	0.1508	0.0000
V2=MALAYSIA	NA	NA	NA	2.3244	0.1547	0.0000	2.3374	0.1547	0.0000
V2=BURKINA FASO	1.5931	0.2294	0.0000	1.3724	0.2019	0.0000	1.4253	0.2050	0.0000
V2=ETHIOPIA	0.8770	0.1793	0.0000	0.8762	0.1620	0.0000	0.8962	0.1618	0.0000
V2=MALI	2.6222	0.3035	0.0000	2.4224	0.2921	0.0000	2.5175	0.2890	0.0000
V2=RWANDA	2.3042	0.1801	0.0000	2.2358	0.1557	0.0000	2.2527	0.1560	0.0000

8.3.2 Tables for life satisfaction

- Table 72, V114 (from 1 = left to 10 = right), political opinion gap on life satisfaction
- Table 74, V116 (from 1 = income should be made more equal to 10 = larger income differences are incentives for individual effort), income distribution policy gap on life satisfaction
- V119 (from 1 = competition is good to 10 = competition is harmful), competition opinion gap on life satisfaction

Variable	Table 72 (V114)			Table 74 (V116)			Table 76 (V119)		
	Coeff.	Stand.dev.	Prob.	Coeff.	Stand.dev.	Prob.	Coeff.	Stand.dev.	Prob.
SEX	0.0626	0.0296	0.0343	0.0534	0.0266	0.0451	0.0636	0.0267	0.0171
AGE	-0.0450	0.0081	0.0000	-0.0436	0.0072	0.0000	-0.0440	0.0073	0.0000
AGE^2	0.0005	0.0001	0.0000	0.0005	0.0001	0.0000	0.0005	0.0001	0.0000
HEALTH	-0.7082	0.0211	0.0000	-0.7060	0.0189	0.0000	-0.7110	0.0189	0.0000
RS	-0.0663	0.0078	0.0000	-0.0600	0.0070	0.0000	-0.2263	0.0317	0.0000
EDU	0.0048	0.0078	0.5335	0.0023	0.0071	0.7494	-0.0411	0.0063	0.0000
EDU^2	-0.0001	0.0001	0.5477	-0.0001	0.0001	0.6296	-0.0596	0.0071	0.0000
REL	-0.1100	0.0264	0.0000	-0.1138	0.0243	0.0000	0.0032	0.0072	0.6535
TRUST	-0.2208	0.0343	0.0000	-0.2274	0.0317	0.0000	-0.0001	0.0001	0.5802
INC	0.2570	0.0300	0.0000	0.2656	0.0271	0.0000	-0.1140	0.0243	0.0000
INC^2	-0.0080	0.0027	0.0029	-0.0078	0.0024	0.0014	0.2755	0.0272	0.0000
HON	-0.0457	0.0070	0.0000	-0.0416	0.0063	0.0000	-0.0083	0.0025	0.0007
V116	0.0634	0.0081	0.0000	0.0588	0.0069	0.0000	-0.0657	0.0087	0.0000
SE	0.2903	0.0906	0.0013	-0.0031	0.1069	0.9766	0.2183	0.0548	0.0001
V116*SE	-0.0292	0.0136	0.0326	0.0091	0.0121	0.4499	-0.0267	0.0154	0.0842
V116MED	0.0718	0.0127	0.0000	0.0554	0.0108	0.0000	0.1060	0.0132	0.0000
V116MED*SE	0.0160	0.0219	0.4639	0.0433	0.0191	0.0236	0.0197	0.0235	0.4030
V2=WEST GERMANY	0.9894	0.1755	0.0000	1.0741	0.1580	0.0000	1.0108	0.1576	0.0000
V2=ITALY	0.6958	0.1775	0.0001	0.7547	0.1551	0.0000	0.7614	0.1554	0.0000

V2=SPAIN	1.1887	0.1601	0.0000	1.1659	0.1410	0.0000	1.1623	0.1414	0.0000
V2=USA	0.7703	0.1528	0.0000	0.8033	0.1356	0.0000	0.7608	0.1358	0.0000
V2=JAPAN	0.8763	0.1617	0.0000	0.8918	0.1415	0.0000	0.8750	0.1410	0.0000
V2=MEXICO	2.1332	0.1566	0.0000	2.1603	0.1377	0.0000	2.1062	0.1381	0.0000
V2=S AFRICA	1.2072	0.1467	0.0000	1.1995	0.1269	0.0000	1.1653	0.1270	0.0000
V2=AUSTRALIA	0.6636	0.1516	0.0000	0.6538	0.1330	0.0000	0.6372	0.1331	0.0000
V2=SWEDEN	0.9389	0.1534	0.0000	0.9800	0.1356	0.0000	0.9617	0.1356	0.0000
V2=FINLAND	1.6917	0.1579	0.0000	1.7363	0.1392	0.0000	1.7192	0.1394	0.0000
V2=S KOREA	0.3467	0.1564	0.0267	0.3956	0.1393	0.0045	0.3994	0.1394	0.0042
V2=POLAND	1.0349	0.1686	0.0000	0.9890	0.1461	0.0000	0.9969	0.1468	0.0000
V2=SWITZERLAND	1.3337	0.1532	0.0000	1.3778	0.1345	0.0000	1.3304	0.1342	0.0000
V2=BRAZIL	1.5377	0.1604	0.0000	1.5748	0.1423	0.0000	1.5316	0.1429	0.0000
V2=CHILE	1.1704	0.1713	0.0000	1.2618	0.1478	0.0000	1.2304	0.1485	0.0000
V2=INDIA	-0.3848	0.1756	0.0284	-0.2811	0.1486	0.0586	-0.3773	0.1491	0.0114
V2=EAST GERMANY	1.0124	0.1793	0.0000	1.0979	0.1621	0.0000	1.0013	0.1608	0.0000
V2=SLOVENIA	1.6427	0.1763	0.0000	1.5990	0.1480	0.0000	1.5416	0.1481	0.0000
V2=BULGARIA	-0.2933	0.1762	0.0959	-0.3811	0.1517	0.0120	-0.4307	0.1520	0.0046
V2=ROMANIA	0.0738	0.1634	0.6515	0.0187	0.1376	0.8918	-0.0587	0.1380	0.6706
V2=CHINA	NA	NA	NA	1.1255	0.1583	0.0000	1.1490	0.1589	0.0000
V2=TAIWAN	0.4243	0.1482	0.0042	0.4705	0.1301	0.0003	0.4793	0.1302	0.0002
V2=TURKEY	1.5659	0.1625	0.0000	1.6887	0.1438	0.0000	1.6365	0.1441	0.0000
V2=UKRAINE	0.2871	0.1756	0.1021	0.2260	0.1454	0.1202	0.2627	0.1456	0.0712
V2=GHANA	0.1331	0.1710	0.4365	-0.0481	0.1376	0.7267	-0.0434	0.1379	0.7532
V2=MOLDOVA	-0.3244	0.1602	0.0428	-0.2757	0.1397	0.0483	-0.3640	0.1396	0.0091
V2=THAILAND	0.9371	0.1583	0.0000	0.9315	0.1415	0.0000	0.9126	0.1416	0.0000
V2=INDONESIA	0.5800	0.1554	0.0002	0.5843	0.1343	0.0000	0.5591	0.1341	0.0000
V2=VIETNAM	0.6995	0.1737	0.0001	0.9577	0.1561	0.0000	0.9798	0.1568	0.0000
V2=SERBIA	0.2436	0.1633	0.1359	0.2694	0.1412	0.0564	0.2531	0.1413	0.0732
V2=EGYPT	-0.3365	0.1496	0.0245	-0.3429	0.1308	0.0088	-0.3898	0.1312	0.0030

V2=MOROCCO	-0.7655	0.1694	0.0000	-0.8654	0.1405	0.0000	-0.8440	0.1426	0.0000
V2=CYPRUS	0.9101	0.1555	0.0000	0.9384	0.1375	0.0000	0.8714	0.1377	0.0000
V2=TRINIDAD AND TOBAGO	0.8534	0.1677	0.0000	0.9409	0.1407	0.0000	0.9083	0.1411	0.0000
V2=ANDORRA	0.7248	0.1479	0.0000	0.6695	0.1281	0.0000	0.6806	0.1283	0.0000
V2=MALAYSIA	NA	NA	NA	0.4521	0.1326	0.0006	0.4581	0.1328	0.0006
V2=BURKINA FASO	-0.5435	0.1916	0.0045	-0.7535	0.1665	0.0000	-0.6481	0.1695	0.0001
V2=ETHIOPIA	-1.3505	0.1545	0.0000	-1.2177	0.1363	0.0000	-1.2036	0.1364	0.0000
V2=MALI	0.7156	0.2677	0.0075	0.5167	0.2548	0.0425	0.6185	0.2520	0.0141
V2=RWANDA	-0.1824	0.1547	0.2383	-0.2320	0.1319	0.0785	-0.1963	0.1321	0.1373