The stereotype of low self-esteem public sector workers: True or false?

An empirical analysis of how self-esteem is correlated with working in the public or private sector

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Abstract: This thesis uses the data from the NLSY79 to study whether self-esteem has an effect on the probability of working in the public sector. Additionally, it is studied how the interaction between self-esteem and risk preference and political preference affects the probability of working in the public sector. No causal evidence is found for self-esteem on the probability of working in the public sector. Results do show that self-esteem is correlated with increased effects of risk preference on working in the public sector. Different probabilities of working in the public sector are also found for democrats and republicans. Again the difference in probability of working in the public sector caused by political preference increases as self-esteem grows.

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Introduction

Public sector sorting has been a topic well debated in economics. Many factors are believed to influence the decision of people to work in the public sector. Often risk aversion, intrinsic motivation, and altruism are seen as factors which influence the decision to opt for the public sector when looking for a job (Pfeifer, 2011). As private sector wages and jobs tend to be more insecure and inconstant, the image in recent literature is that risk-averse workers tend opt to work in the public sector. (Pfeifer, 2011) Differences in rewards between the sectors also leads to the public sector attracting more intrinsically motivated and altruistic workers (Crewson, 1997) (Rotolo & Wilson, 2006).

This thesis will study the possible effect of a person's self-esteem on the decision in which sector to work. A topic where there is little literature as of yet. Considering the difference in job and wage security in each sector, the belief in one's own ability could very well have an effect on the decision. Moreover, the competitive nature of the private sector could also lead to the self-esteem of workers being a factor in the decision of what sector to work.

Lower self-esteem has been related to more risk-averse decision-making when it comes to personal decisions in relationships (Wray & Stone, 2005). McElroy et al. (2007) shows that low self-esteem people are more susceptible to negative framing for risky decisions. Dooley & Prause (1997) finds that self-esteem in adolescence is related to employment status seven years later. These studies show that self-esteem can have an effect in personal, work-related and risk-related decision making. As of yet no ties have been made to the decision between public or private sector and self-esteem. In the job search process, self-esteem has been shown to be a predictor for sources used to find jobs and number of offers received (Ellis & Taylor, 1983).In the interest of further expanding the knowledge on this topic this thesis will investigate whether self-esteem has a possible effect on the probability of someone working in the private sector. The results of this research will further the insight into the sorting effect into the public sector. With that in mind this thesis has the following research question:

Does self-esteem have an effect on the probability of working in the public sector?

In relation to this main research question, several conditional effects will also be investigated. The conditional effects on the probability of working in the public sector related to self-esteem will be Risk aversion and Political Affiliation. Risk aversion has been traditionally linked to working in the public sector, therefore it will be studied how the possible effect of self-esteem interacts with risk preferences. There has been some literature suggesting that self-esteem is related to political decision making (Carmines, 1978). The availability of data on political preference presents an opportunity to study the relation between self-esteem and political preference. With this main research question and with the additional study of conditional effects the hypothesis are constructed. These hypothesis are constructed using the view of public sector workers in the public eye. The stereotypical image of the public sector work is that they are lazy and unmotivated, but also more ethical (Balwin, 1990). Low self-esteem is related to more anxiety and uncertainty (Greenberg, et al., 1992). The private sector is seen as a more competitive environment compared to the public sector, which creates less job security. Therefore, it is predicted that low self-esteem increases the chances of working in the public sector. Low self-esteem can be a cause of more risk adversity (McElroy et al.,2007). Since the public sector stereotype is risk averse, it is expected that lower self-esteem will increase the effects of risk aversion. As there is little literature on self-esteem and working in the private or public sector in relation with political affiliation this hypothesis is constructed so that it is relatively open. This hypothesis is constructed towards finding out whether such an effect exists, before making assumptions on its nature.

i)   Lower self-esteem is correlated with greater likeliness of working in the public sector.

ii)   The effects of risk aversion on likelihood of working in the public sector decreases with self-esteem.

iii)   The effect of self-esteem on the probability of working in the public sector is different for democrats and republicans.

Using panel data from the National Longitude Survey of Youth from 1979 a relation between self-esteem and the sector of work will be established. With the data on self-esteem gathered before the subjects begin to work and the sector of work ranging over multiple years a broad analysis can be established for this relationship. In the data section it will be explained in more detail how this data is gathered and how the relation between self-esteem and public-private sector work is constructed.

This thesis will be build up in the following way, first the related literature on this topic will be discussed. Secondly the data and the empirical strategy will be explained and discussed. After these chapters the results of the empirical research will be presented and thoroughly discussed, and finally the thesis will end with a discussion of the results and final remarks.

2. Related Literature

2.1 Self-esteem

Self-esteem is defined as the belief in one's own ability and how much one respects himself (Brown, 1993). Self-esteem is a reflection of the positive or negative image one has of him or herself. Self-esteem is also seen as the belief and confidence in one's own worth and to cope with the challenges in life (Branden, 1990). The most commonly used scale for self-esteem is the Rosenberg self-esteem scale. A short questionnaire involving ten questions revolving around how the persons perceives themselves. The scale earns its wide use due to being a reliable and consistent predictor of self-esteem (Gray-Little et al., 1997). The Rosenberg self-esteem sees wide use, also in the field of economics. Most often it's used when relating self-esteem to wages or unemployment (Heckman et al., 2006)(Goldsmith et al., 1997).

It has been shown that self-esteem can have an influence on decision making in social situations. As described in the introduction, in relationships self-esteem can lead to more risk averse decision making. Yang et al. (2010) describes that subjects with high self-esteem show more emotional signals when taking risky decisions. Anthony et al. (2007) studied whether self-esteem can have an effect on decision making in social

situations. Subjects were invited to a group and could either be accepted with certainty or with uncertainty. Insecurity about the outcome of acceptance was shown to affect only the decision making of low self-esteem subjects, not of high self-esteem subjects. In contrast, there were no differences in decision making between low and high self-esteem when acceptance into the social group was guaranteed.

On the effects of the self-esteem much in relation to economics much is written. A study which used the same database as this thesis found that self-esteem can have influence on the amount of wages earned 8 years later (Drago, 2011). It is shown that a higher self-esteem translates to significantly higher wages in the future. In this study the self-esteem survey was performed when the subjects where mostly in their teens. One would expect that self-esteem can change significantly over 8 years, especially during adolescence, yet still an effect on wages caused by self-esteem was found.

Whether this effect of self-esteem on wages translates to an effect on career decision making cannot be concluded by this research. However the difference in wages for the different levels of self-esteem suggest that self-esteem matters for what job one ends up in.

Wheeler (2010) found that individuals with lower self-esteem were more likely to participate in illegal substance use, while using controls for academic performance. The results from Wheeler (2010) show that the difference in decision making is not only caused by difference in educational level but also by self-esteem. Kishor (1981) also shows that career decision making by young adolescents is influenced by their self-esteem and their locus of control. Locus of control takes into account how much one perceives they are in control of their own lives. While the majority of the effect was found to be caused by the locus of control, self-esteem also had an effect on the career decision making.

There is a possible cultural difference between Fiji (where the research of Kishor (1981) was performed) and the United States which might cause not only a difference in self-esteem but also in occupational choices and possible social pressures. Diener (2009) shows that self-esteem can differ among cultures, the results of this study might thus

not carry over to other countries performing the same research. On the other hand, the studies mentioned here have done their research in different cultures and countries, and the effects of self-esteem seem persistent.

Self-esteem can also have significant effect on the job satisfaction of workers (Alavi & Askaripur, 2003). A perspective of increased job satisfaction could be an influence on the decision to work in the public sector. Alas, Alavi & Askaripur (2003) only studies the public sector and no comparisons can be made. The evidence in this study merely support the belief that self-esteem has an effect on workers in their workspaces. Greenhaus (1971) studies both occupational satisfaction and occupational choice and how they are affected by self-esteem. In contrast to other studies that have been discussed previously, Greenhaus (1971) does not find significant results for the correlation between self-esteem and occupational choice. It is argued however that there are differences in how low and high self-esteem persons develop their job satisfaction. This could lead to some degree of interaction between the occupational choice, occupational satisfaction and self-esteem. Which would lead to self-esteem still having an indirect effect on occupational choice through job satisfaction.

Several times the occupational choice has been linked to the self-concept and the view of the occupation. Across these studies it is found that this self-concept is related to the occupational decision making of these subjects. (Healy, 1968), (Englander, 1960), (Morrison, 1962) .This alignment in perception of self and the occupation that is aimed for has been called many things in these studies, it has been incorporation (Healy, 1968), congruency (Englander, 1960), and concordance (Morrison, 1962). While these studies do not fully study the effects of self-esteem, the difference between self-esteem and self-concept are not too great. Moreover self-concept and self-esteem have been shown to be related. (Campbell, 1990).

Individuals who have a higher self-esteem are also more likely to be found to choose for jobs in which these individuals think a high-ability is needed (Korman, 1967). Again this study finds that self-esteem is a factor in career decision making. Since wage differentials in the public sector are smaller than in the private sector, the public sector is found to have difficulty competing with the private sector to attract high-skilled

workers (Borjas, 2002). The conclusions from these papers seem closely related. The perception of the public sector is that it holds more low-skill jobs, therefore the high-skilled with high self-esteem will find themselves choosing for the private sector. While the high-skilled workers with low self-esteem might opt for the public sector due to their smaller wage-differentials.

A closely related theory to self-esteem is the self-efficacy theory. Self-efficacy is defined by Bandura as the ability of one to achieve their goals and the amount of influence people have on their own lives (Bandura, 1977). While not quite the same as self-esteem it is regarded as very closely related, as self-esteem is regarded by the theory as one of the main factors influencing self-efficacy (Sherer, 1982). Betz et al. (1996) shows that higher levels of self-efficacy relate to lower levels of career indecision. Through a measurement consistent of 5 factor related to the subject's self-image and their ability to plan and select goals for the future a measure for career decision making maturity is constructed. Relating this measure to the self-efficacy of the subjects resulted in a negative correlation, where high levels of self-efficacy went hand in hand with high levels of career decisiveness. Taylor et al. (1983) is another case where self-efficacy is negatively related to career indecisiveness, showing that the results of the theory of self-efficacy are found in multiple instances. The theory of the self-efficacy scale again shows the way one perceives themselves is of influence in decision making

Kunz & Kalil (1999) studies the effects of self-esteem and self-efficacy in earlier period of the subjects' lives in relation to welfare use. It is found that lower self-esteem in earlier periods in one's life correlates with higher chance of welfare use later in life, however in relation to self-efficacy no such effect is found. This study shows that while self-esteem and self-efficacy are closely correlated they are not the same effect. In this thesis only statistical analysis are performed with data on self-esteem since there is no data on self-efficacy, therefore no conclusions in this thesis can be transferred to the self-efficacy theory.

Effects of self-esteem on career decision making and on occupational choice are a returning conclusion across these studies. The choice between public sector and private sector is not discussed between them, even though public/private sector sorting is a

topic where there is a vast array of literature available. Often public sector jobs are perceived as the more safe and more low-ability, where the general opinion towards the private sector is that it is more fast paced, competitive and high-ability (Buurman et al., 2012). With these perceived differences in mind it would not be too farfetched that self-esteem could also have an influence on the public sector or private sector decision. Even though perceived differences are not always true, since for example the image of low-ability workers choosing for the public sector is incompatible with the higher percentage of higher educated personnel in the public sector (Bellante & Link, 1981).

2.2 Public and private sector sorting

Many characteristics other than self-esteem have been studied to see whether they influence public sector sorting. An important difference between the two sectors is the use of incentive pay. In the private sector incentive pay is more common than in the public sector (Borjas, 2002). In addition the wage is generally lower in the public sector. These differences lead to different types of workers pursuing jobs in each sector. Public sector workers often have an intrinsic motivation to work in that sector and are motivated extrinsically to a lesser extent (Perry, 1997). For this reason incentive pay is less effective in the public sector (Aside from the public sector consisting of more immeasurable services) (Georgellis et al., 2011).

Borjas (2002) predicts that the public sector will have problems retaining high skill workers due to the lure of the private sector. For the wages in the private sector are higher for their counterparts in the public sector. Most likely public service motivation keeps these workers in the public sector (Crewson, 1997). Intrinsic motivation has little ties towards self-esteem, and there is also no literature on this particular subject. Not all factors in the process of the public or private sector sorting have relations with self-esteem. Other factors seem related to each other, demonstrated by the relation between the use of incentive pay and intrinsic motivation. It will be studied whether self-esteem has a role to play in the process of sorting as a whole.

One other characteristic that is often related to the choice between public and private sector is risk preference. Risk-aversion is seen as a factor contributing towards workers sorting in the public sector (Bellante & Link, 1981) (Pfeifer, 2011) (Bonin et al., 2007). This is caused by the public sector providing more job security and lesser use of performance-pay. While there is much more literature regarding risk preference and working in the public sector, most do not incorporate self-esteem in their studies. Since the effect of risk preference in itself is not in the main goal of this thesis, the literature on this topic excluding self-esteem will also not be extendedly discussed.

In Balwin (1990) stereotypes of public sector workers are discussed. They do not find any indication that the stereotypes of workers being lazier, more incompetent and more unethical in the public sector are true. They instead argue that these stereotypes could be caused by politicians often criticising the previous administration, leading to the belief that most workers in the public sector are bad employees.

An interesting stereotype that was not debunked was that the workers in public sector value security more than the workers in the private sector. The behaviour of being more vulnerable towards security could perhaps be related towards being risk-averse and/or having low self-esteem.

McElroy et al. (2007) does indeed show that low self-esteem is more likely to lead to negative framing of possible risky prospects. Optimism is also shown to relate to more risky behaviour (Anderson & Galinsky, 2006). In addition narcissism is also shown to lead to more overconfidence and thus more risky behaviour. While not the same as self-esteem these characteristics are more common among high self-esteem individuals (Barry et al., 2007). Johanson (2000) shows that there is an interplay between self-esteem and risk aversion where risk aversion is higher for students with low self-esteem and also higher for students with ambiguity aversion. While this study only had a very small sample (80 students) the results indicate that self-esteem and risk aversion could be related.

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Krueger & Dickson (1994) finds that by increasing self-efficacy through positive feedback, the perception of risk and risk taking behaviour changes. These results show that risk preference can also be related to self-esteem, keeping in mind the close relation between self-efficacy and self-esteem that has been discussed previous. Connecting the dots would lead to the belief that a high self-esteem leads to lesser risk aversion, which in turn leads to more likeliness of working in the public sector. This is still speculative however, since there is little to no literature to back this connection. Therefore one of the goals of this thesis is to shed more light on this relation.

An often cited other influence on people sorting to the public sector is altruism. Since altruism is seen as a factor in deciding whether to work in the public sector, the literature about this subject will be briefly discussed. Even though no regressions on this subject relating to self-esteem will be performed due to not having limited data on this topic, an examination of the literature regarding altruism might gain valuable insights. Also, in order to be able to conclude after the research that the effects found are caused by self-esteem and not altruism the literature on this topic must be reviewed.

Self-esteem and altruism do not go intuitively hand in hand, however there some literature that suggests that there could be some links between self-esteem and altruism (Solomon et al., 1991). Although not all literature on this subject agrees with one and other. Kohn (1994) argues that individuals with a low self-esteem have a lesser inclination to be altruistic. Arguing that when one does not care for themselves, they tend not to care for others as well. It is also found that very high levels of self-esteem is also not beneficial for altruistic characteristics, since these persons are more likely to put their own interests far above those of others. Eisenberg (2014) argues the other way around, people with lower self-esteem may be more inclined to help others due to being more susceptible to social pressures of being a good person and being socially accepted. While people with high self-esteem are not prone to these pressures, thus showing less altruistic behaviour. Interestingly, these results show an opposite result compared to the previous research.

Trying to achieve high self-esteem could be at the expense of altruism (Crocker & Park, 2004). To strive for a higher valuation of self the fellow man could suffer, due to the way

that this higher self-esteem is often acquired. These studies show that the relationship between self-esteem and altruism is far from mapped out. Following all the conclusions from the studies it is unclear whether high or low self-esteem is beneficial for altruism. While most agree that there is a relationship, the nature of it is still not agreed upon. On the relation between altruism and the topic of choosing between public and private sector more is known.

Since the wages in the public sector tend to be slightly lower in the public sector, a form of intrinsic motivation attracts these altruistic workers. The intrinsic motivation to not only care for yourself or for money but also for others (Buurman et al., 2012). Dur & Zoutenbier (2014) expands on this by including the faith in the government into the equation. Arguing that higher confidence in public instances makes the effect of altruism more influential. Which makes public sector motivation dependent on not only altruism. Not all literature agrees on the existence of public sector motivation however, with Gabris & Simo (1995) arguing that even if there is a thing such as public sector motivation, the effects are so small they can be disregarded all together.

Little research is available on the topic of relation between self-esteem and altruism. For the effects of self-esteem on altruism, the literature does not seem to uniform. Therefore it is difficult to speculate on the extent of the effects of how self-esteem influences altruism. While it could be possible that self-esteem has an effect on likeliness of working in the public sector indirectly through altruism, more evidence would be required to support such a theorem. With the literature on this topic in mind, it thus seems unlikely that effects of self-esteem found in this paper stem from an unobserved level of altruism.

2.3 Political affiliation, self-esteem and sector sorting

As this topic is studied in this thesis the literature related towards this topic has also been investigated. As mentioned earlier the literature on this topic is sparse. In the United States the political affiliations can be divided into two groups: the Republicans and the Democrats. In short the Republicans could be seen as the more conservative party and the Democrats the more liberal of the two. There has been some literature suggesting the likelihood of having political affinity with conservatism is related to lower self-esteem among other influences such as lower social class and lower intelligence (Jost et al., 2003). This might not be the case however in the retired age group, where conservatism is shown to relate to higher self-esteem (Van Hiel & Brebels, 2011). Even though the finding that in all age groups conservatism is related to lower self-esteem is also found here, after only studying the older ages a positive effect is found. So even though it looks contradictory at first glance, these results concur with the other studies relating conservatism and self-esteem when taking into account all the age groups. The expansion towards the older age group

Not all literature agrees on this relation of conservatism and self-esteem however. Houston (1984) finds the opposite results. Their study indicates that there is no significant relation between self-esteem and conservatism. Which shows that there is still some ambiguity in the literature when considering the relation between self-esteem and conservatism.

Conservatism has also been shown to relate to lesser likelihood of working in the public sector (Perry, 1997). The same study found that liberalism was also related to increased chance of working in the public sector. In contrast, Houston (2000) also studied the possible effects of political ideology on probability of working in the public sector and found no significant effect.

It is clear that when comparing the results of these papers that there is not one theory that is fully agreed upon when looking at political affiliation and self-esteem. The same can be said about political affiliation and working the public sector. With this in mind perhaps the results found in this thesis can extend the literature available on this topic.

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Data and empirical approach

The data used in this thesis is gathered from the National Longitude Survey of Youth (from here on referred to as the NLSY79) conducted in the United States. The subjects in this survey are born between 1957 and 1964, and are interviewed annually until 1994 and once every two years after. The first interviews were conducted in 1979, when the subjects where 14-22 years of age. The sample includes roughly 10,000 subjects. The initial sample size of the survey included roughly 12.000, however over time the institute discarded a couple subsamples of the survey leading to the decrease in sample size. The survey includes many social, demographic and economic related questions which makes it a good fit for this research. For the main research question the two most important variables gathered from the survey are the self-esteem and the type of job the subjects have (public or private sector). In addition to these two key variables, many control variables and variables for extra analysis are studied, these will be discussed and explained in this section.

For these variables to be viable for use in the empirical analysis several adjustments had to be done. These mutations will be discussed for each variable. One adjustment that had to be done throughout the variables is discarding the returns that were unusable. For all questions the subjects were allowed to refuse to answer a question if they were unwilling to do so. In other instances the subjects simply didn't know the answer. These data entries were removed from the sample in order to be able to perform statistical analyses. Downfall of the mutations of the variables is that these may cause biases in the data to form. It will be discussed for each variable how the adjustment of these variables may affect the end result, however in order to achieve any results at all these changes to the data were a necessity.

Descriptive statistics

The initial interview included 12.686 subjects with 49.5% of them female. The subjects were mostly Caucasian (60%) with the remainder consisting of African Americans (25%) and Hispanics (15%). Most of the subjects lived in the cities at the time of the first interview, with 78% living in urban areas and the rest in rural areas. The foremost part of the subjects was born in the north of the United States (62%) with the rest being born in the south (38%). Depicted below are these variables in table form. The subjects concerned are born between 1957 and 1964. At the start of the survey in 1979 the average age of the subjects was 17 years old (17.89) with a standard deviation of 2.43 years. The following table shows the summary statistics of the variables used in the regressions. The key variables will be discussed more in depth in the following sections.

Summary Statistics   Total sample = 12686

Variable	Mean	St. dev	Min	Max
Female	0.495	12686	0	1
African American	0.25	12686	0	1
Hispanic	0.15	12686	0	1
Urban	0.78	12686	0	1
South	0.38	12686	0	1
Age in 1979	17.89	12686	14	22
AFQT score	42395.61	38623.50	0	100.000
Public sector job in 85	0.105	0.306	0	1
Public sector job in 88	0.112	0.316	0	1
Public sector job in 96	0.150	0.358	0	1
Public sector job in 06	0.186	0.389	0	1
Self esteem 1980	22.370	4.130	6	30
Self esteem 1987	23.373	4.164	3	30
Self esteem 2006	23.481	4.450	5	30
Democrat in 06	0.635	0.481	0	1
Political strength	1.410	0.492	1	2
Risk preference	4.816	2.955	0	10
Volunteerism	0.226	0.418	0	1
Associate degree*	0.073	0.260	0	1
Bachelor of Arts degree*	0.068	0.253	0	1
Bachelor of science degree*	0.108	0.310	0	1
Master's degree*	0.020	0.143	0	1
Doctoral degree (Phd)*	0.001	0.036	0	1
Professional degree*	0.006	0.075	0	1
Other education*	0.019	0.135	0	1

 These variables indicate the highest degree the subject has achieve

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Public and private sector

From the time they are first interviewed up in 1979 up until 1994 there is a question each year in the survey whether the subject works in the public or private sector. After 1994 the survey was conducted bi-annually, up until the most recent available data in 2012. In each of these instances the subjects are again asked whether their job falls into the public sector or into the private sector. The survey also has a third option which is that the subject is self-employed. In this study the self-employed are pooled with the subjects in the private sector, since workers that start their own business or work as freelancer are technically also working in the private sector. Therefore no distinction between these two need to be made and they can be both be pooled in the private sector. A variable is created where a one represents working in the public sector and a zero working in the private sector. In the regressions that will be performed positive effects thus represent increased chances towards the public sector and negative effects will represent increased chances towards the private sector.

One issue that may result in bias in the results is the fact that these questions only were valid for workers who had any job at all. The interviewers of the survey skipped the question of what sector the subject worked in if the subject did not have a job. However not all the subjects who were not employed at the moment of the interview were actively looking for a job. In the sample no distinction is made for individuals who are still at school or university or those who are unable to work. The answers are pooled in groups of those who were able to answer, and those who weren't. Since this is an important distinction for the purpose of this study, it has been chosen to only study those who are working at the time of the interview in order to prevent skewed results.

In addition, for the unemployed it is also difficult to predict in what sector they will end up in. While the subjects may have preferences as to what sector to work in, it wouldn't be a given in what sector they will end up in. Unemployment could affect self-esteem and decision making which could lead to different results if it were possible to include these subjects in the regression. It can be seen in the samples of the earlier questions that at the few first times of asking the question the sample size reduced by over fifty percent since most of the subject were so young that they were still studying. The

sample size quickly grows again after 1984 which seems to be the period where most of the subjects in the sample size finish their education and start working. This gives the inclination that a large part of those not able to answer the question in what sector they work in, was in fact studying and not actively looking for work.

One benefit for this research is that it is possible to study the subjects that start working after taking the first self-esteem test, thus ruling out effects of the job on self-esteem. This opens a window for more causal reasoning. As mentioned earlier the sample size decreases slightly over time as the NLSY79 interviewed a few subsamples of the subjects less. These subsamples were chosen randomly and do not affect the distribution of subjects working in the public and private sector. As seen in the table at the start of the survey many of the subjects were not working yet, and were most likely in school keeping their age in mind.
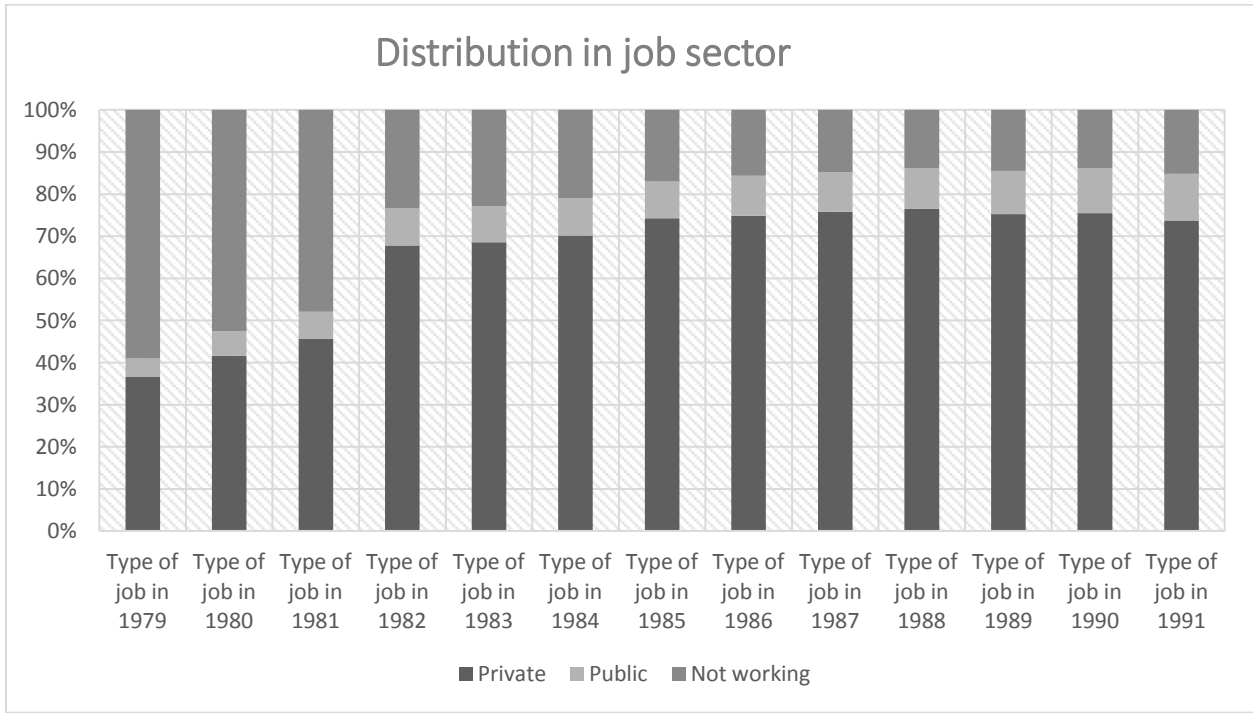
In 1982 there is a steep drop in the amount of subjects without job, which would make sense as they approach the age where they finish their studies. In 1985 there is another slight drop as more subjects approach the age where they start their working career.

When taking into account all the years it can be seen that the percentage of subjects working in the public sector grows slightly over time (as can be seen in the graph below). In the end this slight growth causes that at the early rounds roughly ten percent works in the public sector and at the later rounds twenty percent works in the public sector. This growth of the percentage working in the public sector raises a few questions. While some or all of this growth could be explained by older workers being more likely to work in the public sector (Lewis & Frank, 2002). Alternatively, it could be possible that the subsamples that were discarded had a relatively high percentage of private sectors working in them. This survey was conducted over a very long period of time and suffered some attrition because of that. Public sector workers might be more willing to participate for a longer time with regards to the survey, and the private sector workers might be less inclined to do so. This may cause that in the later rounds of the survey a more sizeable part of the subjects works in the public sector than it is in reality.

The actual percentage working in the public sector was 16% in 1985, 14.8% in 2000 and 14.6% in 2006 (Hammouya, 1999) (OECD, 2011). Compared to the sample of the NLSY79 the percentage is slightly lower in 1985, and slightly higher in 2000 and 2006. This is in line with the suspicion that workers in the public sector could be slightly older compared to private sector workers (Bellante & Link, 1981) (Buelens & Van den Broeck,

2007). Due to the size of the sample and the collection of the sample across the whole of the United States, it is assumed that the sample provides a correct measure of the percentage working in the public sector for the relevant age group.

Self Esteem

The NLSY79 included a test which lead to a Rosenberg self-esteem score was included the year 1980, 1988 and 2006. The Rosenberg self-esteem scale is a 30 point scale, where higher scores corresponds with high self-esteem. Score lower than 15 would indicate that the subject has a low self-esteem, and scores higher than 25 are related to very high self-esteem. The scores are based on a simple test which consists of ten questions. Each question asks how the subject perceives themselves and what they feel their own personal value is compared to others (These questions can be found in appendix A) Below are the descriptive statistics of each round of the self-esteem question

Variable	Mean	Observations	St. dev	Min	Max
Self-esteem 1980	22.36	11992	4.13	6	30
Self-esteem 1987	23.37	10340	4.16	3	30
Self-esteem 2006	23.48	7370	4.45	5	30

The timing of the three self-esteem questions in the survey gives a score in the puberty of the subjects' lives, one in early adolescence and one in their adulthood. Important to note is that when taking the first score, most subjects have not yet began working, which is very beneficial for the empirical analysis. A person's self-esteem can of course change due to the work environment they are in. Having the scores before the subjects start to work greatly reduces the effect of this possibility in the results. The scores from 1988 and 2006 are however susceptible to the possible effect of work environment on self-esteem. In comparison to the job sector type questions these questions were asked to all of the subjects that were interviewed. Still there is, as with the whole survey, some attrition in the samples. The table below depicts the distribution of scores for each time the self-esteem score was included in the survey.

Self-esteem distribution

The graphs show that the self-esteem score in 1987 and 2006 differ from the previous in 1980. The idea that adults have a higher self-esteem than teens and adolescents isn't very farfetched. Especially considering the effect of puberty on most people's lives. Since first time the self-esteem score was measured the subjects were in their teens, a rise is to be expected. Perhaps counterintuitive however is how similar the scores in 1987 and in 2006 are, the average in 1987 being 23.37 and in 2006 it was 23.48. The correlations between the self-esteem scores can be found in the table below. The scores of 1980 and 1987 show moderately strong correlation, as do the scores of 1987 and 2006. Indicating that there is some consistency in the scores, although it does not explain the full score. The scores of 1980 and 2006 are correlated to a lesser extent, though this could be due to the great time-gap between these two scores.

Correlation coefficients	1980	1987	2006
1980	1	0.45	0.32
1987	0.45	1	0.41
2006	0.32	0.41	1

As can been in the graph the amount of subjects with very low self-esteem (below 15 on the scale) is very low. Moreover, a high proportion on the scale fall into the segment of very high self-esteem (a score higher than 25) with a substantial part having the highest

score of 30. Possible explanation for this could be the cultural aspect of the United States discussed in the literate segment. While the subjects with very low self-esteem are few in number the distribution in self-esteem is wide enough for the empirical analysis, especially taking into account the high number of high self-esteem subjects.

Education, Ability and Risk aversion

In addition to these two main variables for the research question there are many other things that are included in the survey. In order to fully estimate the effect of self-esteem many control variables can be gathered from the data. Most of the controls that will be used were described in the descriptive statistics: Race, sex, place of birth and living situation. An important addition to these variables is the amount of education the subjects have. Arguably the education could affect both the self-esteem and the type of sector they choose to work in.

The interview held a question about the highest degree the subject had gotten in the years 1988, 2010 and in 2012. The timing of these questions in the interview gives data on the subject's education in their mid twenties and in their fifties. On average at the time of the question in 1988 most subjects will have finished their education, however there might be some who were at the time still working on it. The inclusion of the highest degree question in later years gives some more flexibility in working with the data as the subjects could get higher education later on in their lives as well.

The data on education is divided into eight segments. Each category is associated with its own level of education. In the table below the eight categories are depicted, along with the number of subjects in each category . In order to fully grasp the effect for each category a dummy variable is created. The differences between each category are hard to define, a dummy for each category removes this problem. This variable takes high school education as the base level and builds forward on it. One bias that could be caused this measure of education is that the high school dropouts are not taken into consideration. The interview makes no separation between those who were not asked this question and those who did not finish high school or are still enrolled in high school.

This is however a small part of the sample and the majority is included in this measure. Remarkably the majority of the subjects only has a high school diploma, only some choose to further their education.

HS	High school diploma	6031	MASTER	Master's degree	178
AA	Associate/Junior Degree	626	PHD	Doctoral degree	11
BA	Bachelor of Arts Degree	587	PROF	Professional degree	49
BSC	Bachelor of science degree	922	OTHER	Other	160

As in the initial stages most were not finished with their education yet, another control for ability should make the results of the regressions more robust. Luckily in the case of the NLSY79 an achievement test score for the United States army is included. This test was conducted at a very high percentage of schools and provide a useful control at the expense of a very small part of the sample. This achievement test score ranks students relatively from one to one hundred. With higher score being better. For example a score of 55 would mean that the subject had a better score than up to 55 percent of the test takers. This test called the AFQT, which stands for Armed Forces Qualification Test, is regarded in research as a solid measure of ability, as well as a good predictor of productivity and job performance later in the subject's lives (Neal & Johnson., 1995).

Armed with this control the results of the regressions hold much more meaning. This test was conducted in 1980, thus at a similar time as the first self-esteem test. Which means again that this AFQT test score remains unaffected by work experience of any kind, since those who take the test have not begun to work yet. Additionally, the NLSY79 team recognized the potential in this variable and have since made revisions in 1988 and in 2006. The revision in 1988 recalculated the values according to a newer procedure which took care of some biases in the results. The revisions in 2006 calculated the scores while controlling for the age of the subjects, this way the results are more suitable for analysis. Due to these changes the scale changed to a 0 to 100.000 scale. Since both these revisions are beneficial for the validity of these test scores, the AFQT score after the revision in 2006 will be used for the regressions.

Risk aversion is another factor which has shown to influence the choice of sector for workers. While the data is limited in the dataset, there is still some available. The round of 2010 included some questions about risk aversion. A small test resulting in a score from 0 to 10, where 0 is strong risk aversion and 10 is strong risk preference. As behavioural economics has only recently seen a sudden rise in popularity and use, the data does not hold this type of information for earlier rounds. Downside is that the subjects in this round were aged significantly and this could influence the way they perceive risk. Risk-preferences could be related to age, as younger people are most often seen as less risk-averse (Wang & Hanna, 1997). Moreover, similar to self-esteem risk aversion might change after working in a particular sector for a long time. Whereas for the self-esteem data is available before the subjects start working, sadly for the risk aversion this is not the case.

The round of 2008 included some other questions that might be of additional interest. These questions revealed information about the subject's opinion of their government, which political party they supported and how heavily involved the subjects were with said party. The subjects were also asked whether they voted in the presidential election of 2006. The knowledge these factors bring in relation to the effect of self-esteem on job choice are potentially interesting. For a republican a high self-esteem might lead to different outcomes than for a democrat with self-esteem.

With these variables not only the self-esteem is taken into account but also a small bit of the subjects' perspective. Another variable that is included in the survey is whether the subject participated in volunteer work the previous year. As before, this data is first available in the round of 2006. As discussed in the literature review, altruism is another factor related to the possibility of working in the public sector. The volunteerism variable can be used as a revealed preference variable. While not completely the same as altruism, participating in volunteer work shows that these subjects care for others.

Finally the dataset also contains two variables depicting political views. The first variable depicts which party the subject follows, the second asks whether they were strong supporters of said party (a 1 for strong and a 2 for not strong). As can be seen in the summary statistics table, this sample contains a majority subjects in supporting the

democrat party. The political strength variable shows that most of the subject are also strong supporters of their party's views. With these variables it will be studied whether political views interact with the effects of self-esteem.

Empirical Approach

Initially due to the nature of the data on sector of work (which can only take two values) logit regressions were seen as the best option. Logit regressions however are more difficult to interpret and discuss than OLS regressions, especially when using interaction terms. After performing and comparing both Logit and OLS regressions, the results were found to be highly similar. Due to the complexity of interpreting Logit results, the choice has been made to use OLS for the regressions as OLS allows for more tests and broader interpretation of the regressions. The empirical analysis will begin with the first data segments and work towards the newer segments. For each self-esteem scale the effects can be measured for the years after the interview has taken place. Thus allowing to see the difference in short term effects and long term effects of self-esteem as well as making comparisons between self-esteem at different ages. Even though self-esteem can change over the years it could be that high or low self-esteem during adolescence has effects which persist over many years.

The methodology used in Drago, (2011) reveal several issues such as the inability to directly infer causality. One of the issues represented in Drago, (2011) is also present in this thesis. This issue is the fact that previous job experiences can influence the score of the test, in order to account for this only the subjects in the study who were born after 1961 are looked at in the sample. Since there is a compulsory amount of education required in the United States these individuals would have to stay at a school until at least 1978, with many working on their education longer and thus were not working in 1980 at the time of the measurement of the self-esteem score. Since several issues are identical due to the fact of using the same dataset, components of the empirical approach of Drago, (2011) will be used in order to fix these issues.

Some questions related to the behaviour of the subjects were not asked in the earlier rounds of the interview. Possibly due to the development in the field of economics and the growing interest in the influence of behavioural factors. This leads to the later interview rounds having more available data than earlier rounds. The questions related to behaviour were first included at the rounds in and around 2006. The most extended regressions can thus be created using data from later rounds, however the earlier rounds have a decreased risk in omitted variable bias. In order fully map the relation between self-esteem and public or private sector choice all of these time-frames will be studied. Because the data from the earlier rounds are more limited in terms of data, they are also easier to construct. At first it will be studied whether the self-esteem in 1980 has a correlation with working in the public sector in 1985. The reason to start at 1985, is that in this year a substantial part of the sample starts working (as described in the data section). The interview of 1988 is the first time a measure of education is included. Therefore the regressions after this year will be slightly adapted to include this measure. With this in mind the first regressions will look like this:

(1) $Public85 = C + \beta_1 Selfesteem80 + \beta_2 AFQT + \beta_3 Controls$

(2) $Public88 = C + \beta_1 Selfesteem80 + \beta_2 Education + \beta_3 AFQT + \beta_4 Controls$

The variable Controls is a summary for several controls, which will be discussed separately in the results. This summary consists of the following variables: dummies for female, black, Hispanic, urban, and whether the subject was born in the North or South. This summary will remain the same throughout the regressions used in this thesis. In order to decrease the effects of possible omitted variables a subsample is created. This subsample consists of the subjects who were working in 1988, but weren't working in 1980. The fact that these subjects weren't working in 1980 removes the possible influence of work environment effects. Using the subsample, the overall regression performed remains the same in order to make meaningful comparisons. Regression (2) will thus be used, except on a smaller sample.

One potential bias that could arise using this regression is the possibility of a difference in self-esteem between the people who start working earlier and those who start later. This difference could arise due to differences in education, as those with less education

usually start working earlier, and due to differences in hiring chances. Assuming that people with self-esteem perform better at job interviews, it could be that those starting with their first job later have inherently different levels of self-esteem compared to those who start working earlier. Therefore the method used in Drago, (2011) will also be used. As a reminder, the method used there only looked at subjects who were 18 or younger in the first round as to make sure they were not working yet to discount the possibility of workplace effects. Here a similar subsample is created in the data, by using only the self-esteem of subjects younger than 18 in the sample. With the first method making an approximate measure for the first job taken within the five years of the self-esteem score, this method takes a slightly different approach. The threshold of 18 years in the sample makes sure that the subject is still working on their education. In Drago, (2011) it is described that the full part of this subsample is still in high school and less than one percent has enrolled to a college level of education.

In contrast to the first subsample looking at the first job, this subsample uses an age cut-off point to rule out the effects of work environment. Difference to the first subsample is however that now it can be said with more certainty that the subjects are still working on their education, compared to being uncertain whether they are studying or looking for a job without success. To make meaningful comparisons the method will remain relatively the same. Since the method is based on Drago, (2011) the sector of work in 1988 will be used in the regression. This gives the opportunity to include education in the controls. Again this will be done using regression (2), only this time using a subsample of self-esteem.

As there is yearly data on the sector where the subjects work in, it is interesting to study exactly how long the score on the self-esteem test has an effect. Following the initial regression on the effect of job choice in 1981, the analysis can also be done over the following consecutive years. Leading to the following regression:

$$(3) \; PublicXY = C + \beta_1 Selfesteem80 + \beta_2 Education + \beta_3 AFQT + \beta_4 Controls$$

With XY representing the years moving on from 81, thus 82 up to 94 and bi yearly after. For the regression in relation to the self-esteem score in 2006 there are more

regressions to be made due to the inclusion of more questions in the survey. As explained in the additional controls part, these questions include more behavioural and political aspects. The political party preference is transformed into a dummy in order to study its effects, with democratic preference returning a one and republic preference a zero. Additionally the question of volunteerism is also included in the regression, as this can be seen as a revealed preference of altruism of the subjects. In order to fully examine each effect the regressions used will look like this:

$$(4)\ Public06 = C + \beta_1 Selfesteem87 + \beta_2 Riskpref + \beta_3 Democrat \\ + \beta_4 PoliticalStrength + \beta_5 Education + \beta_6 Volunteerism + \beta_7 Controls \\ + \beta_8 AFQT$$

In addition to the regression above the same regression will be run for the self-esteem scores of 1980 and 1987 to study long term effects of self-esteem. The data available presents opportunities to study conditional effects of self-esteem combined with other variables. For the interaction effects the later rounds of the survey have also been used, as these questions are only included in those round. In particular the risk preference interacting with the self-esteem score is studied. As risk preference is seen in the literature as an influence on the decision in what sector to work in. It is possible that the effects of risk preference may be different for different levels of self-esteem. To find out about this effect the following regression has been constructed.

$$Public06 = C + \beta_1 SelfEsteem87 * Riskpreference + \beta_2 Selfesteem87 + \beta_3 Riskpref \\ + \beta_4 Democrat + \beta_5 PoliticalStrength + \beta_6 Volunteerism + \beta_7 Education \\ + \beta_8 AFQT + \beta_9 Controls$$

Again this regression will also be run for the self-esteem score of 1980 and 1987, and for different years with regard to the sector where the subjects work in. Since there is a big divide in the United States between republican and democrat it also studied whether the effects of self-esteem are also influenced by this political preference. This is done by the following regression:

$$Public06 = C + \beta_1 SelfEsteem87 * Democrat + \beta_2 Selfesteem87 + \beta_3 Riskpref$$
$$+ \beta_4 Democrat + \beta_5 PoliticalStrength + \beta_6 Volunteerism + \beta_7 Education$$
$$+ \beta_8 AFQT + \beta_9 Controls$$

This regression allows the understanding whether different political preferences affect the effect of self-esteem on public sector or private sector choice. All of these regression should provide a solid basis to find an answer to the main research question and the additional research questions. To study whether this effect is persistent over time this regression will also be performed for the years coming after 2006, namely 2008 and 2010.This regression will also be run excluding the newer controls. Excluding only the measure for political strength and the volunteerism control, in order to compare this regression to the earlier rounds. This in order to make comparisons with the earlier rounds. All of these regression should provide a solid basis to find an answer to the main research question and the additional research questions.

Results

Early rounds results

The previously discussed regressions will be presented and discussed in this section. Starting from the beginning where the self-esteem score will be investigated in relation to work sector in earlier years. In the earlier years the earlier years, there is no data yet on for some variables, as some controls only come into play in the later years. However in the earlier rounds there is the possibility of looking into causality. Therefore, in order to create a complete foundation for conclusions these results will also be discussed. A first look at the results from the regressions will be done with the data of 1985. Since after this year the amount of subjects working in either sector rises greatly compared to previous years (As can be seen in the data section), this is a good year to start. In the years previous to 1985 a large part of the sample still does not have a job and thus the results might be biased.

Table 1: Dependent Variable: Working in public sector in 1985

Variable	Coefficient	Std. Error	p-value
Intercept	-0.048	0.022	0.026
Self-esteem 1980	0.003	0.001	0.004
Female	0.030	0.007	0.000
Black	0.072	0.001	0.000
Hispanic	0.035	0.012	0.003
South	0.018	0.008	0.020
Urban	0.010	0.009	0.274
AFQT score	9.41E-07	1.49E-07	0.000
	R^2	Included Obs.	F-statistic
Method: OLS	0.017	7269	18.735

The results of the regression with the data of 1985 reveal that there is a slight correlation between self-esteem and working in the public sector, as can be seen by the significant coefficient of 0.003.This coefficient hints towards a slightly higher likelihood of working in the public sector when self-esteem is higher. An increase of one standard deviation for self-esteem would result in an increased chance of roughly 1.2 percent-point of working in the public sector. Besides the coefficient for self-esteem, the effects of the ethnic and race controls are all also significant. Moreover, the effects of these controls seem more influential than the self-esteem. The R squared of this regression is however only 0.029, which shows that this regression only explains a very small part of the variation found in the data.

The correlogram of this regression shows no sign of autocorrelation, no serial correlation was found either in this regression. Heteroskedasticity was found however, this might be caused by the fact that the dependent variable is a binary one. The Ramsey reset test showed a significant value, which might indicate that there are important omitted variables. The fact that the Ramsey reset test had significant results is hardly surprising.

For the regression in 1985 one crucial thing is yet excluded. An important predictor for self-esteem is education. In order to rule out a spurious regression this control has to be included in the sample. In the data the first time a measure of education is included is in 1988. Therefore this control is added in the regressions performed for the years after

and including 1988. For this reason these results will be studied more extensively as they give two outstanding controls, with the AFQT and education. To begin, the results of 1988 will be highlighted to study the results.

Table 2: Dependent Variable: Working in public sector in 1988

Variable	Coefficient	Std. Error	p-value
Intercept	0.018	0.026	0.481
Self-esteem 1980	0.001	0.001	0.210
Female	0.035	0.008	0.000
Black	0.087	0.011	0.000
Hispanic	0.056	0.014	0.000
South	0.015	0.009	0.089
Urban	-0.007	0.011	0.485
AFQT score	2.80E-09	1.94E-07	0.989
Education AA	0.029	0.016	0.077
Education BA	0.097	0.017	0.000
Education BSC	0.124	0.014	0.000
Education Master	0.228	0.028	0.000
Education Phd	0.207	0.099	0.036
Education Prof	0.113	0.053	0.034
Education Other	0.026	0.030	0.395
	R^2	Included Obs.	F-statistic
Method: OLS	0.0402	6512	19.429

The inclusion of education has several large consequences for the regressions. One of the very positive changes is that the R squared has nearly tripled in size. Education is known to be related to working in the public sector, so this does not come as a complete surprise. It does however show the importance of the inclusion of this control. The effect on self-esteem is also profound.

The coefficient of self-esteem has become smaller and is now no longer significant While still showing a positive effect of self-esteem on choosing to work in the public sector, the effect also becomes smaller than before. Again interpreting this with one increase of the standard deviation, this would result in an increase of 0.4% for the probability of working in the public sector. As with the previous regression, no sign of autocorrelation or serial correlation is found. Heteroskedasticity is again present in this regression and most likely will be found throughout this thesis. In contrast to the

regression with the 1985 data, the Ramsey reset test now shows no significant results. Showing that this regression is a better fit due to the addition of educational factors.

It is clear that education has an effect by looking at the coefficients of each category. Most education categories show significant positive effects, effects that are much larger than the coefficient for self-esteem. The insignificant result for Phd students might derive from the small sample size in this group (only 11 in 1988). The category other education might have an insignificant result due to its vague nature, it is difficult to estimate the added effect on this education after high school. Interestingly, the correlation with the AFQT score has also become insignificant after including the measures of education into the regression.

Important to note is that the included observations lie around 6000 for both regressions, which is only about half of the total sample. This is due to several causes. Since in 1981 a sizeable portion of the sample is not working yet they cannot provide an answer to what sector they are working in. As the years move up from 1981, the included observations in the regressions will also start to rise.

Another perhaps more permanent issue is the opportunity for the subjects to refuse to answer questions and the questions not being asked to all the subjects. For each variable a percentage either isn't interviewed or they have refused to answer. Since most of the regressions have quite a couple variables, and only the observations with a value for each variable is included, the amount of included observations never rises to levels higher than 6,000. While ideally these numbers are as high as possible, the inclusion of the controls weighs heavier than the increased sample size and the sample size remains large enough to make conclusions.

Subsample results

Using the methods displayed in the data section, the results of the regressions using subsamples will now be studied. In order to make conclusions about causality the two approaches described in the data section have been performed. First the method of

looking at subjects who did not work yet in 1980 and did work in 1988 will be done. After 1988 the amount of subjects responding to the question of work showed a large increase. In this timeframe a large part of the sample thus starts in their first job. Additionally, this year also allows the inclusion of the education control.

Since these subjects did not work yet at the time of the measurement score, the effect of work environment on these subjects is excluded. Therefore this subsample could provide some basis for causal reasoning. Looking at the table first thing that has to be noted is the decrease in observations due to the adjustment of the sample size. Of course, since some of the subjects already had a job in 1980, this reduction in sample size was expected.

Table 3: Dependent variable: Working in public sector in 1988 and not working in 1980

Variable	Coefficient	Std. Error	p-value
Intercept	0.037	0.037	0.310
Self-esteem 1980	0.0004	0.002	0.806
Female	0.026	0.012	0.022
Black	0.092	0.016	0.000
Hispanic	0.053	0.019	0.005
South	-0.004	0.013	0.739
Urban	-0.005	0.015	0.762
AFQT score	-6.03E-08	2.78E-07	0.828
Education AA	0.045	0.024	0.057
Education BA	0.109	0.023	0.000
Education Bsc	0.141	0.020	0.000
Education Master	0.329	0.040	0.000
Education Phd	0.762	0.147	0.000
Education Prof	0.111	0.078	0.158
Education Other	0.047	0.043	0.283
	R^2	Included Obs.	F-statistic
Method: OLS	0.055	3150	12.972

This method shows that the effects of self-esteem are not as clear-cut as the previous tables depict. The use of the subsample to calculate the results has caused the coefficient to become insignificant. The coefficient still shows a positive number but it has also been reduced to a much smaller size. Due to the insignificance of the coefficient this cannot be used for meaningful conclusions.

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The R squared of this regression again shows a slight increase from the previous regressions used. Possibly caused by the fact that the use of this subsample involves the first job of many subjects. For this regression the null hypothesis of the Ramsey reset test was once again rejected, showing that this subsample might show biased results. Autocorrelation and serial correlation were not present, and once more heteroskedasticity was found.

In addition to this method, another method will be used to increase the validity of the results. As discussed the other method is largely based on the one used in Drago, 2011. In Drago, 2011 the effect of self-esteem on wages is studied after eight years. This method is added mainly to reduce possible biases that could be caused by the use of the first sample. By using two different methods the validity of the results may rise. The timetable used for this regression is the same, which again conveniently coincides with the first time an educational measurement is performed in the data.

Table 4: Dependent variable: Working in public sector in 1988

Variable	Coefficient	Std. Error	p-value
Intercept	0.028	0.031	0.361
Self-esteem-Subsample	0.001	0.001	0.507
Female	0.023	0.010	0.023
Black	0.081	0.014	0.000
Hispanic	0.047	0.016	0.004
South	0.004	0.011	0.733
Urban	-0.013	0.013	0.299
AFQT score	2.07E-07	2.34E-07	0.377
Education AA	0.038	0.020	0.056
Education BA	0.111	0.020	0.000
Education Bsc	0.105	0.017	0.000
Education Master	0.198	0.045	0.000
Education Phd	0.120	0.141	0.395
Education Prof	0.174	0.092	0.057
Education Other	0.047	0.038	0.216
	R^2	Included Obs.	F-statistic
Method: OLS	0.033	3299	9.672

In this subsample the results show overall the same results as in the other subsample method. While coefficients differ slightly the effects remain unchanged. Higher self-esteem still has a insignificant positive correlation on the probability of working in the public sector. The R squared of the regression from the second subsample shows great decline compared to the first subsample. For this regression no functional misspecification, serial correlation or autocorrelation was found, only heteroskedasticity once more. The use of these methods reduce the likelihood of a spurious regression due to omitted variables by excluding the effects of work environment and the like. The results found in these two regressions give evidence that there may not be a causal relationship, contradictory to previous thoughts and predictions.

Later rounds results

As explained in the data section, the later rounds included extra questions which could provide relevant controls for this research. These questions include the following variables: risk preference, political affiliation (in the form of a dummy for democrats), volunteerism and faith in the government. With these extra questions the results may be suspect to change. Before these interaction effects are studied, the regressions in these years are performed without the interaction effects included in order to be able to study and compare the effect of the inclusion of these interaction effects.

In the appendix this regression is run with both the measure of self-esteem in 1980 and the measure of 1987 (Appendix table A3). It can be seen that the measure of 1987 shows much greater correlation with working in the public sector in this stage. For that reason only the measure of self-esteem from 1987 is represented in the next table. It is interesting to note how the correlation between self-esteem and working in the public sector diminishes over time. Unfortunately however, the self-esteem score of 1987 can only be seen as a correlation and not as a causal factor.

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Table 5: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	0.079	0.053	0.138
Self-esteem 1987	0.004	0.002	0.051
Risk preference	-0.015	0.003	0.000
Democrat	0.046	0.016	0.006
Political strength	-0.015	0.014	0.301
Female	0.060	0.014	0.000
Black	0.042	0.020	0.039
Hispanic	0.106	0.022	0.000
South	0.020	0.015	0.194
Urban	-0.010	0.014	0.472
Volunteerism	0.019	0.017	0.240
AFQT score	-9.44E-08	3.39E-07	0.780
Education AA	0.055	0.023	0.018
Education BA	0.087	0.031	0.005
Education Bsc	0.109	0.024	0.000
Education Master	0.238	0.030	0.000
Education Phd	0.131	0.078	0.091
Education Prof	0.056	0.080	0.488
Education Other	0.059	0.044	0.178
	R^2	Included Obs.	F-statistic
Method: OLS	0.058	3349	11.335

The negative sign of the coefficient for risk preference shows that as the score for risk preference gets higher, the likelihood of working in the public sector decreases. A lower score for risk preference represents risk aversion and higher scores represent risk seeking behaviour. In other words, risk aversion is correlated with higher likelihood of working in the public sector. The control for risk preference is thus concurring with literature towards public and private sector decision making.

Alternatively, the volunteerism control shows an insignificant coefficient. Since altruism is shown to be related to private and public sector choice, one would expect this factor to also be related. Volunteerism was regarded as a revealed preference of altruism in this setting. While it could be that altruism simply isn't strongly correlated, it could also be due to the fact volunteerism and altruism are not fully the same. Recent literature suggests that working in the public sector could work as a kind of substitute of altruistic behaviour outside of work, such as volunteerism or donating to charity (Dur & van Lent, 2016). Perhaps this plays a part in the insignificant coefficient of volunteerism.

Another interesting coefficient to note is the democrat dummy. This coefficient shows that perceiving yourself as a democrat is correlated with a higher probability of working in the public sector. In the next segment more is discussed about this political affiliation, since the interest of this research also strives to uncover the how self-esteem might play a part in this correlation. Another notable coefficient is that of the AFQT. Again it is shown to be insignificant, even though it is regarded is a very good measure of ability.

Regarding self-esteem, one surprising thing is that the self-esteem score from 1980 is no longer significant (Appendix table A3). While the effect remains positive, the p-value shows that it is nowhere near significant. The self-esteem score of 1987 is still significant however, with again the same positive result. The results here indicate that the self-esteem only shows a correlation with working in the public sector for a limited duration. While for the first rounds the self-esteem of 1980 shows a significant correlation in most of the rounds, this correlation becomes more insignificant over time.

The tests for this regression show no serial correlation and no autocorrelation, but once more heteroskedasticity is present (most likely due to the binary dependent variable). The Ramsey reset test for this shows a significant result, which shows omitted variables might be present. Perhaps this is caused by the huge gap between the year of the self-esteem score and the data on sector of work, risk-preference and political preference.

The regression has also been run for the dependent variable working in the public sector in 2010. This table can be seen in the appendix (table A4) and it shows similar results to those of 2006. Again risk aversion is correlated with higher probability of working in the public sector, as is being a democrat.

Interaction results

In this section the interaction effects between self-esteem and risk preference, and self-esteem and political affiliation will be discussed. Again this regression includes the additional controls from the round of 2006. As described in the data section, the interaction terms will be looked at in separate regressions. The table below depicts a regression which includes an interaction term between self esteem and risk preference.

Table 6: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	-0.129	0.089	0.1324
Self-esteem*Risk preference	-0.002	0.001	0.002
Self-esteem 1987	0.013	0.003	0.000
Risk preference	0.029	0.014	0.046
Democrat	0.046	0.016	0.005
Political party strength	-0.015	0.014	0.304
Female	0.057	0.014	0.000
Black	0.041	0.020	0.046
Hispanic	0.105	0.022	0.000
South	0.021	0.015	0.162
Urban	-0.009	0.014	0.532
Volunteerism	0.020	0.017	0.224
AFQT score	-1.03E-07	3.38E-07	0.760
Education AA	0.055	0.023	0.017
Education BA	0.093	0.031	0.003
Education Bsc	0.110	0.024	0.000
Education Master	0.240	0.030	0.000
Education Phd	0.136	0.078	0.080
Education Prof	0.059	0.080	0.464
Education Other	0.065	0.044	0.143
	R^2	Included Obs.	F-statistic
Method: OLS	0.060	3349	11.267

The interaction term between risk preference and self-esteem has a negative coefficient and is also significant on a five percent level. The coefficient for self-esteem and risk preference are also both positive and significant on a five percent level. Interpreting both these variables without the interaction term shows the effect for a score of zero for both self-esteem and risk preference. This is a hypothetical case since the lowest recorded score for self-esteem is three, but it is still interesting to study. For an extremely low self-esteem score and strong risk adversity the probability of working in the public sector is increased.

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The negative coefficient for the interaction term means that as both the risk preference and self-esteem score grows, the probability of working in the public sector becomes smaller. To provide a clearer image on this relation a graph showing the marginal effect of self-esteem for different levels of risk preference(RP) is included on the next page. On the x-axis of the graph is the self-esteem, and the y-axis show the predicted probability of working in the public sector. The darkest line depicts the marginal effects for the lowest score on the risk preference scale of zero (strong risk aversion). The lightest line depicts the marginal effects for the highest score on the risk preference scale (strong risk seeking behaviour).

The lines clearly show a decreasing slope when the score for risk preference score increases. Since the calculations use the mean of the all the other coefficients, the lines all cross at the same point. The point where all the lines cross is of little relevance however, more important are how the lines shift. An interesting result is that for the low risk preference scores, the chances of working in the public sector are low when self-esteem is also small.

Important to note however when looking at this graph is that the mean of self-esteem is around 23.4, with a standard deviation of 4.1. Assuming normal distribution it would mean that about 95 percent of the self-esteem scores lie between 15 and 30. This might partly explain the strange result of both low self-esteem and risk aversion leading to much lesser likelihood of working in the public sector. When focusing on the right side of the graph, the likelihood of working in the public sector decreases with self-esteem for the higher risk preference scores. Alternatively, this likelihood increases for the lower scores.
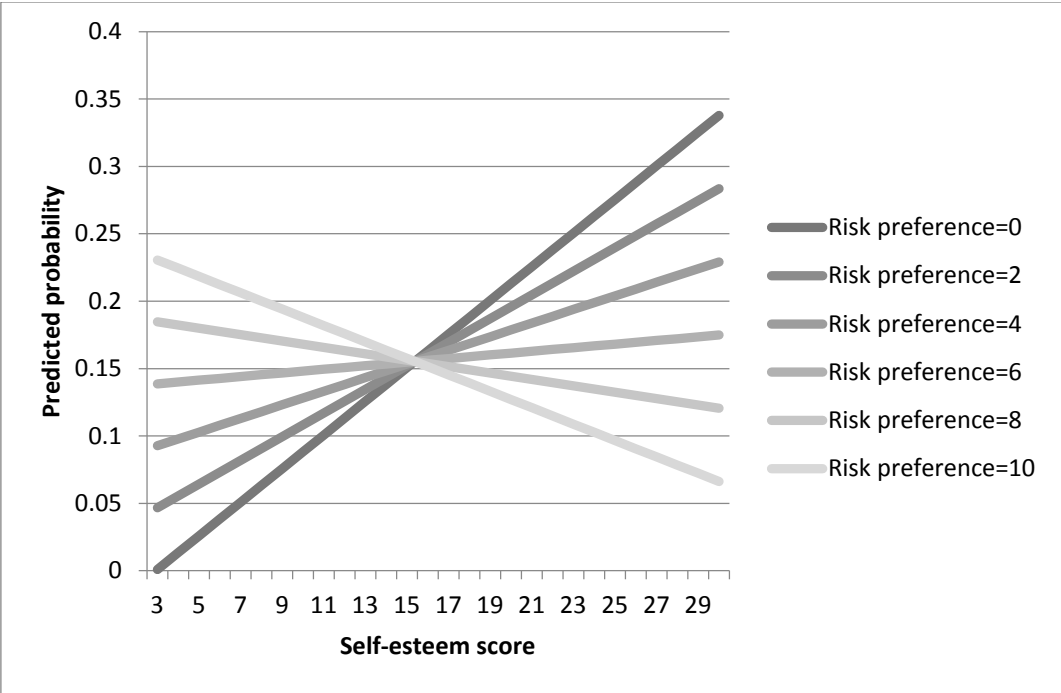
An interesting result from this regression and following graph is that when one of self-esteem or risk preference shows a high score, the probability of working in the public sector is higher. However when both of the scores are high/low this probability becomes lower. The shift from a positive to a negative slope happens around a risk preference score of 5. This shift happening at this point does not come as a total surprise, since the score of 5 represent risk neutrality. Somewhere around this point the marginal effect of self-esteem will be near zero. Perhaps due to this reason, some of the previous regression have shown an insignificant correlation for self-esteem. This regression has also been run with the self-esteem score of 1980 and found similar results (Appendix A5)

In addition to the interaction effect of risk preference and self-esteem, the interaction effect between self-esteem and political affiliation is also studied. For this regression a dummy for being a democrat is used. The results of said regression can be found below. The controls show a similar pattern to the previous regressions, with again education being the most prominent correlated factor. The coefficients for self-esteem and democrat have now become insignificant, compared to the coefficient from the regression without the interaction term.

Table 7: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	0.175	0.078	0.026
Self-esteem*Democrat	0.006	0.004	0.095
Self-esteem 1987	-0.0004	0.003	0.904
Risk preference	-0.015	0.003	0.000
Democrat	-0.097	0.087	0.265
Political party strength	-0.016	0.014	0.273
Female	0.059	0.014	0.000
Black	0.041	0.020	0.045
Hispanic	0.107	0.022	0.000
South	0.020	0.015	0.179
Urban	-0.009	0.014	0.490
Volunteerism	0.020	0.017	0.227
AFQT score	-9.88E-08	3.38E-07	0.770
Education AA	0.054	0.023	0.020
Education BA	0.087	0.031	0.005
Education Bsc	0.1094	0.024	0.000
Education Master	0.239	0.030	0.000
Education Phd	0.131	0.078	0.092
Education Prof	0.057	0.080	0.480
Education Other	0.060	0.044	0.176
	R^2	Included Obs.	F-statistic
Method: OLS	0.059	3349	10.890

The interaction term between self-esteem and democrat shows a positive coefficient which is significant on a ten percent level. This interaction is slightly easier to interpret due to the democrat variable being not continuous. In the graph on the next page the marginal effects of self-esteem are depicted for democrats and republicans. The graph shows notable differences for democrats and republicans. It is clear to see that the line for democrats is much more influenced by the value of the self-esteem score compared to the republicans.

Initially the probability of working in the public sector is lower for democrats. When the score of self-esteem gets higher, the probability will exceed the expected probability of working in the public sector for republicans. Interesting to note is the slight negative slope for the republican line. These results are not fully in line with the literature stating that being a republican decreases the likeliness of working in the public sector.

As can be seen in the graph, for lower levels of self-esteem the republicans have a higher likeliness of working in the public sector compared to democrats. However the validity for the lower self-esteem results is questionable, since the distribution of self-esteem is mostly concentrated between 15 and 30 (as was explained for the previous graph). For the self-esteem scores above 15, the likelihood of working in the public sector is roughly the same for each group at first. When self-esteem increases however, the likelihood of working in the public sector only increases for democrats.
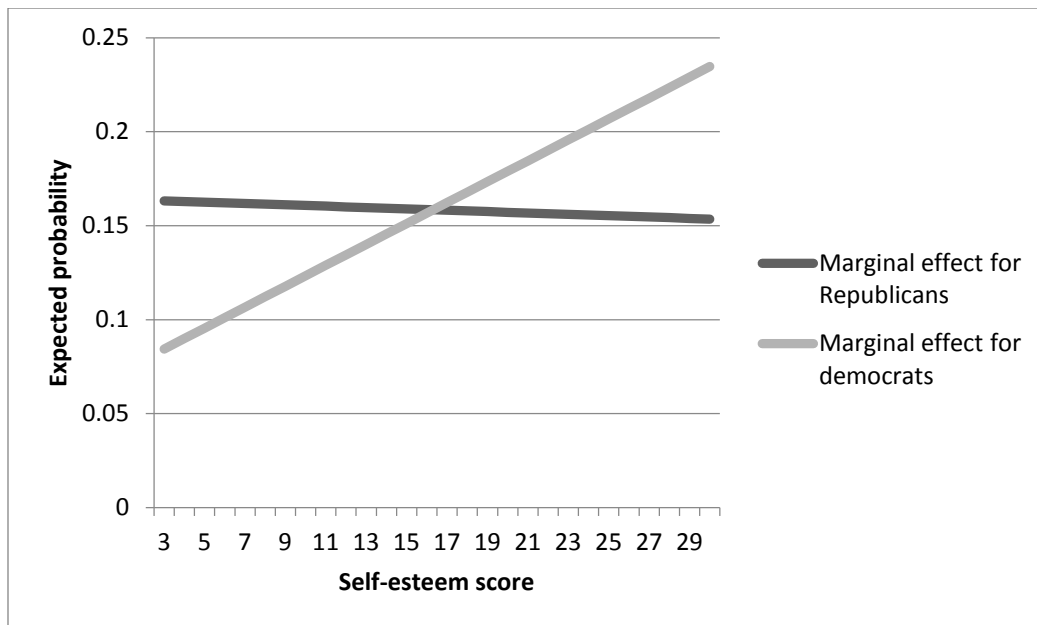
In the appendix the same regression has also been ran for the self-esteem score of 1980 (Table A6). Using the self-esteem score from 1980 results in an insignificant coefficient for the interaction term between self-esteem and the democrat dummy. Therefore, to find out whether the results found in these regression carry across multiple years they have also been applied to the data of 2008 and 2010.

The results of the regression using the data of 2010 can be found below. For all these regression the tests results on autocorrelation, serial correlation, heteroskedasticity and functional misspecification the test results show no difference compared to the test results for the 2006 regression without the interaction terms.

Table 8: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	-0.102	0.089	0.251
Self-esteem*Risk preference	-0.002	0.001	0.008
Self-esteem 1987	0.012	0.004	0.001
Risk preference	0.021	0.015	0.166
Democrat	0.039	0.017	0.020
Political party strength	-0.012	0.015	0.397
Female	0.071	0.014	0.000
Black	0.054	0.021	0.010
Hispanic	0.122	0.023	0.000
South	0.027	0.015	0.080
Urban	-0.016	0.013	0.241
Volunteerism	0.033	0.017	0.051
AFQT score	-1.16E-07	3.46E-07	0.736
Education AA	0.049	0.024	0.041
Education BA	0.115	0.031	0.000
Education Bsc	0.110	0.024	0.000
Education Master	0.254	0.030	0.000
Education Phd	0.128	0.079	0.106
Education Prof	0.051	0.082	0.536
Education Other	0.041	0.046	0.366
	R^2	Included Obs.	F-statistic
Method: OLS	0.072	3275	13.295

Table 9: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	0.206	0.078	0.010
Self-esteem*Democrat	0.008	0.004	0.035
Self-esteem 1987	-0.001	0.003	0.742
Risk preference	-0.018	0.003	0.000
Democrat	-0.146	0.089	0.101
Political party strength	-0.013	0.015	0.360
Female	0.072	0.014	0.000
Black	0.052	0.021	0.012
Hispanic	0.124	0.023	0.000
South	0.027	0.016	0.083
Urban	-0.016	0.013	0.223
Volunteerism	0.033	0.017	0.048
AFQT score	-1.21E-07	3.46E-07	0.727
Education AA	0.047	0.024	0.050
Education BA	0.111	0.031	0.000
Education Bsc	0.110	0.024	0.000
Education Master	0.253	0.030	0.000
Education Phd	0.123	0.079	0.119
Education Prof	0.050	0.082	0.547
Education Other	0.038	0.046	0.401
	R^2	Included Obs.	F-statistic
Method: OLS	0.071	3275	13.155

The results shown in this table are aligned with the results from the 2006 regression. Again the risk preference-self esteem interaction term shows a significant coefficient at a five percent level. Now the coefficient for the interaction term between democrat and self-esteem is now also significant on a five percent level. Again the self-esteem score from 1980 has been used as well for this regression (Table A7 and A8**)**. I

n these tables both the interaction terms show significant coefficients on a five percent level. Both of the interaction terms also show the same sign as their 2006 counterparts. The interaction term for risk preference is once again negative and the interaction term for the democrat dummy is once again positive. The interpretations for these regressions is thus alike to the 2006 ones. The marginal effects of these tables are thus similar to those depicted in the earlier shown graphs.

 In order to investigate that these result were not flukes, these regressions have also been performed for the data originating from 2008 (Table A9 to A12). Again these regressions show that both the interaction terms are significant at a 5 percent level. This holds for both the regression with the 1987 self-esteem score and the 1980 self-esteem score. The results of these tables show that the interaction between these terms is persistent across these years. As a further measure, the regressions have also been run without the newer controls volunteerism and political party strength. These tables can also be found in the appendix (Table A13 to A16) and show the similar results towards their respective years. With the knowledge of the earlier years, self-esteem might not be a causal effect in itself. But by affecting the risk preference and political preference it could still have some influence.

Discussion

As seen in the results the correlations do not provide enough evidence towards the fact that self-esteem is a driving factor for choosing to work in the public sector. Over the years as a whole the correlations are mostly insignificant. The earlier years give some inclination to believe self-esteem is correlated with working in the public sector. However after introducing the controls for education these correlations are heavily reduced. As education is an important predictor for sector of work, the decline was partly expected. That the correlation would become significant altogether, was not expected. This hypothesis can be rejected as the correlations between self-esteem and choice of sector were largely shown to be insignificant.

After reviewing the literature it was predicted that self-esteem would affect occupational decision making and thus be related to the public and private sector decision. In practice these regressions show that perhaps unsurprisingly education and skill are the two most prominent driving factors surfacing through these regressions. The results from the two regressions using the subsamples reinforces this belief. These subsample were specifically designed to find a causal relation in the data. Since both of the subsamples returned an insignificant result for self-esteem it is safe to say that this causal relationship is not found in the data. This leads to the conclusion that in itself, self-esteem is not a driving factor towards working in the public sector.

For the second and third hypothesis however, the results lead to different thoughts. Initially it was predicted that the effects of risk aversion would decrease as self-esteem grew. While it is hard to say which factor affects which, the data shows the relation is a little different. The negative coefficient found for this interaction implies that if one of either variables grows, the likelihood of working in the public sector decreases. However the initial effect of both variables is positive. So if only one of the two grows, this increases the probability of working in the public sector.

Going back to the marginal effects graph, and again focusing on the right side of the graph (which contains roughly 95% of the data). When self-esteem increases, the differences between each risk preference score also increases. This result would lead

to the belief that high self-esteem individuals follow their risk preference more, and be more inclined to pick the sector which they prefer most.

This result is in line with the theory that higher self-esteem leads to a lesser degree of career indecision. (Betz & Luzzo., 1996). With the hypothesis in mind, it is true that risk preference and self-esteem affect each other. However the hypothesis does not get the nature of this correlation right. The data shows that increased self-esteem corresponds with greater effects of risk aversion and risk seeking behaviour.

Political preference also shows some signs of relations with self-esteem. There was some tentative evidence in the literature review that pointed to this result being a possibility. However, the literature on self-esteem and political preference is still very ambiguous. The inclusion of the democrat dummy showed that identifying as a democrat showed positive correlations with working in the public sector. The inclusion of the interaction term broadened the interpretation of what role this political preference played. The effect of self-esteem is much more prominent for democrat than it is for republicans. With the high self-esteem democrat being the most likely to work in the public sector. This correlation with political preference is an interesting finding since not much is known about this subject.

The United States is a country with stark differences between the two parties, which made it relatively easy to study the difference between the two. The political climate of the United States is a peculiar one and different from much of the western world. It would be interesting to see whether these results could be replicated in other countries with a wider scope of political preferences. For this data set however, it seems the effect of self-esteem is different for republicans and democrats. The third hypothesis has thus been proven to be correct. While this is an interesting finding, more research will have to be done to fully uncover how these two are related.

With the three hypothesis answered, the main research question can now also be answered. How does self-esteem have an effect on the probability of working in the public sector? As pointed out when answering the first hypothesis, self-esteem in itself seems to have little effect on this probability. However through risk aversion and through political preference, self-esteem shows some correlation with working in the public sector. An increase of self-esteem is correlated with more prominent effects of risk preference.

 In addition there are some signs showing that being a democrat with high self-esteem is correlated with higher probability of working in the public sector. Self-esteem thus appears to have an effect on working in the public sector by changing how other variables interact with the probability of working in the public sector. Though these are all correlations and this thesis does not provide any causal evidence, it seems that self-esteem could be an indirect influence on working in the public sector. This indirect effect is hard to define, as it can only be seen when self-esteem interacts with other variables. For the two interaction variables studied in this paper, self-esteem amplified the expected effect these variables would have. Expectations were that risk-averse subjects and democrats were more likely to work in the public sector. As self-esteem grew, the odds of these types working in the public sector became more likely. The difference in effect for risk averse and risk seeking become greater as self-esteem grows. The same holds for the difference in effect for democrats and republicans.

As a final remark however the data used in this paper has its limitations. The great difference in timing between when the self-esteem questions were asked and when the risk aversion and political preference questions were asked decreases the validity of the data. As the latter two questions only came into play after 2006, many environmental factors could influence how these questions were answered. Ideally these questions should be asked at the same time and contain more specific answering possibilities. Working with a survey such as the NLSY79 reveals that it is not specifically tailored and designed for this specific research, but rather as big data collection on a whole. Would such a survey be designed on a big scale and tailored to one research the answering of the research question could be done much more proficiently.

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Appendix

Appendix A: Rosenberg self-esteem test

Now I'm going to read a list of opinions people have about themselves. After I read each one I want you to tell me how much you agree or disagree with these opinions.

1.   I feel that I am a person of worth, at least on an equal plane with others.

2.   I feel that I have a number of good qualities.

3.   All in all, I am inclined to feel that I am a failure.

4.   I am able to do things as well as most other people.

5.   I feel I do not have much to be proud of.

6.   I take a positive attitude toward myself.

7.   On the whole, I am satisfied with myself.

8.   I wish I could have more respect for myself.

9.   I certainly feel useless at times.

10.   At times I think I am no good at all.

For each question the subject can answer strongly disagree, disagree, agree or strongly agree. Each answer gives a score which is put into the final Rosenberg score. For the questions 1,2,4,6 and 7 the scores are as follows: Strongly agree gives 3 points, agree gives 2 points, disagree gives 1 point and strongly disagree gives no points. For the questions 3,5,8,9,and 10 the scores are: Strongly agree gives no points, agree gives 1 point, disagree gives 2 points and strongly disagree gives no points. The scale returns a score between 0 and 30, with 0 being the lowest score and 30 being the highest

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Appendix Tables: A1 through A8

Table A1: Dependent Variable: Working in public sector in 1985

Variable	Coefficient	Std. Error	p-value
Intercept	-3.875457	0.243692	0.0000
Self-esteem 1980	0.028261	0.010014	0.0048
Female	0.324379	0.077268	0.0000
Black	0.759121	0.103756	0.0000
Hispanic	0.391264	0.124538	0.0017
South	0.195466	0.084011	0.0200
Urban	0.124570	0.104304	0.2324
AFQT score	1.04E-05	1.61E-06	0.0000
	McFadden R^2	Included Obs.	Obs. With Dep=1
Method: Logit	0.026	7269	775

Table A2: Dependent Variable: Working in public sector in 1988

Variable	Coefficient	Std. Error	p-value
Intercept	-3.043	0.252	0.000
Self-esteem 1980	0.012	0.010	0.239
Female	0.330	0.077	0.000
Black	0.794	0.105	0.000
Hispanic	0.560	0.126	0.000
South	0.148	0.084	0.077
Education AA	-0.060	0.102	0.558
Education BA	2.31E-07	1.90E-06	0.903
Education BSC	0.293	0.149	0.050
Education Master	0.841	0.140	0.000
Education Phd	1.042	0.118	0.000
Education Prof	1.619	0.201	0.000
Education Other	1.580	0.695	0.023
Urban	1.031	0.433	0.017
Weight	0.267	0.285	0.349
Family income	-3.043	0.252	0.000
AFQT	0.012	0.010	0.239
	Mcfadden R^2	Included Obs.	Obs. With Dep=1
Method: Logit	0.050	6512	822

Table A3: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	0.078	0.059	0.187
Self-esteem 1980	-0.001	0.002	0.702
Self-esteem 1987	0.004	0.002	0.046
Risk preference	-0.015	0.003	0.000
Democrat	0.048	0.017	0.004
Political strength	-0.014	0.014	0.346
Female	0.058	0.014	0.000
Black	0.048	0.021	0.020
Hispanic	0.110	0.022	0.000
South	0.019	0.015	0.201
Urban	-0.012	0.014	0.397
Volunteerism	0.025	0.017	0.143
AFQT score	-9.15E-10	3.43E-07	0.998
Education AA	0.055	0.023	0.019
Education BA	0.086	0.031	0.006
Education Bsc	0.107	0.024	0.000
Education Master	0.235	0.030	0.000
Education Phd	0.128	0.078	0.099
Education Prof	0.054	0.080	0.500
Education Other	0.057	0.045	0.207
	R^2	Included Obs.	F-statistic
Method: OLS	0.059	3288	10.699

Table A4: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	0.083	0.055	0.128
Self-esteem 1987	0.004	0.002	0.032
Risk preference	-0.018	0.003	0.000
Democrat	0.039	0.017	0.022
Political strength	-0.013	0.015	0.392
Female	0.074	0.014	0.000
Black	0.054	0.021	0.010
Hispanic	0.124	0.022	0.000
South	0.026	0.015	0.094
Urban	-0.016	0.013	0.217
Weight	0.032	0.017	0.053
Family Income	-1.12E-07	3.46E-07	0.747
Volunteerism	0.048	0.024	0.045
AFQT score	0.110	0.031	0.000
Education AA	0.109	0.024	0.000
Education BA	0.252	0.030	0.000
Education Bsc	0.123	0.079	0.118
Education Master	0.048	0.082	0.559
Education Phd	0.037	0.046	0.413
Education Prof	0.083	0.055	0.128
Education Other	0.004	0.002	0.032
	R^2	Included Obs.	F-statistic
Method: OLS	0.070	3275	13.623

Table A5: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	-0.129	0.081	0.111
Self-esteem1980 *Risk preference	-0.002	0.001	0.000
Self-esteem 1980	0.012	0.003	0.000
Risk preference	0.039	0.014	0.004
Democrat	0.048	0.016	0.003
Political strength	-0.013	0.014	0.351
Female	0.061	0.014	0.000
Black	0.043	0.020	0.031
Hispanic	0.104	0.022	0.000
South	0.019	0.015	0.205
Urban	-0.011	0.013	0.413
Volunteerism	0.025	0.016	0.123
AFQT score	1.02E-07	3.31E-07	0.757
Education AA	0.054	0.023	0.017
Education BA	0.098	0.030	0.001
Education Bsc	0.109	0.024	0.000
Education Master	0.232	0.029	0.000
Education Phd	0.123	0.076	0.105
Education Prof	0.058	0.080	0.471
Education Other	0.053	0.044	0.233
	R^2	Included Obs.	F-statistic
Method: OLS	0.061	3429	11.615

Table A6: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	0.178	0.073	0.014
Self-esteem1980 * Democrat	0.004	0.004	0.328
Self-esteem 1980	-0.001	0.003	0.654
Risk preference	-0.015	0.003	0.000
Democrat	-0.030	0.082	0.709
Political strength	-0.014	0.014	0.326
Female	0.063	0.014	0.000
Black	0.043	0.020	0.032
Hispanic	0.104	0.022	0.000
South	0.0178	0.015	0.228
Urban	-0.013	0.013	0.341
Volunteerism	0.024	0.016	0.139
AFQT score	8.47E-08	3.32E-07	0.798
Education AA	0.052	0.023	0.021
Education BA	0.092	0.030	0.003
Education Bsc	0.108	0.024	0.000
Education Master	0.230	0.0289	0.000
Education Phd	0.120	0.0756	0.11
Education Prof	0.059	0.080	0.463
Education Other	0.052	0.044	0.241
	R^2	Included Obs.	F-statistic
Method: OLS	0.057	3429	10.760

Table A7: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	-0.074	0.084	0.376
Self-esteem1980 * risk preference	-0.002	0.001	0.006
Self-esteem 1980	0.010	0.003	0.002
Risk preference	0.021	0.014	0.131
Democrat	0.041	0.0166	0.014
Political strength	-0.009	0.014	0.512
Female	0.075	0.014	0.000
Black	0.052	0.021	0.011
Hispanic	0.120	0.022	0.000
South	0.025	0.015	0.096
Urban	-0.016	0.013	0.212
Volunteerism	0.037	0.016	0.024
AFQT score	4.55E-08	3.40E-07	0.893
Education AA	0.046	0.023	0.051
Education BA	0.117	0.030	0.000
Education Bsc	0.111	0.024	0.000
Education Master	0.249	0.029	0.000
Education Phd	0.114	0.077	0.139
Education Prof	0.048	0.081	0.555
Education Other	0.042	0.046	0.354
	R^2	Included Obs.	F-statistic
Method: OLS	0.071	3354	13.442

Table A8: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	0.239	0.074	0.001
Self-esteem1980 * Democrat	0.009	0.004	0.014
Self-esteem 1980	-0.003	0.003	0.243
Risk preference	-0.017	0.003	0.000
Democrat	-0.160	0.083	0.055
Political strength	-0.010	0.014	0.480
Female	0.075	0.014	0.000
Black	0.051	0.021	0.013
Hispanic	0.121	0.0212	0.000
South	0.026	0.015	0.092
Urban	-0.017	0.013	0.189
Volunteerism	0.037	0.016	0.025
AFQT score	3.35E-08	3.40E-07	0.921
Education AA	0.044	0.023	0.058
Education BA	0.114	0.030	0.000
Education Bsc	0.110	0.024	0.000
Education Master	0.247	0.029	0.000
Education Phd	0.116	0.077	0.134
Education Prof	0.052	0.081	0.519
Education Other	0.043	0.046	0.352
	R^2	Included Obs.	F-statistic
Method: OLS	0.070	3354	13.239

Table A9: Dependent variable: Working in public sector in 2008

Variable	Coefficient	Std. Error	p-value
Intercept	-0.114	0.086	0.186
Self-esteem1987 * Risk preference	-0.002	0.001	0.001
Self-esteem 1987	0.012	0.003	0.000
Risk preference	0.029	0.014	0.043
Democrat	0.038	0.016	0.021
Political strength	-0.006	0.014	0.682
Female	0.058	0.014	0.000
Black	0.056	0.020	0.006
Hispanic	0.119	0.022	0.000
South	0.017	0.015	0.265
Urban	-0.009	0.014	0.499
Volunteerism	0.028	0.016	0.091
AFQT score	-3.35E-07	3.38E-07	0.322
Education AA	0.062	0.023	0.008
Education BA	0.123	0.030	0.000
Education Bsc	0.132	0.024	0.000
Education Master	0.241	0.030	0.000
Education Phd	0.198	0.079	0.012
Education Prof	0.001	0.082	0.991
Education Other	0.048	0.044	0.276
	R^2	Included Obs.	F-statistic
Method: OLS	0.066	3362	12.448

Table A10: Dependent variable: Working in public sector in 2008

Variable	Coefficient	Std. Error	p-value
Intercept	0.223	0.078	0.004
Self-esteem1987 * Democrat	0.007	0.004	0.041
Self-esteem 1987	-0.002	0.003	0.467
Risk preference	-0.017	0.002	0.000
Democrat	-0.137	0.087	0.115
Political strength	-0.007	0.015	0.632
Female	0.059	0.014	0.000
Black	0.055	0.020	0.007
Hispanic	0.120	0.022	0.000
South	0.016	0.015	0.291
Urban	-0.010	0.014	0.495
Volunteerism	0.028	0.016	0.090
AFQT score	-3.43E-07	3.39E-07	0.311
Education AA	0.060	0.023	0.010
Education BA	0.118	0.030	0.000
Education Bsc	0.131	0.024	0.000
Education Master	0.240	0.029	0.000
Education Phd	0.193	0.079	0.015
Education Prof	-0.000	0.082	0.997
Education Other	0.044	0.045	0.318
	R^2	Included Obs.	F-statistic
Method: OLS	0.064	3362	12.091

Table A11: Dependent variable: Working in public sector in 2008

Variable	Coefficient	Std. Error	p-value
Intercept	-0.095	0.081	0.243
Self-esteem1980 * Risk preference	-0.002	0.001	0.001
Self-esteem 1980	0.011	0.003	0.001
Risk preference	0.028	0.013	0.035
Democrat	0.042	0.016	0.010
Political strength	-0.004	0.014	0.766
Female	0.061	0.014	0.000
Black	0.055	0.020	0.006
Hispanic	0.119	0.022	0.000
South	0.018	0.015	0.229
Urban	-0.012	0.014	0.398
Volunteerism	0.033	0.016	0.040
AFQT score	-1.76E-07	3.33E-07	0.596
Education AA	0.059	0.023	0.011
Education BA	0.126	0.030	0.000
Education Bsc	0.130	0.023	0.000
Education Master	0.237	0.029	0.000
Education Phd	0.182	0.077	0.018
Education Prof	-0.003	0.082	0.968
Education Other	0.047	0.045	0.290
	R^2	Included Obs.	F-statistic
Method: OLS	0.066	3436	12.742

Table A12: Dependent variable: Working in public sector in 2008

Variable	Coefficient	Std. Error	p-value
Intercept	0.235	0.072	0.001
Self-esteem1980 * Democrat	0.008	0.004	0.027
Self-esteem 1980	-0.004	0.003	0.207
Risk preference	-0.016	0.002	0.000
Democrat	-0.135	0.081	0.096
Political strength	-0.005	0.014	0.727
Female	0.062	0.014	0.000
Black	0.054	0.020	0.007
Hispanic	0.120	0.022	0.000
South	0.018	0.015	0.230
Urban	-0.012	0.014	0.378
Volunteerism	0.032	0.016	0.045
AFQT score	-1.95E-07	3.33E-07	0.559
Education AA	0.057	0.023	0.013
Education BA	0.122	0.030	0.000
Education Bsc	0.129	0.023	0.000
Education Master	0.234	0.029	0.000
Education Phd	0.183	0.077	0.018
Education Prof	0.001	0.082	0.988
Education Other	0.047	0.045	0.298
	R^2	Included Obs.	F-statistic
Method: OLS	0.064	3435	12.380

Table A13: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	-0.117	0.079	0.137
Self-esteem1987 * Risk preference	-0.002	0.001	0.006
Self-esteem 1987	0.011	0.003	0.001
Risk preference	0.023	0.014	0.096
Democrat	0.049	0.015	0.002
Female	0.056	0.013	0.000
Black	0.049	0.019	0.012
Hispanic	0.109	0.021	0.000
South	0.023	0.015	0.114
Urban	-0.016	0.013	0.234
AFQT score	1.67E-07	3.26E-07	0.609
Education AA	0.058	0.022	0.009
Education BA	0.099	0.030	0.001
Education Bsc	0.105	0.023	0.000
Education Master	0.242	0.029	0.000
Education Phd	0.137	0.077	0.076
Education Prof	0.055	0.080	0.493
Education Other	0.052	0.043	0.227
	R^2	Included Obs.	F-statistic
Method: OLS	0.058	3534	12.787

Table A14: Dependent variable: Working in public sector in 2006

Variable	Coefficient	Std. Error	p-value
Intercept	0.146	0.068	0.033
Self-esteem1987 * Democrat	0.006	0.003	0.090
Self-esteem 1987	-0.001	0.003	0.847
Risk preference	-0.014	0.002	0.000
Democrat	-0.088	0.082	0.285
Female	0.057	0.013	0.000
Black	0.048	0.019	0.014
Hispanic	0.110	0.021	0.000
South	0.022	0.015	0.125
Urban	-0.016	0.013	0.225
AFQT score	1.70E-07	3.26E-07	0.603
Education AA	0.057	0.022	0.011
Education BA	0.094	0.030	0.002
Education Bsc	0.104	0.023	0.000
Education Master	0.241	0.029	0.000
Education Phd	0.132	0.077	0.086
Education Prof	0.052	0.080	0.513
Education Other	0.048	0.043	0.268
	R^2	Included Obs.	F-statistic
Method: OLS	0.057	3534	12.506

Table A15: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	-0.074	0.081	0.357
Self-esteem1987 * Risk preference	-0.001	0.001	0.032
Self-esteem 1987	0.009	0.003	0.005
Risk preference	0.014	0.014	0.341
Democrat	0.037	0.015	0.018
Female	0.072	0.014	0.000
Black	0.070	0.019	0.000
Hispanic	0.120	0.023	0.000
South	0.024	0.015	0.102
Urban	-0.018	0.013	0.165
AFQT score	1.83E-07	3.27E-07	0.576
Education AA	0.050	0.023	0.025
Education BA	0.110	0.029	0.000
Education Bsc	0.112	0.023	0.000
Education Master	0.259	0.029	0.000
Education Phd	0.131	0.079	0.095
Education Prof	0.070	0.079	0.376
Education Other	0.020	0.044	0.642
	R^2	Included Obs.	F-statistic
Method: OLS	0.065	3577	15.102

Table A16: Dependent variable: Working in public sector in 2010

Variable	Coefficient	Std. Error	p-value
Intercept	0.186	0.069	0.008
Self-esteem1987 * Democrat	0.008	0.003	0.023
Self-esteem 1987	-0.002	0.003	0.567
Risk preference	-0.017	0.003	0.000
Democrat	-0.150	0.083	0.074
Female	0.072	0.013	0.000
Black	0.068	0.019	0.001
Hispanic	0.121	0.021	0.000
South	0.024	0.015	0.104
Urban	-0.018	0.013	0.154
AFQT score	1.78E-07	3.27E-07	0.585
Education AA	0.048	0.023	0.034
Education BA	0.107	0.029	0.000
Education Bsc	0.111	0.023	0.000
Education Master	0.258	0.029	0.000
Education Phd	0.127	0.078	0.106
Education Prof	0.068	0.079	0.386
Education Other	0.019	0.044	0.671
	R^2	Included Obs.	F-statistic
Method: OLS	0.067	3577	15.137