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*Published in:*  
European Review

*DOI:*  
[10.1017/S1062798721000089](https://doi.org/10.1017/S1062798721000089)

*Publication date:*  
2022

*Document Version*  
Peer reviewed version

*Citation for published version (APA):*  
Hussain, M. A., & Greve, B. (2022). Support for Governmental Income Redistribution in Nordic Countries. *European Review*, 30(3), 426-444. Advance online publication. <https://doi.org/10.1017/S1062798721000089>

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## Support for Governmental Income Redistribution in Nordic Countries

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Date of receipt of original manuscript

Date of acceptance of revised manuscript

**Keywords:** European Social Survey, Nordic, redistribution, economic inequality, regression, welfare regime.

**Abstract:**

In many countries, we have seen an increase in economic inequality over the past 20-25 years. The populations might therefore have changed their attitude about how and how much different countries should intervene to reduce the extent of economic inequality. A question is whether there is any connection between changes in redistribution preferences and trends in economic inequality in the prosperous Nordic welfare states. This article contributes by examining whether there are differences in redistribution attitude and changes herein based upon socio-economic criteria, which might include self-interest arguments. Nordic countries are interesting because there have been differences in development, and even strong growth in economic inequality, especially in Sweden and Denmark, although these countries in the literature has been seen as highly equal societies. The analysis shows that support for redistribution is relatively stable over time in each country, but also that there are major differences between countries with support being much higher in Finland compared to Denmark. Females, discriminated groups and unemployed generally support redistribution to a higher degree. Ageing generally increases redistributive support, while more education reduces support to government redistribution in Finland. In all four countries, the highest income groups are less supportive of redistribution of income.

## 1. Introduction

Inequality<sup>i</sup> has been increasing in a large number of countries in Europe over the past 20-25 years. The question is how the population's attitude to whether societies are fair, and if it is a public task to intervene in this, and whether it changes over time, and whether this depend on a number of socio-economic conditions. There has continued to be redistribution in welfare states after the financial crisis (Caminada et al. 2019), indicating that the welfare states still have a strong role with regard to ensuring some degree of equality, albeit not to the same degree in all countries, and as data will show later there has been increase in inequality in some of the Nordic countries, indicating that the redistributive impact of welfare states has weakened.

The article is structured with this being the first introductory section, the next section gives a brief description of the development of inequality in the Nordic countries as a background for the analysis. Next comes a series of methodological considerations and description and presentation of the data. This is followed by a discussion and interpretation of data, including whether a development can be ascertained since 2002, which is chosen as it is the first year where it is possible to use data from the European Social Survey.

The Nordic countries (Denmark, Sweden, Norway and Finland) have been chosen since as a starting point in analyses of welfare states they are seen as belonging to the same cluster of welfare state countries with the desire and historically high degree of equality compared with countries in other types of welfare regimes, cf. the classical Esping-Andersen description of welfare regimes (Esping-Andersen 1990; Arts and Gelissen 2002), along with a number of recent analyses of Nordic welfare states (Kangas and Kvist 2019; Jónsson and Stefánsson 2013; Palviainen 2019). Naturally, even when belonging to the same welfare regime there might be

country differences, and sometimes countries are placed in other regimes than where they are traditionally placed (Rice 2013) - seeing welfare regimes here as an ideal type. This ideal type approach "is an empirical classificatory tool that reduces observed complexity by cataloguing existing cases as meaningful representatives (types) of some concept of interest" (Von Kersbergen 2019, 118). Nevertheless, even between countries belonging to the same ideal types we can observe differences.

At the same time, it provides an opportunity to examine whether there are differences in perceptions on equality, in what is termed Nordic welfare states, also focusing on not only economic inequality as this article revolves around, but also equality between men and women. It is also a question whether there are differences in attitudes in the Nordic countries between men and women, assuming that women want more redistribution than men, as pointed out several years ago in a study, although mainly with US data and by now historical data (Alesina and Giuliano 2011), and for difference between men and women in UK and US (Shorrocks and Grasso 2020) . The article also looks at whether there is a difference between generations, this because it can be assumed that if a generation has a greater desire for redistribution it may in the long run change the desire for changes in the public sector intervention, but also that different generations might have self-interest in redistribution. It is not only age that can have an influence on attitudes towards distribution, but also as mentioned gender, position in the labour market, education, ethnicity and income can be assumed to influence attitudes to the role of the state in relation to redistribution (Dimick, Rueda, and Stegmueller 2018; Rueda and Stegmueller 2016; Burgoon, Koster, and Van Egmond 2012). The existing literature on economic inequality is large and given the size of this article only a number hereof can be presented, however see (Atkinson and Bourguignon 2014; Silber 1999; Coulter and Arqueros-

Fernández 2019; Salverda, Nolan, and Smeeding 2009) for a large number of references to a number of issues related to inequality including measurement issues.

This article looks into change and difference in preferences for redistribution, where an issue is the generational contract as people have age related social risk (Birnbaum et al. 2017), so that one generation supports the other with an expectation that the next generation will do the same. Besides generational solidarity, there might also be a self-interest when supporting welfare state, for an early overview of this discussion see (Jæger 2006). Preferences for redistribution might also depend on religion, macroeconomic development and tradition and culture (Alesina and Giuliano 2011), which is also a reason for looking into a specific welfare regime since history and culture forms part of the reason for the Nordic welfare states' development (Baldwin 1990) .

Self-interest might be a reason for preferences with regard to redistribution. As an example, it has been argued that the “individual differences in childcare support among European parents are driven by interest, ideologies and assessments of current provision” (Chung and Meuleman 2017, 61). Self-interest as a driver for change can be pursued by welfare chauvinism, (Ennsner-Jedenastik 2018). Self-interest and welfare chauvinism can be related (author a). The whole issue of legitimacy and social benefits also indicates that some groups are more deserving, which can have an impact on the support for redistribution (Oorschot. and Roosma 2015).

The self-interest argument for development in welfare states has been pointed out, which “implies that the elderly or older middle-aged population should be more likely to support public programs for the elderly, but less likely to support programs for children” (Blekesaune and Quadagno 2003, 416), and there is in general high support to support the elderly (Deeming

2018). Elderly are at the same time less likely to support, for example, education if this could imply cuts in pension, but with some possible difference so that high trusting elderly to a less extent will tend to do so (Busemeyer and Lober 2019). This should imply that in the Nordic high trusting societies (Martela et al. 2020; Helliwell, J. F., & Wang 2011) elderly will support redistribution in general, and, not only for the sake of their own position.

Overall, this points to self-interest being central, whether generalized or reciprocal, which imply a risk for contradiction in the development of welfare states in different areas, such as income transfers to the unemployed and pensioners and care for children and the elderly. Income transfers to unemployed is an example where self-interest and support often are low and this might reduce legitimacy in times of different kinds of external shocks to the state's ability to finance and develop welfare states (Rehm, Hacker, and Schlesinger 2012). This also leads to a focus on drivers for changes (Guiraudon and Martin 2019) where a possible driver can be voter's self-interest in promoting policies they gain from personally. How strong the impact on social development will be depends on how conflicting interests are mediated in the different welfare states. Furthermore, there might be a relation to the position of the median voter, albeit not given that they have unidimensional preferences, and that preferences for redistribution is therefore not a sufficient condition for change or even support for change (Romer and Rosenthal 1979; Kenworthy and McCall 2008). Still, in all Nordic democratic welfare states there needs to be a majority to change the distribution of income. Given the expected demographic changes with more elderly this also leads to an expectation of growing support for public spending on old age people (pensions and long-term care especially), which could in the future lead to a higher degree of equality given that elderly also in the Nordic countries have on average lower levels of income than the average.

The analysis is thereby also related to the literature on voters' attitudes towards welfare development, where self-interest often is seen as an important parameter (Taylor-Gooby and Leruth 2018). When self-interest is important then one's socio-economic position can have an impact, which is also true for gender if there are different preferences among men and women but also due to gender differences in terms of outcomes including the gender wage gap. Women are, historically, also in the Nordic countries expected to be more supportive of the welfare states (Svallfors 1997), which might reflect that women value quality of life more (Balestra, Boarini, and Toso 2018). A study has further shown that students are more supportive towards spending on education, and similarly, unemployed are towards unemployment policy (Busemeyer, Marius R. and Garrizmann 2018), albeit also depending on the existing government size, so that conflicts also in mature welfare states not are about support to welfare states as such, but more between which services and benefits to change spending (Busemeyer and Neimanns 2017). Income can be an important predictor of attitudes, and, presumably even more than class (Kevins et al. 2018), although a study with data (mainly US) from 1987-2010 did not show any impact on income inequality on support for redistribution (Breznau and Hommerich 2019), but it also concludes "as long as preferences do not change, inequality will likely continue rising" (ibid 185).

Thus, the hypotheses to be analysed are, based upon the above presentation and discussion, whether it for different socio-economic groups in all Nordic countries are so that:

- H1: Women are more supportive for redistribution than men
- H2: Elderly are more supportive for welfare state redistribution
- H3: Higher education implies stronger support for education,
- H4: Higher income reduces redistribution support.



Overall, the article contributes with new knowledge on the possible difference among the universalistic<sup>ii</sup> Nordic welfare states on their variation in support for welfare state redistribution also with regard to different socio-economic groups.

## **2. Development in inequality**

Table 1 shows the development in inequality in the four Nordic countries since 2002 through the use of the GINI coefficient as a measure of inequality. Theoretically, there could be a possibility that attitudes to the state's role in relation to inequality depend on the total scope of public spending. Therefore, social spending as a share of GDP is also shown.

<Table 1>

The table indicates that the development has been different from a standstill in the EU on average (albeit data are only available from 2010), to increase in Sweden and Denmark, and a decline for Finland if starting in 2001, but a standstill since 2005, thus contrasting development also compared to as described above from the mid-1980s until 2004. Norway has, especially compared to Denmark and Sweden, have had a different development with a decline of more than 3 points since 2005. Thereby, that even when using a welfare regime approach there can be difference across countries.

In Figure 1 is an indication of whether or not there is a connection between development in GINI and Social Spending.

<Figure 1>

Overall, the pattern does not indicate a significant relation between the level of social spending and inequality. This might reflect that spending over time has been influenced not only by support for redistribution or not, but also the impact of the financial crisis. There are nevertheless some differences. Norway and Finland have increased spending as a percentage of GDP and reduced inequality, whereas Denmark despite increase in spending has higher level of inequality. Sweden has the same spending level, but higher inequality. So, there is no unique pattern in the development, also making it important to look into whether or not there has been changes in redistribution preferences among different socio-economic groups.

### **3. Methodology**

One weakness in asking for support for changes in the income distribution may be that many do not know the actual level of inequality, and that the desired level might be dependent on one's own position in society, which also applies, for example, to how satisfied the individual is (Ejrnæs 2020). Responses may also depend on the current financial situation, including whether people are unemployed or at risk of becoming unemployed, as this affects people's satisfaction (Helliwell and Huang 2014; Chung 2016). There might therefore be a number of exogenous factors having an impact on the changes in inequality.

The European Social Survey (ESS) is the data basis for the analysis. The dataset contains the attitudes, beliefs and behaviour patterns of representative cross-national samples from thirty plus European countries, where face-to-face interviews are conducted every two years. (ESS 2021).

Design weights (dweight) are available to ensure representativeness (external validity) of samples. Except for Norway, weights were 1 for every respondent. Norway differed with slightly unequal weights for the sample, but comparing results did not produce any noteworthy differences, and particularly no major differences materialized in case of significant results. For this reason, it was chosen to not apply weights to the statistical analyses, but weighted results (only relevant for Norway) are available from the authors upon request.

The redistribution preference in ESS is operationalized by asking respondents to which degree they agree with the statement (ESS 2018, question B33)<sup>iii</sup>: “The government should take measures to reduce differences in income levels.”. The possible answers are of the Likert scale type (Likert 1932): “Agree strongly” (1), “Agree” (2), “Neither agree nor disagree” (3), “Disagree” (4), and “Disagree strongly” (5). Additionally, the categories “(Refusal)” (6) and “(Don’t know)” (7) are also used. Only the first five answers (coded 1-5) are used in the following. For interpretative purposes we reverse the scale such that the possible values are still 1 through 5, but 1 representing strongly disagree and 5 representing strongly agree, e.g. the higher the value the more strongly the respondent thinks government should reduce income differences among the citizens. For validity and sensitivity analyses purposes it would have been good to include also other measures of support for redistribution, but those questions only exist for two rounds, while this analysis focuses on a longer time period.

Although, the analysed answers are coded 1-5, the actual answers are ordinal in nature, which is why an ordinal regression approach is required (Greene 2019) to estimate the cumulative probability of choosing/answering a given ordinal response. This approach was used, but the estimated parameters need to be transformed in order to make them more easily interpretable. The (transformed) ordered logit marginal effects were compared to regression estimates from

linear regression and they showed nearly the same magnitudes, and thus in the following we present the simpler linear regression approach but also present ordinal logit regressions in the Appendix. This also means that we are treating the responses 1-5 as if it were an interval variable (although actually being an ordinal variable), which is also supported by (Ferrer-i-Carbonell and Frijters 2004) though in the case of ordinal responses in relation to subjective well-being (happiness).

#### **4. Data**

All rounds 1-9 from the European Social Survey are used for the Nordic countries Denmark, Finland, Norway and Sweden covering the years 2002, 2004, ..., 2018 in the form of the data set versions ESS1-8e01 and ESS9e01\_2<sup>iv</sup>. The total number of respondents is 57,835 (Table 2). Among these 921 respondents had incomplete answers, including 918 respondents who did not answer question B33; 813 answered they don't know (code 6) while the remaining 75 respondents refused to answer the question (code 7). An additional 3 respondents were excluded since there was no information on gender. The 921 corresponds to leaving out 1.6 % of the original sample, which is supposed not to seriously affect any results. There is some variation among the countries such that 3.6 % (392 respondents) are left out for Denmark and only 0.4 % (64 respondents) for Norway. There is also some variation over the years, but again with most cases left out for Denmark (2002) and least cases left out for Norway (2006).

<Table 2>

The final sample size used for the descriptive analysis is 56,914, and spatial sample size variation is between 14,114 (Sweden) and 17,766 (Finland), while temporal sample size

variation is between 3,131 (2018) and 7,350 (2002). There is no data for Denmark in 2016 and 2018, and for Sweden in 2018.

Income information is not available for 2002-2006, and thus those years are excluded from the regressions. Instead the data for 2008-2018 are used. The original sample included 35,999 respondents including 481 persons with missing data, which is equivalent to 1.3 % of the original sample, and thus the attrition is actually smaller than when using the sample for all years. The final data for the regression analyses is thus 35,518 respondents.

We investigate whether gender, unemployment, discrimination, age, and education (number of years) affects the degree of support for the government to redistribute income. An overview of the dependent variable is presented in Table 3. The distribution of respondents giving their view on the statement “The government should take measures to reduce differences in income levels” varies between the four Nordic countries, except for the middle category of undecided people that neither agree nor disagree with the statement (17-22 % of respondents). Denmark has far the largest percentage strongly disagreeing (8 %), and the lowest percentage strongly agreeing (10 %). The other three countries have a much lower share strongly disagreeing, and a much larger share strongly agreeing with the statement. Assigning values 1-5 to the ordinal variable, the distribution means that the average for Denmark is lowest at 3.0 and highest in Finland with 3.9.

<Table 3>

Summary statistics for all included variables as well as the base categories are presented in Table 4. This gives an overview over the structure of the data, incl. the distribution of the

observations across central distinctions such as country, time periods, demographics, etc. All explanatory variables in the regression analyses are 0/1 dichotomous variables. Both age and education is categorized into year intervals. Female is coded as 1 (male are 0). A person is defined as unemployed (coded as 1) if he/she was unemployed during the last 7 days and was looking for a job. If the respondent describes him or herself as belonging to a discriminated against group than this is coded as 1. The income variable is ordinal and attempts to make respondents self-classify into national household disposable income deciles. It is seemingly not a perfect measure since 10 % of the sample is not in each decile. On the other hand, the measure is probably better than it looks, since we should actually not expect 10 % in each decile as the European Social Survey is representative for individuals while the income measure is on the household level. Additionally, persons below 15 years are not included in the survey, which is another reason why we would not expect 10 % in each decile, Finally, around 7 % do not answer the income question, which can also contribute to the deviation from 10 %.

<Table 4>

## **5. Results**

The first impression is that the citizens support is rather stable over time in the Nordic countries, but also shows that some significant differences exist between the Nordic countries (Figure 2). Thus, all four countries have a remarkably stable redistribution support over time even though the period from 2002 to 2018 was characterized by major changes, incl. business cycles and not to forget the “The Great Recession” after the financial crisis. The middle of the period was characterized by adverse macroeconomic effects (Commission 2009), but at the same time the financial and economic crisis did actually not lead to a broadly based reduction in multi-

dimensional welfare (author b), which could be one reason behind the stable development in redistribution support.

Finns tops the support to governmental redistribution by a staggering support hovering around 3.9, and only varies slightly between 3.8 and 4. At the bottom, we find Denmark with a support around 3, also with negligible variation over time. Norway and Sweden are in between with a support of around 3.6-3.7, but with Norway having a little greater temporal variation than any of the other Nordic countries. Thus, although the countries often are considered very similar in terms of welfare regime, we see that the support for redistribution shows a rather large difference with support in Finland being around 30 % higher than in Denmark. The high degree of stability mirrored in Figure 2 is investigated further within each country to see if the distributional support varies across population sub-groups.

<Figure 2>

From Table 5 regressions of attitudes towards redistribution, we see that many parameters are statistically significant, which is not surprising given the large sample size. There is some difference in sample sizes, with Finland at nearly 12,000 observations, while Denmark is represented with a little over 6,000 observations. Nevertheless, in all countries, the sample sizes are very high. Being female or in a discriminated group increases support for redistribution and with nearly the same magnitude (around 0.15-0.24) in all countries, which is in line with the first hypothesis. Reasons behind the result could be the gender wage-gap as well as the fact the women to a higher degree are employed in the public sector (Albæk 2017; Kovalainen 2019), both of which points to relatively lower income for women.

<Table 5>

Support among unemployed is largest in Denmark with 0.30, and insignificant in Norway and Sweden (0.02 and 0.09), and 0.10 in Finland. The high level for Denmark could be related to the fact that unemployed persons experience relatively high net replacement rates in the event of unemployment, which is 85 % for Denmark and less than 70 % for the other countries assuming a one-person household earning 2/3 of the average wage<sup>v</sup>. However, for those on average wage net-replacement rate is higher in Norway (63 %) compared to Denmark's (60 %) with Finland (55 %) and Sweden (48 %) having a lower level. This indicate that a high level of benefits reduces support for intervention for some, but might also increase it for others.

Age seems not to affect redistribution support much for Denmark, while ageing generally increases support in the three other countries, particularly in Finland where people aged 50-69 years have 0.59 points (15 % of the average level) higher support than the youngest group aged 15-19 years. The second hypothesis is thus not supported for all countries.

There is a general tendency of reduced redistributive support until 18 years of education (compared to up to 10 years of education) in Denmark, Norway, and Sweden. In contrast, Finns with 19-20 years of education have a 0.27 points (7 % of average) lower support than Finns with up to 10 years of education. Thus, the third hypothesis is only somewhat supported by the behaviour in Finland.

In all four countries, the top two income levels (quintile) support redistribution less than the lower income levels. In Norway and Denmark this reduced support starts already at respectively decile 5 and 6. Danes in the top decile have a 0.55 points (18 % of the Danish



average) less support for redistribution compared to people in the lowest decile. This supports the fourth hypothesis about income levels and redistribution attitude.

With the presence of both education and income, the marginal effects of both can be difficult to estimate more precisely since the two variables are expected to be correlated. In the present analysis deciles and years of education have a correlation around 0.3, which seems not to be a high correlation. Additionally, the multi-collinearity diagnostic VIF shows a maximum value of only 3.5, which means the estimated parameters are not expected to be biased due to correlation among the explanatory variables.

The results above confirm that self-interest can be an important aspect of support for redistribution, albeit not necessarily the only explanation.

The year effects are often insignificant, and even in significant cases they are generally of low magnitude (except for Norway 2010), which reflects the pattern observed in Figure 1. The country effects similarly confirm the ranking observed in Figure 2.

Ordinal logit regression estimated parameters comparable with OLS in Table 5 are presented in Table A1 in the Appendix.

## **6. Discussion and conclusion**

Methodologically, ordinal logit regressions are required, but here the OLS regression approach was applied since the marginal effects from the more complicated ordinal regression very much

were in line with the simpler OLS. The hypotheses were tested using data from the European Social Survey covering the years 2002, 2004, ..., 2018.

The Nordic countries are characterized by highest support for income redistribution by the government in Finland (average 3.9 out of a maximum of 5), and lowest in Denmark (3.1), while Sweden and Norway were in between. All four countries have a remarkably stable support over time even though the period from 2002 to 2018 went through business cycles and the financial and economic crisis. Thus despite times of, for example, higher levels of unemployment and insecure economic positions, the viewpoints of redistribution seemingly has not changed in the Nordic countries.

Females and discriminated groups more strongly support income redistribution than others and with nearly to the same degree in the four Nordic countries. A possible reason for the difference between men and women might be, which is also in line with the information on preferences among income groups, that not only does men earn more than women, but also that this is even more pronounced when looking into top-income earners (Atkinson, Casarico, and Voitchovsky 2018).

Unemployed persons support redistribution more in Denmark, while unemployment had no effect in Norway (statistically insignificant), nevertheless this support has in Denmark not changed over the years although the unemployment rate has changed. Age hardly affect support in Denmark, while ageing in Finland clearly increases support for income redistribution via the government. Among the two highest income groups support for income redistribution is clearly less than the lower deciles in each and every of the four countries, which support the self-

interest hypothesis. More education is correlated with lower support for income redistribution in Finland, but not similarly in the other countries.

Thus, there is, to conclude, despite similar types of welfare states in Nordic countries differences in which groups that are more or less supportive of government intervention in order to redistribute income. This is despite the fact that given the variation in the development of inequality (increase in Denmark and Sweden) one might have expected some variation, while at the same time, there are also similarities in which socio-economic groups are in support of governmental intervention in the income distribution.

The conflicting perspectives among citizens in the four countries also points towards the need for more knowledge on why there is these differences among citizens in the universal and encompassing Nordic welfare states. Self-interest seems to be one, but not the only reason for variations in income redistribution preferences.

Conflict of interest statement:

On behalf of the authors, the corresponding author states that there is no conflict of interest.

Data availability statement:

The datasets generated during and/or analysed during the current study are available in the European Social Survey (ESS) repository, <https://www.europeansocialsurvey.org/data/round-index.html>.

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Author b

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## Tables

Table 1 Gini-coefficient of equivalised disposable income for the Nordic countries and the EU.

	2001	2005	2010	2012	2014	2016	2018	2019
EU28	:	:	30.5	30.5	31.0	30.8	30.8	30.7
Denmark	22.0	23.9	26.9	26.5	27.7	27.7	27.6	27.5
Finland	27.0	26.0	25.4	25.9	25.6	25.4	25.3	26.2
Norway	:	28.2	23.6	22.5	23.5	25.0	26.1	25.4
Sweden	24.0	23.4	25.5	26.0	26.9	27.6	28.0	27.6

Source: EU, ilc\_di12, accessed the 26<sup>th</sup> January 2021.

Table 2. Original sample, exclusions, and final sample.

	2002	2004	2006	2008	2010	2012	2014	2016	2018	Total	2008-18
<b>Original sample sizes:</b>											
Denmark	1,506	1,487	1,505	1,610	1,576	1,650	1,502	0	0	10,836	6,338
Finland	2,000	2,022	1,896	2,195	1,878	2,197	2,087	1,925	1,755	17,955	12,037
Norway	2,036	1,760	1,750	1,549	1,548	1,624	1,436	1,545	1,406	14,654	9,108
Sweden	1,999	1,948	1,927	1,830	1,497	1,847	1,791	1,551	0	14,390	8,516
Total	7,541	7,217	7,078	7,184	6,499	7,318	6,816	5,021	3,161	57,835	35,999
<b>Excluded respondents:</b>											
Denmark	103	82	44	42	40	51	30	0	0	392	163
Finland	27	22	19	19	20	24	17	18	23	189	121
Norway	6	5	4	5	8	7	12	10	7	64	49
Sweden	55	32	41	26	27	26	38	31	0	276	148
Total	191	141	108	92	95	108	97	59	30	921	481
<b>Final sample:</b>											
Denmark	1,403	1,405	1,461	1,568	1,536	1,599	1,472	0	0	10,444	6,175
Finland	1,973	2,000	1,877	2,176	1,858	2,173	2,070	1,907	1,732	17,766	11,916
Norway	2,030	1,755	1,746	1,544	1,540	1,617	1,424	1,535	1,399	14,590	9,059
Sweden	1,944	1,916	1,886	1,804	1,470	1,821	1,753	1,520	0	14,114	8,368
Total	7,350	7,076	6,970	7,092	6,404	7,210	6,719	4,962	3,131	56,914	35,518

Source: Own calculations based on ESS data for 2002-2018.

**Table 3. Distribution of answers to “The government should take measures to reduce differences in income levels”.**

	Strongly disagree 1	Disagree 2	Neither agree or disagree 3	Agree 4	Strongly agree 5	Total	Average	n
Denmark	8.0	30.6	21.6	30.2	9.6	100	3.0	10,444
Finland	1.9	8.4	16.6	41.4	31.6	100	3.9	17,766
Norway	2.1	14.9	21.3	44.7	17.1	100	3.6	14,590
Sweden	1.3	10.6	21.7	48.0	18.5	100	3.7	14,114
Total	2.9	14.7	20.0	41.8	20.6	100	3.6	56,914

Source: See Table 2.

**Table 4. Summary statistics. (Sample size n=35,518).**

	Mean	Std.dev.	Minimum	Maximum
Redistribution answer	3.63	1.05	1	5
Male (ref.)				
Female	0.492	0.500	0	1
Not unemployed (ref.)				
Unemployed	0.031	0.175	0	1
Not discriminated group (ref.)				
Discriminated group	0.071	0.257	0	1
<b>Age:</b>				
15-19 (ref.)	0.066			
20-29	0.131	0.338	0	1
30-39	0.147	0.354	0	1
40-49	0.167	0.373	0	1
50-59	0.172	0.377	0	1
60-69	0.170	0.376	0	1
70+	0.147	0.354	0	1
Missing	0.001	0.031	0	1
<b>Education, years:</b>				
1-10 (ref.)	0.246			
11-13	0.291	0.454	0	1
14-16	0.244	0.430	0	1
17-18	0.126	0.332	0	1
19-20	0.059	0.236	0	1
21-25	0.029	0.168	0	1
26+	0.004	0.064	0	1
<b>Income decile:</b>				
1 (ref.)	0.068			
2	0.075	0.264	0	1
3	0.081	0.273	0	1
4	0.087	0.282	0	1
5	0.096	0.294	0	1
6	0.102	0.302	0	1
7	0.102	0.303	0	1
8	0.108	0.311	0	1
9	0.100	0.300	0	1
10	0.108	0.311	0	1
Missing	0.073	0.260	0	1
<b>Year:</b>				
2008 (ref.)	0.200			
2010	0.180	0.384	0	1
2012	0.203	0.402	0	1
2014	0.189	0.392	0	1
2016	0.140	0.347	0	1
2018	0.088	0.284	0	1
<b>Country:</b>				
Denmark	0.174			
Finland	0.335	0.472	0	1
Norway	0.255	0.436	0	1
Sweden	0.236	0.424	0	1

Source: See Table 2.

**Table 5. OLS regression coefficients for support to the view that government should redistribute income. 2008-2018.**

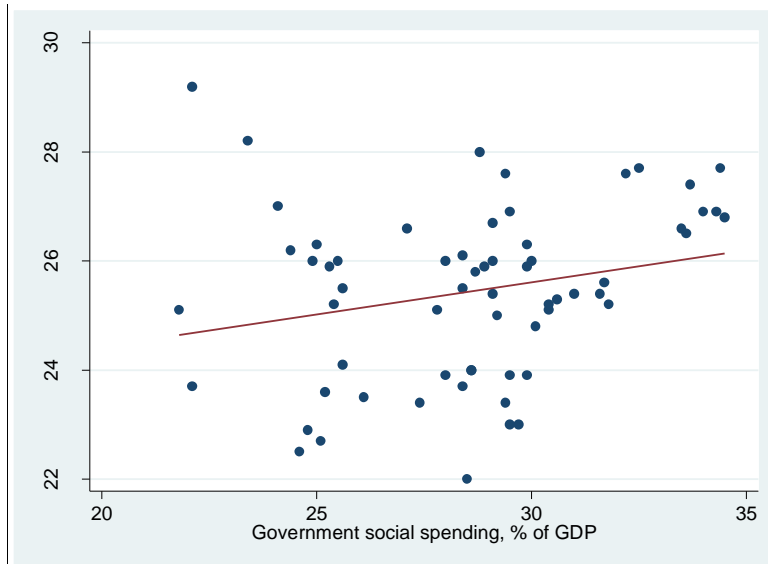
	Denmark	Finland	Norway	Sweden	All
Female	0.226***	0.172***	0.200***	0.226***	0.200***
Unemployed	0.295***	0.104*	0.0153	0.0853	0.125***
Discriminated group	0.239***	0.171***	0.150**	0.180***	0.175***
<b>Age:</b>					
20-29	-0.122	0.192***	0.0474	0.204***	0.108***
30-39	-0.123	0.428***	0.148**	0.240***	0.218***
40-49	-0.119	0.477***	0.195***	0.285***	0.254***
50-59	0.0653	0.591***	0.316***	0.367***	0.379***
60-69	-0.00941	0.588***	0.385***	0.463***	0.409***
70+	-0.130	0.440***	0.273***	0.347***	0.274***
Missing			-0.00526	-0.206	0.116
<b>Education, years:</b>					
11-13	-0.137***	-0.0430	-0.0868**	-0.0409	-0.0713***
14-16	-0.135**	-0.168***	-0.242***	-0.141***	-0.181***
17-18	-0.117*	-0.250***	-0.141***	-0.185***	-0.187***
19-20	-0.127	-0.271***	-0.0905	-0.113	-0.171***
21-25	0.0930	-0.217***	0.00201	-0.134	-0.0958**
26+	0.103	-0.199	-0.438	-0.235	-0.140
<b>Income decile:</b>					
2	-0.137	0.0146	0.0164	0.135*	0.0256
3	-0.102	0.0741	-0.0429	0.0636	0.0241
4	-0.0143	0.0298	-0.0758	0.0175	-0.00343
5	-0.140	0.0863*	-0.111*	0.0121	-0.0113
6	-0.272***	-0.00819	-0.166**	0.0131	-0.0778**
7	-0.230**	-0.0244	-0.174**	-0.00928	-0.0789**
8	-0.311***	-0.123**	-0.282***	-0.0199	-0.152***
9	-0.377***	-0.253***	-0.302***	-0.144**	-0.250***
10	-0.549***	-0.567***	-0.487***	-0.377***	-0.479***
Missing	-0.255***	-0.281***	-0.239***	-0.236***	-0.225***
<b>Year:</b>					
2010	-0.0490	-0.0246	-0.187***	-0.0369	-0.0697***
2012	-0.101*	-0.0325	-0.106**	0.107***	-0.0234
2014	-0.145***	-0.0609*	-0.0385	0.0708*	-0.0327*
2016		-0.0896**	0.0324	-0.0285	-0.0371*
2018		-0.0407	0.230***		0.0934***
<b>Country:</b>					
Finland					0.839***
Norway					0.505***
Sweden					0.710***
Constant	3.362***	3.621***	3.549***	3.427***	2.924***
n	6175	11916	9059	8368	35518
R-square	0.044	0.095	0.073	0.079	0.144

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001. Note: Base categories are age 15-19 years, up to 10 years of education, first income decile, the year 2008, and Denmark.

Source: See Table 2.

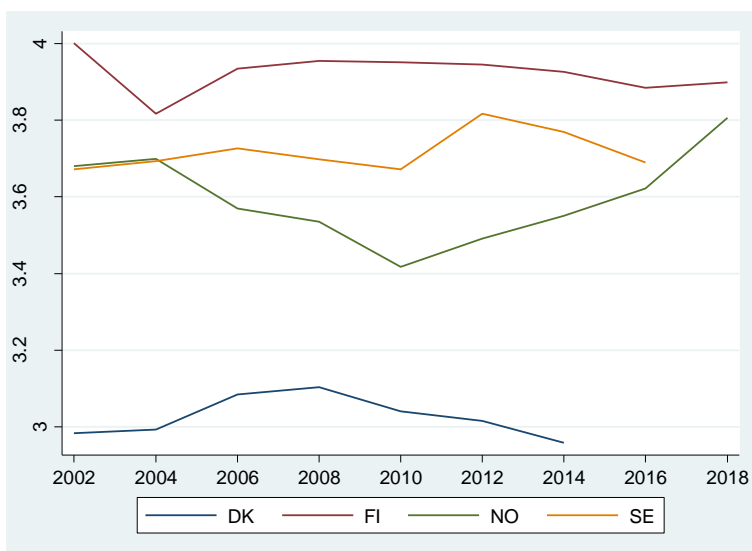
## Figures

**Figure 1. The GINI-coefficient and government social protection spending as a % of GDP. 2001-2017.**



Source: Eurostat, spr\_exp\_sum and GINI, accessed the 12<sup>th</sup> of June, 2020.

**Figure 2. “Government should reduce differences in income levels.” (1=strongly disagree and 5=strongly agree).**



Source: See Table 2.

## Appendix

**Table A1. Ordered logistic regression coefficients for support to the view that government should redistribute income. 2008-2018.**

	Denmark	Finland	Norway	Sweden	All
Female	0.368***	0.316***	0.359***	0.454***	0.362***
Unemployed	0.482***	0.226*	0.0187	0.254*	0.259***
Discriminated group	0.373**	0.449***	0.378***	0.494***	0.431***
<b>Age:</b>					
20-29	-0.188	0.404***	0.110	0.460***	0.234***
30-39	-0.191	0.924***	0.312***	0.561***	0.472***
40-49	-0.183	1.042***	0.396***	0.656***	0.550***
50-59	0.102	1.284***	0.648***	0.841***	0.796***
60-69	-0.0155	1.265***	0.779***	1.014***	0.848***
70+	-0.223*	0.978***	0.543***	0.757***	0.581***
Missing			-0.0137	-0.411	0.263
<b>Education, years:</b>					
11-13	-0.217***	-0.119*	-0.144**	-0.109	-0.145***
14-16	-0.217**	-0.374***	-0.431***	-0.312***	-0.354***
17-18	-0.192*	-0.524***	-0.241***	-0.402***	-0.365***
19-20	-0.211	-0.575***	-0.111	-0.229	-0.330***
21-25	0.144	-0.477***	0.0957	-0.304	-0.193**
26+	0.176	-0.430	-0.889*	-0.618	-0.318*
<b>Income decile:</b>					
2	-0.209	-0.0505	0.0458	0.289*	0.0291
3	-0.165	0.121	-0.0695	0.0822	0.0315
4	-0.0192	-0.0114	-0.147	0.00744	-0.0398
5	-0.231	0.0887	-0.226*	-0.0196	-0.0611
6	-0.439***	-0.109	-0.312**	-0.0103	-0.181***
7	-0.380**	-0.115	-0.321**	-0.0636	-0.182***
8	-0.506***	-0.324***	-0.527***	-0.117	-0.332***
9	-0.604***	-0.587***	-0.571***	-0.366***	-0.521***
10	-0.897***	-1.132***	-0.898***	-0.823***	-0.917***
Missing	-0.411***	-0.622***	-0.464***	-0.533***	-0.461***
<b>Year:</b>					
2010	-0.0828	-0.0696	-0.361***	-0.0863	-0.143***
2012	-0.156*	-0.0897	-0.213**	0.211***	-0.0524
2014	-0.226***	-0.0991	-0.0803	0.138*	-0.0518
2016		-0.214***	0.0567	-0.0972	-0.0967**
2018		-0.110	0.445***		0.161***
<b>Country:</b>					
Finland					1.585***
Norway					0.906***
Sweden					1.265***
<b>Constants:</b>					
Cut 1	-3.032***	-3.702***	-3.826***	-3.960***	-2.503***
Cut 2	-1.029***	-1.788***	-1.569***	-1.612***	-0.436***
Cut 3	-0.0776	-0.517***	-0.324**	-0.0782	0.788***
Cut 4	1.770***	1.471***	1.799***	2.115***	2.821***
n	6175	11916	9059	8368	35518

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Source: See Table 2.

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<sup>i</sup> In the remaining part of the article we do by inequality mean economic inequality unless stated otherwise.

<sup>ii</sup> We use the term as in the literature, see (Titmuss 2006), therefore it is based on citizenship/legal right of staying, and can imply there are criteria including means test for receiving benefits, in contrast to welfare states where social insurance prevail.

<sup>iii</sup> See <https://www.europeansocialsurvey.org/data/download.html?r=9>, accessed the 17<sup>th</sup> of June 2020.

<sup>iv</sup> <https://www.europeansocialsurvey.org/data/round-index.html>. Accessed 29 May 2020.

<sup>v</sup> <https://stats.oecd.org/Index.aspx?DataSetCode=NRR#>. Accessed 13 June 2020.