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*Demand for Redistribution: Individuals'
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DEMAND FOR REDISTRIBUTION: INDIVIDUALS' RESPONSE TO ECONOMIC SETBACKS

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Demand for Redistribution: Individuals' Response to Economic Setbacks

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Abstract

Although economic circumstances have been argued to be a major determining factor of attitudes to redistribution, there is little well identified evidence at the individual level. Utilizing a unique dataset, with detailed individual information, provides new and convincing evidence on the link between economic circumstances and demand for redistribution (in the form of benefits and support). The Swedish National Election Studies are constructed as a rotating survey panel, which makes it possible to estimate the causal effect of economic changes. The empirical analysis shows that individuals who experience a job loss become considerably more supportive of redistribution. Yet, attitudes to redistribution return to their initial level as economic prospects improve, suggesting that the effect is only temporary. Despite the fact that a job loss also changes attitudes to the political parties, the probability to vote for the left-wing is not affected.

Keywords: Redistribution, Social insurance, Political attitudes, Unemployment

JEL classification: D31, H55, D72, J64

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1 Introduction

There is little consensus on the political consequences of unemployment. According to one line of reasoning voters will demand more generous welfare policies during periods of economic downturn, which will benefit left-wing parties (e.g. Wright, 2012). Others argue that right-wing parties will be rewarded, since voters are fiscally conservative (e.g. Stevenson, 2001). Yet, others emphasize that voters are retrospective and punish the government, without regard to partisan affiliation (see overview by Lewis-Beck and Stegmaier, 2013). The lack of consensus is likely due to methodological difficulties, since political parties also influence economic outcomes. At the individual level, on the other hand, there is not much disagreement about the fact that individuals' attitudes to redistribution are influenced by their own financial gains (e.g. Meltzer and Richard, 1981; Alesina and La Ferrara, 2005), despite the fact that there is little well-identified evidence. Overall, political attitudes have been found to be rather stable over the life span (e.g. Sears and Funk, 1999), but the empirical evidence is scant and largely based on small non-representative samples. Hence, it is unclear if changes of individuals' economic conditions really have an impact on their attitudes to redistribution. Using data from Sweden, this paper examines whether short-term variation in individuals' economic circumstances causes them to *change* their demand for redistribution (in the form of benefits and support).

The paper is mainly related to the literature regarding attitudes to redistribution that focus on economic circumstances as determinants, rather than social preferences and beliefs.¹ Several studies based on cross-sectional survey data find that peoples' labor market position, current and expected income level, and the risk of layoff are associated with attitudes to redistribution (Ravallion and Lokshin, 2000; Alesina and La Ferrara, 2005; Rainer and Siedler, 2008; Rehm, 2009; Guillaud, 2013). However, the reliance on cross-sectional survey data is problematic since unobservable characteristics (e.g. the social

¹There are a number of studies that focus on social preferences as determinants, emphasizing the importance of altruism, inequality aversion, and beliefs about the determinants of poverty (e.g., Fong, 2001; Galasso, 2003; Alesina and Angeletos, 2006). Systematic differences in the support for redistribution have also been attributed to culture, social capital, political institutions and historical experiences (e.g., Corneo and Grüner, 2002; Alesina and Fuchs-Schündeln, 2007; Luttmer and Singhal, 2011; Eugster et al., 2011; Yamamura, 2012; Algan et al., 2016; Kuziemko et al., 2015). Group identity has also been found to predict attitudes to redistribution (e.g., Luttmer, 2001; Klor and Shayo, 2010; Fong and Luttmer, 2011; Dahlberg et al., 2012).

background of an individual's parents) can account for both an individual's economic situation and attitudes to redistribution. A growing number of studies have instead examined attitudes to redistribution in experimental settings, finding that individuals' risk aversion and expected financial gains influence attitudes to redistribution (e.g. Cruces et al., 2013; Durante et al., 2014), but beliefs about income determinants also matter (Deffains et al., 2016).

This paper, instead, focus on observational data and uses survey panel data to address the issue with unobservable heterogeneity. The most closely related paper is Margalit (2013) who uses survey panel data from the US.² The study finds that individuals who experience a major economic set back (a job loss or an increase of subjective job insecurity) become more supportive of welfare spending, whereas there is no significant effect of finding employment. I use survey data from the Swedish National Election Studies (SNES) to estimate the effect of employment changes (experiencing a job loss or finding employment) on demand for redistribution. The panel structure makes it possible to exploit within-subject variation, which strengthens the causal interpretation of the results. The paper contributes to the literature by, first, examining whether the American results extends to other institutional and political contexts. Inequality is considerably higher and the coverage and replacement rate of social insurance is lower in the US compared to Sweden (Ferrarini and Nelson, 2003; Scruggs, 2006). This may affect how individuals react to changes of their economic circumstances. Furthermore, the different political systems may also have an impact on attitudes (e.g. Granberg and Holmberg, 1988).³ Second, due to lack of detailed information regarding the respondents' home districts, most studies have faced the problem of separating individual and aggregate effects. This is problematic since the local unemployment rate will be correlated with the individual probability of a job loss. The SNES include information about the respondents' location (municipality), making it possible to differentiate between the effects of aggregate and individual economic conditions. Given that Swedish municipalities are fairly small, with an average population of 30 000, municipality variables measure the respondent's local conditions with high accuracy. Third, besides attitudes to redistribution I also examine

²While Margalit (2013) estimates a lagged dependent variable model, I use a first difference specification, to account for unobserved heterogeneity.

³For instance, attitudes of the Swedish electorate have been found to be consistently more stable than its American counterpart (Niemi and Westholm, 1984).

if respondents' evaluation of the major political parties and their voting is affected. The economic voting literature has focused on the impact of economic conditions on support for incumbents, rather than partisanship. Most studies find that evaluations of the national economy affect the likelihood to support the government, whereas the influence of personal economic conditions is considerably weaker (Lewis-Beck and Stegmaier, 2013).

The empirical analysis shows that individuals who lose their job become considerably more supportive of redistribution, whereas individuals who regain employment appear to react in the opposite direction. Respondents who experience a job loss also become more positive to the largest left-wing party (the Social Democrats) and more negative to the largest right-wing party (the Moderate party), but the probability to vote for the left-wing or support the incumbent government is not affected. Overall, the result suggests that individuals respond due to self-interest, and that attitudes to redistribution return to their initial level as economic prospects eventually improve.

The remainder of the paper proceeds as follows. The next section discusses potential mechanisms. Section 3 describes the data and measurements, and section 4 formalizes the empirical strategy. Section 5 presents the empirical results and, finally, section 6 concludes.

2 Economic circumstances: mechanism

Economic circumstances could affect attitudes to redistribution through several different mechanisms. First, assuming that peoples' main objective is to maximize their after tax income, an economic setback should affect their demand for redistribution by altering the financial gain from redistribution (Meltzer and Richard, 1981). Both the current income as well as the perceived probability of being a net contributor or recipient of redistribution in the future could influence attitudes through this mechanism (Bénabou and Ok, 2001). Second, if redistribution is seen as insurance against uncertain future income streams, then one would expect individuals with higher risk aversion to favor redistribution (Alesina and La Ferrara, 2005). An economic setback could increase the individual's expected variation of future earnings, and thereby affect the demand for

social insurance. These two self-interest mechanisms would affect demand for redistribution, while preferences are constant. On the other hand, if people’s policy preferences are dependent on uncertain beliefs, new information may change them (Page and Shapiro, 1992).⁴ Individuals who experience economic setbacks may perceive those that are unemployed or poor as less responsible for their economic conditions, and more deserving of welfare assistance, than they did before. Thus, they might put more weight on the relative importance of luck, as compared to hard work, as a determinant of individuals’ economic conditions (e.g. Deffains et al., 2016; Giuliano and Spilimbergo, 2014). In this case experiencing economic changes could involve a learning experience, thereby altering preferences for redistribution.

One way to distinguish between these mechanisms is to examine whether the effect of a setback, such as a job loss, is transitory, i.e. disappears as economic conditions improve, or persistent. While the self-interest mechanisms are expected to only have a short-term effect on attitudes, since demand for redistribution returns to its initial level as economic prospects improve, the learning mechanism should affect preferences (and demand), and thereby induce a long-lasting effect on attitudes.

3 Data and measurement

The survey data on individuals’ attitudes to redistribution comes from the Swedish National Election Studies (SNES).⁵ The surveys have been carried out at every election (to the Swedish Parliament) since 1956, and the respondents consist of a national representative sample of the population. Since the election 1973 the survey is constructed as a rotating panel, where each individual is interviewed in two subsequent elections.⁶

⁴Many studies find a high degree of persistence in attitudes (e.g., Alwin and Krosnick, 1991; Sears and Funk, 1999), although the degree of persistence is likely to vary depending on attitude domain (Sears, 1983) and country (Niemi and Westholm, 1984).

⁵The surveys are conducted as a collaboration between the Department of Political Science at Gothenburg University and Statistics Sweden. The principal investigators were Sören Holmberg and Mikael Gilliam (1985-1994), Sören Holmberg (1998) and Sören Holmberg and Henrik Oscarsson (2002-2010). See <http://www.valforskning.pol.gu.se> for more information. The survey data has been made available by the Swedish National Data Service (SND). Neither SND nor the principal investigators bear responsibility for the analytical findings in this paper.

⁶Half of the respondents are new each election year. For instance, in 2006 the sample consisted of both the “old group”, i.e. individuals that had already been interviewed in 2002, and the “new group”, i.e. individuals that were also interviewed in 2010. The majority of the respondents are interviewed in their homes, whereas those that were “busy or difficult to get in touch with” are interviewed over the phone.

I use information from the election studies in 1985-2010. The number of individuals included in each panel ranges from 1 200 to 1 800 individuals, and on average almost 1 600 individuals are included in each panel.⁷ Based on the panel feature of the survey it is possible to construct seven panels, and each panel consists of individuals that were interviewed in both of the respective years.

The surveys contain information about political attitudes and voting habits, as well as information about the respondents' background characteristics. Register information regarding pre-tax income, age, gender, civil status and home district (municipality) has been added by Statistics Sweden. Information regarding the respondents' municipalities make it possible to match the individual survey information with data regarding local economic conditions.⁸ Although the surveys contains information on both self-reported employment and register-information about the previous year's income, the main analysis will focus on how changes of employment affects attitudes to redistribution. A change of employment status is a much more precise measure of economic circumstances, than a change of income, given that it is more apparent what causes the change, less likely to be voluntary and because it is measured at the same time as the respondents are interviewed. Results for income are available in the Appendix, but the sample size is somewhat smaller since the respondents' pre-tax income is only available from 1991.

3.1 Demand for redistribution

While some aspects of the welfare state are mainly redistributive, such as the progressivity of the income tax, others, such as unemployment benefits, primarily provide social insurance. Although redistribution and social insurance are not the same, social insurance also has redistributive consequences (e.g. Ferrarini and Nelson, 2003; Mahler and Jesuit, 2006). Survey questions often face the problem of distinguishing whether the respondent favors redistribution or social insurance, but most studies assume that they

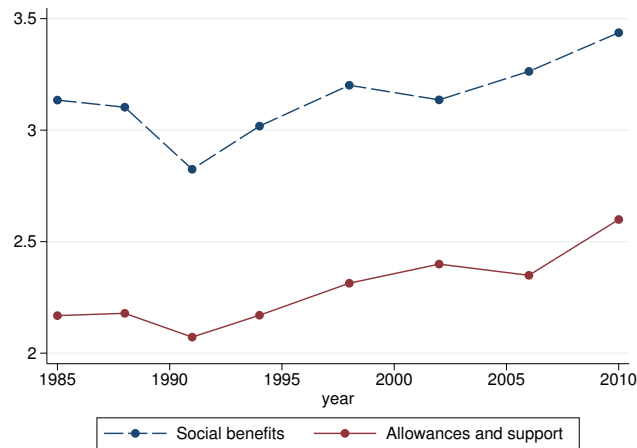
⁷Calculations are based on the respondents with added register information in both surveys. Register data will not be available for respondents who, for instance, move abroad or decease.

⁸Municipalities (local governments) are responsible for providing a significant proportion of all public services, and have a considerable degree of political autonomy as well as independent powers of taxation. The rules and levels of unemployment benefits, early retirement relief and sickness allowance are decided at the national level. On the contrary, there are cross-municipality differences regarding income support, although there are national guidelines. Information regarding the municipal unemployment rate is obtained from the Public Employment Service, and income support expenditures are acquired from the National Board of Health and Welfare.

are highly correlated and treat them as equivalent for analytical purposes (e.g. Alesina and Giuliano, 2011; Margalit, 2013).

In the subsequent analysis I focus on two questions that are clearly closer related to social insurance than redistribution.⁹ The first question asks “What is your opinion about the proposal to reduce social benefits?”. Responses are located on a five-point scale: (1) Very good; (2) Fairly good; (3) Neither good nor bad; (4) Fairly bad; (5) Very bad. The second one reads “Social reforms have gone too far in this country and the government should decrease rather than increase allowances and support to the citizens in the future.” Answers are located on a four-point scale ranging from (1) “Fully agree” to (4) “Fully disagree”. It is possible that respondents are unsure about what is included in “social benefits”, and, hence, they may be more likely to associate the term “allowances and support” with support like unemployment benefits.

Figure 1: Response over time



Note: Average responses (by survey year) to the proposal to reduce social benefits or the statement that the government should decrease allowances and support.

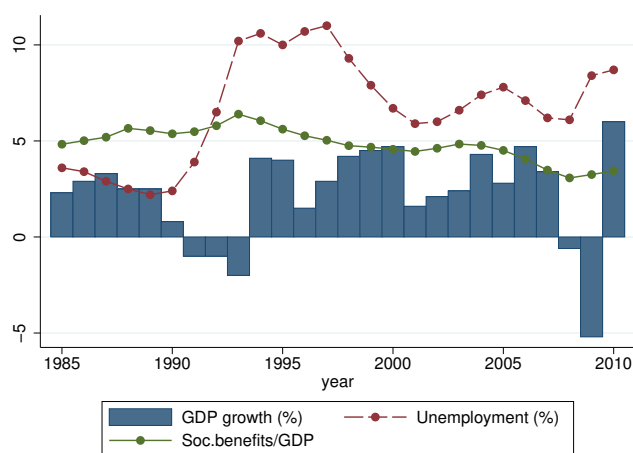
Figure 1 displays the development of the respondents’ proposal ratings over time for the two questions included in the analysis. People have gradually become more negative to the proposals to reduce benefits and allowances, in line with findings by Svallfors (2011).

However, if spending on welfare support has also changed over the years, the trend could

⁹None of the questions remind the respondents of the potential trade-off between increased spending on social benefits and lower taxes. Research show that respondents tend to express high support for both more social spending and lower taxes, when not reminded about this trade-off (e.g. Page and Shapiro, 1992). Although this could cause respondents to overstate their support for social benefits/allowances, it should not be a problem when it is *changes* of support that is the primary variable.

simply be due to the fact that individuals' reference point has changed. Figure 2 displays how spending on social benefits, the unemployment rate, and the GDP growth rate have evolved over time. It is evident that spending on social benefits has decreased over time, from almost 5 % in 1985 to 3.5 % 2010. Hence, when examining attitudes to redistribution using the questions above, it is important to account for both these nation-wide trends, as well as changes of spending on welfare support in the respondents' home districts.

Figure 2: GDP growth rate, unemployment and spending on social benefits



Note: Social benefits include unemployment benefits (excluding vocational training), sickness allowance, early retirement pension, and income support. Source: Statistics Sweden, the National Board of Health and Welfare, the Swedish Social Insurance Agency, the Swedish Unemployment Insurance Board

Besides the questions about redistribution, I also look at survey questions regarding the attitudes to the major left- and right-wing party. The Moderate Party was in charge of the coalition government 1991-1994 and 2006-2010, whereas the Social Democrats held office 1985-1991 and 1994-2006. The Social Democrats have consistently favored higher taxes and more generous welfare support than the Moderate Party. Respondents are asked to express their view of the political parties on an 11-point scale ranging from “Strongly approve” to “Strongly disapprove”.

3.2 Summary statistics

Table 1 provides summary statistics regarding the respondents during the two surveys that they were interviewed. The average age at the first survey wave ($t - 1$) was 44 years, 46 percent of the respondents were women, average income was 230 000 SEK, and

around 70 percent of the respondents were employed.¹⁰ The mean change of the proposal rating to reduce social benefits was -0.02, whereas the mean change regarding the statement about allowances was 0.04. Figure A1 in the Appendix shows histograms for the two variables, indicating that the distribution is fairly symmetric around zero. Around 40-50 percent of the individuals in the sample do not change their rating between the surveys, whereas almost 40 percent change their answer one step along the preference rating. Very few individuals shift from stating that the proposal is “very good/fully agree” to stating that it is “very bad/fully disagree”, or vice versa. On average, respondents also became more negative to the Social Democrats (S) and more positive to the Moderate Party (M). Although the probability to vote for the left-wing and the incumbent government has changed between surveys, there is no strong trend over time among the respondents.¹¹ Using the self-reported information on labor market position I define individuals as being either employed, unemployed (also includes individuals in relief work or labor market programs), retired (also includes early retirement pensioners) or students. In order to examine if employment changes have lasting effects on attitudes I also use binary variables to indicate changes of employment status in different directions (i.e. being unemployed/employed during the first interview but employed/unemployed the next one). Table 1 shows that around 4 percent of the respondents experienced such changes. A description of all survey questions can be found in section A.1 in the Appendix.

When using survey panel data, two potential problems emerge. First, the respondents may differ from the non-respondents regarding observable and unobservable characteristics.¹² Second, one faces the problem of sample attrition when respondents don’t participate in all survey waves.¹³ This may cause problems if individuals experiencing an

¹⁰Income includes wage, sickness allowance, unemployment benefits, parental allowance, income from business operations, pension, and capital income. The data refers to the latest assessment (year $t - 1$ or $t - 2$).

¹¹The left-wing is defined as the Social Democrats, the Left Party, the Green Party and Feminist Initiative. Some minor parties have not been represented in all elections. Excluding respondents who reported that they voted for a party the first time they were interviewed, that was not available the second time they were interviewed, does not affect the results. The national government consisted of the Social Democrats 1983-1991 and 1994-2006, and a coalition of the Moderate Party, the Centre Party, the Christian Democrats and the People’s party 1991-1994 and 2006-2010.

¹²Looking at respondents included in both surveys, the response rate (based on the first interviews) is quite high, at 87 percent. However, respondents that were busy or unwilling to participate were given a shorter questionnaire that did not include the questions about demand for redistribution, and the response rate to the questions of interest (social benefits/allowances) is only 72 percent.

¹³Attrition is evident since only 69 percent of those who answered the questions about redistribution

economic setback are less willing to participate the second time. On the other hand, unemployed respondents are also less time constrained. Also, some individuals answer that they “do not know/do not want to answer” the questions about social benefits and allowances. These respondents are excluded from the main analysis, resulting in a sample of around 5000 respondents, i.e. 10000 observations.

Table 1: Summary statistics

	mean	sd	min	max
Δ Social benefits	-0.02	1.20	-4.00	4.00
Δ Allowances	0.04	0.89	-3.00	3.00
Δ Attitude, S	-0.10	2.09	-10.00	10.00
Δ Attitude, M	0.21	2.36	-10.00	10.00
Δ Vote left	-0.01	0.34	-1.00	1.00
Δ Vote, incumbent	0.01	0.61	-1.00	1.00
Found job	0.02	0.15	0.00	1.00
Lost job	0.02	0.15	0.00	1.00
Background characteristics				
Women	0.46	0.50	0.00	1.00
Immigrant	0.03	0.17	0.00	1.00
Age _{t-1}	44.36	16.15	18.00	80.00
High school _{t-1}	0.39	0.49	0.00	1.00
University _{t-1}	0.27	0.44	0.00	1.00
Income _{t-1}	231.78	237.28	0.00	9364.78
Employed _{t-1}	0.70	0.46	0.00	1.00
Unemployed _{t-1}	0.04	0.20	0.00	1.00
Student _{t-1}	0.07	0.25	0.00	1.00
Retired _{t-1}	0.17	0.38	0.00	1.00
Part-time _{t-1}	0.15	0.36	0.00	1.00
Unemployment _{m,t-1}	5.34	3.65	0.16	20.15
Income support _{m,t-1}	0.76	0.57	0.04	3.42
Observations	5361			

Note: Income and income support (per capita) are given in 1000 SEK (\approx \$ 120) and 2010 year value. Attitude S/M measure respondents’ attitudes to the Social Democrats and the Moderate party. The sample is restricted to individuals who respond to the question about social benefits or allowances in both surveys. All survey questions are described in section A.1.

The background characteristics of the respondents and non-respondents (in the panel sample) are compared in table A1. Only information from administrative registers can be used, since self-reported information is not available for all non-respondents. Women are somewhat underrepresented, and the average respondent has a higher income and is more likely to be married than the non-respondent. The respondents also come from mu-

in the first survey also answer it the second time. The decrease is also affected by the fact that 15 percent of them choose to answer the short survey the second time they are interviewed.

nicipalities with lower unemployment and lower expenditures on income support. Overall, one would expect the average respondent to be more negative to redistribution (cf. table A3). All these differences should be kept in mind when drawing conclusions about the impact of economic conditions on attitudes to redistribution, but it is not evident how they will affect the results.

4 Empirical framework

As a benchmark, I start off with a specification similar to previous cross-sectional studies, although municipality characteristics are now also included. The model looks as follows:

$$y_{imt} = \alpha_0 + \alpha_1 E_{imt} + \alpha_2 X_{imt} + \alpha_3 M_{mt} + \theta_t + v_{imt} \quad (1)$$

The dependent variable (y_{imt}) measures attitudes to social benefits, allowances and support, the political parties, or voting, as described above. E_{imt} includes dummy variables that refer to the individuals' labor market position. Most studies, see Alesina and Giuliano (2011) for an overview, also assume that background characteristics such as age, gender, and education can affect attitudes to redistribution. Hence, X_{imt} includes age, age², gender, education, part-time work, and marital status, whereas M_{mt} includes the municipal unemployment rate and income support. Finally, θ_t is a year fixed effect. The error term (v_{imt}) is allowed to be arbitrarily correlated within individuals, i.e. the residual is clustered at the individual level.

Now, any observed relationship between the individual's economic circumstances and demand for redistribution could be driven by an omitted variable (θ_i), in which case the estimator is biased. For instance, an individual's previous experiences and social background are likely to affect both the individual's attitudes and economic situation. In this case the key identifying assumption in equation (1), i.e. $E(v_{imt}|E_{imt}) = 0$, is unlikely to hold since $v_{imt} = \theta_i + \varepsilon_{imt}$. The panel dimension makes it possible to control for unobserved heterogeneity. By differencing equation (1) I eliminate θ_i , and this results in the following model:

$$\Delta y_{ims} = \beta_0 + \beta_1 \Delta E_{ims} + \beta_2 \Delta X_{ims} + \beta_3 \Delta M_{ms} + \theta_s + \Delta \varepsilon_{ims} \quad (2)$$

The dependent variable (Δy_{ims}) measures the change of attitudes.¹⁴ The subscript s indicate that all differences are taken between individuals in the same survey panel (i.e. differences are taken between survey year t and $t - 1$). ΔE_{ims} includes indicators for the change of employment status. Since only the time-variant variables are included, ΔX_{ims} include changes of education, marital status, part-time work, as well as the linear age term that is left after differencing equation (1). A potential concern is that the inclusion of some variables will generate post-treatment bias (Angrist and Pischke, 2008).¹⁵ Hence, it is important to compare the results both with and without the individual covariates. Finally, ΔM_{ms} includes changes of the municipal unemployment rate and expenditures for income support. By conditioning on the municipal variables I can separate the individual and aggregate economic conditions, to make sure that a change of demand for redistribution does not simply reflect a change of local circumstances. Instead of the year fixed effects, survey panel fixed effects (θ_s) are constructed to capture nation-wide trends in the demand for redistribution between the survey panels, due to e.g. the business cycle. The survey panel fixed effects will also capture any variation of attitudes that is simply due to a change of reference point.

5 Results

In order to be able to compare the results with previous studies table A3 presents the result of estimating equation (1) by pooled OLS. Respondents with a higher income are found to be more negative towards redistribution, whereas women are more positive than men, and unemployed more positive than employed. Overall, the results are quite similar to results obtained by using survey data for the US (cf. Alesina and Giuliano, 2011). Attitudes are by their very nature context-dependent. Hence, asking about redistribution in Sweden and the US is to pose entirely different questions, since the countries are typically thought to belong to different 'welfare state regimes' (Esping-Andersen, 1989). While the level of support for redistribution differs between the countries (e.g. Isaksson

¹⁴Note that the dependent variable only accounts for the direction and the number of steps along the preference rating an individual moves, and not their initial position. In table A6 I show results using an alternative coding of the dependent variable, that only accounts for the direction.

¹⁵Post treatment bias occurs when the regression includes control variables that are affected by the treatment. For this reason income is not included, given that it is directly affected by employment status. Note that although the size of the point estimates is affected by this, the significance level is not.

and Lindskog, 2009), these result shows that the attitudinal social cleavages are similar. Table 2 presents the results of estimating equation (2) by OLS.¹⁶ In the top panel I look at changes of employment status irrespective of direction, whereas panel II estimates the effect of respondents who experience a job loss or find a job separately, to examine if the effect appears transitory. The point estimate of unemployment is considerably smaller in the first-difference specification (0.17/0.22) compared to the cross-sectional specification (0.44/0.3), indicating an upward bias as expected. Looking at the effects depending on direction, the point estimate for newly employed has the expected negative sign, but is only significant regarding the question about allowances. Respondents who lose their job, on the other hand, become significantly more positive towards redistribution both regarding allowances and social benefits. Their support increases by 0.24 and 0.34 points on the preference ordering, respectively. This accounts for almost 1/3 of one standard deviation of the outcome variable, a quite substantial change. The finding is in line with the US results (Margalit, 2013), but unlike Margalit I find an effect on attitudes to redistribution not just of losing a job, but also of regaining employment. Even though there is no significant effect of regaining employment on attitudes towards social benefits, I cannot reject the hypothesis that the absolute values of finding a job and a job loss are equal. Table A2 also compare individuals who lost or found a job, and show that their attitudes to redistribution are similar at the point in time when they are both employed. Overall, this suggests that respondents only change attitudes temporary. Hence, attitudes to redistribution return to their initial level when economic prospects eventually improve, in line with the self-interest mechanisms.

Whether a change of employment is unexpected, is obviously hard to know. Some individuals certainly have a higher probability of losing their job (e.g. workers in certain sectors), but it is presumably hard for respondents to predict this exactly. If individuals expect their economic situation to change, they are likely to adjust their attitudes in advance, and the full effect is underestimated. In figure A2 I perform the analysis for several subgroups. Comparing the effect of a job loss during a recession, when it is possibly more unexpected, to periods of economic growth, the point estimates are not that

¹⁶Table A5 examines income changes. There is no significant effect of income changes when using either the log income or relative income.

different. Also, the point estimates for employment changes do not change much when controlling for changes at the municipality level, indicating that unemployed individuals do in fact respond to their own job loss (cf. table A4). Table A6 in the Appendix also shows that including respondents who answer that they “do not know/do not want to answer” does not affect the results.

Newly unemployed respondents also become more positive to the Social Democrats and more negative to the Moderate Party, indicating that respondents connect political parties and their policy positions. Yet, the probability to vote for the left-wing is not affected.¹⁷ One possibility is that respondents, rather than shifting to a party closer to their policy preference, ultimately blame the current government for their economic setback. Yet, the result in table 2 does not support this hypothesis either. An increase of the municipal unemployment rate, on the other hand, is associated with decreasing support for the incumbent, in line with previous results by Elinder (2010). This supports the conclusion from the economic voting literature that sociotropic evaluations matters more than egotropic. One explanation could be that redistribution is only one of several other issue areas, such as health care, taxes and education, that are important when deciding what party to vote for.

Table 2: First difference specification

	(1)	(2)	(3)	(4)	(5)	(6)
	S. benefits	Allowances	Attitude, S	Attitude, M	Vote, left	Vote, incumbent
Panel I						
Unemployed	0.166** (0.073)	0.223*** (0.056)	0.105 (0.113)	-0.042 (0.133)	0.020 (0.022)	-0.066 (0.041)
Panel II						
Found job	-0.087 (0.131)	-0.245*** (0.092)	0.018 (0.171)	-0.107 (0.216)	-0.058 (0.037)	0.031 (0.066)
Lost job	0.341*** (0.114)	0.240*** (0.085)	0.351** (0.168)	-0.613*** (0.203)	0.022 (0.034)	-0.038 (0.068)
Individual cov.	✓	✓	✓	✓	✓	✓
Municipality cov.	✓	✓	✓	✓	✓	✓
R^2	0.02	0.02	0.07	0.08	0.04	0.02
Observations	5145	4721	5891	5858	5307	5307

Note: Controls: age, age², married, university, high school, student, retired, part-time, unemployment rate, income support. All regressions include survey fixed effects. Robust standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

¹⁷The lack of response is not driven by the fact that all individuals who got unemployed already voted for the left-wing, although a majority (60 percent) of them reported that they voted for the left-wing the first time they were interviewed.

5.1 Placebo test

The use of rotating panel data, rather than reliance on cross-sectional data, decreases the concern that omitted variables are the real determinants of demand for redistribution. Although I can control for time constant unobservables, I can not exclude the possibility that there are time invariant unobservables (for instance a health shock) causing both unemployment and a change of attitudes. Also, a substantial change of economic circumstances, such as a job loss, could be associated with a general feeling of disorientation, causing individuals to change attitudes on a number of issues. To strengthen the causal interpretation, individuals experiencing a change of employment status should respond similar to other individuals regarding policy areas unrelated to redistribution. The SNES includes a set of questions on other policy domains, which I use to conduct a placebo test. I use questions regarding a bunch of different proposals, such as privatizing health care or reducing defense spending (all questions are available in the Appendix). Although some of them could have an indirect effect, through the government budget, on the resources left over for redistribution, one would at least expect the point estimates to be considerably smaller. Responses are located on the same five point scale as the question about social benefits.

Table 3: Placebo test

	(1)	(2)	(3)	(4)	(5)	(6)
	Privatize	Defence	Health	Aid	Refugee	Immigrant
Found job	-0.097 (0.120)	-0.041 (0.114)	0.025 (0.131)	0.077 (0.104)	-0.094 (0.117)	0.112 (0.108)
Lost job	0.021 (0.129)	0.080 (0.114)	0.048 (0.114)	0.048 (0.088)	0.038 (0.106)	-0.095 (0.096)
Individual cov.	✓	✓	✓	✓	✓	✓
Municipality cov.	✓	✓	✓	✓	✓	✓
Observations	4043	5085	5099	5071	4199	5025
R^2	0.071	0.049	0.100	0.046	0.060	0.033

Note: The proposals for the placebo test are (1) sell public companies to private buyers (2) reduce defense spending (3) run more health care under private direction (4) receive fewer refugees to Sweden (5) reduce foreign aid (6) increase the economic support to immigrants so they can preserve their own culture. Note that (1) and (5) are not included in the 1985 survey. The sample is to individuals who respond to the question about social benefits or allowances in both surveys. All regressions include survey fixed effects. Robust standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

As expected, the results in Table 3 show no effect of employment changes on attitudes to other issue areas. This indicates that a change of economic circumstances is associated

with a change of attitudes to a policy area directly related to social insurance, but not with a corresponding attitudinal shift in other policy domains. The result strengthens the belief that the estimated effect on demand for redistribution is driven by a change of economic conditions.

6 Conclusion

The existence of a causal link between demand for redistribution and personal economic circumstances has remained unclear due to the reliance on cross-sectional survey data. By using panel data, I estimate the effect of economic circumstances on demand for redistribution in the form of social benefits and allowances. Individuals who experience a job loss become considerably more supportive of redistribution. Yet, attitudes to redistribution appear to return to their initial level as economic prospects improve. This suggests that individuals react temporarily by demanding insurance due to self-interest, rather than permanently changing their attitudes and demanding more redistribution *per se*. The results are similar to findings in the US by Margalit (2013), despite the fact that the economic consequences of unemployment are smaller in Sweden, given a more generous welfare system. The high level of redistribution in Sweden is related to a strong egalitarian norm, which could induce individuals to respond even to small changes of their economic situation. While newly unemployed respondents also become more positive to the largest left-wing party, and more negative to the largest right-wing party, the probability to vote for the left-wing is unaffected, suggesting that party preferences are more stable. Also, looking at the support for the government, respondents do not appear to blame it for their economic setback. Despite the fact that this paper can not say anything about the political consequences of unemployment at the aggregate level, the finding suggests that economic downturns are unlikely to produce long-term benefits for left-wing parties.

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Political parties: Social Democrats, Left Party, Green Party, Centre Party, Liberal Party, Christian Democrats, Moderate Party, New Democracy (1991, 1994), Swedish Democrats (2006-2010), June List (2006), Pirate Party (2010), Feminist Initiative (2006-2010)

Voting: What party did you vote for in the national election?

1. Left Party
2. Social Democrats
3. Centre Party
4. Liberal Party
5. Moderate Party
6. Christian Democrats
7. Green Party
8. New Democracy (1991, 1994)
9. Swedish Democrats (2006, 2010)
10. Other
11. Pirate Party (2010)
12. Feminist Initiative (2006, 2010)
13. June List (2006)
14. Did not vote
15. No party
16. Do not know/refuse

Labor market group: Which of the groups on this card do you belong to?

1. Gainfully employed
2. In relief work
3. In relief work/youth training/unemployment program/labor market training courses (varying definition over time)
4. Unemployed
5. Old age pensioner
6. Pre-retirement age pensioner
7. Housewife/Domestic worker
8. Student

Previous employment: Have you been gainfully employed before? [Question not given to respondents who are currently employed or in relief work]

1. Yes
2. No

Part-time work: On average how much do/did you work? [Question only given to respondents who answer that they are/have been gainfully employed]

1. Full-time
2. Part-time

Read news: How often do you read news about politics in the daily newspapers?

1. Never read news about politics
2. Sometimes read news about politics
3. Often read news about politics
4. Read news about politics every day

Marital status: Concerning your marital status, which alternative on this card is the best description of your situation?

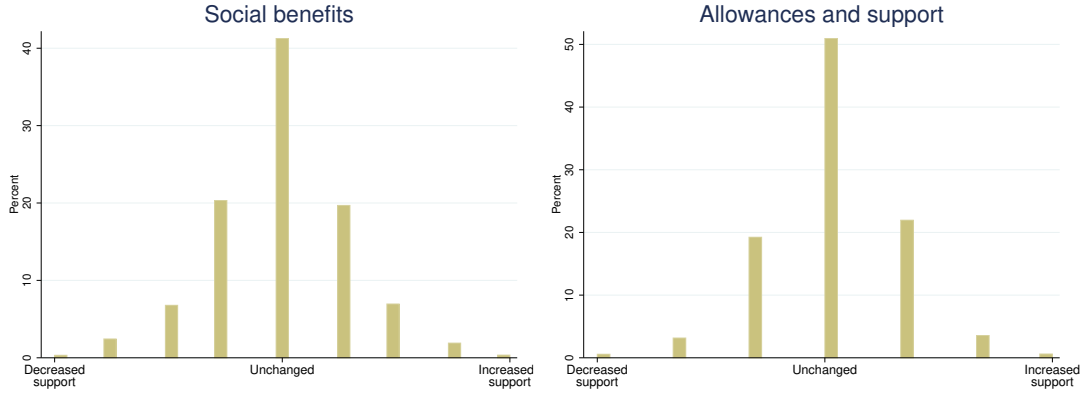
1. Married/unmarried but living permanently with partner
2. Single: widowed/divorced/never married
3. Other answer

Education: What kind of education do you have/are you studying for? The different educational levels and response categories have changed over time, due to school reforms and refinement of the categories. I construct three categories:

1. Primary and secondary school
 - Primary school: 6 or 7 year primary/secondary school (old system)
 - Comprehensive school: 8 or 9 year of comprehensive school (current system)
2. High school
 - Vocational school: various forms of vocational and apprentice education received in publicly organized schools, 1 year trade college
 - Secondary school: 2 year secondary school (old system), total 9 years education
 - Upper Secondary/high school: 2-4 year secondary school (current system), total 12 years education
 - Post-upper secondary/high school education, not university.
3. University
 - University
 - Ph.D.

A.2 Tables and figures

Figure A1: Changes between surveys



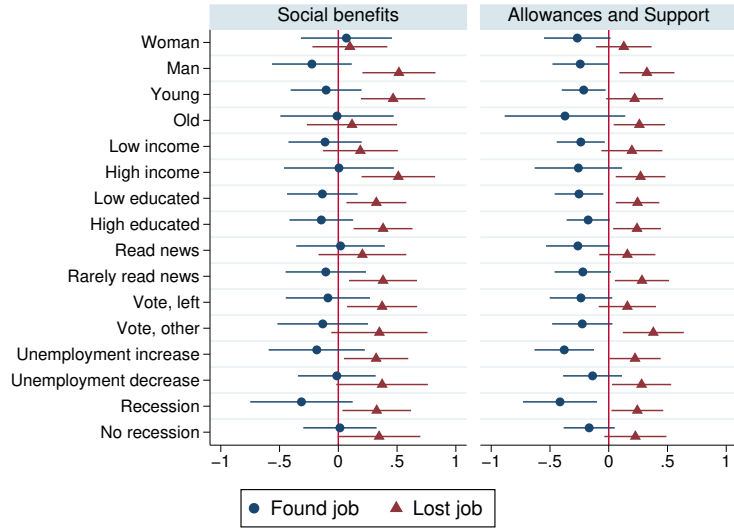
Note: Change of proposal rating between survey year t and $t - 1$, using surveys 1985-2010. Individuals who become more negative to the proposal to reduce social benefits/allowances (i.e. more positive towards redistribution) are given a positive number, and vice versa. Respondent who state that they “do not know/do not want to answer” are excluded.

Table A1: Respondents and Non-respondents

	Non-respondents	N	Respondents	N	Difference
Women	0.53	5645	0.46	5361	0.07***
Age _{t-1}	45.67	5645	44.36	5361	1.31***
Married _{t-1} (SCB)	0.43	4266	0.50	3414	-0.07***
Income _{t-1}	206.04	4266	231.78	3414	-25.74***
Δ Income	42.75	4266	15.01	3414	27.74**
Income support _{m,t-1}	0.86	5627	0.76	5356	0.10***
Δ Income support _m	0.13	5609	0.13	5352	0.00
Unemployment _{m,t-1}	5.49	5627	5.34	5356	0.15**
Δ Unemployment _m	0.72	5609	0.86	5352	-0.13**

Note: Income and income support (per capita) are given in 1000 SEK and 2010 year value. Marital status is defined using register information from Statistics Sweden (SCB). Income and marital status are not available before 1991. Non-respondents include all individuals who do not answer both times, either because they choose not to participate, answer the short survey or have non-response to the questions about redistribution at least once.

Figure A2: Effect of employment changes by subgroups



Note: Plots coefficient for employment changes with a 95 % confidence interval for various subsamples. Specification similar to table 2. Sample divided by median for age and income. High educated includes high school/university, and low educated primary school/high school, to have a similar sample size. Recession refers to the panels 1988-1994 and 2006-2010. All individual characteristics are measured at period $t - 1$.

Table A2: T-test for respondents experiencing a change of employment status

	Lost job	N	Found job	N	Difference
Social benefits	3.21	126	3.26	116	-0.04
Allowances	2.29	122	2.33	105	-0.05
Vote, left	0.62	108	0.60	106	0.02
Vote, incumbent	0.40	108	0.44	106	-0.05
Women	0.45	128	0.45	118	-0.00
Age	38.88	128	36.32	118	2.56
Married	0.60	128	0.62	118	-0.02
High school	0.49	128	0.68	117	-0.19***
University	0.12	128	0.17	117	-0.05
Part-time	0.24	127	0.29	117	-0.05
Income	207.83	103	186.53	107	21.30
Income support _m	0.73	128	1.09	118	-0.37***
Unemployment _m	6.06	128	7.10	118	-1.04**

Note: The sample is restricted to individuals who answered either the question about social benefits or allowances in both surveys. The variables refer to the survey when they are employed. Income is not available before 1991.

Table A3: Cross-sectional specification

	(1)	(2)	(3)	(4)	(5)	(6)
	S. benefits	Allowances	Attitude, S	Attitude, M	Vote, left	Vote, incumbent
Panel I						
ln(Income)	-0.114*** (0.020)	-0.068*** (0.016)	-0.043 (0.041)	0.208*** (0.050)	-0.033*** (0.009)	0.005 (0.007)
R^2	0.06	0.07	0.07	0.08	0.08	0.03
Observations	6418	5900	7764	7722	6922	6922
Panel II						
Unemployed	0.440*** (0.063)	0.306*** (0.049)	0.281** (0.125)	-0.742*** (0.157)	0.107*** (0.026)	-0.038 (0.027)
Women	0.126*** (0.030)	0.113*** (0.023)	0.131** (0.066)	-0.376*** (0.078)	0.047*** (0.013)	-0.000 (0.011)
Age	-0.003 (0.006)	-0.002 (0.005)	0.045*** (0.013)	-0.088*** (0.015)	0.013*** (0.003)	0.004 (0.002)
Age ²	0.000 (0.000)	-0.000 (0.000)	-0.001*** (0.000)	0.001*** (0.000)	-0.000*** (0.000)	-0.000* (0.000)
Married	-0.118*** (0.032)	-0.059** (0.024)	0.097 (0.068)	0.150* (0.080)	-0.018 (0.014)	0.021* (0.012)
Retired	0.196*** (0.058)	0.148*** (0.045)	0.394*** (0.125)	-0.661*** (0.144)	0.085*** (0.024)	0.008 (0.022)
High school	-0.015 (0.035)	0.001 (0.025)	-0.802*** (0.077)	0.803*** (0.088)	-0.172*** (0.015)	-0.098*** (0.013)
University	0.031 (0.040)	0.103*** (0.030)	-1.377*** (0.085)	0.906*** (0.101)	-0.250*** (0.016)	-0.201*** (0.014)
Part-time	0.088* (0.040)	0.027 (0.030)	0.134 (0.086)	-0.207** (0.103)	0.000 (0.017)	-0.005 (0.015)
Income support _m	-0.121*** (0.027)	-0.056*** (0.021)	-0.138** (0.057)	0.288*** (0.070)	-0.009 (0.012)	-0.003 (0.010)
Unemployment _m	0.057*** (0.008)	0.033*** (0.006)	0.141*** (0.017)	-0.203*** (0.021)	0.033*** (0.003)	0.005* (0.003)
R^2	0.04	0.06	0.07	0.07	0.07	0.04
Observations	10290	9442	11782	11716	10614	10614

Note: The sample is restricted to individuals who answered the specific question in both surveys. The sample in panel I is restricted to years 1991-2010, and the regression includes all covariates in panel II. Standard errors clustered at the individual level in parenthesis. All specifications include year FE. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: First difference specification, with or without covariates

	S. benefits			Allowances			Attitude, S			Attitude, M			Vote, left			Vote, incumbent		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
Found job	-0.138 (0.126)	-0.087 (0.131)	-0.281*** (0.088)	-0.245*** (0.092)	0.137 (0.170)	0.018 (0.171)	-0.127 (0.212)	-0.107 (0.216)	-0.048 (0.037)	-0.058 (0.037)	0.023 (0.064)	0.031 (0.066)						
Lost job	0.317*** (0.112)	0.341*** (0.114)	0.218*** (0.084)	0.240*** (0.085)	0.270 (0.167)	0.351** (0.168)	-0.624*** (0.204)	-0.613*** (0.203)	0.021 (0.033)	0.022 (0.034)	-0.046 (0.067)	-0.038 (0.068)						
Age ²		0.001*** (0.000)		0.000*** (0.000)		0.000 (0.000)		-0.000 (0.000)		0.000 (0.000)		0.000 (0.000)						
Married		-0.022 (0.048)		0.005 (0.041)		-0.017 (0.080)		-0.037 (0.087)		0.004 (0.015)		-0.015 (0.024)						
University		-0.013 (0.078)		-0.054 (0.062)		0.141 (0.132)		0.017 (0.146)		-0.002 (0.024)		0.026 (0.040)						
High school		0.029 (0.059)		-0.063 (0.047)		0.046 (0.093)		0.014 (0.113)		-0.015 (0.017)		0.034 (0.030)						
Retired		-0.044 (0.071)		0.081 (0.057)		0.236* (0.122)		0.120 (0.127)		-0.016 (0.019)		-0.031 (0.037)						
Student		0.099 (0.066)		0.041 (0.053)		-0.021 (0.109)		0.215* (0.117)		0.005 (0.021)		0.039 (0.033)						
Part-time		0.026 (0.049)		0.024 (0.037)		0.329*** (0.079)		-0.052 (0.089)		0.005 (0.014)		-0.024 (0.024)						
Income support _m		-0.069 (0.048)		-0.059 (0.041)		-0.050 (0.083)		0.161* (0.087)		-0.001 (0.013)		0.008 (0.029)						
Unemployment _m		-0.017 (0.014)		0.001 (0.011)		0.058** (0.024)		0.001 (0.025)		0.000 (0.004)		-0.024*** (0.008)						
R^2	0.02	0.02	0.02	0.02	0.06	0.07	0.08	0.08	0.04	0.04	0.02	0.02						
Observations	5195	5145	4770	4721	5955	5891	5920	5858	5364	5307	5364	5307						

Note: All regressions include survey fixed effects. Robust standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A5: First difference specification, income

	(1)	(2)	(3)	(4)	(5)	(6)
	S. benefits	Allowances	Attitude, S	Attitude, M	Vote, left	Vote, incumbent
Panel I						
ln(Income)	-0.009 (0.025)	-0.011 (0.022)	-0.026 (0.045)	-0.025 (0.043)	-0.004 (0.009)	-0.011 (0.015)
R^2	0.01	0.02	0.09	0.08	0.04	0.02
Observations	3209	2950	3882	3861	3461	3461
Panel II						
Relative income	0.009 (0.076)	0.028 (0.062)	-0.075 (0.117)	-0.210 (0.133)	-0.009 (0.023)	-0.011 (0.040)
Individual cov.	✓	✓	✓	✓	✓	✓
Municipality cov.	✓	✓	✓	✓	✓	✓
R^2	0.01	0.02	0.09	0.08	0.04	0.02
Observations	3272	3004	3968	3945	3520	3520

Note: Relative income is defined as income divided by total income (i.e. from both survey waves). All regressions include survey fixed effects. Robust standard errors in parenthesis. Sample based on respondents 1991-2010. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: First difference specification, alternative definitions

	(1)	(2)	(3)	(4)	(5)	(6)
	S. benefits	Allowances	S. benefits	Allowances	S. benefits	Allowances
Found job	-0.093 (0.075)	-0.208*** (0.070)	-0.095 (0.126)	-0.175** (0.084)	-0.100 (0.161)	-0.238** (0.108)
Lost job	0.239*** (0.067)	0.218*** (0.069)	0.328*** (0.113)	0.245*** (0.077)	0.341*** (0.123)	0.242*** (0.091)
Individual cov.	✓	✓	✓	✓	✓	✓
Municipality cov.	✓	✓	✓	✓	✓	✓
R^2	0.02	0.02	0.02	0.02	0.02	0.02
Observations	5145	4721	5386	5373	5053	4642

Note: In column (1)-(2) the dependent variable is recoded to a 3-point scale, 1/0/-1 for increased/unchanged/decreased support. In column (3)-(4) respondents who answer that they “do not know/do not want to answer” are coded as indifferent (3/2.5 for the 5/4-point scale). Column (5)-(6) excludes respondents who are unemployed if they have not answered the question about previous employment or answered that they have not been employed before. All regressions include survey fixed effects. Robust standard errors in parenthesis. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

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