

Appendix

1. Dependent Variables: Question Wording and Response Scales

i. Economic Ideology

Following Heath et al. (1994), this is constructed from 6 questions, all of which provide respondents with a statement and then ask them to respond on a standard 5-point Likert scale from 1="strongly agree" to 5="strongly disagree":

- 1) Ordinary people get their fair share of the nation's wealth
- 2) Major public services and industries ought to be in state ownership
- 3) There is one law for the rich and one for the poor
- 4) Private enterprise is the best way to solve Britain's economic problems
- 5) It is government's responsibility to provide a job for everyone who wants one
- 6) Strong trade unions are needed to protect employees working conditions and wages.

(1) and (6) were re-coded so that higher values indicate more right-wing orientations. The ideology scale is then produced for each individual by summing the values of the six responses, and then dividing by 6. This produces a scale ranging from 1 to 5. The scale was designed to measure redistributive versus pro-free market core values; in the manuscript, we refer to this as economic left-right values or economic ideology. At the end of this appendix, we show results for the scale items individually.

ii. Opposition to Homosexuality

This comes from a question that asks respondents "Do you personally agree or disagree with the following statements?" We measure responses to the statement: "Homosexual relationships are always wrong" on a five point scale from 1="strongly agree" to 5="strongly disagree". We recoded the responses so that they run from 1="strongly disagree" to 5="strongly agree"

iii. Support for Traditional Gender Roles

This comes from a question that asks respondents "Here are some questions about family life. Do you personally agree or disagree with the following statements?" We measure responses to the statement: "A husband's job is to earn money; a wife's job is to look after the home and family" on a five point

scale from 1="strongly agree" to 5="strongly disagree". We recoded the responses so that they run from 1="strongly disagree" to 5="strongly agree"

iv. Subjective Class Identity

This comes from a question that asks respondents "If you had to choose, which social class would you say you belong to?" Respondents write in an answer which is subsequently coded into various categories. We coded 1=anyone who responded with working class (including 'lower working class' and 'upper working class') and 0=any other middle or upper class response.

v. Party Support

As is standard practice in the British politics literature, party support is measured in the BHPS by combining responses to questions about which party the respondent feels closest to and which party the respondent would vote for in the next election. Specifically, respondents are first asked "Generally speaking do you think of yourself as a supporter of any one political party?" If they answer no to this question, they are asked "Do you think of yourself as a little closer to one political party than to the others?" If they still answer no, they are asked "If there were to be a General Election tomorrow, which political party do you think you would be most likely to support?" Respondents answering yes to any of these three questions can then choose from Conservative, Labour, Liberal Democrat, Scottish National Party, Plaid Cymru, Green or Other. We recoded this response variable so that 1= Conservative and 0= Labour, Liberal Democrat, Scottish National Party, Plaid Cymru, or Green. We excluded the small number of 'Other' supporters from the analysis since we are unable to know whether this indicates a party of the left or right. For instance, although UKIP and the British National Party were not included in the list of possible responses in this period, it could have been one of the choices behind the 'Other' category.

2. Summary Statistics on Class Structure and Mobility

As discussed in the main text, these are shown for the economic ideology model. Results were very similar for the datasets pertaining to other dependent variables. Table A1 shows a cross-tabulation of the classes. The ‘overall’ column pertains to person-wave observations, 41.6% of which are working-class, and 19.1% higher service class. The ‘between’ column displays the percentage of individual respondents who were ever a member of each class. Thus 57.4% of people were working-class at some point, and 29.6% were higher service at some point. Because the ‘between’ figures are larger than ‘overall’, there was substantial class mobility. The final ‘within’ column shows, conditional on ever being a member of the class, the percentage of time that the average individual spends in that class. Mobility out of the working class was quite low, but was higher for other classes; most working-class respondents remained in their class across waves, but this was less the case for other classes.

Table A1: Cross-Tabulation of Classes in the Data

Class	Overall		Between		Within Percent
	Frequency	Percent	Frequency	Percent	
Workers	14576	41.6	5365	57.4	76.8
Routine Non-Manual	5471	15.6	2662	28.5	55.5
Lower service	8298	23.7	3898	41.7	54.5
Higher service	6669	19.1	2763	29.6	58.1
Total	35014	100	14688	157.2	

Table A2: Transition probabilities per wave (row = initial class, column = final class)

	Workers	Routine Non-Manual	Lower service	Higher service
Workers	8,416 (82.6%)	687 (6.7%)	800 (7.9%)	285 (2.8%)
Routine Non-Manual	442 (11.4%)	2,414 (62.2%)	696 (17.9%)	330 (8.5%)
Lower service	451 (7.9%)	493 (8.7%)	3,608 (63.3%)	1,146 (20.1%)
Higher service	173 (3.7%)	200 (4.2%)	931 (19.8%)	3,409 (72.3%)

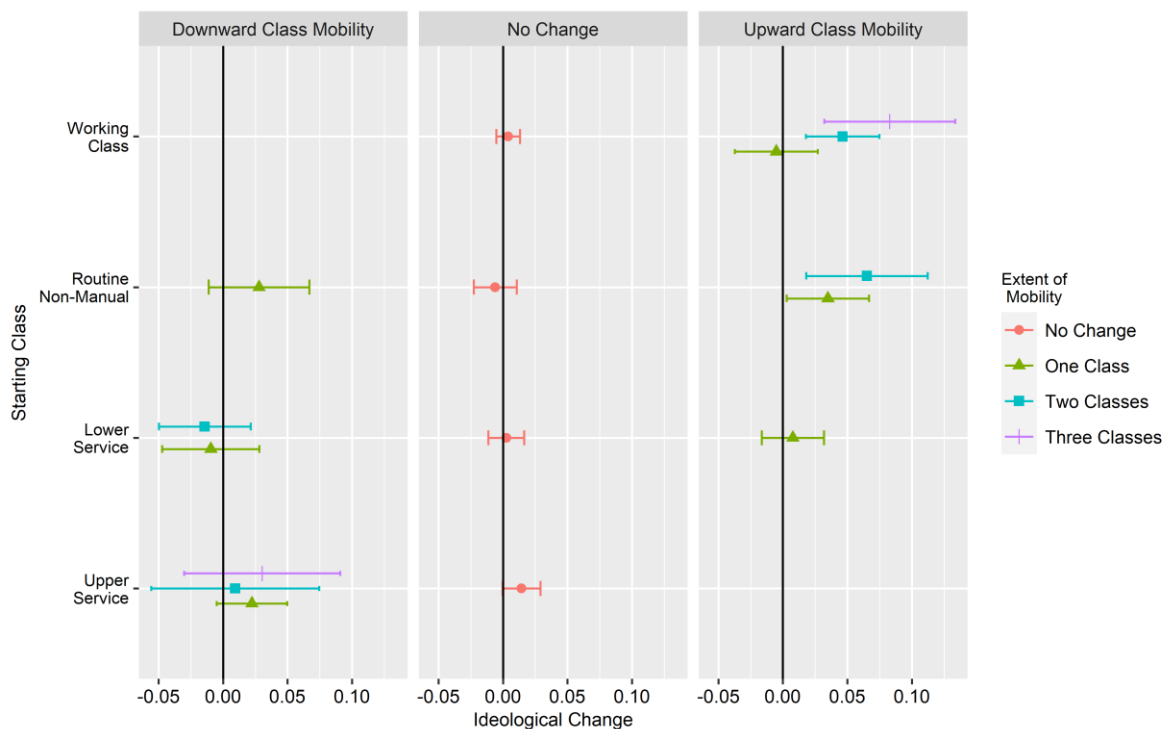
Table A2 measures class mobility more directly using transition probabilities. For class c_1 in any period t (the rows), it shows the average probability of ending up in class c_2 (the columns) in period $t+1$. Bearing in mind that the length of time between waves is 2-3 years (or more if there are gaps in an individual’s participation in the survey), these transition probabilities appear sensible and also indicate quite a large amount of mobility, particularly between the top three categories. Transitions in and out of being a worker are rare, with respondents 81% likely to remain in that category across waves. Mobility from the middle two categories is much more common, with upward transitions more

prevalent than downward. For the higher service class, there is a substantial amount of short-range downward mobility into the lower service class.

3. Class Mobility and Economic Ideology: All Starting Classes

Figure A1 shows the mean change in economic values that occurs between any two waves t and $t+1$ as a function of upward class mobility, downward class mobility or no change. The sample is the same as in Table 1, first two columns. The y axis shows the initial class at time t , and the figure is split further into changes of one, two or three classes. Thus a movement of “one class” from “working class” is a person who moves upward to become routine non-manual. The figure contains limited evidence of preference updating following changes in class position. As expected, those who remain in the same class from wave to wave show no tendency to change their economic values. There is also no evidence that downward class movements lead to changes in beliefs. There is, however, evidence that upward class mobility leads people to become more conservative. Statistically significant increases in conservatism are evident for upward mobility out of the Routine Non-Manual class and movement from the working class to middle class. There is no discernible impact of upward movement within the two service classes.

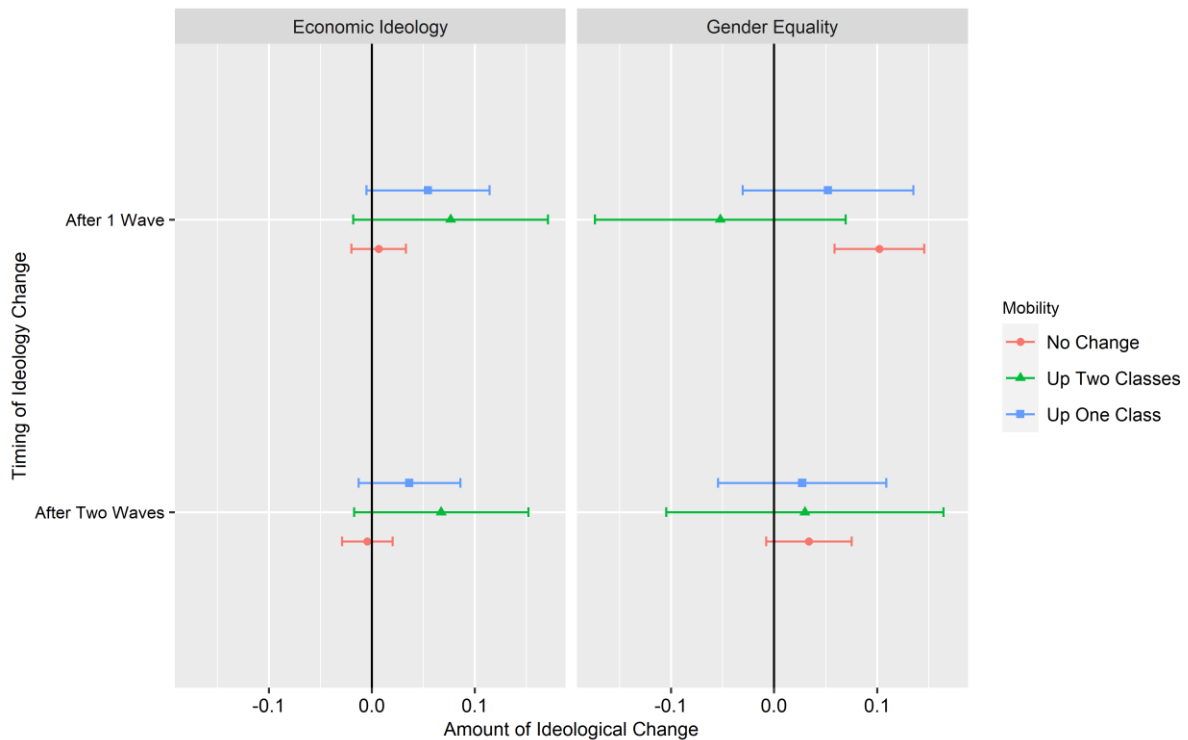
Figure A1: Class Mobility and Changes in Left-Right Economic Values (Means and 95% Confidence Intervals)



3. Second Test for Lagged Effects

As discussed in the main text, our second test for the possibility of lags between class mobility and ideological change looks at ideological change one wave and two waves after class mobility. Although virtually no individuals are observed for two subsequent waves after class mobility, we *can* follow a reasonable number of individuals for one wave after the initial wave when class mobility occurs, for our larger economic ideology and gender equality samples. Figure A2 shows the mean ideological change in the first wave when a class change occurs (first row) compared to the ideological change from the starting wave for the same people one wave later (second row). For comparability with Table 1, it only shows people whose starting class is routine non-manual. Individuals experiencing no change over the three waves are plotted as a control group. Specifically, if class is observed at waves $t1$, $t2$ and $t3$, all individuals begin in the routine non-manual class at $t1$. The ‘up one classes’ group comprises people who went up to the lower service class between $t1$ and $t2$ and then remained in their new class at $t3$. The top row measures ideological change between $t2$ and $t1$, and the bottom row measures ideological change between $t3$ and $t1$. The ‘no change’ group comprises people who remained in the routine non-manual class for all three waves. In all cases, the same individuals are followed across three waves. We cannot make any inferences about a third wave due to the fact that almost nobody is observed continuously for this length of time after class mobility.

Figure A2: Ideological Change, One Wave after Class Mobility Compared to Two Waves After (Means and 95% Confidence Intervals)



The left-hand panel, for economic ideology, shows results in line with our main models. The changes for both class mobility groups, while of almost exactly the same amount as our main models, do not achieve statistical significance at the 5% level due to the small numbers of people involved.¹ Compared to the no-change group, both sets of people became more conservative on average in the first wave of class mobility, and maintained their conservatism one wave later. However, ideological change did not increase after 1 subsequent wave in the new class. Therefore, people appear to adapt to their new class immediately and then maintain their new opinions in the wave after that.

As with the analysis in the main paper, we again find no evidence that effects for non-economic issues emerge with a delay. After 1 wave, the no-change group became a bit more conservative on gender equality while both of the upwardly-mobile groups showed change that was close to zero. After two waves, all three had groups changed by almost identical amounts. There is therefore no evidence that the upwardly mobile become more socially liberal on gender equality after two waves, compared to those whose class remained unchanged.

¹ For example, only 109 people are observed for two waves after going up two classes. These are a subset of the people included in our main models because here we only examine people who we sustained their class mobility for one subsequent wave.

4. Results for Economic Ideology, Including Income and Education

As discussed in the main paper, here we have replicated the fixed effects estimates from the article, including income and education. The sample size in these regressions is reduced due to missing data for income and (mainly) education: we therefore first replicate the analyses from the paper without controls but excluding the units with missing data for one of them, making these comparable to the models with controls for education and income.

Table A3. Class and Political Attitudes, Controlling for Education and Income

	Economic left-right (higher = more conservative)		Opposition to Homosexuality (higher = more opposed)		Support for Traditional Gender Roles (higher = more traditional)	
	Within	Within	Within	Within	Within	Within
Worker	0.01 (0.01)	0.01 (0.01)	0.00 (0.02)	-0.01 (0.02)	0.01 (0.02)	0.02 (0.02)
Lower Service	0.04*** (0.01)	0.04*** (0.01)	-0.03 (0.02)	-0.03 (0.02)	0.00 (0.02)	0.00 (0.02)
Higher Service	0.06*** (0.01)	0.06*** (0.01)	0.00 (0.03)	0.02 (0.03)	0.00 (0.02)	-0.00 (0.02)
Medium Education		0.019 (0.03)		-0.18 (0.09)		-0.10 (0.05)
High Education		-0.013 (0.03)		-0.37*** (0.10)		-0.03 (0.05)
Income (£000s)		0.0004 (0.0003)		-0.00 (0.0009)		-0.00 (0.0004)
Constant	2.69*** (0.01)	2.70*** (0.01)	2.77*** (0.02)	3.01*** (0.08)	2.23*** (0.02)	2.29*** (0.04)
Unit FE	Yes	Yes	Yes	Yes	Yes	Yes
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	29669	29669	19938	19938	36361	36361
No. of individuals	8761	8761	6813	6813	9045	9045
Waves of Data	1,3,5,7,9, 10,14,17	1,3,5,7,9, 10,14,17	8,10,12,14	8,10,12,14	1,3,5,7,11, 13,15,17	1,3,5,7,11, 13,15,17

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Dependent variables are five point scales. Higher values indicate, respectively, greater economic or social conservatism. Standard errors in parentheses, clustered by individual

Table A4: Objective Class and Subjective Class Identity, Controlling for Education and Income

	Subjective Class Identity (1 = working class, 0 otherwise)	
	Within	Within
Worker	-0.03 (0.02)	-0.03 (0.02)
Lower Service	0.01 (0.02)	0.01 (0.02)
Higher Service	0.00 (0.02)	0.00 (0.02)
Medium Education		0.05 (0.05)
High Education		0.08 (0.05)
Income (£000s)		0.00 (0.0005)
Constant	0.44*** (0.01)	0.39*** (0.04)
Unit Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Observations	12189	12189
No. of individuals	4704	4704
Waves of Data	1,6,10,15	1,6,10,15

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Dependent variable is binary, 1=middle class/upper class, 0=working class.
Standard errors in parentheses (clustered by individual)

Table A5: Class and Voting, Controlling for Education and Income

	Vote Choice (1 = Conservative, 0 = all other parties)	
	Within	Within
Worker	-0.01 (0.01)	-0.01 (0.01)
Lower Service	0.01 (0.01)	0.01 (0.01)
Higher Service	0.02 (0.01)	0.00 (0.01)
Medium Education		0.01 (0.02)
High Education		0.01 (0.02)
Income (£000s)		-0.00 (0.0002)
Constant	0.40*** (0.01)	0.40*** (0.02)
Unit Fixed Effects	Yes	Yes
Time Fixed Effects	Yes	Yes
Observations	57949	57949
No. of individuals	10615	10615
Waves of Data	All (1-17)	All (1-17)

Dependent variable is binary, 1=voting Conservative, 0=voting for any other centre/left party

Standard errors in parentheses (clustered by individual)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5. Parallel Trends Analysis

As described in the main text, here we show the results of our fixed effects model for economic ideology, excluding the two groups identified in Figure 1 as having non-parallel trends: those who moved upwards from routine non-manual to lower service between waves 10 and 14, and those moving upwards from routine non-manual to higher service between waves 14 and 17.

Table A6: Class and Economic Ideology, Excluding People with Non-Parallel Trends

	Economic left-right (higher = more conservative) Within
Worker	0.00 (0.01)
Lower Service	0.04*** (0.01)
Higher Service	0.06*** (0.01)
Constant	2.70*** (0.01)
Unit Fixed Effects	Yes
Time Fixed Effects	Yes
Observations	34684
No. of individuals	9331
Waves of Data	1,3,5,7,9, 10,14,17

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Dependent variables are five point scales. Higher values indicate, respectively, greater economic or social conservatism. Standard errors in parentheses, clustered by individual

6. Attrition

There are two ways that attrition can occur. The first is remaining in the panel for only one period, and the second is remaining in the panel for two or more periods but leaving before the end. For our economic ideology model the first mechanism results in 3,842 individuals out of an initial 13,184 leaving the sample. Due to deaths, retirements, etc., the second mechanism leads to attrition over the life of our panel. The majority of respondents began either in wave 1 (1991) or in wave 10 (2000), when a refreshment sample was launched. Of the wave 1 entrants, 42.5% remained until wave 17 (2007) and of the wave 10 entrants, 73.0% did so. Attrition patterns were very similar for our other models.

Below, we present balance tests comparing the 3,842 individuals providing only one wave of data to those in our sample (Table A7); the wave 1 entrants who remained in the sample until the end to the wave 1 entrants who left early (Table A8); and the wave 10 entrants who remained in the sample until the end to the wave 10 entrants who left early (Table A9). Each table shows the characteristics of individuals in our sample (second column) and the characteristics of individuals lost to attrition (third column). In all cases, we use the characteristics of individuals in the first wave in which they appear. Although often statistically significant, differences between the sets of groups are modest. People who remained for more than one wave or for the full sample were somewhat more likely to be middle or upper class, were a bit better educated and had slightly higher incomes. Unsurprisingly, those who left earlier were also a little older. Differences in economic ideology were small. Given the modest size of the differences and the fact that income and education had no impact on our results, attrition is therefore unlikely to pose a threat to the validity of our results.

Table A7. Balance tests, those with one wave of data only vs. our sample (first wave characteristics)

Characteristic	Mean, our Sample	Mean, attritted group	Difference
Working Class (%)	48.9	57.2	-8.3*
Lower Service Class (%)	21.0	18.0	3.0*
Higher Service Class (%)	14.3	10.0	4.3*
Age (years)	34.0	33.4	0.7*
Female (%)	50.6	50.8	-0.2
High Education (percent with some post-secondary education)	37.5	36.6	0.9
Low Education (percent with primary or incomplete secondary only)	21.4	25.6	-4.3*
Income (£)	12,012	11,640	375
Economic Ideology	2.67	2.63	0.05*
Observations	9,342	3,842	

*Indicates difference is statistically significant at the 5% level

Table A8. Balance tests, wave 1 entrants who remained until wave 17 vs. wave 1 entrants who left the panel early (wave 1 characteristics)

Characteristic	Mean, final wave = 17	Mean, final wave <17	Difference
Working Class (%)	41.4	44.9	3.5*
Lower Service Class (%)	24.9	22.2	2.6
Higher Service Class (%)	16.2	17.0	-0.7
Age (years)	32.6	39.2	-6.7*
Female (%)	48.1	50.5	-2.4
High Education (percent with some post-secondary education)	40.0	33.4	6.7*
Low Education (percent with primary or incomplete secondary only)	18.6	28.4	9.8*
Income (£)	11,488	11,553	-64
Economic Ideology	2.74	2.75	-0.01
Observations	1,690	2,282	

*Indicates difference is statistically significant at the 5% level

Table A9. Balance tests, wave 10 entrants who remained until wave 17 vs. wave 10 entrants who left the panel early (wave 10 characteristics)

Characteristic	Mean, final wave = 17	Mean, final wave <17	Difference
Working Class (%)	45.3	48.7	-3.4
Lower Service Class (%)	23.4	19.5	3.8
Higher Service Class (%)	16.7	14.7	2.1
Age (years)	34.7	36.1	-1.3*
Female (%)	49.1	52.4	-3.3
High Education (percent with some post-secondary education)	43.8	40.4	3.3
Low Education (percent with primary or incomplete secondary only)	16.6	20.4	-3.8
Income (£)	14,798	12,764	2.03*
Economic Ideology	2.60	2.55	0.05*
Observations	1,451	538	

*Indicates difference is statistically significant at the 5% level

7. Disaggregating the economic left-right index

As discussed in section 1, we constructed the economic left-right index by following the method of Heath et al. (1994), combining the responses to six items. In Table A.7, we replicate the cross-sectional/between-models for each of the six items individually (columns 2-7), comparing them to the results from the model in the paper (column 1). In Table A.8 we do the same for the within-models (unit fixed effects).

Table A.10. Replicating the between-models with the six economic left-right items individually.

	(1) Ec. Left- right index from paper	(2) ordinary people share nations wealth (rev)	(3) one law for rich and one for poor	(4) Private enterprise solves economic problems (rev)	(5) public services ought to be state owned	(6) govt. has obligation to provide jobs	(7) strong trade unions protect employees
Worker	-0.16*** (0.02)	-0.04 (0.03)	-0.24*** (0.03)	-0.05* (0.02)	-0.07** (0.03)	-0.25*** (0.03)	-0.30*** (0.03)
Lower Service	0.03 (0.02)	-0.02 (0.03)	0.04 (0.03)	0.03 (0.03)	-0.06* (0.03)	0.19*** (0.04)	0.01 (0.04)
Higher Service	0.29*** (0.02)	0.13*** (0.03)	0.21*** (0.03)	0.36*** (0.03)	0.13*** (0.03)	0.54*** (0.04)	0.37*** (0.04)
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit FE	No	No	No	No	No	No	No
Constant	2.73*** (0.05)	2.27*** (0.07)	2.27*** (0.07)	2.84*** (0.06)	3.11*** (0.07)	2.89*** (0.08)	3.01*** (0.08)
Observations	35014	35014	35014	35014	35014	35014	35014

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The pattern is the same for all items (workers most left-wing, higher service class most right-wing), but magnitude differs. Cross-sectional class differences are very important for “one law for rich and one for poor”, “government has obligation to provide jobs”, and “strong trade union protect employees”, while they are quite small for “ordinary people share nation’s wealth”.

Table A.11. Replicating the unit fixed effects (within) models with the six economic left-right items individually.

	(1) Ec. Left- right index from paper	(2) ordinary people share nations wealth (rev)	(3) one law for rich and one for poor	(4) Private enterprise solves economic problems (rev)	(5) public services ought to be state owned	(6) govt. has obligation to provide jobs	(7) strong trade unions protect employees
Worker	0.00 (0.01)	0.01 (0.02)	0.02 (0.02)	0.01 (0.02)	-0.02 (0.02)	0.02 (0.02)	-0.03 (0.02)
Lower Service	0.04*** (0.01)	0.05* (0.02)	0.03 (0.02)	0.02 (0.02)	-0.00 (0.02)	0.06** (0.02)	0.08*** (0.02)
Higher Service	0.05*** (0.01)	0.06** (0.02)	0.08*** (0.02)	0.01 (0.02)	0.02 (0.02)	0.06** (0.02)	0.10*** (0.02)
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.70*** (0.01)	2.38*** (0.02)	2.34*** (0.02)	2.85*** (0.02)	2.95*** (0.02)	2.96*** (0.02)	2.74*** (0.02)
Observations	35014	35014	35014	35014	35014	35014	35014

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Again, patterns are similar but with magnitude differences. Moving between working class and routine non-manual employees do not change any individual items, just like for the index as a whole. Moving from routine non-manual to the lower service classes makes people more right-wing on three items, but not (statistically significantly) on the other three. Moving to the *higher* service class in addition moves people in a right-wing direction on a fourth item as well, namely “one law for rich and one law for poor”.