The Effects of Social Mobility on Individual Well-Being, Attitudes, and Behavior: A Bounding Approach

Ethan Fosse
University of Toronto

Fabian T. Pfeffer
University of Michigan

Abstract

Researchers have long sought to estimate the effects of intergenerational socioeconomic mobility in a range of individual outcomes. There is also widespread public speculation about the role of downward mobility in explaining political upheaval. However, the empirical study of mobility effects faces a fundamental methodological challenge: The linear dependency among among social origin (O), destinations (D), and social mobility ($M = D - O$), prohibits the use of conventional statistical methods to estimate the unique contributions of the three variables to any given outcome. This paper applies a novel non-parametric bounding approach to partially identify the effects of social mobility. We study the effects of absolute mobility on a range of individual outcomes, such as socio-psychological well-being, political attitudes, fertility, and health. Results indicate that – in contrast to findings from a number of recent studies – the effects of social mobility on individual outcomes are large.

1 Introduction

Americans face a new reality: they are increasingly more likely to be worse off than their parents, i.e., to experience downward social mobility. Whereas a minority of children born in the 1940s fell below their parents' level of educational attainment and income as adults, about half of children born in the 1980s do so today (Hout and Janus 2011; Chetty et al. 2017). Some scientific work and much popular debate have hypothesized pernicious effects of rising rates of downward mobility on a range of outcomes, from extreme political views to early mortality. For instance, the recent decrease in life expectancy has been hypothesized to be driven by "deaths of despair" as "many of the baby-boom generation [find] that they will not be better off than were their parents" (Case and Deaton 2015: 15081; see also Case and Deaton 2017).

Interest in the consequences of social mobility is long-standing (for reviews, see Hope 1971; Hendrickx et al. 1993). From its earliest days, the scientific literature on social mobility has debated its individual-level effects. The sociologist Pitrim Sorokin (1927), for example, hypothesized negative effects of both upward *and* downward social mobility on individuals' well-being, as those who attain a status different from that of their parents may suffer from the cultural gap between their attained position and family origins. Lipset and Zetterberg (1959), in their widely-cited analysis of social mobility in industrialized countries, point out that "unless variations in mobility rates [...] make a difference for society or for the behavior pattern of an individual,

knowledge concerning rates of mobility will be of purely academic interest" (p.6). Yet, due to critical limitations of existing methods, we still lack valid empirical evidence on the effects of socioeconomic mobility on a wide variety of important outcomes, including individuals' well-being (e.g., perceived happiness), attitudes (e.g., political ideology), and behaviors (e.g., fertility).

2 Approach and Method

Progress in empirically identifying the effects of social mobility on individuals has been hampered by a fundamental methodological challenge. Social mobility (M) is the difference between individuals' social origins (O), e.g., parental social class, and their social destinations (D), e.g., their own social class. As a result, any model of mobility effects is underidentified and cannot be estimated using conventional statistical techniques. In contrast to *problems of statistical inference*, which involve understanding how sampling variability can affect conclusions based on samples of limited size, *problems of identification* entail understanding what conclusions can be drawn even with a sample of unlimited size. The lack of a unique solution of mobility effects is a classic identification problem, since it cannot be resolved by collecting larger samples.

Most contemporary work on mobility effects has attempted to separate the effects of mobility from origin and destination using one of two models: the *square additive model* (Duncan 1966) or the *diagonal reference model* (Sobel 1981; 1985). Both the square additive and diagonal reference models are based on *ad hoc*, implicit constraints on the linear origin, destination, and mobility effects. As the findings reported in this paper reveal, the *ad hoc* assumptions of *both* models implicitly force the mobility linear effects to zero, which explains the repeated null findings in the most recent quantitative literature (Weakliem 1992; Breen 2001; Tolsma, Graaf, and Quillian 2009; Houle and Martin 2011; Zang and Dirk de Graaf 2016; Chan 2018; Daenekindt 2017; Schuck and Steiber 2018) and, as we demonstrate, obscures large, statistically-significant effects of social mobility.

Rather than imposing an implicit *ad hoc* parametric constraint (Duncan 1966; Sobel 1981; 1985), our approach identifies pure mobility effects by applying a range of constraints grounded in transparent, explicit theoretical assumptions. There is a wide variety of bounding strategies available. One promising and relatively straightforward strategy for partially identifying the pure mobility effect is to assume that the origin and destination effects represent the same underlying processes and, therefore, have the same sign. This assumption, which we call the *common causes* assumption, appears defensible across a wide variety of substantive applications; after all, socioeconomic resources are likely to have the same direction of effects on a given outcome, whether these resources are present now (D) or during childhood (O).[1]

3 Data, Measures, Samples

We provide a broad, multidimensional investigation of the effects of social mobility on individual outcomes using the General Social Survey (GSS) as well as the Panel Study of Income

[1]However, we emphasize that the common causes assumption is just one of many feasible theoretical assumptions and other applications may require different, possibly weaker assumptions. The bounding approach introduced here can readily integrate any sign, size, and equivalence assumption.

Dynamics (PSID) and its recent supplementary study, the "2016 Well-Being and Daily Life Supplement" (PSID-WB). We measure multiple types of absolute mobility (educational, occupational, income, wealth)[2] and a variety of individual outcomes: demographic outcomes (fertility, self-reported health), socio-psychological outcomes (general happiness, trust, and others), and political attitudes (political ideology, voting for President Obama, and others). Sample sizes differ depending on the specific measure of mobility and individual outcomes considered. The cumulative GSS file (years 1972–2016) contains data on respondents' and their parents' educational and occupational attainment ($N = 54,079$ and $N = 60,421$ respectively). While these samples can be used for the analysis of many outcomes collected in all or most years of the GSS (e.g., fertility, trust, political ideology, health, etc.), sample sizes for a few outcome variables that are collected in only select years are between 2,457–3,069 (e.g., voting for Obama). The PSID (1968–2015) contains between 11,550–13,212 cases with valid information on individuals' and their parents' socioeconomic outcomes. While these samples can be used for the analysis of some outcomes collected in the PSID core survey (e.g. fertility), all attitudinal and well-being outcome measures are drawn from the 2016 PSID-WB, yielding sample sizes between 4,054 and 4,590 cases.

4 Preliminary Findings: Social Class Mobility and Subjective Well-Being

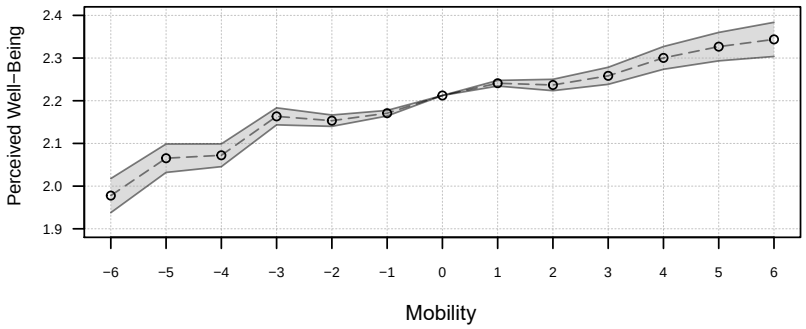
To illustrate our approach, here we report preliminary findings on the consequences of individuals' experience of social class mobility for their self-reported subjective well-being (N=32, 283; based on the GSS). Social origin and destination are measured with the widely used, occupation-based Erikson-Goldthorpe class scheme, ranging from 1 (Non-skilled Manual) to 7 (Upper Professional).[3] The social mobility variable is the difference between the origin and destination categories, ranging from -6 (downardly mobile by six classes) to +6 (upwardly mobile by six social classes). The outcome variable is subjective well-being from 1 (Not Too Happy), to 2 (Pretty Happy), to 3 (Very Happy).

To obtain upper and lower nonparametric bounds on the *mobility effect*, we apply the common causes assumption. That is, we assume that both the origin and destination effects go in the same direction, reflecting our assumption that they represent similar underlying processes. Adjusting for both social origin and destination, we conclude that upward mobility itself results in higher and downward mobility in lower levels of perceived well-being (see Figure 1). The commmon cause assumption is very effective in providing tight bounds around the estimated pure mobility effect. These preliminary results contrast with existing quantitative studies that have failed to find a relationship between social mobility and well-being (Houle and Martin 2011; Zang and Dirk de Graaf 2016; Daenekindt 2017; Chan 2018). Social mobility effects on well-being are large and statistically significant.

[2]This project focuses on absolute mobility — the difference between origins and destinations — as this is the mobility directly experience by individuals (see Torche 2015: 43).

[3]Whether the categories of this specific class scheme are hierarchically ordered or not has been subject to debate, but for the purpose of this illustration we side with the conclusion that they are (see Hout and Hauser 1992). Doing so allows us to easily describe the consequences of directional (upward and downward) mobility; but we emphasize that our approach, in general, does not require the hierarchical ordering of origins and destinations.

Figure 1: Nonparametric Bounds on Pure Mobility Effects



Notes: Upper and lower bounds based on setting same-sign linear effects for origin and destination. Middle dotted line indicates midpoint of bounds for each value of the mobility variable. Bounds on mobility slope are $0.276 \leq \delta \leq 0.460$.

References

Breen, Richard (2001). "Social Mobility and Constitutional and Political Preferences in Northern Ireland". *The British Journal of Sociology* 52.4, pp. 621–645.

Case, Anne and Angus Deaton (2015). "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century". *Proceedings of the National Academy of Sciences* 112.49, pp. 15078–15083.

— (2017). "Mortality and Morbidity in the 21st Century". *Brookings Papers on Economic Activity* 2017, pp. 397–476.

Chan, Tak Wing (Mar. 2018). "Social Mobility and the Well-Being of Individuals: Social Mobility and Well-Being". *The British Journal of Sociology* 69.1, pp. 183–206.

Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang (2017). "The Fading American Dream: Trends in Absolute Income Mobility since 1940". *Science* 356.6336, pp. 398–406.

Daenekindt, Stijn (Aug. 2017). "The Experience of Social Mobility: Social Isolation, Utilitarian Individualism, and Social Disorientation". *Social Indicators Research* 133.1, pp. 15–30.

Duncan, Otis Dudley (1966). "Methodological Issues in the Study of Social Sobility". *Social Structure and Mobility in Economic Development*. Chicago: Aldine, pp. 51–97.

Hendrickx, John, Nan Dirk De Graaf, Jan Lammers, and Wout Ultee (1993). "Models for Status Inconsistency and Mobility: A Comparison of the Approaches by Hope and Sobel with the Mainstream Square Additive Model". *Quality and Quantity* 27.4, pp. 335–352.

Hope, Keith (1971). "Social Mobility and Fertility". *American Sociological Review* 36.6, pp. 1019–1032.

Houle, Jason N. and Molly A. Martin (June 2011). "Does Intergenerational Mobility Shape Psychological Distress? Sorokin Revisited". *Research in Social Stratification and Mobility* 29.2, pp. 193–203.

Hout, Michael and Robert M Hauser (1992). "Symmetry and Hierarchy in Social Mobility. A Methodological Analysis of the CASMIN Model of Class Mobility". *European Sociological Review* 8.3, pp. 239–266.

Hout, Michael and Alexander Janus (2011). "Educational Mobility in the United States Since the 1930s". *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances*. New York: Russell Sage Foundation, pp. 165–185.

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

Schuck, Bettina and Nadia Steiber (2018). "Does Intergenerational Educational Mobility Shape the Well-Being of Young Europeans? Evidence from the European Social Survey". *Social Indicators Research* forthcoming.

Sobel, Michael E. (1981). "Diagonal Mobility Models: A Substantively Motivated Class of Designs for the Analysis of Mobility Effects". *American Sociological Review* 46.6, pp. 893–906. JSTOR: 2095086.

— (1985). "Social Mobility and Fertility Revisited: Some New Models for the Analysis of the Mobility Effects Hypothesis". *American Sociological Review* 50.5, pp. 699–712. JSTOR: 2095383.

Sorokin, Pitirim A. (1927). *Social Mobility*. Vol. 4. New York: Harper & Brothers. 559 pp.

Tolsma, Jochem, Nan Dirk De Graaf, and Lincoln Quillian (June 1, 2009). "Does Intergenerational Social Mobility Affect Antagonistic Attitudes towards Ethnic Minorities?" *The British Journal of Sociology* 60.2, pp. 257–277.

Torche, Florencia (Jan. 1, 2015). "Analyses of Intergenerational Mobility An Interdisciplinary Review". *The ANNALS of the American Academy of Political and Social Science* 657.1, pp. 37–62.

Weakliem, David L. (1992). "Does Social Mobility Affect Political Behaviour?" *European Sociological Review* 8.2, pp. 153–165.

Zang, Emma and Nan Dirk de Graaf (Sept. 7, 2016). "Frustrated Achievers or Satisfied Losers? Inter- and Intragenerational Social Mobility and Happiness in China". *Sociological Science* 3, pp. 779–800.