

TURUN YLIOPISTON JULKAISUJA – ANNALES UNIVERSITATIS TURKUENSIS SARJA - SER. B OSA - TOM. 483 | HUMANIORA | TURKU 2019



INSTITUTIONS AND THE INTERGENERATIONAL TRANSMISSION OF SOCIOECONOMIC RESOURCES

Heta Pöyliö

University of Turku

Faculty of Social Sciences
Department of Social Research
Sociology
Doctoral Programme of Social and Behavioural Sciences

Supervised by

Professor Jani Erola
Department of Social Research
University of Turku
Finland

Dr. Elina Kilpi-Jakonen
Department of Social Research
University of Turku
Finland

Reviewed by

Professor Robert Andersen Department of Sociology Western University Canada Dr. Moris Triventi Dept. of Sociology and Social Research University of Trento Italy

Opponent

Professor Robert Andersen
Department of Sociology
Western University
Canada

The originality of this publication has been checked in accordance with the University of Turku quality assurance system using the Turnitin OriginalityCheck service.

Cover Image: Janne Salminen / Stoked Creative

ISBN 978-951-29-7730-7 (PRINT) ISBN 978-951-29-7731-4 (PDF) ISSN 0082-6987 (Print) ISSN 2343-3191 (Online)

Grano Oy - Turku, Finland 2019

TURUN YLIOPISTO
Yhteiskuntatieteellinen tiedekunta
Sosiaalitieteiden laitos
Sosiologia
Heta Pöyliö: Institutions and the Intergenerational Transmission of
Socioeconomic Resources
Väitöskirja, 152 s.
Yhteiskunta- ja käyttäytymistieteiden tohtoriohjelma
Elokuu 2019

Tiivistelmä

Tämä väitöskirja tarkastelee, millaisia rooleja hyvinvointivaltioiden instituutioilla on ylisukupolvisessa eriarvoisuudessa. Tutkimus osoittaa erilaisten instituutioiden vaikutuksia sosioekonomisten resurssien eriarvoiseen ylisukupolviseen välittymiseen.

Yhteiskunnallinen tutkimus yhdistää yksilöt ja yhteiskunnan rakenteet stratifikaatioprosessien kautta. tuoden instituutiot eriarvoisuustutkimuksen keskiöön. Vertaileva tutkimus on lövtänvt hyvinvointivaltioiden välillä samankaltaisuuksia sosiaalisen liikkuvuuden kehityssuunnissa. Eroavaisuuksia kuitenkin lövdettv on voimakkuudessa, mikä korostaa ylisukupolvisen eriarvoisuuden pysyvyyttä. Selitykset näille tuloksille, etenkin instituutioerojen näkökulmasta, ovat vielä vähäisiä.

Väitöskirja koostuu neljästä tutkimusosasta. Ylisukupolvista eriarvoisuutta tutkitaan vanhempien sosioekonomisten resurssien ylisukupolvisina iälkikasvun siirtyminä koulutuksen. ammatin. tuloien ia perheenmuodostuksen näkökulmista. Kaikissa tutkimusosissa perhetaustan ja elämänkulun varhaisten siirtymien välillä on selkeä. Näiden lisäksi tutkimusosat tarkastelevat monenlaisten instituutioiden rooleja, ulottuen yksittäisestä politiikasta, kuten perhe- ja koulutuspolitiikasta, laajempiin institutionaalisiin konteksteihin, kuten työmarkkinoihin.

Tutkimusosissa on kävtettv useita eri lähestymistapoja, tutkimusmenetelmiä sekä mikro- ja makro-tason aineistoja. Osat I ja II tutkivat koulutus- ja perhepoliittisten muutosten vaikutuksia perhetaustan ja ammattiaseman vhtevteen Euroopan maissa soveltaen ESS-aineistoon. monitasoregressiomalleja Osa Ш selvittää vaihtoehtoiskustannusten ja perhetaustan yhteyttä korkeakouluun siirtymisessä käyttäen logistista regressiota PSID-aineistolla. Osa IV tutkii, eroaako perhetaustan, naisten tulojen ja perheen perustamisen väliset suhteet sosiaalidemokraattisen ja liberaalin hyvinvointivaltiotyyppien

hyödyntäen Coxin regressiota yhdysvaltalaisella NLSY79-aineistolla sekä Suomen rekisteriaineistolla.

Tulokset osoittavat, että instituutioilla on sekä positiivinen että negatiivinen vaikutus ylisukupolviseen eriarvoisuuteen. Tuloksista voidaan johtaa kolme eri roolia. Kompensoivassa roolissa instituutio vaikuttaa huonoosaisiin perheisiin tarjoamalla mahdollisuuksia ylöspäin suuntautuvaan liikkuvuuteen ja katkaisemalla huono-osaisuuden ylisukupolvisuutta. Toiseksi, hyväosaisuutta ylläpitävässä roolissa instituutio tukee tai turvaa hyväosaisuuden periytymistä sukupolvien välillä. Kolmanneksi, tasaarvoistavassa roolissa instituutiot tasoittavat ylisukupolvisia siirtymiä vahvistamalla sekä ylös- että alaspäin suuntautuvaa sosiaalista liikkuvuutta.

Kaiken kaikkiaan instituutiot vähensivät ylisukupolvista eriarvoisuutta mutta ne myös kannattelivat ylisukupolvista hyväosaisuutta. Tästä voi päätellä, että perinteiset hyvinvointivaltioinstituutiot, kuten koulutuspolitiikat, eivät välttämättä aina vaikuta eriarvoisuuteen odotetulla tavalla.

Avainsanat: ylisukupolvinen eriarvoisuus, instituutiot, sosiaalinen liikkuvuus, koulutus, perhepolitiikka, mikro-makro yhteys, regressioanalyysi

UNIVERSITY OF TURKU
Faculty of Social Sciences
Department of Social Research
Sociology
Heta Pöyliö: Institutions and the Intergenerational Transmission of
Socioeconomic Resources
Doctoral Dissertation, 152 pp.
Doctoral Programme of Social and Behavioural Sciences
August 2019

Abstract

This dissertation studies the roles of institutions in intergenerational inequalities in modern societies. The aim is to provide empirical evidence on the influences of different kinds of institutions in the transmission of socioeconomic resources between generations in multiple country settings.

Institutions have been at the centre of sociological research, as they link individuals and the structures of society through the processes of social stratification. Previous comparative literature has concluded that there are similarities in social mobility patterns but differences in the strength of the association across western societies, stressing the persistence of intergenerational inequalities. However, evidence to explain these results, particularly considering institutional differences, is lacking.

This dissertation comprises four research parts. Intergenerational inequalities are studied in relation to the impacts of the transmission of parental socioeconomic resources on educational, occupational, income and family formation outcomes. In all four parts, the association between parental resources and early life transitions and outcomes is apparent. The four parts examine the roles of a variety of institutions, from specific policies, such as educational and family policies, to wider context institutions, such as the labour market.

A variety of research designs, datasets and methods are applied in this research. Parts I and II use multilevel regression models to study the impacts of education and family policies on origin-destination associations with European Social Survey in multiple European countries. Part III applies logistic regression to investigate the unequal transition into college and analyses the impact of lower opportunity costs with the Panel Study of Income Dynamics, while part IV compares the impacts of family background on the income-childbirth association of two countries, Finland and the United States, with different levels of public family support using Finnish register data and the 1979 National Longitudinal Survey of Youth.

The results of the research parts demonstrate that institutions can have both positive and negative impacts on intergenerational transmissions through three different roles. First, institutions can have a compensatory role, i.e., have a positive influence on families with few resources and break the inheritance of disadvantage by providing opportunities for upward mobility. Second, institutions can secure advantages by helping to maintain or secure the intergenerational inheritance of advantage. Third, institutions can have an equalising role where the intergenerational transmission is reduced at both ends of the resource distribution by simultaneously strengthening upward mobility and increasing downward mobility.

To conclude, institutions diminish intergenerational inequality, but they can also maintain the persistence of intergenerational advantage. This suggests that traditional welfare state institutions, such as educational policies, may not always work as expected in promoting better equality.

Keywords: intergenerational inequality, institutions, social mobility, education, family policy, micro-macro links, regression analysis

Acknowledgements

"Life begins at the end of your comfort zone."

Neale Donald Walsch

One of the greatest things during my doctoral dissertation has been the opportunities, and the necessity, of learning new. I have learned a great deal of academic research and methodologies. But I have also learned about my boundaries and abilities, to challenge myself and overcome obstacles. Throughout, there has been a huge amount of people who deserve the greatest gratitude.

I have had the great privilege to conduct my doctoral research at the University of Turku and be supervised by Prof. Jani Erola and Elina Kilpi-Jakonen. They have been my PhD supervisors but also acted as mentors, co-authors, team members, colleagues and advisors. In every step of my doctoral research they have taught me how to go on, to improve and to be the best I can. I am grateful for the trust they have had in me, and all the opportunities they have thrown me into.

Each person I have worked with have taught me something new about research. Particularly working with co-authors has been fruitful. I worked with Johanna Kallio on one of my first publications and her warm support and calming approach eased my early stage research panic. My international collaborator Zachary Van Winkle has been a phenomenal person to work with as his hard-woking ethics made me always try my best. With his extensive knowledge he has taught me a lot about content, methods, and efficient ways of doing research. I thank you both.

I conducted my doctoral dissertation in a highly-skilled international team of the INDIRECT –project. Thus I want to thank the team members Antti Tanskanen, Patricia McMullin, Irene Prix, Outi Sirniö, Sehar Ezdi, Sanna Kailaheimo and Hannu Lehti. The project provided an ideal ground for my doctoral research with great expertise ans support of the team. The team also provided a sense of belonging, something that identified me in Finland and abroad.

For massive peer support I want to thank my PhD peers, particularly Laura Salonen, Sanna Kailaheimo, Katja Pohjola, Laura Heiskala, Emma Lamberg and Sanni Jalonen-Kotimäki with who I have spend countless lunch hours talking about the obstacles we have come across and the feeling of victory when we have overcome something – whether it was a persistent error in a code or the never-

ending process of revisions. All of the complaints and laughs with these people have contributed towards this finishing line, and I am very thankful for them.

All the other people at the Sociology unit today and past need a big thanks as well: doctoral candidates Antti Kähäri, Esa Karonen, Helena Hautala, Niko Eskelinen and Aleksi Karhula, with who I have had fruitful discussions, and Mikko Niemelä, Hannu Ruonavaara, Suvi Salmenniemi, Marika Jalovaara, Mirkka Danielsbacka, Antti Kouvo, Jukka Vuorinen and others I forgot to mention have provided support and shared their wisdom whenever I have needed. Being a part of the Sociology unit has provided me with new friends, ideas and confidence.

I have obtained an extensive amount of feedback and encouragement for my research also outside my home university. I would like to thank the reviewers of this thesis, Prof. Robert Andersen and Dr. Moris Triventi, for their comprehensive comments. Also, all the people I have met in conferences, workshops and elsewhere during my PhD path, have not only enriched the experience of doctoral research but also provided insights, support and fresh views on my own research and the broader field of social sciences, and I want to thank you all for that.

I would also like to express my gratitude towards the organisations that have funded my doctoral research. Most of my research was funded by the European Research Council, which secured a steady focus on my research for four years. Also, I want to thank Fulbright Finland for funding my research visit at Stanford University. Regarding this, I wish to thank Michelle Jackson who provided her knowledge and mentoring for me in Stanford. Furthermore, I would like to thank Turku Center for Welfare Research for supporting the international distribution of my research through conference trips.

Then the dearest (and the fearless) - my amazing friends and family! I want to show my highest gratitude for my parents who have taught me the interest in the world, to seek new challenges and tackle problems bravely. This has lead me to another kind of learning path – the world of research. My siblings have always helped me to see the better side of a bad situation and encouraged me to do my best, to aim higher and grasp the opportunities ahead. My friends at home and abroad have been an excellent network that has provided me balance for the hectic PhD life. No words will be enough to thank you all.

Overall, I am highly grateful for the doctoral dissertation experience as I have been able to take up challenges and explore new opportunities. I feel honoured to have had this many people around me during my adventures. I wish my future will also be filled with such support and encouragement. As the Finnish saying goes; the one who asks, does not get lost.

August 2019 Heta Pöyliö

Table of Contents

Tii	vistelmä	3
Ab	estract	5
Αc	knowledgements	7
Lis	st of original publications	10
1	Introduction	11
2	Inequalities in intergenerational transmission Inequalities and outcomes Transmission of parental resources Persistent parental influence	14 14 16 18
3	Institutions tackling inequality The many faces of an institution Welfare state and inequality Institutions in intergenerational transmissions	21 21 23 24
4	Research questions, data and methods Data Measures Methods	26 28 29 31
5	Main results of the research parts I Educational reforms and parental compensation II Education and family policies in the intergenerational	33
	transmission of SES III Reduced opportunity costs and inequalities in college enrolment	34 35
	IV Parental resources as moderators of the income- parenthood associationReflections on the main findings	36 37
6	Discussion: Manifold roles of institutions Compensation Narrowing differences Securing advantage	39 40 41 42
7	Conclusions	44
Lis	st of references	48
Or	iginal Publications	61

List of original publications

- I Pöyliö, Heta, Erola, Jani and Kilpi-Jakonen, Elina. (2018). Institutional Change and Parental Compensation in Intergenerational Attainment. *British Journal of Sociology*. 69(3): 601-625. DOI: 10.1111/1468-4446.12293.
- II Pöyliö, Heta and Kallio, Johanna. (2017). The Impact of Education and Family Policies on Intergenerational Transmission of Socioeconomic Status in Europe. In Erola, J. and Kilpi-Jakonen, E. (Eds.) Social Inequality Across the Generations The Role of Compensation and Multiplication in Resource Accumulation. Cheltenham: Edward Elgar, pp. 204-224.
- III Pöyliö, Heta. (2019). Something Good Out of the Bad Times? The Impacts of Reduced Opportunity Costs on the Intergenerational Inequalities in College Enrollment. *Sociological Research Online*, 1-23. DOI: 10.1177/1360780419846516
- IV Pöyliö, Heta and Van Winkle, Zachary. (2019). Do Parental Resources Moderate the Relationship Between Women's Income and Timing of Parenthood? *Advances in Life Course Research*, 39: 1-12. DOI: 10.1016/j.alcr.2019.02.003.

The original publications have been reproduced with the permission of the copyright holders.

1 Introduction

Social science research focusing on social stratification within societies has emphasised the structures and settings that generate, maintain or alleviate inequalities. Classical theorists of stratification have demonstrated how interactions and events occurring at the individual level are influenced and reformed by the surrounding society and its institutional settings, and vice versa (Coleman 1990; Davis & Moore 1945; Kerr et al. 1960; Lenski 1966; Sorokin 1957). Although modernisation theory - that industrialism and modernisation create more equally functioning labour markets - is largely contested and debated, these early discussions designated the focus of the sociological literature on the interdependence of inequalities in the connections between individuals and institutions.

The concept of an institution in sociological discussions is manifold. In this dissertation, institutions are defined as the structures of a society that contain, create or hold established laws or practices that, alone or in an aggregate form, stand as an institution in the public sphere. In this regard, the comparative focus on how stratification and social mobility occur and evolve in different kinds of societies sparked new approach on the institutional aspects of the unequal distribution of resources (Lenski 1966; Lipset and Zetterberg 1959). The sociological literature applying these institutional aspects have included various measures of institutions, providing diverse information on the processes and relationships between institutions and inequalities. Although institutions have long been at the centre of sociological research, recognising that different measures of institutions provide somewhat different information can aid in understanding the interactions between institutions and intergenerational inequalities.

As the institutional approach to studying inequalities motivated the stratification discussions from early on, the comparative literature provided valuable information on changes in social mobility. Although comparative studies found similarities in mobility patterns, suggesting a 'common social fluidity' hypothesis (Feathermann et al. 1975) that there are no cross-national differences in mobility, there is evidence of significant differences in the *strength* of social mobility across the western countries (Erikson et al. 1979; Erikson & Goldthorpe 1992; Grusky & Hauser 1984). However, evidence to explain these results, particularly from the view of institutional differences, is lacking. Therefore, this dissertation studies the roles of institutions in

intergenerational inequalities and provides empirical evidence on the influences of different kinds of institutions in the transmission of socioeconomic resources between generations.

The extensive comparative welfare state literature provides information on how different or similar institutional settings influence social mobility across nations. The welfare state categorisation was employed as a tool of comparison according to how the national institutions create and influence stratified welfare (Esping-Andersen 1990). As the influence of family background through education is one of the most vital factors that determines the socioeconomic opportunities and outcomes of an individual (Blau & Duncan 1967; Goldthorpe 2003; Treiman & Ganzeboom 1990), cross-national studies have largely focused on education and educational institutions (Pfeffer 2008; Triventi 2013). The well-known comparative pieces by Shavit and Blossfeld (1993) and Shavit et al. (2007) contribute to this area of study by untangling the inequalities in educational opportunity across modern societies.

While comparative research has focused on the (in)different results of institutions between countries, multiple country-cases have examined how national institutions or changes within them are linked with the inequalities in the country. For example, Whelan and Layte (2002) studied meritocracy and social mobility in Ireland, and Boliver (2011) examined the relationship between educational expansion and class inequalities in Britain. Some studies focused on the effect of more detailed meso- or macro-level variables on the intergenerational transmission (see, e.g., Havnes & Mogstad 2015, on universal child care in Norway; Minello & Blossfeld 2017, on adult education in Germany and Pekkarinen et al. 2009, on school tracking in Finland). These types of case studies have demonstrated the effect of a specific institution on intergenerational inequalities and have sparked discussions on how the results within a country can be generalised or applied in other contexts and institutional settings.

With the developments in quantitative methodology and the availability of comparative micro- and macro-level data, stratification research has extended institutional measures from country studies to cross-national research. This new approach in mobility literature has provided wider causal knowledge on the associations between institutions and intergenerational inequalities (Yaish & Andersen 2012). For example, educational arrangements that provide more equal access to higher education, i.e., a lower level of educational tracking, have been found to increase educational mobility (Pfeffer 2008; Schlicht et al. 2010). Even though analysis of how specific policies or institutional characteristics contribute to inequalities in different societies is vital, this literature is very recent and concrete evidence on how specific institutions, other than educational institutions, have affected intergenerational inequalities is scarce due to the lack of detailed information on national institutions. One of the contributions of this dissertation is providing empirical evidence on how specific education and family policies have influenced the intergenerational transmission of socioeconomic resources.

The aim of this dissertation is to analyse what kinds of roles institutions have in the intergenerational transmission of resources. By studying micro-level events, i.e., educational transitions, socioeconomic outcomes and family formation, in relation to macro-level factors, i.e., institutions, with an intergenerational approach, this dissertation contributes to the knowledge of how institutions and inequalities are connected. This extends the previous policy discussions in which the links to microlevel events have not been analysed in detail, and widens the sociological perspective of stratification by describing the institutional aspect in the mechanisms of social inequalities. Further, this dissertation combines three institutional approaches - policy reforms, institutional context and welfare state regimes - to disentangle the complexity of the roles of institutions in social stratification and obtain a more comprehensive view. The results demonstrate three different institutional roles in transmission of resources in the reproduction or dissolution of intergenerational inequalities: institutional compensation, securing advantage and narrowing differences. This provides information on how institutions could promote greater openness in a society by influencing unequal intergenerational pathways.

This dissertation consists of two parts; an overview of the four research parts followed by the original publications. Chapters 2 and 3 discuss the existing literature on intergenerational inequalities and the institutional approaches within, providing theories and evidence on how inequalities are formed, maintained or diminished, and how they are related to the institutional settings. Chapter 4 describes the research designs of the individual research parts of this dissertation, as well as the methodological approaches and datasets, including the measures of the main microand macro-level variables. Chapters 5 and 6 demonstrate the results of the research parts and introduce the three different roles of institutions in intergenerational transmission. Finally, the results are linked to previous findings and theories, concluding with a discussion of the limitations of the study, future research and policy implications

2 Inequalities in intergenerational transmission

Inequalities and outcomes

There are two main lines of thought about why social inequalities exist in industrialised societies. First, conflict theory claims that inequality arises from the powers of competing interests of different groups, namely, the privileged elites and the workers, providing an approach of exploitation and division into social inequalities (Mills 1956). Second, functionalist theory argues that stratification and inequalities arise from the needs of the society; that is, higher positions are acquired by highly qualified workers, and thus, hierarchies are vital for the functioning of any human society (Davis & Moore 1945). This emphasises the differing skills and qualities of the populations, which become socially structured inequalities. These theories raise the question of whether inequalities should be addressed by breaking the power relations or by increasing equal access to higher positions.

In more recent discussions, the ways to promote equality can be divided into two goals: equality of outcomes and equality of opportunity. By focusing on the equality of outcomes, society aims to promote the equal division of resources among all citizens, whereas equality of opportunity focuses on securing equal chances to achieve the desired outcome, disregarding family background and other ascribed characteristics (Breen & Jonsson 2005; Roemer 1998). To combine these principles, the idea of meritocracy highlights fair competition and achievement, suggesting that, if a person's outcome is based on their skills and effort, inequality of outcomes is a result of merit selection rather than ascription (Miller 1996). The idea of a meritocratic society underlines equality of opportunity, particularly achieved through educational equality. However, studies that demonstrate the persistence of ascription due to cumulative advantage (Bernardi & Boado 2014; DiPrete & Eirich 2006) and that show non-merit characteristics to have a high value in the labour market (Jackson 2007) question the limits of education-based equality of opportunity in promoting equal chances (Goldthorpe 2003; Goldthorpe & Jackson 2008).

Not only there exists discussion on how to achieve inequality, but also on what kind of inequality can be observed and measured. First distinction can be made

between the types of inequality. The most common type, inter-individual inequality is usually measured as distributions, distances and rankings between individuals. For example, the GINI index measures income distribution of a population, and is often used in both economic and social research, particularly with comparative aspects. Group-based inequality, on the other hand, is observed as inequality between groups of people according to a specific characteristic of the groups. This type of inequality is applied in this dissertation as inequality is measured according to social origin, that is according to the level of parental resources, of an individual.

Further conceptual differences of inequality rise from what measures of resources, parental in this dissertantion, are used. Particular focus of sociological inequality research has been on the differences in the measures of labor market outcomes; class, occupation and income. Although class is a contested phenomenon and outcome, social class can be thought as the individual position or prestige at the labour market, whereas occupational status considers more of the employment relations, and income associates with the financial gains of work (Blau and Duncan 1967; Hout 2008; Wright 2008). In this dissertation, education, occupational status and income are the main measures of individual resources and parental background used to study intergenerational inequalities. Hence, a discussion on the unequal distribution of these resources throughout western societies is in place.

Education, as a resource and an institution, has obtained a great deal of interest and empirical evidence in stratification research. Global educational expansion has led to higher levels of educational attainment; finishing basic education, and usually higher secondary education as well, has become universal in many societies (Schofer & Meyer 2005). This has led to a decrease in the inequalities of educational opportunities in multiple societies (Ballarino et al. 2009; Breen & Jonsson 2005; Breen et al. 2009; Doorn et al. 2011), but there is also some evidence on persistent inequalities (Boliver 2011; Raftery & Hout 1993; Triventi 2013; Whelan & Layte 2002). Additionally, the multifaceted pathways of education extend the educational decision-making of families from a two-way decision of whether or not to pursue further education to deciding between quality differences, such as private-public or vocational-academic pathways. These decisions, which are often based on performance, knowledge, expected utility, costs, preferences, goals and perceived success, create different educational outcomes and inequalities in educational opportunities (Boone & Van Houtte 2013; Breen & Goldthorpe 1997; Goldthorpe 1998; Hillmert & Jacob 2010; Jackson 2013).

Educational attainment has been found to be a strong mediating factor for other socioeconomic destinations. Education is considered the corner stone of any modern society. An individual's educational attainment is heavily linked with the labour market position and income, but it also influences other aspects of life such as health and family formation (Kravdal & Rindfuss 2008; Lochner 2011; Lundborg 2008). For example, people with higher educational attainment earn more, have more stable family lives and live longer, but the extent of these returns on education vary between

countries (Aakvik et al. 2010; Hout 2012). Further, the socioeconomic returns of education can vary according to societal factors such as labour market regulations and other factors related to income inequality.

The measure of occupational status strongly relies on the occupational structure of the society. This measure is derived from the idea that people on a similar level in occupational hierarchies share similar interests and exist co-dependently (Blau & Duncan 1967; Hout 2008). The International Labor Organisation introduced one of the first standardised classifications for occupations, the ISCO58, which has been extended on multiple occasions. A well-known measure for occupational status, the International Socio-economic Index of Occupational Status (ISEI) uses the ISCO88 categories and focuses on the average wages and educational attainment of the occupation (Ganzeboom et al. 1992). Thus, it extends the idea of people operating on an occupational ladder to consider occupations as a status. There is extensive literature on the definitions of class and status (see, e.g., Hout, 2008, for discussion); briefly, status refers to a measure that contains various aspects of occupational conditions rather than a mere position. Another example of occupational classifications that use a broader approach is the Erikson-Goldthorpe-Portocarero (EGP) class scheme, which stresses the employer-employee relationships of the occupations (Erikson et al. 1979).

Income is a measure of an individual's material resources that is often used in determining the unequal distribution of resources within a society. Studies of income inequality, on individual or intergenerational level, are one of the main aspects in stratification research, particularly in the United States, where income is seen as an objective position in the resource distribution (Wright 2008). Although income inequality is strongly linked to inequalities in the occupational structures and other social hierarchies, and the educational and occupational transitions of early life course shape the income prospects of an individual, it can have more nuanced dimensions than occupational inequalities. For example, a person with low educational attainment can obtain a high income and move from low to high socioeconomic standing. However, the opportunities for income mobility have decreased, income inequality has been on the rise in the past few decades within the western societies, and advantages and resources are accumulating among the few (Chetty et al. 2017; McCall & Percheski 2010).

Transmission of parental resources

Family background is one of the most significant factors that influence the life course decisions and outcomes of an individual. Parents' resources impact almost all vital life events such as educational attainment, labour market position, social networks, health and family formation (Morgan et al. 2006; Starfield et al. 2002; Schoen et al.

2009). These can be considered the effects of environmental factors, but genetic factors have also been found to influence individual outcomes, including the intergenerational transmission of socioeconomic resources (Björklund et al. 2005). Regarding the inequality of educational opportunity, family background is argued to impact on educational attainment in two ways. Primary effects are seen as the impacts of cultural and genetic factors of family background on educational performance, whereas secondary effects are considered as the family background differentials in the educational choices that are made at least partially based on the achieved performance (Boudon 1974; Jackson et al. 2007).

The overall pattern of social origin, i.e., the resources of the family of birth, affecting socioeconomic outcomes of an individual, exists in all modern societies, although the extent and volume may vary (Björklund & Jäntti 2000; Breen & Luijkx 2004; Hout & DiPrete 2006; Jäntti et al. 2006). However, there has been a common trend of increasing social mobility, to which educational expansion has contributed (Breen 2010; Breen & Jonsson 2007; Pfeffer & Hertel 2015). Despite this, previous research has shown that the intergenerational associations are the strongest and most persistent at the top and bottom of the social strata (Esping-Andersen & Wagner 2012; Sirniö et al. 2013; Torche 2011). That is, parents' socioeconomic resources affect their offspring's life course the most among highly disadvantaged and advantaged families.

A large part of the stratification and social inequality literature has studied how social origin, i.e., parental class, education or income, is associated with their offspring's socioeconomic outcomes. The widely recognised origin-education-destination (OED) model focuses on two different paths of parental influence: First, the indirect path where the influence of parents' socioeconomic resources mainly affects the educational attainment (OE) of the child and thus influences the socioeconomic destination. Second, the direct path where parents have a direct influence on the labour market positioning of the child (net OD), e.g., via networks. In addition, the model acknowledges the relationship between an individual's education and socioeconomic destination (ED). This leads to questions of meritocracy, inflation of educational qualifications and other employment-related issues in stratification research (Van de Werfhorst & Andersen 2005).

The influence of parental background on their offspring's education (OE relation) has been demonstrated by strong empirical evidence in multiple country contexts. The broad literature on social mobility often applies the idea of indirect parental influence, or the total parental influence (gross OD), in places where the association between social origin and offspring's destination include the parental impact through education. This strong mediating effect of education has been acknowledged in recent studies and the study of direct effect of parental resources (net OD) has brought new aspects on the persistent inequalities (see, e.g., Bernardi & Ballarino 2016). Net OD associations have been found in many western societies (Blau & Duncan 1967; Iannelli 2002; Torche 2011), and the findings, where education is controlled,

demonstrate that individuals from advantaged backgrounds have a better start in their careers (Bukodi & Goldthorpe 2011) and obtain higher wages in the labour market (Hällsten 2013) than their counterparts from disadvantaged backgrounds.

Although the OED model mainly focuses on education and labour market outcomes, the influence of parents' socioeconomic resources occurs from early childhood through education and labour market positioning, spanning to family formation and health behaviour. The importance of early life circumstances in later life decisions and outcomes has been related to income mobility (Corak 2013) and health (Ross & Wu 1996; Willson et al. 2007) for instance. Additionally, parental resources can directly affect later life events. One well-studied event is family behaviour: women from advantaged backgrounds are found to delay childbirth, have longer relationships and divorce less (Berrington & Pattaro 2014; Breen & Ermisch 2017; Rijken & Liefbroer 2009). Thus, it can be assumed that parents with high resources provide direct support to help their offspring in risky life events, such as housing and childbearing costs.

There are findings on how the intergenerational transmission can vary according to the level of the parents' resources and the resource in question. Bukodi & Goldthorpe (2013) found that different types of parental resources, namely, education, class and status, have distinctive independent effects on their children's educational attainment. Additional evidence shows that different measures of parental resources have varying effects on children's early life-course and socioeconomic outcomes (Erola et al. 2016). Therefore, this research focus on several aspects of parental resources - income, education and occupational status - to shed light how these resources influence offspring's educational pathways, labour market positioning and family formation behaviour.

Persistent parental influence

Stratification research has provided strong evidence on the persistence of inequalities over generations (Boliver 2011; Erikson & Goldthrope 1992; Raftery & Hout 1993; Shavit & Blossfeld 1993). Although there have been positive changes in the influence of social origin on educational attainment and increased social mobility in the western world, the effect of family background throughout the life-course is still substantial (Breen & Luijkx 2004; Hout & DiPrete 2006; Pintelon et al. 2013). Recent literature has revealed why intergenerational inequalities are so persistent over time. Even though these theories mainly focus on educational outcomes, they are generalised here to explain how parents maintain their influence on children's life course outcomes.

Rational action theory argues that individuals gather information to make the best rational and acknowledged decision to maximise their expected utility (Breen &

Goldthorpe 1997; Goldthorpe 1998). This information on the costs and benefits of the decision can be acquired during early life. As Easterlin (1975; 1976) argues, individuals have aspirations for the standard of living based on the levels of resources in their childhood. Therefore, they will try to obtain the same level of living standards before a particular transition or avoid risks that reduce these standards. Similarly, the relative risk aversion (RRA) theory claims that parents influence the transitions of their offspring in a desired direction to avoid downward mobility and obtain at least the same position on the resource distribution for their offspring as they have themselves (Breen & Goldthorpe 1997; Holm & Jæger 2008).

The most persistent social immobility is often found at the ends of the social strata (Esping-Andersen & Wagner 2012; Jäntti et al. 2006; Sirniö et al. 2013; Torche 2011). The downward mobility opportunities among the richest and most highly educated population, and the upward mobility opportunities among the poorest, unemployed and otherwise marginalised population are extremely limited. Although the factors creating these might differ, the mechanism of cumulative intergenerational transmission can be considered to function in both. In broad terms, cumulative advantage takes place when children born into a high-class family obtain and accumulate their resources throughout their life course and are less affected by risky life events than their peers (DiPrete & Eirich 2006). Within this path, attending tertiary education, for example, is an automatic transition for the child (Hartlaub & Schneider 2012). Cumulative disadvantage, on the other hand, occurs, for example, when children living in poverty with few financial resources are exposed to other vulnerabilities and risks such as low levels of education or dropping out of school and obtaining a low-skilled occupation (Almquist 2016; Peruzzi 2015; Vauhkonen et al. 2017). This intergenerational transmission of disadvantages prevents children from obtaining higher educational attainment or having possibilities for upward mobility.

The persistence of intergenerational transmission has been found to be particularly strong among the most advantaged families, which has led to specific theories on how this process is formed and maintained. The theory of maximally maintained inequality (MMI) suggests that parents will maintain their influence on children's education unless the level of educational enrolment increases to universal levels (Raftery & Hout 1993). Thus, the educational inequalities are maintained until a saturation of a certain level of education is reached for the advantaged families, and the parents' ability to impact the transition of that educational level is diminished. Built on this theory, Lucas (2001) demonstrates a theory of efficiently maintained inequality (EMI) for how parents use other measures of influence if the quantitative advantage is diminished. For example advantaged families can try to pursue more prestige higher education institution as educational expansion has increased the attainment of secondary education to near universal levels.

If the process of securing a certain transition, or the quality of it, is not successful, some empirical evidence have shown how families can compensate for the lacking resources or low achievements of the offspring (Bernardi 2014; Erola & Kilpi-

Jakonen 2017). Because high-status parents have stronger pressure to avoid downward mobility, and better means to compensate unsuccessful transitions, this applies mainly among advantaged families. Recent studies on compensatory advantage have revealed that parents with high resources can compensate the failures of the offspring in educational achievements (Bernardi & Boado 2014; Bernardi & Grätz 2015) or the negative effect of the lacking resources, such as parental separation (Grätz 2015).

3 Institutions tackling inequality

Stratification analysis emphasises the major roles of macro-level structures of opportunity, power and privilege in micro-level processes of life chances and inequality (Wright 2008). Coleman's boat presents a theory of the macro- and micro-level propositions where a certain society-level setting influences the values of individuals, and thus their behaviour, which returns back to the organisation of the society (Coleman 1990, p8). The operation of intergenerational inequalities can be put within this frame. For example, the policies and power relations of a society define the limits and possibilities of the transmission of values and resources of the family (macro-to-micro transition), affecting the educational and occupational behaviour of the individual and resulting in social inequalities that shape the hierarchies of the labour market (micro-to-macro transition). This demonstrates the modern social system in which the interests and goals of individuals and institutions influence each other.

The many faces of an institution

The concept of an institution is deeply rooted in the social sciences. In sociological discussions, institutions are often determined through norms, rules and establishment that enable and shape social interactions (Gronow 2008; Hodgson 2006; Scott 2008). For this dissertation, the definition that "an institution is a set of roles graded in authority" by C. Wright Mills (2000, p.30) is highly applicable. This authority can be given by individuals through their social action in a way that family can be seen as a (social) institution (see, e.g., Laslett 1973). In this dissertation, the authority can be seen as given by an authoritative power, such as the government, in the way that education operates as an institution (Meyer 1977). The main focus is on the institutions that *contain*, *create or hold established laws or practices*, which alone or as an aggregate form stand as an institution in the public sphere. Three different approaches to institutions are significant here: policy arrangements, established concepts and welfare regimes.

First, the most explicit legal institution is a specific policy such as family policy, education policy and social policy, and the institutional arrangements within these policies. This is the most concrete of the three dimensions of an institution; a policy arrangement is often written into a law or otherwise documented and has an official,

regulated and legal role in the society. These institutions have long been a part of industrialised societies and have been central in studying the links between policies and inequalities in a country. The recent advancements in the digitalisation and availability of comparative data on national policy arrangements, although still very scarce, has enabled examination of the roles of specific policies and institutional changes in individual or aggregate level social phenomena across countries (see, e.g., Brunello et al. 2009; Checchi & Van de Werfhorst 2018). This dissertation contributes to this new line of literature by examining the associations between specific educational and family policies and intergenerational transmission in research parts I and II.

The second approach acknowledges the connectedness of specific policies, as they form an aggregate set of norms, rules or opportunities and become a concept institution. For example, the labour market and higher education can be considered concept institutions because they contain various policy and regulatory institutions and have an established role in society. These compilations of institutions can have their own characteristics, such as "highly regulated" or "gendered", based on the point of view the institution is studied from. Due to the abstract nature of these institutions, they often have merely a speculative role in empirical research. This means that their influence on the studied phenomena is acknowledged, and possibly compared between countries, but implicit conclusions on the influences of these institutions in changing inequalities are troublesome (see, e.g., Beller & Hout 2006; Esping-Andersen 2002). The research part III of this dissertation uses this approach and analyses how changes in the concept institutions of higher education and labour market, namely, changes in opportunity costs, have influenced educational inequalities.

The third institutional approach regards a whole national system as an institution. In other words, typologies of countries are formed according to the institutions they possess or the institutional ways they represent, and this typology can be considered an institution. One country may represent an assemblage of a wide array of institutional arrangements such as political systems, specific policy measures, transfers, regulations and provisions. This approach to institutions is often used in studies where the focus is on individual-level events but multiple countries are compared and the country-specific institutional arrangements affecting the events must be acknowledged (Birkelund 2006; Pfeffer 2008). After the popularity of the welfare state regimes introduced by Esping-Andersen (1990, see the following chapter 3.2 for a broader discussion), this approach has become a legitimate part of the comparative stratification literature. The research part IV of this dissertation compares two different welfare state regimes, with an emphasis on family support and the labour market, to study intergenerational transmission in family formation transitions.

Welfare state and inequality

In today's modern societies, governments try to address inequalities and promote equality of opportunity with various means. The interest in how these societies, or welfare states, operate is strongly focused on obtaining evidence on the ways and processes they affect the multidimensional stratification of society. The idea of the welfare state has long historical roots and multifaceted paths of development in each society, which has resulted in a combination of health, social and labour market institutions that aim to secure the livelihood and welfare of the people. One of the first emphases on the welfare state was written by Marshall (1950) who discussed social rights and social citizenship as the basis of the welfare state. Extending this, Titmuss (1958) introduced the first welfare state categorisation, the "residual" state, i.e., a system relying on safety-nets, and the "institutional" state, which includes a comprehensive provision of social rights. This raised the idea of providing more general protection and services to citizens, not only addressing the marginalised population.

The best-known welfare state typology today was presented by Esping-Andersen (1990) in Three Worlds of Welfare, where he examined the extent of social rights and stratification via the power-play between the state, market, and family. Three different regimes were categorised based on the level of decommodification, which is the extent to which people are dependent on the market to maintain a livelihood: liberal, corporatist and social democratic regimes. Liberal welfare state regimes, such as the United Kingdom, rely heavily on the market to provide social security and thus most of the public social protection systems only target those in need. The corporatist welfare states, e.g., Germany, have a more powerful state and a stronger emphasis on the family, following that the state will intervene only if the market fails and the family is exhausted. The social democratic welfare state regime, i.e., the Scandinavian countries, includes more universal benefits and general social protection. Since the introduction of this typology, multiple publications have introduced new welfare state regimes, for example, for the Mediterranean countries (Ferrera 1996) and East Asian modern societies (Aspalter 2006; Walker & Wong 2005), and extended the categorisation to include other welfare state aspects such as gender (Korpi 2000; Trifiletti 1999).

The welfare state categorisation is helpful in understanding the institutional differences and ways to influence social inequalities between modern societies. Comparative studies have demonstrated that intergenerational socioeconomic inequalities are generally low in social-democratic welfare states, slightly higher in corporatist regimes and high in liberal ones (Beller & Hout 2006; Breen & Luijkx 2004; Esping-Andersen & Wagner 2012). For example, income inequality is significantly higher in liberal welfare states such as the US and the UK whereas the Nordic countries rank high in earnings elasticity (Jäntti et al. 2006). The argument for

high mobility in social democratic countries is based on the universal provision of social protection and equalising institutional arrangements, such as comprehensive family policies and high equality of opportunity in education (Beller & Hout 2006; Esping-Andersen 2015; Korpi 2000; Sorensen 2006). Liberal societies often suffer from higher inequality of opportunity and more unequal division of resources.

Social sciences have become comfortable in using welfare regimes as institutions and have provided valuable information on country differences in the interplay between society and individuals. In particular, comparative literature has raised valid evidence on how welfare regimes are linked with different aspects of inequalities (Birkelund 2006; Chauvel & Schröder 2014; Esping-Andersen 2015). Although this approach can be a result of the lack of access to comparative policy data, the availability of aggregate measures on welfare and social policies has increased enormously. For example, Jæger (2006) used total public social spending and benefit generosity to measure the welfare regimes, whereas Yaish & Andersen (2012) examined the effects of multiple political and economic context measures on social mobility. Hence, analysing the relationship between particular institutions, rather than the country context, and the individual-level mechanisms of stratification can provide a more explicit approach to study the ways that welfare states tackle inequalities.

Institutions in intergenerational transmissions

Depending on the countries of interest and the approach to inequalities, empirical research on social mobility has demonstrated varying trends for both cross-national differences and the changes within countries (Breen & Luijkx 2004; Chauvel & Bar-Haim 2016; Emmenegger et al. 2012; Pfeffer 2008). This might be an outcome of the significant variation of institutions between countries, which can influence inequalities differently in specific national settings, diminishing or strengthening the intergenerational transmission. This redirects the focus from the welfare state approach to the specific policies and changes in them when studying how inequalities have developed and how specific institutional factors have influenced in the process. This section discusses how certain institutions and national policies have been found to impact intergenerational transmissions that lead to unequal pathways and outcomes.

Many of the welfare state institutions aim to compensate for a lack of resources, promote life chances and increase the mobility opportunities of marginalised individuals and families. Starting from early life, policies targeted at early intervention, such as job-secured maternity leave, cash transfers for low-income families and subsidised child care, are found to have particularly positive impacts on intergenerational mobility among disadvantaged families (Esping-Andersen 2009; Fagnani & Math 2008; Nolan et al. 2010). This bottom-up effect of equalisation

(Esping-Andersen 2015) can go beyond targeting the most vulnerable sub-groups. It has been argued that poverty alleviation is stronger with more extensive redistribution, and hence universal policies are argued to be more efficient in promoting equality than targeted policies (Kenworthy 1999; Korpi 2000).

Education, the cornerstone of equality of opportunity, has been in the centre of stratification research linking policies and intergenerational inequalities (Braga et al. 2013). Educational expansion has occurred in most western societies, bringing forth lower educational inequalities and greater social mobility, although there is country variation in the effects (Beller & Hout 2006; Breen 2010; Breen & Jonsson 2007). Particularly, educational policies that promote equal and open access to post-secondary education, such as low levels of educational tracking, are effective in equalising educational and socioeconomic outcomes (Brunello & Checchi 2007; Pfeffer 2008; Schlicht et al. 2010). Further, reforms in compulsory education, e.g., increases in the length of schooling and postponement of the school starting age, have been associated with a weaker influence of socioeconomic background (Brunello et al. 2009; Pekkarinen et al. 2009).

Some institutions affect individuals and families only at certain times of the life course, influencing specific transitions such as entering higher education, whereas some compensate or alleviate the risks and costs of a certain life event, such as unemployment or childbirth. However, previous research has demonstrated that childhood is a key time point in which the experiences and settings can shape the later life chances and outcomes of an individual (Kailaheimo & Erola 2016; Lareau 2011; Carvalho 2012). Furthermore, previous studies have shown that early policies can break the negative impact of family background on socioeconomic outcomes (Esping-Andersen 2004; Crettaz & Jacot 2014; Havnes & Mogstad 2015). So, not only the institutions in place at the time of crucial transitions that affect socioeconomic outcomes, such as deciding whether to enter tertiary education or to have a child, but other pre-existing or earlier institutions can also promote equal life chances throughout early life. Therefore, many existing institutional settings influence the level of intergenerational transmission and inequality of opportunity even before the individual is actively affected by the institution.

There is also critique and discussion on whether the positive influence of policies, often aimed at reducing inequalities, are not doing what they are expected. The mechanisms of bottom-up equalisation and the theories of MMI and EMI (see chapter 2.3) acknowledge the influence of the institutions by maintaining the position of the higher class or benefiting the already-advantaged. Cumulative advantage and thus the continuation of intergenerational inequalities has been found for example in relation to family policies (Bakermans-Kranenburg et al. 2005; Petersen et al. 2011; Van Lancker 2014) and educational institutions (Boliver 2011; Pfeffer & Goldrick-Rab 2011). This raises a dilemma regarding the impacts of institutions as the key equalisers of the social inequalities, as the results are not merely positive towards breaking the intergenerational transmission between generations.

4 Research questions, data and methods

The key focus of this dissertation is on the relationship between institutions and intergenerational inequalities in modern societies. Studying the process of intergenerational transmissions, i.e., the relationship between parents' resources and offspring's socioeconomic outcomes, with a combined institutional approach that addresses how policies and institutions modify inequalities provides a unique research design. The main research question is what kind of roles institutions have in the intergenerational transmissions of socioeconomic resources. This question is addressed by examining intergenerational transmissions in relation to different resources, i.e., education, income and occupational status of the individual and/or the parents, and with different approaches to institutions, including specific policies, institutional concepts and welfare state regimes.

This dissertation consists of four research parts that approach intergenerational transmission from various institutional aspects in multiple country settings. The research parts use multiple quantitative datasets and methods. A summary of the research questions, data and methods, intergenerational transmissions and institutions of interest in each research part is presented in Table 1.

Part I examines how educational reforms in 25 European countries have contributed to the changes in the origin-education-destination associations, focusing on the intergenerational inheritance of occupational status and using linear multilevel mixed effects regression analysis on data from European Social Survey. Part II studies how education and family policies have impacted the intergenerational transmission of occupational status in 15 European countries using linear multilevel regression analysis with data from the European Social Survey. Part III explores how the reduced opportunity costs of higher education are associated with intergenerational inequalities in college enrolment among high school graduates in the United States by applying logistic multilevel regression modelling on data from the Panel Study of Income Dynamics. Part IV investigates how parental resources affect the association between women's income and the timing of first birth in the different welfare state regimes of the US and Finland using Cox regression on data from the 1979 National Longitudinal Survey of Youth and Finnish registers.

Table 1. Summary of the research designs

	Research question	Intergenerational transmission	Institutions of Interest	Country setting	Data	Method
I	Have educational reforms affected the parental influence on children's occupation net of education?	Individual ISEI – Parental ISEI	School leaving age Educational tracking Educational expansion Tuition fees	25 European countries	European Social Survey (ESS) 2002-2010	Linear multilevel mixed effects regression with country-fixed effects
п	How have different family and education policies affected the transmission of socioeconomic status?	Individual ISEI – Parental ISEI	Maternity leave Family allowances Pre-primary education School leaving age Educational expansion	15 European countries	European Social Survey (ESS) 2002-2010	Linear multilevel regression with country-fixed effects
Ш	Has the reduction in the opportunity costs of higher education impacted intergenerational inequalities in college enrolment?	College enrolment – Parental income Parental education	Labour market Higher education	The United States	Panel Study of Income Dynamics (PSID)	Logistic multilevel regression with state-fixed effects
1	IV Do parental resources moderate the relationship between women's income and first birth?	Women's income – Parental income Parental education	Liberal and Socialdemocratic welfare state regimes	Finland & The United States	Finnish register & 1979 National Longitudinal Survey of Youth (NLSY79)	Cox proportional hazard regression

Data

Four different micro-level datasets are used in this research; the European Social Survey (ESS), the Panel Study on Income Dynamics (PSID), Finnish register data and the National Longitudinal Survey of Youth 1979 (NLSY79). The datasets represent three different types of data – survey data, panel data and register data – and include extensive information on individuals and their parents.

The European Social Survey (ESS 2015) is a cross-national survey dataset that is collected biannually and covers most European countries. The first five rounds of the survey (2002-2010) are used in research parts I and II, covering birth cohorts from 1941-1980 in 25 countries (research part I) and birth cohorts from 1956-1980 in 15 countries (research part II). The dataset includes socio-demographic information such as the individuals' education and occupation in addition to information on childhood settings. The information on parental education and occupation is retrospective and is a measure provided by the respondent of these resources when the respondent was 14 years old.

The Panel Study of Income Dynamics (PSID 2017) is a longitudinal dataset that includes information on households across multiple generations in the United States. The original nationally representative sample was collected in 1968 and households were surveyed annually until 1997, after which it became biannual. An oversampling of low-income families was included in the original sample, and children and grandchildren were included in the sample as they formed their own households. The dataset provides broad information on American households, but the key focus of this research was on the demographic, education and income data. The PSID is used in research part III, focusing on individuals who graduated from high school between 2003 and 2013. The data on parental resources was collected at the time of the survey (retrospective maximally one year) when the children (individuals of the used sample) were 10 to 15 years of age.

Research part IV uses two datasets, Finnish register data (Finnish Growth Environment Panel - FinGEP) and the 1979 National Longitudinal Survey of Youth (NLSY79), in a comparative setting. FinGEP is a dataset containing Finnish register data recorded yearly, collected by Statistics Finland from 1987 to 2014. It is a nationally representative 10% sample of the Finnish population in 1980, which has been extended to children, spouses and spouses' parents. The NLSY79 (U.S. Bureau of Labor Statistics 2014) is a longitudinal survey dataset that has been collected in the United States since 1979, when the first respondents were between the ages of 14 and 22. It was collected annually until 1994, after which it became biannual. The main information used from the two datasets included education, income and family formation (union status and fertility) of women born from 1959-1964 in the US and from 1965-1970 in Finland.

One of the contributions of this research is the combination of micro-level theories and data with macro-level settings and institutions. This micro-macro compound allows for providing empirical evidence on how the institutions are associated with the origin-outcome relationships. Therefore, in addition to the micro-level datasets, this dissertation adopted several macro-level datasets concerning different institutional arrangements. Part I uses the historical cross-national datasets on educational policies by Salonen & Pöyliö (2017) and those on educational attainment by Barro & Lee (2013), and research part II, in addition to the those used in research part I, employs a dataset on family policies by Gauthier (2011). These datasets provide valuable cross-national information on specific policies for multiple decades. In addition, research part III includes a measure of the state-level unemployment rate provided by the U.S. Bureau of Labor Statistics (2017).

Measures

This section introduces the key variables of the research parts by describing the measures of individual outcomes, parental resources and institutions. In addition, various measures for individual and family settings outside the key variables were included in the models if they were assumed to be correlated with the outcome, intergenerational transmission or the institutional impact, and if adequate measures were available

Individual outcomes

In this research, intergenerational inequalities are studied in relation to the traditional individual socioeconomic outcomes, i.e., income, education and occupational status, and extended to another life event, the timing of entry into parenthood.

The outcome variables in research parts I and II use a well-known categorisation of occupational status, the International Socio-Economic Index (ISEI), which is based on the International Standard Classification of Occupation (ISCO88, see ILO 1990). The ESS data provide ISCO88 for the respondents, from which ISEI classifications were converted and used as a continuous measure. Part III focuses on the inequalities in tertiary education enrolment, measuring whether or not the respondent enrolled in college after high school. The PSID provides multiple information on schooling, from which this outcome variable was derived. In part IV, the outcome variable is the age at first birth and another main measure of interest is the income of the female respondents. This information was drawn from the Finnish register data and from the information reported in NLSY79.

Parental resources

When studying intergenerational inequalities, the focus is usually on the socioeconomic resources of the parents and on their association with the individual outcomes. The parental resources investigated in this dissertation are income, education and occupational status. As previous research found that different parental resources can have distinctive effects on offspring (Bukodi & Goldthorpe 2013; Erola et al. 2016), it is important to study the role of institutions in intergenerational transmission in relation to different parental resources.

In research parts I and II, the parental resource in question is the parental SES, measured as the International Socio-Economic Index (ISEI). As the European Social Survey provides only open-answer information on parents' occupational status, we used data created by Ganzeboom (2013), in which he recoded the parental occupational information into ISCO88 for the parents of the ESS respondents. This was then converted into ISEI classifications. Parts III and IV study the distinctive impacts of parental education and parental income on educational (part III) and family formation (part IV) outcomes. The influence of the parental resources are analysed separately to examine the influence of the resource net of the other. In parts I-III, a dominance principle was used in which the highest level of the resource in question among the parents was chosen to represent the parental resources in the analyses whereas research part IV measures the parental resources as an average level between the parents.

Institutions

As noted in chapter 3.1, the research parts of this dissertation use different kinds of institutional approaches to study the roles of institutions in intergenerational inequalities. Parts I and II take the most direct approach by including concrete data measures of the national policy institutions in the analyses. Part III includes information of conceptual institutions of interest whereas part IV compares two countries with different levels of public family support, considering the welfare state regimes in representing institutions.

The policy institutions examined in parts I and II focus on education and family policies over time. The datasets on these institutions enable the analysis of policy reforms in relation to the changes in the OD associations. The educational reforms in part I include the school leaving age, reduction of dead-end educational pathways, implementation or removal of tuition fees and the expansion of tertiary education attainment. Part II examines the impacts of the school leaving age, pre-primary education, proportion completed tertiary education, maternity leave and family allowances on the intergenerational transmission of SES. All the specific policy institutions affect individuals' lives in different points of time, and thus they have been linked to the appropriate birth cohorts.

A broader institutional focus is used in parts III and IV. Although part III includes a measure of state-level unemployment in the analyses, this measure represents a broader concept of the economic situation of the state rather than a specific policy institution. It can be seen as a result of multiple policies and acts as a conceptual institution, particularly as the focus of the article is on the changes in the opportunity costs of higher education, measured as the impact of the recession on unemployment. Part IV, which studies the relationships between first birth, women's income and parental resources, compares two very different welfare state regimes – liberal United States and social democratic Finland. This institutional approach can be considered to include various institutional measures such as social, economic and education policies, which form a comprehensive spirit of the institutional setting of the welfare state regime that is assumed to influence the studied associations.

Methods

This dissertation relies methodologically on a variety of regression models to study intergenerational transmissions. Parts I-III apply different approaches of multilevel regression analysis whereas part IV employs Cox regression modelling, a method of survival analysis. The main aim of a regression analysis is to examine the relationships between independent variables and the dependent variable, i.e., to analyse the extent that different factors explain or influence the factor of interest. Although the main interest is to provide evidence on how institutions influence intergenerational inequalities, there is no assumption or intention of causality. As the analyses focus on phenomena taking place on both macro- and micro-levels, there are multiple factors that cannot be taken into account in the analytical models. Thus, the analyses aim to illustrate associations rather than causal mechanisms between the factors. All the analyses were conducted with STATA 14 or 15.

Regression analysis enables study of how a change in an explanatory variable affects the outcome (or the probability of it). This allows for analysing how a change in parental resources (e.g., higher income) changes the outcome (e.g. educational enrolment or timing of childbirth), considering the other covariates of the model. Further, interaction terms were included in the settings of regression models in all parts to analyse the moderating influence of a third variable, often correlated with the covariate of interest (Jaccard et al. 2003). For example, the reform * parental education interaction demonstrates how a specific educational reform moderates the impact of parents' education on the outcome variable.

The two most common regression approaches are linear regression, where the outcome variable is continuous and the relationship between the independent and dependent variable is assumed to be linear, and logistic regression, where the outcome variable is binary. Research parts I and II use linear regression modelling to

study the intergenerational transmission of SES, which is used as a continuous outcome. Part III has a binary outcome and applies logistic regression modelling to predict intergenerational inequalities, i.e., differences in the impacts of parental resources, in tertiary education enrolment.

These three research parts (I-III) also applied a hierarchical approach in the regression modelling. This multilevel (linear or logistic) regression approach acknowledges the hierarchical nature of the data, meaning that there are at least two separate levels of information such as for individuals (micro-level), families or states (meso-level) and/or countries (macro-level). Multilevel modelling has been extensively used in sociological research to study the relationships between individuals and societal phenomena, provided that there are adequate amount of second-level observations (Bryan & Jenkins 2015; DiPrete & Forristal 1994). In research parts I and II, the countries represent the second-level measure whereas the states act as the higher level variable in part III.

The multilevel regression models in research parts I-III also have fixed second-level covariates to control for the group-specific unobserved heterogeneity of the models (Allison 2009). For example, in the research parts I and II, country-fixed effects are set for the models, meaning that the country-specific unobserved heterogeneity is controlled for, leaving the within-country effects in the models. With the multilevel setting, this allows for study of the micro-level associations within each country because the variation in the micro-level between the countries is controlled for. This enables analysis of country-specific associations and study of common trends in intergenerational transmissions across the countries of interest. Further, the multilevel regression model in research part I is a mixed-effects model that includes a random slope for parental ISEI (lower-level covariate) to provide more robust statistical inferences for the cross-level interaction (Heisig & Schaeffer 2019; Schmidt-Catran & Fairbrother 2015).

Research part IV moves from the more common regression analysis approach to regression in a survival analysis setting. In survival analysis, one can analyse the time to the event, i.e., the survival, of the individual, and how the covariates moderate the survival hazard. The application of a Cox proportional hazards model (Box-Steffensmeier & Jones 2004; Cox 1972), i.e., Cox regression, allows for examining the moderating effects of parental resources on the association between women's income and the hazard of the event, here, the timing of first birth. This is achieved by including an interaction term between women's income and parental resources in the models. Because Cox regression assumes that the regression coefficients are constant over time, the main variables of interest are allowed to vary. These time-varying coefficients (tvc) of the most influential variables on the timing of childbirth result in more precise estimates (Tian et al. 2005).

5 Main results of the research parts

To analyse the different roles of institutions in intergenerational transmissions, this research examines a variety of institutions in multiple transitions and the outcomes of individuals and families. The results of the four research parts are presented in the order of what kind of an institution it is focused on. The first research part examines how educational reforms, which have taken place from basic education to tertiary education, have contributed to the changes in the direct parental influence on occupational status. The second research part continues to focus on policy institutions and explains how family and education policies have impacted the intergenerational transmission of SES. The results of the third research part demonstrate how the changes in opportunity costs for tertiary education due to significant changes in the labour market and higher education have influenced the intergenerational inequalities in college enrolment after high school. This part focuses on abstract concept institutions, i.e., higher education and the labour market. The fourth research part studies how the intergenerational association between parents' resources and women's income moderates the timing of family formation in two different welfare state regimes, which are considered to perform as institutions. Refer to the original publications for more detailed results and discussion.

I Educational reforms and parental compensation

The first research part examines the role of specific policies by studying how educational reforms in 25 European countries have contributed to changes in the origin-education-destination associations. The article analyses whether parents compensate their weakening influence on children's education by increasing their direct influence in children's occupational outcomes, and whether educational reforms have influenced this strengthening of direct origin-destination association. Educational reforms include school leaving age, reforms removing educational deadends (increasing access to higher education), the existence of fees in tertiary education and the proportion of completed tertiary education. By linking this macrolevel information with the 1941-1980 birth cohorts of the European Social Survey, this research part disentangles how changes in the institutions have contributed to changes in the intergenerational transmissions over time.

The results of the linear multilevel mixed effects regression analyses demonstrate the clear influence of three educational institutions – postponement of the school leaving age, increased access to tertiary education and the growth in attainment of higher education – in weakening of the association between parental occupational status and children's educational attainment (OE association). These institutions have contributed to the increase in educational equality, most likely by promoting educational expansion. Previous research has highlighted the importance of education in alleviating the intergenerational inequalities, and these results show that the reforms in the educational institutions have positively impacted increasing educational mobility.

The association between parents' and offspring's occupational status, net of educational attainment, was found to increase over the cohorts, suggesting parental compensation. The same three educational institutions that contributed to weakening of the origin-education association were found to advance also parental compensation. The lengthening of compulsory education seems to have had a particularly strong influence on parental compensation. In contrast, a longer time spent in the family household before decisions on further education resulted in a stronger direct influence of parents' resources. These results reveal that the direct influence of parents' SES on their children's labour market outcomes has been made stronger by the same institutions that have diminished the influence on children's educational attainment. Equalising changes in the labour market so that the recruiting processes are more open and hidden jobs are reduced could weaken the increased direct influence of family background.

II Education and family policies in the intergenerational transmission of SES

The second research part studies how specific education and family policies have impacted the intergenerational transmission of occupational status in 15 European countries. The micro-level information from the ESS linked with the macro-level data on the policies over time enabled analysis of the impact of specific policies on intergenerational transmissions at the individual level. This part focuses on the duration of paid maternity leave, the extent of family allowances, the existence of pre-primary education, the age upon leaving compulsory education and the proportion of the cohort that completed tertiary education (indicator for educational expansion) to examine how these policies moderate the association between parental and individual's occupational status among the 1956-1980 birth cohorts.

The results of the linear multilevel regression models of each individual institution elaborate how educational and family policies shape the intergenerational transmission of SES in all stages of the early life course. Maternity leave, the school

leaving age and the proportion completing higher education were found to diminish the overall association between parental and offspring's SES. These policy institutions influence the livelihoods of the families at very different times. Maternity leave alleviates the loss of income during childbirth and the first months of the child's life, whereas changes in the school leaving age influence the timing of educational decisions during youth. Further, the proportion completing tertiary education, measuring educational expansion, impacts the individuals at early adulthood and on the verge of entering the labour market.

To deepen the understanding how the three significant institutions weaken intergenerational inheritance, further analyses show that the policies can influence the association differently between disadvantaged and advantaged families. Maternity leave seems to mainly impact the families at the bottom of the social strata, i.e., those whose parents have low occupational status: the longer the duration of the paid maternity leave, the weaker the intergenerational transmission of SES is. On the other hand, the school leaving age and proportion of the population who completed tertiary education diminish the intergenerational association among disadvantaged families and decrease the intergenerational transmission of SES among families with high parental status. The results suggest that maternity leave promotes upward mobility whereas the school leaving age and educational expansion promote also downward mobility and thus diminish the persistent inheritance of advantage. The results of this study indicate that policies providing early support and better access to higher education for disadvantaged families promote social mobility.

III Reduced opportunity costs and inequalities in college enrolment

The third research part focuses on how the reduction in the opportunity costs of higher education has impacted the intergenerational inequalities in college enrolment among high school graduates in the United States. The institutional approach acknowledges the labour market and higher education to be concept institutions, in which multiple aspects of policies and settings changed due to the Great Recession in the early 20th century. The changes in opportunity costs are assumed to be particularly low due to the negative shock changes in labour market possibilities for young adults and the positive changes in the provision of financial support for college students during the economic downturn. These are assumed to influence the educational decision-making of families, in which the opportunity costs of higher education have a distinctive role. By examining the graduation cohorts from 2003-2013 using data from the Panel Survey of Income Dynamics, this research part compares the cohorts that graduated from high school before, during and after the

recession to determine how opportunity costs have shaped social inequalities in college enrolment.

The results of the multilevel logistic regression models with the PSID data indicate that the changes in opportunity costs resulted in changes in the socioeconomic inequalities of college enrolment among recent high school graduates. The intergenerational transmission of education diminished during the recession for both male and female graduates, suggesting higher educational mobility. The results for parental income varied by gender and the level of parental income. The positive influence of the recession on income differences in college enrolment was due to the reduced association among female graduates, increasing the probability of enrolling in college among disadvantaged families and reducing it among the advantaged. The influence of parental income on college enrolment among men, with high and low income levels, increased when the opportunity costs were low, reducing educational mobility opportunities.

The contrasting results of the positive and negative impacts of the reduced opportunity costs on the socioeconomic inequalities in college enrolment imply that the families responded to the changes in the institutions that were affected by the economic downturn. Thus, some of the changes in the labour market and higher education institutions positively influenced the intergenerational transmission of resources whereas some changes in policy arrangements within these concept institutions have been less beneficial. The results also demonstrate that changes in concept institutions can have varying impacts on intergenerational transmission based on the attainment level of parental resources and the gender of the individual. The different opportunities in the labour market for women and men or the different allocation of parental resources between children could explain the gender differences in the impact of the reformed institutions on educational inequalities. By providing more information and support for male students, particularly those from disadvantaged backgrounds, on available financial aid and the possibilities of various educational paths could promote their enrolment in higher education.

IV Parental resources as moderators of the incomeparenthood association

The fourth research part focuses on how intergenerational inequalities influence family formation transitions in different welfare state regimes. It analyses how parents' financial and educational resources impact the association between women's income and the timing of the entry into parenthood in the United States and Finland. To determine whether the institutional arrangements play a role in this setting, the article compares the 1957-1964 birth cohorts of the liberal welfare state regime of the US, with scarce public family support and an unregulated labour market, with the

1965-1970 birth cohorts in social democratic Finland, with comprehensive family support institutions extending to the labour market. Using the 1979 US National Longitudinal Survey of Youth and the Finnish register data, this study examines how parental resources moderate the relationship between women's income and the timing of first birth and whether this differs between the countries.

The Cox proportional hazard regression results show that, in addition to the importance of the women's own income, parental resources moderate the timing of entry into parenthood. In both countries, high parental resources were associated with delayed entry into parenthood if the women's income level was low. However, women with high incomes postponed childbirth if they were from disadvantaged backgrounds. This suggests that women who have been upwardly mobile have higher opportunity costs of childbirth. A possible response to alleviate this could be strengthening the access to higher positions for women and decreasing the motherhood penalty.

Although the similarities in the results between the countries indicate a rather weak role of the welfare state regime, the results indicate differences between the countries regarding which parental resource moderates the relation between women's income and parenthood. In the United States, the material parental resources, i.e., income, is a more influential moderator whereas parental education has a stronger moderating influence on the income-childbirth association in Finland. Although the moderating impact of parental resources on the income-parenthood relation is similar despite the different levels of public family support, the results on differing moderating parental resource indicate that the extent and content of the varying institutional arrangements, such as education, family support and labour market policies, influence the intergenerational transmission differently between the welfare state regimes.

Reflections on the main findings

The results of the four research parts of this dissertation illustrate various ways, strengths, and directions of intergenerational transmissions that lead to inequality. Further, the results show varying impacts of institutions on the transmission of inequalities.

The mechanism of parental compensation has been studied recently with increasing interest. Previous literature has mainly analysed it from the perspective of compensatory advantage, that is, parents with high resources are found to compensate negative effects of poor school achievement (Bernardi & Grätz 2015) and to promote positive educational transitions (Bernardi & Boado 2014; Gil-Hernandéz 2019). The results of this dissertation extend from this within-family compensation and demonstrate how changes in educational institutions that have decreased parental

influence in offspring's education have also promoted parental compensation by increasing parental influence in occupational outcomes.

The results of the second research part of this dissertation unravel the differing impacts of institutions depending on the levels of parental resources. Previous research has demonstrated positive associations between educational mobility, and educational (Pfeffer 2008; Schlicht et al. 2010) and family policies (Crettaz & Jacot 2014). The rare findings of Havens and Mogstad (2015) showed varying effects of family policies on educational and labour market outcomes across earnings distribution. Therefore, the findings of this dissertation not only contribute to the scarce literature on differing impacts extending from the mean effects of institutions, but also analyse the impacts on occupational outcomes. The results, particularly on maternity leave and school leaving age, provide new evidence how institutions can weaken intergenerational inequalities by breaking the persistent transmission of both disadvantage and advantage.

A great deal of intergenerational inequality research has studied how educational decision-making processes occur and how they result in unequal transitions to higher education, concluding that various factors such as achievements, financial resources, preferences and future perceptions affect the transitions. The third research part strengthens the previous findings that family background has a significant influence in educational decisions, but the results also contribute to the literature by displaying how institutional factors such as changes in higher education, student financial aid, and job opportunities can also influence the transition to tertiary education. The institutional changes were found to be associated with educational transitions differently between parental resources but also between male and female high school graduates. The results indicate more complex mechanisms of inequality in educational decisions than previous research has drawn.

The results of the fourth research part on the associations between women's income, parental resources and first birth demonstrate that intergenerational transmission of socioeconomic resources has implications outside the traditional focus of educational and labour market outcomes. The main arguments of previous research on inequalities in the timing of childbirth has highlighted the importance of women's education and labour market activity (Gustafsson 2001; Kravdal & Rindfuss 2008) or family background (Rijken & Liefbroer 2009; Schoen et al. 2009). The results of this dissertation support these findings, but also reveal combination effects between these two factors, showing that if significant upward or downward mobility has occured, first birth occurs later than among women whose resources are at similar levels to their parents. Further, the institutional contexts between comprehensive end scarce family support systems seem not to alter these processes.

6 Manifold roles of institutions

The results of the dissertation show that institutions have a role in the intergenerational transmission of resources and inequalities and that these roles can vary depending on the outcome, socioeconomic background and institutional approach. Together, the results indicate three different roles of institutions in influencing inequalities through intergenerational transmissions. Table 2 presents a summary of the roles of institutions in intergenerational transmissions among families with low and high levels of resources. First, institutional compensation derives from results where institutions have a particularly positive influence on the intergenerational transmission among disadvantaged families by promoting upward mobility opportunities. Second, the role of narrowing differences indicates that institutions can influence the wider spectrum of the resource distribution, weakening the intergenerational transmission among families with lower and higher levels of resources. These two roles result in diminished intergenerational inequalities. The third role, securing advantage, addresses the institutions' influence among families with high levels of resources by supporting the advantageous family background, resulting in more persistent intergenerational inequalities.

These three roles are not tied to a specific type of institution, such as universal or targeted, or a specific country. They can be shaped by the country context and other institutional settings that influence the lives of individuals and families. Moreover, one institution can have several roles, particularly the conceptual (labour market) or context (welfare state regime) institutions, as these institutions consist of multiple smaller institutions, which can have independent, contradicting or affiliating roles in the intergenerational inequalities. Therefore, this is not assumed to be an exhaustive description of how institutions influence intergenerational transmissions.

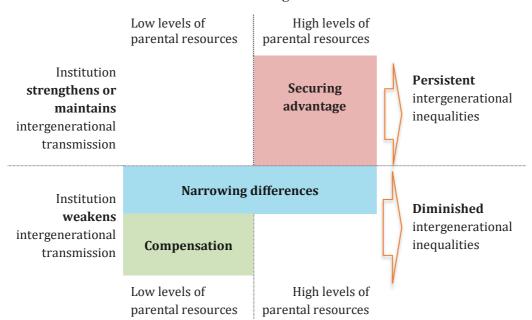


Table 1. Three roles of institutions in intergenerational transmission

Compensation

The first role emphasises the positive influence of institutions for the opportunities of marginalised populations. Since the implementation of poverty laws, policies have targeted promoting the livelihoods of the needy. In addition to the "old social policies" that provide welfare through protection of income and job loss, there is an extensive increase in "new social policies" that focus on specific social and employment risks and mishaps (Häusermann 2012). Today, modern societies provide multiple services and provision for certain groups of people or for certain needs such as single parenthood and working poverty. In many ways, these are often aimed at compensating for the negative impacts of the social risks and reducing the impact of family background on the offspring's educational and occupational paths, thus promoting equality of opportunity (Esping-Andersen 2002; Morel et al. 2012).

Despite the extensive discussion of the impacts of needs-based policies and the mechanisms of poverty alleviation in social policy literature (see, e.g., Bradshaw 2006; Fagnani & Math 2008; Van Lancker et al. 2015), there is scarce empirical evidence that targeted policies have reduced the inheritance of poverty, i.e., break the intergenerational transmission of disadvantage and promote upward social mobility (Nolan et al. 2010). The results of this dissertation contribute to the existing scant literature showing that changes in policy and concept institutions can positively

influence intergenerational transmissions among disadvantaged families. For example, research part III shows how changes in the labour market and higher education have decreased the intergenerational inequalities in tertiary education: higher education institutions increased targeted grants and financial aid for disadvantaged students whereas the labour market provided fewer work opportunities, which increased the opportunities for female students from low-income families to pursue higher education.

The role of institutions as breaking the intergenerational associations at the bottom of social strata is not exclusively tied to targeted policies. Previous findings have shown that more universal institutions and policies can positively influence the disadvantaged (see, e.g., Brady & Burroway 2012; Nelson 2004). However, the universal and needs-based institutions often share a compensatory mechanism. Institutional compensation occurs when an institution compensates for some lacking resource of the social origin or other type of disadvantage (Erola & Kilpi-Jakonen 2017; Minello & Blossfeld 2017). This provides opportunities to cut the link of marginalisation or poverty between generations. For example, research part II of this dissertation demonstrates how longer lengths of paid maternity leave are linked with a weaker intergenerational association of occupational status among disadvantaged families. The effect of maternity leave (which is a universal policy in many countries) was beneficial only among families with low levels of resources. In other words, the policy promotes upward mobility by compensating for the family's lack of resources.

Narrowing differences

Many societies are dedicated to reducing inequalities by promoting equality of opportunity. Institutions, particularly social protection and educational institutions, have been a focus of this process. A myriad of inequality studies focus on the socialled "mean effects", i.e., the overall effect of a covariate, in this case an institution or the interaction between the institution and parental resources (see, e.g., Brunello & Checchi 2007; Crettaz & Jacot 2014; Pfeffer 2008). They often conclude that an equalising process is in place if there is a negative mean effect of the institution on the intergenerational transmission. However, behind this effect, different mechanisms may operate for the families with different levels of resources, resulting in an equalising impact (Havnes & Mogstad 2015). Therefore, when studies state the equalising impact of an institution or a policy, it can indicate diverse mechanisms of influence in intergenerational transmissions, including those mentioned in the above discussion.

In this dissertation, the equalising impact of an institution is considered when the institution weakens the link between parental background and socioeconomic outcomes at both ends of the resource distribution. This is, the institution weakens the

intergenerational transmission among families with low and high levels of resources compared to the middle group - narrowing the gap in the mobility opportunities. If the impact of the institution influences intergenerational transmission among the advantaged and the disadvantaged families, but with contrasting impacts that promote upward and downward mobility, it narrows the differences in the life chances of individuals from unequal backgrounds. For example, the lengthening of the age upon leaving compulsory education weakened the intergenerational transmission of SES among low-status families also weakened the association among high status families (see research part II). This role of an institution boosts the opportunities of the vulnerable and breaks the intergenerational cycle of advantage, providing better chances for everyone else to achieve the desired outcome. Therefore, this approach raises the notion that institutions can contribute to breaking persistent inequalities by weakening the inheritance of advantage and levelling the playing field for the disadvantaged.

The process or narrowing differences in opportunity can be argued to result in higher equality than if the institution had merely broken the inheritance of disadvantage (see 6.1. for a discussion of institutional compensation). However, this is indifferent to the mechanism of accumulation in which the chances of obtaining a higher socioeconomic position is increased for everyone (Erola & Kilpi-Jakonen 2017). Numerous examples in the literature demonstrate the persistence of the intergenerational transmission of advantage (see chapters 2.3 and 6.2), which makes it an important mechanism of institutional influence as it shows that the persistence can be weakened. Therefore, as many institutions aim to reduce inequalities, this role of institutions is the only one that breaks the inheritance of advantage in addition to promoting life changes of the marginalised.

Securing advantage

Recent literature has demonstrated a persistent influence of parental background on socioeconomic outcomes, particularly among families with high levels of resources (see, e.g., DiPrete & Eirich 2006; Lucas 2001; Raftery & Hout 1993). This set of literature provided increasing evidence on how the institutions influence the mechanism of unequal accumulation, and the persistent intergenerational transmission of advantage. For example, studies show that some structures of family and educational policies can be related to the inheritance of advantage in western societies (Bakermans-Kranenburg et al. 2005; Pfeffer & Goldrick-Rab 2011; Petersen et al. 2011).

Here, these theories are linked with the findings of this dissertation that institutions have a role in securing the advantage position of particular families within society. There are two ways institutions can influence the intergenerational

inequalities so that it results in securing the transmission of advantage. First, institutions can strengthen the intergenerational transmission of advantage by supporting the persistent advancement of advantage between generations. This type of institutional role is found in research part I, which shows that, despite the positive influence of the educational reforms on the weakening of origin-education association, these reforms, such as a higher age of leaving compulsory education, seem to strengthen the direct parental influence on occupational outcomes. These results illustrate how universal policies aimed at tackling inequalities can have a strengthening influence on the intergenerational advantage. Another example of the results of this dissertation is the increased probability of high-income male high school graduates to enrol in college during an economic downturn. This indicates that families responded to the lower opportunity costs that increased the competition for access to higher education by increasing the intergenerational association and securing their advantaged position.

The second way that institutions can secure advantage is by having a more neutral role, i.e., it is neither breaking or strengthening the persistence of intergenerational advantage. This does not overrule the possible simultaneous institutional compensation among the disadvantaged, but emphasises the ineffectiveness of the institution in weakening intergenerational transmissions among families with high levels of resources. If a policy is targeted to the disadvantaged and aimed to promote equality merely by breaking the inheritance of poverty, for example, this role does not apply. However, if the institution aims to reduce intergenerational inequalities, possibly with more universal policies, this is an important role to consider because institutions aiming at promoting equality may succeed by promoting upward mobility but are often unable to weaken the persistent inheritance of advantage. For example, this may apply to the impact of maternity leave in the intergenerational transmission of occupations among advantaged families: although it promotes upward mobility among low-status families, it has no significant influence in reducing the intergenerational association at the top of the resource distribution.

7 Conclusions

This dissertation examined what kind of roles institutions have in intergenerational transmission of socioeconomic resources in western societies. While the promotion of equality of opportunity and higher openness are some of the key elements of a modern society, it is increasingly important to study the interplay between individual-and family-level events, the inequalities these create and the roles of institutions in them. This dissertation demonstrates that institutions can both positively and negatively impact intergenerational transmissions, influencing families throughout the resource distribution. This research extends from studying the transmission of a specific resource and includes diverse measures of parental resources and institutions to study their associations with different individual transitions and outcomes throughout the early life course.

The contribution of this dissertation to the comparative literature on stratification is the empirical evidence on the roles of different institutions in intergenerational inequalities in multiple country settings. The results indicate three different roles of institutions in intergenerational transmissions. First, institutional compensation can positively impact families with few resources by breaking the inheritance of disadvantage and providing opportunities for upward mobility. Second, institutions can secure the inheritance of advantage by increasing or maintaining the intergenerational transmission among families with high levels of resources. Third, institutions can weaken the intergenerational transmissions throughout the resource distribution by promoting upward mobility among disadvantaged families and simultaneously increasing downward mobility among the advantaged. This role is the most comprehensive, as the positive impact of the institution on intergenerational inequalities is applied to a wider population, breaking the strong persistence of inequalities.

These three different roles of institutions reveal a need for more detailed information on how different policies and institutions may have distinctive, and sometimes contradictive, impacts on families depending on their level of resources. Detailed information on how specific institutions and policies can influence intergenerational inequalities and whether they break the inheritance of disadvantage or advantage would provide a great tool for researchers, policy-makers and other actors aiming to reduce social inequalities in a society. Hence, although stratification research has provided ground-breaking evidence on how policies can influence inequality, further research should move from the "mean effects" of the institutions to studying whether the effect is different for disadvantaged and advantaged families.

For example, the positive influence of an institution on the origin-education association can be caused by promoting educational mobility at the bottom (upward mobility), top (downward mobility) or at both ends of the resource distribution.

Previous findings on the persistence of social inequalities have raised multiple concerns and reactions regarding why it exists and how can it be altered (Bernardi 2014; Lucas 2001; Raftery & Hout 1993). The results in research part I demonstrate that policies aimed at and that deliver, a reduction in intergenerational inequalities in one aspect may increase inequality in other sectors and forms. These imply that traditional welfare state institutions, such as educational policies, may not always work as expected to promote better equality. As institutional changes are affected by path dependency (Hall & Taylor 1996), there is concern regarding the possibilities for welfare state institutions to address inequalities. Combined with the findings on persistent intergenerational transmissions (Erikson & Goldthrope 1992; Torche 2011?), the interplay between changing the behaviour of families and the changes in the institutional arrangements requires more attention. Disentangling the desirable outcomes of institutional influence and those that support or maintain the persistence of inequalities could provide knowledge of the power relations of stratification and tools to address them through public policies.

The increased cross-national data on both micro- and macro-level information has enabled a more detailed analysis of intergenerational inequalities. The potential to measure specific policy institutions has resulted in opportunities to analyse specific macro-level institutions over time and their contribution to the changes in social inequalities. Research parts I and II provide an example of analysis in which information on institutions over time has been merged with the cohorts that the institutional changes have applied to. By measuring institutions with concrete policy data, research can provide more causal knowledge on the relationship between the institutional structures of a society and the mechanisms of intergenerational stratification.

A multitude of previous inequality research has considered institutions in a wider context, such as the welfare state or labour market. This can be problematic in a sense that it cannot specify which part of the welfare state or the institutional setting is driving the promotion or alleviation of inequalities. Further, institutions have evolved through various paths and often influence each other, forming different comprehensive national settings (Hudson & Lowe 2009). This can lead to null results where the context institution is not associated with the micro-level phenomenon, as was the case in research part IV in which the impact of parental resources on the income-childbirth association did not vary according to the extent of public family support between liberal and social-democratic welfare regimes. This does not mean that specific labour market and family policy institutions supporting families in these regimes have no impact on the phenomenon but, within the whole context, it imposes no variation. However, this approach is beneficial in comparative research where no

country-specific data on the institutions of interest is available, but acknowledging the institutional setting, i.e., the macro-micro relationship, is crucial.

In a study that focuses on the relationship between the structures of a society and individual-level phenomena, it is vital to acknowledge that institutional settings are strongly linked with the previous changes in the institutional arrangements (Blossfeld 1996; Hudson & Lowe 2009). The within-country analysis can provide different knowledge than measurement of institutions as a comprehensive aggregate characteristic. As the findings of this dissertation arise from multiple analyses of associations and events over time, the roles presented here are not assumed to be stagnant. This also raises the question of how the impacts of the policies have evolved as the institutions transformed - if the institutions are path dependent, are the impacts of them on inequalities path dependent as well? This is an issue that future research should address to increase the understanding of the mechanisms of institutional impacts on the unequal distribution of resources in a society.

Stratification research has provided some valuable insights on the relationships between institutions and intergenerational inequalities (Beller & Hout 2006; Brunello & Checchi 2007; Pfeffer 2008). However, many of the studies focus on educational institutions, and research focusing on specific social, family and labour market policies and reforms in relation to stratification between generations is still scarce. Although education is an essential institution in breaking inequalities, this dissertation and recent studies emphasise the positive impacts of other institutions in weakening persistent inequalities (e.g., Havnes & Mogstad 2015; Crettaz & Jacot 2014). To advance this, an increase in the use of the existing comparative data (e.g., Gauthier 2011; OECD 2019) or collection of new cross-national information on social and family policies is required. Another extension of the social inequality research would be to study the processes of intergenerational inequalities outside of traditional socioeconomic outcomes. For example, research part IV examines the impact of intergenerational transmission of resources in relation to family behaviour in different institutional settings. This demonstrates how extensive the impacts of stratified mechanisms of families and societies can be throughout the life course.

Although this dissertation derived three roles of institutions in the intergenerational transmission of socioeconomic resources, it does not argue that these roles are stagnant or apply to all institutions. The results of the research parts demonstrate that different institutions can have different roles, overlapping roles or no role at all. In addition, the findings on both positive and negative impacts on inequalities were found for universal, i.e., maternity leave and compulsory education, and targeted institutions, such as financial aid for disadvantaged students. This indicates that more comprehensive public support could aid in addressing inequalities, despite the varying extent of universalism.

This dissertation aims to provide knowledge of how individuals and families, as well as the transitions between these units, are influenced by the surrounding institutions of a society. This dissertation provides evidence on the diverse roles of

institutions which may generate further discussion of the institutional aspects in sociological research. Because people are interlinked with the surrounding structures, provision of knowledge on the interplay between society, family background and individual life events can be helpful not only for researchers and policy-makers but also for every individual that has a role in these relations and settings.

List of references

- Aakvik, A., Salvanes, K. G., and Vaage, K. (2010). Measuring heterogeneity in the returns to education using an education reform. *European Economic Review*, 54(4), 483-500.
- Allison, P. (2009). Fixed effects regression models. *Quantitative applications in the social sciences*, No. 160. Thousand Oaks: SAGE.
- Almquist, Y. (2016). Childhood origins and adult destinations: The impact of childhood living conditions on coexisting disadvantages in adulthood. *International Journal of Social Welfare*, 25(2), 176-186.
- Andersen, R. and Van de Werfhorst, H. (2010). Education and occupational status in 14 countries: the role of educational institutions and labour market coordination. *The British Journal of Sociology*, 61(2), 336-355.
- Aspalter, C. (2006) The East Asian welfare model. *International Journal of Social Welfare*, 15(4), 290-301.
- Bakermans-Kranenburg, M. J., van IJzendoorn, M. and Bradley, R. (2005). Those who have, receive: The Matthew effect in early childhood intervention in the home environment. *Review of Educational Research*, 75(1), 1-26.
- Ballarino, G., Bernardi, F., Requena, M. and Schadee, H. (2009). Persistent inequalities? Expansion of education and class inequality in Italy and Spain. *European Sociological Review*, 25(1), 123–138.
- Beller, E. and Hout, M. (2006). Welfare states and social mobility: How educational and social policy may affect crossnational differences in the association between occupational origins and destinations. *Research in Social Stratification and Mobility*, 24(4), 353–365.
- Bernardi, F. (2014). Compensatory advantage as a mechanism of educational inequality: A regression discontinuity based on month of birth. *Sociology of Education*, 87(2), 74-88.
- Bernardi, F. and Ballarino, G. (2016). Introduction: Education as the great equalizer: A theoretical framework. In Bernardi, F. and Ballarino, G. (Eds.) *Education*,

- Occupation and Social Origin: A Comparative Analysis of the Transmission of Socio-Economic Inequalities, Cheltenham: Edward Elgar. pp1–19.
- Bernardi, F. and Boado, H.C. (2014). Previous school results and social background: Compensation and imperfect information in educational transitions. *European Sociological Review*, 30(2), 207–217.
- Bernardi, F. and Grätz, M. (2015). Making up for an unlucky month of birth in school: Causal evidence on the compensatory advantage of family background in England. *Sociological Science*, 2, 235-251.
- Berrington, A., and Pattaro, S. (2014). Educational differences in fertility desires, intentions and behaviour: A life course perspective. *Advances in life course research*, 21, 10-27.
- Birkelund, G. E. (2006). Welfare states and social inequality: Key issues in contemporary cross-national research on social stratification and mobility. *Research in Social Stratification and Mobility*, 24(4), 333-351.
- Björklund, A. and Jäntti, M. (2000). Intergenerational mobility of socio-economic status in comparative perspective. *Nordic Journal of Political Economy*, 26, 3-32.
- Björklund, A., Jäntti, M. and Solon, G. (2005). Influences of nature and nurture on earnings variation: a report on a study of various sibling types in Sweden. In Bowles, S., Gintis, H. and Osborne Groves, M. (Eds.) *Unequal Chances: Family Background and Economic Success*. New York: Russell Sage Foundation. pp145-164.
- Blau, P. and Duncan, O. (1967). *The American Occupational Structure*. New York: John Wiley & Sons, Inc.
- Blossfeld, H-P. (1996). Macro-sociology, rational choice theory, and time: A theoretical perspective on the empirical analysis of social processes. *European Sociological Review*, 12(2), 181-206.
- Boliver, V. (2011). Expansion, differentiation, and the persistence of social class inequalities in British higher education. *Higher education*, 61(3), 229-242.
- Boone, S. and Van Houtte, M. (2013). In search of the mechanisms conducive to class differentials in educational choice: a mixed method research. *The Sociological Review*, 61(3), 549–572.
- Boudon, R. (1974). *Education, Opportunity, and Social Inequality*, New York: Wiley.
- Box-Steffensmeier, J. M., and Jones, B. S. (2004). *Event history modeling: A guide for social scientists*. New York: Cambridge University Press.

- Bradshaw, J. (2006). *A review of the comparative evidence on child poverty*. York: Joseph Rowntree Foundation.
- Brady, D. and Burroway, R. (2012). Targeting, universalism, and single-mother poverty: A multilevel analysis across 18 affluent democracies. *Demography*, 49(2), 719.
- Braga, M., Checchi, D., and Meschi, E. (2013). Educational policies in a long-run perspective. *Economic Policy*, 28(73), 45-100.
- Breen, R. (2010). Educational expansion and social mobility in the 20th century, *Social Forces*, 89(2), 365–388.
- Breen, R. and Ermisch, J. (2017). Educational reproduction in Great Britain: A prospective approach. *European Sociological Review*, 33(4), 590–603.
- Breen, R. and Goldthorpe, J. H. (1997). Explaining educational differentials: Towards a formal rational action theory. *Rationality and Society*, 9(3), 275–305.
- Breen, R. and Jonsson, J. (2005). Inequality of opportunity in comparative perspective: Recent research on educational attainment and social mobility. *Annual Review of Sociology*, 31, 223-243.
- Breen, R. and Jonsson, J. (2007). Explaining change in social fluidity: Educational equalization and educational expansion in twentieth-century Sweden. *American Journal of Sociology*, 112(6), 1775–1810.
- Breen, R. and Luijkx, R. (2004). Social mobility in Europe between 1970 and 2000. In Breen, R. (Ed.) *Social mobility in Europe*, Oxford University Press. pp37-77.
- Breen, R., Luijkx, R., Müller, W. and Pollak, R. (2009). Nonpersistent inequality in educational attainment: Evidence from eight European countries. *American Journal of Sociology* 114(5), 1475–1521.
- Brunello, G., Fort, M. and Weber, G. (2009). Changes in compulsory schooling, education and the distribution of wages in Europe. *Economic Journal*, 119(536), 516–539.
- Brunello, G. and Checchi, D. (2007). Does school tracking affect equality of opportunity? New international evidence. *Economic policy*, 22(52), 782-861.
- Bryan, M. L. and Jenkins, S. P. (2015). Multilevel modelling of country effects: A cautionary tale. *European Sociological Review*, *32*(1), 3-22.
- Bukodi, E. and Goldthorpe, J. H. (2011). Class origins, education and occupational attainment in Britain: Secular trends or cohort-specific effects?. *European Societies*, *13*(3), 347-375.

- Bukodi, E. and Goldthorpe, J. H. (2013). Decomposing 'social origins': The effects of parents' class, status, and education on the educational attainment of their children. *European Sociological Review*, 29(5), 1024-1039.
- Carvalho, L. (2012). Childhood Circumstances and the Intergenerational Transmission of Socioeconomic Status. *Demography*, 49, 913-938.
- Chauvel, L. and Bar-Haim, E. (2016). Varieties of Capitalism (VoC) and Varieties of Distributions (VoD): How welfare regimes affect the pre-and post-transfer shapes of inequalities? *LIS Working Paper Series*, No. 677.
- Chauvel, L. and Schröder, M. (2014). Generational inequalities and welfare regimes. *Social Forces*, 92(4), 1259–1283.
- Checchi, D. and Van de Werfhorst, H. (2018). Policies, skills and earnings: How educational inequality affects earnings inequality. *Socio-Economic Review*, 16(1), 137-160.
- Chetty, R., Grusky, D. B., Hell, M., Hendren, N., Manduca, R., and Narang, J. (2017). The fading American dream: Trends in absolute income mobility since 1940. *Science*, 356(6336), 398-406.
- Coleman, J. S. (1990). *Foundations of Social Theory*, Cambridge: The Belknap Press of Harvard University Press.
- Corak, M. (2013). Income Inequality, equality of opportunity, and intergenerational mobility. *Journal of Economic Perspectives*, 27(3), 79-102.
- Cox, D. R. (1972). Regression models and life tables. *Journal of the Royal Statistical Society*, B 34, 187–220.
- Crettaz, E. and Jacot, C. (2014). Do family policies matter for educational outcomes? Patterns of educational mobility and family services in Europe. *European Societies*, *16*(5), 645-665.
- Davis, K. and Moore, W. (1945). Some principles of stratification. *American Sociological Review*, 10(2), 242–49.
- DiPrete, T. and Eirich, G. (2006). Cumulative advantage as a mechanism for inequality: a review of theoretical and empirical developments. *Annual Review of Sociology*, 32(1), 271-297.
- DiPrete, T. A. and Forristal, J. D. (1994). Multilevel models: methods and substance. *Annual Review of Sociology*, *20*(1), 331-357.
- Doorn, M., Pop, I. and Wolbers, M.H.J. (2011). Intergenerational transmission of education across European countries and cohorts. *European Societies*, 13(1), 93–117.

- Easterlin, R. A. (1975). An economic framework for fertility analysis. *Studies in Family Planning*, 6(3), 54–63.
- Easterlin, R. A. (1976). The Conflict between aspirations and resources. *Population and Development Review*, 2(3/4), 417–425.
- Emmenegger, P., Häusermann, S., Palier, B. and Seeleib-Kaiser, M. (Eds.). (2012). *The age of dualization: the changing face of inequality in deindustrializing societies*. New York: Oxford University Press.
- Erikson, R. and Goldthorpe, J. H. (1992). *The constant flux: A study of class mobility in industrial societies*. Oxford: Clarendon Press.
- Erikson, R., Goldthorpe, J. H. and Portocarero, L. (1979). Intergenerational class mobility in three western societies: England, France, and Sweden. *British Journal of Sociology*, 30(4), 415–441.
- Erola, J., Jalonen, S. and Lehti, H. (2016). Parental education, class and income over early life course and children's achievement. *Research in Social Stratification and Mobility*, 44, 33-43.
- Erola, J. and Kilpi-Jakonen, E. (2017). Compensation and other forms of accumulation in intergenerational social inequality. In Erola, J. and Kilpi-Jakonen, E. (Eds.) *Social Inequality Across the Generations, The Role of Compensation and Multiplication in Resource Accumulation.* Cheltenham: Edward Elgar. pp3–24.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*, Princeton, NJ: Princeton University Press.
- Esping-Andersen, G. (2002). A child-centred social investment strategy. In Esping-Andersen, G. (Ed.) *Why we need a new welfare state*. Oxford: Oxford University Press. Pp26-67.
- Esping-Andersen, G. (2004). Untying the gordian knot of social inheritance. *Research in Social Stratification and Mobility*, 21(1), 115-138.
- Esping-Andersen, G. (2009). *The Incomplete Revolution: Adapting to Women's New Roles*, Cambridge: Polity Press.
- Esping-Andersen, G. (2015). Welfare regimes and social stratification. *Journal of European Social Policy*, 25(1), 124–134.
- Esping-Andersen, G. and Wagner, S. (2012). Asymmetries in the opportunity structure. Intergenerational mobility trends in Europe. *Research in Social Stratification and Mobility*, 30, 473–487.
- Fagnani, J. and Math, A. (2008). Policy packages for families with children in 11 European countries: Multiple approaches. In Arnlaug, L. and Saraceno, C. (Eds.)

- *Childhood: Changing Contexts,* (Comparative Social Research, Volume 25), Bingley: Emerald Group Publishing Limited. pp. 55–78.
- Featherman, D. L., Jones, F. L. and Hauser, R. M. (1975). Assumptions of social mobility research in the US: The case of occupational status. *Social Science Research*, 4(4), 329–360.
- Ferrera, M. (1996). The 'Southern model' of welfare in social Europe. *Journal of European social policy*, 6(1), 17-37.
- Ganzeboom, H. B., De Graaf, P. M. and Treiman, D. J. (1992). A standard international socio-economic index of occupational status. *Social science research*, 21(1), 1-56.
- Gil-Hernández, C. J. (2019). Do Well-off Families Compensate for Low Cognitive Ability? Evidence on Social Inequality in Early Schooling from a Twin Study. *Sociology of Education*, 92(2), 150–175.
- Goldthorpe, J. H. (1998). Rational action theory for sociology. *The British Journal of Sociology*, 49(2), 167-192.
- Goldthorpe, J. H. (2003). The myth of education-based meritocracy. *New Economy*, 10(4), 234-239.
- Goldthorpe, J. H. (2007). On Sociology, Second Edition, Volume Two: Illustration and Retrospect. Stanford: Stanford University Press.
- Goldthorpe, J. H. and Jackson, M. (2008). Education-based meritocracy: The barriers to its realization. In Lareau, A. and Conley, D. (Eds.) *Social Class: How Does it Work?* New York: Russell Sage Foundation. pp93-117.
- Gronow, A. (2008). Not by rules or choice alone: a pragmatist critique of institution theories in economics and sociology. *Journal of Institutional Economics*, 4(3), 351-373.
- Grusky, D. B. and Hauser, R. (1984). Comparative social mobility revisited: Models of convergence and divergence in 16 countries. *American Sociological Review*, 49(1), 19-38.
- Grätz, M. (2015). When growing up without a parent does not hurt: Parental separation and the compensatory effect of social origin. *European Sociological Review*, 31(5), 546–557.
- Gustafsson, S. (2001). Optimal age at motherhood. Theoretical and empirical considerations on postponement of maternity in Europe. *Journal of Population Economics*, 14(2), 225–247.
- Hall, P. A. and Taylor, R. C. R. (1996). Political science and the three new institutionalisms. *Political Studies*, 44(5): 936–957.

- Hartlaub, V. and Schneider, T. (2012). Educational choice and risk aversion: How important is structural vs. individual risk aversion? *SOEP papers on Multidisciplinary Panel Data Research*, No. 433.
- Havnes, T. and Mogstad, M. (2015). Is universal child care leveling the playing field? *Journal of Public Economics*, 127, 100–114.
- Heisig, J. P. and Schaeffer, M. (2019). Why you should *always* include a random slope for the lower-level variable involved in a cross-level interaction. *European Sociological Review*, jcy053.
- Hillmert, S. and Jacob, M. (2010). Selections and social selectivity on the academic track: A life-course analysis of educational attainment in Germany. *Research in Social Stratification and Mobility*, 28(1), 59-76.
- Hodgson, G. M. (2006). What are institutions? *Journal of Economic Issues*, 40(1).
- Holm, A. and Jæger, M.M. (2008). Does relative risk aversion explain educational inequality? a dynamic choice approach. *Research in Social Stratification and Mobility*, 26(3), 199-219.
- Hout, M. (2008). How class works: Objective and Subjective aspects of class since the 1970s. In Lareau, A. and Conley, D. (Eds.) *Social Class: How Does it Work?* New York: Russell Sage Foundation. pp25-64.
- Hout, M. (2012). Social and economic returns to college education in the United States. *Annual Review of Sociology*, *38*, 379-400.
- Hout, M. and DiPrete, T. A. (2006). What we have learned: RC28's contributions to knowledge about social stratification. *Research in social stratification and mobility*, 24(1), 1-20.
- Hudson, J. and Lowe, S. (2009). *Understanding the policy process: Analysing welfare policy and practice*. 2nd edition. Bristol: The Policy Press.
- Hällsten, M. (2013). The class-origin wage gap: Heterogeneity in education and variations across market segments. *British Journal of Sociology*, 64(4), 662–690.
- Häusermann, S. (2012). The politics of new and old social policies. In Bonoli, G. and Natali, D. (Eds.) *The Politics of the New Welfare State*. Oxford: Oxford University Press. Pp 111-132.
- Iannelli, C. (2002). Parental education and young people's educational and labour market outcomes: A comparison across Europe. *MZES Working Papers*, No 45.
- International Labor Office [ILO] (1990). *International Standard Classification of Occupations: ISCO*–88. Geneva: International Labor Office.

- Jaccard, J., Turrisi, R., and Jaccard, J. (2003). Interaction effects in multiple regression. *Quantitative applications in social sciences*, No. 72. Thousand Oaks: SAGE.
- Jæger, M.M. (2006). Welfare Regimes and attitudes towards redistribution: The regime hypothesis revisited. *European Sociological Review*, 22(2), 157–170
- Jackson, M. (2007). How far merit selection? Social stratification and the labour market. *The British Journal of Sociology*, 58(3), 367-390.
- Jackson, M. (2013). Determined To Succeed? Performance Versus Choice In Educational Attainment. Stanford: Stanford University Press.
- Jackson, M., Erikson, R., Goldthorpe, J. H., and Yaish, M. (2007). Primary and secondary effects in class differentials in educational attainment: The transition to a-level courses in England and Wales. *Acta Sociologica*, 50(3), 211–229.
- Jäntti, M., Bratsberg, B., Roed, K., Raaum, O., Naylor, R., Österbacka, E., Björklund, A. and Eriksson, T. (2006). American exceptionalism in a new light: A comparison of intergenerational earnings mobility in the nordic countries, the United Kingdom and the United States. *IZA Discussion Papers*, No. 1938.
- Kailaheimo, S. and Erola, J. (2016). The effect of early parental death on children's university education. *Working Papers on Social and Economic Issues*, 12/2016, Turku: Turku Center for Welfare Research.
- Kenworthy, L. (1999). Do social-welfare policies reduce poverty? A cross-national assessment. *Social Forces*, 77(3), 1119-1139.
- Kerr, C., Dunlop, J., Harbison, F. and Myers, C. (1960). *Industrialism and Industrial Man*. Cambridge: Harvard University Press.
- Korpi, W. (2000). Faces of inequality: Gender, class and patterns of inequalities in different types of welfare states. *Social Politics*, 7, 127–191.
- Kravdal, Ø. and Rindfuss, R. (2008). Changing relationships between education and fertility: A study of women and men born 1940 to 1964. *American Sociological Review*, 73(5), 854-873.
- Lareau, A. (2011). *Unequal Childhoods: Class, Race and Family Life*. 2nd edition. Berkeley: University of California Press.
- Laslett, B. (1973). The Family as a public and private institution: An historical perspective. *Journal of Marriage and Family*, 35(3), 480-492.
- Lenski, G. E. (1966). *Power and Privilege: A Theory of Social Stratification*. New York: McGraw-Hill Book Company.

- Lipset, S. and Zettenberg, H. (1959). Social mobility in industrial societies. In S. Lipset and R. Bendix (Eds.) *Social Mobility in Industrial Society*. Berkeley: University of California Press. pp11–75.
- Lochner, L. (2011). Non-production benefits of education: Crime, health, and good citizenship. *NBER Working Paper Series*, No 16722. National Bureau of Economic Research.
- Lucas, S. (2001). Effectively maintained inequality: education transitions, track mobility, and social background effects. *American Journal of Sociology*, 106(6), 1642–1690.
- Lundborg, P. (2008). The health returns to education: what can we learn from twins? *IZA Discussion Papers*, No. 3399.
- Marshall, T.H. (1950). *Citizenship and Social Class*. Cambridge: Cambridge University Press.
- McCall, L. and Percheski, C. (2010). Income inequality: New trends and research directions. *Annual Review of Sociology*, 36(1), 329-347.
- Meyer, J.W. (1977). The effects of education as an institution. *American Journal of Sociology*, 83(1), 55-77.
- Miller, D. (1996). Two cheers for meritocracy. *Journal of Political Philosophy*, 4(4), 277–301.
- Mills, C. W. (1956). The Power Elite. Oxford: Oxford University Press.
- Mills, C. W. (2000). *The Sociological Imagination*. 2nd edition. Oxford: Oxford University Press.
- Minello, A. and Blossfeld, H-P. (2017). Can adult education compensate for early disadvantages? The role of adult education in reducing inequalities for German men and women. In Erola, J. and Kilpi-Jakonen, E. (Eds.) *Social Inequality Across the Generations, The Role of Compensation and Multiplication in Resource Accumulation*. Cheltenham: Edward Elgar. pp161-180
- Morel, N., Palier, B. and Palme, J. (2012). Beyond the welfare state as we knew it? In Morel, N., Palier, B. and Palme, J. (Eds.) *Towards a Social Investment Welfare State? Ideas, Policies and Challenges*. Bristol: Policy Press. pp1-30.
- Morgan, S. L., Grusky, D. B. and Fields, G. S. (Eds.) (2006). *Mobility and Inequality: Frontiers of Research in Sociology and Economics*. Stanford: Stanford University Press.
- Nelson, K. (2004). Mechanisms of poverty alleviation: anti-poverty effects of non-means-tested and means-tested benefits in five welfare states. *Journal of European Social Policy*, 14(4), 371-390.

- Nolan, B., Esping-Andersen, G., Whelan, C. T., Maitre, B. and Wagner, S. (2010). The role of social institutions in inter-generational mobility. *DemoSoc Working Paper*, 2010–36. Barcelona: Universitat Pompeu Fabra.
- OECD (2019). Data warehouse, OECD.Stat (database).
- Pekkarinen, T., Uusitalo, R. and Kerr, S. (2009). School Tracking and Intergenerational Income Mobility: Evidence from the Finnish Comprehensive School Reform. *Journal of Public Economics*, 93(7-8), 956–973.
- Peruzzi, A. (2015). From Childhood deprivation to adult social exclusion: Evidence from the 1970 British cohort study. *Social Indicators Research*, 120(1), 117-135.
- Petersen, A. M., Jung, W-S., Yang, J-S. and Stanley, H. E. (2011). Quantitative and empirical demonstration of the Matthew effect in a study of career longevity. *Proceedings of the National Academy of Sciences*, 108(1), 18-23.
- Pfeffer, F. (2008). Persistent inequality in educational attainment and its institutional context. *European Sociological Review*, 24(5), 543–565.
- Pfeffer, F. and Goldrick-Rab, S. (2011). Unequal pathways through American universities. *Institute for Research on Poverty Discussion Paper*, no. 1391-11.
- Pfeffer, F. and Hertel, F. (2015). How Has educational expansion shaped social mobility trends in the United States? *Social Forces*, 94(1), 143–180.
- Pintelon, O., Cantillon, B., Van den Bosch, K. and Whelan, C. (2013). The social stratification of social risks: the relevance of class for social investment strategies. *Journal of European Social Policy*, 23(1), 52–67.
- Raftery, A. and Hout, M. (1993). Maximally maintained inequality: Expansion, reform, and opportunity in Irish education, 1921–75. *Sociology of Education*, 66(1), 41–62.
- Rijken, A. and Liefbroer, A. (2009). Influences of the family of origin on the timing and quantum of fertility in the Netherlands. *Population Studies*, 63(1), 71–85.
- Roemer, J. E. (1998). Equality of Opportunity. Cambridge: Harvard University Press.
- Ross C. E. and Wu, C. L. (1996). Education, age, and the cumulative advantage in health. *Journal of Health and Social Behavior*, 37, 104–120
- Schlicht R., Stadelmann-Steffen I. and Freitag M. (2010). Educational inequality in the EU. The effectiveness of the national education policy. *European Union Politics*, 11(1), 29–59.
- Schmidt-Catran, A. W. and Fairbrother, M. (2015). The random effects in multilevel models: Getting them wrong and getting them right. *European Sociological Review*, *32*(1), 23-38.

- Schoen, R., Landale, N. S., Daniels, K. and Cheng, Y-H. (2009). Social background differences in early family behavior. *Journal of Marriage and Family*, 71(2), 384–395.
- Schofer, E., and Meyer, J. W. (2005). The worldwide expansion of higher education in the twentieth century. *American sociological review*, 70(6), 898-920.
- Scott, W. R. (2008). *Institutions and Organizations: Ideas and Interests*. 3rd edition. Thousand Oaks: SAGE.
- Shavit, Y. and Blossfeld, H-P. (1993). *Persistent inequality: Chancing educational attainment in thirteen countries*. Boulder: Westview Press.
- Shavit, Y., Arum, R., and Gamoran, A. (Eds.) (2007). *Stratification in Higher Education: A Comparative Study*. Stanford: Stanford University Press.
- Sirniö, O., Martikainen, P., and Kauppinen, T. M. (2013). Intergenerational determinants of income level in Finland. *Social forces*, 92(2), 463-490.
- Sorensen, A. (2006). Welfare states, family inequality, and equality of opportunity. *Research in Social Stratification and Mobility*, 24(4), 367–375.
- Sorokin, P. A. (1957). Social & Cultural Dynamics: A Study of Change in Major Systems of Art, Truth, Ethics, Law, and Social Relationships. Boston: Extending Horizons Books.
- Starfield B, Riley, A. W., Witt, W. P. and Robertson, J. (2002). Social class gradients in health during adolescence. *Journal of Epidemiology & Community Health*, 56, 354-361.
- Tian, L., Zucker, D. and Wei, L. J. (2005). On the Cox model with time-varying regression coefficients. *Journal of the American Statistical Association*, 100(469), 172–183.
- Titmuss, R. (1958). Essays on 'The Welfare State'. London: George Allen & Unwin.
- Torche, F. (2011). Is a college degree still the great equalizer? Intergenerational mobility across levels of schooling in the US. *American Journal of Sociology*, 117(3), 763–807.
- Treiman, D. J. (1977). Occupational prestige in comparative perspective. London: Academic Press.
- Treiman, D. J. and Ganzeboom, H. B. (1990). Cross-national comparative status attainment research. *Research in Social Stratification and Mobility*, 9, 105–127
- Trifiletti, R. (1999). Southern European welfare regimes and the worsening position of women. *Journal of European social policy*, *9*(1), 49-64.

- Triventi, M. (2013). stratification in higher education and its relationship with social inequality: A comparative study of 11 European countries. *European Sociological Review*, 29(3), 489-502.
- Van de Werfhorst, H. and Andersen, R. (2005). Social background, credential inflation and educational strategies. *Acta Sociologica*, 48(4), 321-340.
- Van Lancker, W. (2014). To whose benefit? An empirical and comparative investigation into the (un)intended consequences of family policy in the social investment state. Antwerp: University Press Antwerp.
- Van Lancker, W., Ghysels, J. and Cantillon, B. (2015). The impact of child benefits on single mother poverty: Exploring the role of targeting in 15 European countries. *International Journal of Social Welfare*, 24(3), 210-222.
- Vauhkonen, T., Kallio, J., Kauppinen, T. M. and Erola, J. (2017). Intergenerational accumulation of social disadvantages across generations in young adulthood. *Research in Social Stratification and Mobility*, 48, 42-52.
- Walker, A. and Wong, C.-K. (2005). Introduction: East Asian welfare regimes. In Walker, A. and Wong, C.-K. (Eds.) East Asian welfare regimes in transition: From Confucianism to globalization, Bristol: The Policy Press. pp3-20.
- Whelan, C. T. and Layte, R. (2002). Late industrialization and the increased merit selection hypothesis. Ireland as a test case. *European Sociological Review*, 18(1), 35-50.
- Willson, A. E., Shuey, K. M. and Elder, G. H. Jr. (2007). Cumulative advantage processes as mechanisms of inequality in life course health. *American Journal of Sociology*, 112(6), 1886-1924.
- Wright, E. O. (2008). Logics of class analysis. In Lareau, A. and Conley, D. (Eds.) *Social Class: How Does it Work?* New York: Russell Sage Foundation. pp329-349.
- Yaish, M. and Andersen, R. (2012). Social mobility in 20 modern societies: The role of economic and political context. *Social Science Research*, 41, 527-538.

Datasets in the research parts

- Barro, R. and Lee, J. W. (2013). A new data set of educational attainment in the world 1950–2010. *Journal of Development Economics*, 104, 184–98. Available from: http://www.barrolee.com
- U.S. Bureau of Labor Statistics, U.S. Department of Labor. (2014). National Longitudinal Survey of Youth 1979 cohort, 1979-2012 (rounds 1-25). Produced

- and distributed by the Center for Human Resource Research, The Ohio State University. Columbus, Ohio.
- U.S. Bureau of Labor Statistics, U.S. Department of Labor. (2017). Local Area Unemployment Statistics (LAUS) programme. Washington DC. Downloaded May 2018 at www.bls.gov/LAU.
- European Social Survey Cumulative File, ESS 1-5 (2015). Data file edition 1.0. NSD
 Norwegian Centre for Research Data, Norway Data Archive and distributor of ESS data for ESS ERIC. Downloaded March 2015
- Ganzeboom, H. B. (2013). ISCO-88 codes for parental occupations in the European Social Survey. Rounds 1-2-3-4-5. Amsterdam: VU-University. Version 1 (July 18, 2013). Accessed March 2015 at http://www.harryganzeboom.nl/ESSDEVO/citation fmisko.htm.
- Gauthier, A. H. (2011). Comparative Family Policy Database, Version 3, Netherlands Interdisciplinary Demographic Institute and Max Planck Institute for Demographic Research. Accessed August 2015 at www.demogr.mpg.de.
- Panel Study of Income Dynamics [PSID] (2017). Public use dataset. Produced and distributed by the Institute for Social Research, University of Michigan, Ann Arbor, MI.
- Salonen, L. and Pöyliö, H. (2017). Historical Dataset of Major Educational Reforms in Europe in 1950–1990. *Working Papers on Social and Economic Issues*, 15/2017, Turku: Turku Center for Welfare Research.

