



Economic composition and income volatility of Norwegian low-income families – a mixed method study of its implications

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Abstract

Background: There is a growing amount of research literature documenting increasing social inequality and an increase in the number of children growing up in families with persistently low income in all Scandinavian countries. However, there is a research gap on the issue of income composition; what the main income sources of low-income families are in relation to the families' position to the labour market and to the welfare state, and possible implications of this to the families' potential to escape poverty. The aim of this study was to describe the complexity in income sources experienced by low-income families with and without immigrant backgrounds in Norway. **Method:** Families with children aged 0–17 years (N = 168 families) with low income and in need of long-standing welfare services participated in the New Patterns project. We used a parallel mixed-methods design with quantitative and qualitative research methods, using questionnaires, register data, individual and focus group interviews, workshops with family coordinators and ethnographic fieldwork. **Results:** Most parents included in

the study had low education (51%) and a low proportion participated in the labour market (21%). Twenty different income sources or benefits that the families received were identified and no clear pattern of type of income sources that families received emerged. Families with immigrant background were more likely to receive basic subsistence benefits than non-immigrant background families, and there were corresponding small differences in employment status upon entering the New Patterns project. Several benefits are reduced if families receive other types of income and the interdependence between the various revenue sources increases the unpredictability of total family income. The families have varying degrees of economic literacy, practical finance skills and competence in managing bureaucracy. **Conclusion:** Income volatility and mechanisms in the Norwegian welfare system contribute to a poverty trap for low-income families who depend on benefits that are not work-related.

Keywords

family economy, poverty, social inequality, economic literacy, income volatility

Introduction

Norway has, along with the other Nordic countries, an advanced welfare system with a long tradition of providing generous welfare schemes and services for all citizens of all ages (Pedersen & Kuhnle, 2017; Wiborg & Hansen, 2009). These include services to support families with children, such as benefits related to birth, health, housing, unemployment, and social security. Social inequality is increasing in all Scandinavian countries (Atkinson & Morelli, 2014; Søgaaard et al., 2018), and intergenerational mobility in terms of education level is low and at similar levels to those in the US (Carneiro, Garcia, Salvanes, & Tominey, 2021; Heckman & Landersø, 2022; Landersø & Heckman, 2017) where the cost of obtaining higher education is higher than in Scandinavia. A recent study from Norway found that children born into the poorest families have fallen behind on a wide set of quality-of-life outcomes such as employment, earnings, net household income, health, mortality and, for men, family formation (Markussen & Røed, 2019). Furthermore, children's opportunities in Norway seem to be influenced by social origin (Wiborg & Hansen, 2009, 2018).

There is growing concern about increasing social inequalities in Norway, as the number of children growing up in families with persistently low income is increasing (Bufdir, 2022). About 12% of families in Norway lived with persistent low income in 2019 and 55% of these families received more than 50% of their total income from public benefits, indicating low participation in the labour market (Bufdir, 2022). Hence, the impact of growing up in poverty is significant. The Norwegian employment strategy ("arbeidslinja") with its policy of workfare and activation emphasises that paid work is the preferred way to prevent poverty. Benefits should therefore be kept low (Kildal, 2013). The situation of low-income families nevertheless highlights tensions between this policy and what can be said to be in the best interest of the child, and the family as a whole (Hagelund & Kavli, 2009; Ask & Sagatun, 2020).

Family level income volatility may be mitigated by tax transfers and welfare policies (DiPrete, 2002; Floden & Lindé, 2001). In the present study, we explore the complexity in the Norwegian welfare system supporting low-income families by studying income composition and income volatility. We study the composition of families' income, and the complexity in income sources that low-income families in Norway experience. These issues give important information on thresholds for families' potential to escape poverty. The article adds to the existing research literature on growing up in low-income families (Fløtten & Grødem, 2014; Lister, 2020).

The study is based on experiences from an innovation project targeting low-income families with longstanding needs for support and coordination across services, 'New Patterns'. In this setting, low-income means that the household average income over 3 years is below 60% of the equivalent median income in the population. New Patterns was developed to provide better, coordinated services to low-income families. The project recruits families

with low income that need continuing welfare services. Families included in the project receive integrated services through a family coordinator who coordinates public welfare services across sectors (culture, education, welfare, health- and social services) and volunteer organisations, and supports all family members for five years. The project is described in detail in a protocol paper (Mølland et al., 2020).

In this article, we address the following research questions: What are the main income sources of families living with persistent low income? Are there differences between families with and without an immigrant background in relation to participation in the labour market and composition of welfare benefits? What are the implications of economic volatility for families participating in New Patterns?

Context: Implications of living with economic instability

Several welfare benefits depend on previous participation in the workforce: citizens without recent work experience depend on much less generous means-tested benefits, creating *income volatility*. Poverty and income volatility restrict economic resources available to the family and perniciously influence children's experience. Scarce economic resources limit parents' ability to provide stable and continuous human capital investments in their children, which may have negative consequences for the children's psychosocial development (Doepke et al., 2019; Zietz et al., 2022). Unpredictability in resource availability limits the *flexibility* with which resources can be deployed to buffer or minimise negative influence of stressors (Link & Phelan, 1995; Phelan, Link, & Tehranifar, 2010). In addition, it may limit the ability to take a strategic view towards expenditure.

Income instability has negative impacts on adolescents' mental well-being (Cheng et al., 2020), school behaviour (Gennetian, Wolf, Hill, & Morris, 2015) and educational and labour market outcomes (Hardy, 2014). Poverty and income volatility may independently negatively affect children's developmental outcomes but may also constitute a double jeopardy. Families at the bottom of the income distribution experience more volatility (Cheng et al., 2020), and may have fewer buffers to absorb it (Mullainathan & Shafir, 2013). Poor families may already struggle to secure enough income and may have difficulties acquiring additional economic and social resources to avoid health risks (Hardy, 2014; Phelan et al., 2010). Negative events tend to accumulate in socioeconomically disadvantaged families (Bøe et al., 2018; Evans, 2004). Consequently, several parts of the welfare system need to be involved, amplifying the complexity of the challenge. Thus, the more complex the life circumstances of the families, the more complex is the system that provides assistance. Families with children and persistent low income often need financial support from many different sources to manage everyday life. The financial support granted is based on the reason for not being able to provide for the family with income from employment. However, being able to navigate the system and make informed choices relies on adequate bureaucratic competence and economic literacy, as well as the knowledge, skills, and attitudes to handle a complex family economy (Gramatki, 2017).

Methods

Study design and study population

This study is part of the New Patterns project conducted in Norway (Mølland et al., 2020). We used a parallel mixed-methods design (Teddlie & Tashakkori, 2009) with both quantitative and qualitative research methods, including questionnaires, register data, individual and focus group interviews, workshops with family coordinators and ethnographic fieldwork.

Families with children aged 0–17, whose equivalised household income averaged over three years lies below 60% of the equivalised median income in the population and who are in need of long-standing welfare services are eligible for participation in the New Patterns project. Families are referred to New Patterns from different service sectors within the municipality, such as kindergarten, school, public health clinics, general practitioners, the Norwegian Labour and Welfare Administration (NAV), child protection services and mental health services. Every referral to the project is discussed anonymously in a multidisciplinary team which selects the families considered eligible to participate. When inviting new families to the project, the multidisciplinary team attempts to purposively sample families to represent the diversity of the target population of Norwegian low-income families with long-standing welfare service needs. In addition, New Patterns aims to include an equal share of families with and without an immigrant background. This process is further detailed in Mølland et al. (2020). Participating families are settled in urban as well as rural municipalities in south-western Norway. Recruitment to the project is ongoing. The present study includes 168 families that had enrolled in the project by February 8th, 2021.

Data description

When new families are included in the New Patterns project, a thorough mapping process is undertaken by the family coordinator in close collaboration with family members. This mapping includes, among other things, detailed data from the tax return scheme covering the income year prior to the family entering the project. Based on these quantitative data, we aimed to describe the complexity in the financial situation among families prior to participation in the project. The study unit is the family. For each variable, we measured whether the family received the given benefit or source of income. When studying the size of income from employment, we evaluated the family's total income from employment. This was measured in the same income year as the various benefits were received. We also collected background information including immigration status, work history, work status upon entering New Patterns, level of education and marital status. All data are self-reported and data collection is performed by the family coordinator together with the families. For this study, we only use data reported by the parents.

If at least one of the adults in the family had migrated to Norway, we defined the family as having an immigration background. If only one of the parents was included in the project, the adult with the main responsibility for the children determined the family's immigration status. We defined a family to have a low education level if neither of the parents had finished high school. Information about work status was gathered by asking the participants if they had performed income-generating work within the last 12 months and at the time when the mapping was performed. We also asked participants whether they knew what income they could expect in the following month.

Qualitative data were gathered from individual interviews (seven) and focus group interviews (eight) with family coordinators, individual interviews (three) and focus group interviews with management (two), individual (three) and pair interviews (three) with employees in voluntary services, and individual interviews (ten) with one parent from each of ten different families. The qualitative data also included fieldwork, using the method of shadowing family coordinators and their meetings with services and families in their daily work and in their meetings with services and families, and this was done in two rounds.

Throughout the project, workshops were organised with family coordinators, representatives from municipalities and the researchers, sharing experiences from the project with each other. The aim of these workshops was to improve and further develop the intervention

model. In one of these workshops, three researchers and two experienced family coordinators developed a composite case (Willis, 2019) to illustrate the income situation for a typical family participating in the project, see figure 1.

Analysis

Income volatility and income composition evolved as a promising theme for exploration during field work, interviews and conversations with family members and family coordinators alike and was then investigated further with quantitative methods. The composite case is based on several real cases with whom the family coordinators worked overtime. The composite case was discussed with ten family coordinators to establish internal validity.

Quantitative data were analysed using Stata16 (StataCorp, 2019). Descriptive statistics including means, standard deviation and fractions were calculated. To increase internal validity, descriptions of the benefits and income sources were discussed with the most experienced family coordinators. The qualitative data were analysed using thematic analysis (Braun & Clarke, 2012) with an intention to identify recurrent themes running across all the qualitative data, which were later discussed with the quantitative researchers. The findings from the qualitative material were further analysed in order to represent the diversity between the families regarding their economic situation. Two researchers analysed the material concerned with income of the families together and chose two illustrative cases which were then anonymized. Findings from both the quantitative and qualitative data material were discussed in meetings with all researchers participating.

Ethics

Participation in New Patterns is voluntary. The study is conducted according to recommendations from the Norwegian Data Protection Services (file numbers 282648 and 27435). The study was approved by the Norwegian Regional Ethics Committee West, REC West (reference number 249507).

Results

In this section, we present the results from both the quantitative and qualitative analyses. We start with providing descriptive statistics on the families included in the quantitative part of the study. The quantitative and qualitative findings are grouped into five themes: types of income sources, families depending on several income sources, unpredictability, difference between families with and without immigration background, and coping with the complexity.

Descriptive statistics

Table 1 provides descriptive statistics for our sample. In total 168 families are included in the study and approximately half of the families have an immigration background. The parents are between 19 and 73 years old when entering the project, the mean age is 37.07. On average, the families have 2.5 children under the age of 17 (mean age 8.14) living in the family and 38% of the parents are married/cohabiting. Parents included in our study in general have a low education level (51%) and a low proportion participated in the labour market when they entered the project (21%) or in the previous 12 months (35%). By comparison, among all families living with persistent low income in Norway, 64% were married or cohabiting, 53% had low education, and 48% grew up in households where none of the adults were employed (Bufdir, 2022).

Table 1. Descriptive Statistics

	N (%)	Mean (SD)	Median
Families with immigrant background	86 (49.4%)		
Parents married/cohabiting	63 (37.5%)		
Number of children aged 0–17 in the Family		2.44 (1.37)	
Families where parents have low education*	83 (49.4%)		
Families where at least one parent has performed income-generating work last 12 months	59 (35.1%)		
Families where at least one parent performs income-generating work today	35 (20.8%)		
Parents age		37.07 (9.30)	36
Children's age		8.14 (4.71)	8
Total number of observations	168	168	

Notes: The table provides descriptive statistics with mean-values and standard deviation in parentheses.

*Low education means that neither of the parents have finished high school.

Types of income sources

Table 2–6 provides a detailed overview and description of the different benefits or income sources that families participating in New Patterns had when they entered the project. In total, we identified 20 different income sources or benefits that the families received based on their tax return scheme. The sources are grouped into five categories: work and education, family-related benefits, health-related benefits, labour market schemes, and basic subsistence. The benefits were grouped into these categories by the authors based on the criteria for receiving the benefit and the purpose of the benefit itself. The different income sources are managed by different government agencies at the local or national level. The tables describe how some of these benefits are dependent on previous work history, while others are not.

Income from employment, work and education related benefits (Table 2): These are income sources related to education and employment. Based on information from the tax-return scheme, 57% of the families received some income from employment in the income year prior to entering the project. However, the size of this payment is low, where the lowest registered payment for the family is 1000 NOK (102 Euro) in one year. The average yearly payment was 175 000 NOK (17 815 Euro) and 45% of the families received less than 100 000 NOK (10 180 Euro). Upon entry into the project 21% of the families participated in the labour market (Table 1). Many of the families (57%) that received income from employment when entering the project were employed in part-time positions. The average full-time equivalent employment for these families was 36%, corresponding to working almost two days a week. In 15 families, at least one adult worked in a full-time position when entering the project. Unemployment benefits are dependent on previous work history and only 8% of the families received this benefit. A very low proportion (4%) of the families received student grants.

Family-related benefits (Table 3): These income sources are related to having children and some are also related to the age of the child. Nine percent of the families in New Patterns received cash-for-care-benefits, as they had children under the age of two not participating in childcare. Child benefit is a universal benefit and 95% of all families in the project received this upon entering the project. There are various reasons why not all families received this benefit: our data refer to the previous income year, so some children may not have been born at that time, and in some cases the child had a different registered postal address to the parent participating in the project. Most of the family-related benefits are stable income sources, paid at the same date each month, independently of other means of providing for the family. A large proportion of the parents are single providers of childcare, so a substantial number of the families receive child maintenance (43%).

Health-related benefits (Table 4): This is a set of benefits related to health, i.e., inability to work attributable to health reasons. The work assessment allowance is the most common benefit (29%), while 15% have received sickness benefits in the year prior to entering the project. These are temporary benefits, and there is an expectation to return to work. Disability pension is provided if individuals become permanently ill or injured (NAV, 2023a). Only 11% of the families in New Patterns received this benefit upon entering the project. Disability pension is considered the most stable among the health-related benefits, and it makes recipients eligible for a mortgage to buy a house.

Labour market schemes and benefits (Table 5): These benefits are related to being unemployed or outside the labour force for reasons other than health, i.e., because of lack of qualifications or being single providers participating only in part-time work or education. The aim of these benefits is that after participating in labour market schemes, one should be able to secure a job and become part of the labour force. In general, the proportion of families receiving these benefits is low (under 20%).

Basic subsistence (Table 6): A large proportion of the families (43%) in our sample received social assistance in the income year prior to entering New Patterns. This benefit is meant to be temporary and only given if the recipient cannot provide for themselves from other sources of income or savings. National guidelines (Regjeringen [Government paper], 2021a) define a recommended minimum level of income a family resident in Norway should have each month to cover basic needs. Families that have less income than this guideline figure will be eligible for social assistance. There are no incentives for saving for those dependent on this benefit since the savings will be deducted in subsequent months. The documentation that must be provided in order to receive this benefit is substantial, including an overview of how the money has been spent (NAV, 2023b). The total number of social assistance payments varies between 1 – 4 each month and the deduction against other income sources makes calculations complicated. Those receiving social assistance cannot buy a place of residence, even though the total cost of living would be lower for those owning their own residence. Hence, relying on this benefit has several implications for the families. A large proportion (46%) of these families received support to cover costs of housing.

Table 2. Income from Employment, Work and education related benefits

Description of income/benefit ¹	Size of payment ²	Number of monthly payments	Reporting	Set-off against other benefits/income sources	Share of households receiving the given benefit
Income from employment: depends on the amount of work in the previous month. The degree to which income from employment is stable will depend on type of employment, i.e., whether work is full-time, part-time or if the hours worked are based on the needs of the employer in any given day/week.	Depending on hours worked in the given month. This will influence other benefits	1	No	No	57 %
Unemployment benefit (Dagpenging): is intended to partially compensate for loss of income when one becomes unemployed. Eligibility depends on the amount of previous income from employment.	62,4% of income from employment for a maximum of 104 weeks	2	Report cards submitted every 2 nd week.	No	8 %
Student grants (Studiestipend): Students may be entitled to student loans and grants. A maximum of 40 percent of students' loan can be converted into a grant if exams are passed and income and wealth is below a given limit. Students with children may be entitled to extended loan and grants.	Fixed amount	1	Passed exams	No, but there is a limit to how much can be earned from employment	4 %

¹ It is not our intention to provide a full description of the benefits and all the rules that apply, rather a description that covers the basic of the benefits related to this paper. For further details and descriptions please see www.nnav.no

² Most of the benefits have an upper limit for how much of previous income from employment is covered. We do not emphasize this limit as it is not relevant for families living with persistent low-income.

Table 3. Family-related benefits

Description of income/benefit	Size of payment	Number of monthly payments	Reporting	Set-off against other benefits/income sources	Share of households receiving the given benefit
Parental benefit (Foreldrepenget): Replacement for income when at home with a child in connection with birth or adoption. Total 49 weeks.	100% replacement of income form employment	1	No reporting needed	No	8 %
Lump-sum grant (Engangstønad): Parents who have not had income which entitles them to parental benefit at time of birth or adoption can receive a lump-sum grant to cover expenses related to becoming parents. If you receive parental benefit you are not entitled to parental benefit.	Fixed amount	One-time payment at time of birth	No reporting needed	No	7 %
Child benefit (Barnetrygd): Parents are entitled to child benefit for each child under the age of 18. Single mothers or fathers can also receive extended child benefit. The size of the benefit is independent of total income and wealth.	Fixed amount depending on the child's age	1	No reporting needed	No	96 %
Cash-for-care benefit (Kontantstøtte): To be entitled to cash-for-care benefits, children must be one year of age and not attend full-time day-care with a public subsidy. If the child has a part-time place the benefit will be reduced accordingly. The size of the benefit is independent of total income and wealth.	Fixed amount for each child age 1-2.	1	No reporting needed	No	9 %
Child maintenance (Barnebidrag): When a parent does not live with the child/children under age 18, the parent must pay a contribution to the child's maintenance to the parent with whom the child lives. If the parent cannot pay child maintenance, a minimum rate is paid by NAV.	Depends on the income and living situation of both parents.	1	No reporting needed	No	43 %

Table 4. Health-related benefits

Description of income/benefit	Size of payment	Number of monthly payments	Reporting	Set-off against other benefits/income sources	Share of households receiving the given benefit
Sickness benefit (Sykepenging): Replaces income when there are medical reasons that prevent attendance at work. This needs to be confirmed by a medical doctor. Follow-up is required by a medical doctor, the employer and NAV.	100 % replacement of income from employment for a maximum length of 12 months	1	Report cards submitted every 2 nd week.	No	15 %
Work assessment allowance (Arbeidsavklaringspenging): Replaces income from employment if ability to work is impaired by at least 50 % due to illness or injury. A person can apply for work assessment allowance after the right to sickness benefits has expired. In order to receive work assessment allowance, there has to be an activity plan and an active contribution to getting a job. If requirements are met, but there has been no previous job or income has been low, there is entitlement to a minimum rate.	66% replacement of income from employment. Or a minimum rate. Maximum duration 3 years	2-3	Report cards submitted every 2 nd week.	No	29 %
Disability pension (Uføre trygd): Replace the part of earning capacity lost due to permanent illness or injury. Regardless of previous income from employment, everyone is guaranteed a minimum benefit.	66% replacement of income from employment, or minimum benefit.	1	No report card required.	No	11 %
Care allowance (Omsorgslønn): Financial compensation to persons who perform care that would otherwise have been performed by the municipality.	Depends on previous income or minimum benefit	1		No	2 %
Basic and attendance benefit (Grunn- og hjelpestønning): Basic benefit covers additional expenses due to permanent injuries, illness, disabilities, or congenital malformation. To be entitled to attendance benefit there must be a need for supervision and care due to the medical condition.	Fixed amount	1		No	14 %

Table 5. Labour market schemes and benefits

Description of income/benefit	Size of payment	Number of monthly payments	Reporting	Set-off against other benefits/income sources	Share of households receiving the given benefit
Qualification benefit (Kvalifiseringsstønad): Benefit paid to participants in the qualification program is for those between 18 and 67 years who want to work but require extra follow-up in order to do. The program may consist of work-oriented activities, education and training combined with individual follow-up and guidance. The program is fulltime activity (37,5 hours a week). Normally the program last one year but can be extended with one year if necessary.	Fixed amount (2G ³) and supplement for children.	1	Attendance in program as planned	No	7 %
Benefit for work measure (Tiltakspengen): This benefit is paid per day you participate in employment measure. The benefit is paid to cover your living expenses and are given for the days you participate in the measure.	Fixed amount	2	Report cards submitted every 2 nd week.	No	15 %
Additional benefit (Tilleggsstønad): If you are in work-related activities, you may be entitled to additional benefits to cover extra costs related to travelling, child supervision, teaching aids and more.	Depends on the expenses that you document.	Depends on expenses covered.	Depends on expenses covered.	No	20 %
Introductory benefit (Introduksjonsstønad): Benefit paid to immigrants participating in the Introduction program for refugees. The program last for 2–3 years and are supposed to prepare immigrants with refugee background for the Norwegian labour market and participation in the Norwegian society in general. The benefit is reduced if the person is entitled to work related benefits, transitional benefits or have income from employment.	Fixed amount (2G)	1	Attendance in introductory program	Reduced if entitled to other benefits or employment	8 %
Transitional Services (Overgangstønad): Single parents with children under the age of 8 can be entitled to transitional benefit to secure income. To receive the benefit, single parents must be in at least 50 per cent occupational activity (work, registered work seeker or in education). The purpose of the benefit is for single parents to be able to support themselves and their children.	Payment depends on your total income	1		Reduced if entitled to other benefits or income above a threshold	19 %

³ 2G refers to the basic amount that is used to calculate benefits. 1 G was 101 351 NOK in 2020.

Table 6. Basic subsistence

Description of income/benefit	Size of payment	Number of monthly payments	Reporting	Set-off against other benefits/income sources	Share of households receiving the given benefit
Housing allowance (Bostøtte) is a means-tested government grant for people with low incomes and high housing expenses. The allowance depends on total housing expenses (with an upper limit), the number of people in the household and where in Norway you live.	Depends on total income/benefits each month. This information is collected through public registers.	1	Automatically control against end of the year tax return	The benefit is dependent on the household's total benefits/income sources.	46 %
Social assistance (Økonomisk sosialhjelp) is a temporary benefit provided by the municipality when you cannot provide for yourself through employment, other means of income/benefits or using own savings. The assistant is meant to cover basic subsistence costs, including living costs, housing costs, and medical and dental costs. When applying you must provide information about yourself and your financial situation including: Tax return, pay slip, bank account summary for all bank accounts, invoices and more. ⁴	Payment is individually assessed based on total income/benefits and savings each month. The benefit secures subsistence rates based on total family size.	1-4	Substantial documentation needed when applying for the assistance.	The benefit is dependent on the household's total benefits/income, including savings.	43 %

⁴ For further details: <https://www.nav.no/sosialhjelp/?lang=en>

Families depending on several income sources

Families in New Patterns depend on several different benefits. Most commonly, families received four (29%) or five (21%) different benefits, though one family received payment of eight different benefits (2%). There are many possible combinations of benefits, and no clear pattern emerged when analysing the combination of different benefits. Six families shared the combination of child benefits, social assistance, and housing allowance. Six other families received the combination of child benefits, social assistance, housing allowance, and child maintenance. With these exceptions, the combination of benefits is to a very large extent individual for each family or was found among at most three families.

Peter and Anna have three children. Peter works part-time and work extra as often as he is asked to. Anna receives work assessment allowance. The family's total income varies each month, as well as total number of payments. To illustrate, the family's income in November might look like this:

9th: Anna receives work assessment allowance
 12th: Peter receives paycheck
 20th: The family receive housing benefit
 20th: The family receive social assistance benefit
 23rd: Anna receives work assessment allowance
 30th: The family receive child benefit.

Work assessment allowance is paid every 14 days. Hence, some months Anna will receive three payments, these months she may not receive housing allowance because total income that month is too high. The number of payments may potentially cause extra stress in the family as economic planning becomes more complicated. In comparison a family without low income will typically receive 1-2 paychecks at a given date and child benefit the 30th

Figure 1. Composite case illustrating the financial situation for low-income families in Norway

The composite case highlighted in Figure 1 illustrates how the family coordinators perceive the complexity in the financial situation for the families based on the different income sources they receive. The number and size of monthly payments varies for the families, depending on what type of income sources they depend on. Hence, good budgeting and planning skills are needed to manage the economic situation. The family coordinators conveyed that it was difficult to get an overview of the family economy, given that debts and income sources might differ from month to month and given the interdependence between the different income sources.



Figure 2. Illustration of the composite case and the complexity of the financial situation of the family

Notes: The figure visualises how income in one month may look for a typical family participating in the project. The stack of money illustrates how payments of various amounts are made at different dates throughout the month.

Unpredictability

The interdependence between the different sources of income adds to the unpredictability for the families. When asked by the family coordinator upon entry into the project, 41% of the families stated that they did not know how much income to expect in the following month.

Social assistance is one of the most common sources of income for the families in New Patterns. Figure 3 illustrates how families receiving this benefit also receive other benefits, as well as income from employment. The figure illustrates what benefit the families received in addition to social assistance and the proportion of families receiving the benefit. After child benefits, housing allowance (73%) is the most common benefit families received in combination with social assistance, followed by child maintenance (49%) and work assessment allowance (27%). As illustrated in the figure, many families (44%) received social assistance in addition to income from employment. This may be related to the size of the payment from employment, or the fact that employment is only part-time as illustrated in the composite case (Figure 1). There are examples of families with one parent in full-time employment that still rely on social assistance. This indicates that wages are not necessarily enough to support the family.

Immigrant and non-immigrant background

In Table 7, we provide information about the share of families with and without an immigrant background receiving the different types of income sources described in Table 2–6. There are small differences in the proportion of families with immigrant (54%) and non-immigrant backgrounds (59%) that have received some income from employment in the income year prior to entering the project. The average family income from employment was 8% higher for families without an immigrant background (181 748 NOK vs 167 515 NOK). Upon entering the project, 19% of the families with a non-immigrant background and 23% of those with an immigrant background were employed. The average full-time equivalent employment was respectively 64.5% and 62.3%.

As illustrated in Table 7, there are some differences in the proportion of families receiving the different types of income related to immigration background. The largest difference identified is in the proportion receiving work assessment allowance, 45% of families

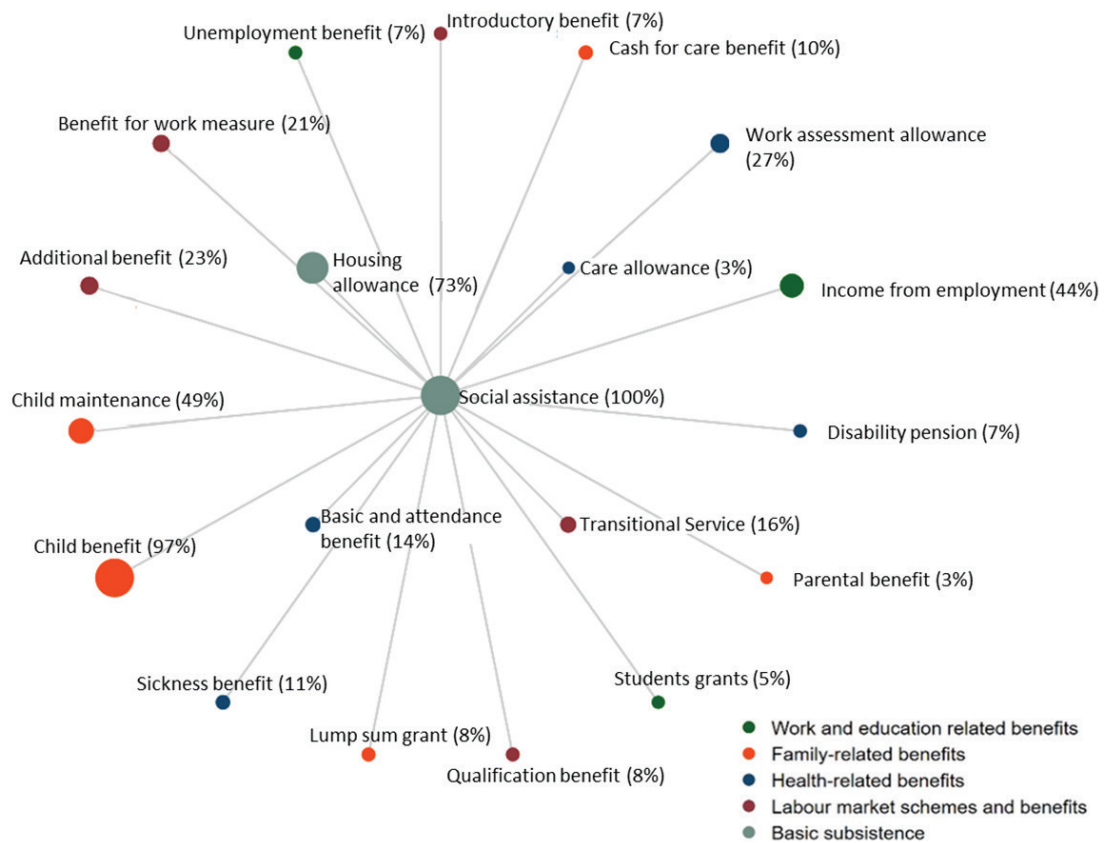


Figure 3. Overview of benefits and other income sources families receiving social assistance depends on

Notes: The Figure illustrates how families receiving financial benefit (central node) also receive other benefits or sources of income. The size of each node relates to the share receiving the given benefit or source of income, conditional on receiving social assistance. The benefits are grouped as in table 2–6. The numbers next to the node indicate the proportion (percent) of families receiving the given benefit, conditional on receiving social assistance.

with a non-immigrant background received this benefit while only 12% of families with an immigrant background received this benefit. The families with an immigrant background were more likely to receive Basic subsistence, while more families without an immigrant background received transitional services and parental benefit. Only families with an immigrant background received introductory benefits, as families without an immigrant background are not eligible for this benefit. For the other benefits, the differences were smaller.

Table 7. Difference between families with and without immigration background

Type of Income source	Non – immigrant background	Immigrant background
<i>Work and education related benefits</i>		
Income from employment	59% (50)	54% (45)
Unemployment benefit	11% (9)	6 % (5)
Student grants	4% (3)	4% (4)

(Continued)

Table 7. (Continued)

Type of Income source	Non – immigrant background	Immigrant background
<i>Family related benefits</i>		
Parental benefit	14 % (12)	2% (2)
Lump-sum grant	8% (7)	6% (5)
Child benefit	99 % (84)	94% (78)
Cash-for-care benefit	11 % (9)	7% (6)
Child maintenance	47 % (40)	40% (33)
<i>Health-related benefits</i>		
Sickness benefit	19 % (16)	12% (10)
Work assessment allowance	45 % (38)	12% (10)
Disability pension	11 % (9)	12% (10)
Care allowance	.	.
Basic and attendance benefit	12 % (10)	16% (13)
<i>Labour market schemes and benefits</i>		
Qualification benefit	4% (3)	11% (9)
Benefit for work measures	11 % (9)	19% (16)
Additional benefit	16 % (14)	23% (19)
Introductory benefit	0% (0)	16% (13)
Transitional services	26 % (22)	12% (10)
<i>Basic subsistence</i>		
Housing allowance	35 % (30)	57% (47)
Social assistance	35 % (30)	52% (43)
Total observations	85	83

Notes: The table show the proportion of families with and without an immigrant background who receive the different sources of income. Numbers in brackets represent the N. These are grouped in line with table 2–7. The four types of income source where the difference is largest are marked in bold.

Coping with the complexity

The families in New Patterns are a heterogeneous group related to the income structure, the common trait being that they are dependent on benefits and that the structure of the transfers is complicated, as shown in Table 2–6. The families furthermore have different degrees of economic literacy, abilities to administer income and expenses, and varying levels of bureaucratic competence and institutional know-how related to rights and duties for the different welfare benefits and services. The family coordinators reported service coordination as a major concern. When enrolled in New Patterns, the family coordinators start to map the situation of the family. It is often time-consuming to gain sufficient knowledge of each family member's situation to consider if the family is entitled to welfare benefits other than minimum social assistance benefits.

Cases compiled in the qualitative part of the study give insight into the complexity of the economic situation of the families and the constraints and possibilities that define their chances to improve their economy.

The first case is Christine, a single mother of two children. Christine was born in Norway, has a low level of education and limited experience with employment. Recent years have been chaotic for Christine and her children. She has received treatment for mental illness

and there have been conflicts with the children's father and disputes with child protection services. Christine describes her economic situation as messy. She lives in a council house and pays for old consumer debts. Some years ago, when she developed anxiety and depression, Christine turned a blind eye to incoming bills and stopped dealing with them. While her present spending behaviour is moderate, her history of unsustainable economic behaviour, and the lack of corrective action, has put her in a very constrained economic situation.

The second case is Kam and Kim who have an immigrant background. They are married and have six children. Kam and Kim both have a low level of education and work part time in low-paid service-jobs. Their work hours vary each month, and they receive social assistance since their total income is usually below the threshold defined in the national guidelines. Their consumption is modest and cautious. At one point, they saved a part of their child benefit in a savings account, planning to buy computer equipment for the children. However, when the social services discovered their savings account, the family no longer qualified for social assistance, as they had savings that would presently cover their daily expenses. Saving up money for their children seemed sensible, but the social assistance system does not encourage saving behaviour.

Many (38%) of the adults in the project families were in contact with various voluntary organisations when they joined New Patterns. Employees in voluntary organisations point out that financial unpredictability and lack of economic management involves more than income volatility. Intangible fluctuations related to mental health, unstable family relations, etc. affect adult family members' capacity to handle the family economy. However, as the voluntary organisations commented, these factors are connected and can reinforce each other and thus increase the complexity in low-income families' everyday life. One voluntary organisation offered advice and even courses in household economics to families, often in collaboration with a bank or debt counsellor, to support the families in managing their economy.

Discussion

This article adds to the research literature on poverty with low income levels by studying the composition of family income and the complexity in income sources that Norwegian low-income families experience. We intended to provide a deeper insight into the complexity in income and benefits that low-income families in Norway receive. Very few of our participants received a substantial part of their income from employment or benefits contingent on previous employment history (i.e. unemployment benefit or sickness benefit) when entering the project. We classify these latter benefits as *work-related benefits*.

Although the Nordic welfare model is historically anchored in universalism, the Norwegian welfare state is constantly changing (Greve, 2022) and consists of a complex mix of selectivism and universalism (Øverbye 2018). The welfare system depends on sufficient participation in the workforce – a prerequisite for handling demographic change, as well as preservation and development of social and economic sustainability (Regjeringen [Government paper], 2021b). According to a white paper from the Norwegian government, it should pay to work, and the white paper provides guidelines for the design of welfare schemes and the income security system (Regjeringen [Government paper], 2013). These are designed so that rights are acquired through work, and that it must be economically beneficial to transfer to, or remain in employment. Participation in working life provides good income security in the event of unemployment, illness, or disability, since benefits depend on previous earned income.

According to Kildal (2013), since the 1990s, social benefits in Norway have increasingly focused on fulfilment of various conditions and related work history. To earn the right to work-related benefits, employment for a certain period, and income above a certain threshold, is required. Our findings indicate that attachment to the labour market is fragile among the participants in this study, and several of the participating families have not earned these rights and therefore, to a large extent, depend on social assistance or other types of benefits. The average payment from employment was 175 000 NOK (Euro 17 815) for the families in our study. By comparison, the average yearly income for all households in Norway was NOK 540 300 (Euro 54 785) in 2019. For couples with children (0–6 years), the average yearly household income was NOK 822 700 (Euro 83 419) (SSB, 2021).

The fragile attachment of our participants to the labour market may have several implications. Some families received income from employment, but this is to a large extent from part-time work and is often in combination with other benefits. Part-time employment involves variable working hours and variable monthly payments, causing a variation in monthly benefits. For example, if a family receiving social assistance in addition to income from employment were given the opportunity to work extra hours one month, the social assistance would be reduced the following month. This will cause income volatility with higher income one month and lower income the following month. Furthermore, some benefits are paid on a weekly basis while others are paid monthly, adding to the volatility. However, expenses remain constant and relatively high compared to total income. Handling this income volatility induced by the social security system requires bureaucratic competence, high economic literacy, and good budgeting skills. One consequence may be that the incentives to work extra hours are reduced, as it complicates the financial situation. This income volatility may also increase the level of stress experienced by the family with several negative implications both for parents and children. Poor health associated with poverty may limit children's potential and development across a whole range of areas, leading to poor health in adulthood, which may have effects on future generations. Family stress may have a negative impact on adolescents' mental well-being (Cheng et al., 2020), school behaviour (Gennetian et al., 2015), and educational and labour market outcomes (Hardy, 2014).

We have described in detail the different income sources and benefits the families receive. Our findings indicate that they depend on several different benefits, in different combinations for each family. We did not anticipate that the combinations of benefits would vary so much. Of the 168 participating families, at the most six shared the same combinations of benefits. This demonstrates complexity in the welfare system. We found small differences in employment status upon entering New Patterns and the likelihood of receiving some income from employment in the income year prior to entering the project related to the families' immigration status. However, families with immigrant backgrounds were more likely to receive *Basic subsistence benefits* (i.e. social assistance and housing allowance), the most means tested and interdependent benefits. Depending on these benefits has implications for the possibility of making strategic economic choices such as saving. In Norway, approximately 6% of all families with children received social assistance in 2020 (Bufdir, 2022). Hence, our findings may also have implications for these families as well as being relevant outside the New Patterns setting. Furthermore, families without an immigrant background were more likely to receive work assessment benefits, indicating that their reasons for not being employed were related to their health.

The cases presented illustrate how the families have different levels of bureaucratic competence, economic literacy, and ability to handle the income volatility induced by the system. Low economic literacy can contribute to worsening an already strained family

economy. Navigating the social security system requires high economic literacy and is time-consuming. High economic literacy will not always help the families in achieving a better economy because economic transfers from the welfare state are designed in a way that does not always reward rational economically literate behaviours such as saving. In our study, we found that in addition to the ordinary services provided by NAV, voluntary organisations offered courses to low-income families, aiming to increase economic literacy. It is a paradox that the welfare system, through its payment arrangements, creates a need to strengthen the economic competence of the recipients. One question that emerges is whether the complexity of the welfare system creates an extra burden for families in need of welfare benefits. The cases also illustrate how families not only struggle with low income, but also have health problems and complicated family relations. Due to the system and the incentives that are created, we argue that families living with persistent low income are locked in a poverty trap.

Strengths and limitations

In general, participants in the New Patterns project represent a particularly vulnerable group, being worse off than most low-income families in Norway, as in addition to having low incomes they are in need of long-standing welfare services. Nevertheless, insights from the financial situation of these families provide important knowledge about the situation for families living with low income which are dependent on the welfare system. Among all families living with low income in Norway, 55% receive more than 50% of their total income from public benefits described in this study (Bufdir, 2022). Due to the involvement from the family coordinator in the data collection process, we expect that misreporting will be limited, but questions about work history may vary with recall. The mixed-method design and the different data sources provides us with a deeper insight into the financial complexity that low-income families experience.

Implications for policy and welfare systems

The families in this study have low income and need for long-standing welfare services. Their work experience is limited and hence the right to the income security system is restricted. As a result, they depend on a combination of different benefits, all given for different reasons and with different needs for documentation. We argue that independent of the level of economic literacy, the social security system is so complex that many of the 6.1% of families with children that depend on social assistance (Bufdir, 2022) may experience being locked in a poverty trap without any obvious exit. This mechanism was illustrated in the case of Kam and Kim, where rational economic behaviour such as generation of savings was penalised.

The present study indicates that families depending on social assistance in particular may be susceptible to being locked into a poverty trap created and maintained by the welfare system. We suggest that attention is paid to this phenomenon when further developing the Norwegian welfare model.

Conclusion

In the present empirical study, we have identified economic volatility in low-income families. We identified some differences in types of income sources that families with and without immigrant background received. Furthermore, we have identified mechanisms in the Norwegian welfare system that contribute to a poverty trap for low-income families who

depend on benefits that are not work-related. These mechanisms do not stimulate rational economic behaviour.

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Author contribution

EM conducted the quantitative analysis. HD, KGL and TA conducted the qualitative analysis. KGL gave substantial contributions to the idea and conceptions of the study. EM, KH, KV and EA drafted the paper as a whole and KGL, HD and TA drafted the qualitative part of the paper. EM, KV and EA developed the composite case. All authors have contributed to the design of the study, have critically revised the present paper for content, and have approved the final version of the manuscript.

Conflict of interest

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