





https://matheo.uliege.be

## Intergenerational social mobility and its impact on parental well-being

Auteur : Markiewicz, Eva
Promoteur(s) : Schoenmaeckers, Jérôme
Faculté : HEC-Ecole de gestion de l'Université de Liège
Diplôme : Master en sciences économiques, orientation générale, à finalité spécialisée en economic, analysis and policy
Année académique : 2022-2023
URI/URL : http://hdl.handle.net/2268.2/17582

Avertissement à l'attention des usagers :

Tous les documents placés en accès ouvert sur le site le site MatheO sont protégés par le droit d'auteur. Conformément aux principes énoncés par la "Budapest Open Access Initiative" (BOAI, 2002), l'utilisateur du site peut lire, télécharger, copier, transmettre, imprimer, chercher ou faire un lien vers le texte intégral de ces documents, les disséquer pour les indexer, s'en servir de données pour un logiciel, ou s'en servir à toute autre fin légale (ou prévue par la réglementation relative au droit d'auteur). Toute utilisation du document à des fins commerciales est strictement interdite.

Par ailleurs, l'utilisateur s'engage à respecter les droits moraux de l'auteur, principalement le droit à l'intégrité de l'oeuvre et le droit de paternité et ce dans toute utilisation que l'utilisateur entreprend. Ainsi, à titre d'exemple, lorsqu'il reproduira un document par extrait ou dans son intégralité, l'utilisateur citera de manière complète les sources telles que mentionnées ci-dessus. Toute utilisation non explicitement autorisée ci-avant (telle que par exemple, la modification du document ou son résumé) nécessite l'autorisation préalable et expresse des auteurs ou de leurs ayants droit.



## INTERGENERATIONAL SOCIAL MOBILITY AND ITS IMPACT ON PARENTAL WELL-BEING

Jury:

Supervisor:

Jérôme SCHOENMAECKERS

Readers:

Mathieu LEFEBVRE

Darragh FLANNERY

Master thesis by

#### Eva MARKIEWICZ

For a Master in Economic Analysis and Policy

Academic year 2022-2023

# Acknowledgements

This thesis represents the accomplishment of my journey as a college student. It is the product of countless hours of work, discussions, and learning that would not have been possible without the involvement of many people surrounding me.

First and foremost, I would like to thank my supervisor, Dr. Jérôme Schoenmaeckers, for his continuous support, trust, availability, and advice throughout this whole experience. From finding a thesis topic to the final product, Mr Schoenmaeckers was instrumental in shaping the present paper.

My thanks also go to my readers, Dr. Darragh Flannery and Dr. Mathieu Lefebvre, for taking an interest in this topic, and for the time they will spend reading the thesis.

Finally, my gratitude goes towards the people around me:

Louise Bottenberg for reminding me that life is not always that serious; Charlotte Kemp for being a ray of sunshine; Conor Dooley (Dooley) for being a real-life English translator as well as providing really good moral support; and finally, my parents Emmanuelle and Olivier, and siblings Yaëlle and Simon, for always being there for me and listening to me endlessly rant about various topics.

# Contents

Acknowledgements	i
List of abbreviations	iv
1. Introduction	1
2. Literature review	2
2.1 Overview of social disparities and inequalities	2
2.2 Intergenerational social mobility (ISM)	2
2.2.1 ISM on a societal level – Stratification economics and groups	3
2.2.2 ISM on an individual level – Impact on health and (subjective) well-being	3
2.3 Factors influencing ISM	4
2.3.1 Transmitted factors	4
2.3.2 External factors	7
2.4 Policy implications	8
2.4.1 Why should we care about ISM - The breakdown of the social elevator	8
2.4.2 Policies to promote economic connectedness (EC)	9
2.4.3 Policies focused on health	9
2.4.4 Policies focused on schooling and education	10
2.5 Determinants of parental well-being	11
2.5.1 Bringing a child into the world	12
2.5.2 Midlife parenting and grown-up children	12
2.5.3 Other factors – Work, relationships and parental burnout	12
2.6 ISM and parental SWB	13
3. Hypotheses and methodology	14
3.1 Measuring SWB – Potential limitations	14
3.2 Thesis methodology and data	14
3.2.1 Data – The SHARE database	14
3.2.2 Economic model and variables	15
3.3 Summary statistics	17
3.3.1 General characteristics	17
3.3.2 SWB measures	17
3.3.3 Health measures	18
3.3.4 ISCED-97 codes and educational attainments	19
3.3.5 Educational mobility	22
4. Empirical results	

4.1 Model estimates
4.1.1 Preliminary tests
4.1.2 Interpretation of the results
4.2 Additional tests
4.2.1 Baseline model using minimum and maximum child mobility index
4.2.2 Model controlling for children living at home
4.2.3 Model controlling for the number of children27
4.2.4 Model to control for the children's gender in households of two children
4.3 Limitations and further research29
5. Conclusion and discussion
Appendix
A.1 Tables
A.1.1 List and distribution of respondents per country
A.1.2 Categories of CASP-12 scores
A.1.3 Summary statistics for children's education 32
A.1.4 Summary statistics for children's educational mobility
A.1.5 VIF variables for both regressions
A.1.6 Results for regressions using minimum child mobility
A.1.7 Results for regressions using maximum child mobility
A.2 Figures
A.2.1 – Global income inequality between and within countries – Ratio T10/B50 (1820-2020) 36
A.2.2 – Global wealth inequality – Wealth share top 0.001% vs bottom 50% (1995-2021)
A.2.3 Kernel densities for both regressions' residuals
Data availability statement
SHARE database
easySHARE
Executive summary

# List of abbreviations

CRE: Cumulative risk exposure EC: Economic connectedness HC: Human capital ISCED: International Standard Classification of Education HL: Health literacy ISM: Intergenerational social mobility LOC: Locus of control SHARE: Survey of Health, Ageing and Retirement in Europe SC: Social capital SEC: Socioeconomic conditions SES: Socioeconomic status SWB: Subjective well-being VIF: variance inflation factor

## 1. Introduction

With intra-country income and wealth inequalities on the rise, many fear that they will not be able to live better than their parents did anymore. This breakdown of the social elevator results in what the OECD (2018) refers to as "sticky" social conditions. This means that people at the top of the social ladder manage to hoard wealth and transmit it to their own children while people at the bottom remain there, unable to move up. Intergenerational social mobility (ISM) refers to the extent to which an individual manages to climb up or down the social ladder across generations. Understanding ISM and its determinants can be beneficial to policymakers concerned with reducing inequalities including the breakdown of the social elevator, improving social welfare, and economic efficiency.

The link between intergenerational social mobility and an individual's subjective well-being has also been analysed at lengths, the literature trying to determine whether an increase in mobility could make people happier. There however appears to be a gap when it comes to the impact of a generation's mobility on the previous one's well-being.

Using data from the Survey of Health, Aging and Retirement in Europe (SHARE), this thesis aims to assess whether a link could be established between parental well-being and their children's mobility, and if so, whether it is positive or negative. An OLS regression is used to for the analysis. Parental well-being serves as the dependent variable and is measured from two angles: a CASP-12 quality of life index, and a general life satisfaction question. Explanatory variables include the parents' general characteristics (age, country, gender, number of siblings alive, and marital status), as well as their number of children, indicators of health (general health and number of chronic diseases), their own educational mobility compared to their parents, wealth, and their children's educational mobility compared to them.

This regression, while not exhaustive, can already give an idea of whether the aforementioned link between parental well-being and their child's mobility exists. It should however be refined in the future to include other factors such as cultural characteristics for example, and tackle the causality issue. Additional regressions have also been considered to take into account adult children moving out of the parental house, the impact of having over two children, as well as the potential effect of having same-sex children on parental well-being.

The paper is structured as follows: after a brief overview of social disparities and inequalities, section 2 presents a literature review on intergenerational social mobility, its determinants, policy implications, and the determinants of parental well-being. Section 3 outlines the methodology, hypotheses and data used in the analyses. Summary statistics are also included. The results from the models are described in section 4, alongside limitations and further research possibilities. Section 5 concludes.

## 2. Literature review

## 2.1 Overview of social disparities and inequalities

Inequality is widely recognized as a factor that hampers development, opportunities, and long-term economic growth by preventing access to health and education for the poorest part of the population. Consequently, its presence can restrict upward mobility for many young people (Nikolaev & Burns, 2014; OECD, 2015). In the 2022 edition of the World Inequality Report, Chancel et al. (2022) make the following observation: it appears that while global inequality between countries has decreased over the past decades, income and wealth disparities within them are on the rise (see Annex A.2.1 for income and Annex A.2.2 for wealth disparities). The sentiment that today's world remains unequal is shared by many, resulting in economic research turning its focus to the topic in the recent decades (Eurofound, 2021).

However, inequality, i.e., the situation of being unequal (UN Development Strategy and Policy Analysis Unit, 2015), can refer to many different concepts that vary according to diverse points of view, disciplines or people asked. Given the underlying economic nature of this thesis, it will mostly treat topics pertaining to economic inequality. This is related to the distribution of economic variables ressembling the ones addressed by the World Inequality Report, i.e., income (the cash earned during a certain period such as a wage) and wealth (the accumulation of income, as well as the value of other assets owned such as a home) (OECD, 2015). Yet, one has to keep in mind that multiple forms of inequality can co-exist and overlap due to a plethora of reasons and are the topic of specific areas of research. Theories such as intersectionality are used in this context to speculate on the different layers of privilege and/or disadvantages one can experience due to the complex interactions between one's different identities. For example, women of colour's experiences are conditioned by both their identities as women and as people of colour, as well as some added structural factors, including but not limited to social class (Nash, 2008; Weldon, 2008).

Pertaining to economic inequality, the literature tends to agree that there are two main perspectives: inequality of outcomes and of opportunity. The opportunities that are granted to people play a significant role in how they fare economically. While everyone should be starting the game of life with the same advantages (OECD, 2015), there is no denying that some people are born with unfavorable socioeconomic conditions (SEC) that are outside of their control and for which they cannot be held responsible (Roemer & Trannoy, 2015). As such, inequality of outcomes refers to what Bourguignon et al. (2003) call the product of someone's effort under specific circumstances, while opportunity inequalities may arise from the heterogeneity of such circumstances that are outside of the individual's control.

## 2.2 Intergenerational social mobility (ISM)

ISM is defined by D'Addio (2007) as the extent to which an individual's life characteristics including socioeconomic status (SES) change compared to their parents' one. In other words, it refers to whether the individual moves up of down on the so-called "social ladder" compared to their parents. The strongest the correlation between the parents' and their children's SES, the more immobile the society (OECD, 2010).

Three different but complementary measures are commonly used to analyse ISM: social (do children get better jobs than their parents?), educational (are they more educated?) and income (do they get access to more material resources?) (Nikolaev & Burns, 2014; Bridger & Daly, 2020).

The concepts of ISM and inequality are closely related. Beller and Hout (2006) contrast them by citing inequality as the situation of individuals at a precise point in time, and ISM as the situation of individuals across generations. From this perspective, mobility would not matter in a perfectly equal world as there would be no advantages to moving up social classes.

ISM can also be considered from the perspective of both inequality of outcome and opportunity. ISM is the product of an individual's efforts in terms of SEC under specific circumstances that are outside of their control. Some of those circumstances could be intergenerational (e.g., familial wealth, likelihood of having certain health conditions)

## 2.2.1 ISM on a societal level - Stratification economics and groups

ISM is an extensive and transversal field that lends itself to a wide range of analyses from the social to societal level. While not the exact topic of this thesis, ISM can also be linked to broader social phenomena such as inequalities and intersectionality. Those were already briefly touched upon previously but are worth mentioning as they will without a doubt continue to be extremely relevant in the coming years.

ISM can be associated to those topics through, amongst others, the increasing interest in stratification economics. Similar to intersectionality, stratification economics focuses on identity, but also on social ranking and what Blumer (1958) refers to as relative group position. This theory was originally part of the movement surrounding the rethinking of race prejudice from an individual to a collective experience. However, stratification economics was later reprised by mostly economists of colour to provide alternative explanations to the persistence of intergroup inequalities, notably when it comes to the lack of upward mobility for members of specific social groups (Chelwa, et al., 2022; Darity, 2022). An example of this phenomenon can be found in a 2022 study by Monroy-Gómez-Franco. The author found differences in economic mobility between the indigenous and non-indigenous Mexican populations, the former disproportionally remaining at the bottom of the national distribution of economic resources, even when controlling for educational mobility. To that is added the persistence of a skin tone gradient for both populations, light skin tones tending to be favoured over darker ones (Monroy-Gómez-Franco, 2022)

## 2.2.2 ISM on an individual level - Impact on health and (subjective) well-being

A change in well-being resulting from ISM can be measured from two main concepts: (self) reported life satisfaction, also called subjective well-being (SWB), and health.

#### ISM and SWB

When it comes to mental well-being, economic intuition dictates that with a higher rank on the social ladder should come higher reported well-being thanks to increased consumption possibilities or a superior social status. Yet, literature seems conflicted on whether this is true or not. While a decrease of social, income and educational mobility is generally associated with lower SWB, a change in mobility (positive or negative) is not homogeneous across the different subgroups of population. Indeed, women, people of colour and people with higher educational attainment seemingly benefit more from upward mobility than other subgroups (Nikolaev & Burns, 2014).

There is further disagreement concerning the impact of upward mobility on self-reported measures of well-being, the most frequent ones being health and self-reported happiness. Both Hadjar & Samuel (2015) and Iveson & Deary (2017) found evidence that, despite benefits for health, upwards

social mobility does not significantly improve an individual's reported life satisfaction. It could even decrease it as people sometimes struggle to fit in their new social class. Nikolaev and Burns (2014) add the Easterlin Paradox as a possible explanation to this phenomenon. According to this theory, itself the result of other psychological concepts, an individual's increase in wealth stops translating into an increase in happiness past a certain income threshold. As such, the Easterlin paradox could justify why people who have experienced upwards mobility sometimes seem to struggle to fit in their new social class (Easterlin, 2001).

#### ISM and health

More studies show the association between an individual's SEC and their health. The variables are positively correlated and, although their link remains relatively controversial, it seems that a better SES could positively influence health. As one's SES improves, their chances of having a chronic condition decrease for example. This was corroborated by the first Whitehall study, which found a gradient between weath and health amongst British civil servants. According to that study, there exists an inverse association between social class (here assessed by grade of employment), and health and longevity, despite the availability of healthcare for all participants. When taking poverty into account, the lower a child's SES, the more likely that child is to report a chronic condiction, or an activity limitation in adulthood (Adler & Stewart, 2010; Bridger & Daly, 2020).

A study on childhood poverty and health conducted by Evans & Kim (2007) found a connection between poverty in early childhood and stress dysregulation. The hightened levels of stress observed in the individuals were mainly explained by the cumulative risk exposure (CRE) to physical and social risk factors that come with poverty, such as improper housing or family turmoil. CRE from childhood poverty can also, according to Wells et al. (2010), influence the individual's body mass index trajectory through early adulthood and increase the likelihood of child obesity, especially for young girls. Liu et al. (2019), however, nuance this claim. While they do recognize the existence of a relationship between early CRE and body mass index trajectory in young girls (the link for boys being inconclusive), the authors argue that said trajectory varies greatly depending on multiple factors (e.g., the timing and length of the CRE).

The link between health and SEC can also be considered what Mulatu & Schooler (2002) call a conundrum. It is not clear whether it is poor health that is affecting SEC through limiting the individual's job performances, or whether it is low SEC that are causing greater exposure to health issues, for example through diets and lifestyle habits.

## 2.3 Factors influencing ISM

ISM depends on a wide variety of variables whose exact individual effects are difficult to disentangle from one another. Moreover, it is important to understand the difference between correlation and causality as the former does not always imply the latter. Put differently, two variables that move together can do so because of external factors, not always because of a cause-and-effect relationship (D'Addio, 2007; von Stumm, et al., 2009).

#### 2.3.1 Transmitted factors

Resources transmitted in childhood by the individual's parents and family, or close entourage, largely influence their later life. They are not limited to wealth and material goods and can also be investments in education and health, genetic endowments, as well as values and beliefs for example.

Resources can be transmitted either voluntarily (e.g., via gifts) or unintentionally (e.g., through internalised behaviours) (D'Addio, 2007).

### Wealth, material goods and social capital (SC)

Hansen (2014) discusses who gets to become rich and acquire wealth. The author's analyses conclude that coming from a wealthy background is important to reach the "top echelons of wealth", even prior to obtaining any inheritance money. The accumulation of intergenerational wealth can trickle down to younger generation, who reap the results of good investments, capital accumulation, or elite networking to name a few. The OECD (2018) appears to confirm the trend of the wealthy remaining at the top of the distribution through wealth, SC accumulation and transmission.

SC is partly transmitted by the parents to their offspring and its importance cannot be understated. It encompasses networks, values, and understandings amongst certain groups or communities, which helps the individual assimilate. SC can also provide an advantage in social settings or later in the labour market through well-placed connections (D'Addio, 2007). The strength of an individual's network (i.e., their SC) has been identified by Chetty et al. (2022) as a potential determinant for variables such as health and education, which are not dissimilar to the ones taken into account when measuring ISM.

Hansen (2014)'s analyses on wealth were mostly concerned with the top 1%. However, being from a relatively wealthy background, even for those lower on the echelons of wealth, is still associated with higher educational attainments and higher intergenerational mobility. Apart from providing better living standards such as proper housing, wealthier parents can afford to support their children financially before, during and after their studies, as well as transmit part of their SC. Although the effect varies across countries, higher parental SES, increases the children's financial stability and their educational attainment. Equally, liquidity constraints impact investments in HC. Lower-income parents, already facing lower-paying jobs, poverty, and lack of education, cannot afford to invest in their children either (Becker & Tomes, 1986; Deary, et al., 2005; D'Addio, 2007; Eurofound, 2021; OECD, 2021).

Still, Becker & Tomes (1986) note that all earning (dis)advantages tend to disappear in three generations, meaning that the actual effect of intergenerational wealth and earnings on mobility could be nuanced in some measure.

#### Child endowment and psycho-social dispositions

Cognitive abilities in childhood, also referred to as childhood intelligence or child endowment, are often approximated by the intellectual quotient and are a non-negligeable determinant of ISM. The topic remains quite controversial, and literature is fairly tentative in its conclusions. However, D'Addio (2007) reports that while said abilities are partly hereditary, they also greatly depend on the child's environment. Higher income families could partially make-up for their child's lack of luck in the hereditary cognitive skills department by providing them with extra help and support, which the lower income families might not be able to do as easily.

Cognitive abilities also influence the education provided to the child and their educational achievements, with better endowed children often reaching higher academic levels (von Stumm, et al., 2009). Here, however, Deary, et al. (2005) draw attention to the aforementioned debate on the difficulties of disentangling individual effects from each variable that can potentially influence ISM.

More precisely when it comes to the ambiguous effects of child endowment and SEC on ISM. What is clear is that both seem to contribute to mobility to a certain extent, children with higher intellectual quotients seemingly faring better later in life. The extent to which those cognitive abilities are due to nature or nurture is much debated.

As mentioned earlier, the current literature around the impact of ISM on SWB is fairly extensive, but appears to be inconclusive. To help resolve that matter, Becker & Birkelbach (2018) argue that psycho-social dispositions play a role in how people experience the negative effects of ISM on SWB (upward or downward). The locus of control (LOC) is such a disposition that refers to the extent to which individuals believe they are in control of their own actions and their outcomes. The LOC can be internal (individuals believe they are the ones in control of the events happening to them), or external (people who attribute their circumstances to external forces). In their paper, the authors associate an internal LOC to a lesser negative impact of downards or upwards ISM on the individual's SWB. Those who attribute the control of events to themselves appear less affected by changes in their socioeconomic circumstances than those who believe in outside forces to take control of their destiny. LOC, as argued by von Stumm, et al. (2009), also appears to be positively correlated with academic achievement through self-esteem. Individual with higher self-esteem would be predisposed to lean toward an internal LOC and have higher grades than those with an external LOC and lower self esteem.

#### Parental behaviour and family dynamics

Becker & Tomes (1986) find a negative relationship between the number of children and the amount parents can invest in each one of them. They also found a positive association between income and fertility. Wealthier families tend to have more children, which decreases the amount spendable per child. This result is corroborated by Fort, et al. (2012).

After investigating the link between quantity and quality of children, Becker (1976) observed that parents are inclined to invest more human capital in children with higher cognitive abilities. Equally, they tend to compensate by investing more non-human capital in the others, which contributes to the inequality between children. Moreover, parents have a tendency to be less demanding as birth order increases. Their closer monitoring of the firstborns in school could influence educational attainment (Hotz & Pantano, 2013). Brunello & Bertoni (2013) used data from eleven European countries and found out that firstborns indeed appear to have higher earnings at their labour market entry due in part to their higher educational attainment.

Furthermore, by using Swedish population data, Barclay, et al. (2021) suggest that parental birth order can affect subsequent generations' social and economic mobility through their own social and economic mobility. According to their results, having a later-born parent could potentially decrease the children's educational and social attainments, as a grandparental investment in their children can spill over across generations.

Parental beliefs and attitudes also get somewhat transmitted to their offspring, albeit sometimes unintentionally. Through education, parents can instil values, attitudes, and behaviours in their children. For example, it appears that middle class parents encourage self-direction while working class individuals foster conformity (von Stumm, et al., 2009). Education can also encourage or discourage specific behaviours (e.g., incite health and cultural awareness while disapproving of harmful behaviours). All of these contribute to the shaping of the individual and their preferences

(D'Addio, 2007). Furthermore, children can aspire to follow in their elders' footsteps. The OECD (2018) reports that around half of the managerial class's children end up becoming managers themselves for example.

### 2.3.2 External factors

There are some factors independent to the individual's immediate family or circle and over which they have little to no influence. Those mostly relate to the individual's environment or wider policies put in place by governments for example.

#### SC accumulation through inter-classes interactions

SC has been identified as a driver of ISM. As mentioned earlier, some of it trickles down from the individual's familial circumstances. It can also be acquired through social interactions between members of different social classes.

The degree of interaction between high- and low-income people, more precisely the share of highincome individuals amongst low-income populations, is referred to as economic connectedness (EC), which has been recognized as a strong driver of upwards mobility. In their first paper on the topic, Chetty et al. (2022) assert that, for children from lower income backgrounds, growing up in spaces with equivalent levels of EC as a child with higher income parents could partially make up for the lack of family transmitted SC and induce upwards mobility. The authors associate the benefits from having a strong network and good connections to an increase of 20% on average of the income in adulthood for the child coming from a disadvantaged upbringing.

#### Policies regarding schooling and education

Education has already been mentioned multiple times in this thesis as a driver of ISM, although sometimes in a rather implicit manner. However, its impact on mobility is clear. Britton, et al. (2020), for example, estimated that most students attending higher education at an undergraduate level would end up financially better off than those who did not. This result holds up for both men and women, albeit slightly less for the latter. At first glance, education could indeed have an impact on an individual's SEC and potentially their ISM by allowing them to get more educated than their parents and/or reach a higher level of income.

Education is also thought to have an influence on health for example, as suggested by Leopold (2018). According to it, health disparities are amplified by differences in education and tend to increase as time goes on. Health both being influenced by, and influencing the individual's SEC, it is important to understand some of the factors impacting it.

Human capital (HC) is closely tied to education and is often approximated by years of schooling. It has also been recognised as an important determinant of the individual's future earnings. As such, the quantity as well as quality of education matter in order for individuals to experience upwards mobility. Policies promoting an efficient allocation of resources in education (e.g., better early childhood care through compulsory enrolment in early childhood education, or improving teacher quality) are associated with higher educational attainment, and thus upward mobility (OECD, 2010).

#### Taxes and public expenditures

Becker & Tomes (1986) discuss the role of parental investment in their children, be it by using time or money, as a mean to foster mobility across generations. They also argue that those investments and behaviours are dependent, to a certain extent, on public programmes. Taking the example of the

income tax, the authors show that a progressive income tax tends to reduce the incentives to invest in children. The Becker-Tomes model was used by Kurnaz & Soytas (2019) to assess the impact of taxes and early childhood investment on fertility and income mobility. They found that progressive taxes could be linked to higher fertility by influencing women's labour decisions. Through increasing fertility (quantity), progressive taxes tend to decrease the investments per child and lead to lower educational outcomes (quality), and thus increasing the income mobility in the economy. This could lead to more inequality as, as mentioned earlier, in a perfectly equal society, there would be no incentives to have higher mobility.

## 2.4 Policy implications

### 2.4.1 Why should we care about ISM - The breakdown of the social elevator

ISM is far reaching in its implications for policy making. It can play not only on overall social welfare, but also on equity by reducing inequality, and improve economic efficiency (D'Addio, 2007).

In a "Commentaire", Pestieau (2021) highlights what is commonly refered to as the "breakdown of the social elevator" in the context of the providence state. The state, too preoccupied by the standard measures of poverty and inequality, failed to take into account social mobility to some extent. If upwards ISM becomes increasingly difficult to achieve, i.e., people can no longer live better than their parents did, then the social elevator can be considered as malfunctionning or even broken.

In a 2018 report, the OECD discusses "sticky floors" and "sticky ceilings". The former refers to people from disadvantaged backgroung not being able to move up the ladder while the ones at the top manage to hoard opportunities and ensure they are kept for their own children, hence the "sticky ceiling" terminology (social conditions are "sticky").

When assessing their chances of (mostly upward) mobility, many tend to believe that their SEC are tied to their parents' own wealth or lack thereof, as well as their childhood conditions. Currently, an increasing share of the population is exuding a growing pessimism towards the possibility of moving up the social ladder, which is consistent with the definition Protzer (2021) gives of economic unfairness: Individuals care not only about their economic outcome, but also about the conditions under which it was reached. The feeling of economic unfairness, if left unchecked, can have dire consequences on the population's attitude and can lead to a rise in values traditionally associated with populism (e.g., distrust towards the institutions and rejection of immigration).

As previously mentionned, individuals living in a perfectly equal world would have no incentives to try to improve their standing on the social ladder. ISM would not matter and discussions surrounding it would be somewhat superfluous. However, not only are intra-countries income inequalities and wealth disparities are currently on the rise (see annexes A.2.1 and A.2.2), but so is the feeling of economic unfairness. Consequently, the breakdown of the social elevator is a concerning topic which warrants justified analysis and policy intervention.

ISM is a fairly broad and multi-faceted topic subjected to a multitude of factors, some of which cannot be controlled (e.g., a child's innate cognitive abilities, though some might argue the contrary). There nonetheless are a few areas of policymaking that can have an influence in promoting ISM. Three of them are briefly mentioned here: policies to promote EC, health, and schooling and education. This list is certainly non-exhaustive and there exists a wide array of literature on the topic.

### 2.4.2 Policies to promote economic connectedness (EC)

EC, as stated earlier, is fundamental in upholding certain socioeconomic conditions for the higherincome individuals, as well as promoting upward mobility for those coming from more disadvantaged backgrounds.

Chetty et al. (2022) hold two main phenomena as responsible for hampering the development of EC: difference on exposure and the friending bias. The former refers to the opportunities of interactions between higher- and other-income households in groups such as educational settings, neighbourhoods religious or spiritual organisations. The less exposure, the less opportunities and the lesser the chances of having inter-income groups interactions that could lead to EC. Friending bias concerns the people's tendency to befriend others with whom they share a common SES. In this context, it pertains to the rate at which individuals befriend higher-income people they come into contact with through the groups they belong in. Friending bias is thus conditional to the exposure of members from every income class to people with a higher SES.

To help promote EC, Chetty et al. (2022) come up with some policy recommendations. The issue being twofold, the authors advance suggestions to work on both fronts. Firstly, when it comes to the exposure component of EC, policy efforts can focus on integrating multiple communities and groups from various backgrounds in the same spaces. The authors mention affordable housing policies, as well as an increase in diversity in different settings such as college campuses (e.g., through a reform of admission practices). The OECD (2010) agrees on the benefits of increasing integrations, especially in schools, and they suggest that housing prices tend to exacerbate disparities in school quality. They thus also advocate for urban planning and housing policies to encourage social mixing within neighbourhoods. Secondly, exposure has little impact if the friending bias prevents inter-classes connections from being made. There, Chetty et al. (2022) endorse policy intervention on a case-by-case basis, such as a reduction of the sizes of groups where people can interact in a school setting for example, or the creation of various programmes to promote inter-classes interactions. This is once again consistent with the OECD's 2010 report that associates putting students in set groups at an early age with less mobility.

#### 2.4.3 Policies focused on health

The health issues caused by poverty in childhood are difficult to reverse, if reversible at all (Pakpahan, et al., 2017). As mentionned earlier, health and SEC have been linked in the literature, though their relationship remains somewhat unclear and controversial. However, according to the World Health Organization (2022), chronic diseases still tend to disproportionally affect people from lower-income backgrounds.

There are different types of risk factors underlying health issues. Some of those are modifiable, meaning the individidual or policymakers can have an influence over them. This is the case for diet, sleep, exercise, and unhealthy habits such as tobacco or alcohol. Some risk factors, however, cannot easily be changed by the individual, including their age, sex, or family history and genetics for example. Moreover, environmental factors including lower SEC can lead to unhealthy lifestyle habits, even for the modifiable risk factors (e.g., lack of sleep, which in turn can lead to higher risks of health related issues and chronic diseases) (National Heart, Lung, and Blood Institute, 2022). Finally, poorer cohorts of the population are less likely to take matters into their own hands when it comes to

seeking health services (e.g., health insurance) due to lack of monetary resources or knowledge about health programmes.

Health policies in early infancy, but also throughout the individual's life, are important to limit the transmission of intergenerational health disadvantages (OECD, 2018). A lot of health-related measures are concerned with promoting universal access to healthcare and bettering health conditions for the poorer cohorts of population, who are more prone to having health issues and lacking the resources to treat them.

#### Spatial distribution of healthcare

In order to be universal, healthcare has to be geographically accessible. Even if the supply of healthcare is sufficient, unequal distribution of the resources can prevent a large part of the population from accessing the care they need. In the Chinese context, Tao & Han (2021) argue for a better spatial distribution of hierarchical healthcare, i.e., a better equilibrium between higher- and lower-level of facilities. The former are able to provide more comprehensive healthcare in the form of better diagnoses and more difficult treatment and are often overburdened, while the latter are in charge of common diseases and are under-utilised. Improving the spatial distribution of healthcare facilities can be partially dealt with through urban planning for example, by providing better transports to and from the establishments, or by exploiting already existing facilities fully (e.g., through allocating more resources to the lower-level ones). Tao & Han's recommendations hold up in the Western world as well, as it can also experience the issue of unequal distribution of the resources.

#### Health literacy (HL)

HL plays a central role in ensuring a more equal access to healthcare. It refers to a person's abilities to understand, evaluate, and apply knwoledge concerning their health. A higher HL allows individuals to make informed choices and has been associated with better health outcomes and quality of life.

In the context of care facilites, an emphasis can be put on clear communication skills for the medical profession to improve HL, as well as making sure the environment is well-indicated and information is easily available (Bragard et al., 2017).

HL is also tied to education through the individual's literacy skills and their ability to read and understand information. A study by Baker et al. (2007) showed that reading fluency was a more powerful determinant of HL than education in terms of years of schooling. Policies focused on providing high quality education and skills can thus play a role in reducing health disparities.

Finally, the OECD (2018) suggests better health information for the general public in terms of diet and physical activity. It argues for easily understandable labels such as pictograms on food packagings, and the restriction of advertising for potentially harmful goods, especially to children (e.g., ban of food and beverages advertisings on TV during peak children-audience hours).

#### 2.4.4 Policies focused on schooling and education

Schooling and education are crucial factors of ISM, and their impact goes beyond years spent in school. Consequently, it makes sense that policies surrounding them can greatly influence an individual's mobility.

The aforementioned 2010 OECD report has come up with a number of policy suggestions to foster ISM through educational attainment. It focuses not on an increase of spending towards the educational sector, but on a better allocation of the resources within it. Their key recommendations, based on cross-OECD countries data and analyses, are mainly concerned with increasing the quality of education starting with the teacher and school environment.

Teacher quality is associated with higher student achievements. Policies can influence this by setting standardised high-quality certifications and trainings teachers have to follow for example, even though teacher's productivity can also develop with experience (Darling-Harmond, 2000; Harris & Sass, 2011).

Class size reduction is another measure that is thought to have an influence on student achievement by increasing the quality of the school environment. Programmes to reduce class sizes have been implemented in various states in the United States, such as California and Tennessee, with the objective of providing a higher quality of education. Class size reduction policies lead to a spike in hiring of inexperienced teachers in the first years following their implementation, which reduces the quality of education for children, especially in lower-income communities. This effect ends up resolving in the long-run and results in benefits for all communities, regardless of their income levels. However, this finding remains nuanced by the teacher's experience. Indeed, it appears that experienced teachers still outperform their newly hired colleagues in small classrooms. The student/teacher ratio, (i.e., the number of teachers hired per student), has been qualified by Krueger (2003) as one of the main determinants of the cost of education. Policies aiming at increasing this ratio such as class size reduction are quite expensive, and literature tends to question whether these investments are worth the benefits (Jepsen & Rivkin, 2009; Mueller, 2013).

Likewise, an increase in the years of compulsory schooling is associated with higher ISM. Institutions such as the OECD advocates for an extension of the mandatory schooling period, especially in early childhood. Reforms during this period of the individual's life are instrumental in reducing early gaps in learning and cognitive skills for example, and have positive consequences on the children's later life educational then income achievements. Furthermore, compulsory schooling periods help reducing differences in educational attainment that are due to disparities in socioeconomic backgrounds as they put everyone on equal footing. Not only are early child development programmes associated with higher school achievement, but they also seem to reduce risks of teenage pregnancy, violence and criminal activity, and drug use (D'Addio, 2007; OECD, 2010; OECD, 2018; Crettaz & Jacot, 2014).

Betthäuser (2017) looked into the effects of an increase in the years of compulsory schooling in Germany using a difference-in-difference framework. His analyses highlighted a increase in educational attainment amongst different social class background, which further translated into more equality on the labour market, and thus a higher ISM potential thanks to the reform.

## 2.5 Determinants of parental well-being

This thesis aims at bridging the gap in the literature concerning the impact of and individual's ISM on their parents' well-being. The effects of having children on an individual's happiness vary over the course of the child's and parents' lives. However, some general periods can be defined, spanning from the events leading up to the child's birth to the afternath of becoming empty-nesters. Equally, factors outside of the children themselves can influence an individual's SWB in the parental context.

Literature on parental happiness, despite experiencing a boost since the Covid-19 pandemic, remains relatively sparse. Even more so for midlife parents and empty nesters.

## 2.5.1 Bringing a child into the world

Bar certain exceptional circumstances, the process of bringing a wanted child into the world is a joyous one. It is especially true for the first-, and the second born. However, from the third one onwards, as well as for very young and/or less educated parents, having a child does not seem to translate into an increase in well-being anymore. Moreover, despite not having a preference for the firstborn's sex, European parents tend to have a predilection for mixed-sex children (i.e., at least one boy and one girl). Not having mixed-sex children could possibly influence their life satisfaction, albeit only in the short run (Myrskylä & Margolis, 2014; Margolis & Myrskylä, 2016).

It is often said that 'it takes a village to raise a child'. But does that village provide efficient moral support to the new parents around the birth of a child? According to Mikucka & Rizzi (2016), the results are mixed. It appears that support from relatives improves parental life satisfaction the best for parents of two or more children, but could decrease it in some cases.

## 2.5.2 Midlife parenting and grown-up children

Older parents tend to have a higher SWB as their children become more independent. When it comes to the relationships between parents and their children, parental satisfaction depends less on the frequency of contacts they have with their children than on how well their adult offspring fare into adulthood. An important determinant of happiness for parents with adult children thus has to do with their perception of how well they did as parents. Children that meet their parents' criteria of success tend to make their parents happier. Those criteria, however, are heavily dependent on cultural norms. In multigenerational households, for example, at least one of the children (usually the eldest one) could be expected to remain at the familial home with their parents. Some other cultures, on the other hand, would expect 'successful' children to leave the familial home to gain in independence (Mitchell, 2010; Mitchell & Wister, 2015).

## 2.5.3 Other factors - Work, relationships and parental burnout

Factors outside of the natural course of a child's life can also influence parental SWB. Working nonstandard hours has been associated with a decline in father's well-being, as well as lower relationship satisfaction in some cases where parental work schedules clash. Should these relationship issues lead to a break-up or divorce, the way co-parenting is handled also impacts life satisfaction. The less the former partners manage to coparent peacefully, the lower their reported well-being (Lamela, at al., 2016; Zilanawala & McMunn, 2022).

Parental burnout is becoming an important topic in psychological literature, especially since the Covid-19 pandemic. It occurs when parents experience chronic and extremely overwhelming stress due to their parenting role (Mikolajczak & Roskam, 2020). Lin, et al. (2021) link parental style, more specifically positive parenting, to parental burnout. While positive parenting is beneficial for the child, parents constantly repressing their and downplaying their negative emotions for their child's sake heightens their risk of being burnt out, and thus lowers their SWB. Having a child with a chronic illness is another determinant of parental burnout. Parents, especially mothers, of ill children report higher stress levels, anxiety, depressive symptoms, and lower life satisfaction. Those effects remain even for children who used to have illnesses such as cancer and are now in remission (Vanger Haegen & Etienne, 2020; Wauters, et al., 2022).

## 2.6 ISM and parental SWB

The literature review gave a non-exhaustive overview of what ISM is, its determinants, as well as its links with wider topics such as inequality and possible policy implications. Research has often focused on the impact of ISM on the individual's health and SWB, but rarely on the impact on those around the one experiencing mobility. The review ended by mentioning some of the elements behind parental well-being. The objective of the paper is to find whether an individual's ISM can impact other generation's SWB, in this case the parents.

# 3. Hypotheses and methodology

## 3.1 Measuring SWB – Potential limitations

A plethora of research has already been conducted on the topics of ISM and SWB. It mostly tends to focus on two aspects: what are ISM's determinants and how does it impact the individual experiencing it, be it from a health or an SWB perspective.

This thesis takes the SWB approach, more precisely the parental one, as it has not been widely studied yet. It uses it as a dependent variable and includes health and ISM measures in the regression as explanatory variables. There however are some caveats when it comes to measuring well-being.

The OECD (2013) highlights a few of them, as well as provides recommendations. The main caveat concerns survey design and methodology, as they can impact the quality and comparability of the data collected. Question wording, order, response formats, and timing of the survey can all cause bias in the respondents' answers. To help avoid this issue, the OECD recommends, amongst others, the collection and use of covariates such as demographics, material conditions or quality of life variables. Collecting those variables alongside SWB measures can help to control for differences between individuals.

One also has to keep in mind that, while objective measures such as economic and demographic variables have an impact on well-being, it is also subjective and depends on the individual's personal characteristics (e.g., personality traits or personal relationships) (Heady & Wooden, 2004). Those characteristics, while extremely important in the quest to understand the determinants of well-being, go beyond the scope of the data available for this thesis.

## 3.2 Thesis methodology and data

## 3.2.1 Data – The SHARE database

Covering twenty-seven European countries and Israel, the Survey on Health and Ageing in Europe (SHARE) interviews individuals aged 50 and older on a multitude of socioeconomic and health related topics including themselves, their parents, childhood conditions, and children. The same individuals are surveyed every two years via harmonized questionnaires, which allows for cross-country analyses. The information it provides is broad and complete. As such, no other source of data was needed here.

This thesis also uses data from the generated easySHARE data set. The variables taken from easySHARE are the respondent's general characteristics, i.e., age, country, gender, marital status, number of siblings, educational level, number of children, and CASP-12 index.

Only one wave was taken into account in the analyses: wave 6 from 2015. SHARE data is currently available up to wave 8. However, the latter came out in 2020 and was consequently strongly impacted by the Covid-19 pandemic. It would not have provided an accurate analysis of ISM and parental well-being under 'normal' circumstances and was consequently casted aside. Wave 7 is not suitable for this purpose either, as it is a SHARE-life edition of the survey and is mostly focused on the respondents' childhood circumstances.

### 3.2.2 Economic model and variables

This thesis aims at bridging a gap in the literature on ISM. By looking at one of its key determinants (education), it wants to assess its impact, not on the individual's well-being as often investigated, but their parents'. To do so, the model will look at the results of the following OLS regression.

$$\begin{split} SWB &= \alpha + \beta_1 A + \beta_2 Number Children + \beta_3 General Health + \beta_4 Chronic + \beta_5 Own Mobility \\ &+ \beta_6 Wealth + \beta_7 Child Mobility + \varepsilon \end{split}$$

The regression analyses the SHARE survey's respondent's SWB based on some of their own general characteristics, number of children, some health factors, their own educational mobility compared to their parents, their wealth percentile, and their children's educational mobility.

#### The dependent variable

The dependent variable is the individual's SWB, which is studied from two angles: the CASP-12 index, and a question contained in SHARE about life satisfaction. There will thus be two regressions, one using each variable. The remainder of the equation remains the same.

A shorter version of the CASP-19 index, the CASP-12 index is a self-reported measure of quality of life containing psychometric scales that span four life domains: control, autonomy, self-realisation and pleasure. The CASP-12 index comports twelve items that are each scored on four points. The answers are presented as statements on a four-point Likert scale that allows the respondents to express how much they agree or disagree with each specific statement thanks to the following options: 1. 'Often', 2. 'Sometimes', 3. 'Not often', and 4. 'Never'. This results in a total score ranging from 12 to 48 to interpret an individual's quality of life. The higher the score, the higher the self-reported quality of life (Wiggins, et al., 2008; Kerry, 2018).

The second iteration of the regression considers respondents' answer to the question 'How satisfied are you with life' on a scale of 0 to 10, 0 being the lowest and 10 the highest satisfaction scores. From now on, this variable will be referred to as the life satisfaction question.

Those two variables were chosen for their different but complementary approaches. The life satisfaction question is more general and does not necessitate any particular reflexion from the respondent. The CASP-12 index, on the other hand, goes into more detail concerning precise determinants of quality of life. This allows more insight into the dimensions that could potentially influence the respondent's overall self-reported life satisfaction.

#### The explanatory variables

Some of the respondent's personal characteristics susceptible to influence their SWB are assembled in the composite variable A. The characteristics are age, country, gender, marital status, and number of siblings alive. The number of children is its own variable, as having more of less of them can impact parental SWB.

Similar to SWB, two measures were chosen to assess health. The first one, more subjective, consists of the individual answering a question about their health in general. The answers are in the form of a general Likert scale including the following options: 1. 'Poor', 2. 'Fair', 3. 'Good', 4. 'Very good' and 5. 'Excellent'. The second health variable is more objective as it has to do with the respondent's number of chronic diseases.

Here, ISM is measured from the educational angle (do individuals become more educated than their parents?). The thesis analyses data from multiple European countries whose educational systems can vary in terms of compulsory years of schooling for example. To take that diversity into account, education levels are given by an International Standard Classification of Education (ISCED) 1997 code (ISCED-97). ISCED is widely used to provide standardised information about education such as international statistics (UNESCO, 2006). The use of ISCED-97 allows the comparison of data from various countries. There are seven categories (from 0 to 6), whose description can be found hereunder in Table 1.

Name of the level	Code
Pre-primary education	0
Primary education First stage of basic education	1
Lower secondary education Second stage of basic education	2
(Upper) secondary education	3
Post-secondary non tertiary education	4
First stage of tertiary education (not leading directly to an advanced research qualification	5
Second stage of tertiary education (leading to an advanced research qualification)	6

Table 1 - ISCED 1997 levels of education

Source: UNESCO (2006)

As seen in the literature review, ISM can impact the individual's SWB. Consequently, a mobility factor was created to take this into account. Referred to as "OwnMobility" in the OLS regression, it is defined as follows:

#### *OwnMobility* = (*Respondent's ISCED*97) – (*Mean of the respondent's parents' ISCED*97)

On a national scale, wealth accumulation's direct impact on an individual's SWB is fairly inconclusive (see the Easterlin paradox). On an individual scale, however, Senik (2014) associates household wealth with an improvement of individual SWB, notably though its usage as a safety cushion against unplanned events. Wealth is thus included in this model as the individual's wealth percentile, i.e., their accumulated amount of wealth relative to the rest of the population.

Child mobility is the last explanatory variable of the model, as well as the one whose impact on the dependent variable is the focal point of this analysis. As there often are multiple children per household, and that they all have different levels of education, their ISCED-97 codes have been aggregated to only have one mobility factor per respondent in the regression. This can be done three different ways, by taking either the mean of the ISCED-97 codes, their minimum, or maximum value. It is the mean that was chosen here. Similar to the "OwnMobility" variable, this one was constructed as:

## 3.3 Summary statistics

This section presents a few descriptive statistics of the sample that is used in the analyses. It mainly aims at providing some general information and insights into the data in order to familiarise the reader with it.

### 3.3.1 General characteristics

Firstly, the sample drawn up from wave 6 of the SHARE survey contains data for 68,085 respondents aged of 67.63 years and parents of 2.12 children on average. They come from 18 European countries and are fairly spread between them, as the table in annex A.1.1 can attest. Already, it is reasonable to assume that this sample size is large enough to be representative of the population in the countries surveyed, and for Europe in general.

For clarity in the presentation of general information, the countries have been grouped into the following European regions: Eastern (Czech Republic and Poland), Western (Austria, Germany, France, Switzerland, Belgium, Luxembourg, and Israel), Northern (Sweden, Denmark, and Estonia), and Southern (Spain, Italy, Greece, Portugal, Slovenia, and Croatia). The repartition per region is also visible in annex A.1.1.

#### 3.3.2 SWB measures

The CASP-12 index's total score ranges between 12 and 48. It has been broken down into four categories, whose details can be found in annex A.1.2. The average respondent has a CASP-12 score of 37.07, which would correspond to the high quality of life category. Very few people in the sample seem to have a very low, or even low score (figure 1).

For the life satisfaction question, the average respondent rated their quality of life as 7.66 out of 10, which seems rather consistent with the results from the CASP-12 index. There again, life satisfaction seems fairly high, with very few people rating it 4 out of 10 and under (figure 2). There appears to be no disconnect between respondents' subjective general appreciation of life (life satisfaction question), and the more objective CASP-12 index.





Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents repartition of respondents' CASP-12 scores into categories from very low to very high quality of life, taking missing values into account (.). It is computed from the respondents' CASP-12 scores.



Figure 2 - Repartition of respondents' life satisfaction

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents repartition of respondents' answers to the question "How satisfied are you with life?" from 0 to 10, taking missing values into account (.).

#### 3.3.3 Health measures

The average respondent reports two (1.80) chronic diseases and rates their health as 'Good'. The more chronic illnesses an individual has, the more likely they are to rate their health as poor, which seems consistent with what is expected (figure 3).



Figure 3 - Influence of the number of chronic diseases on self-assessed health

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the change in respondents' self-rated health given their number of chronic diseases. The number of chronic diseases varies between 0 and 13. Missing values are not taken into account.

## 3.3.4 ISCED-97 codes and educational attainments

#### Regional educational attainments

The individual's average level of education varies depending on their region (figure 4). Nordic countries lead the way with an average level of education of 3.36. The total sample's average is an ISCED-97 code 3 (2.81 to be exact), which corresponds to (upper) secondary education. That level is mostly dragged down by Eastern European countries, with their average respondent leaving school after getting primary education.

Frequencies of ISCED-97 code per region (figure 5) and of region per ISCED-97 (figure 6) also show interesting patterns.

Firstly, the distribution of educational attainment amongst the population is different depending on the region, as figure 5 can attest. Almost 40% of respondents from Southern countries stopped their education after graduating from primary school (ISCED-97 code 2). This number decreases quite strongly for Western (16.43%) and Nordic countries (10.53%). While most of all region's respondents appear to reach at least ISCED-97 code 3, a high proportion (over 80%) of Southern and Eastern Europeans do not acquire further levels education. Western and Northern respondents, however, seem more likely to have obtained degrees from higher levels of the ISCED-97 scale.

Then, figure 6 seems to confirm the preponderance of lower levels of educational attainment in Southern countries. Nordic countries peak at level 4 (post-secondary non tertiary education), which could be due to regional differences in degrees or qualifications. As Pekkarinen (2008) points out, most European countries operate with a two-tracks educational system. Before the end of secondary school, pupils have the choice between the academic and vocational tracks. The tertiary level of education is made-up almost exclusively of individuals who chose the academic path, as it often is an access requirement. Differences in ISCED-97 code achievement after (upper) secondary education could, depending on the country, partly be due to the educational system and the preponderance/absence of vocational training.



Figure 4- Average educational attainment per European region (ISCED-97)

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the average level of education per individual in the European regions. It is computed from the respondents' ISCED-97 code. Missing values are not taken into account.



Figure 5 – Cumulated frequencies of ISCED-97 levels per region

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the cumulated frequencies of ISCED-97 codes per region. It is computed from the respondents' ISCED-97 code and country. Missing values are taken into account (.).



Figure 6 - Frequency of regional respondents per ISCED-97 code

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the distribution of regional respondents per ISCED-97 code. It is computed from the respondents' ISCED-97 code and country. Missing values are not taken into account.

#### Educational attainment per gender

The average male respondent has a higher educational level of education than his female counterpart (figure 7). However, when looking at the educational attainment (figure 8), women make-up most of the population who has graduated from (upper) secondary, post-secondary but non-tertiary, and first stage of tertiary education. Men nonetheless still remain the majority when it comes to the highest educational qualifications.





Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the average level of education according to gender. It is computed from the respondents' ISCED-97 code and gender. Missing values are not taken into account.



Figure 8 - Share of each gender per ISCED-97 code

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the share of each gender per level of education. It is computed from the respondents' ISCED-97 code and gender. Missing values are not taken into account.

#### 3.3.5 Educational mobility

#### Respondents

Respondents experience on average an increase in educational mobility of 1.22 ISCED-97 levels compared to their parents. That change in mobility in the sample varies between -5.5 (i.e., downward mobility of 5.5 ISCED-97 codes), and 6 (i.e., upward mobility of 6 ISCED-97 codes). However, most people have experienced upward mobility in the sample, as visible in figure 9.

When looking at the decomposition per gender, it appears that women are more subject to downward mobility and weak upward mobility than men. This is consistent with figure 7, who compared women and men's average educational levels. Men, despite being less represented in ISCED-97 levels up to first stage of tertiary education, and in schooling in general, manage to experience higher upward mobility. This could also be due to the fact that women generally leave school earlier than men, and thus are more represented in lower educational levels.



Figure 9 - Cumulated frequencies of respondents per level of mobility

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The graph represents the cumulated frequencies of respondents per level of mobility. It is computed from the respondents' mobility index. Missing values are not taken into account.

#### Respondents' children

When taking the mean of all of a household's children' ISCED-97 code, the siblings reach ISCED-97 code 4 (3.66) on average. Depending on whether the minimum or maximum level of education amongst the children is taken, this number can vary between 3.29 and 4.04, which remains higher than their parents' average of 2.81 (Annex A.1.3). Already, one could expect this increase in the average educational attainment to translate into potential upward mobility for the children.

That intuition is confirmed when summing the children's mobility variables (Annex A.1.4). The mean of the mobility index for the mean education per household's children is 0.74, and ranges from -5 to 6. When taking the minimum sibling education or the maximum, those numbers change to 0.36 and 1.11 respectively.

The variables pertaining to the children's education and mobility are constructed from the mean, minimum or maximum educational levels for all siblings from the same household. Consequently, an analysis per gender cannot be performed here. It would nonetheless have been interesting to assess whether this generation's women still experience less upward mobility than their brothers, or if are still more likely to leave school earlier.

## 4. Empirical results

Reminder: The following OLS equation is used to conduct the analyses. The model has two iterations to measure parental SWB. One uses the CASP-12 index and the other the life satisfaction question as dependent variables. The remainder of the equation stays the same.

$$\begin{split} SWB &= \alpha + \beta_1 A + \beta_2 Number Children + \beta_3 General Health + \beta_4 Chronic + \beta_5 Own Mobility \\ &+ \beta_6 Wealth + \beta_7 Child Mobility + \varepsilon \end{split}$$

## 4.1 Model estimates

### 4.1.1 Preliminary tests

Prior to interpreting the models' results, a Breusch Pagan test was conducted for both of them and found heteroskedasticity in the data (the p-value for the test was equal to 0, meaning that the null hypothesis of homoskedasticity was rejected). As a result, the variance of the error term is not constant. Robust standard errors were used to control for it.

The variance inflation factor (VIF) allows to check for potential multicollinearity in the explanatory variables. All of the VIF values for both models fit in the range between 1 and 1.50, indicating that correlation between the explanatory variables in the model is almost non-existent (annex A.1.5).

A joint F-test indicated that all variables had a significant effect on parental SWB, be it from the CASP-12 or the life satisfaction perspective.

Heteroskedasticity is not the only issue plaguing the models. Both of them suffer from having omitted variables, as confirmed by a RESET test (p-value of the test equal to 0). However, this was to be expected as SWB depends on a wide range of variables that cannot always be included in econometric models.

Lastly, the residuals of the regression using the life satisfaction question as a dependent variable do not follow a normal distribution. This was verified using both a normal kernel density plot, and interquartile range. Not only is there a mismatch between the normal density and the kernel plot of residuals (annex A.2.3), but the inter-quartile range highlighted the presence of severe outliers in the residuals' distribution at a 5% significance level. This happens when residuals do not respect the symmetry of the normal distribution. Those results can be problematic when interpreting the results of the F-tests and p-values.

## 4.1.2 Interpretation of the results

The results from both regressions can be found in table 2. The R<sup>2</sup> are fairly low, meaning that not much of the variance of parental SWB is explained by the model. The coefficients of all of the variables, except for the number of children in the CASP-12 regression, are significant, implying that they have an impact on parental SWB. Moreover, most of them are significant at a 1 or 5% levels, which is a very good sign.

As expected, a wealth gain has a positive impact on parental SWB, as it allows individuals to live better through increasing their consumption possibilities. Unsurprisingly as well, an increase in the number of chronic diseases decreases SWB for both CASP-12 and life satisfaction. This is also reflected by the general health variable. The relationship here might appear negative, but it is due to the way in which the variable is coded in the dataset. Indeed, the Likert scale on which respondents

rate their health in general goes from 1. 'Excellent' to 5. 'Poor'. An increase in the variable's value thus means that more people report lower levels of health. Consequently, this scale system leads to an inverse relationship between health in general and parental well-being. In other words, the less people are satisfied with their health, the lower their SWB. General health also appears to have the biggest impact on parental well-being out of the variables in the regression, for a unit increase in general health increases SWB by 2.46 in the CASP-12 regression and 0.556 in the life satisfaction one.

Continuing with the number of children, the models offer conflicting results. In the CASP-12 one, the more children someone has, the less happy they are. This would be consistent with the literature review, especially with the assumption that parental happiness stops increasing after two kids for example (Myrskylä & Margolis, 2014). That result, however, is not significant. The number of children in the second model, on the other hand, is significant at a 1% level and says that parental happiness increases with kids. Now, the literature could also support this result as the average number of children in this sample is fairly low at around two per respondent. There could be a lack of large families dragging the happiness from having children down.

The respondent's own educational mobility compared to their parents appears to have a negative impact on their SWB. As seen in the literature review, there is a lack of agreement concerning the impact of mobility on self-reported measures of well-being (see Hadjar and Samuel (2015), or Iveson and Deary (2017) for example). However, this result being significant at 5% for the CASP-12 model and at 10% for the life satisfaction question one, it should still be taken into account.

Finally, the respondents' children's educational mobility compared to them also seems to have a negative impact on parental well-being. For each unit increase in the children's educational mobility, parental well-being decreases by 0.315 units for the CASP-12 regression, and 0.0263 in the other one. Mitchell (2010) highlights that parental satisfaction depends a lot on their perception of how well they did as parents. In other words, parents are happy when they perceive that their children are well-adjusted individuals. One could believe that this would have something to do with how well children do in school for example, as partly denoted by their educational attainment. However, the notion of being well-adjusted is deeply cultural (Mitchell & Wister, 2015) and depends on factors that were not analysed here. According to Statista (2023), 82% of expats living abroad in 2022 hold a bachelor's degree or higher. In the cultures promoting multigenerational households for example, could a child getting higher levels of education and being tempted to leave the nest be seen by their parents as a failure on their part, and thus decrease their SWB?

	(1)	(2)			
VARIABLES	CASP-12	Life satisfaction			
А	1.04e-05**	1.66e-05***			
	(4.06e-06)	(1.22e-06)			
Number of children	-0.0489	0.0450***			
	(0.0373)	(0.0114)			
General health	-2.046***	-0.556***			
	(0.0448)	(0.0142)			
Chronic diseases	-0.412***	-0.0645***			
	(0.0333)	(0.0105)			
Own mobility	-0.0797**	-0.0181*			
	(0.0326)	(0.00970)			
Wealth	0.0348***	0.00814***			
	(0.00150)	(0.000461)			
Child mean mobility	-0.315***	-0.0263***			
	(0.0321)	(0.00933)			
Constant	42.96***	8.678***			
	(0.197)	(0.0600)			
Observations	17.412	17.725			
R-squared	0.236	0.163			
Debugt standard smore in normathasas					

Table 2 – Baseline results from the regressions using mean children mobility

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

<u>Source</u>: Own computations based on data from SHARE wave 6

## 4.2 Additional tests

#### 4.2.1 Baseline model using minimum and maximum child mobility index

In order to assess whether more or less mobility for the children would have an impact on parental SWB, the child mobility variable was computed from the minimum and maximum educational attainment per sibling in a household. The preliminary tests conducted on the new regressions had the same outcomes as the ones for the baseline equation and thus come with the same warnings.

The results for the new models can be found in annex A.1.6 for the child mobility using minimum sibling educational attainment, and in annex A.1.7 when using maximum attainment. All in all, the results do not vary tremendously from the ones in table 2.

#### 4.2.2 Model controlling for children living at home

This model controls for adult children still living with their parents or having moved out. Its results are in table 3. Individuals surveyed by SHARE being 50+ years-old, it is not unreasonable to assume that most of them are in their midlife parenting phase and have adult, or almost adult children. Adult children are defined here as 25 and older (i.e., being born before 1990, 1990 included), as the younger ones living in the parental house might still be students. The intuition is that the presence of adult children in the household could influence parental well-being as it would mean that their offspring are not fully independent yet. A dummy variable was included in the baseline regression to take into account whether one of the respondent's children over 25 years old still lives at home.

Consequently, the dummy takes a value of 1 if children over 25 years old have moved out, and 0 otherwise.

The added variable is only significant at 10% for the CASP-12 regression, the other one did not find a significant relationship between adult children moving out and parental life satisfaction. It is positive, which would indicate that parental happiness increases when their adult children move out. It also increases the effect of the following variables: number of children and the respondent's own mobility, while slightly decreasing the effect of the children's mobility on parental SWB.

However, still looking at the CASP-12 regression, it only contains 1.661 observations. The original sample, on the other hand, encompasses 68.085 observations. In addition to that, the same caveats apply here than for the baseline regression in terms of econometric tests. While the regression with the CASP-12 index passes the test for the normality of residuals and presents no apparent multicollinearity, it still suffers from both heteroskedasticity and the omitted variables bias.

	(1)	(2)			
VARIABLES	CASP-12	Life satisfaction			
А	-2.52e-05	1.48e-05**			
	(2.19e-05)	(6.52e-06)			
Number of children	-0.418***	-0.00721			
	(0.136)	(0.0441)			
General health	-1.688***	-0.520***			
	(0.154)	(0.0473)			
Chronic diseases	-0.274**	-0.0570			
	(0.135)	(0.0418)			
Own mobility	-0.281***	-0.111***			
	(0.0985)	(0.0271)			
Wealth	0.0352***	0.00749***			
	(0.00455)	(0.00137)			
Child mean mobility	-0.236***	-0.0665***			
	(0.0878)	(0.0246)			
Child moved out	0.491*	0.0820			
	(0.277)	(0.0802)			
Constant	41.98***	8.708***			
	(0.575)	(0.176)			
Observations	1 661	1 680			
R-squared	0.190	0.166			
Dobust standard arrays in noranthasas					

Table 3 – Results for regressions including dummy for adult children still at home

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

<u>Source</u>: Own computations based on data from SHARE wave 6

## 4.2.3 Model controlling for the number of children

As seen earlier, having more than two children can influence parental SWB. While the literature argued that adding children would decrease SWB, but the significant result from the baseline regressions (table 2) suggested the contrary. This additional model in table 4 thus controls for that by

adding a new dummy variable to the baseline regression. This dummy is equal to 0 if there are up to two children in the household, and is equal to 1 otherwise.

The dummy is only significant in the life satisfaction regression. There, it is positive and significant at 5%. This would imply that an increased number of children brings a higher level of SWB for the parents. This is inconsistent with the literature reviewed earlier, which had associated the birth of more children after the second one to lesser levels of parental happiness. Those results, however, have to be interpreted with some caution as the models are once again plagued with the same econometric issues.

	(1)	(2)
VARIABLES	CASP-12	Life satisfaction
А	1.03e-05**	1.65e-05***
	(4.06e-06)	(1.22e-06)
Number of children	-0.112*	0.0122
	(0.0591)	(0.0183)
General health	-2.045***	-0.556***
	(0.0449)	(0.0142)
Chronic diseases	-0.411***	-0.0644***
	(0.0333)	(0.0105)
Own mobility	-0.0794**	-0.0179*
	(0.0326)	(0.00970)
Wealth	0.0348***	0.00814***
	(0.00150)	(0.000461)
Child mean mobility	-0.315***	-0.0261***
	(0.0321)	(0.00933)
Over 2 children	0.199	0.104**
	(0.138)	(0.0418)
Constant	43.04***	8.719***
	(0.206)	(0.0631)
Observations	17.412	17.725
R-squared	0.236	0.164
	Debugt standard among in	mananthagag

Table 4 - Results for regressions including dummy for households with over two children

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Own computations based on data from SHARE wave 6

#### 4.2.4 Model to control for the children's gender in households of two children

In this sample restricted to respondents with exactly two children, a dummy variable was added to consider whether both children were of the same gender (dummy = 1) or not (dummy = 0). This follows the hypothesis established in the literature review that European parents tend to have a predilection for mixed-sex children (i.e., at least one boy and one girl).

This variable, however, turns out to be insignificant in both the CASP-12 and the life satisfaction question regressions (table 5). Having two children of different genders thus appears to have no impact on parental well-being in this model.

	(1)	(2)
VARIABLES	CASP-12	Life satisfaction
A	2.19e-05***	1.81e-05***
	(5.82e-06)	(1.78e-06)
General health	-1.917***	-0.514***
	(0.0644)	(0.0204)
Chronic diseases	-0.452***	-0.0779***
	(0.0477)	(0.0153)
Own mobility	-0.118**	-0.0320**
	(0.0464)	(0.0141)
Wealth	0.0324***	0.00760***
	(0.00216)	(0.000676)
Child mean mobility	-0.319***	-0.0390***
	(0.0465)	(0.0135)
Same gender	0.158	0.0238
	(0.117)	(0.0351)
Constant	42.56***	8.694***
	(0.256)	(0.0781)
Observations	8,211	8,336
R-squared	0.219	0.149

Table 5 – Results for regressions including dummy for same-sex children in households with twochildren

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source: Own computations based on data from SHARE wave 6

## 4.3 Limitations and further research

The baseline regressions suffer from multiple econometric issues including heteroskedasticity, omitted variables, and non-normality in the residuals for the life satisfaction approach. Results thus have to be interpreted carefully, though most of them are significant and appear to be in line with what is laid out in the literature.

Some limitations of this model seem inherent to its dependent variable, i.e., SWB. As highlighted earlier, multiple factors can influence the quality of the data obtained from respondents. This was partly controlled for by having two iterations of the model, each using a different measure of SWB. The use of covariates, in line with the OECD (2013)'s recommendations also helped take into account some of the respondents' personal characteristics (e.g., health, demographics and wealth).

However, the issue of omitted variables remains very present in the model. Subjective happiness and well-being depend on a very wide array of characteristics. Some of them are measurable, but others not so much, or have to be approximated (e.g., cultural factors). Moreover, the literature studying parental happiness remains relatively sparse, though the Covid-19 pandemic has resulted in a surge of interest for the topic. Consequently, this model definitely does not take into account all variables pertaining to parental SWB and could be improved in those regards. The two additional models controlling for adult children moving out, and having over two children have mixed results. When

significant, the former seems to have a positive impact on parental satisfaction, and the latter a negative one.

Further research on this topic could focus on identifying the determinants of parental happiness better. Determinants of midlife parental satisfaction such as how well they perceive their own success as parents in raising a child depend on relatively little studied factors. Cultural norms and characteristics appear to play an important role, but are difficult to measure and go beyond the scope of this thesis. Other factors that could be added to the model to somewhat control for those cultural factors could be the importance of religion for the respondent, as well as child proximity to the familial household. Moreover, those cultural factors could also help explain the impact of children's educational ISM on their parents' SWB. In cultures where independence is valued, children's upward mobility could be seen as a good thing, as it means they would fulfil their parents' expectations of success.

A heterogeneity analysis based on regions and countries, but also on gender could be interesting for two reasons. The first one relates to the aforementioned cultural differences. Analysing the underlying cultural differences in the familial settings and parental expectations might help understand the relationship between parental SWB and their children's mobility better. Then, the heterogeneity analysis would also be helpful from a policymaking perspective, as it would allow to highlight which regions and/or genders experience the least mobility and/or SWB, and why. Knowing this, policies to foster ISM, including the ones mentioned in the earlier sections of this paper, could potentially be implemented depending on the context.

Finally, one cannot write about SWB without mentioning reverse causality. Indeed, the causal relationship between SWB and ISM could go one way or the other. It is complicated to assess whether a change in ISM is causing a change in parental SWB, or if the contrary is true. Reverse causality analyses could thus be conducted following Lindholm (2020)'s methodology for example. The author assesses the reverse causal relationship between SWB and political activity by reversing the variables in the models, i.e., by observing both the effect of SWB on political activity, and the effect of political activity on SWB. This previous point also ties back to endogeneity. Given that the model already suffers from omitted variable bias, some of its explanatory variables could potentially be endogenous (i.e., they are correlated with the error term (Wooldridge, 2003)). If so, the model could suffer from misspecification.

# 5. Conclusion and discussion

With intra-countries inequalities on the rise, economic research has been increasingly turning its focus onto inequality and other related topics. One such topic, ISM, was analysed here.

ISM in itself is broad concept with numerous determinants. The literature review attempted to give an overview of it, first by focusing on ISM on the societal and individual levels, and then by going into the factors influencing it. Those can be transmitted by the individual's environment, as is the case for wealth and material goods, child endowment and psycho-social disposition, and parental behaviour and family dynamics. They can also be external to the person's immediate family and close circle. Examples of such factors include the SC accumulated through inter-classes interactions, policies regarding schooling and education, and taxes and public expenditures.

Inequality and ISM being linked through the breakdown of the social elevator and its consequences, policies to foster upward mobility seem justified. The paper detailed three areas in which policymakers could intervene: EC, health, and schooling and education.

This thesis also contained a SWB component, as it aimed at filling a gap in the literature by examining the potential existence of a causal relationship between children's educational ISM and parental SWB. Parental SWB has been relatively unexplored so far, especially through the lens of ISM, but there are nonetheless factors that are known to influence it at all stages of the individual's parental journey. One of the main determinants of midlife parental SWB relates to parental perceptions about how well they did their jobs as parents and how well-adjusted their children turned out. This itself is dependent on cultural characteristics, some cultures promoting independence and individuality while others have deep familial values that translate into multigenerational housing for example.

The paper's model aimed to assess whether children experiencing different educational levels than their parents would result in a change in parental reported life satisfaction, measured by the CASP-12 index and a general question about life satisfaction. The coefficient for the children's mobility was significant at a 1% level for both regressions and was negative, denoting of a potential negative relationship between parental SWB and their child's ISM. It would mean that children being more educated than their parents could cause the latter's satisfaction with life to decrease. One of the main interpretations for this result resides in parental cultural characteristics, which were not taken into account in the model but could be developed by further research. When controlling for adult children moving out and the impact of having over two children, the results were rather mixed and have to be interpreted with caution. Having two same-sex children did not seem to impact parental SWB as it was insignificant in both regressions.

Finally, while the model experienced some econometric issues, its results remain interesting for a first, and hopefully not last, incursion into the exploration of the links between ISM and parental SWB.

# Appendix

## A.1 Tables

## A.1.1 List and distribution of respondents per country

Country identifier	Northern	Western	Southern	Eastern	Total	Percent
11. Austria	0	3,323	0	0	3,323	4.88
12. Germany	0	4,411	0	0	4,411	6.48
13. Sweden	3,905	0	0	0	3,905	5.74
15. Spain	0	0	5,615	0	5,615	8.25
16. Italy	0	0	5,305	0	5,305	7.79
17. France	0	3,947	0	0	3,947	5.8
18. Denmark	3,733	0	0	0	3,733	5.48
19. Greece	0	0	4,924	0	4,924	7.23
20. Switzerland	0	2,803	0	0	2,803	4.12
23. Belgium	0	5,814	0	0	5,814	8.54
25. Israel	0	2,035	0	0	2,035	2.99
28. Czech Republic	0	0	0	4,851	4,851	7.12
29. Poland	0	0	0	1,826	1,826	2.68
31. Luxembourg	0	1,563	0	0	1,563	2.3
33. Portugal	0	0	1,674	0	1,674	2.46
34. Slovenia	0	0	4,223	0	4,223	6.2
35. Estonia	5,638	0	0	0	5,638	8.28
47. Croatia	0	0	2,495	0	2,495	3.66
Total	13,276	23,896	24,236	6,677	68,085	100

Source: Own computations based on data from SHARE wave 6

#### A.1.2 Categories of CASP-12 scores

CASP-12 category	Min	ſ	Мах	
Very low		12		21
Low		22		30
High		31		39
Very high		40		48
Total		12		48

Source: Own computations based on data from SHARE wave 6

#### A.1.3 Summary statistics for children's education

Variable	Obs	Mean	Std. dev.	Min	Max
ch_meandu	25,240	3.67	1.11	0	6
ch_mindu	25,240	3.29	1.27	0	6
ch_maxdu	25,240	4.04	1.19	0	6

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The variables in the table result from different methods applied to summarise the educational attainment for children from a specific household. Ch\_meandu, ch\_mindu, and ch\_maxdui used the mean, minimum, and maximum values respectively.

Variable	Obs	Mean	Std. dev.	Min	Max
ch_meanbi	24,959	0.74	1.5	-5	6
ch_minbi	24,959	0.36	1.63	-6	6
ch_maxbi	24,959	1.11	1.58	-5	6

## A.1.4 Summary statistics for children's educational mobility

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The variables in the table result from different methods applied to summarise the educational mobility for children from a specific household. Ch\_meanbi, ch\_minbi, and ch\_maxbi used the mean, minimum, and maximum values respectively.

#### A.1.5 VIF variables for both regressions

#### CASP-12

	Variable	VIF	1/VIF
	chronicw6c	1.	4 0.715077
	ph003_	1.3	9 0.718450
	ch_meanbi	1.3	5 0.739882
	mobi	1.2	9 0.776428
	А	1.1	7 0.854373
	perc_wealt~6	1.0	6 0.943708
	ch001_	1.0	1 0.991046
	Mean VIF	1.2	4
Life satisfaction			
	Variable	VIF	1/VIF
	chronicw6c	1.	4 0.714560
	ph003_	1.3	9 0.717522
	ch_meanbi	1.3	5 0.738835
	mobi	1.2	9 0.774976
	А	1.1	7 0.855071
	perc_wealt~6	1.0	6 0.943339
	ch001_	1.0	1 0.991268
	Mean VIF	1.2	4

Source: Own computations based on data from SHARE wave 6

<u>Note</u>: The VIF indicates the potential presence of multicollinearity in the model. A VIF = 1 means that there is no correlation between the explanatory variables of the model. A VIF up to 5 means that that correlation is negligeable. Over 5, the issue of multicollinearity cannot be neglected.

	(1)	(2)
VARIABLES	CASP-12	Life satisfaction
А	1.03e-05**	1.65e-05***
	(4.04e-06)	(1.22e-06)
Number of children	-0.103***	0.0412***
	(0.0378)	(0.0116)
General health	-2.041***	-0.555***
	(0.0448)	(0.0142)
Chronic diseases	-0.413***	-0.0647***
	(0.0333)	(0.0105)
Own mobility	-0.0775**	-0.0167*
	(0.0322)	(0.00962)
Wealth	0.0346***	0.00813***
	(0.00150)	(0.000461)
Child min mobility	-0.304***	-0.0228***
	(0.0291)	(0.00851)
Constant	42.96***	8.675***
	(0.197)	(0.0601)
Observations	17,412	17,725
R-squared	0.237	0.163
	Robust standard errors in *** p<0.01, ** p<0.02	n parentheses 5, * p<0.1

A.1.6 Results for regressions using minimum child mobility

<u>Source</u>: Own computations based on data from SHARE wave 6

	(1)	(2)
VARIABLES	CASP-12	Life satisfaction
А	8.49e-06**	1.65e-05***
	(4.05e-06)	(1.22e-06)
Number of children	0.000967	0.0494***
	(0.0375)	(0.0114)
General health	-2.050***	-0.556***
	(0.0449)	(0.0142)
Chronic diseases	-0.410***	-0.0643***
	(0.0333)	(0.0105)
Own mobility	-0.0515	-0.0171*
	(0.0321)	(0.00960)
Wealth	0.0349***	0.00814***
	(0.00151)	(0.000461)
Child max mobility	-0.259***	-0.0246***
	(0.0303)	(0.00887)
Constant	42.90***	8.676***
	(0.197)	(0.0599)
Observations	17,412	17,725
R-squared	0.235	0.163
	Robust standard errors i *** p<0.01, ** p<0.0	n parentheses )5, * p<0.1

A.1.7 Results for regressions using maximum child mobility

<u>Source</u>: Own computations based on data from SHARE wave 6

## A.2 Figures

A.2.1 – Global income inequality between and within countries – Ratio T10/B50 (1820-2020)



Source: wir2022.wid.world/methodology and Chancel and Piketty (2021)

<u>Note</u>: Illustration of the ratio of the 10% average income to bottom 50% average income between 1820 and 2020. Between countries, the ratio peaked around 1980 where the income of the 10% richest was over 50 times superior to the one of the poorest 50%. In 2020, it had fallen to around 38. Inequality within countries is shown to follow an upward trend since the '80s, surpassing inequality between countries around the year 2000.

## A.2.2 – Global wealth inequality – Wealth share top 0.001% vs bottom 50% (1995-2021)



Source: wir2022.wid.world/methodology and Chancel and Piketty (2021)

<u>Note</u>: The share of net household wealth (i.e., the sum of the individual's financial and non-financial assets minus their debts) detained by the richest 0.001% of adults has increased since 1995. This is not the case for the share of wealth of the bottom half of the population, which has been stagnating at around 2% since the early 2000s.



## A.2.3 Kernel densities for both regressions' residuals



Source: Own computations based on data from SHARE wave 6

<u>Note</u>: A normal density plot (red) was overlaid on the regressions' residuals' plots (blue). The closer the plots on the graphs, the more likely the normal distribution.

## Data availability statement

## SHARE database

This paper uses data from SHARE Waves 1, 2, 3, 4, 5, 6, 7, 8 and 9 (DOIs: 10.6103/SHARE.w1.800, 10.6103/SHARE.w2.800, 10.6103/SHARE.w3.800, 10.6103/SHARE.w4.800, 10.6103/SHARE.w5.800, 10.6103/SHARE.w6.800, 10.6103/SHARE.w7.800, 10.6103/SHARE.w8.800, 10.6103/SHARE.w8ca.800, 10.6103/SHARE.w9ca800) see Börsch-Supan et al. (2013) for methodological details.(1) The SHARE data collection has been funded by the European Commission, DG RTD through FP5 (QLK6-CT-2001-00360), FP6 (SHARE-I3: RII-CT-2006-062193, COMPARE: CIT5-CT-2005-028857, SHARELIFE: CIT4-CT-2006-028812), FP7 (SHARE-PREP: GA N°211909, SHARE-LEAP: GA N°227822, SHARE M4: GA N°261982, DASISH: GA N°654221, SSHOC: GA N°823782, SHARE-COVID19: GA N°101015924) and by DG Employment, Social Affairs & Inclusion through VS 2015/0195, VS 2016/0135, VS 2018/0285, VS 2019/0332, and VS 2020/0313. Additional funding from the German Ministry of Education and Research, the Max Planck Society for the Advancement of Science, the U.S. National Institute on Aging (U01\_AG09740-1352, P01\_AG005842, P01\_AG08291, P30\_AG12815, R21\_AG025169, Y1-AG-4553-01, IAG\_BSR06-11, OGHA\_04-064, HHSN271201300071C, RAG052527A) and from various national funding sources is gratefully acknowledged (see www.share-project.org).

### easySHARE

This paper uses data from the generated easySHARE data set (DOI: 10.6103/SHARE.easy.800), see Gruber et al. (2014) for methodological details. The easySHARE release 8.0.0 is based on SHARE Waves 1, 2, 3, 4, 5, 6, 7 and 8 (DOIs: 10.6103/SHARE.w1.800, 10.6103/SHARE.w2.800, 10.6103/SHARE.w3.800, 10.6103/SHARE.w4.800, 10.6103/SHARE.w5.800, 10.6103/SHARE.w6.800, 10.6103/SHARE.w7.800, 10.6103/SHARE.w8.800).(1)

## References

- Adler, N. E., & Stewart, J. (2010). Health disparities accross the lifespan; Meaning, methods, and mechanisms. *Annals of the New York Academy of SCiences, 1186*, 5-23. doi:10.1111/j.1749-6632.2009.05337.x
- Baker, D., Wolf, M. S., Feinglass, J., Thompson, J. A., Gazmararian, J. A., & Huang, J. (2007).
   Health Literacy and Mortality Among Elderly Persons. *Archives of Internal Medicine*, 167(14), 1503-1509. Retrieved from https://doi.org/10.1001/archinte.167.14.1503
- Barclay, K., Lyngstad, T., & Conley, D. (2021). The Production of Inequalities within Families and accross Genereations: The Intergenerational Effects of Birth Order on Educational Attainment. *European Sociological Review*, 37(4), 607-625. doi:10.1093/esr/jcab005
- Becker, D., & Birkelbach, K. (2018). Social mobility and subjective well-being revisited: The importance of individual locus of control. *Research in Social Stratification and Mobility, 54*, 1-20. Retrieved from https://doi.org/10.1016/j.rssm.2018.01.001
- Becker, G., & Tomes, N. (1976, August). Child Endowment and the Quantity and Quality of Children. Journal of Political Economy, 84(4), S143-S162. Retrieved from https://www.jstor.org/stable/1831106
- Becker, G., & Tomes, N. (1986, July). Human Capital and the Rise and Fall of Families. *Journal* of Labour Economics, 4(3), S1-S39. Retrieved from https://www.jstor.org/stable/2534952
- Beller, E., & Hout, M. (2006). Intergenerational Social Mobility: The United States in Comparative Perspective . *The Future of Children, 16*(2), 19-36. Retrieved from https://www.jstor.org/stable/3844789
- Bertoni, M., & Brunello, G. (2013, October). Laterborns Don't Give Up: The Effects of Birth Order on Earnings in Europe. *IZA Discussion Paper Series No. 7679*. Retrieved from https://docs.iza.org/dp7679.pdf
- Betthäuser, B. (2017). Fostering equality of opportunity? Compulsory schooling reform and social mobility in Germany. *European Sociological Review*, *33*(5), 633-644. Retrieved from https://doi.org/10.1093/esr/jcx066
- Blumer, H. (1958, Spring). Race Prejudice as a Sense of Group Position. *The Pacific Sociological Review*, 1(1), 3-7. Retrieved from http://www.jstor.org/stable/1388607
- Börsch-Supan, A. (2022). Survey of Health, Ageing and Retirement in Europe (SHARE) Wave6. Release version: 8.0.0. SHARE-ERIC. Data set. doi:10.6103/SHARE.w6.800

- Börsch-Supan, A., & Gruber, S. (2022). easySHARE. Release version: 8.0.0. SHARE-ERIC. Data set. doi:10.6103/SHARE.easy.800
- Börsch-Supan, A., Brandt, M., Hunkler, C., Kneip, T., Korbmacher, J., Malter, F., . . . Zuber, S. (2013). Data Resource Profile: The Survey of Health, Ageing and Retirement in Europe (SHARE). doi:10.1093/ije/dyt088.
- Bourguignon, F., Ferreira, F. H., & Menéndez, M. (2003). Inequality of Outcomes and Inequality of Opportunities in Brazil. *IDEAS Working Paper Series from RePEc*.
- Bragard, I., Coucke, P., Pétré, B., Etienne, A.-M., & Guillaume, M. (2017). la "Health Literacy", un nouveau moyen pour réduire les inégalutés sociales de santé. *Revue Médicale de Liège*, 72(1). Retrieved from https://hdl.handle.net/2268/207629
- Bridger, E., & Daly, M. (2020). Intergenerational social mobility predicts midlife well-being:
   Prospective evidence from two large British cohorts. *Social Science & Medicine, 261*, 113217-113219. Retrieved from https://doi.org/10.1016/j.socscimed.2020.113217
- Britton, J., Dearden, L., van der Erve, L., & Waltmann, B. (2020). *The impact of undergraduate degrees on lifetime earnings.* London: The IFS. doi:10.1920/re.ifs.2020.0167
- Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). *Rapport sur les inégalités mondiales 2022.* Paris: Seuil.
- Chelwa, G., Hamilton, D., & Stewart, J. (2022). Stratification Economics: Core Constructs and Policy Implications. *Journal of Economic Literature, 60*(2), 377-399. doi:10.1257/jel.20211687
- Chetty, R., Jackson, M., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R., . . . Warnerfelt, N. (2022). Social capital I: Measurement and associations with economic mobility. *Nature, 608*, 108-121. Retrieved from https://doi.org/10.1038/s41586-022-04996-4
- Chetty, R., Jackson, M., Kuchler, T., Stroebel, J., Hendren, N., Fluegge, R., . . . Wernerfelt, N. (2022). Social Capital II: Determinants of Economic Connectedness. *Nature, 608*, 122-134. Retrieved from https://doi.org/10.1038/s41586-022-04997-3
- Crettaz, E., & 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. Retrieved from https://doi.org/10.1080/14616696.2014.946070
- D'Addio, A. (2007). Intergenerational Transmission of Disadvantage: Mobility or Immobility Accross Generations? . *OECD Social, Employment and Migration Working Papers No. 52.* Retrieved from https://www.oecdilibrary.org/docserver/217730505550.pdf?expires=1677952657&id=id&accname=gu est&checksum=BFA8514C23D641C501BBAD2B41B9EE53

- Darity Jr., W. (2022). Position and Possessions: Stratification Economics and Intergroup Inequality. *Journal of Economic Literature*, 60(2), 400-426. doi:10.1257/jel.20211690
- Darling-Harmond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives, 8*. Retrieved from https://doi.org/10.14507/epaa.v8n1.2000
- Deary, I., Taylor, M., Hart, C., Wilson, V., Smith, G., Blane, D., & Starr, J. (2005). Intergenerational social mobility and mid-life status attainment: Influences of childhood intelligence, childhood social factors and education. *Intelligence*, 33(5), 455-472. doi:10.1016/j.intell.2005.06.003
- Easterlin, R. (2001). Income and happiness: Towards a unified theory. *The Economic Journal* (*London*), *111*(473), 465-484. doi:10.1111/1468-0297.00646
- Eurofound. (2021). *Wealth distribution and social mobility*. Luxembourg: Publications Office of the European Union. doi:10.2806/129514
- Fort, M., Schneesweis, N., & Winter-Ebmer, R. (2012). More schooling, more children: Compulsory schooling reforms and fertility in Europe. SHARE Working Paper Series. Retrieved from http://www.shareproject.org/uploads/tx\_sharepublications/WP\_07\_2012\_Fort\_Schneeweis\_Winter-Ebmer\_01.pdf
- Gruber, S., Hunkler, C., & Stuck, S. (2014). Generating easySHARE: guidelines, structure, content and programming. SHARE Working Paper Series (17-2014). Munich: MEA, Max Planck Institute for Social Law and Social Policy.
- Hadjar, A., & Samuel, R. (2015, March). Does upward social mobility increase life satisfaction? A longitudinal analysis using British and Swiss panel data. *Research in Social Stratification and Mobility, 39,* 48-58. Retrieved from https://doi.org/10.1016/j.rssm.2014.12.002
- Hansen, M. (2014). Self-Made Wealth or Family Wealth? Changes in Intergenerational Wealth Mobility. Social Forces, 93(2), 457-481. Retrieved from https://doi.org/10.1093/sf/sou078
- Harris, D., & Sass, T. (2011). Teacher training, teacher quality and student achievement. Journal of Public Economics, 95(7), 798-812. Retrieved from https://doi.org/10.1016/j.jpubeco.2010.11.009
- Heady, B., & Wooden, M. (2004). The Effects of Wealth and Income on Subjective Well-Being and Ill-Being. *The Economic Record*, 80(s1), 24-33. Retrieved from https://doi.org/10.1111/j.1475-4932.2004.00181.x
- Hotz, V., & Pantano, J. (2013). *Working Paper 19542 Strategic parenting, birth order and school performance*. Cambridge: NBER. doi:10.3386/w19542

- Iveson, M., & Deary, I. (2017). Intergenerational social mobility and subjective wellbeing in later life. Social Science & Medicine, 188, 11-20. doi:10.1016/j.socscimed.2017.06.038
- Jepsen, C., & Rivkin, S. (2009). Class Size Reduction and Student Achievement: The Potential Tradeoff between Teacher. *The Journal of Human Resources, 44*(1), 223-250. Retrieved from https://doi.org/10.1353/jhr.2009.0008
- Kaiser, C., & Trinh, N. A. (2021). Positional, Mobility, and Reference Effects: How Does Social Class Affect Life Satisfaction in Europe? *European Sociological Review*, 37(5), 713-730. doi:10.1093/esr/jcaa067
- Kerry, M. J. (2018). Bifactor model of the CASP-12's general factor for measuring quality of lide in older patients. *Journal of patient-Reported outcomes*, 2(1), 57-57. Retrieved from https://doi.org/10.1186/s41687-018-0078-x
- Krueger, A. B. (2003). Economic considerations and class size. *The Economic Journal* (London), 113(485), 34-63. Retrieved from https://doi.org/10.1111/1468-0297.00098
- Krueger, A. B., & Schkade, D. A. (2008). The reliability of subjective well-being measures. Journal of Public Economics, 92(8), 1833-1845. Retrieved from https://doi.org/10.1016/j.jpubeco.2007.12.015
- Kurnaz, M., & Soytas, M. A. (2019). *Early Childhood Investment and Income Taxation*. Retrieved from https://economicdynamics.org/meetpapers/2019/paper\_290.pdf
- Lamela, D., Figueiredo, B., Bastos, A., & Feinberg, M. (2016). Typologies of Post-divorce Coparenting and Parental Well-Being, Parenting Quality and Children's Psychological Adjustment. *Child Psychiatry and Human Development , 47*(5), 716-728. Retrieved from https://doi.org/10.1007/s10578-015-0604-5
- Leopold, L. (2018). Education and Physical Health Trajectories in Later Life: A Comparative Study. *Demography*, *55*(3), 901-927. Retrieved from https://doi.org/10.1007/s13524-018-0674-7
- Lin, G.-X., Hansotte, L., Szczygieł, D., Meeussen, L., Roskam, I., & Mikolajczak, M. (2021). Parenting with a smile: Display rules, regulatory effort, and parental burnout. *Journal* of Social and Personal Relationships, 38(9), 2701-2721. Retrieved from https://doi.org/10.1177/02654075211019124
- Lindholm, A. (2020). Does Subjective Well-Being Affect Political Participation? *46*(3), 467-488. Retrieved from https://doi.org/10.2478/sjs-2020-0023
- Liu, R., Shelton, R., Eldred-Skemp, N., Goldsmith, J., & Suglia, S. (2019). Early exposure to cumulative social risk and trajectories of body mass index in childhood. *Childhood Obesity*, 15(1), 48-55. Retrieved from https://doi.org/10.1089/chi.2018.0116

- Margolis, R., & Myrskylä, M. (2016). Children's Sex and the Happiness of Parents. *European Journal of Population, 32*(3), 403-420. Retrieved from https://doi.org/10.1007/s10680-016-9387-z
- Mikolajczak, M., & Roskam, I. (2020). Parental burnout: Moving the focus from children to parents. *New Directions for Child and Adolescent Developmen, 2020*(174), 7-13. Retrieved from http://hdl.handle.net/2078.1/242184
- Mikucka, M., & Rizzi, E. L. (2016). Does it take a village to raise a child? The buffering effect of relationships with relatives for parental life satisfaction. *FORS working papers* 2016-1. Retrieved from http://hdl.handle.net/2078.1/170969
- Mitchell, B. A. (2010). Happiness in Midlife Parental Roles: A Contextual Mixed Methods Analysis. *Family Relations*, *59*(3), 326-339. Retrieved from https://doi.org/10.1111/j.1741-3729.2010.00605.x
- Mitchell, B. A., & Wister, A. A. (2015). Midlife Challenge or Welcome Departure? Cultural and Family-Related Expectations of Empty Nest Transition. *The International Journal of Aging, 81*(4), 260-280. doi:10.1177/0091415015622790
- Monroy-Gómez-Franco, L. (2022). Shades of social mobility: Colorism, ethnic origin and intergenerational social mobility. *Quarterly Review of Economics and Finance*. Retrieved from https://doi.org/10.1016/j.qref.2022.10.004
- Mueller, S. (2013). Teacher experience and the class-size effect Experimental evidence. *Journal of Public Economics, 98,* 44-52. Retrieved from https://doi.org/10.1016/j.jpubeco.2012.12.001
- Mulatu, M. S., & Schooler, C. (2002). Causal connections between Socio-Economic Status and Health: reciprocal effects and Mediating Mechanisms. *journal of Health and Social Behaviours, 43*(1), 22-41. Retrieved from https://doi.org/10.2307/3090243
- Myrskylä, M., & Margolis, R. (2014). Happiness: Before and After the Kids. *Demography*, *51*(5), 1843-1866. Retrieved from https://doi.org/10.1007/s13524-014-0321-x
- Nash, J. (2008). Re-thinking intersectionality. *Feminist Review, 89*, 1-15. Retrieved from https://www.jstor.org/stable/40663957
- National Heart, Lung, and Blood Institute. (2022, May 18). *Metabolic Syndrome Causes and Risk Factors*. Retrieved from National Heart, Lung, and Blood Institute: https://www.nhlbi.nih.gov/health/metabolic-syndrome/causes#:~:text=Overweight%20and%20obesity%20are%20the,child's%20ri sk%20of%20metabolic%20syndrome.

- Nikolaev, B., & Burns, A. (2014). Intergenerational mobility and subjective well-being -Evidence from the general social survey. *Journal of Behavioral and Experimental Economics*, 53, 82-96. doi: 10.1016/j.socec.2014.08.005
- OECD. (2010). A Family Affair: Intergenerational Social Mobility across OECD Countries. In OECD, *Economic Policy Reforms: Going for Growth 2010.* OECD. Retrieved from https://www.oecd.org/economy/public-finance/chapter%205%20gfg%202010.pdf
- OECD. (2013). OECD Guidelines on Measuring Subjective Well-being. OECD Publishing Paris. Retrieved from https://doi.org/10.1787/9789264191655-en
- OECD. (2015). In It Together: Why Less Inequality Benefits All. Paris: OECD Publishing. Retrieved from https://doi.org/10.1787/9789264235120-en
- OECD. (2018). A Broken Social Elevator? How to Promote Social Mobility. Paris: OECD Publishing . Retrieved from https://www.oecd-ilibrary.org/social-issues-migrationhealth/broken-elevator-how-to-promote-social-mobility\_9789264301085-en
- Pakpahan, E., Hoffmann, R., & Kröger, H. (2017). The long arm of childhood circumstances on health in old age: Evidence from SHARELIFE. *Advances in Life Course Research*, *31*, 1-10. Retrieved from https://doi.org/10.1016/j.alcr.2016.10.003
- Pekkarinen, T. (2008). Gender differences in educational attainment: Evidence on the role of tracking from a Finnish quasi-experiment. *The Scandinavian Journal of Economics*, 110(4), 807-825. Retrieved from https://doi.org/10.1111/j.1467-9442.2008.00562.x
- Pestieau, P. (2021). La panne de l'ascenceur social. *Commentaire, 176,* 207-212. Retrieved from https://orbi.uliege.be/handle/2268/265982
- Protzer, E. S. (2021). Social Mobility Explains Populism, Not Inequality or Culture. CID Harvard University Working Paper (118). Retrieved from https://growthlab.cid.harvard.edu/files/growthlab/files/2019-09-cid-fellows-wp-118populism-revision-2021-5.pdf
- Roemer, J., & Trannoy, A. (2015). Chapter 4 Equality of Opportunity. In J. E. Roemer, & A. Trannoy, *Handbook of Income Distribution* (Vol. 2, pp. 217-300). Atkinson, A. & Bourguignon, F. Retrieved from https://doi.org/10.1016/B978-0-444-59428-0.00005-9
- Senik, C. (2014). Wealth and happiness. *Oxford Review of Economic Policy*, *30*(1), 92-108. Retrieved from https://doi.org/10.1093/oxrep/gru004
- Statista. (2023). *Share of expats living abroad in 2022, by educational attainment*. Retrieved from Statista: https://www.statista.com/statistics/946902/expats-living-abroad-educational-

attainment/#:~:text=82%20percent%20of%20expats%20living,had%20no%20degree %20at%20all.

- Tao, Z., & Han, W. (2021). Assessing the impacts of hierarchical healthcare system on the accessibility and spatial equality of healthcare services in Shenzhen, China. *ISPRS international Journal of Geo-Information*, 10(9), 615-. Retrieved from https://doi.org/10.3390/ijgi10090615
- UN Development Strategy and Policy Analysis Unit. (2015). Concepts of Inequality. *Development Issues No. 1.* Retrieved from https://www.un.org/en/development/desa/policy/wess/wess\_dev\_issues/dsp\_polic y\_01.pdf
- UNESCO. (2006). International Standard Classification of Education ISCED 1997. Retrieved from http://uis.unesco.org/sites/default/files/documents/international-standardclassification-of-education-1997-en\_0.pdf
- Vanger Haegen, M., & Etienne, A.-M. (2020). Évaluation des symptômes somatiques et de la détresse des parents d'un enfant en rémission de cancer. *Bulletin du Cancer*. Retrieved from https://hdl.handle.net/2268/250046
- von Stumm, S., Gale, C., Batty, G., & Deary, I. (2009). Childhood intelligence, locus of control and behaviour disturbance as determinants if intergenerationak social mobility: British Cohort Study 1970. *Intelligence (Norwood), 37*(4), 329-340. Retrieved from https://doi.org/10.1016/j.intell.2009.04.002
- Wauters, A., Vervoort, T., Dhondt, K., Soenens, B., Vansteenkiste, M., Morbée, S., . . . Van Hoecke, E. (2022). Mental health outcomes among parents of children with a chronic disease during the COVID-19 pandemic : the role of parental burn-out. *Journal of Pediatric Psychology, 47*(4), 420-431. Retrieved from https://doi.org/10.1093/jpepsy/jsab129
- Weldon, S. (2008). Intersectionality. In *Politics, Gender, and Concepts: Theory and Methodology* (pp. 193-218). G. Goertz & A. Mazur. doi:10.1017/CBO9780511755910.009
- Wells, N., Evans, G., Beavis, A., & Ong, A. (2010). Early childhood poverty, cumulative risk exposure and body mass index trajectories through young adulthood. *American Journal of Public Health*, 100(12), 2507-2512. Retrieved from https://doi.org/10.2105/AJPH.2009.184291
- Wiggins, R. D., Netuveli, G., Hyde, M., Higgs, P., & Blane, D. (2008). The Evaluation of a Self-Enumerated Scale of Quality of Life (CASP-19) in the Context of Research on Ageing: A Combination of Exploratory and Confirmatory Approaches. *Social Indicators reasearch, 89*(1), 61-77. Retrieved from https://doi.org/10.1007/s11205-007-9220-5

- Wooldridge, J. M. (2003). *Introductory econometrics: a modern approach* (2nd ed.). Thomson Learning.
- World Health Organisation. (2022, September 16). *Noncommunicable diseases*. Retrieved from World Health Organisation: https://www.who.int/news-room/factsheets/detail/noncommunicable-diseases
- Zilanawala, A., & McMunn, A. (2022). Nonstandard work schedules in the UK: What are the implications for parental mental health and relationship happiness. *Community, Work & Family*. Retrieved from https://doi.org/10.1080/13668803.2022.2077173

## Executive summary<sup>1</sup>

Understanding intergenerational social mobility and its determinants could help understand its impact on relevant topics such as inequality and well-being. Using European data from the SHARE database, this thesis aims at analysing the existence of a potential link between parental well-being and their children's educational mobility (measured using ISCED-97 codes for educational attainment). The regression's results suggest a negative impact of children's mobility on their parents' well-being. This first inclusion into the topic raises the question of what other factors could be at play in determining parental happiness, if not their children's educational attainments.

<sup>&</sup>lt;sup>1</sup> Word count without figures and tables: 11.871 Word count with figures and tables: 12.772