Mobility Regimes and Parental Wealth: The United States, Germany, and Sweden in Comparison

Fabian T. Pfeffer*
University of Michigan

Martin Hällsten
Stockholm University

Version: April 2012

*For a revised revised & expanded version
and the permission to cite please contact the authors*

Introduction

A long-standing strand of sociological research on social mobility has described and at times lively debated cross-national differences in mobility patterns, mobility levels, and mobility trends (Lipset and Zetterberg 1959; Featherman et al. 1975; Treiman and Yip 1989; Erikson and Goldthorpe 1992; Breen 2005). Increasingly, sociologists are interested in going beyond this descriptive evidence and uncovering institutional explanations for observed cross-national differences (Ganzeboom et al. 1991; Kerckhoff 1995; Shavit and Müller 1998; Shavit et al. 2007; Beller and Hout 2006). These explanations would greatly profit from a unified theoretical framework to conceptualize the relationship between national institutional arrangements and mobility outcomes. DiPrete (2002) has begun to develop such framework by providing a parsimonious taxonomy of mobility regimes based on shared patterns of *intra*generational social mobility. This article expands this theoretical framework to *inter*generational mobility processes. To that aim, it reconsiders the central role played by different forms of insurance against negative mobility outcomes. Most importantly, we argue that the comparative assessment of social mobility should also consider forms of *private* insurance that may be at play in addition to or in lieu of public insurance schemes. We propose that the most effective form of private insurance is provided by family wealth and show how wealth facilitates intergenerational mobility in systems with fundamentally different public insurance schemes, namely the United States, Germany, and Sweden. Our assessment of the role of wealth in shaping mobility opportunities in these different institutional contexts complicates existing classifications of mobility regimes and at the same time adds more strength to a theory of mobility regimes that puts different types of insurance mechanisms against mobility risks at its center. Our framework may also help guide the emerging literature on wealth and its social implications in times of rising wealth inequality around the globe (Wolff 2006; Davies 2008, 2009).

Mobility Regimes: The Role of Insurance

The availability of public insurance schemes against the social risks associated with major life-course events – such as unemployment, child-bearing, or sickness – is a central aspect of modern welfare states and an important building block of comparative typologies of welfare regimes (Esping-Andersen 1990, 1998). The availability of insurance against social risks also plays an important role in DiPrete's (2002) proposal for a comparative typology of *mobility regimes*. DiPrete's point of departure is that intergenerational mobility analyses suffer from the assumption of stability of social positions in adulthood, which in many cases is unrealistic given the sometimes large volatility of employment and earnings. Welfare states enter into this process by providing various types of insurance that affect the volatility of *intra*generational careers. DiPrete distinguishes nations according to the incidence of mobility-

generating events – such as unemployment or union dissolution – as well as "the extent to which they mitigate the consequences of these events through social insurance" (p. 267). In his study, Sweden emerges as an "insurance-based mobility regime", the United States as one in which publicly provided social insurance is least central, and Germany occupies a middle position. It may not be surprising that these three empirical representations of different mobility regimes coincide with those of different welfare regimes – Sweden as the model case of the Nordic social-democratic welfare state, the United States as the classical Anglo-Saxon liberal model, and Germany as the Continental-European conservative welfare model (Esping-Andersen 1990). As suggested above, the two typologies share a common theoretical building block: the availability of social insurance against risks. While only one of several aspects in Esping-Andersen's welfare state typology – in the form of decommodification as income replacement –, social insurance is given a more central stage in the work targeted at understanding intragenerational mobility. Over the years, DiPrete and collaborators (DiPrete and McManus 1996; DiPrete et al. 1997; DiPrete and McManus 2000; DiPrete et al. 2001) have developed a framework to analyze welfare states according to their influence on labor market mobility, which culminated in the mobility regime typology mentioned earlier (DiPrete 2002). This theoretical framework has served as an important foundation for further empirical work on differential consequences of adverse life course in different mobility regimes. For instance, Gangl's (2004) work on the consequences of unemployment spells for future career trajectories shows that relatively generous unemployment benefits in Germany provide a safety net for continued growth in occupational status while the absence of a strong unemployment insurance system leads to larger scarring effects of unemployment for future labor market status in the United States.

We expect welfare state typologies and, in particular, the existing mobility regime typology to fruitfully orient future work on intragenerational mobility. At the same time, we lament the lack of a similarly coherent theoretical framework for the analysis of intergenerational mobility. The last major attempt in this regard was what became known as industrialization theory (Kerr et al. 1960; Treiman 1970). It proposed that the rise of technologically advanced manufacturing and bureaucratically organized industries produced – following a functional imperative – a "new mobility regime" that is characterized by high intergenerational mobility rates and the increasingly meritocratic (that is, achievement-based rather than ascription-based) allocation of individuals to education and occupational positions. As a theoretical reference point for the empirical analysis of intergenerational mobility, industrialization theory has been utterly successful (see Erikson and Goldthorpe 1992; Ganzeboom et al. 1991). These empirical analyses, however, have repeatedly refuted the theory's predictions. By now, industrialization theory may seem to be relegated to a straw man function for the motivation of future research on intergenerational mobility. Its place has not been filled and

we suspect that this is one of the reasons for why the otherwise impressive list of empirical facts that the field of comparative mobility research has reached agreement on over the last decades includes very few generalizations about institutional effects on intergenerational mobility patterns (in their 2006 review Hout and DiPrete only refer to the finding of negative effects of tracking of the education system on levels of equality of educational opportunity; see also Pfeffer 2008; Van de Werfhorst and Mijs 2010)[1].

We propose a theoretical approach to the comparative study of intergenerational mobility that, like DiPrete's classification of intragenerational mobility regimes, relies on an examination of the role of insurance. For the intragenerational case, the major mobility-inducing events are those related to labor market disruptions (unemployment, income loss, retirement, etc.) and demographic events (child-bearing, divorce, etc.). For the intergenerational case, the main mobility-inducing events are those structuring educational careers (entry, graduation, and drop-out) and labor market entry (school-to-work transitions). However, if we consider individuals to be forward-looking actors, life-course risks such as unemployment risks and risks for social marginalization will also be relevant for understanding early decision-making regarding educational and occupational careers (e.g., Breen and Goldthorpe 1997; Cameron and Heckman 1998; Morgan 2005) and so insurance will be central to the understanding of both intra- and intergenerational mobility.

Our institutional explanation of intergenerational mobility patterns is geared at investigating the potential role of insurance in educational careers and early occupational attainment. We choose the three classic representatives of different welfare and mobility regimes, the United States, Germany, and Sweden, to investigate how education systems and labor market institutions may or may not buffer children and young adults against social risks involved in educational careers and early occupational careers. While we depart from the exclusive focus on labor market institutions, which is often criticized to limit welfare state research (Hall and Soskice 2001), we share another important conceptual departure point with the work discussed above. Much like Esping-Andersen (1998: p. 36) who considers "the household as the ultimate destination of welfare consumption and allocation[,...] the unit 'at risk'", DiPrete (2002: p. 268) argues that "an adequate theoretical treatment of national mobility regimes must be conceptualized and operationalized in terms of the life conditions of the individual's household". We also conceptualize the household as the preferred level of analysis for comparative mobility research. In fact, for the analysis of intergenerational mobility, we necessarily rely on a household concept that includes offspring as members of the household and family unit. Later, we discuss how the intergenerational extension of the household definition carries important implications for our theoretical arguments.

---

[1]There is, to be sure, other empirical work geared at the macro-explanation of mobility pattners, but the explanations considered are relatively ad-hoc and far from a coherent theoretical framework (e.g., Grusky and Hauser 1984; Beller and Hout 2006).

First, however, we offer our argument for why the consideration of insurance should also figure centrally in comparative studies of intergenerational mobility. The need for insurance against negative outcomes of intergenerational mobility processes first and foremost depends on the extent of risk involved in educational careers. We argue that risk is a universal characteristic of any educational career (or any type of attainment trajectory, for that matter). The insight that risk is a central feature of human capital investments is of course a basic pillar of economic models of educational attainment (Altonji 1993; Manski 1993)[2]. In sociology, it was Breen and Goldthorpe who pointed out that "[r]emaining at school and failing increases the chances of entering the underclass. This means that there is a risk involved in choosing to continue to the next educational level" (1997: p. 282). The concrete risks posed by the failure to complete a specific degree, perhaps less drastic than the immediate relegation to an "underclass", include the lack of a credential that could make up for the opportunity costs of attending education (e.g., foregone earnings), the possible labor market penalty associated with the stigma of failure, and the psychological consequences of failure. Adequate insurance would provide a safety net that mitigates the impact of possible failure and by virtue of doing so would change the educational decision-making process. For the case of labor market mobility, research has shown that when welfare states "absorb risks, the satisfaction of need is 'de-familialized' (taken out of the family)" (Esping-Andersen 1998: p.40). But can the risk of educational failure be 'de-familialized'? Welfare states may reduce life-course risks by introducing social insurance, yet the uncertainty involved in educational decision-making constitutes a risk that is largely closed to social intervention. As we will discuss in detail below, the education system of none of our three comparative cases provides insurance mechanisms that would successfully 'de-familialize' these intergenerational risks.

While alternative institutional designs that could curtail the importance of risk for educational decision-making are imaginable, they appear to carry great and perhaps prohibitive costs. As a first alternative to existing institutional designs, one could imagine education systems that rule out failure – and thereby drastically reduce the risk associated with educational participation – in favor of perfect equality in educational outcomes. While equality of educational outcomes may be an important guiding principle for modern education policy (Coleman 1968), its absolute realization carries efficiency costs: A system with perfectly equal educational outcomes disregards individual differences in ability levels and types and does away with education's signaling function for the labor market. Moreover, human capital is not necessarily a homogeneous asset but produced with variations in quality, so any perfectly equal distribution of educational degrees would still carry heterogeneities within it, which

---

[2]A distinction in economics, which does not further concern us here, is that between uncertainty and risk depending on whether the probabilities of failure are known or not. However, as Mas-Colell et al. (1995: p. 207) point out, uncertainty can in principle only be identified where these probabilities are objectively given, which is not the case for educational careers.

employers and other agents will try to exploit. We do not mean to imply that there is no room or need for institutional reforms that could reduce risk in educational careers through increased equality in educational outcomes, there certainly is. We only claim that even in education systems that approach equality in educational outcomes, failure will remain an option and the risk associated with it will remain, too (potentially at even higher levels compared to less egalitarian systems). A second alternative would consist of limiting the educational decision-making of families. Of course, there are many, normatively permissible restrictions on families' freedom of educational decision-making (Swift and Brighouse 2009), the introduction of compulsory schooling being one example. Again, there is certainly room for alternative institutional designs – given the promise of and interest in early childhood investments (Cunha and Heckman 2007; Heckman and Masterov 2007), an example that may be worthy of discussion could be the expansion of compulsory schooling to earlier ages. But even short of a dystopian world in which families are dispossessed of any educational decision-making (Young 1958) the extent to which education systems may restrict families' power to decide on different educational pathways is clearly limited by the degree to which they encroach on basic family values (Blau and Duncan 1967; Coleman 1974; Swift and Brighouse 2009).

Our reference to alternative institutional designs is meant to illustrate that isolating families' educational decision-making from risk is difficult and ultimately limited by important normative considerations and economic imperatives. For the purpose of our empirical project, we will discuss how different institutional characteristics of the three education systems considered here entail risks for the educational decision-making of families. We will also go on to ask whether labor market institutions in these countries successfully reduce the risks of early occupational careers. In principle, the same labor market structures and insurance mechanisms that are at the heart of DiPrete's mobility regime typology may be at work. We will, however, need to assess to what extent the documented cross-national differences in the degree of insurance provided by labor market institutions also apply to the particular situation of young adults in their early stages of the occupational attainment process.

Before doing so, we introduce the main argument of this contribution. The need for insurance against the risks faced in the status attainment process can also be met by parental wealth. Parental wealth may offer a form of *private insurance* and thereby provide a functional substitute for missing or lacking public insurance schemes for intergenerational mobility processes[3]. While DiPrete's typology

---

[3]Similarly, and in reference to Esping-Andersen's work, Morillas (2007) suggests that parental wealth may serve as a means to "private de-commodification". We avoid this term because i) in Esping-Andersen's framework, de-commodification describes the extent to which economic well-being is decoupled from labor market outcomes and encompasses more aspects than the level of social insurance (namely, rules of access to and range of benefits provided; Esping-Andersen 1990: pp. 47ff), ii) while de-commodification describes the shift of risks between the market and the state, in later work (Esping-Andersen 1998), introduces the term "de-familialization" to refer to risk shifts between state and the family. In this sense, "private de-familialization" would be the more accurate term for the processes studied here. In general, however, we prefer the generic term private insurance since it provides a more direct connection to the mobility regimes typology.

of mobility regimes is based on the "societal mechanisms that mitigate the socio-economic consequences [of mobility-generating events] through some form of social insurance" (p. 268), we hypothesize that a selected family-level characteristic, namely parental wealth, mitigates the socio-economic consequences [of intergenerational mobility-generating events] through some form of private insurance. The next section will detail why we consider wealth to play an important role in buffering the risks involved in educational and early occupational careers more so than any other characteristic of children's socio-economic background.

PARENTAL WEALTH AS PRIVATE INSURANCE

Inequality in the distribution of economic assets is intense. In many industrialized nations, the wealthiest twenty percent of families hold more than eighty percent of all economic wealth (Wolff 2006; Jäntti et al. 2008). Naturally, there is cause for concern that this stark inequality in one generation translates into unequal opportunities for the next generation. Following early work on the role of wealth in the process of intergenerational status transmission (Henretta and Campbell 1978; Campbell and Henretta 1980; Rumberger 1983), recent research has convincingly documented that parental assets are an important dimension of inequality in opportunities in the United States. Researchers from a variety of disciplines have documented a strong association between parental wealth and children's educational achievement and attainment (Conley 2001; Morgan and Kim 2006; Haveman and Wilson 2007; Williams Shanks 2007; Belley and Lochner 2007). Particular attention has also been directed to the role of wealth in explaining racial gaps in children's attainment and early life outcomes (Oliver and Shapiro 1997; Conley 1999; Orr 2003; Yeung and Conley 2008). Fewer empirical contributions have studied and detected an association between the wealth position of families and the labor market outcomes of young adults, such as earnings (Morillas 2007) and their likelihood of self-employment (Fairlie and Robb 2008; Fairlie and Krashinsky 2009). For countries other than the United States, the assessment of the relationship between parental wealth and children's educational and early labor market success has been largely restricted to late-industrializing countries. Torche and collaborators (Torche and Spilerman 2006, 2009; Torche and Costa-Ribeiro 2012) have found that parental wealth plays an important role in Mexico, Chile, and Brazil, where they documented strong effects of parents' asset ownership on different indicators of offspring's economic well-being.[4]

Several mechanisms through which wealth may influence children's opportunities have been suggested. We group them into two broad categories: those explanations referring to the *purchasing function* of parental wealth and, of special importance for this contribution, those referring to its

---

[4]We should note that a few contributions have also demonstrated the importance of parental wealth for the living standards of adults, such as their own home ownership, in industrialized countries (e.g. Spilerman 2004 for Israel; Spilerman and Wolff 2012 for France). In this contribution, we are concerned with earlier life course stages and more selected aspects of the socio-economic attainment process, namely educational and early occupational attainment.

insurance function. According to the purchasing function, parental wealth may provide the necessary monetary resources that fund access to important educational resources. This function might be most evident for the access to costly higher education in the United States and many late-industrializing countries with high tuition costs. Although a long-standing theory in economics hypothesizes the existence of credit constraints for college access, the early insight that these might particularly depend on parental wealth and not only parental income (Becker and Tomes 1986) has only recently been subjected to direct empirical assessment (Belley and Lochner 2007; Lovenheim 2011). In many cases, the purchasing function of wealth implies a direct monetary transfer from parents to their young adult children. These intergenerational transfers to young adults have been observed in many nations (Schoeni and Ross 2005; Attias-Donfut et al. 2005; Albertini et al. 2009) and have been shown to be closely tied to parents' wealth position (Zissimopoulus and Smith 2011). The purchasing function of parental wealth may, however, also emerge at earlier stages of the educational attainment process and in the absence of intergenerational transfers: Parental wealth, and particularly housing wealth, may purchase access to advantaged neighborhoods and schools that positively influence children's educational outcomes (Haurin et al. 2002), particularly in the context of strong and increasing socio-economic segregation of neighborhoods and school (Orfield and Eaton 1996; Reardon and Bischoff 2011). Housing wealth may also provide better home environments that are generally conducive to children's development (Solari and Mare 2012).

Without negating the potential importance of the purchasing function, the conceptual focus of this contribution is on the insurance function of parental wealth. We not only believe that the latter is the most fruitful explanatory framework for studying the relationship between parents' wealth and their children's early attainment outcomes but, as discussed above, we consider it the most promising approach to a cross-national comparison of intergenerational mobility regimes. We define the insurance function of wealth as its *potential* to buffer the socio-economic and social-psychological consequences suffered from negative outcomes in children's and young adults' early attainment processes. Some children are able to fall back on their parents' wealth in case of adverse attainment outcomes, such as college drop-out, a prolonged school-to-work transition period, or early episodes of unemployment. These children, we hypothesize, are consequently more likely to opt for long-term human capital investments, such as college attendance, or choose particularly competitive or protracted career paths that they may be able to sustain even in the face of early set-backs[5]. As part of his ethnographic

---

[5]We also acknowledge the possibility of a different kind of wealth effect on occupational outcomes that may counterweight the hypothesized positive effects: Parental wealth may support educational investments with returns that are not primarily monetary. While individuals from advantaged socio-economic backgrounds generally favor the most prestigious fields of tertiary study, they are, for example, also overrepresented in art schools and therefore faced with a labor market that is highly volatile but provides low agerage income returns. While this phenomenon may indeed weaken the hypothesized positive association between wealth and occupational outcomes, it should not be prevalent enough to affect the overall direction of this relationship. In addition, this counterveiling mechanism might be particularly applicable to the very top of the wealth distribution, which survey studies of wealth typically fail to capture.

inquiry into the social significance of wealth, Shapiro (2004) similarly argued that parental wealth provides "important real and psychological safety nets" for children. This perspective also resonates well with what Spilerman (2000) suggested as the preferred conceptual approach to the study of wealth for sociological stratification research: wealth as the foundation not necessarily of a specific consumption pattern but a specific "consumption *potential*", which individuals can draw on – and, as we would add, pass on to their children – if and when needed (in which case, it enables "consumption smoothing"). It is this aspect of wealth that distinguishes it from the socio-economic characteristics typically studied in stratification research, namely occupation-based measures, education, and income (Spilerman 2000: p. 500). The view that wealth ownership produces important behavioral effects that no other aspect of socio-economic status can generate also coincides with the believes of a growing number of advocates of asset-building policies. As Sherraden (1991) famously formulated, "income feeds peoples' stomachs, assets change their minds".

We stress that based on its insurance function, we expect parental wealth to carry behavioral implications, namely influence educational and occupational choice, even in the absence of its actual use as a buffer in situations of educational failure or early labor adversity. In this sense, the exclusive focus on intergenerational transfers to identify intergenerational wealth effects necessarily fails to capture the full impact of parental wealth on children's educational and early occupational careers. The insurance mechanism thereby corresponds to a broader understanding of wealth as a determinant of "life chances", an aspect of economic wealth that has been stressed in asset-based concepts of social class (Sørensen 2000; 2005).

We hypothesize that the insurance function of wealth is a feasible explanation of the cross-national evidence reported here. We do not, however, provide a direct empirical assessment of this mechanism. The latter is a challenging task not only because of the lack of a clear empirical approximation – like measures of transfers may provide for a large part of wealth's purchasing function – but also because of the potential impact of unobserved parental characteristics that could contribute to the intergenerational associations observed here. Classical behavioral models in economics suggest a variety of factors that may drive individuals' wealth accumulation, which in the neo-classical world of perfect credit markets is viewed simply as delayed consumption arising from differential savings propensities. The latter may, for instance, be driven by differential discount rates (that is, orientations towards the future), levels of risk aversion, altruistic preferences for bequeathing one's offspring, and others (see also Becker and Tomes 1986). For these unobserved – and potentially unobservable – characteristics to drive the intergenerational associations studied here, they would not only need to determine parents' wealth position but also their offspring's attainment. Whether this line of reasoning is a convincing alternative explanation for the intergenerational association between wealth

and children's outcomes depends on a variety of factors. First, these unobserved characteristics may determine savings propensities but savings behaviors are not necessarily a good predictor of a families' wealth position. We know that the largest part of families' net worth is not accumulated within one generation through savings and investments but passed on through bequests and inter-vivo transfers (although the empirical estimates of just how much wealth transfers account for families' total wealth differ considerably; Kotlikoff and Summers 1981; Modigliani 1988). Second, for these unobservable characteristics to upwardly bias the estimates of intergenerational wealth effects they need to impact parents' wealth and children's outcomes in the same direction. For some characteristics that may be less convincing than for others. For instance, risk aversion – which would appear to be a particular challenge in the context of a conceptual framework that puts much weight on the inherent risks in educational and early occupational careers – does not comply with this requirement. In our view, risk averse families are more likely to accumulate wealth and we expect risk averse parents and children to be less willing to invest in long educational and risky occupational careers (see also Belzil and Leonardi 2009). Third, if parents' unobserved characteristics influence educational decision-making and account for differences in educational and occupational outcomes of their children it seems reasonable to assume that they also account for their own educational and occupational outcomes, which we observe and control for in our models. In other words, controls for parents' own educational and occupational outcomes should capture a large part of those unobserved characteristics assumed to be relevant for the educational and occupational outcomes of their children.[6]

We have considered a number of arguments against the claim that the associations observed here may suffer from severe unobserved bias. But we can also refer to recent work that has found intergenerational wealth effects to be stable against unobserved bias (Torche and Costa-Ribeiro 2012; Spilerman and Wolff 2012; Elwert and Pfeffer 2012). While future research may aspire to add further credibility to the claim of a causal relationship between parental wealth and children's outcomes, we consider the existing evidence encouraging enough to merit the advancement of a conceptual framework in which wealth is hypothesized to affect behavior instead of a prohibitive preoccupation with the possibility of the reverse. We believe that the unique strength of the sociological perspective lies in the focus on the social mechanisms behind these associations (Hedström and Swedberg 1998) and suggest the insurance mechanism as one such mechanism that may help orient future research on wealth and comparative research on intergenerational mobility.

---

[6]Another necessary condition for the existence of unobserved bias arises if we consider children themselves rather than their parents the focal unit of decision-making (a point on which we remain agnostic), namely whether these unobserved characteristics are transmitted across generations (for supporting evidence see Dohmen et al. (2012) on risk aversion and Gouskova et al. (2010) on future orientations).

Institutional Contexts and Wealth Effects

Before embarking on a description of important institutional arrangements and their relationship to parental wealth in the three nations of this study, we should point out one important commonality between them: These three countries are marked by similarly high levels of wealth inequality (see Wolff 2006; Jäntti et al. 2008). It might be particularly notable that wealth inequality is no less intense in otherwise more egalitarian Sweden or Germany than in the United States. In fact, cross-national comparisons of the distribution of wealth in a number of industrialized countries show Sweden to suffer the greatest inequality on this dimension (Jäntti et al. 2008)[7].

In this section, we outline how specific features of the U.S., German, and Swedish education and welfare system relate to the hypothesized purchasing and insurance functions of parental wealth. While our conceptual focus is on the insurance function, we also need to discuss how the purchasing function of wealth for children's attainment may differ across these contexts. As will be shown, the latter shows greater cross-national differences than the former, which provides an important contrast for the interpretation of our empirical results.

Education systems and wealth's purchasing function

The education system of the United States leaves ample room for the purchasing function of parental wealth: Here, the ability to acquire access to advantageous educational resources through home ownership is fostered by the localized funding structure of pre-tertiary public education where property taxes serve as the main revenue source for educational funding. Educational resources are not restricted to schools' economic resources but also the structure of social networks in schools and neighborhoods (see Coleman et al. 1966). Given the funding structure of public education and the extend of socio-economic segregation in neighborhoods and schools (Reardon and Bischoff 2011), the United States thus sets the clearest incentives for wealthy parents to select into preferable neighborhoods. Over and above that, private education plays a non-negligible role throughout all levels of the U.S. education system.f

On the post-secondary level, the U.S. system is marked by generally high and ever rising tuition costs (College Board 2011). Already back in the late 1970s, seventy percent of college students claimed that they would have chosen differently if funding had not constrained their choice (College Entrance

---

[7]Of course, this fact reflects the interaction between a nation's welfare system and the distribution of private wealth: both Sweden's and Germany's public pension scheme provide a more egalitarian wealth distribution than a simple look at individual asset holdings would suggest. Using a measure of private wealth that fails to include pension entitlements is problematic for any study of economic well-being but weights less heavily in the context of this contribution. For the life course stages studied here, namely the early attainment outcomes of children, public wealth entitlements of parents can be assumed to be of minor importance due to the fact that they are ultimately inaccessible until much after the completion of the attainment process. To the extent that parents' foresight of future pension wealth may influence present-time decision-making we provide conservative estimates of wealth effects in Germany and Sweden.

Examination Board 1977; Flint 1992). While need-based scholarships partly cover tuition and living costs, they fail to take into consideration important parts of students' wealth background. For instance, the 1992 Higher Education Act removed home ownership from the calculation of financial need.

In Germany, the choice of a specific secondary school is an equally important strategy to secure educational opportunities. However, educational resources show less variation across different neighborhoods than across different school types within the same neighborhood. In the context of the highly differentiated German education system, the selection of a secondary school type occurs at a relatively early age (typically between ages 10 and 13) and is in many cases de facto irreversible. Entry into the highest track of the highly differentiated German education system is much less determined by residential choices than by parents' knowledge of and own prior success in navigating the complex pathways of the German system (see Pfeffer 2008). Only one school type, the Gymnasium, immediately provides qualifications for entering university. Other school types, the Realschule and Hauptschule, typically lead to an apprenticeship, which prepares for skilled manual or non-manual labor, respectively. For those students who do graduate from *Gymnasium*, access to college is largely open (with the exception of some field-specific numerus clausus rules based on high school GPA) and free, although many German states have experimented with – that is, introduced and again abolished – low tuition fees over the last few years. Living costs are partly covered by a need-based aid system, which, however, also fails to take into account parental wealth. Overall, the lower total cost associated with attending tertiary education should nevertheless make parents' wealth or equity-based lending a less consequential resource in Germany.

In Sweden, schooling is not only free at all levels but also nearly completely standardized, and the complex pathways of the German type have been abolished since the 1950s. The nationally standardized curriculum means that school quality differs comparatively little across schools. Parents can only influence the composition of school peers via the choice of residential location[8]. While the advantage of wealth at the early educational levels may therefore be restricted to living in an affluent neighborhood and having access to the corresponding social networks, the more egalitarian distribution of well-being in Sweden also means that the differences between advantaged and disadvantaged neighborhoods is much less intense compared to the United States. All individuals follow a standardized curriculum until 9th grade (age 15), when they proceed to the voluntary upper-secondary school where they choose between academic and vocational tracks. The vocational tracks are profoundly general in character without the strong connection to the labor market of the German apprenticeship system. All academic tracks grant basic eligibility for tertiary education, although many post-secondary programs, for instance in the natural sciences, require specific high school coursework, such as mathematics and

---

[8]Even though a quasi-market in form of a publicly funded voucher system was introduced in the 1990s at both compulsory and upper secondary levels (see Björklund et al. 2005 for an overview of the consequences of these reforms), the population we study here is influenced little by this reform.

natural sciences. Studying at the voluntary upper-secondary school grants a moderate but notable study benefit that is paid out to the parents until the child turns eighteen and directly to students after that point. Admission to tertiary education is entirely based on a numerus clausus system, a merit selection that is system driven by supply and demand. Graduation from academic tracks is therefore not a guarantee for university admission. Moreover, the grade point average of upper-secondary schools or test results of the voluntary aptitude test SweSAT are close to exclusive instruments for merit selection. Admission based on interviews does occur but is always conditional on the SweSAT results. For higher education and other forms of post-secondary schooling, the government provides all adults up to their fifties with loans and grants, which provide the necessary means for covering living costs, although at a decidedly no-frills level (student grant income is less than half of median earnings). Student housing is reasonably priced in smaller urban settings, but housing costs are high in large cities, where the under-supply of housing and extensive waiting lists have turned into a continuous problem. Parental wealth may thus influence the decision in favor of tertiary education, especially longer post-secondary programs that imply many years of low disposable income, by lowering living costs through private housing or by directly subsidizing income. But, like in Germany, we still expect the lower direct cost of attending college to account for a more muted purchasing function of wealth compared to the United States.

In sum, in regards to wealth's purchasing function, a prediction about the role of institutions should be straightforward. Both Germany and Sweden are known for a strong system of public education and tuition-free higher education while the United States is marked by profound geographic inequalities in the distribution of educational resources and high tuition costs. Consequently, the purchasing function of parental wealth should be expected to be less central in these European nations compared to the United States, where parental wealth is hypothesized to hold the greatest potential for buying educational advantage in the form of advantaged schools and neighborhoods and by facilitating access to and persistence in college.

Risk in educational and early occupational careers in three institutional contexts

While the brief description of each nation's education system offered above allows a clear prediction regarding the expected cross-national differences in the purchasing function of parental wealth, we now discuss why the same does not hold true for the insurance function. We have argued earlier that risk is a universal feature of any educational career. Here, we show how it takes different forms in different systems.

The level of risk in educational careers partly depend on the degree of differentiation of the education systems, that is, the extent, timing, and rigidity of student selection into different secondary school

types and tracks (Hopper 1968; Allmendinger 1989). In a highly differentiated system, such as that of Germany, different school types or tracks define distinct educational pathways with limited possibilities for switching from one path to the other through track mobility or alternative, "second-chance" routes. The failure to complete an educational pathway is thus most likely to incur a permanent loss of education and income in a highly differentiated education system. In addition, the risk is further increased in the German system due to the early selection into different school types: Whether the long path to college completion can feasibly be accomplished is especially great since the basic decision for the college track is typically made in fourth grade, that is, with only limited information about children's academic abilities. In this regard, the German system entails higher levels of risk than more comprehensive systems, such as those of the United States and Sweden, which generally allow for more fluid patterns of track mobility and thereby less drastic and terminal responses to educational failure than drop-out. As one of the most comprehensive education systems of the industrialized world, the Swedish system is perhaps most open to smooth transitions to other tracks in the case of failure (Erikson and Jonsson 1996). In comparison, the U.S. system is more complex and may incorporate higher risks than usually presumed. Arum and Hout (1998) point out that educational attainment in the United States is by no means as gradual or linear a process as sometimes depicted, but instead characterized by an array of choices and constraints (Lucas 2001).

Next, we stress that participation in higher education necessarily entails opportunity costs independent of the direct costs of attendance. The need to make up for foregone earnings constitutes a risk in any institutional contexts. It should be noted that even the relatively generous study benefits offered in Sweden fall far short of making up for these foregone earnings. The two main determinants of opportunity costs are the time to degree completion and the income returns to a tertiary degree: Opportunity costs increase with the official length of study program and the potential delay of graduation. Both official and actual time to a university degree were higher in Germany than in Sweden and the United States at the time our sample of students attended higher education, that is, before the Bologna reform (Smart 2005: p.266). Income returns to a tertiary degree were much lower in Germany and Sweden than in the United States in the time period considered here, partly thanks to relatively high wages for non-tertiary graduates. In the late 1990s, German and Swedish university graduates' income was about one third higher than that of those who held only a higher secondary degree or non-university tertiary degree. In the United States, the ratio was twice this size with a 'college premium' of about two thirds (OECD 2011, table A8.2a). In other words, the opportunity costs of attending higher education were much lower in the United States than in Germany or Sweden.

The major risk entailed in school-to-work transitions and early labor market mobility consists, just like in later labor market mobility, of periods of unemployment. We have already discussed

existing evidence on how the Swedish and German welfare states successfully insure against this risk by providing unemployment insurance. However, we rush to add that unemployment benefits are *not* available to young adults at the beginning of their occupational careers since in both Sweden and Germany they are conditional on having worked full-time for at least one year. Sweden also has the Ghent system in which the state delegates administration of unemployment benefits to organizations associated with trade unions rather than to a government agency. Benefits are thus also conditional on one year of membership in an independent unemployment benefit society. The ability to maintain reservation wages through extended (first) job searches may thus be just as severely limited in Sweden and Germany as it is in the United States – unless young adults may fall back on their parents' wealth during this time.

Further risks associated with school-to-work transitions depend on other institutional features, such as the strength of the link between educational credentials and occupational access. Germany's apprenticeship system significantly eases school-to-work transitions and creates a strong but rigid association between education and occupation. In the United States, by contrast, the association between education and occupation is comparatively more vague. Sweden can be said to occupy a middle ground between Germany and the United States (Shavit and Müller 1998): The standardized Swedish educational system with profoundly general vocational education means that the connection to the labor market is weak, similar to the United States. In the United States, however, this weak connection is coupled with a less strictly regulated labor market and lower barriers to job entry. In regards to labor market regulation, Sweden is more similar to Germany. Sweden thus holds the unusual combination of loose school-to-work linkages and a high unionized and regulated labor market with high minimum wages and seniority-based employment protection (Schröder 2000). Ultimately, this implies that the transition into full-time employment in Sweden is both a risky and drawn-out process (Erikson et al. 2007). Since the 1990s, Sweden has had one of the highest youth unemployment rates relative to that of adults among OECD countries. Supposedly, this adverse feature should be mitigated by Sweden's active labor market policies, however, these labor market programs have proven inefficient and their dampening effect is contested (LeGrand et al. 2005). As class- and occupational attainment is focused on the early years in the labor market (Härkönen and Bihagen 2011), the weak link between education and the labor market in Sweden creates a precarious period with potentially long term consequences – early unemployment experience is associated with a scarring effect on later outcomes (Nordström Skans 2004). In short, the risks involved in the school-to-work transition can be denoted the "blind spot" of the Swedish welfare state.

It is difficult to compare the overall degree of risk that children and young adults face in their

educational and occupational choices in these three systems even when we restrict the assessment of risk to dimensions that can be assessed directly (though not necessarily easily, such as the opportunities for track mobility and availability of alternative pathways in secondary education, opportunity costs in higher education, eligibility conditions for unemployment benefits, barries to for labor market entry), unlike, say, the psychological consequences of failure. Nevertheless, the clear conclusion that can be drawn from the preceding discussion is that risk is a pervasive and important feature of the status attainment process in all three contexts. Even countries with a large welfare state and that may otherwise be described as "insurance-based mobility regimes" fail to provide insurance against those risks. Hence, there is ample room for parental wealth to provide independent and substantial private insurance that f positively impact educational decision-making and occupational careers. We thus begin the empirical assessment of the role of wealth for the status attainment process with the hypothesis that wealth effects are present in all three contexts. While the purchasing function of wealth implies that wealth should play a pronounced role in only the United States, the insurance function of wealth suggests notable wealth effects in all three countries.

Data

The relationship between wealth and children's outcomes is understudied largely because of data limitations. So far, panel surveys in only two nations – the United States and Germany – have measured wealth holdings of families and tracked their children long enough to observe their final educational and early occupational attainment. In addition to these survey data, however, Swedish registry data offer the same kind of information. Below we summarize the nature of both the survey and the register data used in this contribution.

The Panel Study of Income Dynamics (PSID) is the world's longest running, nationally representative panel studies. It began in 1968 with approximately 4,800 households and continues to survey all original sample members and split-off households, such as those of children. The analytic sample consists of children of households that participated in the 1989 wave of the PSID, which included a full-fledged module to measure household wealth. Being of school age in 1989, these children have reached ages 24 through 36 in the 2007 wave (N=1,665)[9].

The German Socio-Economic Panel (SOEP) is Germany's largest panel study, partly modeled after the PSID. It began in 1984 with about 6,000 households living in the Federal Republic of Germany and was expanded to the former German Democratic Republic after the fall of the Berlin Wall (Wagner

---

[9]Another U.S. survey, the National Longitudinal Study of Youth 1979 and its Child and Young Adult Supplement, meets the data requirements for this study. Earlier research has demonstrated that the PSID and NLSY data yield substantively similar results for the questions addressed here (Pfeffer 2011). We choose the PSID as the data source for the cross-national comparison because it is much closer in design and sampling strategy to the German survey used here.

et al. 2007). The 1988 survey wave included an extensive asset questionnaire and therefore builds the basis for the assessment of family characteristics. The children who were of school age in that year have reached ages between 26 and 38 in 2008 (N=745).

The Swedish data come from population level registers. The Swedish sample is based on the 1985 census for the parents and child outcomes in 2007 (ages 28 to 40). The intergenerational inlk is based on a shared census "apartment identification code" in 1985, which closely resembles the structure of household surveys in the United States and Germany. Naturally, the register data yield a much larger number of observations, namely the full universe of the analytic population (N=1,079,634). The socio-economic information used here stems from different registers and censuses: Educational information for both generations is contained in censuses as well as registers from all public providers of schooling since the 1970s. Occupational information comes from censuses for the parent generation and employer-reported records for children.

The survey measures of wealth are fairly comprehensive and provide information separately for each asset type, namely, savings accounts, stocks, business holdings, real estate, home equity, and debts. These can be aggregated to a measure of net worth (real assets plus financial assets minus debts). In the register data, wealth is collected from tax reports and available only as a net worth value[10]. Taxable wealth is assessed at the individual level or family level for married couples (note that cohabitation is very common in Sweden). In the time period for which we assess wealth holdings (1980s), wealth was taxable only if it exceeded a certain threshold corresponding to about 300,000-400,000 SEK (roughly $80,000-$100,000 in today's values). Swedish residents were required to report all of their substantive wealth to the tax authorities irrespective of whether it fell above or below the taxable threshold. Nevertheless, we suspect that individuals with net worth far below the taxable threshold might have reported their total net worth less diligently, and if they did so, with higher measurement error at the bottom. Therefore, we are more likely to miss smaller wealth holdings and fail to capture wealth effects at the lower end of the distribution. We have scrutinized this measurement error by conducting sensitivity analyses in which we have truncated the wealth distribution and imputed a floor value. The results reported here were robust to these sensitivity checks (available from the authors) . In order to increase the comparability of register-based wealth measures to the survey-based wealth measures for the United States and Germany, the net worth values for Swedish families are computed by summing positive wealth for all adult individuals living within the same census apartment.

For our empirical models, the net worth measure is assigned a ceiling value of one million dollars

---

[10]While the register-based wealth measure is of generally high validity, it has some shortcomings. Most importantly, it does not include the market value of apartments. The reason for this is that private ownership of apartments does not exist in Sweden. Instead, Swedes own apartments through membership in housing cooperatives and only the personal share in the cooperative's assets are taxable, but these does not reflect the market value of the property. A more comprehensive description of this system is available from the second author.

(1989-\$, purchasing power parity) and log-transformed to reduce skew. Cases of zero and negative wealth are assigned a floor value. The results presented here are based on a floor value of \$500 (1989-\$, purchasing power parity) but are stable to other arbitrary floor values (that is, those used in the sensitivity analyses for Sweden).

Remaining indicators of a family's socio-economic standing are the highest number of *years of education* completed by either parent, the highest *socio-economic index score* – SEI in the United States and ISEI in Germany and Sweden (see Ganzeboom et al. 1992; Ganzeboom and Treiman 1996)[11] – of either parent's occupation, and the (natural logarithm of) *family income* averaged across several income years ("permanent income") and adjusted for household size ($1/\sqrt{hhsize}$). Educational attainment is measured as the total number of years of education attained, occupational attainment as the socio-economic index score of the current main occupation[12]. The choice of these measures is driven by an effort to replicate the classical variables used in status attainment research. Missing values on all variables are multiply imputed using the Stata *ice* module (Royston 2005).

The issue of measurement error in reports of socio-economic standing is addressed by drawing on measures from at least two points in time: For the social background variables these are the years 1984 and 1989 for the PSID, 1987 and 1988 for the SOEP, and 1985 and 1990 for the Swedish census and register data[13]. For children's outcomes, we use information from the years 2005 and 2007 for the PSID, 2006 and 2008 for the SOEP, and 2004 and 2007 for the register data. In general, the measurement quality in register data is considered higher than that those of surveys. In fact, register data are often used as a benchmark to assess the quality of survey measures. For the measurement of wealth we can, however, note that such comparison has yielded relatively favorable judgments about the quality of survey measures of wealth (see Johansson and Klevmarken 2007) and may therefore instill some confidence in the comparability of wealth effects across these two different types of data sources. Sensitivity analyses in prior work (Pfeffer 2011) also suggest that differential levels of error in the survey measures of wealth for the United States and Germany are unlikely to bias the results of that cross-national comparison.

---

[11]For sharing cross-walks between occupation codes and socio-economic index scores we thank Carl Frederick (see Frederick and Hauser 2008) and Erik Bihagen (see Bihagen 2007).

[12]The identification of the first occupation as opposed to the current occupation would be desirable and allow a more direct assessment of school-to-work transitions. However, since our analyses are based on a sample of relatively young adults (and given further controls for age in some of our models), the differences between current and first occupations should be small. Furthermore, we consider them less problematic than the measurement error produced by the inevitable mis-identification of first occupations (apprenticeships, internships, etc.).

[13]In the United States and Germany, permanent income is measured as a five-year income average. In Sweden, we use two meausures of permanent wealth and permanent income, averaged over the years 1981 to 1984 and 1985 to 1989, respectively. In ongoing revisions, we are further standardizing these different measurement strategies across datasets.

Methods

The empirical assessment of inequalities in opportunity has a long history. For several decades, sociologists have studied this topic under a common framework, namely *status attainment research*. Status attainment models were developed in Blau and Duncan's seminal work *The American Occupational Structure* (1967) to estimate the relative effects of different background characteristics on individuals' educational and occupational success. Blau and Duncan's approach to the study of the reproduction of social inequalities might be the single most replicated model that sociology has seen. Over several decades it has been extended, modified, confirmed, and criticized (Campbell 1983; Ganzeboom et al. 1991). One especially persistent critique of these models comes from Bowles and collaborators (1972; 2002), who have repeatedly suggested that standard status attainment models yield a biased picture of the determinants of attainment because they fail to include important socio-economic background characteristics, particularly parental wealth. This contribution directly responds to the latter objection by investigating the independent role of wealth in the intergenerational transmission of advantage.

We start by applying the same modeling framework introduced by Blau and Duncan. Status attainment models are structural equation models that estimate direct and indirect effects of an individual's social background on his or her educational and occupational attainment. The visual display of the estimation results occurs via path diagrams in which directed arrows indicate direct effects and curved, undirected arrows indicate unanalyzed correlations. Path coefficients can be interpreted as standardized linear regression coefficients (directed arrows) and simple correlation coefficients (curved arrows). The inclusion and exclusion of any specific effect is based on considerations of model fit. The latter is not discussed in detail here but it should suffice to know that all of the presented models that are based on survey data fulfill standard statistical criteria for satisfactory model fit (see Appendix; most standard measures of model fit are not informative for the Swedish case due to the large number of observations). The models estimated here also include a measurement model. This part of the model not only specifies that each (latent) variable is measured by two variables observed at two different points in time, but also allows for measurement error in each variable as well as some selected correlations among these measurement errors. In order to further facilitate the focus on the substantive (structural) part of the models, the measurement part of the estimated models is not further discussed here and not included in the path diagrams (but see Appendix).

We follow the common practice of labeling the estimated coefficients "effects" while stressing that they are estimated under specific assumptions about potential causality and, for the reasons mentioned above, are not meant to yield direct causal evidence – a point that has been stressed from the outset by the creators of path analysis (Wright 1934; Duncan 1966). Similarly, the empirical analyses do not

attempt to directly identify which of the hypothesized mechanisms drive the observed associations. But as suggested above, the outcomes of the comparison might allow us to infer the likely existence of some causal pathways.

The attainment models provide a nice overview but come at the cost of viewing the analyzed outcomes as homogeneous assets. We next examine wealth effects on educational attainment in more detail in order to assess whether they are uniform across the educational distribution or specific to some educational transitions. Educational transition models are a standard sociological tool for the study of social background effects on educational attainment. Rather than viewing education as an uni-dimensional good, these models take the discontinuous and discrete nature of educational attainment as the point of departure and estimate the educational choices the way students face them, namely as a series of transitions (Mare 1981). While this approach increases the realism of the model it has also been criticized on methodological grounds: In principle, every transition is estimated based on an independent sample and for each transition this sample becomes selected on ability. A standard result in the educational transition literature is that social background effects tend to wane across transition, with the sociological interpretation that this reflects increasing social distance between children and their parents. This results, however, can be entirely driven by the process of sample selection described above, which tends to mute social background differences by comparing a relatively more selective group of individuals from disadvantaged backgrounds to a relatively less selective group of individuals of advantaged backgrounds. Mare pointed to this problem in 1993, but it did not receive widespread acknowledgment until 1998 when Cameron and Heckman published a thorough critique of this literature. Cameron and Heckman also criticized the underlying behavioral model according to which each transition is independent, implying myopia on behalf of the agents. Instead, they argue that children form expectations about their *final* level of attainment early on and not just the most proximate outcome at each single transition step.

Thus, while of high theoretical interest, the question if social background differences – and in our case, differences in parental wealth – vary across levels of educational attainment is empirically difficult to assess. Lucas (2001) argues that the estimation problem can be solved through time-varying or transition-varying controls, such as grade point averages from the most recent level of education. Other recent suggestions include the use of assumption rich methods, such as instrumental variable models or latent class estimation of the unobserved component (Lucas 2010). Since we do not have access to transition specific controls, we approach non-linearities in educational attainment from a more agnostic perspective. Angrist and Pischke (2008), who express general skepticism towards non-linear models that condition on previous events, suggest that the function $P(Y > C)$ with varying thresholds C can be used as an outcome in order to assess non-linearities. The function produces binary outcomes with

C as cut-off values that can then by analyzed through logit models or linear probability models (LPM). As opposed to the transitions approach, the estimation sample is kept intact across transitions. The cost is that our focus shifts to variations in the *final distribution* of education (in line with Cameron and Heckman 1998), rather than transition-specific differences. For the United States, we distinguish high school graduation, college attendance without graduation ("some college"), and bachelor's degree (BA) attainment. For Germany, we study the completion of the academic track (Gymnasium) and the graduation from university. For Sweden, we look at the completion of the academic upper-secondary track, which prepares for university studies, a tertiary degree, and – thanks to the large number of observations – we can also investigates post-graduate degree ("long tertiary"). We estimate binary logit models of the $P(Y > C)$ form. Since logit models are identified by assuming a specific error variance, the coefficients they produce are difficult to compare across models and samples (Mood 2010). We therefore estimate *average marginal effects* (the average of individual-specific marginal effects, which are identical to LPM coefficients), which we denote $\partial y/\partial x$, and a proportional version that shows the relative change in $P(Y > C)$ for a unit change of an independent variable, which we denote $E(y)/\partial x$. The last figure is similar to a probability ratio but evaluated separately for each individual and then averaged rather than computed directly from some point in the outcome distribution.

RESULTS

STATUS ATTAINMENT MODELS

In order to assess how the inclusion of wealth alters conclusions drawn from status attainment models, we begin by replicating the standard model of status attainment, which includes only parental education, parental occupation, and family income as background characteristics. In a second step, we add the net worth measure and observe its effects on educational and occupational attainment as well as the resulting changes in the general structure of the intergenerational transmission of advantage. The resulting path diagrams are displayed in Figure 1 for the United States, in Figure 2 for Germany, and in Figure 3 for Sweden. All displayed coefficients are statistically significant (p<.05), with the exception of one coefficient indicated by a dashed line and retained for illustrative purposes.

United States In the standard models of status attainment (Figure 1a), parental education exerts the strongest effects on children's attainment compared to other indicators of social background. This finding corresponds well to the common result of most analyses of intergenerational mobility processes. Under control of parental education, parents' occupational status as indicated by the socio-economic index also exerts significant effects on educational attainment and remaining direct effects on occupational attainment. The same holds true for household income, which exerts stable direct
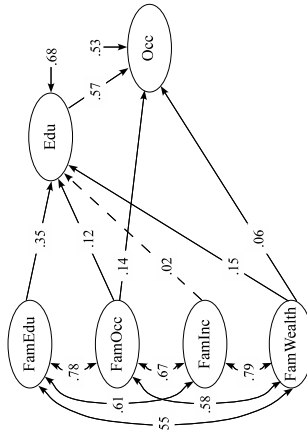
20

Figure 1: United States
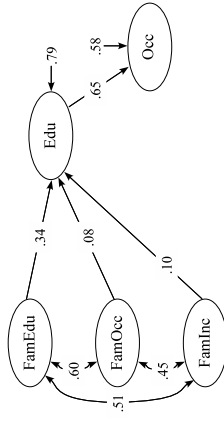
(a) Standard Model
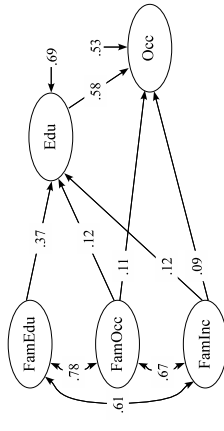
(b) Wealth Effects

Figure 2: Germany
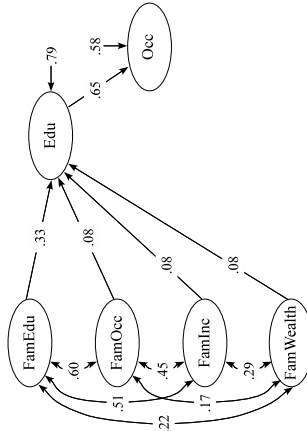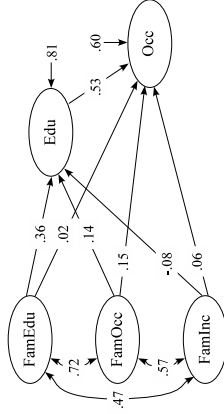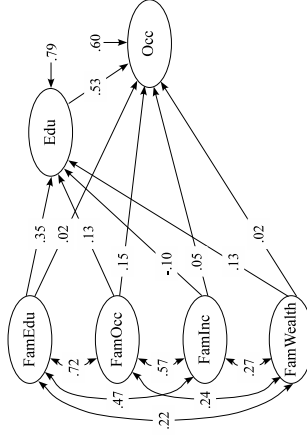
(a) Standard Model

(b) Wealth Effects

Figure 3: Sweden

(a) Standard Model

(b) Wealth Effects

effects on educational and occupational outcomes in both datasets. Overall, this base model yields rather comparable conclusions about the relative force of different social background components and matches up well with the classical results of status attainment research (Blau and Duncan 1967; Sewell and Hauser 1975).

Of course, many further aspects of these models could be discussed here, but the focus of the analysis is on the question of how the overall structure of these models changes once wealth enters the picture. Figure 1b provides the answers, which can be summarized in the following way: First, the intergenerational effects of parental wealth are significant and strong. The size of the coefficients is in the broad range of that of other background effects with the exception of the effects of parental education. Second, the direct effect of parental wealth on occupational attainment under control of its association with educational attainment is also significant and about half the size of its direct effect on education. The only other direct background effect on occupational attainment is that of parental occupation. Third, by adding parental wealth to the classical status attainment model, the effects of family income are reduced to statistical and substantive non-significance. This suggests that in prior research family income measures have at least partly functioned as proxy measures for intergenerational wealth effects[14]. Overall, the suspected strong role of wealth in the process of intergenerational status transmission is confirmed for the United States. Both educational and occupational outcomes are clearly associated with the value of parents' net worth, with all other classical indicators of social background held constant.

Germany   In the base model for Germany (Figure 2a), we again observe strong effects of parental education on their children's educational attainment, which surpass the otherwise significant effects of parental occupation and family income. In contrast to the U.S. case, however, none of these background factors exert direct effects beyond educational attainment on occupational destinations. In other words, the transmission of labor market advantage seems to be entirely mediated by educational attainment. This does not necessarily imply that the structure of intergenerational mobility would be in any way more "meritocratic" than in the United States. Instead, it means that higher status parents succeed in passing along advantage to their children through higher levels of educational attainment. Beyond this, parents' socio-economic resources do not – perhaps do not need to – contribute to status maintenance.

Now, what changes when we add parental wealth to the picture? In Figure 2b we observe a significant effect of parental wealth on educational attainment, incidentally of the very same size as the effects of parental occupational and family income. Parental education remains the most crucial

---

[14]The hesitation to make the broader claim that all of what we believed to be income effects are in reality wealth effects is based on results from the NLSY data, where the reduction of income effects is less pronounced but still notable (see Pfeffer 2011)

component of social background, and status reproduction still fully works through the transmission of educational advantage. But based on these results, the role of parental wealth in intergenerational mobility merits at least as much attention as that of income and occupational background. Another reason for why wealth inequality should be studied as an additional factor in processes of intergenerational mobility in Germany is that, even more so than in the United States, it forms an independent dimension of social inequality that partly runs across existing lines of socio-economic stratification, as indicated by the weaker correlation of wealth with other social background characteristics.

Sweden In Sweden, the based model of status attainment (Figure 3a) also reveals the already familiar dominant role of parental education in impacting the educational attainment of the next generation, but no substantive direct effects on occupational attainment (we remind the reader that thanks to the large sample size any coefficient will be statistically significant). No surprises either for the smaller but substantial effects of parental occupation on both educational attainment and occupational attainment. The intergenerational influence of parental income is much smaller. Surprisingly, however, the association between income and educational attainment appears to be negative, under control of parental education and occupation. A feasible explanation of this counterintuitive results is that in the context of a generous welfare state, higher income based on the same educational and occupational status likely derives from social transfers. In that case, the negative income effects reflect the underrepresentation of students at the tertiary level who have experienced economic hardship during childhood.

These standard background effects remain basically unchanged when we add parental wealth to the model (Figure 3b). Like in the German case, the relatively low correlation between wealth and these other background characteristics could account for this fact. The independent effects of parental wealth on educational attainment are again notable and of the same size as the effects of parental occupation. Substantial wealth effects beyond educational attainment cannot be detected.

Crossnational Comparison Finally, what have we learned about the relative centrality of parental wealth for the intergenerational transmission of status in these three countries? Comparing the sizes of the presented standardized regression coefficient within each dataset, the most sensible conclusion is that of a surprising degree of cross-national similarity in the relative importance of parental wealth as one ingredient of intergenerational advantage[15]. The effects of parental wealth on educational attainment are notable in all three countries. They are significantly smaller than the effects of parental

---

[15]A direct comparison of coefficient sizes across datasets is problematic even if the variables used in these models were (already) fully harmonized across countries (for instance, so far we had to rely on a U.S. version of SEI as opposed to the internationally comparable ISEI scale used in Germany and Sweden) (see also Ganzeboom et al. 1991). It can, however, be noted that even if one were willing to engage in this type of comparison, it would hardly be evident that these three countries differed radically in the importance of wealth for educational attainment.

education, namely about two fifths of the parental education effect in the United States and Germany and one quarter in Germany. But, in all three nations, they are of basically the same size as the effects of parental occupation.

The influence of wealth in the status transmission process extends beyond educational attainment in the United States but not in Germany or Sweden. For Germany, the latter cross-national difference is not particular to wealth effects. Instead, here, none of the included background characteristics show direct effects on occupational destinations once educational attainment has been taken into account. With the exception of intergenerational income effects, the overall structure of the intergenerational transmission of advantage appears very similar across these three nations, most notably regarding the intergenerational effects of wealth.

Educational Transition Models

We now analyze non-linearities in educational attainment in order to investigate whether the estimated wealth effects are general or specific to some transition, which will yield further evidence relevant to the discussion of the purchasing and insurance role of wealth. We also expand the models to include further controls for age, gender, race, family structure, and household size (effects not displayed here, available in online Appendix).

Table 1 shows the results for degree attainment in the United States. All of our measures of social background show positive effects across *all* cut-offs. Not all coefficients are significant, however, as the statistical power is limited by the small sample size. The wealth effects are borderline significant for high school attainment and BA attainment, but play a smaller role for the attainment of "some college". One log unit of wealth increases the probability of attainment at these levels by approximately one percentage point. Since the base is smaller at higher educational levels, this means a stronger relative effect (around one percent for high school and seven percent for BA). This indicates increasing rather than waning effects of wealth as well as other socio-economic characteristics. The main conclusion is thus that wealth is important for all levels of attainment and not specific to some specific level.

For Germany, the sample size is even smaller and statistical power accordingly low. Even though non-significant, the effects reported in Table 2 are positive and very similar across transition. This suggests that the significant wealth effect we detected earlier in the attainment models is important across all levels of attainment rather than specific to only secondary or tertiary attainment. Although statistical power is a concern, we can draw the fairly firm conclusion that wealth effects are similar across levels.

The results presented in Table 3 for Sweden are based on a magnitude of order larger sample. Inference is therefore more certain (or, to the extent that the full population is included, dispensable).

24

Table 1: Degree Attainment: United States

	High school		Some College		BA	
	OR	dydx	OR	dydx	OR	dydx
	(t)	E(y)dx	(t)	E(y)dx	(t)	E(y)dx
FamEdu	1.416***	0.022	1.363***	0.052	1.472***	0.054
	(5.288)	0.028	(7.964)	0.103	(9.421)	0.280
FamInc	1.206	0.012	1.299+	0.044	1.378+	0.045
	(0.900)	0.015	(1.879)	0.087	(1.856)	0.232
FamOcc	1.291***	0.016	1.130**	0.021	1.137**	0.018
	(3.533)	0.020	(3.283)	0.041	(3.187)	0.093
Wealth	1.150+	0.009	1.038	0.006	1.098+	0.013
	(1.830)	0.011	(0.834)	0.012	(1.830)	0.067
Controls	incl.		incl.		incl.	
N	1,836		1,836		1,836	

+ p<.10, * p<.05, ** p<.01, *** p<.001

Table 2: Degree Attainment: Germany

	Gymnasium		University	
	OR	dydx	OR	dydx
	(t)	E(y)dx	(t)	E(y)dx
FamEdu	1.369***	0.060	1.174+	0.022
	(4.149)	0.188	(1.916)	0.128
FamInc	1.151	0.027	1.995+	0.094
	(0.436)	0.084	(1.915)	0.550
FamOcc	1.194*	0.034	1.078	0.010
	(2.141)	0.106	(0.768)	0.060
Wealth	1.044	0.008	1.022	0.003
	(1.245)	0.026	(0.538)	0.018
Controls	incl.		incl.	
N	703		703	

+ p<.10, * p<.05, ** p<.01, *** p<.001

Table 3: Degree Attainment: Sweden

	Academic Secondary		Tertiary		Long Tertiary	
	OR	dydx	OR	dydx	OR	dydx
	(t)	E(y)dx	(t)	E(y)dx	(t)	E(y)dx
FamEdu	1.214***	0.026	1.212***	0.032	1.254***	0.023
	(99.558)	0.144	(106.738)	0.144	(96.435)	0.197
FamInc	1.095***	0.012	0.852***	−0.026	1.005	0.001
	(6.185)	0.068	(−12.347)	−0.120	(0.323)	0.005
FamOcc	1.027***	0.004	1.016***	0.003	1.019***	0.002
	(85.740)	0.020	(57.928)	0.012	(53.041)	0.016
Wealth	1.150***	0.019	1.147***	0.023	1.139***	0.013
	(69.934)	0.104	(74.850)	0.102	(55.727)	0.114
Controls	incl.		incl.		incl.	
N	682,656		682,660		682,656	

+ p<.10, * p<.05, ** p<.01, *** p<.001

At close inspection, the wealth effects show great uniformity across all levels of education. While the absolute effect, indicated by the average marginal effect $\partial y/\partial x$, varies somewhat across levels the proportional effect is very stable. One log unit of parental wealth increases the probability of attainment by ten percent at each level of education. If we examine t-values as an indication of the proportional contribution to R-square as if the variable was added last to the model (Bring 1994), we find that parental wealth and occupation are of roughly equal importance (and, as customary, parents' education remains the most important background factor). One should also note that the negative effect of income observed in the attainment models can be entirely attributed to the tertiary level.

Summary and Conclusion

The status attainment models presented here confirm that parental wealth exerts independent and strong effects on children's life chances in all three countries studied. Independently from more standard indicators of socio-economic background – namely, parental education, occupation, and income – parental wealth emerges as an additional and reasonably powerful factor in the intergenerational transmission of advantage. In addition, our models of educational attainment indicate that parental wealth is important for educational outcomes at all levels of education in all three countries. For a better understanding of the channels of intergenerational mobility, empirical analyses of attainment need to include the most relevant socio-economic characteristics of parents. The results of our analyses suggest that wealth qualifies as one such characteristic in not just the United States but also in Germany and Sweden.

We have argued that the cross-national comparison may lend credence to some of the hypothesized mechanisms underlying intergenerational wealth effects. Having proposed two main functions of parental wealth for children's status attainment – a purchasing and an insurance function – we have hypothesized that the former should be especially pronounced in the United States, while we expected the latter to be relevant in all three nations due to the universal risks inherent in educational decision-making and early occupational careers. We detected a fairly similar role of parental wealth for educational attainment in these three countries, lending support to the view that parental wealth may serve as an important safety net for educational investments. In addition, we consider the wealth effects that we detected for lower levels of the educational ladder additional evidence in favor of parental wealth's early and lasting influence on educational decision-making.

A broader contribution of this work consists in the proposal of a new conceptual framework for the comparative study of intergenerational mobility that considers risk as a universal feature of educational and early occupational careers. We submitted that the three countries considered in this contribution are all marked by a lack of public insurance mechanisms that could isolate families and children

from these risks and suggested that parental wealth may provide an effective functional equivalent. For educational attainment, our empirical results support this view. For occupational attainment, however, we observed direct wealth effects (controlling for its effects on educational attainment) for the United States only and could not detect an independent association between parental wealth and young adults' occupational outcomes for Sweden and Germany. This finding could indicate the effectiveness of other welfare state institutions in Sweden and Germany, which have not been considered here nor in the existing typology of intragenerational mobility regimes, in reducing the risks of early adverse career outcomes of the cohorts studied here. Whether the lack of an independent association between parental wealth and young adults' early occupational outcomes remains true for more recent cohorts, particularly those who enter the labor market in a recession period and in times that may be marked by ever increasing levels of uncertainty (Blossfeld et al. 2005, 2008), remains a question for ongoing research (Pfeffer 2012b,a).

References

Albertini, M., M. Kohli, and C. Vogel. 2009. "Intergenerational transfers of time and money in European families. Common patterns different regimes?" *Journal of European Social Policy* 17:319–334.

Allmendinger, Jutta. 1989. *Career Mobility Dynamics*. Berlin: Max-Planck-Institut für Bildungsforschung.

Altonji, Joseph G. 1993. "The Demand for and Return to Education When Education Outcomes Are Uncertain." *Journal of Labor Economics* 11:48–83.

Angrist, Joshua D. and Jörn-Steffen Pischke. 2008. *Mostly Harmless Econometrics. An Empiricist's Companion*. Princeton: Princeton University Press.

Arum, Richard and Michael Hout. 1998. "The Early Returns. Transitions from School to Work in the United States." In *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations*, pp. 471–510. Clarendon Press.

Attias-Donfut, Claudine, Jim Ogg, and François-Charles Wolff. 2005. "European patterns of intergenerational financial and time transfers." *European Journal of Ageing* 2:161–173.

Becker, Gary S and Nigel Tomes. 1986. "Human Capital and the Rise and Fall of Families." *Journal of Labor Economics* 4:S1–S39.

Beller, Emily and Michael Hout. 2006. "Welfare States and social mobility. How educational and social policy may affect cross-national differences in the association between occupational origins and destinations." *Research in Social Stratification and Mobility* 24:353–365.

Belley, Philippe and Lance Lochner. 2007. "The Changing Role of Family Income and Ability in Determining Educational Achievement." *Journal of Human Capital* 1:37–89.

Belzil, Christian and Marco Leonardi. 2009. "Risk Aversion and Schooling Decisions." *Working Paper Series, Ecole Polytechnique Cahier no 28* .

Bihagen, Erik. 2007. "Class Origin Effects on Downward Career Mobility in Sweden 1982–2001." *Acta Sociologica* 50:415–430.

Björklund, Andres, Melissa A Clark, Edin Per-Anders, Peter Fredriksson, and Alan B Krueger. 2005. *The Market Comes to Education in Sweden*. New York: Russell Sage Foundation.

Blau, Peter M and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: The Free Press.

Blossfeld, Hans-Peter, Sandra Buchholz, Erzsebet Bukodi, and Karin Kurz. 2008. *Young Workers, Globalization and the Labor Market. Comparing Early Working Life in Eleven Countries*. Cheltenham: Edward Elgar.

Blossfeld, Hans-Peter, Erik Klijzing, Melinda Mills, and Karin Kurz. 2005. *Globalization, Uncertainty and Youth in Society*. London: Routledge.

Bowles, Samuel. 1972. "Schooling and Inequality from Generation to Generation." *Journal of Political Economy* 80:S219–S251.

Bowles, Samuel and Herbert Gintis. 2002. "The Inheritance of Inequality." *The Journal of Economic Perspectives* 16:3–30.

Breen, Richard. 2005. "Foundations of a neo-Weberian class analysis." In *Approaches to Class Analysis*, edited by Erik Olin Wright, pp. 31–50. Cambridge: Cambridge University Press.

Breen, Richard and John H Goldthorpe. 1997. "Explaining Educational Differentials. Towards a Formal Rational Action Theory." *Rationality and Society* 9:275–305.

Cameron, Stephen V and James J Heckman. 1998. "Life Cycle Schooling and Dynamic Selection Bias. Models and Evidence for Five Cohorts of American Males." *Journal of Political Economy* 106:262–333.

Campbell, Richard T. 1983. "Status Attainment Research: End of the Beginning or Beginning of the End?" *Sociology of Education* 56:47–62.

Campbell, Richard T and John C Henretta. 1980. "Status Claims and Status Attainment. The Determinants of Financial Well-Being." *American Journal of Sociology* 86:618–629.

Coleman, James S. 1968. "The Concept of Equality of Educational Opportunity." *Harvard Educational Review* 38:7–22.

Coleman, James S. 1974. "Inequality, Sociology, and Moral Philosophy." *American Journal of Sociology* 80:739–764.

Coleman, James S, Ernest Campell, Carol Hobson, James McPartland, Alexander Mood, Frederick Weinfeld, and Robert York. 1966. *Summary Report from Equality of Educational Opportunity ("The Coleman-Report")*. Washington: U.S. Government Printing Office.

College Board. 2011. *Trends in College Pricing*. Trends in Higher Educational Series. New York.

College Entrance Examination Board. 1977. *On Further Examination*. New York.

Conley, Dalton. 1999. *Being Black, Living in the Red. Race, Wealth, and Social Policy in America*. Berkeley: University of California Press.

Conley, Dalton. 2001. "Capital for College. Parental Assets and Postsecondary Schooling." *Sociology of Education* 74:59–72.

Cunha, Flavio and James J. Heckman. 2007. "The Technology of Skill Formation." *American Economic Review* 97:31–47.

Davies, James B (ed.). 2008. *Personal Wealth from a Global Perspective*. Oxford University Press.

Davies, James B. 2009. "Wealth and Economic Inequality." In *The Oxford handbook of economic inequality*, edited by Wiemer Salverda, Brian Nolan, and Timothy M Smeeding. Oxford: Oxford University Press.

DiPrete, Thomas A. 2002. "Life Course Risks, Mobility Regimes, and Mobility Consequences. A Comparison of Sweden, Germany, and the United States." *American Journal of Sociology* 108:267–309.

DiPrete, Thomas A, Paul M de Graaf, Ruud Luijkx, and Michael Tahlin. 1997. "Collectivist versus Individualist Mobility Regimes? Structural Change and Job Mobility in Four Countries." *American Journal of Sociology* 103:318–358.

DiPrete, Thomas A, Dominique Goux, Eric Maurin, and Michael Taehlin. 2001. "Institutional Determinants of Employment Chances. The Structure of Unemployment in France and Sweden." *European Sociological Review* 17:2330254.

DiPrete, Thomas A and Patricia A McManus. 1996. "Institutions, Technical Change, and Diverging Life Chances. Earnings Mobility in the United States and Germany." *American Journal of Sociology* 102:34–79.

DiPrete, Thomas A and Patricia A McManus. 2000. "Family Change, Employment Transitions, and the Welfare State. Household Income Dynamics in the United States and Germany." *American Sociological Review* 65:343–370.

Dohmen, Thomas J, Armin Falk, David Huffman, and Uwe Sunde. 2012. "The Intergenerational Transmission of Risk and Trust Attitudes." *Review of Economic Studies* (Forthcom.

Duncan, Otis D. 1966. "Methodological Issues in the Analysis of Social Mobility." In *Social Structure and Mobility and Economic Development*, edited by Neil J Smelser and Seymour Martin Lipset, pp. 52–97. Chicago: Aldine.

Elwert, Felix and Fabian T Pfeffer. 2012. "Future Treatments and Past Outcomes. Promise and Problems of Two Popular Strategies to Reduce Hidden Bias." *Unpublished Manuscript* .

Erikson, Robert and John H Goldthorpe. 1992. *The Constant Flux. A Study of Class Mobility in Industrial Societies*. Oxford: Clarendon Press.

Erikson, Robert and Jan O Jonsson (eds.). 1996. *Can Education Be Equalized? The Swedish Case in Comparative Perspective*. Social Inequality Series. Boulder: Westview Press.

Erikson, Robert, Oskar Nordström Skans, Anna Sjögren, and Olof ï¿œslund. 2007. "Ungdomars och invandrares inträde pï¿œ arbetsmarknaden 1985-2003." *FAU Rapport* 18.

Esping-Andersen, Gø sta. 1990. *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Esping-Andersen, Gø sta. 1998. *Social Foundations of Postindustrial Economies*. Oxford: Oxford University Press.

Fairlie, Robert W and Harry A Krashinsky. 2009. "Liquidity Constraints, Household Wealth, and Entrepreneurship Revisited." *Unpublished Manuscript* .

Fairlie, Robert W and Alicia M Robb. 2008. *Race and Entrepreneurial Success. Black-, Asian-, and White-Owned Businesses in the United States*. Cambridge: MIT Press.

Featherman, David L, F Lancester Jones, and Robert M Hauser. 1975. "Assumptions of Social Mobility Research in the US. The Case of Occupational Status." *Social Science Research* 4:329–360.

Flint, Thomas A. 1992. "Parental and planning influences on the formation of student college choice sets." *Research in Higher Education* 33:689–708.

Frederick, Carl and Robert M Hauser. 2008. "A Crosswalk for using Pre-2000 Occupational Status and Prestige Codes with Post-2000 Occupation Codes." *Unpublished Manuscript* .

Gangl, Markus. 2004. "Welfare states and the scar effects of unemployment. A comparative analysis of the United States and West Germany." *American Journal of Sociology* 109:1319–1364.

Ganzeboom, Harry B G, Paul M DeGraaf, and Donald J Treiman. 1992. "A standard international socio-economic index of occupational status." *Social Science Research* 21:1–56.

Ganzeboom, Harry B G and Donald J Treiman. 1996. *International Stratification and Mobility File: Conversion Tools*. Utrecht: Department of Sociology.

Ganzeboom, Harry B G, Donald J Treiman, and Wout C Ultee. 1991. "Comparative Intergenerational Stratification Research. Three Generations and Beyond." *Annual Review of Sociology* 17:277–302.

Gouskova, Elena, Ngina Chiteji, and Frank Stafford. 2010. "Pension Participation: Do Parents Transmit Time Preference?" *Journal of Family and Economic Issues* 31:138–150.

Grusky, David B and Robert M Hauser. 1984. "Comparative Social Mobility Revisited. Models of Convergence and Divergence in 16 Countries." *American Sociological Review* 49:19–38.

Hall, Peter A. and David Soskice. 2001. *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.

Härkönen, Juho and Erik Bihagen. 2011. "Occupational attainment and career progression in Sweden." *European Societies* 13:451–479.

Haurin, Donald R, Toby L Parcel, and R Jean Haurin. 2002. "Does Homeownership Affect Child Outcomes?" *Real Estate Economics* 30:635–666.

Haveman, Robert and Kathryn Wilson. 2007. "Access, Matriculation, and Graduation." In *Economic Inequality and Higher Education. Access, Persistence, and Success.*, edited by Stacy Dickert-Conlin and Ross Rubenstein. New York: Russell Sage Foundation.

Heckman, James J. and Dimitry J. Masterov. 2007. "The Productivity Argument for Investing in Young Children." *Review of Agricultural Economics* 29:446–493.

Hedström, Peter and Richard Swedberg (eds.). 1998. *Social Mechanisms. An Analytical Approach to Social Theory*. Cambridge: Cambridge University Press.

Henretta, John C and Richard T Campbell. 1978. "Net Worth as an Aspect of Status." *American Journal of Sociology* 83:1204–1223.

Hopper, Earl I. 1968. "A Typology for the Classification of Educational Systems." *Sociology* 2:29–46.

Hout, Michael and Thomas A DiPrete. 2006. "What we have learned. RC28's contributions to knowledge about social stratification." *Research in Social Stratification and Mobility* 24:1–20.

Jäntti, Markus, Eva Sierminska, and Timothy M Smeeding. 2008. "How is Household Wealth Distributed? Evidence from the Luxembourg Wealth Study." In *Growing Unequal? Income Distribution and Poverty in OECD Countries*, edited by OECD, pp. 253–278. Organization for Economic Co-Operation and Development.

Johansson, Fredrik and Anders Klevmarken. 2007. "Comparing register and survey wealth data." *Unpublished Manuscript* .

Kerckhoff, Alan C. 1995. "Institutional Arrangements and Stratification Processes in Industrial Societies." *Annual Review of Sociology* 15:323–347.

Kerr, Clark, John T. Dunlop, Frederick H. Harbison, and Charles A. Myers. 1960. *Industrialism and Industrial Man: The Problem of Labor and Management in Economic Growth*. Cambridge: Harvard University Press.

Kotlikoff, Laurence J and Lawrence Summers. 1981. "The Role of Intergenerational Transfers in Aggregate Capital Accumulation." *Journal of Political Economy* 89:706–732.

LeGrand, Carl, Ryszard Szulkin, and Michael Tå hlin. 2005. "Education and Inequality in Sweden: A Literature Review." In *Education and Wage Inequality in Europe: A Literature Review*, edited by Elinkeinoelämän Tutkimuslaitos Rita Asplund, Erling Barth, chapter 10, pp. 321–360. Helsinki: Taloustieto Oy.

Lipset, Seymour Martin and Hans L Zetterberg. 1959. "Social Mobility in Industrial Society." In *Social Mobility in Industrial Society*, edited by Seymour Martin Lipset and Reinhard Bendix, pp. 11–75. Berkeley: University of California Press.

Lovenheim, Michael F. 2011. "The Effect of Liquid Housing Wealth on College Enrollment." *Journal of Labor Economics* 29:741 – 771.

Lucas, Samuel R. 2001. "Effectively Maintained Inequality. Education Transitions, Track Mobility, and Social Background Effects." *American Journal of Sociology* 106:1642–1690.

Lucas, Samuel R (ed.). 2010. *New Directions in Education Transitions Research. Special Issue of Research in Social Stratification and Mobility.* Elsevier.

Manski, Charles F. 1993. "Adolescent Econometricians : How Do Youth Infer the Returns to Schooling ?" In *Studies of Supply and Demand in Higher Education*, edited by Charles T. Clotfelter Rothschild and Michael, number January, pp. 43–60. University of Chicago Press.

Mare, Robert. 1981. "Change and Stability in Educational Stratification." *American Sociological Review* 46:72–87.

Mare, Robert D. 1993. "Educational Stratification on Observed and Unobserved Components of Family Background." In *Persistent Inequality. Changing Educational Attainment in Thirteen Countries*, edited by Yossi Shavit and Hans-Peter Blossfeld, pp. 351–376. Boulder: Westview Press.

Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green. 1995. *Microeconomic Theory*. Oxford: Oxford University Press.

Modigliani, Franco. 1988. "The Role of Intergenerational Transfers and Life Cycle Saving in the Accumulation of Wealth." *Journal of Economic Perspectives* 2:15–40.

Mood, Carina C. 2010. "Logistic Regression. Why we cannot do what we think we can do, and what we can do about it." *European Sociological Review* 26:67–82.

Morgan, Stephen L. 2005. *On the Edge of Commitment. Educational Attainment and Race in the United States*. Stanford: Stanford University Press.

Morgan, Stephen L and Young-Mi Kim. 2006. "Inequality of Conditions and Intergenerational Mobility. Changing Patterns of Educational Attainment in the United States." In *Mobility and Inequality. Frontiers of Research in Sociology and Economics*, edited by Stephen L Morgan, David B Grusky, and Gary S Fields, pp. 165–194. Stanford: Stanford University Press.

Morillas, Juan Rafael. 2007. "Assets, earnings mobility and the black/white gap." *Social Science Research* 36:808–833.

Nordström Skans, Oskar. 2004. "Scarring effects of the first labour market experience. A sibling based analysis." *IFAU Working Paper* 14.

OECD. 2011. "An Overview of Growing Income Inequalities in OECD Countries." In *Divided We Stand: Why Inequality Keeps Rising*, pp. 21–45.

Oliver, Melvin L and Thomas M Shapiro. 1997. *Black Wealth, White Wealth. A New Perspective on Racial Inequality*. New York: Routledge.

Orfield, Gary and Susan E Eaton. 1996. *Dismantling Desegregation. The Quiet Repeal of Brown vs. Board of Education*. New York: New Press.

Orr, Amy J. 2003. "Black-White Differences in Achievement. The Importance of Wealth." *Sociology of Education* 76:281–304.

Pfeffer, Fabian T. 2008. "Persistent inequality in educational attainment and its institutional context." *European Sociological Review* 24:543–565.

Pfeffer, Fabian T. 2011. "Status Attainment and Wealth in the United States and Germany." In *Persistence, Privilege, and Parenting*, edited by Timothy M Smeeding, Robert Erikson, and Markus Jäntti, volume 15, chapter 4, pp. 109–137.

Pfeffer, Fabian T. 2012a. "Parents' Wealth and Children's Education. Comparing three German cohorts." *To be presented at International SOEP User Conference, June 2012* .

Pfeffer, Fabian T. 2012b. "Trends in Wealth Gaps in Educational Attainment in the United States." *To be presented at Stanford University in May 2012* .

Reardon, Sean F and Kendra Bischoff. 2011. "Income Inequality and Income Segregation." *American Journal of Sociology* 116:1092–1153.

Royston, Patrick. 2005. "Multiple imputation of missing values. Update of ice." *The Stata Journal* 5:527–536.

Rumberger, Russell W. 1983. "The Influence of Family Background on Education, Earnings, and Wealth." *Social Forces* 61:755–773.

Schoeni, Robert F. and Karen E. Ross. 2005. "Material assistance from families during the transition to adulthood." In *On the Frontier of Adulthood*, edited by Richard A. Settersten and Frank F. Furstenberg, pp. 396–416.

Schröder, Lena. 2000. "Ungdomsarbetslösheten i ett internationellt perspektiv." *Institute for Labour Market Policy Evaluation (IFAU) Report* 4.

Sewell, William H and Robert M Hauser. 1975. *Education, Occupation, and Earnings. Achievement in the Early Career*. Studies in Population. New York: Academic Press.

Shapiro, Thomas M. 2004. *The Hidden Cost of Being African American. How Wealth Perpetuates Inequality*. Oxford: Oxford University Press.

Shavit, Yossi, Richard Arum, and Adam Gamoran (eds.). 2007. *Stratification in Higher Education: A Comparative Study*. Social Inequality Series. Stanford: Stanford University Press.

Shavit, Yossi and Walter Müller. 1998. *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Clarendon Press.

Sherraden, Michael. 1991. *Assets and the Poor. A New American Welfare Policy*. Armonk, NY: M.E. Sharpe.

Smart, John C. 2005. *Higher Education. Handbook of Theory and Research*.

Sø rensen, Aage B. 2000. "Toward a Sounder Basis for Class Analysis." *American Journal of Sociology* 105:1523–1558.

Sø rensen, Aage B. 2005. "Foundations of a rent-based class analysis." In *Approaches to Class Analysis*, edited by Erik O Wright, pp. 119–151. Cambridge: Cambridge University Press.

Solari, Claudia D. and Robert D. Mare. 2012. "Housing Crowding Effects on Children's Well-Being." *Social Science Research* 41:464–476.

Spilerman, Seymour. 2000. "Wealth and Stratification Processes." *Annual Review of Sociology* 26:497–524.

Spilerman, Seymour. 2004. "The impact of parental wealth on early living standards in Israel." *American Journal of Sociology* 110:92–122.

Spilerman, Seymour and Francois-Charles Wolff. 2012. "Parental wealth and resource transfers: How they matter in France for home ownership and living standards." *Social Science Research* 41:207–223.

Swift, Adam and Harry Brighouse. 2009. "Legitimate Parental Partiality." *Philosophy & Public Affairs* 37:43–80.

Torche, Florencia and Carlos Costa-Ribeiro. 2012. "Parental wealth and children's outcomes over the life-course in Brazil. A propensity score matching analysis." *Research in Social Stratification and Mobility* 30:79–96.

Torche, Florencia and Seymour Spilerman. 2006. "Parental wealth effects on living standard and asset holdings. Results from Chile." In *International Perspectives on Household Wealth*, edited by Edward N Wolff, pp. 329–364. Cheltenham: Edward Elgar.

Torche, Florencia and Seymour Spilerman. 2009. "Intergenerational Influences of Wealth in Mexico." *Latin American Research Review* 44:75–101.

Treiman, Donald J. 1970. "Industrialization and Social Stratification." In *Social Stratification. Research and Theory for the 1970s*, edited by Edward O Laumann, pp. 207–234. Indianapolis: Bobbs-Merrill.

Treiman, Donald J and Kam-Bor Yip. 1989. "Educational and Occupational Attainment in 21 Countries." In *Cross-National Research in Sociology*, edited by Melvin L Kohn, pp. 373–394. Newbury Park / London / New Delhi: Sage.

Van de Werfhorst, Herman G. and Jonathan J.B. Mijs. 2010. "Achievement Inequality and the Institutional Structure of Educational Systems. A Comparative Perspective." *Annual Review of Sociology* 36:407–428.

Wagner, Gert G, Joachim R Frick, and Jürgen Schupp. 2007. "The German Socio-Economic Panel Study (SOEP). Scope, Evoluation and Enhancements." *Schmollers Jahrbuch* 127:139–169.

Williams Shanks, Trina R. 2007. "The Impacts of Household Wealth on Child Development." *Journal of Poverty* 11:93–116.

Wolff, Edward N (ed.). 2006. *International Perspectives on Household Wealth*. Cheltenham: Edward Elgar.

Wright, Sewall. 1934. "The Method of Path Coefficients." *Annals of Mathematical Statistics* 5:161–215.

Yeung, W Jean and Dalton Conley. 2008. "Black-White Achievement Gap and Family Wealth." *Child Development* 79:303–324.

Young, Michael Dunlop. 1958. *The rise of the meritocracy*. Transaction Publishers.

Zissimopoulus, Julie M. and James P. Smith. 2011. "Unequal Giving: Monetary Gifts to Children Across Countries and over Time." In *Persistence, Privilege, and Parenting. The Comparative Study of Intergenerational Mobility*, pp. 289–328. New York: Russell Sage Foundation.

Appendix

Figure 4: Full Status Attainment Model: United States
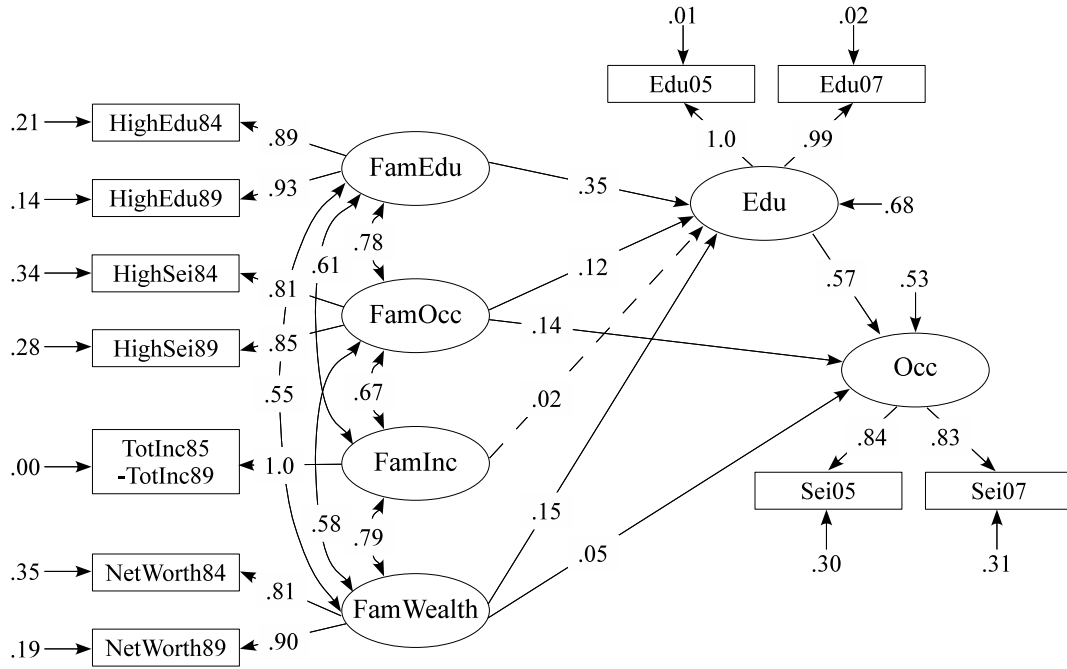
Fit statistics (N=1,665): Chi^2=50.64, df=28, p=.00584, RMSEA=.022, BIC=-157.1

Correlations in measurement errors: HighEdu84-HighSei84, HighEdu84-Wealth84, Wealth84-HighSei84, Edu07-Occ07

Correlation table

	edu05	edu07	sei05	sei07	edu84	edu89	sei84	sei89	ltincadjln	wealth84	wealth89
edu05	1.000										
edu07	0.988	1.000									
sei05	0.550	0.546	1.000								
sei07	0.562	0.568	0.696	1.000							
edu84	0.483	0.481	0.373	0.339	1.000						
edu89	0.494	0.490	0.359	0.342	0.826	1.000					
sei84	0.410	0.409	0.328	0.319	0.629	0.597	1.000				
sei89	0.399	0.403	0.312	0.302	0.579	0.604	0.690	1.000			
ltincadjln	0.423	0.421	0.343	0.333	0.538	0.564	0.551	0.569	1.000		
wealth84	0.360	0.361	0.284	0.245	0.446	0.416	0.445	0.418	0.632	1.000	
wealth89	0.372	0.376	0.311	0.270	0.451	0.453	0.426	0.442	0.708	0.726	1.000

35

Figure 5: Full Status Attainment Model: Germany
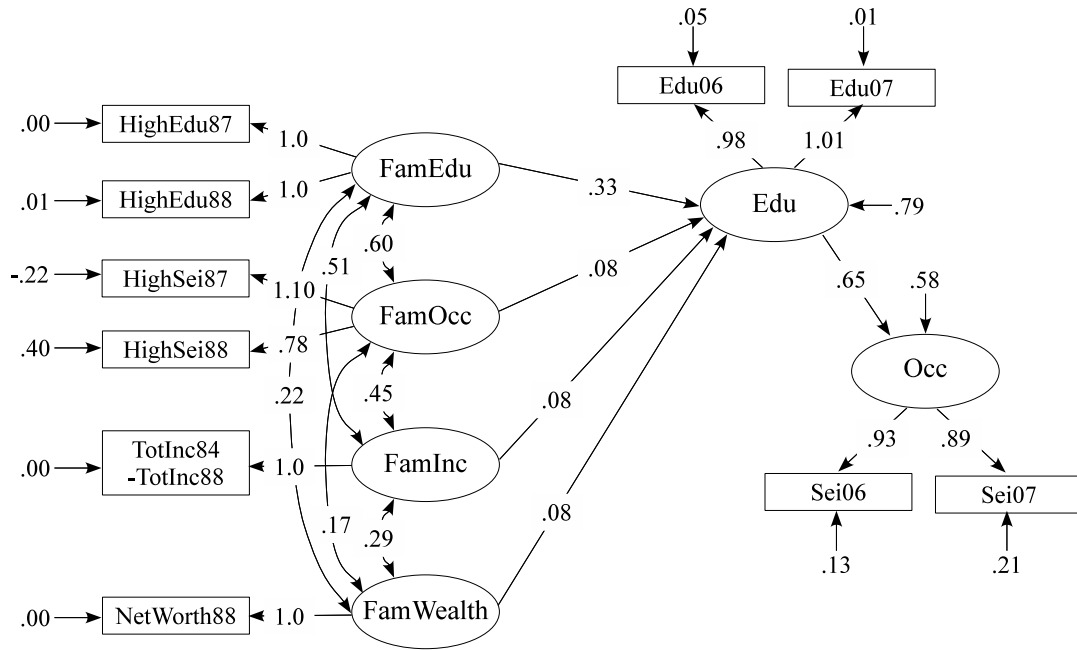
Fit statistics (N=745): Chi^2=33.36, df=24, p=.09679, RMSEA=.023, BIC=-125.4

Correlations in measurement errors: HighEdu88-HighSei88, HighSei88-TotInc, Edu06-Occ06

Correlation table

	edu06	edu07	sei06	sei07	edu87	edu88	sei87	sei88	ltinc	wealth88
edu06	1.000									
edu07	0.984	1.000								
sei06	0.605	0.613	1.000							
sei07	0.560	0.582	0.830	1.000						
edu87	0.426	0.441	0.292	0.284	1.000					
edu88	0.425	0.441	0.289	0.280	0.994	1.000				
sei87	0.376	0.376	0.219	0.231	0.664	0.660	1.000			
sei88	0.268	0.268	0.159	0.158	0.468	0.472	0.857	1.000		
ltinc	0.309	0.315	0.193	0.181	0.505	0.506	0.493	0.308	1.000	
wealth88	0.209	0.202	0.165	0.159	0.221	0.215	0.188	0.134	0.288	1.000

Figure 6: Full Status Attainment Model: Sweden
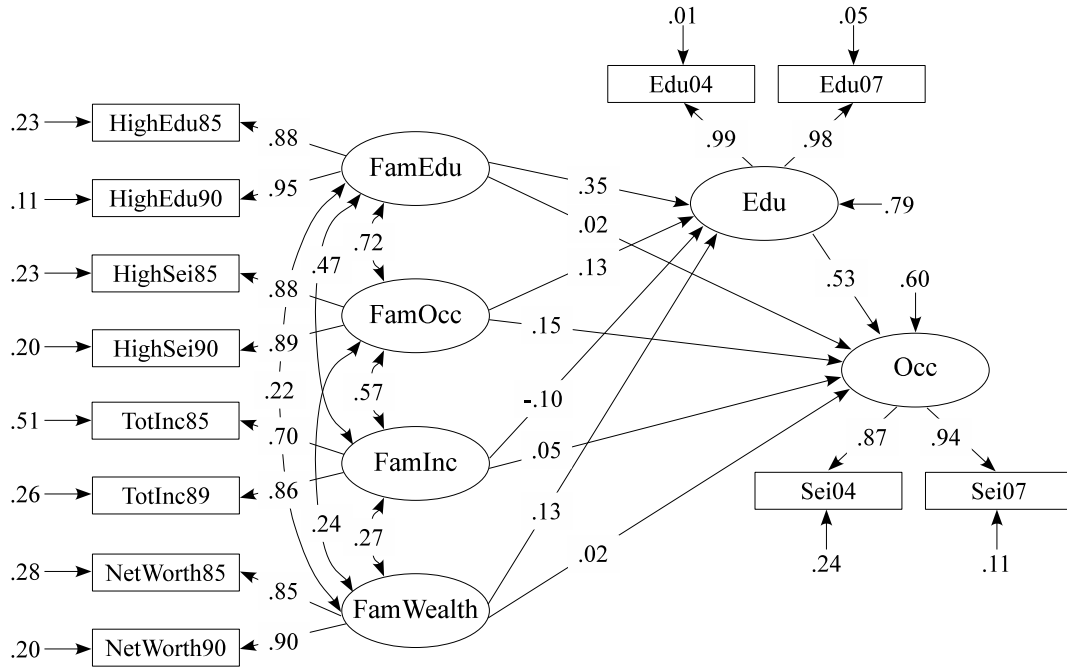
Fit statistics (N=1,079,634): Chi^2=18999.13, df=33, p=.000, RMSEA=.023, BIC=18,540.7

Correlations in measurement errors: HighEdu85-HighSei85, HighSei85-TotInc85, TotInc85-NetWorth85, TotInc89-HighSei90, TotInc89-Edu90, Edu04-Occ04

Correlation table

	edu04	edu07	occ04	occ07	edu85	edu90	occ85	occ90	inc85	inc89	wlth85	wlth89
edu04	1.000											
edu07	0.970	1.000										
occ04	0.536	0.507	1.000									
occ07	0.567	0.557	0.821	1.000								
edu85	0.365	0.365	0.295	0.311	1.000							
edu90	0.409	0.407	0.330	0.343	0.830	1.000						
occ85	0.323	0.321	0.304	0.316	0.606	0.599	1.000					
occ90	0.320	0.317	0.322	0.332	0.573	0.612	0.789	1.000				
inc85	0.166	0.162	0.155	0.159	0.295	0.294	0.378	0.340	1.000			
inc89	0.151	0.142	0.190	0.186	0.359	0.365	0.433	0.425	0.573	1.000		
wlth85	0.208	0.196	0.165	0.160	0.189	0.219	0.207	0.213	0.255	0.246	1.000	
wlth89	0.217	0.205	0.171	0.167	0.198	0.223	0.211	0.215	0.230	0.261	0.771	1.000

37