



Social mobility in 20 modern societies: The role of economic and political context

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ABSTRACT

It is commonly argued that social mobility rates are influenced by economic and political conditions. Nevertheless, research on this issue has tended to be hindered by two limitations that make it difficult to draw strong conclusions about contextual effects: (1) seldom have country-level and individual-level influences been tested simultaneously, and (2) only rarely have data more recent than the 1970s been employed. We improve on previous research by employing multilevel models fitted to relatively recent survey data collected from 20 modern societies by the International Social Survey Program (ISSP) and national-level characteristics derived from various official sources. Our findings demonstrate systematic cross-national variation in the association between the occupational status of respondents and their fathers. Consistent with the industrialization thesis, this variation is positively associated with per-capita GDP, suggesting that more affluent nations are characterized by more open and fluid stratification structures. Our results also suggest the importance of political regimes and migration for social mobility. In contrast, economic inequality appears to explain very little of the cross-national variation in mobility rates.

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1. Introduction

Sorokin (1959) sparked a lively debate when he asserted that social mobility was characterized by “trendless fluctuations” (cf. Lipset and Zetterberg, 1959; Featherman et al., 1975; Tyree et al., 1979; Grusky and Hauser, 1984; Ganzeboom et al., 1989; Treiman and Yip, 1989; Goldthorpe, 1985; Erikson and Goldthorpe, 1992; Breen, 2004). Research on this issue is far from conclusive, however. In *The Constant Flux*, Erikson and Goldthorpe (1992:388) argue that cross-national variation in social mobility largely reflects “effects specific to particular societies at particular times” rather than systematic differences between countries. On the other hand, proponents of the industrialization thesis contend that social mobility increases with industrialization and economic development (Lipset and Zetterberg, 1959; Treiman, 1970; Treiman and Yip, 1989; Sieben and De Graaf, 2001). Other research suggests a positive relationship between social mobility and levels of income inequality (Tyree et al., 1979) and immigration (Tyree et al., 1979; Raftery, 1983). There is also evidence that mobility rates tend to be highest in social democratic (Grusky and Hauser, 1984) and post-Communist regimes (Sieben and De Graaf, 2001).

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Although insightful, previous research on cross-national differences in mobility has tended to be hampered by two limitations. First, although there are some exceptions (e.g., Grusky and Hauser, 1984; Hauser and Grusky, 1988; Sieben and De Graaf, 2001), seldom have individual-level and macro societal determinants of social mobility been considered simultaneously. Failing to control for individual-level background variables could result in misleading conclusions about contextual effects that instead reflect only compositional differences among the countries. Secondly, few comparative studies have employed data that were collected later than the 1970s (Sieben and De Graaf, 2001; Breen, 2004 are exceptions). As a result, we know little about more recent changes in mobility, and in particular, whether mobility rates differ in highly advanced economies, or between well-established democracies and countries formerly under Communist rule.

Following Ganzeboom et al.'s (1991) call for research on social mobility to move beyond the typical two variable analysis (see also, Treiman and Ganzeboom, 2000), we assess cross-national differences in social mobility by applying multilevel models to individual-level data combined with national-level data from various official sources. We also improve on previous research by utilizing relatively recent survey data from 20 democracies collected in the 1990s as part of the International Social Survey Program (ISSP). Our main goal is to systematically assess how national characteristics simultaneously affect social mobility, net of important individual-level social background characteristics (i.e., age, gender and educational attainment). We interchangeably refer to the net association between respondents' and their fathers' occupational status as a measure of social mobility, social openness, or social fluidity. In terms of country-level variables, we focus on the roles of economic development, income inequality, level of immigration, and former Communist rule.

Our findings demonstrate that social mobility varies considerably cross-nationally, and that this variation is largely systematic. In this regard, we find significant support for the industrialization thesis. Specifically, net of compositional differences, cross-national variation in social mobility is positively associated with economic development (per-capita GDP). We also find a positive relationship between the rate of social mobility and level of migration and a Communist past. We fail to find convincing evidence that economic inequality within countries affects the rate of social mobility, however. Before providing more details of our analyses and results, we turn to a discussion of previous research on this issue.

1.1. Explaining variations in social mobility: contextual factors

Previous research suggests many contextual factors that could possibly influence rates of social mobility. Most influential is the industrialization thesis, which emphasizes the role of economic development. Other often mentioned contextual factors are equality of condition, immigration, and political regime. Although these latter explanations are somewhat related to economic development, they suggest different mechanisms than those of the industrialization thesis.

1.1.1. The Industrialization thesis

Lipset and Zetterberg (1959) were among the first to stipulate the importance of industrialization for inter-generational mobility.² They focused on structural mobility, arguing that the economies of industrialized societies constantly evolve, which in turn results in a changing occupational structure that necessitates the movement of individuals across occupations. Lipset and Zetterberg were concerned with changes in absolute mobility rates, not relative mobility rates. That is, they emphasized how industrialization changes the occupational structure, rather than its impact on equality of opportunity.

Treiman (1970) also argued that the process of industrialization promotes social mobility, though he was concerned with both absolute and relative mobility rates. Similar to Lipset and Zetterberg, Treiman states that absolute mobility is facilitated by structural changes in the economy associated with economic development, the spread of mass communications, urbanization processes, and geographical mobility. Relative mobility also increases, however, because of a greater emphasis on merit to allocate people into positions in the labor market. As a result, parental background becomes less important, while educational attainment plays an increasingly important role (Treiman, 1970; see also Bell, 1973).³

Perhaps no other measure of industrialization receives more attention than economic development, most commonly measured by per capita GDP. Empirical research has provided conflicting conclusions regarding the influence of GDP on social mobility, however. While some studies demonstrate a positive relationship (Tyree et al., 1979; Grusky and Hauser, 1984; Treiman and Yip, 1989), others suggest that mobility is unrelated to GDP (Hazelrigg and Garnier, 1976; Erikson and Goldthorpe, 1992; Breen and Luijckx, 2004). There is also evidence of a curvilinear relationship between the two variables, where per capita GDP has a positive effect on mobility until a certain level of development is reached, at which point there is no longer a relationship between the two variables (Lipset and Zetterberg, 1959; Featherman et al., 1975; see also Raftery, 1983). Based on the evidence presented above, our first hypothesis reads:

H1. The strength of the association between respondent's SEI and father's SEI weakens with economic development. We also explore whether this relationship is nonlinear. Specifically, we test whether there is a positive relationship at low levels of economic development but no relationship at higher levels of economic development.

² Davis (1962), in contrast, argued that high rates of social mobility are a precondition for a society to move from a pre-industrial state to an industrial one. In other words, his argument holds that social mobility causes economic development.

³ It follows that individual-level educational attainment would mediate much of the intergenerational SEI association. Our goal, however, is to explain cross national variations in this association, net of individual-level characteristics. We thus see education as an important control variable, but leave a more detailed analysis of its role in social mobility for future research.

1.1.2. Equality of condition and economic inequality

There are also conflicting views on the relationship between economic inequality and social mobility. Both liberal economists and structural functional sociologists argue that inequality is necessary to ensure economic growth. Davis and Moore (1945) put forth the classic structural functionalist view, arguing that unequal rewards are necessary in order to ensure that the most talented and skilled individuals are allocated to the most important positions in society. They argued that talented and skilled people are more likely to pursue occupations that are more demanding—which is typically the case of the more ‘important’ social positions—if they are given economic rewards to do so. Following this logic, the most talented people should be motivated to make the required investments necessary to obtain high positions in less equal societies—regardless of their starting economic position—because the rewards will be high. This would suggest, then, that mobility will be greatest in less equal societies. While not necessarily taking a structural functionalist viewpoint, some empirical evidence suggests that mobility is indeed positively related to inequality (e.g., Grusky and Hauser, 1984; Breen and Luijkx, 2004).

Others suggest that mobility is negatively related to inequality. Tyree et al. (1979) provide one of the first studies to articulate this argument. Specifically, they suggest that rates of mobility are affected by the socio-economic distance between social classes. If inequality is high, the consequences of downward mobility for those in high class positions are more severe than if the distances between the classes are small. As a result, those at the top of the class hierarchy are highly motivated to ensure that the *status quo* is maintained under conditions of high inequality and thus mobilize their resources to this end. On the other hand, elites have less reason to be concerned with securing their privilege when inequality is low, resulting in fewer barriers for social mobility. Tyree et al.’s (1979) findings have been corroborated by several other studies (Raftery, 1983; Treiman and Yip, 1989; Erikson and Goldthorpe, 1992), including Andrews and Leigh (2008) who employed the same ISSP data we analyze in the present paper to demonstrate a relationship between income inequality and intergenerational earnings mobility.

These conflicting results on the role of economic inequality underscore the importance of revisiting this question using a framework that considers both individual and national level characteristics from many societies. We thus hypothesize the following about the effect of economic inequality on social mobility:

H2. There is a negative relationship between income inequality and social mobility. In other words, the intergenerational inheritance of advantages and disadvantages is most pronounced in unequal societies. Of course, our discussion also suggests the competing hypothesis that mobility rates are positively associated with income inequality.

1.1.3. Migration

A commonly held view argues that migration also stimulates social mobility. The discussion above alludes to possible indirect effects. Specifically, immigration tends to be positively associated with economic growth and development, the results of which – as the above discussion illustrates – are alleged to increase mobility⁴ (cf. Goldthorpe, 1992; Yaish, 2002). It is also possible, however, that immigration directly influences both *inter*- and *intra*-generational mobility. Two models are typically discussed to describe the mechanisms related to intra-generational mobility: the ‘succession’ model, and the ‘queuing’ model. The succession model suggests that newcomers enter a society at the bottom of the occupational hierarchy, resulting in the native population, and older migrants, being pushed upward in the hierarchy (cf. Richmond, 1988, pp. 31–34). On the other hand, the queuing model holds that employees are ordered in a job queue according to their desirability to employers. In this model, subordinate groups – including immigrants – fall at the bottom of the job queue. An increase in the relative size of the subordinate group, through increased immigration, for example, further worsens their disadvantaged position, while members of the superordinate groups experience upward mobility (cf. Hodge, 1973). Finally, the possible mechanisms for an effect of migration on intergenerational mobility are relatively simple: new immigrants are typically high motivated to ensure that they, or at least their off-spring, achieve a better standard of living than they had in their country of origin. In other words, immigrants tend to enter their new society near the bottom of the stratification hierarchy but their offspring rise to socio-economic parity with the native-born population.

Indeed, Tyree et al.’s (1979; see also Raftery, 1983) early study found a positive relationship between immigration and social mobility and openness. Although this somewhat dated research may have lost some of its currency, more recent research continues to suggest that immigration should not be ignored (Goldthorpe et al., 1997; Yaish, 2002). It seems sensible to suggest, then, that at least some of the cross-national differences in mobility rates reflect different levels of migration. We therefore hypothesize the following:

H3. Social mobility is positively related to the level of migration in a country.

1.1.4. Political ideology

Finally, there is evidence to suggest that social mobility may be related as much to political conditions as to economic conditions. Underlying this assertion is the idea that societies with social-democratic or communist governments implement extensive social policies to reduce social and economic inequalities (Parkin, 1971; Heath, 1981), which in turn results in

⁴ As much as immigration promotes economic growth and mobility, emigration may sustain economic growth which might result in a more closed social structure (cf. Goldthorpe, 1992).

greater intergenerational mobility. Consistent with this argument, [Grusky and Hauser \(1984\)](#) found that class structures tend to be more fluid in social democracies than countries with more liberal market economies. They relate this finding to a number of outcomes associated with social democratic policies, including blue-collar educational quotas, the de-classment of upper administrators, the absence of inheritable private property, and the attenuation of a working-class subculture (1984, p. 20). [Erikson and Goldthorpe \(1992\)](#) make similar claims about the role of the state in Sweden—which was dominated by social democratic governments committed to reducing inequalities in the standard of living until the 1990s—in creating a high level of equality of opportunity. [Sieben and De Graaf \(2001\)](#) found similar results in their more recent analysis of eight democracies. Given that we have several former communist countries in our data, we are able to explore this question to a greater extent than has previous research.

H4. We expect higher levels of social mobility in former Communist societies than in societies without such a past.

2. Data and methods

2.1. Individual-level data

We employ data from waves II and III of the *International Social Survey Program (ISSP)* modules on Social Inequality. The ISSP was designed to provide high quality and comparable data with the explicit purpose of multicultural, multinational comparative research. We use information from 26 surveys collected from 1992 to 1999. These 26 surveys represent data from 20 countries, six of which were surveyed in both years. We restrict our analysis to respondents aged 25–59 on the grounds that these individuals are most likely to be established in the labor force. After excluding observations with missing information, our analytical sample size is 16,242 individuals clustered in the following countries: Austria, Australia, Canada, Chile, Cyprus, the Czech Republic, France, West Germany, Hungary, Latvia, New Zealand, Norway, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Sweden, and the USA (see [Table 1](#) for more details).

2.1.1. Dependent variable

The dependent variable is the *socio-economic status of the respondent's 'current' occupation* (SEI). For respondents who were no longer working (i.e., those who were retired or unemployed), we used the occupation that they last held. [Ganzeboom and](#)

Table 1

Summary statistics by country. Countries are listed in descending order in terms of the intergenerational SEI association.

	Per capita GDP (\$1000 US)	Income inequality (Net Gini)	Net migration rate	Former communist	Absolute mobility	Intergenerational SEI association	N
Latvia	2853	23.76	5.150	Yes	0.619	0.212	488
USA (92)	7610	31.25	1.600	No	0.694	0.220	668
New Zealand	4763	25.75	1.100	No	0.678	0.227	526
France	7476	30.29	3.075	No	0.697	0.227	987
Canada	8769	28.19	4.600	No	0.666	0.230	561
Australia (92)	5431	27.39	8.950	No	0.704	0.244	1191
Australia	8138	24.11	7.025	No	0.690	0.256	738
Sweden	10,659	21.74	1.925	No	0.643	0.264	607
USA	8979	31.04	2.050	No	0.655	0.282	639
Slovakia	2629	19.21	−1.200	Yes	0.548	0.283	465
Hungary	1519	22.69	−0.025	Yes	0.532	0.297	674
Russia	2853	23.76	−0.275	Yes	0.555	0.303	434
Czech Republic (92)	1811	21.50	−0.600	Yes	0.570	0.309	667
Norway	10,157	25.44	0.475	No	0.663	0.316	589
Hungary (92)	950	24.64	−0.900	Yes	0.598	0.356	652
Czech Republic	2629	19.21	−0.575	Yes	0.537	0.368	945
Poland	1711	25.78	−0.950	Yes	0.513	0.371	392
Germany (West) (92)	4168	29.80	1.825	No	0.636	0.404	686
Spain	3524	31.81	−0.775	No	0.438	0.458	546
Poland (92)	1321	24.51	−0.875	Yes	0.447	0.466	964
Germany (West)	7393	27.38	1.900	No	0.515	0.469	725
Slovenia	2186	25.93	0.300	Yes	0.451	0.482	566
Cyprus	2157	33.54	−7.875	No	0.575	0.485	486
Austria (92)	3184	25.89	−0.475	No	0.631	0.486	373
Chile	1333	47.48	−1.150	No	0.420	0.506	459
Portugal	2187	31.64	−5.575	No	0.407	0.589	624
ALL	4477	27.07	0.72	0.43	0.580	0.35	16,242
(S.D.)	3081	5.69	3.15	–	0.094	0.11	

Treiman's conversion tools (<http://www.fsw.vu.nl/~h.ganzeboom/ismf>) were employed to convert ISCO 1968 and ISCO 1988 occupational codes to the International Socio Economic Index (Ganzeboom et al., 1992).

2.1.2. Independent variables

The main individual-level predictor is father's occupational status. As with respondent's occupation, the ISCO 1968 or ISCO 1988 occupational codes for father's occupation (when respondents were around age 14) were converted to the International Socio Economic Index (Ganzeboom et al., 1992). Our statistical models also control for the respondents' education (university degree = 1, else = 0), age, and sex (men = 1).⁵

2.2. National-level contextual data

At the societal level, we collected data from the SWIID (Solt, 2009) and the UN online data archive (UNdata, <http://data.un.org>). Following our hypotheses, the national context variables of most interest are: (1) level of economic development, (2) level of income inequality, (3) level of immigration, and (4) experience of communist rule. Consistent with previous research (Treiman and Yip, 1989; Erikson and Goldthorpe, 1992; Breen and Luijkx, 2004), the contextual variables were measured two decades before the survey data in order to reflect when the majority of the respondents began their employment career.⁶ Still, it is important to note that the results reported here are substantively similar to those from preliminary models employing contemporaneous measures. More details of the context variables are given below.

2.2.1. Economic development

Level of economic development is measured by per capita GDP. The ISSP surveys administered in 1992 were matched to GDP data from 1970; surveys from 1999 were matched to GDP in 1977. Data on per capita GDP are in 1977 US dollars and were extracted from the UNdata online data archive (<http://data.un.org/>). Consistent with conjectures about the leveling out of the effect of economic development on mobility, preliminary models showed a curvilinear relationship between the two variables. Preliminary analyses suggested that this nonlinear relationship was adequately captured by following the conventional practice of using a log transformation of per capita GDP. In order to facilitate comparison of the relative strength of the context variables, we scale this variable to have a mean of 0 and standard deviation of 1.

2.2.2. Income inequality

We tap income inequality using the Gini index for household income after taxes and transfers (Net Gini). In other words, our concern is with the actual level of inequality rather than with simply the level of market generated inequality (cf. Kenworthy and McCall, 2008). The Net Gini for each country was extracted from Solt's (2009) *Standardized World Income Inequality Database* (SWIID), which standardizes the United Nations University's *World Income Inequality Database*. When available, the data collected by the *Luxembourg Income Study* is employed as the standard by the SWIID. All other measures have been standardized in attempt to make them comparable to these. As with the GDP measure, we employ Gini coefficients measured in 1970 and 1977. To aid interpretation, we scale the net Gini to have a mean of 0 and standard deviation of 1.

2.2.3. Net migration rate

The level of immigration is measured by the net rate of migration (per 1000) for each country. This measure is calculated on 5 year intervals (e.g., 1950–1955) and is available from the UN Population Division online data archive (<http://esa.un.org>). We averaged net migration rates over four 5-year periods, from 1950 to 1970 for surveys from the 1992 data, and from 1960 to 1980 for the surveys conducted in 1999. As with GDP per capita and the net Gini coefficient, we rescale net migration to have a mean of 0 and a standard deviation of 1.

2.2.4. Post-communist rule

We assess the effects of former communist rule not only because we hypothesize that a communist past is positively related to social mobility but also because it is associated with many of the other contextual variables, including economic inequality and economic development (cf. Nielsen and Alderson, 1995; Freeman and Oostendorp, 2000).

Descriptive statistics for the country-level indicators, and estimates of the level of social mobility in each country, are presented in Table 1. The countries are sorted in descending order by the level of equality of opportunity – i.e., by net intergenerational SEI association. See Appendix A Table A1 for bivariate correlations for all combinations of the context variables.

⁵ We measure education by a dummy for university degree because it was the most cross-nationally comparable measure of education in the ISSP data-set. In an unreported analysis, we also included effect for year of survey, specified both as a fixed and as a random variable. The results reported herein were not affected by either specification. For this reason, and because our focus is on cross national, rather than temporal, variations in social mobility, we exclude survey year from the final models.

⁶ The Czech and the Slovak Republics did not exist in their current form before 1989. We thus use contextual information for Czechoslovakia in the 1970s for these two countries.

Table 2

Mixed models predicting SEI from individual-level variables only.

	Model 1a	Model 1b	Model 1c
Intercept	31.29*** (1.16)	31.08*** (1.29)	32.60*** (1.078)
Age	–	0.010 (0.013)	0.019 (0.012)
Men	–	–0.410 (0.240)	–0.286 (0.214)
Degree	–	–	19.16***
Father's SEI	0.349*** (0.021)	0.349*** (0.021)	0.204*** (0.017)
<i>Variance components (percent explained in parentheses)^a</i>			
Intercept	32.05***	32.02*** (0%)	21.01*** (34%)
Degree	–	–	14.81***
Father's SEI	0.0094***	0.0095*** (0%)	0.0056*** (41%)
Deviance	134,568	130,565	130,891
<i>n</i> (individuals)	16,242	16,242	16,242
<i>N</i> (surveys)	26	26	26

* $p < .05$ ** $p < .01$.*** $p < .001$.^a Compared to Model 1a.

2.3. Statistical models

We fit a series of two-level regression models to assess cross-national differences in the relationship between father's SEI and respondent's SEI (Pinheiro and Bates, 2002; Bryk and Raudenbush, 1992).⁷ In order to assess the extent to which social mobility rates vary cross nationally – net of compositional differences – it was important that our models allowed father's SEI to have different effects on respondent's SEI in each country. This goal was accomplished by specifying a variance component for the effect of father's SEI. All models that include individual-level education as a predictor also specify a random component for education because it is well-known that education has varying effects on occupational success cross nationally (cf. Shavit and Müller, 1998).⁸

We start by fitting a set of models (Models 1a–1c) to test the effects of individual-level variables only: Model 1a includes father's SEI as the only independent variable, Model 1b builds on Model 1a adding controls for age and gender, and Model 1c further adds the effects of education attainment and its variance component. These models serve three purposes: (1) to test whether or not the individual-level effect of father's SEI on respondent's SEI differs cross-nationally, (2) to determine the extent to which the cross-national variance in this effect could be attributed to national differences in socio-demographic composition (i.e., age, gender and education), and (3), to determine how much of the association between father's SEI and respondent's SEI is accounted for by these socio-demographic characteristics, particularly education.

We then fit a set of contextual effect models that build on Model 1c. Models 2a–2d each add only one of the four national context variables and specify a cross-level interaction effect between it and father's SEI. Our final model, Model 3, includes all four national context variables and the associated terms representing their interactions with father's SEI. These models allow us to determine the extent to which cross-national variation in the association between father's SEI and respondent's SEI can be accounted for by political and economic characteristics of the countries. Our final model, Model 3, takes the following form:

$$\begin{aligned}
 \text{respondent's SEI}_{ij} = & \beta_0 + \beta_1 \text{ father's SEI}_{ij} + \beta_2 \text{ age}_{ij} + \beta_3 \text{ gender}_{ij} + \beta_4 \text{ degree}_{ij} + \gamma_1 \log(\text{per capita GDP})_j \\
 & + \gamma_2 \text{ net Gini}_j + \gamma_3 \text{ net migration}_j + \gamma_4 \text{ Post – communist}_j + \sum_{l=1}^4 \eta_l (\text{father's SEI}_{ij} \\
 & \times [\log(\text{per capita GDP})_j + \text{net Gini}_j + \text{net migration}_j + \text{Post – communist}_j]) + U_{0j} \\
 & + U_{1j} \text{ father's SEI}_{ij} + U_{2j} \text{ degree}_{ij} + \varepsilon_{ij}
 \end{aligned}$$

where i indicates the individual respondents and j indicates the country. The ε_{ij} term represents the errors at the individual-level, U_0 represents the random component for the intercept (β_0), and U_1 and U_2 are the random components for the effects of father's SEI and degree (β_1 and β_4). The cross-level interaction effects (η_l) determine the extent to which each of the contextual variables affects the relationship between father's SEI and respondent's SEI.

⁷ The models were fitted by Full Maximum-Likelihood estimation implemented in the lme4 package (Bates, 2010) for the R statistical computing package (R Development Core Team, 2009).

⁸ Preliminary models also included random components for the effects of age and gender. The findings from these models were substantively similar to the findings from the final models. We chose to exclude these random components in order to increase the degrees of freedom, which was particularly important for the models including the contextual variables.

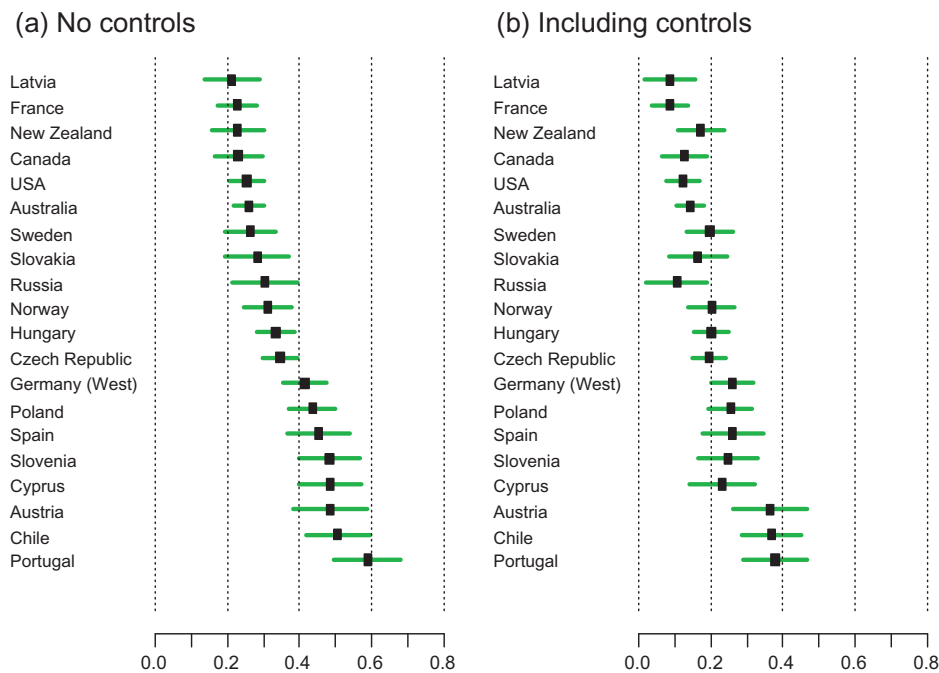


Fig. 1. Effect of Father's SEI from OLS regression models fitted separately to each country, with (a) no controls and (b) controls for age, gender and education. Horizontal lines represent 95% confidence intervals. Countries are listed in descending order in terms of the intergenerational SEI association without controls. These relationships differ slightly from those shown in Table 1 because they average surveys from different years in each country.

3. Results

3.1. The role of individual-level characteristics

We start by exploring the models in Table 2, which assess the extent to which differences in demographic composition can account for cross-national differences in social fluidity. Model 1a includes father's SEI and its random component as the only predictor. As expected, father's SEI has a positive and statistically significant effect on the occupational SEI of respondent. Just as important, the variance component for the effect of father's SEI is statistically significant ($p < .01$), suggesting that there is significant cross-national variation in the father-to-respondent SEI association. Model 1b extends the model to include controls for age and gender. Neither of these variables has a significant effect on respondent's SEI or the other coefficients in the model. Most importantly, the effect of father's SEI and its random component change very little.

We now examine Model 1c, which explores the role of education in the social mobility process. As expected, education has a positive effect on respondent's SEI. Just as important, including education in the model reduces both the overall effect of father's SEI on respondent's SEI (0.204 in Model 1c versus 0.349 in Model 1b) and the cross-national variation in this effect (0.0056 in Model 1c versus 0.0095 in Model 1b) by slightly more than 40%. This suggests the importance of including education and a variance component for its effect in models assessing contextual effects. In any event, the remaining cross-national variation in social mobility is substantial and statistically significant. Whether or not this variation is systematic is at the heart of the remaining analysis. We now turn our focus to the role of the national context.

3.2. The role of national context

Before continuing with the multilevel models, it is helpful to graphically explore the extent of cross-national variation in social mobility. Fig. 1 displays national estimates of social mobility derived from OLS regression models fitted to the data for each country separately. The horizontal bars represent 95% confidence intervals. Fig. 1a demonstrates the father's SEI effects from a model with no individual level controls (i.e., Model 1b); Fig. 1b presents the effects controlling for age, gender and education (i.e., Model 1c). We clearly see that ample cross-national variation in the father-to-child SEI association remains to be explained, even after controlling for individual-level characteristics.

Fig. 2 presents the relationship between social mobility and each of the contextual variables (the data for the context variables are also reported in Table 1). Recall that high levels of social mobility translate to relatively small values of intergenerational SEI effects. Panel (a) displays the relationship between social mobility and economic development, measured by per capita GDP in the 1970s. We have tentative evidence that economic development leads to more social mobility and openness. As per capita GDP increases, the intergenerational SEI association decreases, indicating that more advanced capitalist

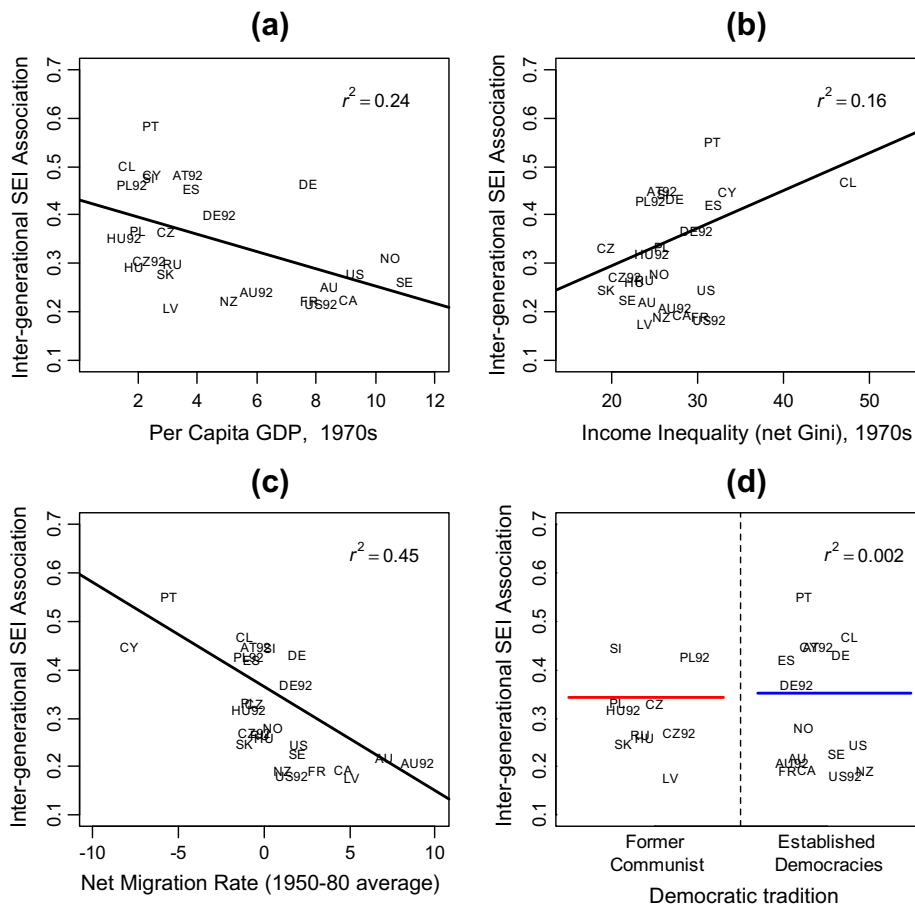


Fig. 2. Bivariate relationships between Inter-generational SEI association and (a) per capita GDP, (b) income inequality (net Gini), (c) migration rate, and (d) Communist past. Lines indicate the fit from an OLS regression (the horizontal lines in (d) were calculated from a dummy regressor representing the effect of a Communist past). Countries are identified by the International Organization for Standardization two-letter codes. The 1992 surveys are identified; all other points are from the 1999 surveys.

societies are also more open societies. Just as important, the association between social mobility and economic development appears to be nonlinear. This is consistent with [Lipset and Zetterberg's \(1959\)](#) suggestion of an initial developmental effect on mobility that diminishes after a certain level of industrialization is reached.

Evidence on the role of income inequality is less convincing. The regression line and correlation coefficient for Panel (b) suggest that the relationship between inequality and mobility is weak at best.⁹ As expected, however, Panel (c) suggests that immigrant societies are more mobile societies (cf. [Tyree et al., 1979](#); [Raftery, 1983](#)). As the net rate of migration increases (i.e., more immigrants enter a society), the strength of the intergenerational SEI association decreases. Finally, Panel (d) divides the countries according to whether or not they have experienced communist rule. Without taking into consideration age, gender and education composition, the difference in the relationship between father's SEI and respondent's SEI in post-communist and other societies is very small and not statistically significant at conventional levels.

We now return to the multilevel models to formally test the role of the context variables. The results from these models are displayed in [Table 3](#). We emphasize that our primary concern is with the terms representing how father's SEI interacts with the contextual variables in their effects on respondents' SEI. In other words, the coefficients representing the main effects of the contextual variables are not very informative on their own. We start with Model 2a, which provides a preliminary test of the hypothesis that economic development leads to greater social mobility. Consistent with the pattern shown in [Fig. 2](#), this model supports our hypothesis. To better comprehend the extent of the interaction between per capita GDP and father's SEI—which is complicated by the fact that per capita GDP is logged and scaled before entering the model—we can compare the estimated effect of father's SEI for two hypothetical countries, one with a per capita GDP in the top decile (approximately \$9000, which is similar to the US at the time) and another with a per capita GDP in the bottom decile

⁹ Although Chile is an outlier in Panel (b), preliminary models that excluded Chile suggested that it is not influential. In other words, excluding Chile from the analysis – here or in the models that follow – does not lead to different results and conclusions. Results of this analysis can be provided from the authors on request.

Table 3Mixed models predicting respondent's SEI from individual-level variables and contextual variables.^a

	Model 2a	Model 2b	Model 2c	Model 2d	Model 3
Intercept	32.66*** (0.91)	32.71*** (1.07)	32.87*** (1.07)	30.96*** (1.39)	30.95*** (1.49)
Degree	19.04*** (0.832)	19.19*** (0.817)	19.12*** (0.820)	19.31*** (0.805)	19.21*** (0.810)
Father's SEI	0.203*** (0.015)	0.202*** (0.016)	0.198*** (0.014)	0.247*** (0.022)	0.270*** (0.023)
<i>Contextual effects^b</i>					
Per capita GDP, 1970s (logged)	2.97*** (0.75)	–	–	–	1.88 (1.33)
Income inequality, 1970s (Net Gini coefficient)	–	–1.77* (0.72)	–	–	0.012 (0.97)
Net Migration Rate (average from 1950–1980)	–	–	2.70*** (0.69)	–	2.01* (0.81)
Post-Communist	–	–	–	4.41** (1.64)	5.10 (2.96)
<i>Interaction with father's SEI</i>					
Per capita GDP, 1970s (logged)	–0.063*** (0.014)	–	–	–	–0.063** (0.022)
Income inequality, 1970s (Net Gini coefficient)	–	0.034* (0.014)	–	–	–0.021 (0.016)
Net Migration Rate (average from 1950–1980)	–	–	–0.050*** (0.014)	–	–0.032* (0.013)
Post-Communist	–	–	–	–0.120*** (0.030)	–0.188*** (0.050)
<i>Variance components (percent explained in parentheses)^c</i>					
Intercept	12.07 (62%)	20.50 (36%)	12.14 (62%)	31.04 (3%)	13.38 (58%)
Father's SEI	0.0049 (47%)	0.0049 (47%)	0.0033 (65%)	0.0071 (24%)	0.0021 (78%)
Deviance	130,870	130,892	130,886	130,889	130,846
n (individuals)	16,242	16,242	16,242	16,242	16,242
N (surveys)	26	26	26	26	26

* $p < .05$.** $p < .01$.*** $p < .001$.^a Although not reported, all models control for age and gender, and include a random component for the effects of degree.^b GDP, net migration rate, and income inequality are scaled to have a mean of 0 and standard deviation of 1.^c Compared to Model 1a, which specifies only father's SEI, its variance component, and a random intercept as predictors.

(about \$1300, which is similar to Poland at the time). The estimated strength of the intergenerational SEI association is about 2.4 times larger for the poor country than it is for the rich country.¹⁰ We should keep in mind that this finding pertains to a model that does not control for any other contextual variables, but it is remarkable nonetheless. We will return to this discussion later.

Model 2b tests the hypothesis that social mobility is negatively associated with income inequality (cf. Tyree et al., 1979; Treiman and Yip, 1989; Erikson and Goldthorpe, 1992). Consistent with this expectation, there is a statistically significant negative interaction between father's SEI and income inequality in their effects on respondent's SEI. Similar to the pattern shown in Fig. 2, however, the interaction is relatively weak, at least compared to the interaction between father's SEI and per capita GDP uncovered in Model 2a. We can directly compare the strength of the two interactions because both contextual variables are standardized. The effect of per capita GDP on the relationship between FSEI and respondent's SEI is nearly twice as strong as the effect of the Gini coefficient ($b = -0.063$ versus $b = 0.034$). As we shall see later, the difference between these two interaction effects becomes even greater when all four contextual variables are simultaneously included in the model.

Model 2c assesses the impact of net migration on social mobility. Consistent with the evidence provided by Fig. 2, the results support the hypothesis that social mobility increases with immigration (see also, Tyree et al., 1979; Raftery, 1983). Although not as strong as the effect of per capita GDP, the migration effect is about 50% larger than the effect of the Gini coefficient. As we shall show later, this relationship persists even after controlling for the other contextual variables. We will return to a more detailed discussion of the effects of migration when discussing Model 3.

We now turn our attention to Model 2d to test the effect of communist past on social mobility. Recall that we expected the intergenerational association in SEI to be weaker (indicating more mobility) in post-communist societies than in societies that have had no experience with communism. The results from Model 2d are consistent with this expectation. In fact, on average, the effect of father's SEI is almost twice as large in countries that never experienced communist rule ($b = 0.247$) as it is in countries with a communist past ($0.247 - 0.120 = 0.127$).

¹⁰ The standardized score for per capita GDP are 1.275 for the rich country and -1.395 for the poor country. The main effect for FSEI is .203 and the term representing the interaction between FSEI and per capita GDP is -0.063 . The FSEI effect is then .290 ($.203 - .063 \times -1.395$) for the poor country and .122 ($.203 - .063 \times 1.275$) for the rich country.

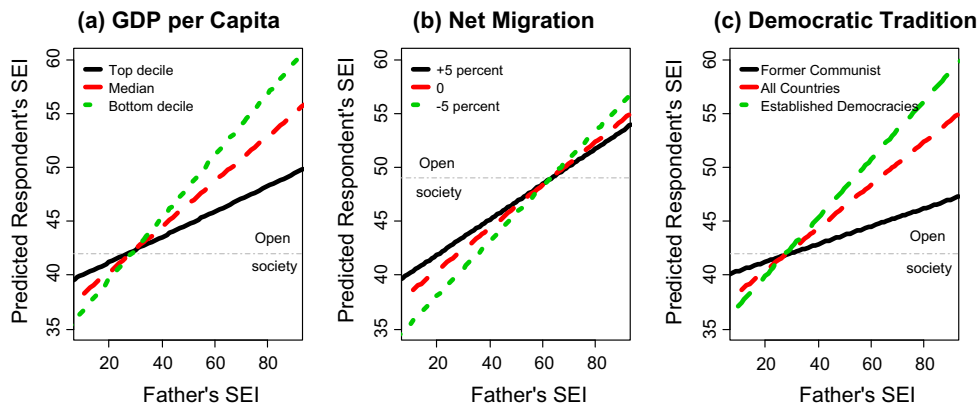


Fig. 3. Effects of (a) GDP per capita, (b) net migration, and (c) democratic tradition on the relationship between Father's SEI and Respondent's SEI. Fitted values derived from model 3. Note: all predictors except those included in the interaction are set to their means.

Based on the analyses presented above, we tentatively conclude that social mobility is systematically associated with both economic (level of economic development and income inequality) and non-economic (communist past and immigration) societal characteristics (see also, Grusky and Hauser, 1984). Since our contextual variables are correlated, however, it is possible that a model that includes all four contextual variables will yield different conclusions. We explore this possibility with Model 3.

Model 3 provides even more convincing evidence that much of the cross-national difference in social mobility is systematic. When compared to model 1, this model explains a remarkable 78% of the cross-national variation in the association between respondent's and their father's occupational status scores. Perhaps most important, the interaction between FSEI and per capita GDP is virtually identical to what it is in Model 2a, which includes per capita GDP as the only contextual predictor. Nevertheless, there are noteworthy differences between the results of this model and the results of the other models that explored the role of each contextual effect separately. Specifically, the effect of migration is now slightly smaller (down from -0.050 to -0.032),¹¹ while the impact of former communist rule has increased significantly (from -0.120 to -0.188). Both of these interactions continue to be statistically significant at conventional levels, however. Finally, with respect to the role of income inequality, both its main effect and its interaction with FSEI have been reduced substantially, to the point that neither is statistically significant.

The statistically insignificant effect of income inequality deserves some further attention. As we moved from Models 2b to 3, the effect of inequality on social mobility not only reduced in magnitude but it changed direction. We were thus compelled to perform further analyses. As a first step, we explored which of the other context variables negated the effect of the net Gini coefficient by adding each of them to the model separately. This analysis suggested that inclusion of both per capita GDP and former communist rule rendered the effects of inequality statistically insignificant. Given the relatively strong association between income inequality and former communist rule ($r = .562$), we also fitted Model 3 separately for former communist societies and the more established democracies. Although positive in direction for former communist countries and negative for the more established democracies, the effect of income inequality was very small and statistically insignificant for both groups of countries ($p = 0.788$ and $p = 0.640$, respectively). Nevertheless, given that there are relatively few surveys (only 10 for communist countries and 16 for the established democracies), and there were differences in the effect of inequality in the two types of countries, we cannot entirely discount the possibility that income inequality affects social mobility indirectly, through political ideology.

In order to clearly demonstrate their impact on mobility, Fig. 3 displays fitted values for the effects of per capita GDP, net migration and democratic tradition (communist past/established democracies) on the relationship between father's SEI and respondent's SEI. Starting with the role of per capita GDP shown in Panel (a), we display the fitted values for the effect of father's SEI for typical countries at three values of per capita GDP: the top decile, the median, and the bottom decile. By 'typical' we mean hypothetical countries characterized by mean values on all other variables in the model (see Fox and Andersen, 2006 for more details). The figure makes it very clear that the richer the country, the more open it tends to be. The main differences lie at high levels of father's SEI, where privilege is much more likely to be rewarded in poor countries than it is in rich ones.

Panel (b) explores the role of migration. We plot the effect of father's SEI for three typical countries characterized by different levels of migration: (1) a 5% increase in net migration, (2) a 5% decrease in net migration, and (3) a stable population size. Panel (b) illustrates the much steeper slope for the effect of father's SEI in the hypothetical country characterized by significant immigration. Also, in contrast to the effect of per capita GDP, the largest differences in the effect of father's SEI are at the bottom of the occupation distribution rather than at the top. This is important finding suggesting that the

¹¹ Most of the reduction in the effect of migration is attributable to its relationship with per capita GDP. In fact, the effect of migration on mobility patterns is very similar when all other context variables are controlled for (-0.032) and when only GDP is controlled (-0.037).

intergenerational assimilation process of less advantaged immigrants tends to be more successful in societies with large immigrant populations.

Panel (b) of Fig. 3 displays the fitted relationship between father's SEI and respondent's SEI conditioned on whether or not a country experienced communist rule. The slope for established democracies is far steeper than the slope for post-communist. Similar to the role of per capita GDP, the differences in returns to father's SEI tend to be greatest at high levels. We conclude, then, that a lingering effect of communist rule has resulted in greater openness.

4. Discussion and conclusions

A long-standing debate in the literature on social mobility centers on two related questions: Is cross-national variation in mobility systematic? If so, what explains this variation? We enter this debate by following Ganzeboom et al.'s (1991) call for a multilevel analytical approach to the study of social mobility. In this regard, our research falls under the umbrella of the "fourth generation" of mobility research (cf. Ganzeboom et al., 1991). We also use more recent data—and data from more countries—than most previous studies. These advancements enable a more nuanced view of social mobility processes.

Our most basic findings are generally consistent with those of the majority of research in the field: (a) there is substantial cross-national variation in social mobility, and (b) this variation is largely systematic (cf. Tyree et al., 1979; Grusky and Hauser, 1984). Our results also provide strong support for the industrialization thesis. Specifically, individual level educational attainment mediates – as expected in industrial and post-industrial societies – a substantial portion of the father-to-child SEI association. Even more important, our results demonstrate that economic development can propel social mobility. Richer societies tend to have higher levels of social mobility than poorer ones, even after controlling for other important contextual factors. These findings resonate well with Bell's (1973) assertion that industrialization results in stratification processes having a greater emphasis on meritocratic characteristics and less emphasis on ascribed characteristics.

We also found strong support for the assertion that immigration leads to a more fluid society (cf. Tyree et al., 1979). The available data do not allow us to definitively say whether migrants are pulled to more open societies or if the influx of immigrants to a society causes high levels of openness but they are consistent with the idea that migration matters. In fact, we are unable to determine the direction of causality between any of our contextual characteristics and levels of social mobility. Although important, this issue cannot be further explored until extensive over time data on many countries become available. Still, simply establishing that mobility rates are related to these contextual factors is a step in the right direction.

Our finding that the intergenerational SEI association is weakest in former Communist regimes raises interesting questions about the possible role of the state as a regulator of economic opportunity. This is consistent with the idea that the state can affect social mobility through taxation or social programs that help shape people's incentives to pursue particular occupations (c.f., Grusky and Hauser, 1984; Sieben and De Graaf, 2001). At first thought this assertion might seem puzzling given the contradictory finding that income inequality is not significantly related to mobility rates. There is a plausible explanation for this apparent contradiction, however. As we mentioned earlier, the non-effect of income inequality might simply reflect the high correlation between income inequality and a former communist past, and the fact that post-communist societies tend to have much lower per capita GDP than established democracies. We speculate, then, that income inequality may have an indirect effect on social mobility through political factors. Unfortunately, this proposition cannot be adequately tested until new data become available.

We conclude by highlighting how our approach sheds new light on the relative importance of individual and contextual factors in social mobility processes. Not only did our models allow us to simultaneously control for individual-level and country-level variables but they also allowed us to determine how much of the variation in social mobility could be accounted for by these two different sets of factors. Unlike most previous research in this area, we generated tangible estimates of the relative roles of individual and contextual influences on mobility. Specifically, the individual-level variables in our models—especially education—explained a remarkable 34% of the variation in the effect of father's SEI on respondent's SEI across countries. In other words, the attributes of individuals within societies explains a substantial amount of the variability in mobility rates. Although this still leaves well more than half of the cross-national variation in mobility unexplained, our four country-level variables explained a further 44% of this variation. In total, our final model was able to explain a remarkable 78% of the variation in social mobility in the 26 national contexts that we explored.

Appendix A

See Table A1.

Table A1

A1 Correlations between context variables. Note: Country is unit of analysis.

	GDP	Net Gini	Migration
<i>Per capita GDP</i>			
Net Gini	–0.022		
Net migration rate	0.525	–0.188	
Post-communist	–0.636	–0.562	–0.168

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