

Supplementary materials

Government spending preferences over the life-cycle: A comprehensive overview,
by Florence Vallée-Dubois

A Descriptive statistics

The following table and figures include descriptive statistics for the main variables used in the analyses.

- Figure A1 reports the share of respondents in each birth cohort, by year of survey.
- Figure A2 reports the age distribution of respondents, by birth cohort.
- Table A1 reports the number of observations and main descriptive statistics for all dependent variables (support for more spending is coded 1, support for less spending is coded -1 and support for the same amount of spending is coded 0). The table also includes statistics on the three main independent variables (age, birth year and survey year).
- Figure A3 reports the mean value of each dependent variable (the 15 policies) for each age in the sample.
- Figure A4 reports the mean value of each dependent variable (the 15 policies) for each birth cohort in the sample.
- Figure A5 reports the mean value of each dependent variable (the 15 policies) for each survey year in the sample.

Figure A1: Sample share of each birth cohort, by year

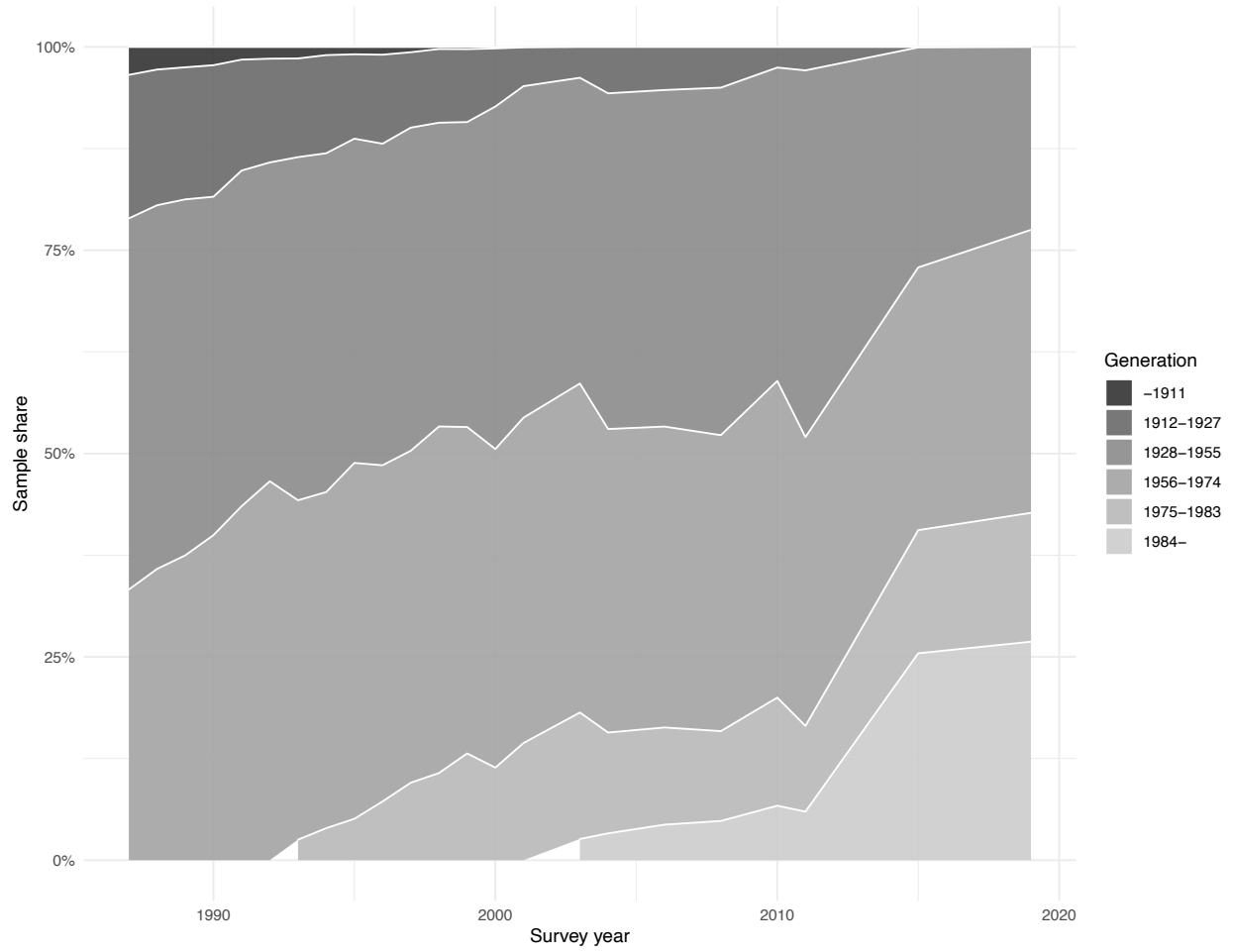


Figure A2: Distribution of age groups in the sample, by birth cohort

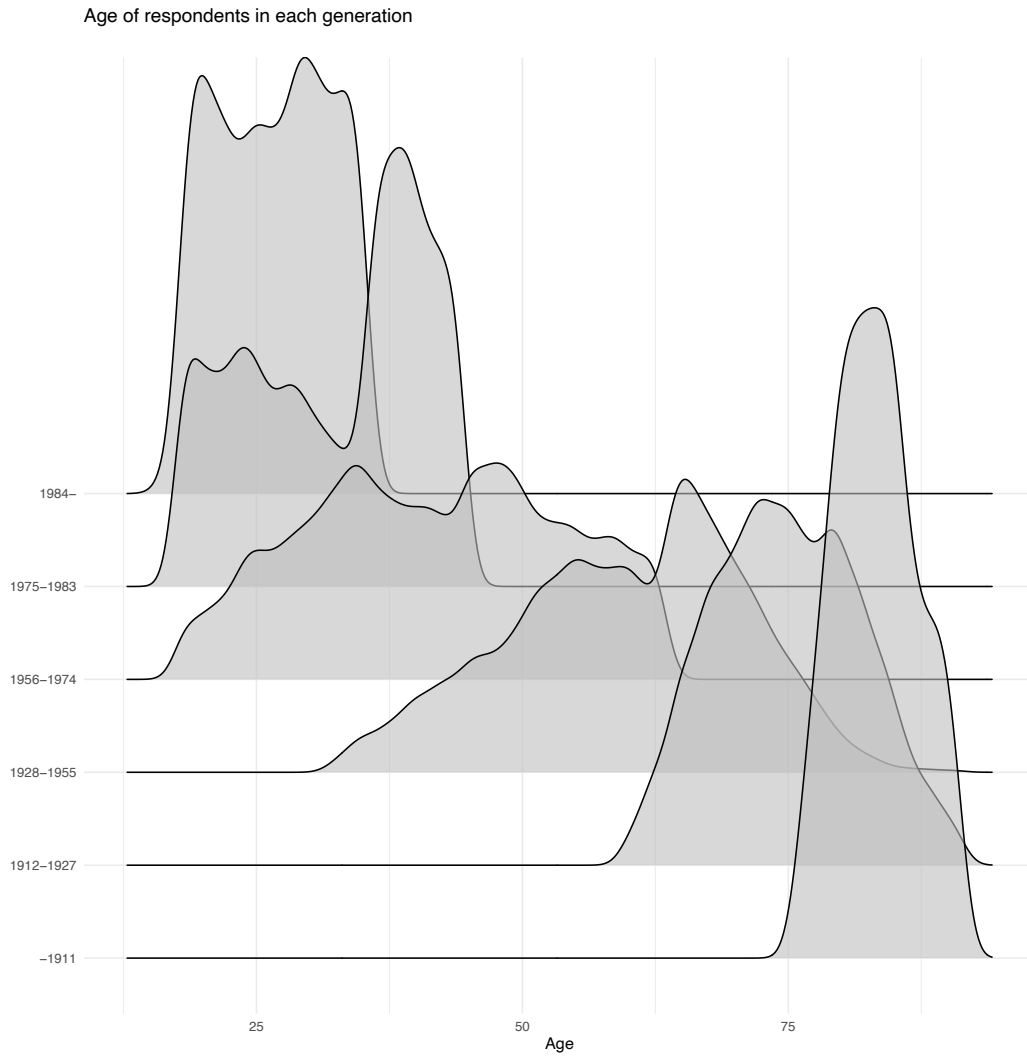
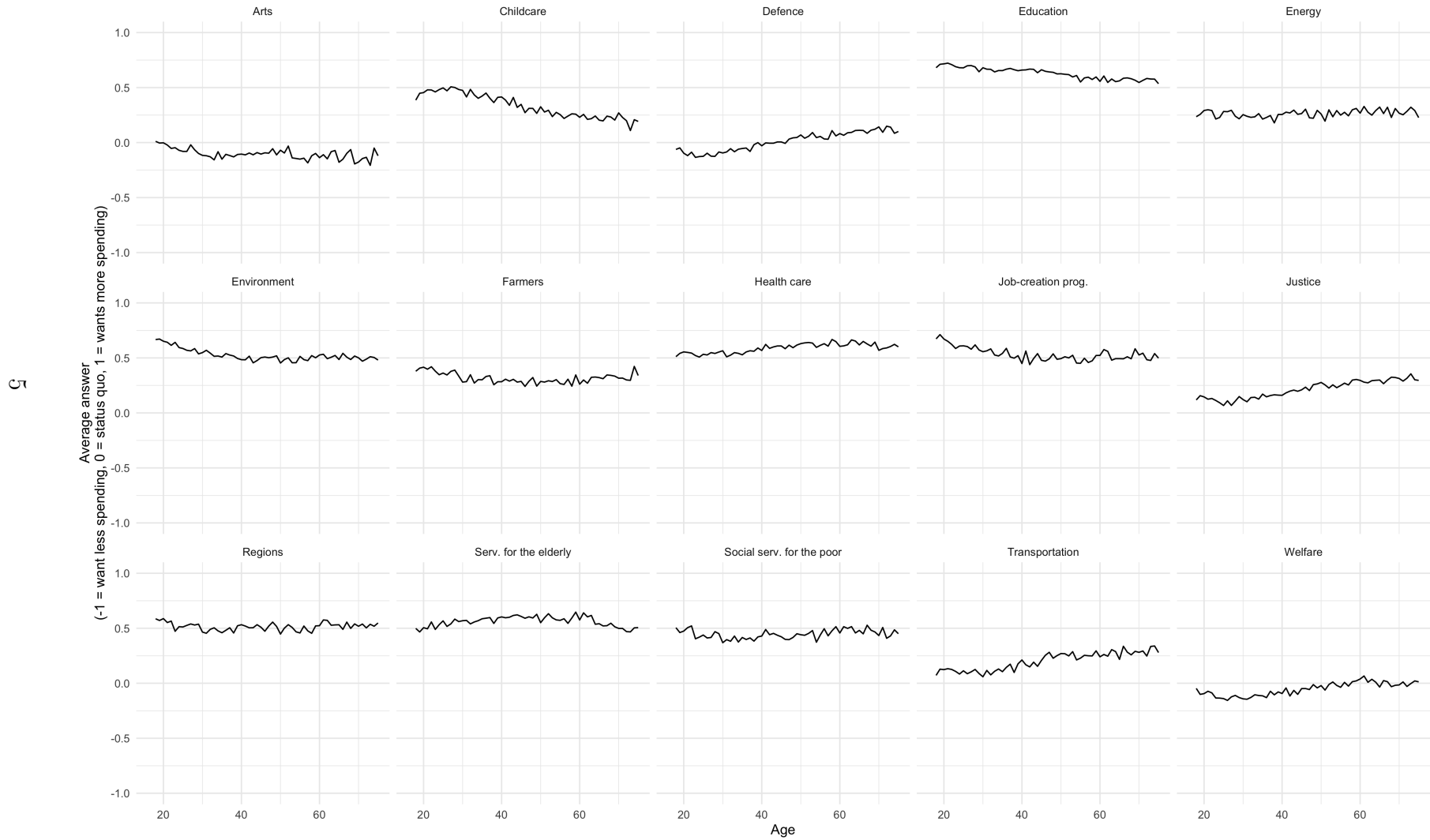


Table A1: Summary statistics of dependent variables and main independent variables

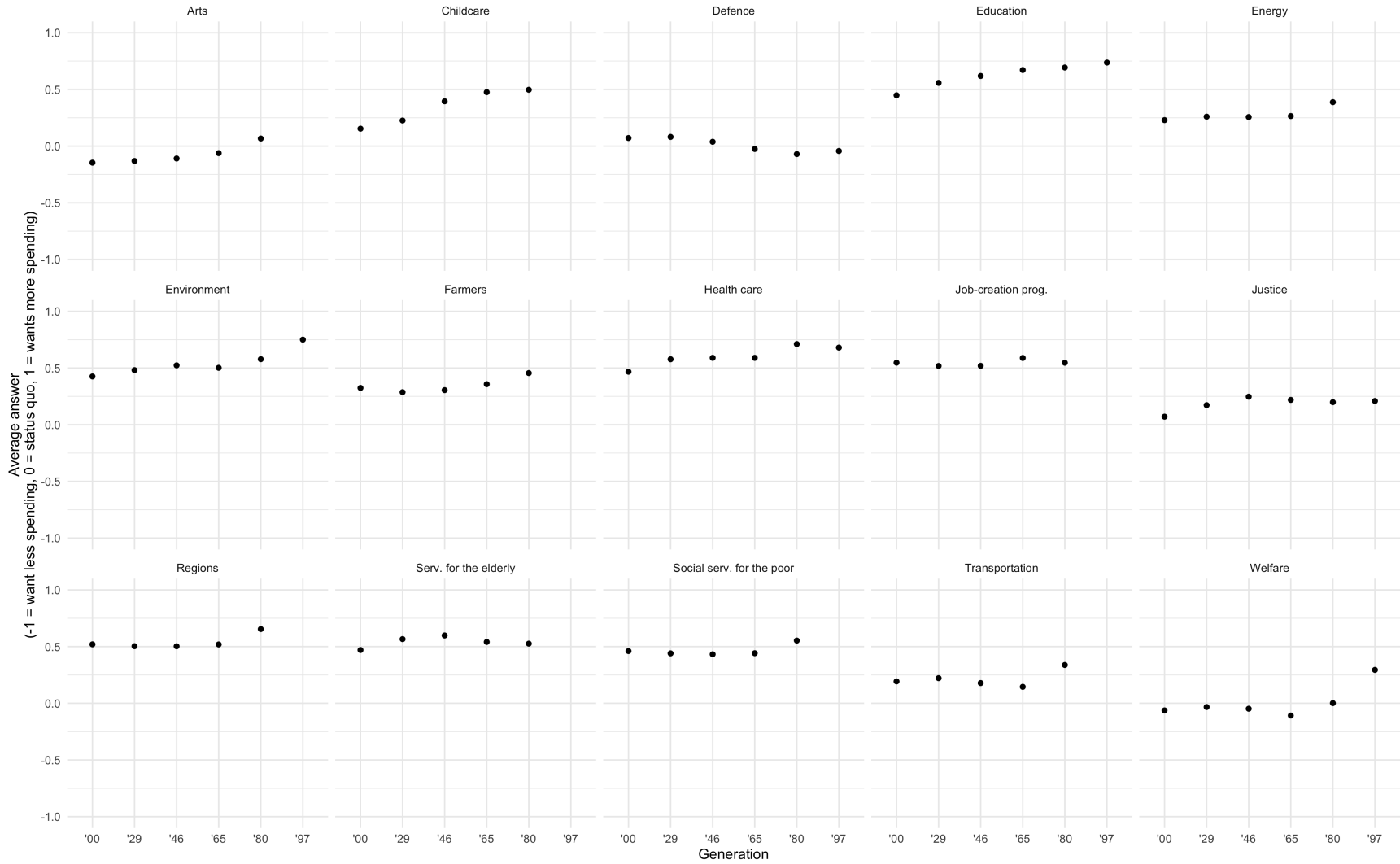
	N	Mean	Median	St. Dev.	Min	Max
<i>Ind. variables</i>						
Survey year	116,818				1987	2019
Gender	116,525				0.000	1.000
Age	116,818	47.084	46	17.014	16	91
Birth year	116,818				1900	2001
Income	66,301	0.432	0.333	0.328	0.000	1.000
Welfare	51,380	-0.050	0.000	0.757	-1.000	1.000
Environment	88,416	0.522	1.000	0.635	-1.000	1.000
Defence	89,374	0.009	0.000	0.728	-1.000	1.000
Childcare	30,701	0.345	0.000	0.716	-1.000	1.000
Job-creation prog.	31,593	0.545	1.000	0.658	-1.000	1.000
Elderly services	31,648	0.553	1.000	0.560	-1.000	1.000
Health care	63,574	0.588	1.000	0.571	-1.000	1.000
Regions	30,638	0.510	1.000	0.648	-1.000	1.000
Transportation	30,616	0.163	0.000	0.613	-1.000	1.000
Education	92,451	0.630	1.000	0.557	-1.000	1.000
Farmers	29,792	0.316	0.000	0.685	-1.000	1.000
Arts	28,292	-0.087	0.000	0.693	-1.000	1.000
Energy	26,878	0.245	0.000	0.639	-1.000	1.000
Serv. for the poor	28,740	0.436	1.000	0.652	-1.000	1.000
Justice	71,417	0.213	0.000	0.669	-1.000	1.000

Figure A3: Value of the dependent variables, averaged by age



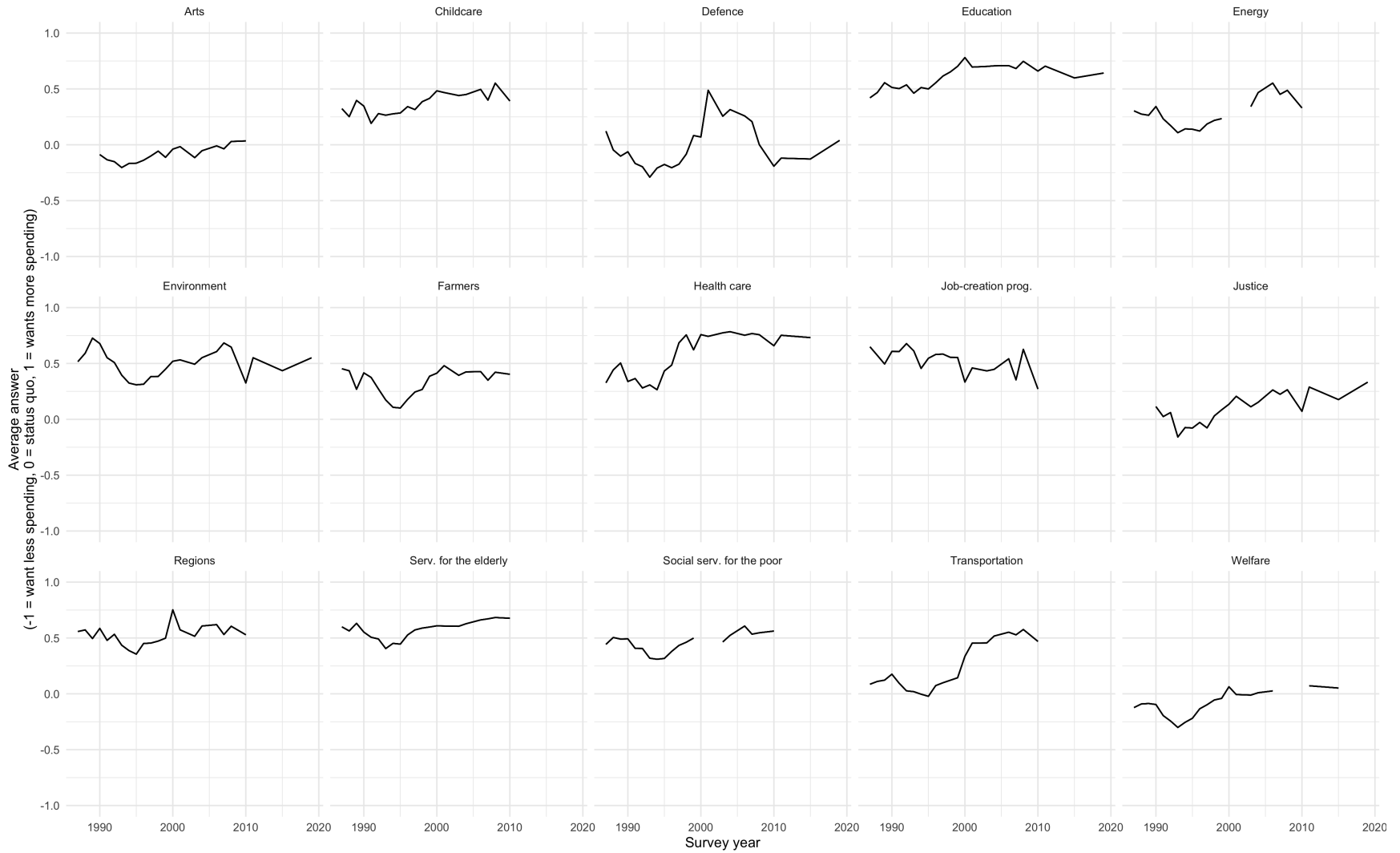
Source: Environics Focus Canada; Canadian Election Studies

Figure A4: Value of the dependent variables, averaged by birth cohort



Source: Environics Focus Canada; Canadian Election Studies

Figure A5: Value of the dependent variables, averaged by year



Source: Environics Focus Canada; Canadian Election Studies

B Regression tables for models presented in the main text

The following tables report estimates for the regression models presented in the main text. The predicted probabilities presented in Figures 3 to 6 and Table 2 are derived from these regression analyses.

- In Table B1, the dependent variables are support for more or the same amount public spending on all programs.
 - Support for more spending is coded 1, otherwise 0, then individual values are averaged together.
 - Support for the same amount of spending is coded 1, otherwise 0, then individual values are averaged together.
- If a respondent did not provide an answer for a policy, their answer is not considered in the average.
- The number of observations corresponds to the maximum number of complete observations on all variables in the model (age, birth year, socio-demographic controls).
- The main independent variable is age (linear and squared). Models control for birth cohorts (reference category = ...-1911), survey year, income, gender, education level, employment, marital status, religiosity and vote intention. Models are ordinary least squares regressions.
- In Tables B2 and B3, the dependent variables are support for more (=1, otherwise 0) or the same amount of (=1, otherwise 0) public spending on each of the 15 policies. Again, models are ordinary least squares regressions with the same controls.

Table B1: Support for more or the same level of government spending (all issues averaged together)

	Spend more		Spend the same amount	
	(1)	(2)	(3)	(4)
Age	0.003*** (0.001)	-0.002** (0.001)	-0.004*** (0.001)	-0.001 (0.001)
Age, sq.	-0.00004*** (0.00001)	0.00000 (0.00001)	0.00005*** (0.00001)	0.00002*** (0.00001)
Year	No	Yes	No	Yes
Birth cohort	No	Yes	No	Yes
Constant	0.467*** (0.014)	-7.557*** (0.562)	0.440*** (0.014)	6.226*** (0.565)
Observations	39,438	39,438	39,438	39,438
R ²	0.039	0.049	0.017	0.024
Adjusted R ²	0.039	0.048	0.017	0.024

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, gender, education level,
employment, marital status, religiosity
and vote intention.
Models in the second and fourth columns
include a linear term for the survey year
and a categorical birth cohort variable.

Table B2: Effect of age on support for more government spending, OLS models

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.005*** (0.002)	-0.0002 (0.002)	-0.0003 (0.001)	-0.007*** (0.001)	0.008*** (0.002)
Age, sq.	-0.0001*** (0.00002)	-0.00003* (0.00002)	0.00001 (0.00001)	0.00003** (0.00001)	-0.0001*** (0.00002)
Constant	-5.852*** (1.938)	-7.751*** (1.913)	-7.155*** (0.922)	-10.931*** (0.998)	-5.048*** (1.861)
Observations	16,249	21,170	30,778	31,921	21,841
R ²	0.042	0.051	0.042	0.040	0.043
Adjusted R ²	0.040	0.050	0.042	0.040	0.042
	Energy	Environment	Farmers	healthcare	Job-creation
Age	0.001 (0.002)	-0.008*** (0.001)	-0.008*** (0.002)	0.002 (0.001)	-0.005*** (0.002)
Age, sq.	-0.00001 (0.00002)	0.0001*** (0.00001)	0.0001*** (0.00002)	-0.00003** (0.00001)	0.00004** (0.00002)
Constant	1.853 (1.970)	0.687 (1.053)	7.508*** (1.951)	-40.961*** (1.193)	15.746*** (1.794)
Observations	19,095	29,764	20,545	32,817	21,848
R ²	0.009	0.045	0.027	0.109	0.065
Adjusted R ²	0.008	0.044	0.026	0.109	0.064
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.002 (0.001)	0.0005 (0.002)	-0.001 (0.002)	0.004*** (0.002)	0.007*** (0.001)
Age, sq.	0.00001 (0.00001)	-0.00002 (0.00002)	0.00000 (0.00002)	-0.00003 (0.00002)	-0.0001*** (0.00001)
Constant	-17.511*** (1.133)	2.680 (1.898)	5.796*** (1.987)	-21.577*** (1.658)	-3.340*** (1.136)
Observations	22,442	21,161	20,429	21,049	26,558
R ²	0.041	0.035	0.057	0.030	0.078
Adjusted R ²	0.040	0.034	0.056	0.029	0.078

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

Table B3: Effect of age on support for the same amount of government spending, OLS models

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.007*** (0.002)	-0.008*** (0.002)	-0.001 (0.001)	0.004*** (0.001)	-0.007*** (0.002)
Age, sq.	0.0001*** (0.00002)	0.0001*** (0.00002)	0.00001 (0.00001)	-0.00001 (0.00001)	0.0001*** (0.00002)
Constant	4.811* (2.551)	-4.146** (1.878)	-1.799* (1.069)	9.705*** (0.972)	6.928*** (1.846)
Observations	16,249	21,170	30,778	31,921	21,841
R ²	0.018	0.015	0.012	0.029	0.034
Adjusted R ²	0.017	0.014	0.011	0.029	0.033
	Energy	Environment	Farmers	healthcare	Job-creation
Age	-0.004** (0.002)	0.004*** (0.001)	0.002 (0.002)	-0.003** (0.001)	0.002 (0.002)
Age, sq.	0.00003* (0.00002)	-0.00003** (0.00001)	-0.00001 (0.00002)	0.00004*** (0.00001)	-0.00001 (0.00002)
Constant	1.579 (2.076)	2.565** (1.029)	-7.702*** (1.970)	40.032*** (1.186)	-10.274*** (1.693)
Observations	19,095	29,764	20,545	32,817	21,848
R ²	0.012	0.029	0.012	0.089	0.024
Adjusted R ²	0.011	0.028	0.011	0.088	0.024
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.004** (0.001)	-0.001 (0.002)	0.001 (0.002)	-0.005*** (0.002)	-0.003* (0.001)
Age, sq.	0.00004** (0.00002)	0.00002 (0.00002)	0.00001 (0.00002)	0.00004* (0.00002)	0.00004*** (0.00001)
Constant	4.720*** (1.269)	-0.787 (1.822)	-3.443* (1.967)	20.355*** (1.880)	-2.531* (1.335)
Observations	22,442	21,161	20,429	21,049	26,558
R ²	0.010	0.017	0.029	0.024	0.012
Adjusted R ²	0.009	0.016	0.028	0.023	0.011

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

C Additional model specifications

C.1 Logistic regression models

This specification uses logistic regressions to estimate the effect of age on support for public spending.

- In Tables C1 and C2, the dependent variables are support for more or the same amount public spending on all programs (coded 1, otherwise 0). The main independent variable is age (linear and squared). Models control for birth cohorts (reference category = ...-1911), survey year, income, gender, education level, employment, marital status, religiosity and vote intention. Models are ordinary least squares regressions.
- Log-odds are shown with standard errors in parentheses.
- Results are substantively the same as in the main models presented in the paper. Effects that were statistically significant at the $p < 0.05$ are also significant when using logistic regression models.

Table C1: Effect of age on support for more government spending, logistic models

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.035*** (0.012)	-0.0002 (0.008)	0.002 (0.006)	-0.029*** (0.005)	0.036*** (0.008)
Age, sq.	-0.0004*** (0.0001)	-0.0001* (0.0001)	0.00001 (0.0001)	0.0001** (0.0001)	-0.0005*** (0.0001)
Constant	-43.429*** (13.630)	-34.430*** (8.060)	-40.755*** (4.971)	-48.767*** (4.537)	-24.017*** (7.997)
Observations	16,249	21,170	30,778	31,921	21,841
Log Likelihood	-7,327.404	-14,110.130	-16,786.680	-20,194.770	-14,389.830
Akaike Inf. Crit.	14,696.810	28,262.260	33,617.370	40,433.540	28,821.660
	Energy	Environment	Farmers	healthcare	Job-creation
Age	0.004 (0.008)	-0.033*** (0.005)	-0.032*** (0.008)	0.008 (0.006)	-0.025*** (0.008)
Age, sq.	-0.00003 (0.0001)	0.0003*** (0.0001)	0.0002*** (0.0001)	-0.0001** (0.0001)	0.0002** (0.0001)
Constant	6.158 (8.946)	4.683 (4.520)	29.382*** (8.196)	-193.829*** (5.922)	70.119*** (8.348)
Observations	19,095	29,764	20,545	32,817	21,848
Log Likelihood	-12,049.600	-19,629.700	-13,757.430	-20,564.840	-13,479.340
Akaike Inf. Crit.	24,141.210	39,303.390	27,556.850	41,173.680	27,000.670
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.005 (0.007)	0.003 (0.008)	-0.004 (0.008)	0.032*** (0.009)	0.035*** (0.007)
Age, sq.	0.00003 (0.0001)	-0.0001 (0.0001)	0.00000 (0.0001)	-0.0002** (0.0001)	-0.0004*** (0.0001)
Constant	-83.778*** (5.735)	9.274 (8.126)	22.315*** (8.440)	-120.383*** (9.225)	-16.487** (6.507)
Observations	22,442	21,161	20,429	21,049	26,558
Log Likelihood	-13,044.100	-13,939.420	-13,546.450	-11,288.150	-13,852.450
Akaike Inf. Crit.	26,132.200	27,920.840	27,134.900	22,618.300	27,748.910

Note:

*p<0.1; **p<0.05; ***p<0.01

Log-odds with standard errors in parentheses.

Controls include income, gender, education level,

employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

Table C2: Effect of age on support for the same amount of government spending, logistic models

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.029*** (0.009)	-0.035*** (0.008)	-0.003 (0.005)	0.018*** (0.006)	-0.032*** (0.008)
Age, sq.	0.0003*** (0.0001)	0.0004*** (0.0001)	0.00004 (0.0001)	-0.00004 (0.0001)	0.0004*** (0.0001)
Constant	17.490* (10.390)	-20.034** (8.214)	-8.607** (4.389)	41.079*** (4.647)	28.488*** (8.071)
Observations	16,249	21,170	30,778	31,921	21,841
Log Likelihood	-11,108.330	-13,733.790	-20,984.300	-19,433.980	-14,217.270
Akaike Inf. Crit.	22,258.670	27,509.580	42,012.600	38,911.950	28,476.540
	Energy	Environment	Farmers	healthcare	Job-creation
Age	-0.016** (0.008)	0.017*** (0.005)	0.008 (0.008)	-0.014** (0.006)	0.008 (0.008)
Age, sq.	0.0001* (0.0001)	-0.0001** (0.0001)	-0.00002 (0.0001)	0.0002*** (0.0001)	-0.00005 (0.0001)
Constant	4.439 (8.495)	6.049 (4.632)	-33.586*** (8.085)	192.252*** (6.023)	-55.312*** (8.824)
Observations	19,095	29,764	20,545	32,817	21,848
Log Likelihood	-13,003.370	-18,969.910	-13,958.800	-20,374.960	-12,385.450
Akaike Inf. Crit.	26,048.740	37,983.830	27,959.600	40,793.910	24,812.900
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.015** (0.006)	-0.007 (0.008)	0.003 (0.008)	-0.024*** (0.008)	-0.010 (0.006)
Age, sq.	0.0001** (0.0001)	0.0001 (0.0001)	0.00003 (0.0001)	0.0002** (0.0001)	0.0002*** (0.0001)
Constant	17.562*** (5.190)	-5.866 (8.463)	-17.068** (8.514)	86.053*** (8.220)	-14.155** (5.615)
Observations	22,442	21,161	20,429	21,049	26,558
Log Likelihood	-15,438.230	-13,133.010	-13,348.240	-13,627.040	-17,783.070
Akaike Inf. Crit.	30,920.450	26,308.030	26,738.470	27,296.070	35,610.140

Note: *p<0.1; **p<0.05; ***p<0.01
 Log-odds with standard errors in parentheses.
 Controls include income, gender, education level,
 employment, marital status, religiosity and vote intention.
 Models include linear term for the survey year and a
 categorical birth cohort variable.

C.2 Multilevel models (hierarchical APC models)

Yang and Land (2006) developed cross-classified hierarchical APC model or mixed (fixed and random) effects APC regression model to address the identification problem in APC analyses (see Yang and Land 2016). Since individuals are nested within birth cohorts and periods in repeated cross-sectional data, Yang and Land argue that the independence of units assumption is violated. This, according to them, justifies modeling the effect of age as fixed and the effect of periods and/or cohorts as random in a multilevel model, allowing for random intercepts and/or slopes. The solution described by Yang and Land makes it possible to investigate heterogeneous effects of age across cohorts and periods, and this is an advantage of multilevel models in general. But the increase in the popularity of hierarchical APC models for answering questions in political science, medicine, sociology and other disciplines has been followed by the publication of several statistical and conceptual critiques of this method. These critiques highlighted an important reason why hierarchical APC models should be interpreted with care: The “range of periods and cohorts” or the number of groupings of these variables can affect results in substantive ways, because by trying to minimize variance, the model “assigns the linear trend” to the variable with the least variance (Bell and Jones, 2018, p.785). In other words, when the range of periods is larger than cohorts, the model “would tend to assign trends to cohorts instead of periods” (Bellavia and Valeri [2018, p.788], see also Fosse and Winship [2019] and Luo and Hodges [2019; 2019]). This can affect estimates for the age, cohort and period trends (Bell and Jones, 2014a). Estimates can also vary depending on which of cohorts or periods are specified as random in the model (Luo and Hodges, 2019), which underlines the importance of choosing model specifications based on theory (see Bell and Jones, 2014b,c, 2015; O’Brien, 2017; Achen and Wang, 2019).

In fact, the solution proposed by Yang and Land assumes that random effects are uncorrelated with one another or with level-1 predictors. But if we have reasons to believe that unobserved variables at the group level (cohorts and/or periods) affect both the explanatory and dependent variables, then estimates of hierarchical models will be biased. This is the case in the present study. We know that respondents’ age is explained by their year of birth and by the year when they completed the survey. We also have theoretical reasons to believe that birth cohorts and periods help explain individual support for public spending (because of formative experiences and political events). This is enough reason to suspect estimates obtained from random effects APC models to be biased.¹⁵

For this reason and because of the limitations of HAPC models made evident in recent years, I rely in this article on models that use categorical controls for birth cohorts and linear controls for survey year to estimate the effect of age on individual public spending preferences. But to satisfy my curiosity and that of readers interested in the HAPC method, I present here the results of multilevel logistic models (or hierarchical age-period-cohort logistic models) with random effects for 5-year birth cohorts and survey years (level-2 predictors).

- There are a total of 21 birth cohorts (1900-1904 to 2000-2004) and 32 survey years.
- Age — linear and squared — is included as a level-1 predictor.¹⁶
- The models control for income, gender, employment, marital status, vote intention, religiosity and education level.

- The dependent variable is binary: respondents who said they wanted more governmental spending on each of the programs were coded 1, otherwise 0.

Multilevel models do not help address omitted variable bias to the same extent as fixed effects models because cohort effects are specified as random in the models. I argue that members of the same birth cohort share common unobservable factors because they have been socialized in similar periods. In this sense, I argue that the identification strategy presented in the main text makes more sense theoretically, as it is more likely to yield unbiased estimates of the effect of age on individual policy preferences. I am aware that multilevel models have gained in popularity in the last decade to answer age-period-cohort problems, so some readers might be curious as to what results are obtained using this model specification.

Results interpreted as important in the main text remain so with this specification. Some effects ‘become’ significant when using HAPC models (e.g., defence, services for the poor). By reporting no effect in the main text, the results should therefore be considered more conservative.

Table C3: Effect of age on support for more government spending, multilevel models

	Arts	Childcare	Defence	Education	Energy
Age, stand.	0.258 (0.162)	-0.076 (0.116)	0.218** (0.106)	-0.341*** (0.082)	0.128 (0.098)
Age, sq., stand.	-0.255 (0.166)	-0.146 (0.119)	-0.113 (0.108)	0.084 (0.084)	-0.113 (0.103)
Constant	-1.330*** (0.118)	0.291*** (0.098)	-2.791*** (0.186)	1.053*** (0.136)	-1.085*** (0.122)
Observations	16,249	21,170	30,778	31,921	19,095
Log Likelihood	-7,327.737	-14,058.050	-16,291.180	-19,925.100	-11,907.420
Akaike Inf. Crit.	14,689.470	28,150.090	32,618.360	39,886.210	23,848.840
Bayesian Inf. Crit.	14,820.300	28,285.420	32,768.390	40,036.890	23,982.410
	Environment	Farmers	healthcare	Job-creation	Justice
Age, stand.	-0.567*** (0.097)	-0.354** (0.145)	0.268** (0.124)	-0.068 (0.092)	0.177 (0.117)
Age, sq., stand.	0.411*** (0.095)	0.260* (0.152)	-0.372*** (0.127)	-0.097 (0.097)	-0.084 (0.118)
Constant	0.643*** (0.152)	-0.030 (0.128)	1.997*** (0.233)	1.857*** (0.112)	-1.095*** (0.165)
Observations	29,764	20,545	32,817	21,848	22,442
Log Likelihood	-19,104.500	-13,519.860	-19,931.440	-13,414.250	-13,008.170
Akaike Inf. Crit.	38,244.990	27,073.720	39,898.890	26,862.500	26,052.340
Bayesian Inf. Crit.	38,394.410	27,208.540	40,050.060	26,998.360	26,196.670
	Regions	Serv. elderly	Serv. poor	Trans.	Welfare
Age, stand.	0.185* (0.105)	0.567*** (0.172)	0.244* (0.129)	0.597*** (0.128)	0.596*** (0.144)
Age, sq., stand.	-0.249** (0.107)	-0.707*** (0.172)	-0.304** (0.132)	-0.392*** (0.129)	-0.614*** (0.143)
Constant	1.031*** (0.118)	0.951*** (0.115)	1.153*** (0.101)	-1.042*** (0.157)	0.124 (0.128)
Observations	21,161	21,841	20,429	21,049	26,558
Log Likelihood	-13,761.500	-14,271.370	-13,492.580	-11,040.060	-13,807.220
Akaike Inf. Crit.	27,557.010	28,576.740	27,019.160	22,114.130	27,650.440
Bayesian Inf. Crit.	27,692.330	28,712.600	27,153.880	22,249.360	27,797.810

Note:

*p<0.1; **p<0.05; ***p<0.01

Log-odds shown with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Random intercepts for 5-year birth cohorts and survey years.

Table C4: Effect of age on support for the same amount of government spending, multilevel models

	Arts	Childcare	Defence	Education	Energy
Age, stand.	-0.451*** (0.099)	-0.444*** (0.098)	-0.116 (0.088)	0.243*** (0.078)	-0.334*** (0.092)
Age, sq., stand.	0.450*** (0.104)	0.508*** (0.102)	0.120 (0.090)	-0.026 (0.081)	0.308*** (0.098)
Constant	0.234*** (0.090)	-0.537*** (0.090)	-0.062 (0.104)	-1.181*** (0.132)	0.435*** (0.109)
Observations	16,249	21,170	30,778	31,921	19,095
Log Likelihood	-11,102.330	-13,711.000	-20,864.600	-19,230.500	-12,903.250
Akaike Inf. Crit.	22,238.670	27,456.010	41,765.190	38,497.000	25,840.510
Bayesian Inf. Crit.	22,369.490	27,591.330	41,915.210	38,647.670	25,974.080
	Environment	Farmers	healthcare	Job-creation	Justice
Age, stand.	0.378*** (0.098)	0.066 (0.147)	-0.282** (0.122)	-0.265** (0.111)	-0.358*** (0.098)
Age, sq., stand.	-0.217** (0.097)	-0.021 (0.151)	0.373*** (0.125)	0.335*** (0.114)	0.312*** (0.101)
Constant	-0.902*** (0.147)	-0.221** (0.104)	-1.953*** (0.234)	-1.934*** (0.109)	0.047 (0.130)
Observations	29,764	20,545	32,817	21,848	22,442
Log Likelihood	-18,612.420	-13,879.240	-19,915.200	-12,359.650	-15,431.580
Akaike Inf. Crit.	37,260.840	27,792.480	39,866.410	24,753.300	30,899.160
Bayesian Inf. Crit.	37,410.260	27,927.300	40,017.580	24,889.160	31,043.500
	Regions	Serv. elderly	Serv. poor	Trans.	Welfare
Age, stand.	-0.295** (0.118)	-0.513*** (0.169)	-0.245** (0.118)	-0.449*** (0.116)	-0.229*** (0.077)
Age, sq., stand.	0.349*** (0.120)	0.643*** (0.169)	0.330*** (0.121)	0.326*** (0.120)	0.350*** (0.081)
Constant	-1.178*** (0.107)	-1.002*** (0.111)	-1.228*** (0.092)	0.779*** (0.122)	-0.976*** (0.111)
Observations	21,161	21,841	20,429	21,049	26,558
Log Likelihood	-13,055.480	-14,133.980	-13,341.550	-13,510.310	-17,754.580
Akaike Inf. Crit.	26,144.950	28,301.950	26,717.100	27,054.610	35,545.150
Bayesian Inf. Crit.	26,280.270	28,437.810	26,851.820	27,189.840	35,692.520

Note:

*p<0.1; **p<0.05; ***p<0.01

Log-odds shown with standard errors in parentheses.

Controls include income, gender, education level,

employment, marital status, religiosity and vote intention.

Random intercepts for 5-year birth cohorts and survey years.

C.3 Categorical dependent variable with multinomial models

This specification uses another operationalization for the dependent variable. Preferences for public spending are measured using the same survey question (“Keeping in mind that increasing services could increase taxes, do you think the federal government is spending too much, just the right amount, or should be spending more on each of the following: ...?”). However, in this coding scheme, the dependent variable takes three categories (“just the right amount”, “should be spending more” and “spending too much”).

- The regression results presented in Tables C5 to C7 are from multinomial regressions (log-odds shown with standard errors in parentheses).
- Controls include birth cohorts, survey years, income, gender, education level, employment, marital status, religiosity and vote intention.
- The effects should be interpreted as a change in the log-odds of each outcome happening compared to the baseline (“government should spend the same amount”) given a one-year increase in age.

Results interpreted as important in the main text remain so with this specification.

Table C5: Effect of age on support government spending, multinomial models, issues 1-6

	Arts spend less	Arts spend more	Childcare spend less	Childcare spend more	Defence spend less	Defence spend more
Age	0.019*** (0.007)	0.042*** (0.007)	0.089*** (0.008)	0.021*** (0.006)	0.011** (0.005)	0.004 (0.005)
Age, sq.	-0.0002*** (0.0001)	-0.0005*** (0.0001)	-0.001*** (0.0001)	-0.0003*** (0.0001)	-0.0002*** (0.00005)	-0.00003 (0.00005)
Constant	-2.592*** (0.00002)	-43.710*** (0.00001)	96.610*** (0.00001)	-6.791*** (0.00002)	41.964*** (0.0001)	-25.521*** (0.0001)
N	16,249	16,249	21,170	21,170	30,778	30,778
Akaike Inf. Crit.	31,747.850	31,747.850	40,714.580	40,714.580	63,401.250	63,401.250
	Education spend less	Education spend more	Elderly serv. spend less	Elderly serv. spend more	Energy spend less	Energy spend more
Age	0.057*** (0.010)	-0.023*** (0.005)	-0.017 (0.012)	0.035*** (0.006)	0.036*** (0.008)	0.009 (0.007)
Age, sq.	-0.0005*** (0.0001)	0.0001* (0.00005)	0.0001 (0.0001)	-0.0005*** (0.0001)	-0.0003*** (0.0001)	-0.0001 (0.0001)
Constant	20.552*** (0.00001)	-46.008*** (0.0001)	-49.282*** (0.00000)	-27.430*** (0.00003)	-26.082*** (0.00001)	2.143*** (0.00003)
N	31,921	31,921	21,841	21,841	19,095	19,095
Akaike Inf. Crit.	48,829.360	48,829.360	33,791.260	33,791.260	35,612.860	35,612.860

Note:

*p<0.1; **p<0.05; ***p<0.01

Log odds shown with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

Table C6: Effect of age on support government spending, multinomial models, issues 7-12

	Environment spend less	Environment spend more	Farmers spend less	Farmers spend more	Healthcare spend less	Healthcare spend more
Age	0.051*** (0.008)	-0.025*** (0.005)	0.044*** (0.008)	-0.023*** (0.006)	0.028*** (0.009)	0.012** (0.005)
Age, sq.	-0.0004*** (0.0001)	0.0002*** (0.00005)	-0.0004*** (0.0001)	0.0001** (0.0001)	-0.0003*** (0.0001)	-0.0002*** (0.00005)
Constant	-40.436*** (0.00002)	-1.467*** (0.0001)	24.314*** (0.00001)	35.466*** (0.00002)	-86.150*** (0.00001)	-203.990*** (0.00003)
N	29,764	29,764	20,545	20,545	32,817	32,817
Akaike Inf. Crit.	50,436.670	50,436.670	39,868.280	39,868.280	51,241.810	51,241.810
	Job-creation prog. spend less	Job-creation prog. spend more	Justice spend less	Justice spend more	Regions spend less	Regions spend more
Age	0.051*** (0.008)	-0.025*** (0.005)	0.044*** (0.008)	-0.023*** (0.006)	0.028*** (0.009)	0.012** (0.005)
Age, sq.	-0.0004*** (0.0001)	0.0002*** (0.00005)	-0.0004*** (0.0001)	0.0001** (0.0001)	-0.0003*** (0.0001)	-0.0002*** (0.00005)
Constant	-40.436*** (0.00002)	-1.467*** (0.0001)	24.314*** (0.00001)	35.466*** (0.00002)	-86.150*** (0.00001)	-203.990*** (0.00003)
N	21,848	21,848	22,442	22,442	21,161	21,161
Akaike Inf. Crit.	35,326.240	35,326.240	44,660.850	44,660.850	36,701.360	36,701.360

Note:

*p<0.1; **p<0.05; ***p<0.01

Log odds shown with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

Table C7: Effect of age on support government spending, multinomial models, issues 13-15

	<i>Dependent variable:</i>					
	Serv. for the poor	Serv. for the poor	Transportation	Transportation	Welfare	Welfare
	spend less	spend more	spend less	spend more	spend less	spend more
Age	-0.002 (0.009)	-0.004 (0.006)	0.013* (0.007)	0.035*** (0.007)	-0.007 (0.005)	0.031*** (0.005)
Age, sq.	-0.00004 (0.0001)	-0.00001 (0.0001)	-0.0001 (0.0001)	-0.0003*** (0.0001)	-0.00001 (0.0001)	-0.0004*** (0.0001)
Constant	-9.367*** (0.00001)	21.164*** (0.00003)	-17.969*** (0.00001)	-123.034*** (0.00003)	32.473*** (0.00003)	-4.393*** (0.00003)
N	20,429	20,429	21,049	21,049	26,558	26,558
Akaike Inf. Crit.	36,647.400	36,647.400	37,015.140	37,015.140	54,503.540	54,503.540

Note:

*p<0.1; **p<0.05; ***p<0.01

Log odds shown with standard errors in parentheses.

Controls include income, gender, education level,

employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

C.4 Removing the 2019 respondents

The 2019 Canadian Election Study includes a larger number of respondents when compared to other surveys taken individually — 8,956 of the 52,917 respondents who gave an answer on the “education” question come from the 2019 CES. To make sure results are not sensitive to the inclusion of this survey, I reproduced all analyses presented in the main text without the subset of 2019 respondents.

- In Tables C8 and C9, the dependent variables are support for more (=1, otherwise 0) or the same amount of (=1, otherwise 0) public spending on each of the 15 policies.
- The main independent variable is age (linear and squared).
- Models control for birth cohorts (reference category = ...-1911), survey year, income, gender, education level, employment, marital status, religiosity and vote intention.
- Models are ordinary least squares regressions.

Results interpreted as important in the main text remain so with this specification.

Table C8: Effect of age on support for more government spending, OLS models without the 2019 CES

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.005*** (0.002)	-0.0002 (0.002)	-0.003** (0.001)	-0.006*** (0.001)	0.008*** (0.002)
Age, sq.	-0.0001*** (0.00002)	-0.00003* (0.00002)	0.00003** (0.00001)	0.00002 (0.00001)	-0.0001*** (0.00002)
Constant	-5.852*** (1.938)	-7.751*** (1.913)	-13.870*** (1.178)	-17.306*** (1.285)	-5.048*** (1.861)
Observations	16,249	21,170	26,157	27,112	21,841
R ²	0.042	0.051	0.044	0.042	0.043
Adjusted R ²	0.040	0.050	0.043	0.041	0.042
	Energy	Environment	Farmers	healthcare	Job-creation
Age	0.001 (0.002)	-0.006*** (0.002)	-0.008*** (0.002)	0.001 (0.001)	-0.005*** (0.002)
Age, sq.	-0.00001 (0.00002)	0.00005*** (0.00002)	0.0001*** (0.00002)	-0.00003** (0.00001)	0.00004** (0.00002)
Constant	1.853 (1.970)	11.888*** (1.362)	7.508*** (1.951)	-39.788*** (1.201)	15.746*** (1.794)
Observations	19,095	24,978	20,545	32,817	21,848
R ²	0.009	0.039	0.027	0.111	0.065
Adjusted R ²	0.008	0.038	0.026	0.111	0.064
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	0.001 (0.002)	0.0005 (0.002)	-0.001 (0.002)	0.004*** (0.002)	0.007*** (0.001)
Age, sq.	-0.00002 (0.00002)	-0.00002 (0.00002)	0.00000 (0.00002)	-0.00003 (0.00002)	-0.0001*** (0.00001)
Constant	-11.801*** (1.529)	2.680 (1.898)	5.796*** (1.987)	-21.577*** (1.658)	-2.649** (1.143)
Observations	17,736	21,161	20,429	21,049	26,558
R ²	0.017	0.035	0.057	0.030	0.079
Adjusted R ²	0.016	0.034	0.056	0.029	0.079

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, gender, education level,
employment, marital status, religiosity and vote intention.
Models include linear term for the survey year and a
categorical birth cohort variable.

Table C9: Effect of age on support for the same amount of government spending, OLS models without the 2019 CES

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.007*** (0.002)	-0.008*** (0.002)	0.001 (0.002)	0.003* (0.001)	-0.007*** (0.002)
Age, sq.	0.0001*** (0.00002)	0.0001*** (0.00002)	-0.00001 (0.00002)	0.00000 (0.00001)	0.0001*** (0.00002)
Constant	4.811* (2.551)	-4.146** (1.878)	6.775*** (1.361)	15.612*** (1.252)	6.928*** (1.846)
Observations	16,249	21,170	26,157	27,112	21,841
R ²	0.018	0.015	0.012	0.031	0.034
Adjusted R ²	0.017	0.014	0.011	0.030	0.033
	Energy	Environment	Farmers	healthcare	Job-creation
Age	-0.004** (0.002)	0.003* (0.001)	0.002 (0.002)	-0.002* (0.001)	0.002 (0.002)
Age, sq.	0.00003* (0.00002)	-0.00002 (0.00002)	-0.00001 (0.00002)	0.00004*** (0.00001)	-0.00001 (0.00002)
Constant	1.579 (2.076)	-7.565*** (1.339)	-7.702*** (1.970)	39.106*** (1.194)	-10.274*** (1.693)
Observations	19,095	24,978	20,545	32,817	21,848
R ²	0.012	0.024	0.012	0.090	0.024
Adjusted R ²	0.011	0.023	0.011	0.089	0.024
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.006*** (0.002)	-0.001 (0.002)	0.001 (0.002)	-0.005*** (0.002)	-0.002* (0.001)
Age, sq.	0.0001*** (0.00002)	0.00002 (0.00002)	0.00001 (0.00002)	0.00004* (0.00002)	0.00004*** (0.00001)
Constant	4.569*** (1.759)	-0.787 (1.822)	-3.443* (1.967)	20.355*** (1.880)	-2.923** (1.344)
Observations	17,736	21,161	20,429	21,049	26,558
R ²	0.010	0.017	0.029	0.024	0.012
Adjusted R ²	0.008	0.016	0.028	0.023	0.011

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, gender, education level, employment, marital status, religiosity and vote intention.

Models include linear term for the survey year and a categorical birth cohort variable.

C.5 Seemingly unrelated regressions

Table C10 presents results from seemingly unrelated regression models used to estimate support for more public spending (in each of the 15 areas).

- The dependent variables are support for more public spending on all programs.
- The main independent variable is age (linear and squared). Models control for birth cohorts (reference category = ...-1911), survey year, income, gender, education level, employment, marital status, religiosity and vote intention.

Results are substantively the same as those presented in the main text, and the correlation matrix of residuals reveals that equations are weakly correlated (no more than .39) with one another.

Table C10: Support for more public spending, SUR

	SUR
Educ: Intercept	−11.480*** (0.971)
Educ: Age	−0.007*** (0.001)
Educ: Age, sq.	0.000* (0.000)
Healthcare: Intercept	−40.555*** (1.117)
Healthcare: Age	0.001 (0.001)
Healthcare: Age, sq.	−0.000* (0.000)
Environment: Intercept	0.800 (1.025)
Environment: Age	−0.008*** (0.001)
Environment: Age, sq.	0.000*** (0.000)
Defence: Intercept	−7.165*** (0.833)
Defence: Age	−0.000 (0.001)
Defence: Age, sq.	0.000 (0.000)
Justice: Intercept	−16.369*** (1.025)
Justice: Age	−0.002 (0.001)
Justice: Age, sq.	0.000 (0.000)
Welfare: Intercept	−3.752*** (1.036)
Welfare: Age	0.007*** (0.001)
Welfare: Age, sq.	−0.000*** (0.000)
Childcare: Intercept	−8.610*** (1.791)
Childcare: Age	−0.001 (0.002)
Childcare: Age, sq.	−0.000

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Table C10 – *Continued from previous page*

	SUR
	(0.000)
Serv. for the elderly: Intercept	–4.522** (1.711)
Serv. for the elderly: Age	0.007*** (0.002)
Serv. for the elderly: Age, sq.	–0.000*** (0.000)
Energy: Intercept	–5.377** (1.835)
Energy: Age	–0.001 (0.002)
Energy: Age, sq.	0.000 (0.000)
Arts: Intercept	–5.097** (1.811)
Arts: Age	0.005** (0.002)
Arts: Age, sq.	–0.000** (0.000)
Regions: Intercept	–1.544 (1.796)
Regions: Age	–0.000 (0.002)
Regions: Age, sq.	–0.000 (0.000)
Transportation: Intercept	–23.264*** (1.517)
Transportation: Age	0.003* (0.001)
Transportation: Age, sq.	–0.000 (0.000)
Farmers: Intercept	5.311** (1.820)
Farmers: Age	–0.009*** (0.002)
Farmers: Age, sq.	0.000*** (0.000)
Job-creation prog.: Intercept	15.320*** (1.721)
Job-creation prog.: Age	–0.006*** (0.002)
Job-creation prog.: Age, sq.	0.000**

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Table C10 – *Continued from previous page*

	SUR
	(0.000)
Social serv. for the poor: Intercept	0.925 (1.778)
Social serv. for the poor: Age	−0.002 (0.002)
Social serv. for the poor: Age, sq.	0.000 (0.000)
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$	

C.6 Differentiated effects based on gender

One may wonder whether the effect of age on support for government spending is the same for men and women. In fact, needs may differ between the two genders across the life-cycle (Shorrocks and Grasso, 2020). Moreover, women tend to live longer lives, which may affect their views on where the government should spend public monies.

Tables C11 to C14 report estimates for the same regression models as in the main text, but for each gender. This allows us to analyse the differentiated impact of age on support for government spending between men and women (gender is binary coded).

- I opted for two regressions instead of adding an interaction term between gender and age, because it can be difficult to interpret interactions that involved squared terms (age is included as a linear and squared term in the analysis).
- The dependent variables are support for more (=1, otherwise 0) or the same amount of (=1, otherwise 0) public spending on each of the 15 policies.
- The main independent variable is age (linear and squared).
- Models control for birth cohorts (reference category = ...-1911), survey year, income, gender, education level, employment, marital status, religiosity and vote intention.
- Models are ordinary least squares regressions.

Effects are similar across genders. If we look at policies for which we found the most important effects in the main text (education, defence, transportation, elderly services, the arts), we find that men and women follow similar life-cycle trends. The strength of effects differs a little bit, however.

- Education: Decreasing support for more spending is slightly stronger among men than women.
- Environment: Decreasing support for more spending is slightly stronger among men than women.
- Transportation: Increasing support for more spending is the same for men and women.
- Elderly services: The slope of life-cycle trend in support for more spending is slightly more positive among men (the linear term is .01 point larger), but the curvilinear term is the same for both men and women.

Table C11: Effect of age on support for more government spending, OLS models, men only

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.004* (0.002)	0.003 (0.003)	0.001 (0.002)	-0.008*** (0.002)	0.010*** (0.003)
Age, sq.	-0.00005* (0.00003)	-0.0001** (0.00003)	-0.00001 (0.00002)	0.00004** (0.00002)	-0.0001*** (0.00003)
Constant	-7.607*** (2.731)	-9.030*** (2.824)	-8.370*** (1.414)	-11.132*** (1.527)	0.822 (2.760)
Observations	7,388	9,555	14,156	14,304	9,966
R ²	0.042	0.046	0.044	0.038	0.042
Adjusted R ²	0.040	0.044	0.043	0.036	0.040
	Energy	Environment	Farmers	healthcare	Job-creation
Age	0.001 (0.003)	-0.006*** (0.002)	-0.011*** (0.003)	0.0005 (0.002)	-0.007*** (0.003)
Age, sq.	-0.00001 (0.00003)	0.00004* (0.00002)	0.0001*** (0.00003)	-0.00001 (0.00002)	0.0001** (0.00003)
Constant	1.808 (2.897)	3.895** (1.588)	6.172** (2.791)	-40.485*** (1.730)	14.268*** (2.661)
Observations	9,072	13,281	9,613	15,511	10,046
R ²	0.006	0.040	0.032	0.111	0.069
Adjusted R ²	0.004	0.039	0.030	0.110	0.068
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.00004 (0.002)	0.002 (0.003)	0.001 (0.003)	0.004* (0.002)	0.007*** (0.002)
Age, sq.	-0.00001 (0.00002)	-0.00002 (0.00003)	-0.00001 (0.00003)	-0.00003 (0.00003)	-0.0001*** (0.00002)
Constant	-18.331*** (1.676)	6.897** (2.782)	9.703*** (2.923)	-28.679*** (2.468)	-2.941* (1.586)
Observations	9,812	9,770	9,337	9,785	12,474
R ²	0.042	0.040	0.058	0.033	0.081
Adjusted R ²	0.040	0.038	0.056	0.032	0.080

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, education level, employment, marital status, religiosity and vote intention. Models include linear term for the survey year and a categorical birth cohort variable.

Table C12: Effect of age on support for the same amount of government spending, OLS models, men only

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.006* (0.003)	-0.011*** (0.003)	-0.002 (0.002)	0.005*** (0.002)	-0.007*** (0.003)
Age, sq.	0.0001** (0.00003)	0.0001*** (0.00003)	0.00003 (0.00002)	-0.00002 (0.00002)	0.0001*** (0.00003)
Constant	8.450** (3.652)	-3.561 (2.815)	-0.269 (1.575)	8.999*** (1.487)	4.129 (2.750)
Observations	7,388	9,555	14,156	14,304	9,966
R ²	0.020	0.015	0.007	0.025	0.032
Adjusted R ²	0.018	0.013	0.006	0.024	0.030
	Energy	Environment	Farmers	healthcare	Job-creation
Age	-0.005* (0.003)	0.004** (0.002)	0.004 (0.003)	-0.002 (0.002)	0.002 (0.002)
Age, sq.	0.0001* (0.00003)	-0.00002 (0.00002)	-0.00003 (0.00003)	0.00003 (0.00002)	-0.00002 (0.00003)
Constant	2.431 (3.010)	0.806 (1.546)	-7.490*** (2.851)	38.998*** (1.736)	-6.550*** (2.500)
Observations	9,072	13,281	9,613	15,511	10,046
R ²	0.008	0.023	0.014	0.085	0.021
Adjusted R ²	0.006	0.021	0.012	0.084	0.019
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.006** (0.002)	-0.003 (0.003)	-0.0003 (0.003)	-0.008*** (0.003)	-0.002 (0.002)
Age, sq.	0.0001*** (0.00002)	0.00003 (0.00003)	0.00001 (0.00003)	0.0001** (0.00003)	0.00004* (0.00002)
Constant	6.399*** (1.920)	-4.002 (2.683)	-7.852*** (2.930)	22.895*** (2.787)	-1.850 (1.932)
Observations	9,812	9,770	9,337	9,785	12,474
R ²	0.010	0.016	0.027	0.023	0.013
Adjusted R ²	0.008	0.015	0.025	0.021	0.012

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment, marital status, religiosity and vote intention. Models include linear term for the survey year and a categorical birth cohort variable.

Table C13: Effect of age on support for more government spending, OLS models, women only

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.006*** (0.002)	-0.003 (0.002)	-0.001 (0.001)	-0.005*** (0.002)	0.007*** (0.002)
Age, sq.	-0.0001*** (0.00002)	-0.00001 (0.00003)	0.00002 (0.00001)	0.00002 (0.00002)	-0.0001*** (0.00002)
Constant	-4.217 (2.750)	-6.700** (2.609)	-6.084*** (1.212)	-10.812*** (1.320)	-10.506*** (2.525)
Observations	8,861	11,615	16,622	17,617	11,875
R ²	0.043	0.045	0.039	0.038	0.035
Adjusted R ²	0.041	0.043	0.038	0.037	0.034
	Energy	Environment	Farmers	healthcare	Job-creation
Age	0.001 (0.003)	-0.008*** (0.002)	-0.005* (0.003)	0.003 (0.002)	-0.004* (0.002)
Age, sq.	-0.00000 (0.00003)	0.0001*** (0.00002)	0.00003 (0.00003)	-0.0001*** (0.00002)	0.00002 (0.00002)
Constant	2.038 (2.694)	-1.367 (1.407)	8.706*** (2.732)	-41.665*** (1.653)	17.254*** (2.435)
Observations	10,023	16,483	10,932	17,306	11,802
R ²	0.008	0.055	0.018	0.095	0.056
Adjusted R ²	0.006	0.054	0.017	0.094	0.055
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.003 (0.002)	-0.001 (0.002)	-0.003 (0.003)	0.004* (0.002)	0.006*** (0.002)
Age, sq.	0.00002 (0.00002)	-0.00001 (0.00003)	0.00001 (0.00003)	-0.00002 (0.00002)	-0.0001*** (0.00002)
Constant	-17.087*** (1.539)	-1.386 (2.603)	1.733 (2.719)	-14.925*** (2.241)	-3.990** (1.625)
Observations	12,630	11,391	11,092	11,264	14,084
R ²	0.041	0.028	0.050	0.027	0.075
Adjusted R ²	0.040	0.026	0.048	0.025	0.073

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, education level, employment, marital status, religiosity and vote intention. Models include linear term for the survey year and a categorical birth cohort variable.

Table C14: Effect of age on support for the same amount of government spending, OLS models, women only

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.009*** (0.003)	-0.006*** (0.002)	-0.0001 (0.002)	0.003** (0.002)	-0.007*** (0.002)
Age, sq.	0.0001*** (0.00003)	0.0001*** (0.00002)	0.00000 (0.00002)	-0.00000 (0.00002)	0.0001*** (0.00002)
Constant	1.009 (3.574)	-4.492* (2.527)	-3.000** (1.458)	10.375*** (1.287)	9.739*** (2.496)
Observations	8,861	11,615	16,622	17,617	11,875
R ²	0.016	0.016	0.011	0.031	0.030
Adjusted R ²	0.013	0.014	0.010	0.030	0.029
	Energy	Environment	Farmers	healthcare	Job-creation
Age	-0.002 (0.003)	0.004** (0.002)	0.0004 (0.003)	-0.003* (0.002)	0.001 (0.002)
Age, sq.	0.00002 (0.00003)	-0.00004** (0.00002)	0.00001 (0.00003)	0.0001*** (0.00002)	-0.00000 (0.00002)
Constant	0.966 (2.878)	3.618*** (1.381)	-7.805*** (2.733)	41.313*** (1.629)	-13.584*** (2.306)
Observations	10,023	16,483	10,932	17,306	11,802
R ²	0.009	0.038	0.011	0.087	0.030
Adjusted R ²	0.007	0.037	0.009	0.086	0.028
	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.002 (0.002)	0.001 (0.002)	0.002 (0.002)	-0.003 (0.002)	-0.003 (0.002)
Age, sq.	0.00002 (0.00002)	0.00002 (0.00002)	-0.00000 (0.00003)	0.00001 (0.00003)	0.00005** (0.00002)
Constant	3.603** (1.695)	2.386 (2.491)	1.050 (2.663)	17.920*** (2.554)	-3.043 (1.854)
Observations	12,630	11,391	11,092	11,264	14,084
R ²	0.013	0.018	0.028	0.014	0.013
Adjusted R ²	0.011	0.016	0.026	0.012	0.012

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, education level, employment, marital status, religiosity and vote intention. Models include linear term for the survey year and a categorical birth cohort variable.

C.7 Interaction effects: Party times birth cohort

One may wonder whether certain generations, because they are more or less conservative, are driving patterns of support for certain areas of spending. To test this hypothesis, Tables to report estimates for the same regression models as in the main text, but including an interaction term between birth cohort and vote choice (reference categories = ...-1911 birth cohort and Conservative supporters). Included in the regression are supporters of the Liberal and Conservative parties only, which are the two main political parties, i.e., those for which we have the largest numbers of respondents. This allows us to analyse the differentiated impact of birth cohort on support for government spending between supporters of these two parties. Note that the Liberal party is situated at the centre of the Canadian party system, with the Conservative party on its right.

- The dependent variables are support for more (=1, otherwise 0) or the same amount of (=1, otherwise 0) public spending on each of the 15 policies.
- The main independent variables are age (linear and squared), birth cohort and vote choice.
- Models control for survey year, income, gender, education level, employment, marital status and religiosity.
- Models are ordinary least squares regressions.

The effects of birth cohorts on support for government spending are generally similar for supporters of the Liberal and Conservative parties. A few differences have been noted, however:

- Younger Liberals are more supportive of environmental spending than Conservatives of the same birth cohort (see 1975-1983 Liberals and 1984+ Liberals in Table C16).
- Liberal members of the 1928-1955 birth cohort are more supportive of the status quo when it comes to spending on elderly services than Conservatives of the same birth cohort (see Table C18).
- Older Liberals are more supportive of the status quo when it comes to energy spending than Conservatives of the same birth cohorts (see 1912 to 1974 Liberals in Table C19).
- Liberal members of the 1956-1974 birth cohort are more supportive of the status quo when it comes to spending on job-creation programs than Conservatives of the same birth cohort (see Table C19).
- Liberal members of the 1975-1983 birth cohort are more supportive of the status quo when it comes to spending on regions than Conservatives of the same birth cohort (see Table C20).

Table C15: Effect of age, birth cohort and vote choice on support for more gov. spending, OLS model

	Arts	Childcare	Defence	Education	Elderly serv.
Age	0.003 (0.002)	0.0001 (0.003)	-0.002 (0.002)	-0.008*** (0.002)	0.011*** (0.003)
Age, sq.	-0.00004 (0.00003)	-0.00004 (0.00003)	0.00002 (0.00002)	0.00004** (0.00002)	-0.0001*** (0.00003)
1912-1927	-0.085 (0.081)	-0.083 (0.075)	0.060 (0.063)	0.073 (0.064)	-0.062 (0.068)
1928-1955	-0.146* (0.084)	-0.087 (0.080)	0.112* (0.065)	0.054 (0.066)	0.035 (0.074)
1956-1974	-0.153* (0.088)	-0.075 (0.085)	0.053 (0.069)	0.031 (0.071)	0.002 (0.079)
1975-1983	-0.099 (0.100)	-0.109 (0.108)	0.020 (0.076)	0.024 (0.078)	-0.046 (0.101)
1984+	-0.145 (0.151)	-0.005 (0.183)	-0.010 (0.080)	-0.089 (0.082)	-0.532** (0.214)
Liberals	-0.085 (0.090)	0.027 (0.083)	-0.094 (0.073)	0.133* (0.076)	0.117 (0.077)
1912-1927 Liberals	0.110 (0.095)	0.051 (0.088)	-0.007 (0.077)	-0.086 (0.080)	-0.018 (0.082)
1928-1955 Liberals	0.123 (0.092)	0.020 (0.085)	-0.024 (0.074)	-0.019 (0.077)	-0.126 (0.079)
1956-1974 Liberals	0.098 (0.091)	0.006 (0.085)	0.013 (0.074)	-0.012 (0.077)	-0.099 (0.079)
1975-1983 Liberals	0.094 (0.103)	0.008 (0.107)	-0.004 (0.078)	-0.009 (0.081)	-0.088 (0.100)
1984+ Liberals			-0.010 (0.078)	0.036 (0.081)	
Constant	-11.239*** (2.835)	-7.477*** (2.779)	-7.536*** (1.301)	-9.329*** (1.369)	-4.252 (2.697)
Observations	7,161	9,815	15,776	16,264	10,132
R ²	0.017	0.025	0.027	0.035	0.030
Adjusted R ²	0.015	0.023	0.026	0.034	0.028

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment and marital status, and religiosity.

Models include linear term for the survey year

Table C16: Effect of age, birth cohort and vote choice on support for more gov. spending, OLS model

	Energy	Environment	Farmers	Health care	Job-creation
Age	0.003 (0.003)	-0.008*** (0.002)	-0.004 (0.003)	0.001 (0.002)	-0.008*** (0.003)
Age, sq.	-0.00002 (0.00003)	0.0001*** (0.00002)	0.00000 (0.00003)	-0.00003 (0.00002)	0.0001** (0.00003)
1912-1927	0.103 (0.070)	0.037 (0.070)	-0.045 (0.071)	-0.046 (0.063)	0.086 (0.068)
1928-1955	0.086 (0.076)	0.063 (0.072)	-0.057 (0.077)	-0.022 (0.065)	0.114 (0.073)
1956-1974	0.106 (0.081)	0.036 (0.077)	-0.084 (0.082)	-0.032 (0.069)	0.094 (0.078)
1975-1983	0.097 (0.103)	-0.032 (0.084)	-0.157 (0.106)	-0.071 (0.080)	0.030 (0.098)
1984+	-0.153 (0.209)	-0.022 (0.088)	-0.026 (0.234)	-0.216** (0.096)	-0.096 (0.193)
Liberals	0.077 (0.080)	-0.007 (0.082)	0.029 (0.080)	0.013 (0.071)	0.124 (0.077)
1912-1927 Liberals	-0.096 (0.085)	0.064 (0.086)	-0.033 (0.086)	0.030 (0.075)	-0.068 (0.081)
1928-1955 Liberals	-0.080 (0.082)	0.106 (0.083)	-0.034 (0.082)	0.042 (0.072)	-0.066 (0.078)
1956-1974 Liberals	-0.122 (0.082)	0.107 (0.083)	-0.065 (0.082)	0.019 (0.072)	-0.102 (0.078)
1975-1983 Liberals	-0.066 (0.104)	0.187** (0.087)	-0.049 (0.105)	0.059 (0.081)	-0.084 (0.098)
1984+ Liberals		0.315*** (0.087)		0.070 (0.100)	
Constant	-0.349 (2.813)	1.966 (1.449)	6.780** (2.801)	-40.965*** (1.673)	12.533*** (2.600)
Observations	8,944	15,212	9,530	15,578	10,153
R ²	0.004	0.031	0.018	0.105	0.048
Adjusted R ²	0.002	0.030	0.016	0.104	0.046

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment and marital status, and religiosity.

Models include linear term for the survey year

Table C17: Effect of age, birth cohort and vote choice on support for more gov. spending, OLS model

	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.004** (0.002)	-0.004 (0.003)	-0.005* (0.003)	0.005** (0.002)	0.004** (0.002)
Age, sq.	0.00003 (0.00002)	0.00002 (0.00003)	0.00004 (0.00003)	-0.00004* (0.00002)	-0.0001*** (0.00002)
1912-1927	0.170* (0.102)	0.053 (0.071)	0.090 (0.070)	-0.013 (0.060)	-0.037 (0.056)
1928-1955	0.148 (0.101)	0.045 (0.077)	0.143* (0.077)	-0.003 (0.065)	-0.022 (0.058)
1956-1974	0.112 (0.106)	-0.005 (0.082)	0.064 (0.082)	0.001 (0.069)	-0.056 (0.063)
1975-1983	0.053 (0.112)	0.077 (0.105)	0.085 (0.105)	0.017 (0.086)	-0.171** (0.073)
1984+	0.020 (0.115)	0.223 (0.174)	0.003 (0.175)	0.036 (0.153)	-0.120 (0.086)
Liberals	0.043 (0.116)	0.050 (0.080)	0.125 (0.079)	-0.009 (0.067)	0.039 (0.065)
1912-1927 Liberals	-0.075 (0.122)	-0.035 (0.085)	-0.082 (0.084)	0.077 (0.072)	0.005 (0.069)
1928-1955 Liberals	-0.081 (0.117)	-0.015 (0.082)	-0.096 (0.081)	0.034 (0.069)	0.007 (0.066)
1956-1974 Liberals	-0.065 (0.117)	-0.020 (0.082)	-0.065 (0.081)	-0.007 (0.069)	0.018 (0.066)
1975-1983 Liberals	-0.110 (0.120)	-0.148 (0.104)	-0.166 (0.104)	-0.007 (0.086)	0.070 (0.074)
1984+ Liberals	-0.140 (0.120)				0.078 (0.089)
Constant	-21.187*** (1.614)	-0.336 (2.753)	2.449 (2.872)	-22.415*** (2.317)	-3.327** (1.526)
Observations	11,104	9,842	9,505	9,781	12,905
R ²	0.049	0.019	0.035	0.028	0.053
Adjusted R ²	0.048	0.017	0.033	0.026	0.051

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment and marital status, and religiosity.

Models include linear term for the survey year

Table C18: Effect of age, birth cohort and vote choice on support for the same level of gov. spending, OLS model

	Arts	Childcare	Defence	Education	Elderly serv.
Age	-0.001 (0.003)	-0.008*** (0.003)	0.003 (0.002)	0.005*** (0.002)	-0.009*** (0.003)
Age, sq.	0.00002 (0.00003)	0.0001*** (0.00003)	-0.00002 (0.00002)	-0.00002 (0.00002)	0.0001*** (0.00003)
1912-1927	0.060 (0.109)	0.131* (0.074)	0.096 (0.071)	-0.039 (0.063)	0.050 (0.068)
1928-1955	0.075 (0.114)	0.141* (0.079)	0.023 (0.073)	-0.014 (0.064)	-0.040 (0.074)
1956-1974	0.083 (0.119)	0.144* (0.084)	0.070 (0.077)	-0.004 (0.069)	0.006 (0.078)
1975-1983	0.134 (0.136)	0.181* (0.107)	0.072 (0.085)	-0.013 (0.077)	0.051 (0.101)
1984+	-0.012 (0.205)	-0.052 (0.181)	0.126 (0.089)	0.085 (0.080)	0.413* (0.213)
Liberals	0.116 (0.122)	-0.019 (0.082)	0.162** (0.082)	-0.083 (0.074)	-0.133* (0.076)
1912-1927 Liberals	-0.113 (0.129)	-0.033 (0.087)	-0.170** (0.087)	0.059 (0.078)	0.051 (0.081)
1928-1955 Liberals	-0.106 (0.124)	0.014 (0.084)	-0.101 (0.083)	-0.015 (0.075)	0.142* (0.078)
1956-1974 Liberals	-0.064 (0.124)	0.016 (0.084)	-0.126 (0.083)	-0.023 (0.075)	0.113 (0.078)
1975-1983 Liberals	-0.137 (0.140)	-0.035 (0.106)	-0.088 (0.088)	-0.020 (0.080)	0.105 (0.100)
1984+ Liberals			-0.137 (0.088)	-0.080 (0.080)	
Constant	9.938*** (3.846)	-3.035 (2.747)	-0.252 (1.458)	8.042*** (1.339)	4.837* (2.678)
Observations	7,161	9,815	15,776	16,264	10,132
R ²	0.003	0.008	0.006	0.028	0.025
Adjusted R ²	0.001	0.006	0.004	0.027	0.024

Note: *p<0.1; **p<0.05; ***p<0.01
OLS coefficients with standard errors in parentheses.
Controls include income, education level, employment and marital status, and religiosity.
Models include linear term for the survey year

Table C19: Effect of age, birth cohort and vote choice on support for the same level of gov. spending, OLS model

	Energy	Environment	Farmers	Health care	Job-creation
Age	-0.005* (0.003)	0.005*** (0.002)	-0.001 (0.003)	-0.003 (0.002)	0.002 (0.002)
Age, sq.	0.00004 (0.00003)	-0.00005*** (0.00002)	0.00003 (0.00003)	0.00005** (0.00002)	-0.00002 (0.00002)
1912-1927	-0.155** (0.074)	-0.011 (0.069)	0.104 (0.072)	0.058 (0.062)	-0.084 (0.064)
1928-1955	-0.159** (0.080)	-0.077 (0.070)	0.085 (0.078)	0.026 (0.065)	-0.131* (0.069)
1956-1974	-0.167** (0.085)	-0.065 (0.075)	0.084 (0.083)	0.023 (0.069)	-0.111 (0.073)
1975-1983	-0.185* (0.108)	-0.023 (0.083)	0.103 (0.107)	0.053 (0.079)	-0.072 (0.093)
1984+	0.252 (0.219)	-0.088 (0.087)	0.059 (0.237)	0.184* (0.095)	0.130 (0.183)
Liberals	-0.158* (0.084)	0.007 (0.080)	0.029 (0.081)	-0.008 (0.071)	-0.132* (0.072)
1912-1927 Liberals	0.191** (0.090)	-0.065 (0.085)	-0.040 (0.087)	-0.035 (0.074)	0.090 (0.077)
1928-1955 Liberals	0.190** (0.086)	-0.061 (0.081)	-0.028 (0.083)	-0.034 (0.072)	0.106 (0.074)
1956-1974 Liberals	0.201** (0.086)	-0.056 (0.081)	0.033 (0.083)	-0.010 (0.072)	0.122* (0.074)
1975-1983 Liberals	0.140 (0.109)	-0.123 (0.086)	0.031 (0.106)	-0.038 (0.080)	0.134 (0.093)
1984+ Liberals		-0.192** (0.086)		-0.069 (0.099)	
Constant	2.728 (2.957)	1.868 (1.423)	-5.419* (2.840)	39.388*** (1.661)	-8.501*** (2.462)
Observations	8,944	15,212	9,530	15,578	10,153
R ²	0.006	0.019	0.006	0.092	0.022
Adjusted R ²	0.004	0.018	0.005	0.091	0.021

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment and marital status, and religiosity.

Models include linear term for the survey year

Table C20: Effect of age, birth cohort and vote choice on support for the same level of gov. spending, OLS model

	Justice	Regions	Serv. poor	Trans.	Welfare
Age	-0.001 (0.002)	0.003 (0.003)	0.006** (0.003)	-0.003 (0.003)	-0.001 (0.002)
Age, sq.	0.00001 (0.00002)	-0.00002 (0.00003)	-0.00004 (0.00003)	0.00002 (0.00003)	0.00003 (0.00002)
1912-1927	-0.068 (0.111)	-0.080 (0.069)	-0.038 (0.070)	0.006 (0.069)	0.029 (0.068)
1928-1955	-0.027 (0.111)	-0.102 (0.074)	-0.082 (0.076)	-0.043 (0.075)	0.022 (0.071)
1956-1974	-0.004 (0.116)	-0.045 (0.079)	-0.011 (0.081)	-0.062 (0.079)	0.007 (0.077)
1975-1983	0.052 (0.123)	-0.102 (0.102)	-0.050 (0.104)	-0.068 (0.100)	0.001 (0.089)
1984+	0.021 (0.126)	-0.164 (0.168)	0.081 (0.175)	0.065 (0.176)	-0.086 (0.105)
Liberals	0.031 (0.127)	-0.085 (0.077)	-0.054 (0.079)	-0.024 (0.078)	0.011 (0.079)
1912-1927 Liberals	0.012 (0.134)	0.075 (0.082)	0.022 (0.084)	-0.034 (0.083)	-0.029 (0.084)
1928-1955 Liberals	-0.009 (0.129)	0.075 (0.079)	0.043 (0.081)	0.017 (0.079)	-0.027 (0.081)
1956-1974 Liberals	-0.008 (0.128)	0.073 (0.079)	0.021 (0.081)	0.054 (0.079)	-0.003 (0.081)
1975-1983 Liberals	0.012 (0.132)	0.177* (0.101)	0.155 (0.103)	0.049 (0.099)	0.061 (0.090)
1984+ Liberals	0.032 (0.131)				0.044 (0.109)
Constant	7.729*** (1.768)	1.302 (2.656)	-1.113 (2.860)	22.263*** (2.672)	-4.025** (1.864)
Observations	11,104	9,842	9,505	9,781	12,905
R ²	0.009	0.010	0.017	0.014	0.013
Adjusted R ²	0.007	0.008	0.015	0.012	0.012

Note:

*p<0.1; **p<0.05; ***p<0.01

OLS coefficients with standard errors in parentheses.

Controls include income, education level, employment and marital status, and religiosity.

Models include linear term for the survey year