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The Inequalities, Interventions, and New Welfare State (INVEST) aims at increasing wellbeing of Finnish society during childhood, youth and early adulthood and preventing psychosocial risks compromising such development through innovative interventions. Based on cutting-edge research on the conditions and mechanisms involved at different periods of development, INVEST will evaluate and develop various universal and targeted interventions to improve the efficiency of the current welfare state institutions at critical points of the early life course. INVEST aims at providing a new model for the welfare states that is more equal, better targeted to problem groups, more anticipatory as well as economically and socially sustainable. INVEST is a Flagship project of the Academy of Finland.

Smaller net or just fewer to catch? Disentangling the causes for the varying sizes of minimum income schemes

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Abstract¹

The sizes of minimum income schemes vary significantly even in welfare states that are considered similar. For example among Nordic countries, the share of recipients is almost double in Finland compared to Nordic peers. Considering the strong political will to diminish the receipt of last-resort benefits, we demonstrate a methodological framework to evaluate the reasons for varying number of beneficiaries and apply it to two Nordic countries, Finland and Sweden. By using microsimulation of eligibility rates, we examine the role of social assistance legislation, first-tier benefits and non-take-up. Relatively high number of beneficiaries in Finland is traced back to social assistance policies such as higher norm levels and earning disregard but also to lower non-take-up rate of social assistance benefits, which potentially reflects looser discretion and asset test. We also find some, albeit weak, evidence that the implementation reform of social assistance in Finland 2017 has further reduced non-take-up.

Introduction

All social security systems in Western democracies incorporate some type of minimum income protection which guarantees minimum livelihood in society. The salience of minimum income schemes has traditionally varied by the type of socio-political system (e.g. Gough 1997). The social assistance in Nordic countries, for example, is typically characterized as strongly residual systems where due to an encompassing welfare state and nearly full employment, means-tested benefits have played a minor role. The receipt of social assistance is regarded as to-be-avoided state that comes with high level of bureaucracy, high withdrawal rate to income and stigma (e.g. Sunesson et al. 2008).

The extents of minimum income schemes vary significantly even in welfare states that are considered similar (Gough et al. 1997; Frazer & Marlier 2016). For example among Nordic countries, the share of recipients is double in Finland compared to Nordic peers (Ilmakunnas & Moisio 2019a). Considering the strong political will to diminish the receipt of last-resort benefits, it has been a million-dollar question why some countries manage to keep the system more residual than others. So far, the question has not been studied in detail, perhaps because of the lack of proper comparative microdata and methodological challenges. Most previous comparative studies on social assistance have concentrated on the macro-level description of variations in social assistance schemes with focus on benefit adequacy, benefit expenditure and number of recipients (see e.g. Gough et al. 1997; Gough 2001). The micro-level studies have scrutinized the effect of social assistance on poverty (e.g. Kuivalainen and Nelson 2012), the simulated coverage (Figari et al. 2013) or the dynamics of social assistance receipt (Kauppinen et al. 2014; Königs 2018).

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In this study, we explore the reasons for the varying number of recipients by applying the framework presented by Nelson and Nieuwenhuis (2021) in a comparative setting. By using microsimulation and EU-SILC surveys, we decompose the cross-national differences in the number of beneficiaries in two Nordic countries, Finland and Sweden, into coverage, eligibility and non-take-up. To add further policy relevance, we demonstrate how policy swaps can be used to distinguish the differences in eligibility caused by social assistance legislation, first-tier benefit legislation and other reasons related to income and population structure.

The context, Finland and Sweden, provides a suitable setting because the share of beneficiaries differs remarkably between the countries although both incorporate somewhat similar social security systems and the whole resident population is covered by social assistance in both countries. Moreover, good quality micro-level administrative data on social assistance was readily available from both countries.

Next, we move to present the prior comparative literature on minimum income protection in more detail. Then we describe the context of Finland and Sweden and their policies in more detail. Thereafter we present the empirical specification, namely data and methods. Finally we show the results and discuss them in wider context.

The varying role of social assistance in welfare states

In previous studies, social assistance receipt has been mainly linked to three types of factors: socioeconomic and demographic factors, first-tier benefits and social assistance legislation. Since social assistance is generally aimed as a last-resort temporary relief for households, the incidence of social assistance receipt is often highest among population groups experiencing life course changes such as young adults who need temporary support when leaving parental home or before entering the labour market, or migrants who are (still) not attached to the labour markets (e.g. Kauppinen et al. 2014; Andren & Gustafsson 2004). Furthermore, characteristics often associated with income poverty, such as lower educational qualifications, long-term unemployment, living alone and lone parenthood, are also found to increase the likelihood of (often long-term) social assistance receipt (Cappellari & Jenkins 2008; Kauppinen et al. 2014; Ilmakunnas & Moisio 2019b; Mood 2011). In addition, parents' previous social assistance receipt is found to be a risk factor for child's social assistance recipiency in later life (Beaulieu et al. 2005; Bask et al. 2020; Cobb-Clark et al. 2017). Finally, mental health problems are typically more common among social assistance recipients, and among young adults, mental health problems are found to be associated with longer SA spells (Vaalavuo & Bakkum 2020).

From the institutional perspective, social assistance receipt also depends on the availability of other benefits, that is, the wider social protection system. Benefit duration and dynamics of receipt are generally dependent on the eligibility for first-tier benefits (e.g. unemployment insurance), delays (gaps) in the receipt of first-tier benefits and the adequacy of first-tier benefits, as these shape the need for lower tier benefits, such as social assistance.

The role of social assistance in social security systems have been theorized in cross-country comparisons and typologies of social assistance schemes (e.g. Lødemel 1992; Eardley et al. 1996; Gough et al. 1997; Gough 2001; Frazer & Marlier 2016; Natili 2020). In the typologies, the number of social assistance recipients is determined in interaction with the design of the first-tier schemes and the generosity of social

assistance benefits. In some countries, minimum income schemes have a rather residual role due to high employment but also primary income replacement benefits that provide a more or less generous protection for working-age individuals. These countries typically include Nordic countries but also Belgium, Luxembourg and the Netherlands (Gough et al. 2001; Natili 2020). Moreover, since in Nordic countries particularly social assistance is traditionally targeted to the 'poorest of the poor', the SA systems involve a close connection between cash and care but also a high level of means-testing where eligibility for benefit is determined by both income and assets (Bradshaw & Terum 1997; Kuivalainen 2005). In contrast in the UK, Ireland and Germany since its Hartz reform of 2005 operate with strict unemployment insurance schemes but extensive social assistance programs with strong entitlements and high degree of standardization (Frazer & Marlier 2016; Natili 2020).

Finally, social assistance receipt is naturally determined by social assistance legislation, that is, the regulations governing social assistance. A general feature of social assistance schemes is that they are targeted to individuals and households with insufficient means to support themselves and who have exhausted their rights to other social benefits. Eligible households are commonly not allowed to have assets above certain limit and they must be nationals and/ or residents of the country. In most countries of Europe, the schemes are simple and comprehensive and cover all people in need of support while in other countries (e.g. Greece, Portugal and some of the Spanish regions) the eligibility and coverage are stricter, or the schemes are only available for certain groups of population (e.g. France and Ireland) (Frazer & Marlier 2016.) The current minimum income schemes in European welfare states emphasize labour market integration and social inclusion instead of 'passive' benefits that do not create incentives to full citizenship for individuals able to work (Weishaupt 2012; Minas et al. 2018). Work test, that is, the obligation to actively seek work and accept work and training, has traditionally been a dominant feature of social assistance schemes in Germany, the Netherlands and the UK. However, even in Nordic countries, where poverty was traditionally viewed as a structural problem, social assistance schemes nowadays include elements of activation, thus shifting the responsibility to the individual (Kuivalainen & Nelson 2012, Saikkonen & Ylikännö 2020).

In addition to social policies, the number of social assistance recipients is also affected by the non-take-up of benefits. Earlier studies have shown that non-take-up of social assistance is not a marginal phenomenon in Europe (Eurofound 2015). However, cross-country comparison of non-take-up is hampered by varying methodology and data quality, and so far research has focussed on national studies (e.g. Bargain et al. 2012).

To summarize, Figure 1 presents a theoretical model of take-up of social assistance. The take-up of social assistance scheme is determined both by eligibility and non-take-up. Eligibility in turn is determined by the interaction of social assistance policies and the financial context of the households, which is determined by employment situation, other social policies as well as spending on housing.

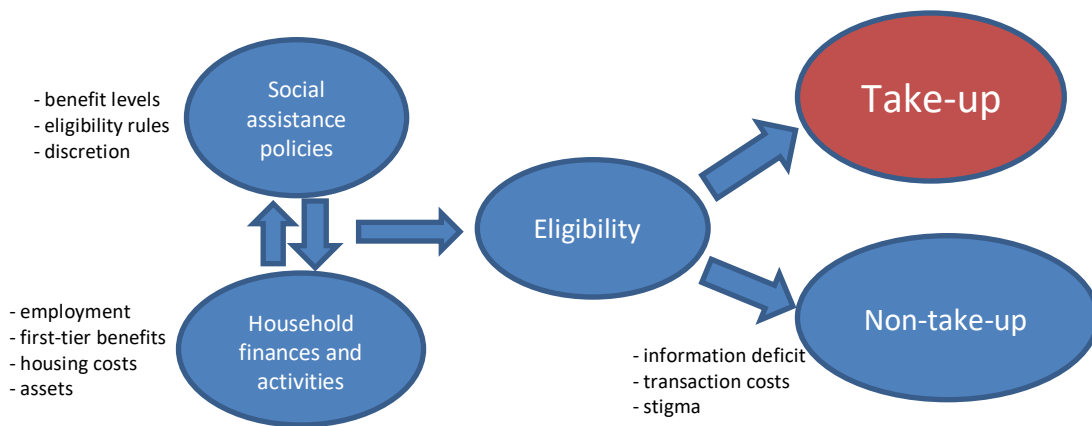


Figure 1. Determinants of social assistance take-up. Authors' compilation from reviewed literature.

The reasons for non-take-up have been traditionally categorized to information deficit, transaction costs as well as stigma (Currie 2004). It has been argued that particularly in Nordic countries, where the role of social assistance is marginal in the overall social security system, the benefit bears a stigmatizing effect (Lødemel 1997). If non-take-up is common, many of the individuals targeted by government program are not reached and the program fails to meet its specific purpose. In the case of last resort benefits, such as social assistance, non-take-up is a particularly severe problem as it concerns the most vulnerable people in the society and thus it may have long-lasting negative consequences for many individuals and households. From the policy perspective, non-take-up of benefits reduces the ability to estimate social outcomes and financial costs of policy reforms (Kayser & Frick 2000; Hernanz et al. 2004).

The policy context of Finland and Sweden

Despite the limited role in the overall social security system and harsher discretion, studies from the 1990's considered Nordic social assistance schemes generous and effective in reducing poverty compared to other countries (e.g. Gough et al. 1997; Sainsbury and Morrissens 2002). However, the effectiveness of social assistance in reducing poverty has declined in Nordic countries, moving closer to international patterns (Kuivalainen & Nelson 2012). Moreover, the recession of the early 1990's increased the number of social assistance recipients in Nordic countries and resulted in a number of social policy reforms and cutbacks in public benefits that have contributed to the increase of poverty particularly among single parents and single adults without children (Alm et al. 2020).

Currently, the social assistance systems in Finland and Sweden are similar in many parts. The distributions of benefit spell lengths in Finland and in Sweden seem to be relatively similar but differ from other countries: long-term receipt of social assistance is relatively rare while re-entry to benefits is common (Königs 2018; Jauhiainen & Korpela 2019). In both countries, social assistance is determined and regulated mainly by national legislation (see Table A1 for details). Household members must apply for all other benefits they are entitled to before acquiring entitlement to social assistance. If fit to work, household members are generally required to be registered as unemployed and actively look for work. In Finland,

sanctions may be applied up to 40 per cent for benefit recipients who do not comply with the activation measures. In Sweden, social assistance may be reduced or even denied for instance if one does not comply with activation measures (see Socialstyrelsen 2013).

In Sweden, the administration of social assistance (*ekonomisk bistånd*) is carried out in municipalities' welfare agencies. The Social Services Act that regulates municipal-based social work is designed as a framework law, stating the main goals, such as the promotion of 'equal living conditions' among citizens, and that services and benefits shall guarantee an 'adequate standard of living' but no specific directions (Stranz, 2007; see also Socialstyrelsen 2013). This means that social workers are given substantial discretion on social assistance and client-related activities.

In Finland, social assistance (*toimeentulotuki*) benefit consists of three elements: basic social assistance as well as preventive and supplementary social assistance benefit. Until 2017, the administration of all three was carried out in municipal social services and thus resembled the Swedish system. In 2017, the administration of the basic social assistance, which covers 90 percent of all social assistance expenditure, was transferred under the Social Insurance of Finland (see e.g. Blomberg & Kroll 2020). After the reform, basic social assistance could be applied online and receiving the benefit does not require meeting with social worker. An electronic "red flag system" identifies long-term social assistance beneficiaries and those in need of social work and sends a notification to social services (see Jokela et al., forthcoming). The two other components of social assistance, supplementary and preventive, are still administered by the local municipalities' social services and are highly discretionary.

In both countries, assets should be realized before the benefit is granted. However, some aspects of the test are harsher in Sweden. For example, owned family home or vehicle can lead to disqualification of social assistance in long-term in Sweden but not in Finland (Marchal et al. 2020).

In both countries, the amount of basic social assistance is determined by the national norm which is set to cover roughly same set of consumption items such as food, clothing, hygiene and spending on leisure activities. If household disposable income after reasonable housing costs falls below the national norm, the difference is paid as basic social assistance. In both countries, the annually set national norm varies by headcount and the ages of family members. Moreover, both countries cover certain irregular expenses such as health spending or eyeglasses on top of the norm.

Figure 2 shows the levels in exemplary families. The purchase powers of Finnish social assistance norms are more generous compared to Sweden in all family types. For lone dweller, the national norm in Finland 2017 was around 500 €/month and 400 €/month in Sweden in Finnish price level.

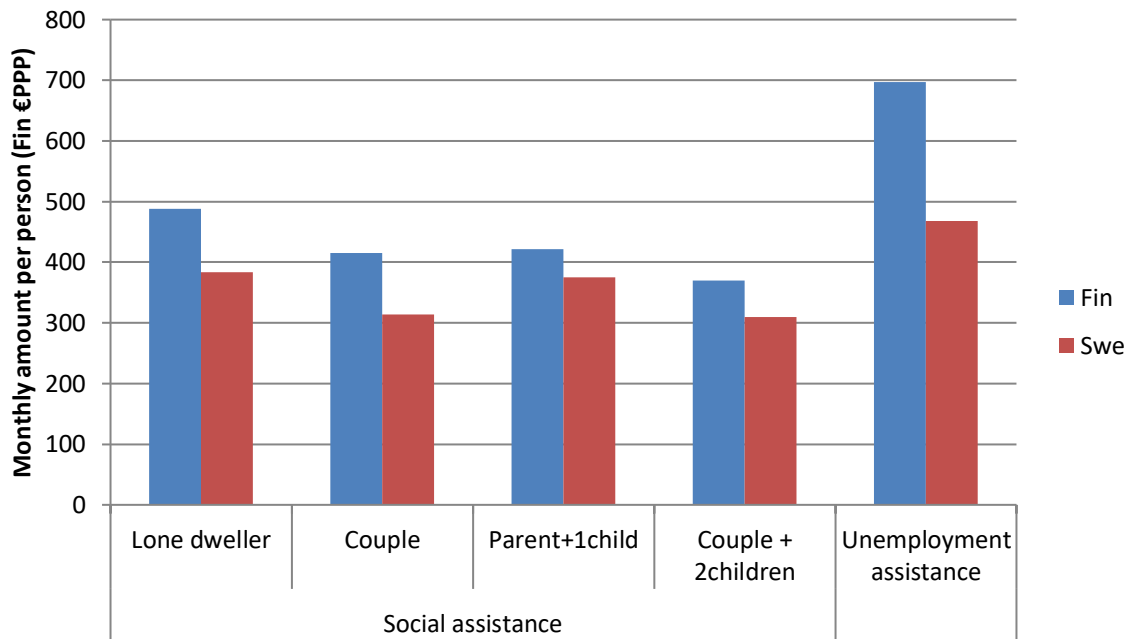


Figure 2. National norms of social assistance in example families and gross amount of unemployment assistance 2017.

Note: Swedish unemployment assistance benefit is the activity grant, and the Finnish is labor market subsidy. The PPP exchange rate is 1 EUR =10.245 SEK. Swedish amounts are based on Lindström and Wallera (2018). Finnish amounts are depicted in Räsänen and Simanainen (2020).

The number of social assistance recipients is dependent also on the access to and the levels of first-tier benefits such as housing benefit and unemployment (assistance) benefits. The general housing benefit (*bostadsbidrag*) in Sweden is restricted to families with children and adults younger than 29 years old (Lindström and Wallera (2018)). Similar restrictions are not applied in Finnish housing benefit (*yleinen asumistuki*) and therefore housing benefits can be regarded as more extensive in coverage in Finland. It should be noted, Sweden incorporates additional housing benefit for families with limited work abilities (*bostadstillägg*) and for refugees and certain other nationalities (*bostadsersättning*). In relation to average wage, maximum general housing benefit in Finland is higher than in Sweden (OECD 2021a).

Both countries provide also flat-rate non-contributory unemployment assistance benefits. In Finland, labour market subsidy (*työmarkkinatuki*) can be paid to the unemployed available in labour markets and actively seeking for job and who do not have right to contributory benefits. In Sweden, the unemployment assistance benefits include activity grant for adults (*aktivitetsstöd*) and lower development grant for youngsters (*utvecklingsersättning*) as well as introduction compensation for refugees (*etableringsersättning*). Swedish benefits are generally paid only during activation measures or participation in integration program whereas Finnish labour market subsidy is paid also when not participating in activation measures. Moreover, Finnish gross labour market subsidy was 50% higher than the Swedish activity grant in 2017 (Figure 2).

Empirical specification

We approach our research question with the simulation of eligibility to social assistance (see e.g. Bargain et al. 2012). Many prior studies have used EU-wide microsimulation model EUROMOD to estimate the eligibility to social assistance (e.g. Figari et al. 2013). We chose to use manually-coded simulation of social assistance in order to enable the flexible use of data and most recent EU-SILC data sets. However, we run validity checks with EUROMOD model.

Household i with legislation L is estimated eligible to social assistance if the simulated amount to social assistance is greater than zero:

$$E_{iL} = (N_{iL} + H_i - (I_i - D_{iL}) > 0).$$

The amount is calculated as the difference of national norm (N), housing costs (H), and household annual disposable income (I) possibly after an earning disregard (D). In order to simulate other country's legislation with other country's data, the monetary level of national norms is adjusted using purchasing power parities for Sweden and Finland (OECD 2021b). It should be noted that the policy swaps are conducted without estimating the potential behavioural responses in labour supply, for example.

The analysis is based on harmonized EU-SILC surveys that are compiled by Eurostat from standardized national surveys and administrative registers. Most of the analysis is based on data with waves 2017-2018 pooled together to enable slightly more robust analysis. The years reported in the results refer to the income reference period which is the year prior to survey (2016-2017). We also show some results with the income data of 2013-2015 to analyse trends. It should be noted that the benefit of pooled waves is mitigated by the fact that EU-SILC is collected as a rotating panel and 75% of the households are the same between the years (see Iacovou et al. 2012).

The information in EU-SILC on all incomes in the Finnish and Swedish data is based on administrative registers and does not suffer from recalling bias. The information on housing costs however is based on interview and refers to the survey year which is the year after income reference period. This mismatch between the reference period of housing costs and income is likely to cause some measurement error but it can be assumed to roughly equal between the countries.

The social assistance variables in Swedish EU-SILC include also certain benefits targeted for conscripts and individuals more than 65 years old. Moreover, the eligibility of students is hard to simulate with annual incomes as their eligibility is concentrated often to summer months. Therefore, in order to ensure robust analysis, we exclude households including conscripts, full-time students and individuals more than 65 years old from the analysis. Moreover, the eligibility of self-employed persons is restricted in both countries. Therefore, self-employed are assumed ineligible which is in line with the receipt patterns observed in data. Because social assistance is paid to households, we analyse the receipt on household-level. All in all, the data sets include 12,263 households for Finland and 6,879 households for Sweden.

The eligibility simulation contains some measurement errors due to several issues that are discussed by Paukkeri (2017), for example. The main issue is the use of annual income data. If household incomes have changed significantly during the year, part-year eligibility can be unnoticed. In addition, we cannot detect eligibility due to delayed payments of first-tier benefits. By using annual income data, we observe the long-term eligibility which is also the central concern of policy experts (e.g. Finnish Government 2020). In

addition, while concentrating on the long-term eligibility, the estimates for non-take-up concern also long-term eligible households. Therefore, our non-take-up rates should be interpreted as lower-bound estimates.

There are also other sources of potential measurement error. First, we cannot detect eligibility caused by reimbursed medical expenses. Moreover, both countries apply municipal-level ceilings for housing costs which are not applied in simulation due to insufficient data. To test the effect of high housing cost, ceilings of capital cities (Helsinki and Stockholm) were applied to the whole data. This did not affect the eligibility rates visibly but only the simulated amounts. In addition, asset test is not simulated due to lack of asset data. To evaluate the effect, we analyse non-take-up by capital income receipt as well as home ownership.

The Swedish earning disregard is applied only after six months of receipt. Therefore, it does not affect eligibility at the start of the spell and is only relevant for eligibility if the benefit spell has continued from the year before data year. Because most spells are short (Königs 2018) and we cannot observe the spell history, we ignore the Swedish disregard when calculating eligibility². Finnish disregard in turn is applied right from the start of benefit spell and is included in eligibility calculation.

Lastly, it should be noted that social assistance is discretionary benefit with behaviour requirements. Social workers take into account the individual situation and behaviour and may be flexible on some conditions. These issues cannot be taken into account when simulating the eligibility, which is likely to cause some measurement error of eligibility as well as non-take-up. This aspect is further discussed in the conclusions.

Results

Approximately 10 percent of studied working-age households received social assistance in Finland 2016-2017, whereas 4 percent did so in Sweden. In other words, the risk of receipt is more than twice in Finland compared to Sweden. Next we find out how much the difference in receipt is caused by social assistance legislation, first-tier benefits or non-take-up.

The effect of social assistance legislation on eligibility

The main results of the study are compiled in Table 1. Finnish legislation, i.e. the norm levels and earning disregard, yields 30-110 percent higher eligibility rates than the Swedish one (70 percent on average). The effect of legislation on eligibility is much higher with the Finnish data. This is explained by the fact that the average simulated benefit amounts are much lower in Finland due to the higher first-tier benefits and other household incomes. Validations with EUROMOD and 2015 incomes produce similar results (Table A2).

² We test the effect of Swedish earning disregard roughly by randomly applying it to a fifth of households which corresponds to the share of spells longer than six months (Königs 2018). This increased the eligibility rates by 0.2-0.5 percentage points and thus does not alter the results notably. Moreover, the test likely exaggerates the effect because the earning disregard affects the eligibility only if the benefit spell has continued from the year before data year

Table 1. The observed take-up rates, simulated eligibility rates and average benefit amounts in the studied working-age population in Finland and Sweden 2016-2017. Euros in Fin PPP of 2017. Source: own calculations with EU-SILC.

		Finnish data	Swedish data	Difference, %
Sample size (households)		12 263	6 879	+80
Observed take-up rate, %		10.0	4.0	+150
Simulated eligibility rate, %	Finnish legislation	7.2	8.2	-10
	Swedish legislation	3.5	6.1	-40
	Difference, %	+110	+30	
Benefit amount, €/year	Received per recipient hh	2 700	5 500	-50
	Simulated per eligible hh	2 800	7 600	-60
	Received per capita	117	93	+30
	Simulated per capita	84	200	-60

Although the receipt of social assistance is much more common in Finland, the average amount of received benefit is twice as high in Sweden. Because the national norms are generally lower in Sweden, the result reflects the larger gaps in incomes in Sweden (and higher housing costs in relation to income). Therefore, the social assistance expenditure per capita in the studied population is only 30 percent higher in Finland whereas the difference in take-up rates was 150 percent. Interestingly, based on simulations the expected benefit expenditure per capita is more than twice as high in Sweden as in Finland but the non-take-up turns it other way around.

The effect of first-tier benefits on eligibility

Table 1 also shows that the Finnish population and income structure yields 10-40 percent lower eligibility rates for social assistance than the Swedish one (22 percent on average). The result reflects the generally lower income levels at the low-end of Swedish income distribution (Figure A1). The finding is in line with the external income statistics where Sweden is observed to have higher at-risk-of poverty rates although the median income is on the same level and employment rate is higher (Eurostat 2020). In addition, the housing costs seem to be higher in relation to income in Sweden in the lowest income decile (Figure A2).

To find out, how much the result is due to access to first-tier benefits, Figures 3a and 3b present the distribution of social assistance receiving households by main activities and income sources. The distributions of main activities are roughly similar between countries. The largest group receiving social assistance are the unemployed households. However, in Sweden other activities such as part-time workers and households reported as “inactive” are more pronounced than in Finland.

The income sources of social assistance recipients poses clearer differences between the countries. Whereas in Finland social assistance makes only 15% of the total annual income in recipient households, in Sweden the share is 40%. In other words, it seems that in Finland social assistance has a more complementary role to other benefits, particularly unemployment assistance, whereas in Sweden social assistance is more often a main income source. This finding is supported also in external statistics

(Socialstyrelsen 2011; Korpela and Raittila 2020) as well as in the research data: in Sweden, 19% of social assistance recipient households receive only social assistance and/or housing benefit during the year whereas in Finland the respective share is only 2%.

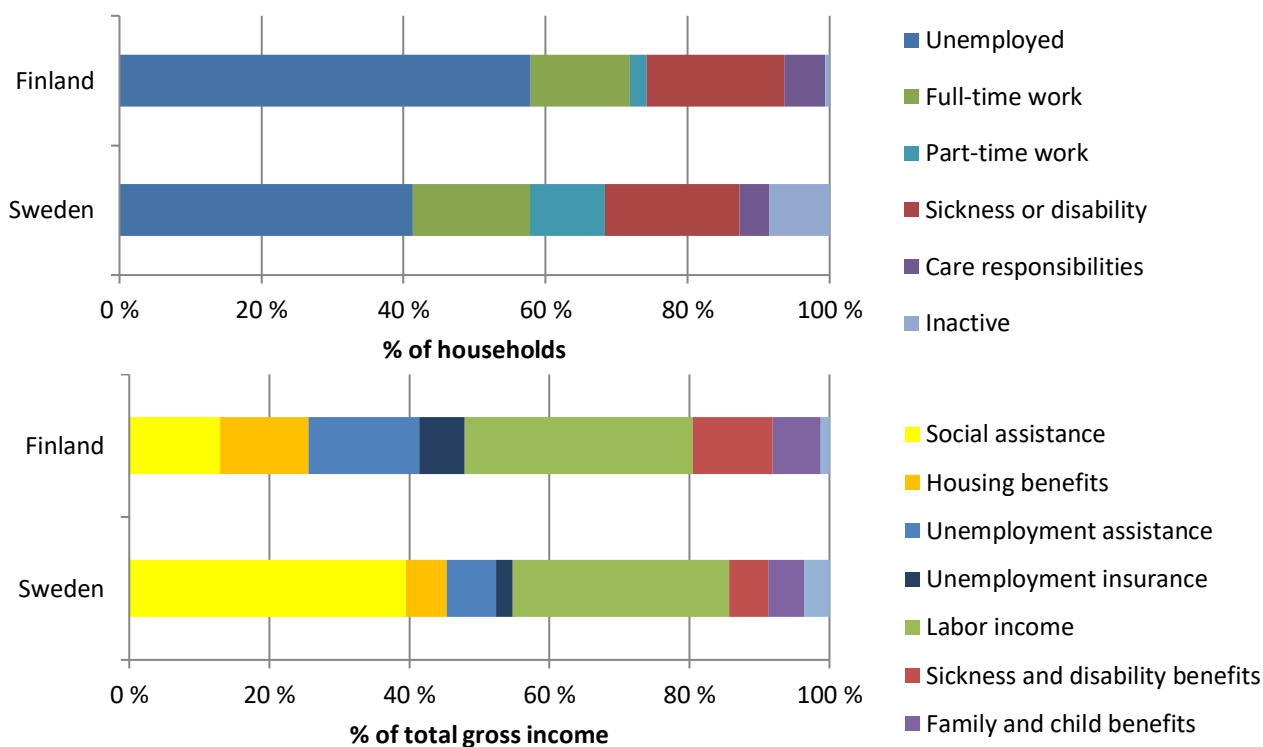


Figure 3a-b. The distribution of social assistance receiving households’ main activities (above) and income sources (below) during a year. Source: own calculations from EU-SILC income reference period of 2016-2017.

Note: The main activity of a household is defined as the activity with most months during a year among household adults. The unemployment assistance category for Sweden includes activity grant, integration compensation as well as housing supplement for refugees. The Finnish category includes labor market subsidy.

The complementary role of social assistance in Finland may be caused by higher social assistance norms or lower levels of other benefits. In the policy section we noted that access to unemployment assistance and housing benefits is more restricted in Sweden which is likely one explanation to the finding. This is supported also in statistics that most unemployed receiving social assistance have no unemployment benefits (Socialstyrelsen 2011, 14).

When viewed from another angle, social assistance receipt among the recipients of unemployment assistance or housing benefit is much more common in Finland than in Sweden. As shown in Table 2, 40 percent of households receiving unemployment assistance receive also social assistance in Finland during a year whereas the respective share in Sweden is 27 percent. For those receiving housing benefit the observed take up rate of social assistance is 45% in Finland and 25% in Sweden. Policy swap results show that these differences seem to be caused solely by higher social assistance norms (and earning disregard) in Finland rather than population and income structure or non-take-up. Interestingly, among the recipient of

unemployment assistance and housing benefit the non-take-up of social assistance seem to be on the same level between countries.

Table 2. The observed take-up rates and simulated eligibility rates among recipients of unemployment assistance and housing benefits in Finland and Sweden during a year. Source: own calculations with EU-SILC and income period of 2016-2017.

		Finnish data	Swedish data	Difference, %
Unemployment assistance recipients		n=1,361	n=360	
Observed take-up rate of social assistance, %		40	27	+50
Simulated eligibility rate, %	Finnish legislation	35	33	+10
	Swedish legislation	16	26	-40
	Difference, %	+110	+30	
Non-take-up, %		27	29	0
Housing benefit recipients		n=1,530	n=382	
Observed take-up rate of social assistance, %		45	25	+80
Simulated eligibility rate, %	Finnish legislation	33	32	0
	Swedish legislation	15	22	-30
	Difference, %	+110	+50	
Non-take-up, %		25	28	0

Note: The Swedish unemployment assistance variable includes activity grant, integration compensation as well as housing supplement for refugees. The Finnish unemployment assistance includes only labor market subsidy.

Non-take-up

Based on simulations, a third of long-term eligible households do not take up the social assistance in Finland whereas the respective share is more than half in Sweden (Table 3). It should be noted that the estimates are sensitive to the specification, and previous studies from the Finnish context have produced both higher (Bargain et al. 2012) and lower estimates (Paukkeri 2017). However, these estimates are among first to present non-take-up of social assistance with a comparative perspective.

The difference in non-take-up rates can be due to, not only actual non-take-up, but also to the inability to measure some aspects of local discretion or asset test (see Empirical specification). In order to look the issue in more detail, we calculate take-up among eligible households by main activity, tenure type, receipt of capital income and immigrant status. Shown in Table 3, simulated non-take-up is lowest in both countries for households with unemployment and disabilities, but Sweden demonstrates higher non-take-up rates almost in all activities. Moreover, Sweden poses higher non-take-up rates especially among households with owned housing. Same is true for households receiving capital income. Non-take-up of social assistance among recipients of small amounts of capital income is quite low in Finland but high in Sweden. These observations likely reflect the harsher consideration of owned housing and other assets in means-testing in Sweden (Marchal et al. 2020).

One possible reason for non-take-up is the information deficit (Currie 2004). Because of language issues, unawareness may be more common among immigrants who are a major population group among assistance recipients in both countries. However, according to the results, non-take-up among eligible is lower for immigrants outside European Union than for native-borns (Table 3). Therefore, the information deficit due to language issue seems not to be common.

Table 4. The population shares, eligibility rates and non-take-up rates (%) by main activity, tenure type, capital income and immigrant status. Source: own calculations from EU-SILC income period of 2016-2017.

	Finland			Sweden			T-test for differences in non-take-up ^a
	Share	Eligibility	Non-take-up	Share	Eligibility	Non-take-up	pooled/2016/2017
All households	100	7	32	100	6	54	***/***/***
Household main activity	Share	Eligibility	Non-take-up	Share	Eligibility	Non-take-up	pooled/2016/2017
Unemployment	14	38	28	5	41	36	*/***/-
Care responsibilities	3	17	26	1	24	57	**/*/-
Sickness or disability	9	8	31	7	14	41	-/-/-
Part-time work	4	5	74	10	9	74	-/-/-
Full-time work	64	0	73	71	2	83	-/-/-
Self-employment	7	0	-	5	0	-	-/-/-
Inactivity	0	72	77	1	58	33	**/***/-
Tenure type	Share	Eligibility	Non-take-up	Share	Eligibility	Non-take-up	pooled/2016/2017
Renter	35	18	27	38	13	48	***/***/***
Owner paying mortgage	45	1	58	51	1	91	***/***/-
Outright owner	19	3	82	8	3	100	**/*/-
Capital income, €/year	Share	Eligibility	Non-take-up	Share	Eligibility	Non-take-up	pooled/2016/2017
None	28	17	28	32	14	41	***/***/-
0-10	24	6	21	11	4	86	***/***/***
10-50	12	4	53	13	2	95	***/***/-
More than 50	35	1	84	43	2	100	***/*/-***
Immigrant status of adults ^b	Share	Eligibility	Non-take-up	Share	Eligibility	Non-take-up	pooled/2016/2017
Native-born	95	7	34	83	4	61	***/***/***
Born in EU	2	5	26	4	12	77	*/*/*
Born outside EU	3	25	18	13	19	40	**/*/-

^a *** p<0.01, ** p<0.05, *p<0.1. For the pooled sample, the correlation between waves could not be taken into account and therefore the statistical significance is likely to be overestimated.

^b If at least one adult in household is native-born, household is classified as “Native-born”. If household includes immigrant adults both from EU and outside EU, household is classified as “born in EU”.

Our two-year data 2016-2017 was collected during a substantial implementation reform in Finland. In 2017, the provision of basic social assistance was transferred from municipal social offices to central government agency. This also shifted the role of social assistance from an integral part of social care to a more automatic benefit without individual discretion. The central goal of the reform was to reduce stigma of benefit application and therefore reduce non-take-up (Blomberg & Kroll 2020).

In order to roughly estimate whether the reform affected take-up, we present the yearly non-take-up rates during 2013-2017 in both countries (Figure 4). Finnish non-take-up rate is slightly more than half of the Swedish non-take-up rate for all available years 2013-2017. The slight decrease in non-take-up of social assistance in Finland in 2017 from 35% to 29% may very well be caused by the implementation reform. However, similar decrease is observed also in the non-take-up in Sweden 2017. To our knowledge, the

yearly fluctuation in Swedish take-up cannot be traced back to any reform and may be caused by smaller data size and random variation.

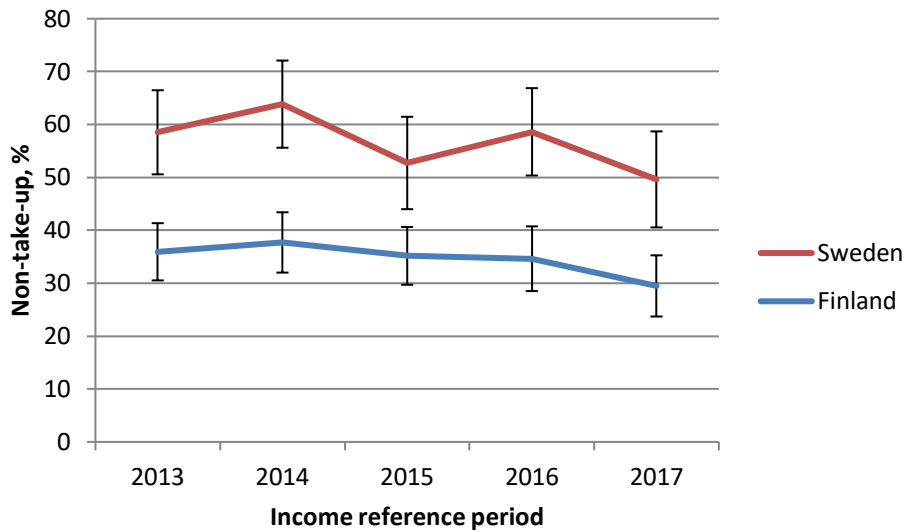


Figure 4. The non-take-up-rates among eligible households 2013-2017 in Finland and Sweden. Source: calculations with EU-SILC.

Note: 95 % confidence intervals. Swedish results for 2013-2015 should be interpreted with caution because the social assistance variable in EU-SILC includes then also some other benefits targeted to refugees and certain other foreign nationals: introductory compensation, supplementary introduction benefit and housing allowance.

Discussion

In this article we set out to ask why the Finnish social assistance scheme is much more extensive by the number of recipients than Sweden. In the working-age population, 10 percent of the studied Finnish households drew the social assistance benefit whereas 4 percent did so in Sweden 2016-2017. Previously, multiple reasons have been suggested to lie behind the differences: employment rates and levels of basic security benefits but also with levels of social assistance and looser discretion.

Our analysis shows that the difference in the number of beneficiaries of social assistance between the two countries cannot be explained by the higher unemployment rate or lower basic security benefits in Finland. On contrary, the incomes of the households in the low end of income distribution seem to be higher on average in Finland. Rather, the difference seems to be explained by the differences in policies, namely higher social assistance norms and earning disregard, and lower estimated non-take-up in Finland.

Finnish norms are higher especially for lone dwellers but also for families with children, particularly single parents. This is although they should cover roughly similar consumption items. The high norms (and earning disregard) explain also the complementary role of Finnish social assistance. The average social assistance benefit in Finland is comparatively low because it is often used to complement other incomes. In contrast in Sweden, the minimum income scheme is smaller by the number of recipients, but it plays a more salient role in the livelihood of the recipient households. In Sweden the social assistance is often the main income source of recipient households. The finding suggests that the extent should not be measured only by the number of recipients but also with the benefit expenditure.

The reason for seemingly higher non-take-up in Sweden is harder to examine. Previous literature and the results of this study imply that some of it is due to measurement errors and inability to take the differences in local discretion and asset test into account. It seems that the Swedish system contains harsher discretion and the eligibility for social assistance receipt and work criteria are individually assessed by local authorities (Stranz et al. 2017). In Finland, local discretion was used in social assistance until 2017 when the social assistance system was centralized. After 2017, eligibility for social assistance is assessed by the Social Insurance Institution of Finland where all decisions on social assistance receipt are based on the same criteria. However, our results suggest that clear differences in the take up rates between Finland and Sweden already existed prior the reform, indicating that the higher non-take rates in Sweden cannot be solely explained by the differences in the administration of social assistance.

However, the differences in non-take-up are so clear that the measurement error can hardly explain it all, but it is likely caused by differences in the actual non-take-up patterns. Based on literature, non-take-up can be caused by differences in information deficit, transaction costs or stigma (Currie 2004). It can be, for example, that harsher discretion in Sweden discourages individuals from applying for the benefit, if the process includes high transaction costs such as meeting requirements.

This study was to our knowledge first one to analyse the reasons for the varying number of beneficiaries of social assistance schemes with in-depth microanalysis. It was also one of the very few existing study to assess benefit non-take-up with comparative aspect. Previous studies have concentrated on many macro-level indicators such as levels and number recipients. The methodological conclusion from our study is that the in-depth comparison of social assistance schemes should include the analysis of non-take-up. Although its reliable comparative analysis is difficult and data-demanding, it may reveal important aspects that remain hidden when comparing only benefit adequacy or simulated coverage levels, for example.

All in all, the study left lots of open questions for future studies. The policy swap simulations were conducted without estimations of behavioural responses in labour supply. In future, these could be included for example with the method proposed by Immervoll et al. (2007). Moreover, the decisive reasons behind the large difference in non-take-up rates should be studied more closely. Relatedly, it would be of high importance to have comparative information on the level and nature of discretion of social assistance. For Finland and Sweden, we rely mostly on anecdotal evidence which seem all to point in the same direction. However, systemic research is needed to bring the evidence on more solid level.

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Appendix. Additional tables and figures.

Table A1. Social assistance in Finland and Sweden 2013-2021. Source: own compilation and OECD (2021a).

		Finland	Sweden
Name in local language		Toimeentulotuki	Ekonomiskt bistånd
Legal requirements	Exhaustion of other benefits	Yes	Yes
	Registration as unemployed, participation in activation measures, active job search	Yes if fit to work	Yes if fit to work
Implementation		Municipal welfare agencies until the end of 2016. Thereafter most of the implementation transferred to national agency.	Municipal welfare agencies
Determination of benefit levels		Nationally set norms	Nationally set norms
Benefit level details	Housing costs	Covered at least up to municipal-level ceiling	Covered at least up to municipal-level ceiling
	Medical costs	Small expenses are included in benefit amount. Most expenses are covered separately	Small expenses are included in benefit amount. Most expenses are covered separately
	Earnings disregards	20% of net earnings up to EUR 150 per individual per month	After six months of receipt, 25% of net earnings
	Benefit withdrawal rate	100% (after disregard)	100% (after disregard)
	Asset test	Assets should be realized, but home ownership and car allowed	Assets should be realized, municipal rules vary
	Other benefits included in the means test	All other benefits except for disability allowances, pensioner's care allowance, maternity grant, increase supplements of unemployment benefits	All other benefits
	Rates by children's age	Higher rates for older children. Lower rate for second and subsequent children	Higher rates for older children with some exceptions.
	Sanction reduction	20 or 40% of benefit level if not complied with registration as unemployed, participation in activation measures or active job search	Discretionary

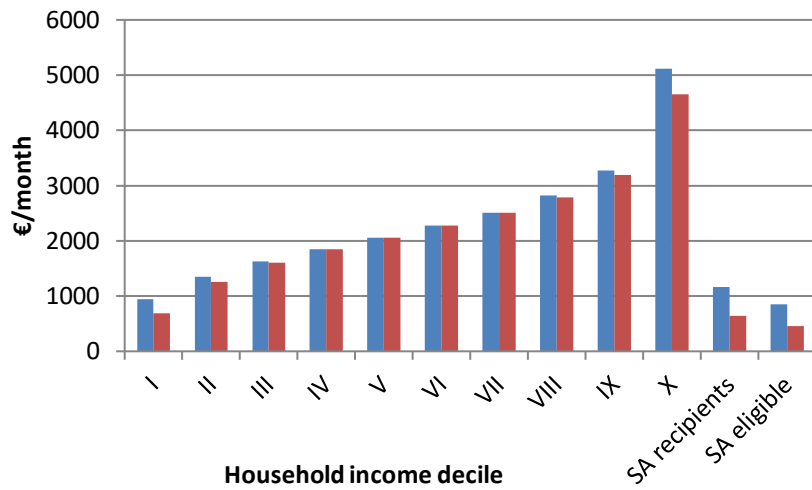


Figure A1. Average equivalized disposable household income without social assistance by income decile in the study population 2016-2017. Amounts in Finnish PPP level of 2017. Source: own calculations with EU-SILC.

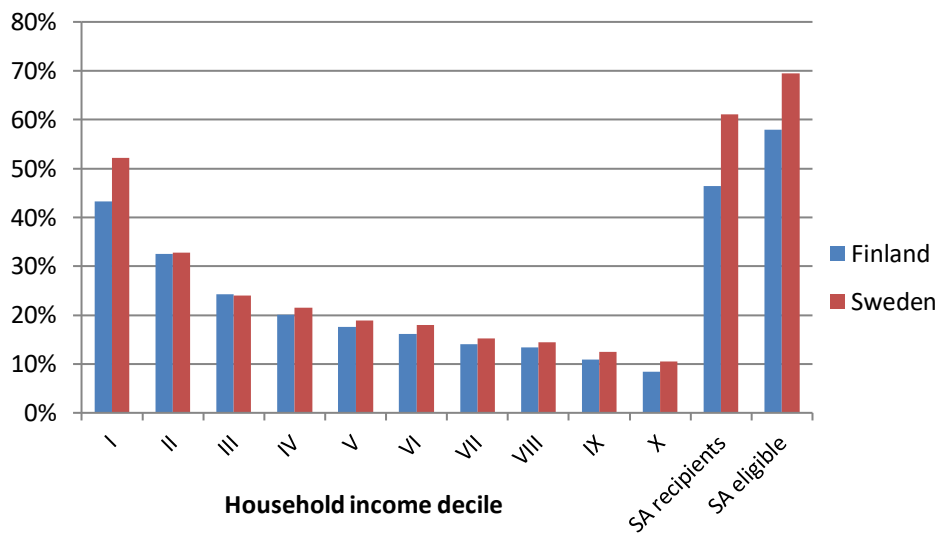


Figure A2. Average share of housing costs from disposable household income without social assistance by income decile and by receipt of social assistance in 2016-2017. Source: own calculations with EU-SILC.

Table A2. Eligibility rates calculated with EUROMOD model (version I1.0+) compared to the baseline results with EU-SILC with income reference period of 2015.

	Finnish data	Swedish data	Difference by data, %
Euromod 2015, modified^a			
Finnish legislation	6.6	12.0	-40
Swedish legislation	3.6	8.8	-60
Difference by legislation, %	+90	+40	
Own calculations with EU-SILC 2015			
Finnish legislation	7.8	8.7	-10
Swedish legislation	3.7	6.0	-40
Difference by legislation, %	+110	+40	
Own calculations with EU-SILC 2016-2017			
Finnish legislation	7.2	8.2	-10
Swedish legislation	3.5	6.1	-40
Difference by legislation, %	+110	+30	

^a In the default EUROMOD model, only Swedish model incorporates an approximation of asset test although in practice it is applied in both countries. Also, the eligibility of self-employed is by default set to zero in Finnish EUROMOD although roughly similar treatment takes place in Sweden. To increase comparability between countries, we ignore the asset test and set the eligibility of self-employed is to zero in both countries. Moreover, all calculations pertain to roughly same population: conscripts, students and elderly households are excluded.

Note: The main results are similar between EUROMOD and EU-SILC: Swedish data produces higher eligibility and so does Finnish SA legislation. In EUROMOD, the effect of data is more pronounced whereas effect of legislation is slightly mitigated. The discrepancies can be caused by small differences in specifications and the fact that EUROMOD is based on simulated benefits and taxes. It should be noted, for example, that additional housing benefit for households with limited capabilities (bostadstillägg) is not included in incomes with Swedish EUROMOD results which may exaggerate Swedish eligibility rates in EUROMOD.