

# Differences Between Voters' and Politicians' Preferences and the Effects on Election Outcomes

Matz Dahlberg<sup>†</sup>, Eva Mörk<sup>‡</sup> and Pilar Sorribas<sup>‡</sup>

First draft: October 28, 2008

## **Abstract**

This paper examines whether differences between voters' and politicians' preferences for locally provided services affect the voters' voting decision. We find that voters typically support politicians whose preferences are closest to their own preferences. This finding is in line with theoretical models of the political process arguing that politicians cannot credibly commit to election platforms that differ from their true policy preferences.

---

<sup>†</sup> Department of Economics and IBF at Uppsala University and CESifo. matz.dahlberg@nek.uu.se

<sup>‡</sup> IFAU and Department of Economics at Uppsala University. eva.mork@ifau.uu.se

<sup>‡</sup> Universitat de Barcelona and Institut d'Economia de Barcelona (IEB). psorribas@ub.edu

## 1. Introduction

The aim of this paper is to examine whether differences between voters' and politicians' preferences for locally provided services (such as schooling, day care and social care) affect the voters' voting decision.

This is interesting for at least two reasons. First, it provides an indication if observed voting behavior is in line with the theoretical predictions from the citizen candidate model (developed and mainly discussed in economics) and the proximity model (developed and mainly discussed in political science). In the citizen candidate model, politicians are just voters that have determined to run for office. If elected, they will implement their own preferred policy. Hence, voters should vote for the candidate with preferences most like their own.<sup>1</sup> In the proximity model, policy space is continuous, implying that the voters vote for the party with preferences closes to themselves (Down's classical model).<sup>2</sup> As far as we know, this is the first paper that provides a clear test of the theoretical predictions from the two models.

Second, the paper adds to the literature within economics that investigate whether voters' or politicians' preferences matter for different outcomes. If the voters and the politicians had identical preferences, this would be a non-issue. However, Agren, Dahlberg and Mörk (2007) found that politicians typically have preferences for higher spending (and taxes) than voters. These differences cannot be explained by differences in characteristics between the two groups.

---

<sup>1</sup> The citizen candidate model was developed by Osborne and Slivinski (1996) and Besley and Coate (1997). The citizen candidate model differs from the traditional median voter model in the sense that in the latter model, regardless of whether politicians are office-motivated or not, they will announce the median voter's preferences as their election platform. Hence, politicians preferences do not matter in the median voter model. This result do however follow from the strong assumption about the possibility of giving credible election promises. In a paper from 1988, Alesina shows that if politicians cannot credibly commit to election platforms, the median voter model need no longer be decisive, and preferences of politicians matter, since voters assume that politicians will implement these.

<sup>2</sup> An alternative model is the directional model. In the directional model, policy space is discrete, implying that the voters vote for the party favoring their own side and prefer a more "intense" party on their own side to a less intense. However, there exists a "region of acceptability". There has been a debate in political science whether the proximity model or the directional voting model works best. Macdonald, Listhaug and Rabinowitz (1991) claim that the directional model is superior. Westholm (1997, 2001), on the other hand, claims that there is no support for the directional model. Lewis and King (1999) state that there is no good test supporting either model.

But does it matter?<sup>3</sup> And if it matters, for what should it matter? Levitt (1996) examines whether it matters for economic policy; he investigates the determinants of legislative voting behavior in the US and finds that the senator's own preferences are most important. However, he has no good measure of voters' preferences. Ågren (2005) has data on both politicians' and voters' preferences and investigates the impact of these on changes in spending over the election period. She finds some evidence that politicians' preferences matter, but her results are not all that clear-cut. This paper adds to the literature by investigating whether differences in preferences matter for voters' voting decision. Also, Lee et al (2004) and Pettersson-Lidbom (2003) find evidence that the preferences of the incumbent matter for policy outcome, even after controlling for voters' preferences.

## 2. Institutional background and data

The local public sector plays a dominant role in the Swedish economy and there is a long tradition of strong and autonomous local governments. The degree of autonomy refers both to the right to decide on the provision of local public services (above certain minimum standards) and to the right to set the local tax rate. The Swedish municipalities are responsible for supplying many important welfare services such as schooling, social care and day care. The degree to which citizens depend on municipal services contributes to the importance of local authorities. The municipalities are led by municipal councils elected in local elections, with a proportional election system. Sweden is a multi-party system where the same parties to a large extent appear at both the local and the central level. There are, however, also some local parties. Even though Sweden is a multi-party system, it is standard among economists and political scientists to treat Sweden as a bipartisan system (see, e.g., Alesina, Roubini & Cohen, 1997) where the parties can be divided into a left-wing and a right-wing bloc.

We combine data from three sources: Data from surveys directed to voters, data from surveys directed to local politicians, and aggregate municipal level data. The election studies concern the

---

<sup>3</sup> It is not obvious that differences in preferences matter. It might be the case that politicians implement other policies than their most preferred ones. It might also be the case that voters are unaware of the politician's preferences. Finally, voters may actually want to elect politicians with preferences different from their own.

election years 1966, 1979 and 1991. We observe the preferences and the background characteristics of the voters just before the election and of the politicians after the election.

Regarding how the data was sampled, the surveys, that were collected by political scientists, were directed at a random sample of citizens in a stratified sample of Swedish municipalities and to all elected politicians in these municipalities (except in 1993 when a sample of politicians was drawn). The municipalities were chosen so as to represent different types of municipalities with respect to population and population density

The reply frequency in the surveys was fairly high but with some variation over the years: In the 1966/68 survey, 87% of the voters and 92% of the politicians replied. In the 1979/80 survey, the figures were 82% for the voters and 77% for the politicians. In the 1991/93 survey, 46% of the voters and 79% of the politicians replied. The lower reply frequency among voters 1991 is probably a result of the fact that the 1991 survey was conducted via mail rather than direct interviews.

The pooled cross section covers 36 municipalities and 3179 individuals for the years 1966/68, 25 municipalities and 2678 individuals for 1979/80, and 28 municipalities and 5233 individuals for the years 1991/93

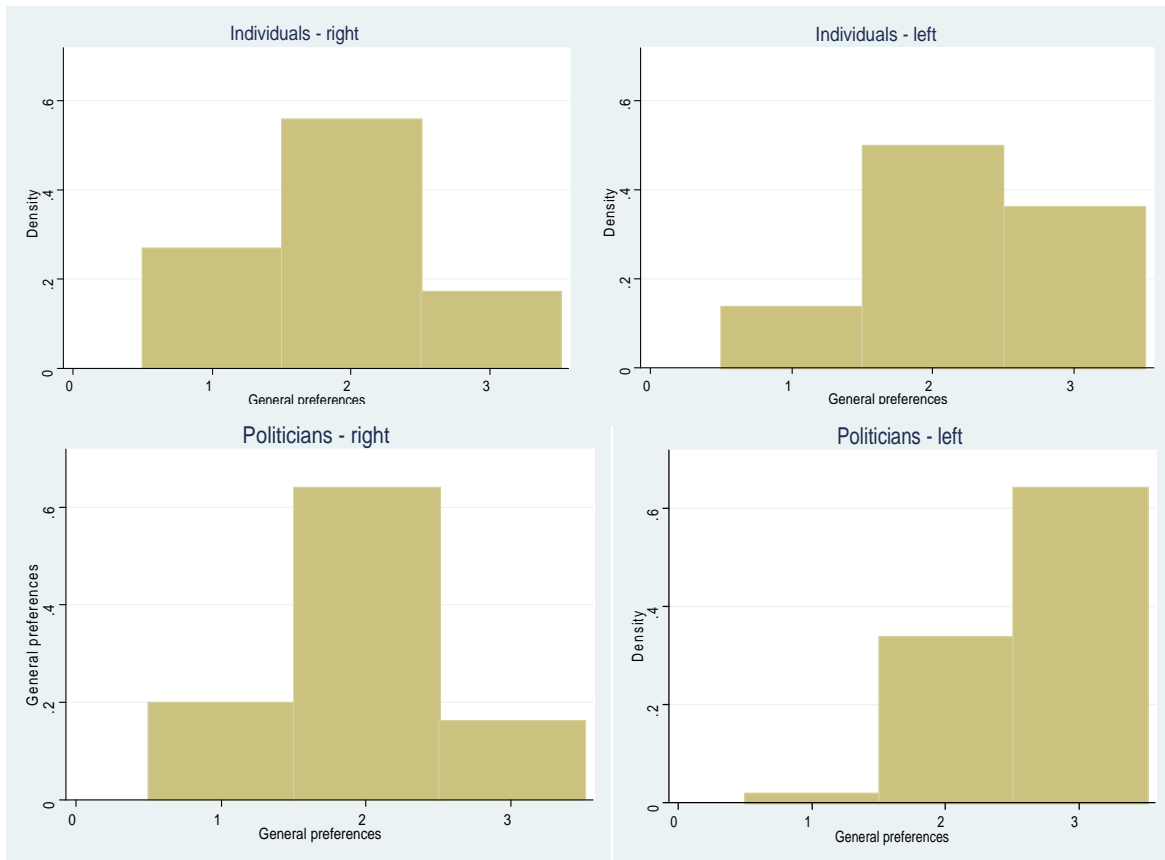
The survey question directed to both the voters and the politicians regarding their preferences were stated as follows:

“Certain activities for which the municipalities are responsible are presented below. Please indicate whether you feel that it is urgent that your municipality does

- more than it is doing at present
- that generally speaking things are satisfactory at present
- that the effort of the municipality could be diminished
- or that you have no opinion about it.”

Some descriptive statistics (histograms to be added).

## Hisograms of politicians and individuals preferences



Note: preferences= 1 if he/she wants to decrease expenditure; 2 if he/she wants to keep the actual expenditure level; 3 if he/she wants to increase public expenditure

### 3. Empirical specifications

If the local politicians' preferences for locally provided goods and services differ from the voters' preferences for the same services, does that affect the voter's voting behavior? To answer that question, we estimate a linear probability model in which each voter choose between the left- and the right-wing bloc. More specifically, the baseline specification takes the following form:

$$(1) \quad P(v_{ijt} = 1) = \beta_L \left| \text{Pref}_{ijt} - \text{Pref}_{ijt}^L \right| + \sum \alpha_k X_{ijt}^k + \phi_{jt} + u_{ijt}$$

where  $\left| \text{Pref}_{ijt} - \text{Pref}_{ijt}^L \right|$  is the absolute difference between the  $i$ th voter's preferences in municipality  $j$  in election year  $t$  ( $\text{Pref}_{ijt}$ ) and the left-wing politician with median (mean?)

preferences ( $\text{Pref}_{ijt}^L$ ),  $X_{ijt}^k$  are  $k$  control variables that might affect both the voters' voting behavior and the difference between the voters' and the politicians' preferences (we include controls for the voters' age, their age squared, sex, educational level, and marital status),  $\phi_{jt}$  are municipality-specific constants that pick up unobserved municipality-specific variables that might affect both the voters' voting behavior and the difference between the voters' and the politicians' preferences, and where

$$v_{ijt} = \begin{cases} 1 & \text{if individual } i \text{ in municipality } j \text{ vote left in election year } t \\ 0 & \text{if the individual vote right} \end{cases} .$$

By including  $X_{ijt}^k$  and  $\phi_{jt}$  we minimize the risk of getting omitted variable bias estimates of  $\beta_L$ . Voting left is defined as voting on either the Social Democratic Party (s) or on the Left Party (v). Voting right is defined as voting on either the Conservative Party (m), the Liberal Party (fp), the Center Party (c) or the Christian Democratic Party (kd).

A potential problem with our data is that the voters and the politicians answer the preference-question in different years; the voters in the election year and the politicians in the post-election year. The implication of this is that they take different expenditure levels into account when answering the question of whether they want more, less or the same to be spent on the locally provided service. To solve this problem, we will "normalize" the stated preferences with respect to the actual spending levels by using estimated preferences. More specifically, we first estimate the following equation using OLS:

$$(2) \quad \text{Pref}(J)_{ijt} = \beta \text{Expenditure}(J)_{jt} + u_{it}$$

Then we use the estimated residuals from that equation as our measure on the voters' and the politicians' preferences for the locally provided services. That is:

$$(3) \quad \text{Estimated}(\text{Pref}(J)_{ijt}) = \text{Pref}(J)_{ijt} - \hat{\beta} \text{Expenditure}(J)_{jt}$$

The estimated preferences are hence given by the unexplained variation in the stated preferences after controlling away the variation given by the expenditure levels. In the estimations of equation (1) we use the estimated preferences obtained in equation (3). To account for the fact that we have an estimated regressor, we will use bootstrap standard errors when drawing inference about  $\beta_L$  in equation (1).

What sign should we expect on  $\beta_L$ ? If the proximity model and the citizen-candidate model are correct, we would expect a negative sign; the further away the preferences of the left-wing politician is my preferences, the lower is the probability that I will vote for that politician/party.

A potential shortcoming of equation (1) is that it does not relate the voter's preferences to the preferences of the right-wing politicians. It might be the case that for every given difference between my preferences and the left-wing politician's preferences, the difference to the right-wing politician might be even larger, with the implication that I would still vote for the left politician. To examine if this might be the case, we will also estimate the following specification of the model;

$$(4) \quad P(v_{ijt} = 1) = \beta_L \frac{|\text{Pref}_{ijt} - \text{Pref}_{ijt}^R|}{|\text{Pref}_{ijt} - \text{Pref}_{ijt}^L|} + \sum \alpha_k X_{ijt}^k + \phi_{jt} + u_{ijt}$$

If the proximity model and the citizen-candidate model are correct, we would now expect a positive sign on  $\beta_L$ ; the larger the difference is between my preferences and the right-wing politician's preferences relative to the difference between my preferences and the left-wing politician's preferences (i.e., the larger the ratio is in equation (4)), the higher is the probability that I will vote for the left-wing politician.<sup>4</sup> Also when we estimate equation (4) we will use the estimated preferences from equation (2).

Summary statistics for the variables measuring differences in preferences are given in Tables 1-3.

(Tables 1-3 about here)

#### 4. Results

We start by examining to what extent differences in preferences might matter when it comes to total spending. The results obtained when estimating equation (1) are presented in Table 4.<sup>5</sup> As can be seen from the first row, we get the expected negative sign for all years (both when taken together and when taken separately). Except for the 1966 sample, we also get statistically significant estimates at the 1 percent significance level. Compared to the mean values of the difference variable (c.f. Table 1), the estimates also seem to be economically important.

Turning to the preferences for specific services, we note from Table 5 that the voters seem to be more responsive to differences in preferences for certain services. While there are no significant effects on voting behavior from preference differences in schooling, the voters seem to react strongly on differences in preferences for child care; the effect has the expected negative sign and it seems to be statistically as well economically significant for all the years. These results seem plausible in the sense that municipal spending on schools was to a large extent guided by strict national guidelines up until the early 1990s. There was not much maneuver room for the municipalities, implying that differences in preferences between voters and local politicians could not have a large actual impact on school spending. Day care on the other hand started to expand rapidly in the mid 1960s and spending on day care was to a large extent discretionally determined by the local politicians.

Preferences for social care seems to have grown in importance over time; it seems to have been unimportant in the 1960s and 1970s (both statistically and economically) but much more important when the large recession started to set in in the early 1990s.

(Table 5 about here)

---

<sup>4</sup> The reason for having the difference to the right-wing politicians in the numerator is that some of the differences between the voters' and the right-wing politician is zero (c.f. Table 2), implying that the ratio would not be defined for those observations if the ratio was inverted.

<sup>5</sup> The estimated standard errors for the difference variable are based on 200 bootstrap replications.



Next we turn to the estimation of equation (4), where we put the voters' difference in preferences to the left-wing politician in relation to the voters' difference in preferences to the right-wing politician. The results for total spending are provided in Table 6. We get expected signs and coefficients that are significantly different from zero in 1979, 1999 and all years taken together. We get an unexpected sign for 1966, but the coefficient for that year has a fairly large estimated standard error.

(Table 6 about here)

The results for disaggregated spending are provided in Table 7. In these estimations we always get the expected sign, and we get significant estimates for child care and social care.

(Table 7 about here)

We have also estimated equation (4) with preferences for total spending and preferences for disaggregated spending included at the same time. These results, presented in Table 8, confirms the picture that it is differences in preferences for total spending, spending on child care and spending on social care that matters.

(Table 8 about here)

## 5. Conclusions

Yet to be written.

## References

- Ågren, H, M Dahlberg, and E Mörk (2007), “Do Politicians’ Preferences Correspond to those of the Voters? An Investigation of Political Representation”, *Public Choice* 130, 137-162
- Alesina, A (1988), “Credibility and Policy Convergence in a Two-Party System with Rational Voters”, *American Economic Review* 78, 796-805.
- Alesina, A, N Roubini and G Cohen,( 1997), *Political Cycles and the Macroeconomy*, MIT Press, Cambridge.
- Besley T and S Coate (1997), “An Economic Model of Representative Democracy”, *Quarterly Journal of Economics* 112, 85-114.
- Lee, D, E Moretti and M Butler (2004) “Do Voters Affect or Elect Policies? Evidence from the US House” *Quarterly Journal of Economics* 119, 807-860.
- Levitt, S (1996), “How do Senators Vote? Disentangling the Role of Voter Preferences, Party Affiliation and Senator Ideology” *American Economic Review* 86, 425-441.
- Lewis, J B and G King (1999), “No Evidence on Directional vs Proximity Voting” *Political analysis* 8, 21-33.
- Macdonald, S E, O Listhaug and G Rabinowitz (1991), “Issues and Party Support in Multiparty Systems” *American Political Science Review* 85, 1107-1131.
- Osborne M & A Slivinski (1996), “A Model of Political Competition with Citizen-Candidate”, *Quarterly Journal of Economics* 111, 65-96.
- Pettersson-Lidbom, P (2003), “Do Parties Matter for Policy Outcomes? A Regression-Discontinuity Approach”, Working Paper 2003:15, Department of Economics, Stockholm University.
- Westholm, A (1997), “Distance versus Direction: The illusory Defeat of the Proximity Theory of Electoral Choice” *American Political Science Review* 91, 865-883.
- Westholm, A (2001), “On the Return of Epicycles: Some Crossroads in Spatial Modeling Revisted” *The Journal of Politics* 63, 436-481.
- Ågren, H (2007), “Preferences and Policy Outcomes – The Role of Voters, Representatives and Political Strength”, *Public Choice* 130, 137-162.

**Table 1.** Summary statistics for the variable  $|\text{Pref}_{ijt}^L - \text{Pref}_{ijt}^R|$ .

year		mean	max	min	N	Sd
1966	General Pref.	0.73445	1.937631	0.02661	869	0.49826
	Schooling Pref.	0.725114	2.130145	0.003017	869	0.499189
	Child care Pref.	0.860546	4.243829	0.006991	869	0.738698
	Social care Pref.	0.668913	5.189318	0.015031	869	0.643497
1979	General Pref.	0.766482	1.882353	0.117647	491	0.484322
	Schooling Pref.	0.796781	2.246208	0.012984	491	0.544989
	Child care Pref.	0.802679	2.302398	0.053794	491	0.535013
	Social care Pref.	0.885753	2.442493	0.011659	491	0.541197
1991	General Pref.	0.683001	1.84	0.149771	974	0.436717
	Schooling Pref.	0.668536	2.278577	0.008102	974	0.54592
	Child care Pref.	0.742662	2.205322	0.008406	974	0.576605
	Social care Pref.	0.769687	1.548846	0.010132	974	0.432419
Total	General Pref.	0.719719	1.937631	0.02661	2334	0.471465
	Schooling Pref.	0.71658	2.278577	0.003017	2334	0.530786
	Child care Pref.	0.799179	4.243829	0.006991	2334	0.636034
	Social care Pref.	0.756583	5.189318	0.010132	2334	0.547732

**Table 2.** Summary statistics for the variable  $|\text{Pref}_{ijt}^L - \text{Pref}_{ijt}^R|$ .

year		mean	max	Min	N	sd
1966	General Pref.	0.563299	1.503716	0	858	0.445764
	Schooling Pref.	0.81993	2.545729	0.027231	858	0.575837
	Child care Pref.	0.944726	3.985765	0.030072	858	0.663038
	Social care Pref.	0.705113	5.389318	0.016111	858	0.707696
1979	General Pref.	0.545314	1.428571	0	491	0.453599
	Schooling Pref.	0.671644	1.832992	0.006856	491	0.457852
	Child care Pref.	0.898763	1.977782	0.006363	491	0.505939
	Social care Pref.	0.661903	1.85811	0.045702	491	0.449192
1991	General Pref.	0.736729	1.713477	0.100657	974	0.45957
	Schooling Pref.	0.68685	1.999694	0.000306	974	0.442835
	Child care Pref.	0.795066	1.73211	0.026662	974	0.482497
	Social care Pref.	0.669006	2.174153	0.007542	974	0.52035
Total	General Pref.	0.632214	1.713477	0	2323	0.461728
	Schooling Pref.	0.732789	2.545729	0.000306	2323	0.503264
	Child care Pref.	0.872261	3.985765	0.006363	2323	0.564281
	Social care Pref.	0.680841	5.389318	0.007542	2323	0.584156

**Table 3.** Summary statistics for the variable  $\frac{|\text{Pref}_{ijt}^R - \text{Pref}_{ijt}^L|}{|\text{Pref}_{ijt}^R + \text{Pref}_{ijt}^L|}$ .

year		mean	max	min	N	Sd
1966	General Pref.	1.2383	15.40546	0	858	2.24672
	Schooling Pref.	1.506297	26.61736	0.135264	858	1.465386
	Child care Pref.	2.008018	73.41122	0.041799	858	5.473841
	Social care Pref.	2.205622	15.98547	0.03373	858	3.215469
1979	General Pref.	1.115176	10.38889	0	491	1.577737
	Schooling Pref.	1.698157	29.88228	0.011856	491	3.641671
	Child care Pref.	2.170474	18.70787	0.006724	491	2.55027
	Social care Pref.	3.681923	64.95023	0.110397	491	12.69115
1991	General Pref.	1.639512	8.653847	0.177722	974	1.777038
	Schooling Pref.	4.262738	70.25416	0.000742	974	12.00398
	Child care Pref.	5.158892	68.21294	0.022832	974	13.57349
	Social care Pref.	3.540656	62.05627	0.009653	974	9.933243
Total	General Pref.	1.380498	15.40546	0	2323	1.939605
	Schooling Pref.	2.702585	70.25416	0.000742	2323	8.107736
	Child care Pref.	3.363471	73.41122	0.006724	2323	9.589896
	Social care Pref.	3.07742	64.95023	0.009653	2323	8.921819

**Table 4.** Results for preferences for total spending (equation (1)).

	Total	1966	1979	1991
$ \text{Pref}_{ijt}^R - \text{Pref}_{ijt}^L $	-0.1384***	-0.0483	-0.1042**	-0.2503***
		(0.0366)	(0.0521)	(0.0315)
<i>Education</i>	-0.2440***	-0.3409***	-0.2987***	-0.1957***
	(0.0265)	(0.0661)	(0.0543)	(0.0312)
<i>Sex</i>	0.0037	-0.0373	0.0246	0.0152
	(0.0193)	(0.0330)	(0.0440)	(0.0291)
<i>Age</i>	0.0069	0.0039	-0.0112	0.0175***
	(0.0042)	(0.0078)	(0.0087)	(0.0060)
<i>Age2</i>	-0.0001**	-0.0001	0.0001	-0.0002***
	(0.0000)	(0.0001)	(0.0001)	(0.0001)
<i>Marital Status</i>	0.0152	0.0697	0.0497	-0.0677*
	(0.0236)	(0.0454)	(0.0587)	(0.0385)
<i>Constant</i>	0.6831***	0.5460*	1.1607***	0.4942***
	(0.1075)	(0.2924)	(0.3675)	(0.1401)
<i>Observations</i>	2281	867	490	924
<i>R-squared</i>	0.136	0.114	0.176	0.169

**Table 5.** Results for preferences for schooling, child care and social care (equation (1)).

	Total	1966	1979	1991
$ \text{Scho}_{ijt} - \text{Scho}_{jt}^L $	-0.0154 (0.0208)	-0.0226 (0.0404)	0.0042 (0.0529)	-0.0178 (0.0299)
$ \text{Chil}_{ijt} - \text{Chil}_{jt}^L $	-0.1260*** (0.0185)	-0.0990** (0.0418)	-0.1571*** (0.0488)	-0.1207*** (0.0291)
$ \text{Soc}_{ijt} - \text{Soc}_{jt}^L $	-0.0953*** (0.0241)	-0.0326 (0.0401)	-0.0464 (0.0532)	-0.1932*** (0.0420)
<i>Education</i>	-0.2427*** (0.0235)	-0.3399*** (0.0689)	-0.2926*** (0.0508)	-0.2039*** (0.0298)
<i>Sex</i>	-0.0093 (0.0201)	-0.0383 (0.0327)	0.0190 (0.0433)	-0.0068 (0.0325)
<i>Age</i>	0.0084** (0.0040)	0.0036 (0.0075)	-0.0085 (0.0094)	0.0199*** (0.0062)
<i>Age2</i>	-0.0001** (0.0000)	-0.0001 (0.0001)	0.0000 (0.0001)	-0.0002*** (0.0001)
<i>Marital Status</i>	0.0148 (0.0262)	0.0670 (0.0417)	0.0413 (0.0561)	-0.0641 (0.0421)
<i>Constant</i>	0.7361*** (0.0971)	1.0450*** (0.3036)	1.1640*** (0.3843)	0.5447*** (0.1479)
<i>Observations</i>	2281	867	490	924
<i>R-squared</i>	0.151	0.121	0.199	0.180

**Table 6.** Results for preferences for total spending (equation (4)).

	Total	1966	1979	1991
$\frac{ \text{Pref}_{ijt} - \text{Pref}_{jt}^R }{ \text{Pref}_{ijt} - \text{Pref}_{jt}^L }$				
<i>General Pref.</i>	0.0319*** (0.0071)	-0.0148* (0.0089)	0.0526*** (0.0131)	0.0769*** (0.0090)
<i>Education</i>	-0.2439*** (0.0245)	-0.3240*** (0.0670)	-0.2861*** (0.0469)	-0.1996*** (0.0319)
<i>Sex</i>	0.0024 (0.0208)	-0.0474 (0.0359)	0.0396 (0.0431)	0.0132 (0.0325)
<i>Age</i>	0.0066* (0.0039)	0.0056 (0.0075)	-0.0111 (0.0088)	0.0150** (0.0064)
<i>Age2</i>	-0.0001** (0.0000)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0002** (0.0001)
<i>Marital Status</i>	0.0270 (0.0253)	0.0692* (0.0413)	0.0511 (0.0534)	-0.0400 (0.0391)
<i>Constant</i>	0.5492*** (0.1000)	0.5088** (0.2318)	1.0133*** (0.3151)	0.2537* (0.1522)
<i>Observations</i>	2270	856	490	924
<i>R-squared</i>	0.129	0.104	0.192	0.186

**Table 7.** Results for preferences for schooling, child care and social care (equation (4)).

	Total	1966	1979	1991
<i>Schooling Pref.</i>	0.0031* (0.0018)	0.0060 (0.0172)	0.0030 (0.0104)	0.0028 (0.0019)
<i>Child care Pref.</i>	0.0046*** (0.0013)	0.0028 (0.0049)	0.0341*** (0.0120)	0.0041*** (0.0015)
<i>Social care Pref.</i>	0.0059*** (0.0013)	0.0180** (0.0085)	0.0009 (0.0018)	0.0101*** (0.0017)
<i>Education</i>	-0.2434*** (0.0266)	-0.3422*** (0.0575)	-0.2923*** (0.0477)	-0.2074*** (0.0329)
<i>Sex</i>	-0.0024 (0.0227)	-0.0416 (0.0324)	0.0247 (0.0429)	0.0211 (0.0308)
<i>Age</i>	0.0087** (0.0044)	0.0034 (0.0073)	-0.0096 (0.0085)	0.0208*** (0.0058)
<i>Age2</i>	-0.0001** (0.0000)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0002*** (0.0001)
<i>Marital Status</i>	0.0192 (0.0239)	0.0703* (0.0411)	0.0419 (0.0617)	-0.0583 (0.0384)
<i>Constant</i>	0.5523*** (0.1133)	0.5066* (0.2698)	0.8976** (0.3987)	0.2568* (0.1409)
<i>Observations</i>	2270	856	490	924
<i>R-squared</i>	0.131	0.108	0.190	0.161

**Table 8.** Results for preferences for total spending and spending on schooling, child care and social care (equation (4)).

	Total	1966	1979	1991
<i>General Pref.</i>	0.0294*** (0.0070)	-0.0144 (0.0095)	0.0476*** (0.0132)	0.0712*** (0.0100)
<i>Schooling Pref.</i>	0.0030 (0.0020)	0.0053 (0.0200)	0.0028 (0.0114)	0.0024 (0.0018)
<i>Child care Pref.</i>	0.0044*** (0.0014)	0.0027 (0.0041)	0.0307** (0.0121)	0.0038** (0.0016)
<i>Social care Pref.</i>	0.0054*** (0.0013)	0.0180** (0.0081)	0.0003 (0.0022)	0.0086*** (0.0016)
<i>Education</i>	-0.2414*** (0.0220)	-0.3326*** (0.0655)	-0.2846*** (0.0468)	-0.1950*** (0.0312)
<i>Sex</i>	-0.0004 (0.0220)	-0.0451 (0.0330)	0.0373 (0.0426)	0.0056 (0.0294)
<i>Age</i>	0.0072* (0.0040)	0.0044 (0.0076)	-0.0104 (0.0087)	0.0166*** (0.0058)
<i>Age2</i>	-0.0001** (0.0000)	-0.0001 (0.0001)	0.0001 (0.0001)	-0.0002*** (0.0001)
<i>Marital Status</i>	0.0256 (0.0231)	0.0665 (0.0408)	0.0491 (0.0588)	-0.0424 (0.0392)
<i>Constant</i>	0.5249*** (0.1022)	0.5056* (0.2610)	0.8195** (0.3873)	0.2167* (0.1284)
<i>Observations</i>	2270	856	490	924
<i>R-squared</i>	0.140	0.111	0.209	0.213