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Electoral Success in Swedish Municipal Councils: The Role of Occupation and Politicians' Characteristics

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ABSTRACT

This paper examines to what extent political candidates' characteristics listed on the ballot affect election outcomes in municipal councils in Sweden. We exploit data on candidates' name, age, sex, occupation, party affiliation, and candidates' position listed on the ballots for 3757 elected candidates of 59 municipalities. The data on 19 September 2010 elections to municipal councils in Sweden has been considered in this paper. A probit regression approach has been employed for identifying occupational effects whereas the main outcome variable is binary, namely whether a candidate is elected by preference votes threshold or not. Candidates with occupations such as mayor, political official, parliament member, farmer, head, entrepreneur and teacher are found to have electoral advantage. In contrast, salesman, retired, student, pensioner, and assistant are found less likely to be person selected. The results remain robust in case of occupations related to political incumbency such as political officials, mayor and parliament member even if demographic effects (gender and age), ballot position effects, party effects and municipality effects are added into regression analysis. The same results also hold regarding the alternative outcome variable, personal vote share. Male candidates are found to have electoral advantage over female candidates. The findings also suggest that there are higher chances to be person selected if a candidate's name is listed within top three ballot positions. Finally, statistically significant and negative effects are found for the left-wing candidates with occupations such as retired, student, ombudsman, graduate, and businessman. On the other hand, candidates with occupations such as salesman, engineer, graduate, administrator, manager, driver, economist, consultant, self-employed, and lawyer have electoral disadvantage being placed on right-wing party list. However, mayor and political officials from both groups of parties always have electoral advantage. To sum up, our findings support the hypothesis that occupations play a significant role in the elections to municipal councils in Sweden. The findings of the study have implications for our understanding of voting behavior in low-information elections in Sweden.

Key Words: Election to Municipal Councils, Occupation Effects, Personvald, Personal Vote Share

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1. Introduction

During the last three decades in nine elections to Swedish municipal councils more than fifty thousand candidates have been nominated for election through different parties. Politicians are running for election where the voters frequently may not know in advance who the candidates are. However they may know more about the politicians' current affiliation or to which party the political candidates belong once they observe ballot papers while standing in the voting booth. Some voters may have more information about the politicians in advance but we cannot observe such situations. Scholars of political economics often argue that candidate's demographic cues such as gender (McDermott 1997), race (McDermott 1998; Sigelman et al. 1995), candidates' appearance cues such as ballot photographs (Banducci et al. 2008), religious ballot names as information shortcuts (Boas 2012), candidates' campaign expenditures and ballot position (Matson and Fine 2006), political cues (Conover and Feldman 1982) and even sexual orientation (Golebiowska 2001; Herrick and Thomas 1999) can influence voters and thereby affect the probability of winning an election. Furthermore, voters may use candidates' occupational information as cues to understand candidates' competence or qualifications for the office in question (McDermott 2005, Mechtel 2011). Therefore, all information about a candidate's characteristics listed on the ballot papers may help voters as a signal while selecting a candidate in an election.

The aim of this paper is to examine to what extent political candidates' characteristics listed on the ballot papers affect election outcomes in Swedish municipal councils. The main focus of this paper is to identify and highlight the effects of occupational information on election results. I have specifically exploited the fact that voters are provided with detailed information about candidates' occupations on the ballot paper in the 2010 elections to Swedish municipal councils. It has also been tested if there are any heterogeneous effects on electoral success with respect to two different political blocs.

There are good reasons to believe that voters in low-information elections¹ often rely on information shortcuts when making their decisions of whom to support. The relevance of past experience to future performance and readily available information may make voters probably to believe on derived information of this kind (McDermott 2005). It is pertinent to discuss why voters may prefer occupational cues as information shortcuts in local elections rather than relying on gender, age, ethnicity and the position of candidates' name - those are commonly listed on ballot paper. In other words, one may be interested to know why occupations could serve as cues for voters in local elections. There could be two different ways that the politicians' occupation may matter for voters. First, all voters may agree on an occupation that is good for a politician to have. For example, voters may believe that people working within health care are benevolent or that teachers are well informed and therefore likely to make good decisions. Second, it may also be the case that a voter would like to select a politician within the same occupation that he or she holds, in order for the politician to represent his or her interest in the municipal council. As we do not observe voter's occupation, we can only test our first hypothesis.

¹ In general, low-information elections are defined as elections without large-scale media coverage and where voters have little knowledge about the candidates.

Unlike existing political literature we have used *personvald*, i.e., whether a candidate is elected by preference vote threshold, as a proxy for measuring electoral success in this study. One may rationally explain electoral success by investigating what voters prefer as information shortcuts rather than what politicians prefer in an election process. Politicians are chosen by voters to fill or retain a position in government and hence previous qualifications and experience should have specific relevance, even though they are only inferred by voters. Consequently, voters may particularly pay sincere attention on candidates' occupational information before selecting them in an election. As we know that the voters are provided with politicians' occupational information on the ballot paper of their preferred party in elections to the municipal councils in Sweden, it would be reasonable to check if or to what extent occupational information affects election outcomes. Furthermore, it is remarkably few studies that examine potential occupational effects in local elections and to the best of my knowledge this paper is the first to analyze the effects of occupational information in municipal elections in Sweden.

The results of this study show that candidates' occupations play an important role in the elections to municipal councils in Sweden. Political incumbents such as mayor, political officials and parliament members turn out to be more successful in the elections. In contrast, salesman, retired, student, pensioner, and assistant have occupational disadvantages in election. The magnitudes of the effects remain the same if we control for gender, age, and municipality effects. Occupations such as mayor, political officials and parliament members still increase candidates' predicted probability of getting person selected even if we control for parties and candidates' ballot positions into regression analysis. The results remain highly robust in case of alternative outcome variable, personal vote share.

The paper is organized as follows. The relevant literature is discussed in section 2; section 3 then provides an overview of elections to municipal councils in Sweden; description of data and a detailed methodology are covered in section 4; the empirical approach and results are presented in section 5. Section 6 finally concludes.

2. Literature Survey

Political scholars so far have been emphasizing the role of informational shortcuts² while explaining electoral success for politicians in low-information elections. It is surprising to observe that the potential of candidate occupational cues has been mostly overlooked in political research though existing research on these shortcuts has examined candidate characteristics, especially, candidates' objective information such as candidates' name, gender, and ethnicity. A group of researchers exploit ratings on candidates' beauty as predictor for electoral success (see, e.g., Rosenberg et al. (1986), Antonakis and Dalgas (2009) and Berggren et al. (2010a, 2010b)). In the same line of research, Buckley et al. (2007) and Banducci et al. (2008) find candidates' looks are a good predictor for the election outcome. Some other papers (e.g., Key 1949; Tatalovich 1975; Rice and Macht 1987; Aspin and Hall 1989) show voters might prefer those candidates who live nearby. A few attempts have also been to test the net effect of ballot position and ballot format on electoral success (Bain and Hecock 1957; Walker 1966; Upton and Brook 1974; Robson and Walsh 1974).

² see, for instance, Popkin, Gorman, Phillips, and Smith 1976, Conover and Feldman 1989, Popkin 1991, Lupia 1994 and McDermott 1997, McDermott 1998.

The question how politicians' occupational information affect electoral success has been analyzed by few authors mostly studied in United States elections. Mueller (1970) uses three dummy variables, namely, education-related occupation, attorney or lawyer and candidates without listed occupation, for the first time in political research, while investigating sources of influence on the Junior College Board of Trustees in the Los Angeles area in 1969 election. He observes weak occupational effects on vote in comparison to the ballot position and ethnic identification effects for 133 candidates, even though candidates with education-related jobs gain more votes in comparison to the other two categories. In their study of elections to the Democratic and Republican county central committee in California, Byrne and Pueschel (1974) find that professors, engineers, and lawyers to be fortunate in gaining more votes among 3,600 candidates in 500 central committee elections in the state of California between 1948 and 1970 whereas candidates with occupations such as stockbroker, doctor, dentist, real estate brokers, salesmen, and housewives, are being recorded at a political disadvantage ranging from 13 to 24 percent. Like Mueller (1970); Nakinishi, Cooper, and Kassarjian (1974) analyze the primary election of the Board of Trustees of the Los Angeles Community College for 64 candidates. They use candidates' occupations those are listed on the ballot paper such as attorney or law-related occupations; teacher, professor, or education-related occupations; businessmen, real estate salesman, business executives and political incumbency, etc., in the study and show that education-related occupations have positive influence on candidates' vote share (though the results and its implications are not discussed in the study). Similar results have been found by Dubois (1984) in a research on judicial elections to the California courts. His results show that candidates with a sitting judgeship as their occupational designation (either as the incumbent or from a lower court) have a higher probability of being elected. Kelley and McAllister (1984) investigate whether candidate titles (honorary and academic) affect vote totals in Australia and Britain. They find that British candidates with honorary titles have electoral advantage whereas possession of an academic title have electoral disadvantage.

The importance of 'occupational labels as voting cues' have been elaborately discussed by McDermott (2005). Using experimental survey data from the Los Angeles Times Poll prior to the 1994 statewide office elections in California, she analyze whether candidates' occupational ballot designations influence voters' choices. As McDermott (2005) stated:

"If voters commonly think about political candidates in terms of qualifications or competence, then it seems possible, even likely, that they would use candidates' occupational labels as convenient shortcuts to such information. As with a résumé, however, it is not necessarily any work experience that signals potential ability to do a job well, rather it is work experience that communicates skills appropriate to the job at hand. Voters may view candidates who have held jobs with appropriate skill sets as more qualified or competent for a specific office than those whose associated skills seem less appropriate for the office" (p. 203).

The results of her study show that voters are more likely to support candidates with occupational designations on ballot. Mechtel (2011) reassess the effects of occupational reputation on candidates' performance in local elections ("Gemeinderatswahlen") in Baden-Württemberg 2009, Germany for 4239 political candidates. He includes more than 70 different occupations in the analysis in order to obtain a more detailed picture of occupational effects. His results show that candidates' occupation plays a decisive role in explaining candidates' success in low-information local elections.

Candidates with occupations such as physicians, farmers, and professors are found to have electoral advantage. Female and candidates holding doctoral degree turn out to be more successful in the elections. This paper aims to examine if occupational designations of the candidates listed on ballot affect election outcomes in Swedish municipal council.

3. Overview of Elections to Swedish Municipal Councils

There are 290 municipalities in Sweden. The municipalities are mainly responsible for providing welfare services such as education, child care, and care for the elderly and disabled. General elections consisting of elections to the Riksdag, county councils and municipal councils are held every fourth year – on the third Sunday in September. The most recent elections were held on 19 September 2010. There are eight major political parties, namely, Moderata Samlingspartiet / The Moderate Party (M), Centerpartiet / The Centre Party (C), Folkpartiet Liberalerna / The Liberal Party (FP), Kristdemokraterna / The Christian Democratic Party (KD), Miljöpartiet de Gröna / The Green Party (MP), Socialdemokraterna / The Social Democratic Party (S), Vänsterpartiet / The Left Party (V), Sverigedemokraterna / The Sweden Democrats (SD), compete with each other during the elections to municipal councils. A total of 52 069 candidates have been nominated for municipal elections whereas a total of 12 969 candidates³ have been elected in all 290 municipalities.

The right to vote in elections to municipal councils is enjoyed by Swedish citizens who attain the age of 18 years not later than on Election Day and who are registered within the county council area or municipality concerned. Citizens of the Union and citizens of Iceland and Norway also have the right to vote subject to the same conditions. Other foreign citizens have the right to vote if they have been registered residents in Sweden for a continuous period of three years before the Election Day. Anyone who has the right to vote is also eligible for election. To be elected, a person must be listed as a candidate for a political party. Swedish voters can choose between three different types of ballot papers. *The party ballot paper* has simply the name of a political party printed on the front and is blank on the back. This ballot is used when a voter wishes to vote for a particular party, but does not wish to give preference to a particular candidate. *The name ballot paper*⁴ has a party name followed by a list of candidates (which can continue on the other side). A voter using this ballot can choose but is not required to cast a personal vote by entering a mark next to a particular candidate, in addition to voting for their preferred political party. Alternatively, a voter can take a *blank ballot paper* and write a party name on it.

The total number of personal votes is the number of preference votes cast for a specific candidate in a constituency under one party name, irrespective of how many lists the candidate has been included in. To be elected on preference votes⁵ (*person selected / Personvald* in Swedish), the candidate must have received at least 5 percent of the party votes in the municipal council elections and the candidate's personal votes has to be at least 50 in number. If more than one candidate clears the preference vote threshold, the seats are awarded to them according to the number of preference votes for each. If two or more candidates gain the same number of votes, seats are distributed by casting lots.

³ Please see table 8 in appendix A.

⁴ A sample ballot paper is attached in appendix B.

⁵ Please see “http://www.val.se/pdf/electionsinsweden_webb.pdf” to learn more about the Swedish electoral system.

4. Data and Methodology

Data on 2010 elections to municipal councils in Sweden has been collected to test if and how candidates' occupations influence election outcomes. Elections were held on 19/09/2010 and voters had to decide about the formation of municipal councils in Sweden. Municipalities with at least 30 000 voters are considered in the analysis assuming that voters in the selected municipalities are less likely to have information on candidates' characteristics. Data has been gathered from the Election Authority's web site – *www.val.se*. We have complete information on ballot papers and electoral results for 59 municipalities, namely, Stockholm, Göteborg, Malmö, Uppsala, Linköping, Västerås, Örebro, Helsingborg, Norrköping, Jönköping, Umeå, Lund, Borås, Sundsvall, Gävle, Eskilstuna, Halmstad, Huddinge, Karlstad, Nacka, Södertälje, Växjö, Kristianstad, Botkyrka, Luleå, Haninge, Skellefteå, Kungsbacka, Solna, Kalmar, Järfälla, Karlskrona, Östersund, Täby, Sollentuna, Mölndal, Gotland, Varberg, Norrtälje, Falun, Örnsköldsvik, Trollhättan, Nyköping, Uddevalla, Skövde, Hässleholm, Borlänge, Trelleborg, Motala, Lidingö, Piteå, Landskrona, Falkenberg, Kungälv, Tyresö, Ängelholm, Enköping, Lidköping, and Sundbyberg, where Stockholm commune has the maximum number of eligible voters (6 64, 013 persons) and Sundbyberg commune has at least 30, 146 voters.⁶ Data on all other municipalities has been excluded from the analysis as voters in those municipalities are more likely to have information on candidates' characteristics.

All eight parties (M, C, FP, KD, MP, S, V, SD) and their party lists are considered in the empirical analysis to observe if there are any effects by party on electoral success. To select candidates, the *name ballot paper* is considered which has a party name followed by a list of candidates. From 59 selected municipalities and all political parties, we have information on 3757 elected candidates. We collect data on each of these elected candidate's personal votes and whether a candidate is person selected (i.e., elected by preference vote threshold) from Valmyndigheten website (<http://www.val.se/val/val2010/slutresultat/K/riike/personroster.html>). We have now data on each candidate's name, age, sex, occupation, position on the party list (or, place on the ballot), their corresponding personal votes and whether they are elected by preference vote threshold in the election to the municipal council.

Candidates' occupations have been classified into 33 different groups⁷ using a classification of occupation similar as Byrne and Puschel (1974), Nakinishi, Cooper, and Kassarian (1974), and Mechtel (2011). The listed 33 different occupations are Mayor, Political Officials, Parliament Member (MP), Political Secretary, Student, Farmer, Assistant, Teacher, Head, Director, Administrator, Manager, Nurse, Officer, Businessman, Salesman, Driver, Entrepreneur, Doctor, Social Worker, Pensioner / Senior, Graduate, Engineer, Scientists, Economist, Self-Employed, Worker, Consultant, Lawyer, Ombudsman, Retired, Occupation Not Listed, and Other Occupations.

4.1 Empirical Model

A simple *Probit regression model* has been employed to analyze the effects of occupational information on electoral success where the dependent (outcome) variable takes only two values, for example, whether or not a candidate is *person selected* (*Personvald*) in the election to Swedish municipal council.

⁶ A list of 59 municipalities, eligible number of voters, and number of elected candidates are given in table 9 in appendix A.

⁷ A list of 33 different occupations and their corresponding grouping in details are reported in table 3 under descriptive statistics (section 4.2).

The regression model reads:

$$\begin{aligned} &Pr(\text{Candidate } i \text{ is person selected}) \\ &= f(\text{Candidate } i\text{'s Characteristics listed on party's ballot papers}) \end{aligned}$$

$$Pr(Y = 1 | X) = \Phi(X'\beta)$$

Where Pr denotes probability, Φ is the Cumulative Distribution Function (CDF) of the standard normal distribution. Y is the response variable which takes value 1 if the candidate i is person selected or it takes value 0 if the candidate i is not personal selected. X is the vector of explanatory variables (that is, candidate i 's characteristics recorded on the ballot papers, for example, age, sex, occupation, place on the ballots, party affiliation) which are assumed to influence the variable Y . β is a vector of parameters to be estimated by maximum likelihood.

The control variables (X) can be explained and coded as follows:

Sex: To control for gender-specific effects we use a dummy variable $female_i$ which takes a value of 1 if a candidate is female, following by Byrne and Pueschel (1974), McDermott (1998) and Fox and Oxley (2003) as they look for gender specific effects in their analysis too.

Age: From table 10 in appendix A, we observe that the age group (50 to 64) years consist of maximum number of elected candidates in 2010 elections to municipal councils. We exploit age dummy variables in the analysis to control for the age effects in municipal elections.

Place on the ballots: We use the position of the candidates' name on ballot to test if ballot position offers any advantage to the candidates to be person selected, following Bagley (1966), Brooks (1921), White (1950), Scott (1972) and Byrne & Pueschel (1974). It is more likely that some places on the ballots make a difference in the election results to municipal councils, if voters have little information about the candidates particularly. We code this variable with positions of the candidates on the ballots, accordingly. We observe first five places of the candidates' name on the ballot and use five dummy variables on *ballot-position* to test ballot position's effects on electoral success; where *ballot-top₁* corresponds to candidates with first position on the ballot paper; *ballot-top₂* corresponds to candidates with second position on the ballot paper and so on to *ballot-top₅*. The remaining ballot positions are used as a reference category.

Party: We also control for heterogeneous effects by different political blocs, being a member of a particular party if there is any chance to be person selected. Hence the dummy variable, $party_i$, takes the value of 1 if the candidate is a member of, for example, the Moderate Party and otherwise 0. One additional dummy variable ÖVR is created for the candidates who do not belong to the aforementioned eight parties and can be used as a reference category. On the other hand, a dummy variable for the *left-wing* parties (S, V and MP) and a dummy variable for the *right-wing* (M, FP, C, SD, KD) parties are also created to test if occupational effects on election outcomes differ between left-wing and right-wing parties.

Occupation: The main focus of this paper is to test if there are any occupational effects on election results to municipal councils in Sweden. As noted earlier we have 33 different occupations and we use 33 different dummy variables for different types of occupations. For example, if some

candidates' occupation as engineer is listed on the ballot then the dummy variable $Engineer_i$ takes a value of 1, and 0 otherwise; similarly $Doctor_i$, $Teacher_i$, $Lawyer_i$, $Scientist_i$,...these dummy variables will take a value of 1 if the candidate is a doctor, teacher, lawyer, scientist, and 0 otherwise. If a candidate's occupation is not listed on the ballot, we use a dummy variable $notisted_i$ which takes the value of 1 in such case and 0 otherwise. One additional dummy variable namely, $otheroccp_i$ has been created for the occupations those do not belong to the 31 different groups of occupations. The dummy variable $notisted_i$ can be used as a reference category in the regression analysis.

Municipality: Selected municipalities are coded from 1 to 59 are their corresponding 59 dummy variables have been created to control for the municipality effects. It could be interesting to investigate if the effects of occupations changes significantly when we control for municipality effects.

We re-write the model for predicting probability of $personvald$ as follows:

$Pr(\text{Candidate } i \text{ is person selected})$

$$= \Phi \left(\beta_0 + \gamma_j \sum_j occupation_{i,j} + \beta_1 female_i + \alpha_k \sum_k age_{i,k} + \delta_l \sum_l ballotposition_{i,l} + \varphi_m \sum_m party_{i,m} + \vartheta_n \sum_n municipality_{i,n} \right)$$

with candidate i , $i=1,2,\dots,3757$; occupation j , $j=1,2,\dots,33$; $k = 1,2,\dots,4$ showing different age groups of the candidates; $l = 1,2,\dots,5$ showing top five ballot positions of the candidates; $m = 1,2,\dots,9$ showing eight different party affiliation of the candidates and a group of other parties namely ÖVR; municipalities n , $n = 1,2,\dots,59$ and $occupation_{i,j}$ are dummy variables indicating candidate i 's appointment to occupation j . The regression coefficients, β_0 , β_1 , α_k , δ_l , φ_m , ϑ_n , and γ_j are estimated by maximum likelihood method.

We have also used the aforementioned probit regression model after excluding the dummy variables for $party_i$, and controlling for two different group of political parties, e.g., left-wing (S, V and MP) and right-wing (SD, KD, M, C, and FP) parties to check if some occupations are particularly important in local elections for those two political blocs. One may point out that why it would be interesting to investigate occupation effects in terms of left wing party or right wing party. Well, one may anticipate different effects with respect to certain occupations while looking at typical ideological differences between the two groups of parties in Sweden. We assume that the candidates with occupations fitting to the existent and or ideological background of the left wing party such as student, farmer, graduate, ombudsman, when being placed on left-wing party list. The same holds for engineer, administrator, manager, head, economist, self-employed, consultant, lawyer, director and entrepreneur, etc. on right-wing party lists.

However, in contrast to other literature (Byrne and Pueschel 1974, Mechtel 2011), we do not control for surname effects. This is mainly due to two reasons. First, the limitation of my proper knowledge on Swedish and Foreign surnames listed on the ballots. Second, handling data on

surnames can be time-consuming as some of the migrated people in Sweden change their original surname into a hybrid surname to increase their probability in job searching. It can be an extension of the study to investigate whether the magnitudes and strengths of the occupation effects differ across Swedish and non-Swedish candidates controlling for surnames on the ballots. This is out of the scope of this paper. Furthermore, we assume that the areas wherein the candidates are currently living do not have significant effects on election outcome and thus we do not control for the areas wherein the candidates have been living during municipal election. This is because a complete information about the areas from which candidates are participating into election is not available on all ballot papers in local elections in Sweden.

4.2 Descriptive Statistics

A detailed variable summary statistics has been reported in appendix C. It is apparent from Table 1 that 45.0 percent of elected candidates are female and the Social Democratic Party (S) has the largest percentage of women, with around 50.08 percent of their elected candidates. This is may be due to fact that every second position on the party list is reserved for female candidates in the Social Democratic Party (S). The smallest proportion of female candidates is elected for the Sweden Democrats (SD), only around 17.0 percent. Overall, males are predominating in comparison to females for all parties among their elected candidates in municipal councils in Sweden. However, The Green Party (MP) has equal numbers of candidates of each gender. On the other hand, the Centre Party (C) has the largest percentage of candidates who are elected on person votes with around 15.0 percent of the total sample of the study. The smallest proportion of person selected candidates belongs to the Green Party (MP) with around 9.4 percent of the total sample. Overall, male candidates are also dominating in comparison to females while they are elected on person votes in case of all parties.

Table 1: Elected and Person Selected Candidates by sex and party (number and percent)

Party	Elected				<i>Elected on Person Votes</i>			
	Male	Female	Frequency	Percent	Male	Female	Frequency	Percent
S	634	636	1270	33.8%	46	38	84	12.7%
M	612	425	1037	27.6%	58	23	81	12.3%
FP	171	148	319	8.5%	52	31	83	12.6%
MP	141	141	282	7.5%	28	34	62	9.4%
C	141	96	237	6.3%	70	29	99	15.0%
V	93	101	194	5.2%	37	34	71	10.8%
SD	154	30	184	4.9%	57	9	66	10.0%
KD	85	66	151	4.0%	45	33	78	11.8%
ÖVR	52	31	83	2.2%	27	9	36	5.5%
Total	2083	1674	3757		420	240	660	

Source: Author's own calculation based on sample size.

Table 2 shows that age group (30 to 49) years and (50 to 64) years consist of maximum number of elected candidates in this study, i.e., around 37.6 percent and 36.4 percent, respectively. The Social Democratic Party (S) has been the largest party in the 2010 elections to municipal councils whereas the Moderate Party (M) has been the second largest party. Five parties (M, MP, FP, C, and SD) have their largest percentage of elected candidates within the age group (30 to 49) years. However, Sweden Democrats (SD) has largest percentage of elected candidates within the youngest age group, i. e, within (18 to 29) years in comparison to all other parties within the same age group. On the other hand, other parties (ÖVR) have oldest candidates within the age group (65 to 89) years.

Finally, the Left Party (V) has their highest percentage of elected candidates within the age group (50 to 64) years, with 46.4 percent, irrespective of different age groups and all other parties.

Table 2: Elected candidates by age group and party (percent)

Party \ Age	age 18-29	age 30-49	age 50-64	Age 65-89
S	9.4%	35.3%	41.9%	13.4%
M	14.0%	35.8%	31.8%	18.4%
FP	6.6%	40.1%	33.5%	19.7%
MP	18.4%	44.7%	27.3%	9.6%
C	5.1%	43.9%	41.8%	9.3%
V	8.2%	38.1%	46.4%	7.2%
SD	19.6%	41.3%	23.9%	15.2%
KD	6.6%	40.4%	42.4%	10.6%
ÖVR	4.8%	30.1%	28.9%	36.1%
Total	11.1%	37.6%	36.4%	14.9%

Source: Author's own calculation based on sample size.

Table 3 shows a detailed classification of occupation for 3757 elected candidates with corresponding frequency in each group. Occupations have been grouped into 33 different categories following Byrne and Pueschel (1974) and Mechtel (2011). We see that the candidates with occupations such as mayor, student, assistant, teacher, head / chief of an organization, manager, nurse, officer, political officials, graduate, engineer, scientist, self-employed, consultant, and entrepreneur consist of more than 50 percent of sample size in this study. We assume that these occupations could be most important in elections to municipal councils. All other occupations have been grouped in a separate category which consists of 6.71 percent of the sample. Furthermore, candidates with not listed occupations are also considered in the study as a reference group which consists of 15 percent of the sample.

Table 3: Classification of occupations for elected candidates (number and percent)

sl #	Occupation	Frequency	Percent (%)	Grouping
1	Mayor	150	3.99%	Former Mayor, Existing Mayor
2	Political Officials	92	2.45%	Political Advisors, City Councilors, District Councilors, Municipal Councilors, Pastor, Political Leaders, Opposition Party Leaders
3	Parliament Member (MP)	54	1.44%	Unique
4	Political Secretary	52	1.38%	Unique
5	Student	191	5.08%	Students at any level starting from high school to university
6	Farmer	41	1.09%	Unique
7	Assistant	121	3.22%	Personal Assistant, Shop Assistant, Job Assistant, Nursing Assistant, Teaching Assistant, Housing Assistant, Principal Assistant
8	Teacher	279	7.43%	Pre-School Teacher, High School Teacher, Special Teacher, Substitute Teacher, All Instructors, Music Teacher, Educator, Lecturer, Asst. Prof., Assoc. Prof., Professor
9	Head	139	3.70%	IT Head, Business Head, Unit Head,

				Council Head, CEO, Vice Chancellor, Chairman
10	Director	49	1.30%	Directors and Deputy Directors
11	Administrator	31	0.83%	Unique
12	Manager	114	3.03%	Project Manager, Store Manager, Sales Manager, Finance Manager, Product Manager, Manager, Corporate Security Manager, Customer Service Manager
13	Nurse	131	3.49%	Nurse, Childcare, Care Giver
14	Officer	190	5.06%	Customs Officer, Business Officer, Service Officer, Trade Officer, Finance Officer, Customer Service Officer, Police Officer, Army Officer, Information Officer, Banker, Insurance Officers, Environmental Officers, Recreational Officer, Marketing Officer
15	Businessman	78	2.08%	Businessman, Businesswomen, Small Business Owners, Business Developers
16	Salesman	37	0.98%	Unique
17	Driver	32	0.85%	Bus Driver, Car Driver, Train Driver, Taxi Driver
18	Entrepreneur	94	2.50%	Unique
19	Doctor	42	1.12%	Dentists, Physician, Physiotherapist, Medicine or Medical Specialist, Psychologist, Pharmacist
20	Social Worker	73	1.94%	Unique
21	Pensioner / Senior	50	1.33%	Unique
22	Graduate	112	2.98%	BA, BSc, MA, MBA, MSc, PhD
23	Engineer	146	3.89%	Civil , Technical, Mechanical, Architect, Electrical
24	Scientists	105	2.79%	Agronomist, Social Scientists, Ecologists, Sociologist, Biomedical Analyst, Political Scientist, Anthropologist, Researchers, Historian, Biochemist, Zoologist, Archeologist, Geoscientists, Behaviorists, Biologist
25	Economist	53	1.41%	Unique
26	Self-Employed	106	2.82%	Unique
27	Worker	95	2.53%	Metal Workers, Factory Workers, Manufacturing Workers, Steel Workers, Construction Workers, Carpenter, Industrial Workers, Installers
28	Consultant	101	2.69%	Work Consultant, Senior Consultant, Job Consultant, Medical Consultant, Psychological Consultant, Advisors, Corporate Consultant, Computer Consultant, School Counselors, Financial Counselor, Study Counselor, University Counselor
29	Lawyer	62	1.65%	Attorney, Prosecutors

30	Ombudsman	86	2.29%	Unique
31	Retired	49	1.30%	Unique
32	Occupation Not Listed	550	14.64%	
33	Other Occupations	252	6.71%	Hairdresser, Gardener, Librarian, Editor, Writer, IT Planner, Fireman, Cook, Detective, TV Reporter, etc.
	Total	3 757	100%	

Source: Author's own calculation based on sample size.

5. Empirical Results and Analysis

The model with binary dependent variable *Personvald* can be estimated by using probit regression through STATA. We have used “*dprobit*” command to display the marginal effects $\partial \Pr(Y = 1|X) / \partial X_j$, that is, the effect of an infinitesimal change in X_j . “*dprobit*” also estimates maximum-likelihood probit models. Rather than reporting coefficients, “*dprobit*” reports the change in the probability for an infinitesimal change in each independent, continuous variable and, by default, the discrete change in the probability for dummy variables from 0 to 1.

5.1 Main Results

The first six regressions in Column (1) to (6) of Table 4 are designed to produce three types of information. First, the output identifies which occupations have statistically significant relationships with the variable of interest, *personvald*, and which do not. Second, the output reports economic significance of the coefficients on different occupations. In other words, regression output indicates which occupations have the greatest effect on a candidate's likelihood of being person selected relative to others. Third, regression output provides a formula that yields a candidate's predicted probability of getting person selected in municipal councils for each of the listed occupations on ballot.

A list of the estimated occupational coefficients can be found through regressions (1) to (6) in table 4. Candidates with not listed occupations have been used as a reference category in the analysis. Column (1) shows that 12 out of 33 occupations have statistically significant coefficients. Positive effects can be found for mayor, political official, parliament member, farmer, head, entrepreneur and teacher. A possible economic interpretation of these occupations could be that the candidates with listed occupations such as mayor, political official, parliament member, farmer, head, entrepreneur and teacher on the ballot increase their probability of being person selected (*personvald*) by 0.492, 0.389, 0.211, 0.195, 0.133, 0.118, and 0.0594, respectively. In contrast, statistically significant negative effects can be found for salesman, retired, student, pensioner, and assistant. Thus the candidates with listed occupations such as salesman, retired, student, pensioner, and assistant on the ballot decrease their probability of being person selected (*personvald*) by 0.126, 0.135, 0.0780, 0.110, and 0.0698, respectively. The regression output is found to be relevant politically what we expect in local elections since the greatest positive effects are found for mayor and political official whereas the largest negative effects are found for retired persons. In practice, one explanation for why political officeholders are more likely to be re-elected could be that they are viewed as experienced and trained incumbents by voters and moreover those politicians are also well known about their obligations to related incumbency. On the other hand, candidates with occupations as retired and pensioner may be viewed as inactive workforce and they could possess

less importance in local elections naturally. However, the overall predicted probability of getting person selected is 0.11 at the mean values of all occupations. In other words, a candidate's probability of being person selected through 33 of those listed occupations could be predicted by 11 percent.

In order to produce unbiased occupational effects on municipal election we control for sex, age and candidates' ballot position listed on ballots, effects by different party, municipality effects in the regression framework. The estimates of occupational variables are found to be similar in terms of statistical significance when we control for sex. We find similar results as of Byrne and Pueschel (1974) with respect to gender effects. We notice that male candidates have an electoral advantage over female candidates as the coefficient on female is found to be negative and statistically significant in column (2) of table 4. A female candidate is found to have 5 percent less likelihood while getting elected through preference votes in comparison to a male candidate.

We also find that the older candidates such as candidates with age 69 years, 70 years have electoral disadvantage over other candidates. Nevertheless, the effects of occupations on election outcome become weaker when we append ballot position effects into the regression. One possible explanation for the fact that around 82.4 percent (544 out of 660) of the candidates has been person selected because of their location on the ballot, placed within top three positions. The regression output in column (4) of table 4 shows that top four ballot positions are positive and statistically significant at 1% level.

Interestingly, some occupations such as student, assistant, engineer, ombudsman, graduate, and driver are found to be less likely in winning a local election with about same probability when we include candidates' party affiliation into the regression. One possible explanation for such results can be that these occupations are more common for parties that typically get many personal votes. Finally, we have found some occupations such as salesman, retired, student, pensioner, assistant, engineer, ombudsman, graduate, driver, worker, business and other occupations are less meaningful when we control for municipality effects. But mayor, political official and parliament members are still found to possess electoral advantage when we control for all effects including municipality effects though they affect election outcome now to a lesser extent.

Table 4: Summary of Probit Regression Results

Dependent Variable: *Personvald*

	(1)	(2)	(3)	(4)	(5)	(6)
mayor	0.492*** (0.0456)	0.489*** (0.0459)	0.472*** (0.0483)	0.113** (0.0464)	0.168*** (0.0531)	0.181*** (0.0583)
salesman	-0.126*** (0.0338)	-0.129*** (0.0305)	-0.132*** (0.0209)	-0.0985*** (0.00953)	-0.0833*** (0.00664)	-0.0692*** (0.00640)
retired	-0.135*** (0.0265)	-0.133*** (0.0270)	-0.120*** (0.0331)	-0.0958*** (0.0138)	-0.0770*** (0.0130)	-0.0692*** (0.00663)
politofficial	0.389*** (0.0576)	0.388*** (0.0577)	0.374*** (0.0597)	0.0800 (0.0510)	0.114** (0.0551)	0.125** (0.0599)
student	-0.0780*** (0.0248)	-0.0756*** (0.0251)	-0.0737*** (0.0279)	-0.0396 (0.0263)	-0.0457** (0.0192)	-0.0461*** (0.0148)
pensioner	-0.110*** (0.0347)	-0.109*** (0.0352)	-0.0678 (0.0546)	-0.0446 (0.0500)	-0.0514 (0.0363)	-0.0513** (0.0243)
assistant	-0.0698**	-0.0624*	-0.0686**	-0.0404	-0.0582***	-0.0535***

	(0.0305)	(0.0320)	(0.0290)	(0.0273)	(0.0154)	(0.0121)
parlmntmemb	0.211***	0.208***	0.166**	0.194***	0.193***	0.152**
	(0.0707)	(0.0704)	(0.0682)	(0.0712)	(0.0724)	(0.0686)
farmer	0.195**	0.171**	0.172**	0.233***	0.0792	0.0479
	(0.0794)	(0.0776)	(0.0791)	(0.0893)	(0.0660)	(0.0550)
head	0.133***	0.126***	0.124***	0.0382	0.0152	0.00279
	(0.0446)	(0.0443)	(0.0448)	(0.0375)	(0.0318)	(0.0274)
entrepreneur	0.118**	0.108**	0.103**	0.0811	0.0408	0.0263
	(0.0517)	(0.0509)	(0.0509)	(0.0500)	(0.0416)	(0.0370)
engineer	-0.00564	-0.0231	-0.0206	-0.0362	-0.0527***	-0.0545***
	(0.0350)	(0.0326)	(0.0323)	(0.0241)	(0.0149)	(0.0102)
ombudsman	-0.0344	-0.0407	-0.0409	-0.0460	-0.0426*	-0.0379*
	(0.0401)	(0.0385)	(0.0369)	(0.0288)	(0.0246)	(0.0211)
graduate	-0.0215	-0.0237	-0.0251	-0.0400	-0.0502***	-0.0362**
	(0.0373)	(0.0367)	(0.0355)	(0.0263)	(0.0175)	(0.0183)
teacher	0.0594*	0.0684**	0.0621*	0.0408	-0.00267	-0.0108
	(0.0315)	(0.0322)	(0.0319)	(0.0296)	(0.0216)	(0.0186)
politsecretary	0.0207	0.0195	0.00715	0.0207	-0.00438	0.0202
	(0.0579)	(0.0575)	(0.0558)	(0.0548)	(0.0443)	(0.0514)
administrator	-0.00687	0.00138	-0.0136	-0.0245	-0.0314	-0.0380
	(0.0692)	(0.0715)	(0.0661)	(0.0551)	(0.0389)	(0.0272)
director	0.00853	0.0128	0.00579	0.0301	0.0291	0.0730
	(0.0580)	(0.0588)	(0.0567)	(0.0583)	(0.0546)	(0.0668)
manager	-0.00403	-0.00555	-0.0184	0.0178	-0.0148	-0.0220
	(0.0388)	(0.0385)	(0.0356)	(0.0384)	(0.0281)	(0.0224)
driver	0.0576	0.0345	0.0192	-0.00941	-0.0512**	-0.0492***
	(0.0775)	(0.0726)	(0.0671)	(0.0553)	(0.0260)	(0.0183)
doctor	0.0865	0.103	0.113	0.119	0.0599	0.0463
	(0.0711)	(0.0738)	(0.0772)	(0.0836)	(0.0689)	(0.0653)
socialworker	0.00200	0.0204	0.0247	-0.00311	-0.0209	-0.0177
	(0.0477)	(0.0511)	(0.0510)	(0.0407)	(0.0296)	(0.0268)
scientist	0.0503	0.0557	0.0418	0.0525	-0.00207	-0.00689
	(0.0449)	(0.0456)	(0.0437)	(0.0445)	(0.0303)	(0.0266)
economist	0.0175	0.0220	0.0115	-0.00764	-0.0379	-0.0343
	(0.0570)	(0.0581)	(0.0556)	(0.0458)	(0.0283)	(0.0248)
selfemployed	-0.00347	-0.00822	-0.0120	0.0115	-0.0186	-0.0246
	(0.0401)	(0.0391)	(0.0379)	(0.0379)	(0.0260)	(0.0210)
worker	0.00184	-0.00962	-0.0294	-0.0122	-0.0278	-0.0364*
	(0.0425)	(0.0406)	(0.0356)	(0.0355)	(0.0266)	(0.0191)
consultant	0.0148	0.0126	0.00482	-0.0126	-0.0193	-0.0169
	(0.0427)	(0.0422)	(0.0406)	(0.0338)	(0.0269)	(0.0245)
lawyer	0.0111	0.0152	0.0112	-0.0229	-0.0313	-0.00745
	(0.0524)	(0.0528)	(0.0507)	(0.0405)	(0.0314)	(0.0388)
officer	0.0422	0.0386	0.0312	0.0201	0.00339	0.000556
	(0.0350)	(0.0346)	(0.0332)	(0.0305)	(0.0251)	(0.0232)
nurse	-0.0320	-0.0153	-0.0159	0.0177	-0.00234	-0.0116
	(0.0339)	(0.0369)	(0.0354)	(0.0387)	(0.0309)	(0.0253)
business	0.0158	0.0137	0.0145	-0.00241	-0.0354	-0.0418**
	(0.0474)	(0.0468)	(0.0463)	(0.0403)	(0.0248)	(0.0177)
otheroccp	0.0259	0.0255	0.00632	0.00684	-0.0265	-0.0353***
	(0.0307)	(0.0306)	(0.0285)	(0.0263)	(0.0180)	(0.0137)
female		-0.0518***	-0.0590***	-0.0377***	-0.0284***	-0.0277***

		(0.0126)	(0.0123)	(0.0113)	(0.0104)	(0.00948)
Observations	3,757	3,757	3,744	3,744	3,744	3,744
Occupation Effects	YES	YES	YES	YES	YES	YES
Gender Effects	NO	YES	YES	YES	YES	YES
Age Effects	NO	NO	YES	YES	YES	YES
Ballot Position	NO	NO	NO	YES	YES	YES
Effects						
Party Effects	NO	NO	NO	NO	YES	YES
Municipality	NO	NO	NO	NO	NO	YES
Effects						

Notes: All probit regressions report marginal effects with standard errors in parentheses.

* indicates statistical significance at the 10% level

** indicates statistical significance at the 5% level

*** indicates statistical significance at the 1% level

5.2 Robustness Test with Alternative Outcome Variable

An alternative outcome variable *pvoteshare* has also been used in the study to investigate whether we reach the same conclusion when analyzing occupational effects on election outcome. *Pvoteshare* is calculated as the ratio between the number of person votes received by a candidate and the total number of voters in corresponding municipality. The dependent variable *pvoteshare* has been rescaled by multiplying with 100 in order to reduce decimals in the parameter estimates of the regression analysis. We have used general *reg* command in the regression framework as *pvoteshare* is a continuous variable. We control for all effects once again including gender, age, ballot position, municipality effects and effects by different party to originate unbiased occupation effects. A summary of the regression results on *pvoteshare* are reported in the following table 5.

Table 5: Summary of OLS Regression Results

Dependent Variable: *pvoteshare*

	(1)	(2)	(3)	(4)	(5)	(6)
mayor	0.486*** (0.0255)	0.484*** (0.0255)	0.468*** (0.0256)	0.308*** (0.0248)	0.276*** (0.0243)	0.305*** (0.0256)
salesman	-0.101** (0.0470)	-0.105** (0.0470)	-0.121** (0.0472)	-0.104** (0.0440)	-0.0819* (0.0429)	-0.0654 (0.0436)
retired	-0.119*** (0.0412)	-0.119*** (0.0412)	-0.0573 (0.0426)	-0.0539 (0.0397)	-0.0457 (0.0387)	-0.0613 (0.0394)
politofficial	0.294*** (0.0312)	0.294*** (0.0312)	0.283*** (0.0313)	0.154*** (0.0297)	0.119*** (0.0289)	0.146*** (0.0301)
student	-0.0731*** (0.0232)	-0.0720*** (0.0232)	-0.0698** (0.0279)	-0.0579** (0.0260)	-0.0342 (0.0254)	-0.0175 (0.0263)
pensioner	-0.117*** (0.0409)	-0.115*** (0.0409)	-0.0519 (0.0421)	-0.0442 (0.0392)	-0.0449 (0.0384)	-0.0308 (0.0391)
assistant	-0.0760*** (0.0278)	-0.0731*** (0.0278)	-0.0824*** (0.0280)	-0.0671** (0.0261)	-0.0373 (0.0254)	-0.0289 (0.0266)
parlmntmemb	0.0760* (0.0395)	0.0750* (0.0395)	0.0557 (0.0396)	0.0572 (0.0370)	0.0663* (0.0360)	0.0743** (0.0366)
farmer	-0.000841 (0.0448)	-0.00566 (0.0449)	-0.0194 (0.0449)	-0.0142 (0.0419)	0.0227 (0.0416)	0.00394 (0.0425)
head	-0.00506 (0.0262)	-0.00658 (0.0262)	-0.0105 (0.0263)	-0.0488** (0.0246)	-0.0379 (0.0240)	-0.0253 (0.0250)

entrepreneur	0.0178 (0.0309)	0.0155 (0.0309)	0.0107 (0.0311)	-0.00258 (0.0290)	0.0189 (0.0285)	0.0209 (0.0293)
engineer	-0.0711*** (0.0258)	-0.0770*** (0.0260)	-0.0737*** (0.0262)	-0.0826*** (0.0245)	-0.0493** (0.0240)	-0.0518** (0.0251)
ombudsman	-0.0358 (0.0321)	-0.0386 (0.0321)	-0.0469 (0.0322)	-0.0440 (0.0300)	-0.0576** (0.0293)	-0.0471 (0.0303)
graduate	-0.0561* (0.0287)	-0.0574** (0.0287)	-0.0622** (0.0289)	-0.0667** (0.0269)	-0.0333 (0.0265)	-0.0288 (0.0273)
teacher	-0.0519** (0.0203)	-0.0499** (0.0204)	-0.0533*** (0.0205)	-0.0664*** (0.0191)	-0.0270 (0.0188)	-0.0219 (0.0201)
politsecretary	-0.0735* (0.0401)	-0.0740* (0.0401)	-0.0871** (0.0409)	-0.0845** (0.0382)	-0.0721* (0.0371)	-0.0468 (0.0379)
administrator	-0.0163 (0.0511)	-0.0139 (0.0511)	-0.0280 (0.0513)	-0.0327 (0.0479)	-0.0178 (0.0465)	-0.0134 (0.0469)
director	-0.0209 (0.0412)	-0.0198 (0.0412)	-0.0325 (0.0419)	-0.0253 (0.0390)	-0.0210 (0.0379)	-0.0149 (0.0386)
manager	-0.0536* (0.0285)	-0.0542* (0.0285)	-0.0672** (0.0285)	-0.0518* (0.0266)	-0.0294 (0.0260)	-0.0340 (0.0269)
driver	-0.0316 (0.0503)	-0.0377 (0.0504)	-0.0471 (0.0505)	-0.0613 (0.0471)	-0.0205 (0.0465)	-0.0204 (0.0470)
doctor	-0.0519 (0.0443)	-0.0483 (0.0443)	-0.0529 (0.0446)	-0.0559 (0.0415)	-0.0110 (0.0406)	-0.00583 (0.0410)
socialworker	-0.0621* (0.0345)	-0.0571* (0.0346)	-0.0675* (0.0347)	-0.0813** (0.0325)	-0.0302 (0.0318)	-0.0158 (0.0325)
scientist	-0.0596** (0.0295)	-0.0583** (0.0295)	-0.0654** (0.0296)	-0.0664** (0.0276)	-0.0214 (0.0270)	-0.0181 (0.0280)
economist	-0.0723* (0.0398)	-0.0706* (0.0398)	-0.0742* (0.0399)	-0.0819** (0.0372)	-0.0518 (0.0364)	-0.0409 (0.0369)
selfemployed	-0.0392 (0.0293)	-0.0411 (0.0294)	-0.0457 (0.0295)	-0.0362 (0.0275)	0.00416 (0.0269)	0.0170 (0.0278)
worker	-0.0343 (0.0307)	-0.0379 (0.0308)	-0.0624** (0.0309)	-0.0499* (0.0288)	-0.0416 (0.0281)	-0.0396 (0.0290)
consultant	-0.0288 (0.0299)	-0.0298 (0.0299)	-0.0327 (0.0300)	-0.0389 (0.0280)	-0.0148 (0.0273)	-0.0130 (0.0281)
lawyer	-0.0468 (0.0371)	-0.0465 (0.0371)	-0.0498 (0.0371)	-0.0574* (0.0346)	-0.0331 (0.0337)	-0.00413 (0.0347)
officer	-0.0429* (0.0233)	-0.0441* (0.0233)	-0.0542** (0.0233)	-0.0607*** (0.0218)	-0.0392* (0.0213)	-0.0308 (0.0225)
nurse	-0.0330 (0.0269)	-0.0274 (0.0271)	-0.0366 (0.0272)	-0.0222 (0.0253)	-0.00682 (0.0246)	-0.00365 (0.0258)
business	-0.0766** (0.0332)	-0.0776** (0.0332)	-0.0863*** (0.0334)	-0.0924*** (0.0311)	-0.0493 (0.0304)	-0.0347 (0.0311)
otheroccp	-0.0545*** (0.0210)	-0.0548*** (0.0210)	-0.0653*** (0.0212)	-0.0649*** (0.0197)	-0.0317 (0.0194)	-0.0362* (0.0206)
female		-0.0154 (0.00955)	-0.0216** (0.00961)	-0.00876 (0.00902)	-0.0138 (0.00881)	-0.0139 (0.00873)
Constant	0.155*** (0.0118)	0.163*** (0.0126)	0.135** (0.0678)	0.107* (0.0632)	-0.0538 (0.0679)	-0.105 (0.0754)
Observations	3,757	3,757	3,757	3,757	3,757	3,757
R-squared	0.156	0.156	0.180	0.289	0.333	0.360
Occupation Effects	YES	YES	YES	YES	YES	YES

Gender Effects	NO	YES	YES	YES	YES	YES
Age Effects	NO	NO	YES	YES	YES	YES
Ballot Position Effects	NO	NO	NO	YES	YES	YES
Party Effects	NO	NO	NO	NO	YES	YES
Municipality Effects	NO	NO	NO	NO	NO	YES

Notes: All regressions report OLS estimates with standard errors in parentheses.

* indicates statistical significance at the 10% level

** indicates statistical significance at the 5% level

*** indicates statistical significance at the 1% level

Column (1) of table 5 depicts that 19 out of 33 occupations are statistically significant where mayor, political official and parliament members have positive effects similar to the findings of column (1) of table 4. Politicians including mayor, political official and parliament members are found to have greatest and positive effects in elections to municipal councils in Sweden in terms of economic significance. The findings of regression output on the alternative outcome variable, *pvoteshare*, do not remarkably differ from the findings on *Personvald* except that there are some more statistically significant regression coefficients as OLS estimates capture more variation in the continuous dependent variable of interest. A critical comparison between the outputs of table 4 and table 5 for all six regressions indicate that our main results of occupation effects are highly robust.

5.3 Main Results for the Left-Wing and Right-Wing Parties

As noted earlier we have grouped leading eight parties into two categories, namely, left-wing (S, V and MP) and right-wing (SD, KD, M, C, and FP) parties. Historically, this two groups of parties have ideological differences in their core values of political movement in Sweden. We assume that left-wing candidates with listed occupations related to public sectors and public services, education, care and elderly care, social work and or social welfare, ombudsman have electoral advantage in local elections. On the other hand, we assume that occupations related to private sectors and private services, trade, business, entrepreneur, farmer, jurisprudence and consultancy have electoral advantage in municipal elections in Sweden.

Column (1) and (3) in the following table 6 of reports the estimates of selected occupations for the left-wing and right-wing parties, respectively, resulting from the regression on *personvald*. On the other hand, column (2) and (4) in table 6 shows the estimates of occupations for the left-wing and right-wing parties, respectively, resulting from the alternative outcome variable, *pvoteshare*. We control for gender, age, ballot position and municipality effects after excluding other parties (Övr) from the regressions in order to produce unbiased estimates of occupations for both left and right wing parties. The results indicate that the left-wing candidates with occupations such as retired, student, ombudsman, graduate, and businessman have negative and significant effects on *personvald*. However, mayor, political official, parliament member, head, entrepreneur, teacher, political secretary, administrator, driver, social worker, economist, self-employed, lawyer and officer are found to have positive effects on election outcome from the left-wing party candidates though those estimates are statistically insignificant. This may be due to several reasons, for example, small sample size, less variation in *personvald* with respect to those occupations, and broader grouping of occupations. On the other hand, salesman, engineer, graduate, administrator, manager, driver, economist, consultant, self-employed, and lawyer have electoral disadvantage being placed on right-wing party list. Nevertheless, Mayor and political officials from both parties

are found to have significant positive effects on personal vote shares. With respect to gender, we only find a significant negative female effect for the right-wing. The coefficient of the female dummy variable is also negative for the left-wing, but statistically insignificant. The overall predicted probability of being person selected based on all occupations from the right-wing is 0.098 whereas the predicted probability is 0.037 for the left wing. Thus the numerical impact is thrice as large for the right wing party.

Table 6: Summary of regression results for Left-wing vs. Right-wing

VARIABLES	Results for Left-wing		Results for Right-wing	
	(1) <i>personvald</i>	(2) <i>pvoteshare</i>	(3) <i>personvald</i>	(4) <i>Pvoteshare</i>
mayor	0.0811 (0.0622)	0.359*** (0.0486)	0.0591 (0.0716)	0.301*** (0.0363)
salesman		-0.0684 (0.0913)	-0.102*** (0.0114)	-0.0973* (0.0540)
retired	-0.0378*** (0.00874)	-0.0615 (0.0622)		-0.119* (0.0706)
politofficial	0.0538 (0.0623)	0.169*** (0.0534)	0.0371 (0.0818)	0.226*** (0.0447)
student	-0.0319*** (0.0107)	-0.0497 (0.0488)	-0.0493 (0.0386)	-0.0363 (0.0373)
pensioner		-0.0347 (0.0584)	-0.0100 (0.139)	-0.0373 (0.0800)
assistant	-0.0246 (0.0167)	-0.0332 (0.0445)	-0.0553 (0.0383)	-0.0735* (0.0430)
parlmntmemb	0.110 (0.103)	0.0826 (0.0772)	0.0687 (0.0790)	0.0530 (0.0462)
farmer		-0.155 (0.287)	0.0887 (0.0861)	-0.0358 (0.0457)
head	0.00983 (0.0363)	0.0127 (0.0486)	-0.0103 (0.0471)	-0.0833** (0.0350)
entrepreneur	0.130 (0.160)	0.0908 (0.0965)	-0.0237 (0.0406)	-0.0182 (0.0349)
engineer	-0.0196 (0.0192)	-0.0964* (0.0492)	-0.0844*** (0.0177)	-0.0852** (0.0342)
ombudsman	-0.0326*** (0.0115)	-0.0213 (0.0448)	0.0106 (0.0910)	-0.105 (0.0710)
graduate	-0.0339*** (0.00942)	-0.0965 (0.0724)	-0.0613** (0.0287)	-0.0562* (0.0340)
teacher	0.0420 (0.0370)	-0.0345 (0.0365)	-0.0436 (0.0302)	-0.0912*** (0.0309)
politsecretary	0.0277 (0.0589)	-0.0472 (0.0661)	-0.0166 (0.0693)	-0.0606 (0.0529)
administrator	0.00751 (0.0570)	-0.0185 (0.0796)	-0.0993*** (0.0115)	-0.0523 (0.0651)
director		-0.0589 (0.0782)	0.149 (0.119)	0.0181 (0.0492)
manager	-0.0134 (0.0264)	-0.0611 (0.0552)	-0.0541* (0.0308)	-0.0622* (0.0357)
driver	0.0567	-0.0107	-0.0792***	-0.111*

	(0.0938)	(0.0854)	(0.0289)	(0.0600)
doctor	-0.00453	-0.0494	0.0173	-0.0649
	(0.0486)	(0.0921)	(0.0882)	(0.0507)
socialworker	0.0149	-0.0789	-0.0101	-0.0689
	(0.0379)	(0.0490)	(0.0800)	(0.0562)
scientist	-0.00358	-0.0750	0.0342	-0.0545
	(0.0288)	(0.0496)	(0.0661)	(0.0406)
economist	0.0958	-0.0730	-0.0668**	-0.0759*
	(0.132)	(0.0918)	(0.0312)	(0.0432)
selfemployed	0.0582	-0.0348	-0.0908***	-0.0288
	(0.0674)	(0.0580)	(0.0175)	(0.0367)
worker	-0.0169	-0.0328	-0.0313	-0.129**
	(0.0199)	(0.0442)	(0.0574)	(0.0558)
consultant	-0.00423	-0.0537	-0.0640**	-0.0193
	(0.0280)	(0.0503)	(0.0319)	(0.0401)
lawyer	0.00848	0.00462	-0.0867***	-0.0350
	(0.0597)	(0.0766)	(0.0205)	(0.0437)
officer	0.0105	-0.0376	-0.0318	-0.0624**
	(0.0316)	(0.0442)	(0.0345)	(0.0318)
nurse	-0.0137	0.0145	-0.0183	-0.0631
	(0.0225)	(0.0431)	(0.0510)	(0.0415)
business	-0.0278**	-0.0818	-0.0270	-0.0692
	(0.0141)	(0.0550)	(0.0545)	(0.0432)
otheroccp	-0.0225	-0.0520	-0.0345	-0.0823***
	(0.0143)	(0.0382)	(0.0329)	(0.0315)
female	-0.00951	-0.0252*	-0.0524***	0.000472
	(0.0101)	(0.0146)	(0.0176)	(0.0121)
Constant		0.107		0.0509
		(0.139)		(0.0840)
Observations	1,616	1,746	1,870	1,928
R-squared		0.306		0.374
Occupation Effects	YES	YES	YES	YES
Gender Effects	YES	YES	YES	YES
Age Effects	YES	YES	YES	YES
Ballot Position Effects	YES	YES	YES	YES
Municipality Effects	YES	YES	YES	YES
Left-Wing Effects	YES	YES	NO	NO
Right-Wing Effects	NO	NO	YES	YES

Notes: Column (1) and (3) show probit estimates with marginal effects whereas column (2) and (4) report OLS estimates; standard errors are shown in parentheses.

* indicates statistical significance at the 10% level

** indicates statistical significance at the 5% level

*** indicates statistical significance at the 1% level

5.4 Robustness Test for the Left-Wing and Right-Wing Parties

As one could argue that political officials and parliament members (mostly described as incumbents in political literature) are widely known by the voters, we run the regressions after dropping candidates with occupations listed as political officials and parliament members. We also use alternative dependent variable, *pvoteshare*, instead of *personvald* in the regressions to check robustness of the regression results for two political blocs. Nevertheless, we control for all effects

including gender, age, ballot position and municipality effects. The regression outputs are reported in table 7.

Table 7: Summary of regression results for Left-wing vs. Right-wing: Robustness Test

VARIABLES	Results for Left-wing		Results for Right-wing	
	(1) <i>personvald</i>	(2) <i>pvoteshare</i>	(3) <i>personvald</i>	(4) <i>pvoteshare</i>
mayor	0.0431 (0.0429)	0.300*** (0.0448)	0.0315 (0.0574)	0.232*** (0.0327)
salesman		-0.118 (0.0901)	-0.103*** (0.0113)	-0.154*** (0.0522)
retired	-0.0393*** (0.00739)	-0.111* (0.0601)		-0.168** (0.0700)
student	-0.0358*** (0.00860)	-0.0966** (0.0465)	-0.0609* (0.0312)	-0.0913*** (0.0348)
pensioner		-0.0845 (0.0561)	-0.0249 (0.120)	-0.0857 (0.0796)
assistant	-0.0322*** (0.0109)	-0.0848** (0.0413)	-0.0664** (0.0299)	-0.130*** (0.0408)
farmer		-0.169 (0.288)	0.0573 (0.0709)	-0.0923** (0.0435)
head	-0.00671 (0.0248)	-0.0389 (0.0457)	-0.0272 (0.0377)	-0.142*** (0.0320)
entrepreneur	0.0737 (0.118)	0.0336 (0.0950)	-0.0391 (0.0318)	-0.0755** (0.0320)
engineer	-0.0279** (0.0126)	-0.148*** (0.0465)	-0.0900*** (0.0148)	-0.138*** (0.0315)
ombudsman	-0.0373*** (0.00859)	-0.0748* (0.0414)	-0.00706 (0.0784)	-0.165** (0.0700)
graduate	-0.0360*** (0.00795)	-0.146** (0.0708)	-0.0711*** (0.0227)	-0.111*** (0.0311)
teacher	0.0156 (0.0244)	-0.0856*** (0.0326)	-0.0564** (0.0232)	-0.146*** (0.0278)
politsecretary	0.00361 (0.0396)	-0.103 (0.0638)	-0.0334 (0.0568)	-0.120** (0.0511)
administrator	-0.0110 (0.0363)	-0.0722 (0.0779)	-0.100*** (0.0112)	-0.109* (0.0640)
director		-0.110 (0.0765)	0.115 (0.105)	-0.0345 (0.0475)
manager	-0.0241 (0.0169)	-0.107** (0.0531)	-0.0649*** (0.0240)	-0.118*** (0.0329)
driver	0.0267 (0.0686)	-0.0597 (0.0840)	-0.0847*** (0.0230)	-0.165*** (0.0587)
doctor	-0.0192 (0.0297)	-0.102 (0.0907)	-0.00361 (0.0742)	-0.118** (0.0492)
socialworker	-0.00429 (0.0253)	-0.127*** (0.0466)	-0.0280 (0.0662)	-0.125** (0.0547)
scientist	-0.0170 (0.0189)	-0.123*** (0.0472)	0.0111 (0.0539)	-0.113*** (0.0381)
economist	0.0476 (0.0933)	-0.127 (0.0903)	-0.0738*** (0.0258)	-0.129*** (0.0413)

selfemployed	0.0272 (0.0480)	-0.0847 (0.0558)	-0.0953*** (0.0147)	-0.0824** (0.0341)
worker	-0.0263** (0.0132)	-0.0841** (0.0410)	-0.0456 (0.0465)	-0.186*** (0.0542)
consultant	-0.0173 (0.0184)	-0.104** (0.0477)	-0.0725*** (0.0256)	-0.0763** (0.0377)
lawyer	-0.0107 (0.0380)	-0.0512 (0.0746)	-0.0909*** (0.0171)	-0.0921** (0.0416)
officer	-0.00875 (0.0196)	-0.0908** (0.0408)	-0.0459* (0.0270)	-0.115*** (0.0288)
nurse	-0.0254* (0.0141)	-0.0358 (0.0399)	-0.0334 (0.0418)	-0.118*** (0.0393)
business	-0.0326*** (0.0100)	-0.130** (0.0528)	-0.0423 (0.0439)	-0.128*** (0.0409)
otheroccp	-0.0307*** (0.00996)	-0.102*** (0.0346)	-0.0490* (0.0250)	-0.139*** (0.0282)
female	-0.00871 (0.0101)	-0.0255* (0.0146)	-0.0529*** (0.0176)	0.00115 (0.0122)
Constant		0.169 (0.138)		0.0935 (0.0838)
Observations	1,616	1,746	1,870	1,928
R-squared		0.301		0.365
Occupation Effects	YES	YES	YES	YES
Gender Effects	YES	YES	YES	YES
Age Effects	YES	YES	YES	YES
Ballot Position Effects	YES	YES	YES	YES
Municipality Effects	YES	YES	YES	YES
Left-Wing Effects	YES	YES	NO	NO
Right-Wing Effects	NO	NO	YES	YES

Notes: Column (1) and (3) show probit estimates with marginal effects whereas column (2) and (4) report OLS estimates; standard errors are shown in parentheses.

* indicates statistical significance at the 10% level

** indicates statistical significance at the 5% level

*** indicates statistical significance at the 1% level

We find that the results remain robust for most of the occupations in case of both parties when we drop variables such as political officials and parliament members, but now we get more number of statistically significant occupational coefficients even though the overall predicted probability remains same at 0.13 for *personvald*. Nevertheless, the findings of the study remains highly robust for both right and left-wing parties in case of almost all occupations when we explain *pvoteshare* after dropping political officials and parliament members from the analysis. Our results strongly support the hypothesis that occupations play a significant role in a low-information election such as the local elections to municipal councils in Sweden.

In summary, we find that a candidate's performance could be driven by her/his gender and occupation, ballot position, political incumbency and party affiliation. To put it in a different way, an ideal candidate is male, political incumbent, having listed within top 3 positions on ballots.

6. Conclusion

We analyze the effects of candidates' occupation as information shortcuts on election results in municipal elections in Sweden. The dataset consists of 3757 elected candidates running for the 2010 elections to municipal councils. Our results suggest that voters may use candidates' occupational information as a signal. The largest statistically significant positive effects can be found for political incumbents such as mayor, political officials and parliament members, irrespective of candidates' party affiliation. The results remain robust when the regressions are run on the alternative outcome variable, *pvoteshare*. Our results show that men have higher chances to get elected by personal votes. Top three ballot positions of the candidates also significantly affect election outcomes. We also find that left-wing and right-wing candidates with occupations such as retired, student, assistant, engineer, graduate, manager, worker, consultant, nurse, and businessman have electoral disadvantage in municipal councils in Sweden. For generalization more samples with a detailed list of occupations can be included in the study.

Critiques may argue about using 30 000 voters as a benchmark for selecting municipalities and the number of elected candidates in the study. As we do not have access to the complete and organized dataset on the 2010 elections to municipal councils in Sweden, including 290 municipalities and all elected candidates would be time-consuming and the research is not doable within the limited timeframe. The results of this study cannot be generalized unless one find a similar local election system in another country and make a comparison between the results after including all municipalities into the dataset. Local election data on any other Nordic countries such as Denmark, Finland, and Norway could be incorporated into the study for generalization about occupational effects on local elections where the election procedures are assumed to be same at local level. In principle, we can expect the results to be similar for the other Nordic countries given the similar political settings. The findings of this paper have implications for our understanding of voting behavior in low-information elections. The preliminary implication regarding voting behavior is the extent to which ballot information influences voters' preferences.

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APPENDIX A

Table 8: Election to the Municipal Councils 2010. Nominated and elected candidates by sex and party (Number and percent)

		Party									
		M	C	FP	KD	MP	S	V	SD	Other	Total
Nominated	Men	63.2	59.8	58.8	57.6	51.2	53.5	52.9	80.0	63.2	58.4
	Women	36.8	40.2	41.2	42.4	48.8	46.5	47.1	20.0	36.8	41.6
	Total number	8 123	6 777	5 222	4 736	3 275	13 616	3 917	1 959	4 444	52 069
Elected	Men	61.2	57.3	56.6	60.1	51.6	51.0	53.9	81.3	65.0	57.0
	Women	38.8	42.7	43.4	39.9	48.4	49.0	46.1	18.7	35.0	43.0
	Total number	2 965	1 399	914	591	684	4 594	703	605	514	12 969

Source: SCB

Table 9: Municipalities with eligible voters and elected candidates (in number)

SI #	Municipalities	Voters	Elected Candidates
1	0180 Stockholm	664013	101
2	1480 Göteborg	405033	81
3	1280 Malmö	232794	61
4	0380 Uppsala	153585	81
5	0580 Linköping	113419	79
6	1980 Västerås	106897	61
7	1880 Örebro	105337	65
8	1283 Helsingborg	101744	65
9	0581 Norrköping	101373	85
10	0680 Jönköping	99259	81
11	2480 Umeå	90111	65
12	1281 Lund	85929	65
13	1490 Borås	80824	73
14	2281 Sundsvall	75868	81
15	2180 Gävle	74806	65
16	0484 Eskilstuna	74761	79
17	1380 Halmstad	72724	71
18	0126 Huddinge	70610	61
19	1780 Karlstad	68706	61
20	0182 Nacka	65998	61
21	0181 Södertälje	64234	65
22	0780 Växjö	63888	61
23	1290 Kristianstad	62110	71
24	0127 Botkyrka	60003	61
25	2580 Luleå	59402	61
26	0136 Haninge	57928	61
27	2482 Skellefteå	57364	65

28	1384 Kungsbacka	56035	61
29	0184 Solna	54664	61
30	0880 Kalmar	49932	81
31	0123 Järfälla	49834	61
32	1080 Karlskrona	49422	75
33	2380 Östersund	47626	67
34	0160 Täby	47624	61
35	0163 Sollentuna	47071	61
36	1481 Mölndal	46513	61
37	0980 Gotland	46485	71
38	1383 Varberg	45797	61
39	0188 Norrtälje	45225	61
40	2080 Falun	44028	61
41	2284 Örnsköldsvik	44017	61
42	1488 Trollhättan	42603	61
43	0480 Nyköping	40917	61
44	1485 Uddevalla	40853	61
45	1496 Skövde	40663	61
46	1293 Hässleholm	39885	61
47	2081 Borlänge	37950	61
48	1287 Trelleborg	33300	51
49	0583 Motala	33197	57
50	0186 Lidingö	32951	51
51	2581 Piteå	32829	51
52	1282 Landskrona	32426	51
53	1382 Falkenberg	32355	51
54	1482 Kungälv	31930	59
55	0138 Tyresö	31655	51
56	1292 Ängelholm	31463	51
57	0381 Enköping	31063	51
58	1494 Lidköping	30256	51
59	0183 Sundbyberg	30146	51

Source: SCB and www.val.se

Table 10: Election to the Municipal Councils in 2010. Those elected by party and age (Number and percent)

Age group	Party									Total
	M	C	FP	KD	MP	S	V	SD	Other	
18-29 years	8.8	4.1	4.6	3.9	11.4	5.8	6.3	16.5	3.7	6.9
30-49 years	33.1	33.8	34.1	36.5	41.7	33.3	31.3	36.2	28.0	33.8
50-64 years	36.9	46.5	39.4	43.5	34.2	45.7	51.5	28.4	41.4	41.9
65- years	21.2	15.7	21.9	16.1	12.7	15.2	11.0	18.8	26.8	17.4
Total number	2 965	1 399	914	591	684	4 594	703	605	514	12 969

Source: SCB

APPENDIX B: Sample Ballot Paper

VAL TILL KOMMUNFULLMÄKTIGE

Folkpartiet liberalerna

Du får bara markera en av dessa **anmälda** kandidater.

1. Mohamad Hassan, 38 år, kommunalråd
2. Cecilia Hamenius, 49 år, fastighetsjurist
3. Anders A Aronsson, 57 år, egen företagare
4. Eva Edwardsson, 45 år, jurist
5. Urban Wästljung, 54 år, industritjänsteman
6. Malin Sjöberg Högrell, 38 år, ekonomichef
7. Peter Nordgren, 61 år, egen företagare
8. Agneta Simonsson, 69 år, fd egen företagare
9. Sten Jonsson, 81 år, aktiv pensionär
10. Fannie Finnved, 21 år, juriststudent
11. Anders Westerlind, 43 år, ingenjör
12. Karolina Larfors, 35 år, utredare
13. Kjell Aleklett, 65 år, professor
14. Monica Wåglund, 68 år, konsult
15. Michael Niklasson, 46 år, advokat
16. Helena Ling, 41 år, lärare
17. Isak Bergdahl, 29 år, universitetsadjunkt
18. Zahra Daii, 57 år, projektledare
19. Alf Hanslöf, 76 år, byggnadsingenjör
20. Jamila Kamil, 41 år, biomedicinare
21. Benny Lindholm, 25 år, studerande
22. Anna Sverredal, 43 år, civilingenjör
23. Mattias Sjölund, 39 år, entreprenör
24. Ewa Lindman, 45 år, vårdbiträde
25. Gunnar Salomonsson, 67 år, rektor
26. Helena Hedman Skoglund, 28 år, gymnasielärare
27. Aktar Zaman, 57 år, verksamhetsledare
28. Agneta Runarsdotter, 42 år, kemist
29. Céline Serap Batur, 33 år, gymnasielärare
30. Thomas Landerhjelm, 31 år, försäkringstjänsteman
31. Monica Spross, 61 år, egen företagare
32. Kay Svensson, 53 år, internationell samordnare
33. Johanna Norberg, 29 år, universitetsadjunkt
34. Björn Sundin, 62 år, lärare
35. Barbro Westrin, 79 år, fd chefskurator
36. Harald Hagnell, 55 år, ekonom
37. Ella-Britt Hanslöf, 74 år, fd socialkamrer
38. Patrik Spänning Westerlund, 34 år, arkivarie
39. Camilla Sjögren, 26 år, pol.mag student
40. Alf Bengtsson, 46 år, personalchef
41. Anna Lena Ettemo, 67 år, fd lärare
42. Berthold Lindersten, 67 år, pensionär
43. Christina Carlson-Thorsson, 70 år, egen företagare
44. Fredrik Sjöberg, 47 år, egen företagare

Uppsala kommun
0003-03621

ELECTION TO CITY COUNCIL

The Liberal Party

You may select only one of those **notified** candidates.

1. Mohamad Hassan, 38 years, Mayor
2. Cecilia Hamenius, 49 years, real estate lawyer
3. Anders A, Aronsson, 57, selfEmployed
4. Eva's son Edward, 45, Lawyer
5. Urban Wästljung, 54 years, industry officials
6. Malin Sjoberg Högrell, 38, finance manager
7. Peter Nordgren, 61 years, selfEmployed
8. Agneta Simonsson, 69, formerly selfEmployed
9. Sten Jonsson, 81 years, active pensioner
10. Fannie Finnved, 21 years, law student
11. Anders Westerlind, 43, engineer
12. Karolina Larfors, 35 years, investigators
13. Kjell Aleklett, 65 years, Professor
14. Monica Wåglund, 68 years, consultant
15. Michael Niklasson, 46, lawyer
16. Helena Ling, 41, teacher
17. Isaac Bergdahl, 29, lecturer
18. Zahra Daii, 57 years old, Project Manager
19. Alf Hanslöf, 76, Engineer
20. Jamila Kamil, 41 years, biomedical
21. Benny Lindholm, 25 years, students
22. Anna Sverredal, 43, civil engineer
23. Mattias Sjölund, 39, entrepreneur
24. Dr Lindman, 45, nursing assistant
25. Gunnar Salomonsson, 67 years, Rector
26. Helen Hedman Skoglund, 28, a high school teacher
27. Contact Zaman, 57, Executive
28. Agneta Runar's daughter, aged 42, chemist
29. Céline Serap Batur, 33 years, high school teacher
30. Thomas Lander Hjelm, 31 years, the insurance officer
31. Monica Spross, 61 years, selfEmployed
32. Kay Smith, 53 years, international coordinator
33. Johanna Norberg, 29, lecturer
34. Björn Sundin, 62, teacher
35. Barbro Westrin, 79 years, the former chief curator
36. Harald Hagnell, 55, economist
37. Ella-Britt Hanslöf, 74, former Social accountant
38. Patrik Chip Ning Westerlund, 34, Archivist
39. Camilla Sjögren, 26, M.Pol.Sc. student
40. Alf Bengtsson, 46, Human Resources
41. Anna Lena Ettemo, age 67, a former teacher
42. Berthold Linder Stone, 67 years, retired
43. Christina Carlson-Thorsson, 70, selfEmployed
44. Fredrik Sjoberg, 47, selfEmployed

Uppsala
0003-03621

Source: www.val.se

APPENDIX C: Variable Summary Statistics

VARIABLES	(1) N	(2) mean	(3) sd	(4) max	(5) min
municipality	3,757	29.86	16.95	59	1
personvald	3,757	0.176	0.381	1	0
personvotes	3,757	97.15	225.5	4,836	1
pvoteshare*	3,757	0.144	0.300	5.665	0.000983
age	3,757	48.87	14.04	89	18
female	3,757	0.446	0.497	1	0
m	3,757	0.276	0.447	1	0
s	3,757	0.338	0.473	1	0
mp	3,757	0.0751	0.264	1	0
fp	3,757	0.0849	0.279	1	0
sd	3,757	0.0490	0.216	1	0
v	3,757	0.0516	0.221	1	0
c	3,757	0.0631	0.243	1	0
kd	3,757	0.0402	0.196	1	0
vr	3,757	0.0221	0.147	1	0
administrator	3,757	0.00825	0.0905	1	0
director	3,757	0.0130	0.113	1	0
manager	3,757	0.0303	0.172	1	0
entrepreneur	3,757	0.0250	0.156	1	0
salesman	3,757	0.00985	0.0988	1	0
driver	3,757	0.00852	0.0919	1	0
farmer	3,757	0.0109	0.104	1	0
doctor	3,757	0.0112	0.105	1	0
socialworker	3,757	0.0194	0.138	1	0
retired	3,757	0.0130	0.113	1	0
pensioner	3,757	0.0133	0.115	1	0
graduate	3,757	0.0298	0.170	1	0
engineer	3,757	0.0389	0.193	1	0
scientist	3,757	0.0279	0.165	1	0
economist	3,757	0.0141	0.118	1	0
selfemployed	3,757	0.0282	0.166	1	0
worker	3,757	0.0253	0.157	1	0
consultant	3,757	0.0269	0.162	1	0
lawyer	3,757	0.0165	0.127	1	0
parlmntmemb	3,757	0.0144	0.119	1	0
politsecretary	3,757	0.0138	0.117	1	0
politofficial	3,757	0.0245	0.155	1	0
mayor	3,757	0.0399	0.196	1	0
assistant	3,757	0.0322	0.177	1	0
officer	3,757	0.0506	0.219	1	0
ombudsman	3,757	0.0229	0.150	1	0
nurse	3,757	0.0349	0.183	1	0
business	3,757	0.0210	0.143	1	0
head	3,757	0.0370	0.189	1	0
student	3,757	0.0508	0.220	1	0
teacher	3,757	0.0743	0.262	1	0
otheroccp	3,757	0.0671	0.250	1	0
notlisted	3,757	0.146	0.354	1	0

age1829	3,757	0.111	0.314	1	0
age3049	3,757	0.376	0.484	1	0
age5064	3,757	0.364	0.481	1	0
age6589	3,757	0.149	0.356	1	0
ballotposition	3,757	1.384	1.657	5	0
left	3,757	0.465	0.499	1	0
right	3,757	0.513	0.500	1	0
parti	3,757	2.735	2.083	8	0

* *pvoteshare* has been rescaled by multiplying with 100 and calculated as (number of personvotes received by a candidate / number of voters in the corresponding municipality)
