Intergenerational Mobility and Gender in Mexico

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This article studies intergenerational socioeconomic mobility in Mexico comparing men and women. In contrast to most sociological work that uses individual-level measures to proxy family socioeconomic status, we use a direct measure of family living standards for both generations, based on an index of economic well-being. Strong intergenerational persistence is found in Mexico compared to other countries. Persistence is stronger for men than women, particularly among advantaged families. The role of education in the mobility process is examined. Findings indicate that "excess immobility" of men is not mediated by education. Wider gender differences among married/cohabiting than single respondents suggests parents are more likely to transfer socioeconomic resources to their married sons than married daughters. We argue for the advantages of measuring socioeconomic status directly at the household level, and of evaluating gender differences to gain insight about mobility mechanisms.

Introduction

Intergenerational mobility research has made important progress in the past two decades. Analysis has expanded to a larger number of countries, and has included different dimensions of mobility and new analytical techniques (Bjorklund and Jäntti 2009; Jonsson et al. 2011; Torche 2015). However, research in the developing world is still scarce, and intergenerational mobility studies still tend to focus on men everywhere in the world. The reason for excluding developing countries is simple: Mobility data are still unavailable in many nations. The reasons for excluding women have traditionally been substantive and practical. Most measures of mobility, such as class, occupational status, and earnings, are based on labor-market participation. The substantial numbers of women who are not employed are by necessity excluded from the analysis, and women who are employed may be selected on unobserved factors–for example motivation, ability,

or gender ideology—and thus not comparable with their unemployed counterparts. Furthermore, many mobility surveys simply do not include information about women. Faced with small sample sizes, researchers opt to focus on men under the risk of facing "number of cases" constraints if both men and women are considered in the analysis.

These dual limitations of mobility analysis—the exclusion of women and of much of the world outside the industrialized core—result in a vacuum in the literature, not only because developing countries comprise most of the world's population and because women are about half of the population in every nation, but also because these limitations hamper the understanding of the determinants and mechanisms of mobility. In the case of developing countries, the main loss is the inability to understand how macro-level factors such as economic development or inequality shape mobility. For example, if economic inequality results in lower mobility (Corak 2013), excluding the most unequal nations in the world reduces adjudicative power of the analysis. In the case of women, the main loss is the ability to understand how family dynamics affect intergenerational transmission of advantage, if these dynamics are gender specific. For example, if parents invest more in the human capital of their sons than their daughters in some national contexts (Yu and Su 2006; Song and Burgard 2008), or if economic returns to schooling vary across gender (Dougherty 2005; DiPrete and Buchmann 2006; Montenegro and Patrinos 2013), or if assortative mating has differential consequences for mobility of men and women (Raaum et al. 2007), we would expect intergenerational mobility to vary by gender. This article addresses both limitations by studying mobility patterns of men and women in contemporary Mexico.

Measurement of mobility is based on the strength of the association between parents' socioeconomic resources (origins) and adult children's socioeconomic standing (destinations). A weak association means high mobility, a situation in which individual socioeconomic well-being is only weakly shaped by parental resources, and where all individuals have similar chances of succeeding or failing, regardless of their social origins. A strong intergenerational association, in contrast, indicates persistence of socioeconomic advantage and disadvantage across generations. Measures of intergenerational mobility are claimed to gauge equality of opportunity in society. Naturally, equal opportunity does not imply eliminating all sources of socioeconomic resemblance between parents and children (Jencks and Tach 2006, 23). Factors such as inherited differences in ability and early household socialization on values and expectations might be difficult to alter by social policy. However, to the extent that intergenerational reproduction depends on differential constraints or resources determined by parental advantage, mobility indeed reflects equality of opportunity. Thus, a key question for mobility analysis is *which mechanisms* account for intergenerational reproduction. This analysis examines the mechanisms driving mobility in Mexico, with a focus on educational attainment, and the extent to which they vary by gender. While much research uses individual-level measures of social class, occupational status, earnings, or income to measure mobility at the family level, this article offers an assessment of economic well-being measured directly at the household level.

The Mexican Context

Mexico is a middle-income country characterized by high economic inequality and substantial disparities based on ascribed factors such as parents' education, wealth, ethnicity, and skin color (Torche and Spilerman 2009; Villarreal 2010). These factors suggest limited intergenerational mobility. The Mexican labor market has high levels of informality and marked gender differences in employment, with only 42 percent of women 15 years old or older engaged in paid employment in 2010, one of the lowest female labor-force participation rates in Latin America (United Nations 2010, table 4A). Scarce evidence exists on Mexican mobility in comparative perspective. The evidence suggests that Mexico is more rigid than industrialized countries, with a pronounced "excess immobility" among the upper classes (Huerta-Wong, Burak, and Grusky 2013)—a pattern that seems to be pervasive in Latin America (Torche 2014)—and that class mobility may have stagnated or even declined in the recent past in the context of economic crisis and subsequent economic liberalization and structural adjustment (Cortes and Escobar-Latapi 2005; Solis 2005; Zenteno and Solis 2006).

Most mobility studies in Mexico examine men only. The exception is Cortes and Escobar-Latapi (2005), who compare class mobility trends (but not levels) for men and women and find even a stronger decline in mobility among women than among men in the recent past. However, Cortes and Escobar-Latapi (2005) use an individual perspective, measuring the class of individual men and women based on their own labor-force participation, and therefore excluding the large share of Mexican women not in the labor force.

Theoretical Background: Men's and Women's Mobility and Mobility Mechanisms

Expanding mobility analysis to women highlights the question about the relevant unit of analysis for the study of stratification dynamics—whether stratification is better understood as a family process or an individual process. Most sociological approaches focus on the family as the theoretical unit of analysis, but they differ on how to measure collective family position. As stated by Sorensen (1994), a key problem is whether and how to combine information about individual family members into a single measure if more than one member is employed. Three approaches exist in the sociological literature—conventional, dominance, and joint.

The "conventional approach" claims that family class is best measured by the household male head's occupational position and by the female head only if no male is present. The rationale is that men have the greatest commitment to and continuity in labor-market participation (Goldthorpe 1983, 470). The "dominance approach" considers the household member with stronger labor-market attachment and higher individual class position—usually, but not necessarily, the male partner (Erikson 1984). This approach has not been widely used in empirical work, perhaps because few women have traditionally had a dominant position (Erikson and Goldthorpe 1992, 267), but a comparison of social fluidity findings using the conventional and dominance approaches has found some significant differences, at least in some contexts (Erikson 1984).

In the "joint approach," both spouses contribute to family class if they are both employed. To date, there is no consensus on whether to include both spouses additively, interactively, merge them in a single measure, or focus on the difference between spouses (Britten and Heath 1983; Davis and Robinson 1988). Still, Beller (2009) has shown that models including father's and mother's class position (using any formulation) provide a better account of mobility in the United States than those using father's class only. A fourth perspective, held by feminist scholars, questions the family as the unit of stratification and suggests considering class position at the individual level for both men and women (Acker 1973; Stanworth 1984).

Class mobility analysts tend to reject this "individual approach" and, in spite of their operationalization disagreements, tend to agree that the family is the unit of stratification. Given this agreement, it is curious they have not attempted to measure the family's living standards directly in the consumption sphere and have relied almost exclusively on occupational position, an individual-level variable *par excellence*.

While sociological analysis of mobility examines class and occupational status, economists focus on earnings and, more recently, total family income (Mayer and Lopoo 2005; Lee and Solon 2009; Chetty et al. 2014). In contrast to earnings, total family income includes extra-occupational resources, such as financial assets and private and public transfers, and some important family-level dynamics, such as spousal selection (assortative mating), intra-household division of labor, and union formation and dissolution.

This article uses an alternative perspective to capture family-level socioeconomic standing. It examines intergenerational mobility *directly* at the household level rather than attempting to choose or combine individual-level class positions, earnings, or income. This approach is based on the assumption that household members share resources and divide their labor in order to maximize collective welfare, and that household's well-being is the result of endogenous decision-making and different contributions by its members. This assumption does not mean that household arrangements are free from gender-based power dynamics and inequality. It means, however, that a direct measure of household well-being may provide a better indicator than the aggregation of individual-level resources.

Specifically, we construct an index of economic well-being by combining durable goods and services owned by the family. A growing literature in social sciences and development studies uses such indexes, particularly in context where monetary data for parents and children are not available (Filmer and Pritchett 1999, 2001; McKenzie 2005; Ferguson et al. 2003; Sahn and Stifel 2003). In spite of widespread use, the interpretation of the concept captured by the indexes varies, even when researchers use similar indicators and analytical strategies. For example, Filmer and Pritchett (1999, 2001) indicate that the index captures household wealth, which they then interpret as a proxy for long-run economic status or expenditures, McKenzie (2005) refers to living standards, Ferguson et al. (2003) mention permanent income, and Sahn and Stifel (2003) speak of well-being (see Wai-Poi, Spilerman, and Torche (2008) for a review of this literature).

Our interpretation of the index of economic well-being is based on the distinction among three concepts associated with living standards—income, wealth,

and consumption. Income captures a flow of pecuniary resources that can be subject to high short-term variability. Wealth is a stock of financial and real assets minus liabilities owned by the family. Consumption is level of material comfort the family can afford, expressed in goods owned and services used. Because the economic index is based on such goods and services rather than financial or real stocks of wealth, we see it as primarily associated with levels of daily material comfort most directly corresponding with household consumption level. We assume that the household's ability to sustain a particular level of consumption is the outcome of the family's occupational and extra-occupational resources, access to credit, and public and private transfers, that is, of all sources of family income. While income captures the inputs that support a certain consumption level, the economic well-being index provides a measure of the consumption itself.

One important concern for mobility researchers is whether the measure of economic well-being captures permanent standing purged of short-term fluctuations. This concern is based on the permanent income theory, which assumes that household consumption at any point in time is determined not just by current income but by expectations about income in future years, taxes, price increases, and other long-term considerations (Friedman 1988[1957]). Mobility researchers use different approaches to address this concern. Studies of economic mobility produce multi-year averages of earnings or income centered around age 40 to approach such permanent measure (Black and Devereux 2011). Analyses of class mobility rely on the assumption that class position does not change much after individuals reach "occupational maturity" in their mid-30s (Goldthorpe 1980; Heath and Payne 1999). The index of economic well-being provides a plausibly closer measure of permanent income insofar as it directly captures the level of material comfort that families are able to maintain.

Men's and women's mobility: Are there gender differences?

Several studies of class mobility examine men and women, but few directly compare across gender (e.g. Breen 2004). One exception is Erikson and Goldthorpe (1992, 246–59), who compare men's and women's mobility using the individual and the conventional approaches across European countries and find a slightly weaker intergenerational association among women. They also find that mobility analysis using men only and analysis including men and women through the dominance approach yield similar findings (1992, 264–75; see also Breen and Whelan [1995]), which leads them to suggest that incorporating women to the analysis will not alter our understanding of the mobility process. Studies of class mobility in the United States tend to use the "individual approach" and suggest no gender difference or small indication of weaker association among men (Hout 1988; Beller 2009), although the analyses are based on log-linear models with many parameters, which preclude a straightforward gender comparison.

In terms of income or earnings mobility, the intergenerational earnings association appears to be weaker for women than men (e.g., Jäntti et al. 2006; Fertig 2003). However, the intergenerational association of total family income appears to be similar across genders (Solon [1999] and the literature cited therein; Chadwick and Solon [2002], Mayer and Lopoo [2005]), probably driven by

Figure 1. The role of education in the process of intergenerational mobility
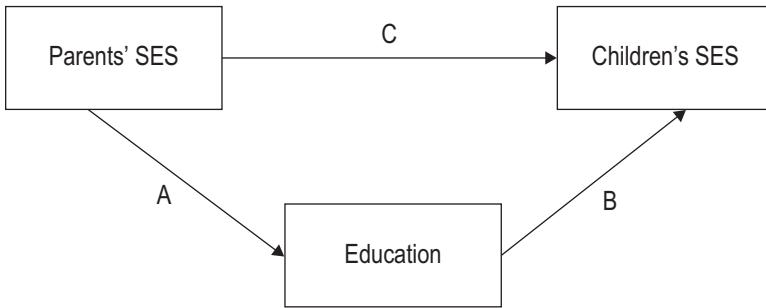
strong educational assortative mating (Chadwick and Solon 2002; Ermisch, Francesconi, and Siedler 2006). In sum, the relatively limited evidence comparing men's and women's mobility suggests that the intergenerational association is somewhat weaker among women than men when measured at the individual level but not necessarily so when well-being is measured at the family level.

What are the theoretical bases for expecting gender-based differences in mobility? A useful way to address this question is to distinguish mobility pathways. The status attainment tradition has shown that education is both the main mechanism for intergenerational persistence and the main vehicle for mobility (Blau and Duncan 1967; Hout and DiPrete 2006). Education is a vehicle for reproduction because advantaged parents are able to afford more and better schooling for their children, which in turn pays off in the labor and other markets. Education is also a vehicle for mobility because factors other than parental advantage account for most of the variance in educational attainment, thus weakening the link between socioeconomic origins and destinations.

To understand gender differences in mobility, the total intergenerational association can be divided into the pathway mediated by education and a direct pathway that is net of education. The education pathway includes the association between parents' socioeconomic standing and individual educational attainment ("inequality of educational opportunity"), and the association between educational attainment and adult children's socioeconomic position ("returns to education"). These pathways are indicated by arrows A and B, respectively, in figure 1. The direct pathway that is net of education captures myriad factors, such as the direct inheritance of property, labor-force participation by social origin, the probability of marrying and assortative mating by social origins, use of family-based social networks or cultural capital, and the transmission of personality traits, to the extent that these factors are not correlated with educational attainment. It is indicated by arrow C in figure 1.

We can use the simple model in figure 1 to outline potential gender differences in mobility. Although no study we know of examines gender differences in all of these components directly, we can draw inferences from findings about each of them. In terms of the association between parents' resources and children's educational attainment (A), gender variation in mobility would emerge if parents invested differently in the education of their sons compared to their daughters,

and if such gender difference varied by socioeconomic status. While mixed evidence of differential investment in sons and daughters by parents' socioeconomic advantage exists in the United States (Freese and Powell 1999; Hopcroft 2005), in some national contexts, such as Taiwan, son's preference in educational investment weakens as a family's socioeconomic status increases (Yu and Su 2006). Although in Latin America a growing educational gap favoring females exists since at least the 1990s (Grant and Behrman 2010), Mexico may be the exception, with persistent gender educational parity or even a slight male advantage (Hausman, Tyson, and Zahidi 2012). Furthermore, as in the case in Taiwan, sons' educational advantage over daughters' is stronger among poor families (Post 2001). Ceteris paribus, this interaction means that men from poor families would have a better chance to overcome their disadvantaged origins through education than women and would result in stronger intergenerational persistence among daughters, particularly at the lower end of the income distribution.

The second mobility pathway (B) links education with economic returns, using a traditional "returns to schooling" formulation (Mincer 1958). Research has found that earnings and other economic returns to schooling are higher for women than men in diverse national contexts (Dougherty 2005; DiPrete and Buchmann 2006; Montenegro and Patrinos 2013). This is also the case in Mexico, where earnings returns to education are slightly greater for women, although the analyses are restricted to employed women and may thus be affected by selectivity bias (Zamudio 1995; Harberger and Guillermo-Peon 2012). Ceteris paribus, this gender difference would result in a stronger intergenerational association for women than men. No research we are aware of explicitly compares intergenerational mobility net of education across gender.

Thus, the limited evidence about mobility pathways suggests that socioeconomic persistence may be stronger for women. If poor families indeed invest more in their sons' than their daughters' education, this would result in stronger intergenerational persistence for women. Gender differences in the economic returns to schooling would also result in stronger immobility among women.

Data, Methods, and Analysis

Data for this analysis come from the 2011 ESRU Survey of Social Mobility in Mexico EMOVI 2011, undertaken by the Mexican Centro de Estudios Espinosa Yglesias. The EMOVI is a probabilistic nationally representative sample of non-institutionalized Mexican men and women 25–64 years of age. Respondents are randomly selected household members within the age range, regardless of their relationship with the head of the household. The survey uses a multistage stratified sampling design. Primary sampling units (PSUs) are municipalities, SSU are Basic Geostatistical Areas (AGEBs), TSU are blocks, and final sampling units are households. The survey includes information on respondents' demographic characteristics, education, employment and occupation, income, and assets. It also collects retrospective information about family structure, education, occupation, and assets of the parents of respondents. The total sample size is 11,001. Post-stratification weights were constructed to bring sample distribution in accordance with the population, and they are used in all analyses.

Analytic Strategy

We examine intergenerational mobility among men and women. Socioeconomic standing of parents and children is measured at the household level by means of an *index of family economic well-being*, which combines a set of household goods and services. The household index is a measure of the household's capacity to maintain a particular consumption level and is plausibly based on the contributions of all family members. A principal component analysis is used to create the index. Principal component analysis is a technique that distinguishes different dimensions ("components") accounting for the common variance across items included. We use the first component as a latent measure of socioeconomic status, the linear combination that accounts for the largest proportion of variance that is common to all items. This strategy produces empirical weights for each indicator based on the strength of its correlation with other indicators instead of assigning equal weights (as obtained by a simple count of indicators owned by the family), or using any other arbitrary weighting strategy (Filmer and Pritchett 1999; McKenzie 2005). Furthermore, the use of a measure based on the covariance across items disregards idiosyncratic determinants of each item's ownership—for example, use of fans in warmer regions. One important concern when using this methodology is the ability of the index to discriminate across the entire socioeconomic structure in the context being analyzed, including the lower and upper ends. This is achieved by including items that distinguish access to resources among the poor (for example in the Mexican context, access to pumped water and refrigerator), as well as among the wealthy (for example, ownership of computer and Internet connection). Based on our examination of the data, a practical advantage of using a set of household goods and services is that respondents' reports about these items have good recall properties and elicit low refusal rates when compared with survey questions about income/earnings and even occupation.

In order to select items to be included in the index, the entire set of household goods and services included in the survey was considered (piped water, electricity, inside bathroom, refrigerator, boiler, gas or electric stove, TV, cable/satellite, washing machine, toaster, vacuum cleaner, DVD player, microwave oven, landline phone, cellular phone, computer, Internet connection, hourly domestic service, live-in domestic service, cars [the latter two combined into a single indicator], store, agricultural land, vacation home, rental property, animals, agricultural machinery, business, stock/bonds, savings account, checking account, credit card). Each item's uniqueness was then obtained. The uniqueness captures the proportion of variance in each item that is uncorrelated with the common variance across all items. Items with uniqueness larger than .90 were excluded because they are poor indicators of the latent socioeconomic standing index. This left the following eighteen items in the principal component analysis: inside toilet, stove, washing machine, fridge, DVD, boiler, personal computer, cellular phone, landline phone, cable/satellite TV, vacuum machine, microwave oven, toaster, Internet connection, savings account, checking account, credit card, and cars. The same strategy was used for the respondents' parents. Information about the parental generation is retrospectively provided by respondents and refers to the household where they were growing up when they were 14 years of age.

The items included for the parental generation are piped water, electricity, inside toilet, stove, washing machine, fridge, TV, boiler, vacuum, toaster, domestic service, landline phone, savings account, checking account, credit card, and cars (see the online appendix for a description of index construction).

The sample is restricted to men and women ages 30–50. This age range ensures that respondents have for the most part established their own households and are in a relatively similar stage of the life course. According to the earnings mobility literature, this age range reflects respondents' long-term socioeconomic standing purged of life-cycle effects, which are strong at the beginning and end of the occupational career (Mazumder 2005; Haider and Solon 2006), a rationale that probably also applies to other measures of socioeconomic standing. We restrict the sample to heads of household and spouses/partners to ensure that the index reflects the respondents' level of well-being. After applying age and relationship to head restrictions and excluding missing cases, the analytical sample comprises 1,843 men and 2,190 women. Given that a principal component analysis was used, the index has a mean of approximately 0 and a standard deviation of approximately 1, so it can be interpreted as standardized score.

Other variables included in the analysis are education (measured alternatively as total number of years of schooling completed and an ordered set of categories), marital status, and age. Table 1 offers descriptive statistics. It shows that women

Table 1. Descriptive Statistics

	Men		Women		All	
	Mean	s.d.	Mean	s.d.	Mean	s.d.
Parents' SES index	0.021	1.015	–0.115	0.925	–0.050	0.971
Adult children's SES Index	0.049	1.032	–0.068	0.967	–0.012	1.000
Age	39.2	5.98	39.8	6.03	39.5	6.02
Age²	1574.0	476.3	1622.0	484.9	1599.2	481.4
Years of schooling	9.69	4.32	8.78	4.14	9.21	4.25
Educational categories:						
Some primary	10.4		14.5		12.6	
Primary grad./some lower sec.	22.8		27.5		25.3	
Lower sec. graduate	25.7		25.1		25.4	
Upper secondary	22.4		21.6		22.0	
Post secondary	18.6		11.3		14.8	
Marital status:						
Not living with partner	6.8		18.8		13.1	
Cohabiting	25.2		21.3		23.1	
Married	68.0		59.9		63.8	
N	1,843		2,190		4,033	

have somewhat lower levels of schooling, consistent with the small gender gap favoring men's educational attainment, and slightly lower mean economic well-being in both generations. Gender differences in marital status are also evident: 93.2 percent of men are married or cohabiting, while 6.8 percent are not living with a partner. Among women, 81.2 percent are married/cohabiting and 18.8 percent are not living with a partner.

In order to assess the robustness of the findings for Mexican men and women, mobility analyses were replicated using occupational status as a measure of socio-economic standing. Occupational status is a traditional sociological measure operationalized by means of the international Socioeconomic Index of Occupational Status (ISEI) (Ganzeboom, de Graaf, and Treiman 1992). The ISEI combines education and income of occupational incumbents in sixteen countries in order to assign hierarchical scores to individual occupations coded by ISCO-88 (ILO 1990). In order to assign status scores to each occupation, the authors use an optimal scaling technique, which exploits the role of occupation as an intervening variable between education and income by maximizing the indirect effect of education on income (via occupation) and minimizing its direct effect (net of occupation). We use three versions of occupational status: the occupational status of the male head or the female head in case no male head resides in the household ("conventional approach"), the spouse with higher occupational status if both spouses/partners are employed ("dominance approach"), and the average status of the spouses' occupations if both are employed (a version of the "joint approach").

Ancillary analyses based on occupational status restrict the sample to individuals engaged in paid employment. This is not consequential for Mexican men, as the large majority of them have a paid job—95 percent of the male respondents in the analytical sample. However, this decision reduces the number of women to about half of those in the analytical sample. In most cases, households with non-working women are still included in the analysis if they have a male partner who is engaged in the labor market. But non-employed female heads of household are excluded. Women with lower levels of education, rural origins, and young children are less likely to work, inducing sample selectivity. It should thus be kept in mind that the ancillary analyses do not include a representative sample of Mexican women in the selected age range.

Intergenerational mobility is measured using linear regression models in which socioeconomic standing of adult children is predicted by socioeconomic standing of parents.[1] Because a linear formulation may obscure important features of the intergenerational association, nonlinearities were tested by means of a locally weighted polynomial regression. Even though the age range of respondents was narrowed to 30–50, terms for age and age squared of the respondent were included to account for potential life-cycle effects of the head on household's economic well-being.

Findings: Intergenerational Mobility across Gender

Table 2 offers the analysis of intergenerational socioeconomic association using the economic well-being index for men and women (model 1). Data are pooled

Table 2. **Intergenerational Socioeconomic Association, Men and Women 30–50 years old in Mexico, 2011**

	Model 1 Family socioeconomic well-being index	Model 2 Occupational status conventional approach	Model 3 Occupational status dominance approach	Model 4 Occupational status joint approach
Male	0.032	−6.301***	−5.473***	−3.470*
	(0.037)	(1.548)	(1.564)	(1.461)
Parents' SES/ Status	0.578***	0.318***	0.354***	0.358***
	(0.019)	(0.031)	(0.030)	(0.029)
Male × Parents' SES/Status	0.082**	0.160***	0.119**	0.074†
	(0.026)	(0.043)	(0.048)	(0.041)
Age (centered)	0.023***	0.150*	0.127*	0.144*
	(0.003)	(0.060)	(0.061)	(0.055)
Age² (centered)	0.0001	−0.008	−0.006	−0.010
	(0.0005)	(0.011)	(0.011)	(0.010)
Age × Male	0.0001	−0.019	0.034	−0.052
	(0.004)	(0.087)	(0.089)	(0.081)
Age² × Male	0.0006	0.037**	0.033	0.028*
	(0.0007)	(0.015)	(0.016)	(0.014)
Constant	−0.003	28.445***	29.212***	27.618***
	(0.026)	(1.074)	(1.074)	(1.017)
N	4,033	3,183	3,183	3,183

Note: Linear regression model of children's socioeconomic status on parents' socioeconomic status. Standard errors in parentheses. Sample size is 3,181 for models 2–4 due to exclusion of families with no earners and missing data in respondents' and parents' occupational status.
†$p < .10$ *$p < .05$ **$p < .01$ ***$p < .001$

across genders, and the model allows for a different intercept and slope for each predictor for men and women (this formulation is therefore equivalent to running two separate regressions by gender). The gender difference in intercepts is given by the parameter estimate for the dummy variable "male," and the gender difference in persistence is given by the interaction between the "male" dummy and the continuous measure of household socioeconomic standing. The level of intergenerational persistence is 0.578 for Mexican women but 0.660 (0.578 + 0.082) for Mexican men (the difference is significant at the $p < .019$ level).[2] This finding is contrary to the expectation of stronger intergenerational association for women than men. An alternative measure of intergenerational persistence is the correlation coefficient, which adjusts the regression coefficient by the dispersion of socioeconomic status in both generations, thus making the measure of association unit-less. The intergenerational partial correlation, adjusting for age, is 0.554 for women and 0.639 for men (difference significant

at the $p < .001$). The analysis of mobility using occupational status as an alternative measure of SES yields the same substantive findings: the intergenerational association is significantly stronger for men than women. This finding is consistent across the conventional, dominance, and joint approach (models 2–4, table 2).

It is useful to benchmark these measures of intergenerational reproduction using findings from other countries. The intergenerational earnings elasticity varies from approximately 0.15 in Nordic countries to values between 0.40 and 0.50 in the United States, Italy, and the UK (Blanden 2013; Corak 2013). Using these figures, the intergenerational association for both men and women is much stronger in Mexico. Given that the metrics of the variables are different, a better comparison is provided by the unit-less correlation coefficient. Jäntti et al. (2006, 13) report intergenerational earnings correlations for men ranging from around 0.10 in Scandinavian countries to 0.36 in the United States (and lower correlation values for women), much lower than in Mexico. However, analysis of economic mobility uses an over-time average of individual earnings or household income as a proxy for economic well-being instead of a household goods and services index used here, which may result in artefactual differences in findings between Mexico and advanced industrial countries. We can compare Mexico with Chile, where a similar asset index to measure mobility has been used (Torche 2010). The intergenerational association among Chilean men reaches 0.473, considerably lower than the 0.659 figure found for Mexican men (unfortunately, no comparable analysis for women exists in Chile). While these comparisons are not conclusive, given the different approaches used to measure economic well-being, they suggest strong intergenerational persistence in Mexican society, a finding consistent with international comparisons using a class approach (Huerta-Wong, Burak, and Grusky 2013).

The prior models constrain the intergenerational socioeconomic association to be linear, which could miss information about the pattern of intergenerational persistence across levels of parental well-being. Figure 2 relaxes the linearity assumption and estimates a locally weighted polynomial regression. Locally weighted regression is a non-parametric technique in which a kernel function is used that places greater weight on points close to ("local to") each particular point over the support of the data. Departures from linearity are small but relevant. While overall persistence is stronger for men, the gender differences are more pronounced in the upper end of the parents' economic well-being distribution. Given that an socioeconomic wellbeing index score of .75 is the 80th percentile in the father's SES distribution, the gender gap is pronounced for approximately the top quintile of families. This indicates that highly advantaged parents are particularly likely to pass their status to their sons rather than to their daughters.

A quantile regression formulation further examines differences in mobility patterns across gender. Models estimate the intergenerational association at several conditional percentiles of children's SES, including the 20th, 40th, 50th (median), 60th, and 80th percentile of children's socioeconomic status separately for men and women. Table 3 offers parameter estimates and standard errors, and figure 3 displays the intergenerational association at different percentiles of

Figure 2. Nonlinear intergenerational socioeconomic mobility, Mexican men and women 2011
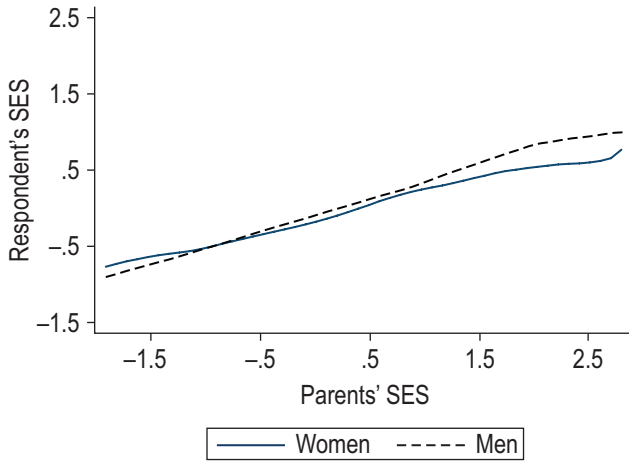
Note: Locally weighted polynomial regression with Epanechnikov kernel and bandwidth = .5. The dependent variable is the residuals from a model regressing respondent's economic well-being index on age and age squared, to account for potential bias to the intergenerational association emerging from age effects.
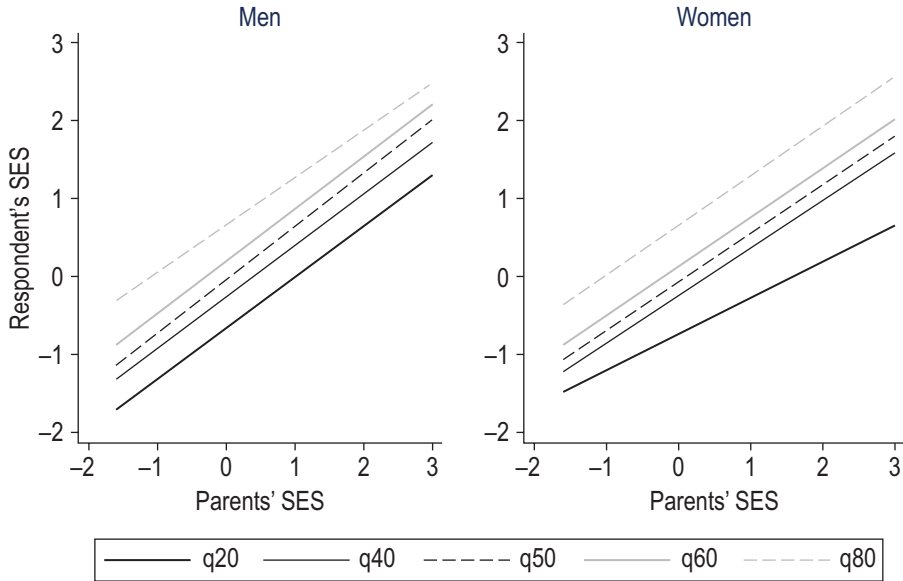
Table 3. Unconditional Quantile Regression Analysis of Intergenerational Socioeconomic Association. Men and Women 30–50 years old in Mexico, 2011 (standard errors in parentheses)

	Men		Women	
	b	s.e.	b	s.e.
Percentile 20	.654***	.019	.464***	.022
Percentile 40	.673***	.023	.610***	.021
Percentile 50	.685***	.025	.627***	.021
Percentile 60	.674***	.027	.634***	.026
Percentile 80	.603***	.028	.637***	.035
N	1,843		2,190	

***$p < .001$

children's economic well-being. By plotting regression lines for each conditional percentile graphically, the changes in the variance of the distribution of children's SES across levels of parental advantage can be examined (note that the percentile regression lines would be parallel if the model was homoscedastic). This complements the regression analysis by focusing on the predicted dispersion in addition to the predicted mean of children's outcomes at different levels of parental advantage. As indicated by Jäntti et al. (2006), it is possible for two groups to have highly similar mean persistence (measured by the linear association) but for one to have more mobility around such mean. The group with wider variability around the mean can be seen as having higher mobility. For example, a group with a "bulge" in the variance at low levels of father's SES will exhibit more

Figure 3. Quantile regression analysis intergenerational association, Mexican men and women 2011

Note: Unconditional quantile regression. Linear intergenerational associations at the 20th, 40th, 50th (median), 60th, and 80th percentile of parents' socioeconomic well-being displayed.

mobility at the low end than a group with narrower variance in this region of the distribution (Jäntti et al. 2006, 8). We estimate an unconditional quantile regression. Alternative quantile regression models conditioning on age and its square were also estimated, and produce virtually identical results (not shown, available upon request).

Quantile regression analysis shows some differences in mobility patterns by gender. Among males, there is little variance in children's SES across levels of parental advantage. Results are different for females. Mexican women who come from disadvantaged origins experience strong intergenerational reproduction—they cluster tightly around a low predicted median—while women of advantaged origins experience more variability in their outcomes around a higher median.

In sum, gender differences in the *level and pattern* of mobility emerge in Mexico. On average, men experience more intergenerational persistence than women. Gender differences are more pronounced among advantaged families, with men from advantaged origins more likely than women with wealthy origins to replicate their advantage (figure 2). Even if overall fluidity is higher among women, women from disadvantaged origins are more likely to be homogeneously disadvantaged than women of affluent origins are likely to be homogeneously affluent (figure 3). These patterns suggest gender-specific family dynamics that vary by social class; for example, barriers to upward mobility from poverty may be stronger for Mexican women than men, or upper-class parents may be more likely to invest in education or provide financial support to their sons than to their

daughters than their lower-class peers. These hypotheses are speculative at the moment, as we do not directly observe family decision-making and behaviors leading to gender-specific outcomes. The next section approximates these dynamics by focusing on education as a mediator of the mobility process.

Education and the Mobility Process: Are There Gender Differences?

Using the simple model in figure 1, the stronger intergenerational reproduction among men than women can be due to stronger influence of parents' resources on sons' educational attainment (Hypothesis 1), larger socioeconomic returns to schooling among sons than daughters (Hypothesis 2), or a stronger direct intergenerational association net of education among sons than daughters (Hypothesis 3). The empirical evidence reviewed suggests Hypotheses 1 and 2 are unlikely. Table 4 tests each of these hypotheses. We start with the association between parents' socioeconomic standing and children's educational attainment measured as years of schooling among men and women (table 4A). On average, a one-unit change in parents' SES (the difference, for example, between the median and the 88th percentile in parents' SES) is associated with .184 additional years of schooling among men and 2.3 years among women. (The partial correlation coefficients are 0.426 and 0.507 for men and women, respectively.) The gender difference is significant at the $p < .001$ level. As suggested by prior evidence for Mexico (Post 2001), the association between parents' resources and children's educational attainment is *stronger* for daughters than sons. This finding refutes Hypothesis 1. The reason for stronger intergenerational reproduction among Mexican men is *not* a closer connection between parental resources and sons' rather than daughters' education.

Hypothesis 2 tests whether the returns to education in terms of economic well-being differ across gender. Prior evidence suggests a small difference favoring women, although these studies are restricted to earnings returns. Models 1 and 2 in table 4B indicate that the family-level socioeconomic returns to schooling are

Table 4A. Association between Parents' SES and Children's Years of Completed Schooling, Men and Women 30–50 Years Old in Mexico, 2011 (standard errors in parentheses)

	Men	Women
Parents' SES	1.837***	2.263***
	(0.075)	(0.071)
Age (centered)	−0.004	−0.041***
	(0.013)	(0.011)
Age² (centered)	0.003	−0.003
	(0.002)	(0.002)
Constant	9.556***	9.114***
	(0.110)	(0.096)
N	1,843	2,190

***$p < .001$

Table 4B. Association between Educational Attainment and SES, Men and Women 30–50 Years Old in Mexico, 2011 (robust standard errors in parentheses)

	Model 1		Model 2		Model 3	
					Women in the labor force	Women not in the labor force
	Men	Women	Men	Women		
Years schooling	0.139***	0.137***	0.002	0.097***	0.153***	0.107***
	(0.004)	(0.003)	(0.018)	(0.015)	(0.005)	(0.005)
Some primary (omitted)						
Primary grad./ some lower sec.			0.325***	–0.079		
			(0.094)	(0.072)		
Lower sec. graduate			0.787***	0.042		
			(0.137)	(0.107)		
Upper secondary			1.314***	0.323*		
			(0.187)	(0.148)		
Post secondary			1.856***	0.472*		
			(0.267)	(0.212)		
Age (centered)	0.015**	0.025***	0.015***	0.024***	0.019***	0.027***
	(0.003)	(0.002)	(0.003)	(0.002)	(0.004)	(0.003)
Age^2 (centered)	0.0003	0.0002	–0.0003	0.0001	0.0005	0.0002
	(0.0004)	(0.0004)	(0.0005)	(0.0004)	(0.0006)	(0.0006)
Constant	–1.300***	–1.270***	–0.876***	–1.026***	–1.351***	–1.112***
	(0.043)	(0.038)	(0.068)	(0.055)	(0.056)	(0.051)
N	1,843	2,190	1,843	2,190	1,097	1,093

*$p < .05$ **$p < .01$ ***$p < .001$

virtually identical across gender. Among men, an increase of one year of schooling results in an increase of 0.139 units in their socioeconomic well-being; the increase is 0.137 for women (partial correlations are 0.585 and 0.581, respectively). The gender difference in the payoff of education is statistically insignificant. Even if a substantial proportion of Mexican women do not work, their education still pays off in terms of economic well-being when measured at the family level, an outcome likely related to educational homogamy. If highly educated women are likely to marry highly educated man with substantial earning power, returns to schooling for women will be large even if they are not employed. In order to test this hypothesis, the sample was stratified by women's labor-force participation status (model 3 in table 4B). Results indicate that the economic returns to schooling are smaller among non-working women but still substantial—parameter estimates are 0.153 for women in the labor force and 0.107 for those not in the labor force. The significant economic returns to schooling for non-working women give credence to the role of educational homogamy. Whatever the dynamics driving economic returns to schooling, the answer to hypothesis 2 is clear: Returns to schooling are virtually identical across genders,

Table 4C. Intergenerational Socioeconomic Association Net of Educational Attainment, Men and Women 30–50 Years Old in Mexico, 2011 (robust standard errors in parentheses)

	Model 1 Controlling for years schooling		Model 2 Controlling for years schooling and educ. category	
	Men	Women	Men	Women
Parents' SES	0.495***	0.362***	0.483***	0.357***
	(0.015)	(0.017)	(0.015)	(0.017)
Years schooling	0.091***	0.096***	0.019*	0.072***
	(0.004)	(0.004)	(0.016)	(0.014)
Some primary (omitted)				
Primary graduate/some lower secondary			0.176*	–0.076
			(0.081)	(0.067)
Lower secondary graduate			0.453***	0.060
			(0.118)	(0.100)
Upper secondary			0.671***	0.180
			(0.161)	(0.138)
Post-secondary			1.000***	0.275
			(0.230)	(0.198)
Age (centered)	0.028***	0.027***	0.028***	0.026***
	(0.002)	(0.002)	(0.002)	(0.002)
Age^2 (centered)	0.0005	0.0004	0.0004	0.0003
	(0.0004)	(0.0004)	(0.0004)	(0.0003)
Constant	–0.836***	–0.875***	–0.632***	–0.700***
	(0.039)	(0.039)	(0.059)	(0.054)
	1,843	2,190	1,843	2,190

*$p < .05$ ***$p < .001$

so they cannot be the reason for the stronger intergenerational persistence for men than women.

If the stronger intergenerational persistence among Mexican men compared to women is not explained by either the social origins–education association (Hypothesis 1) or the education-destination association (Hypothesis 2), it has to be accounted for by the direct origin–destination relationship net of education (Hypothesis 3), captured by arrow C in figure 1. Consistent with Hypothesis 3, marked gender differences emerge in the net intergenerational association (table 4C). The regression coefficient capturing the direct intergenerational association net of education is 0.495 for men, but only 0.362 among women, a difference significant at the $p < .001$ level (partial correlations are 0.531 and 0.368, respectively). The same pattern emerges if a more comprehensive measure of education adds categorical measures of education to years of schooling completed (model 2 in table 4C). This gap wholly explains gender

differences in mobility in Mexico. In other words, the "excess immobility" among Mexican men is entirely driven by a stronger direct transmission of parental advantage to sons than to daughters net of children's educational attainment and returns.

Why is the intergenerational association of advantage net of education stronger among sons than daughters? How does this influence occur? We cannot fully address this question using aggregate population-level data. But we can explore two potential pathways: Parents may be more likely to make economic transfers to sons than to daughters as a response to crucial life events such as marriage/cohabitation, and men may display stronger assortative mating based on social origins than women. The former hypothesis can be tested by comparing intergenerational mobility among married and single adult children. In our sample, 86.9 percent of adult children are married or cohabiting (63.6 percent married, and 23.3 percent cohabitate), and 13.1 percent are single, divorced, or widowed and not living with a partner (henceforth, we will refer to these groups as "married" and "single," respectively).[1] We group married and cohabiting couples together given the relatively high prevalence of cohabitation—more than one-fifth of women ages 25–34 in 2000 (Esteve, Lesthaeghe, and Lopez-Gay 2012)—and the potential reporting misclassification error, as some long-term cohabitations are seen as surrogate marriages (Castro Martin 2002). Table 5 stratifies the sample by marital status and compares intergenerational mobility by gender across married and single respondents. If the hypothesis that parents are more likely to pass their resources, or lack thereof, to married sons than married daughters is correct,

Table 5. Intergenerational Mobility among Married and Single Men and Women 30–50 Years Old in Mexico, 2011

	Married/Cohabiting	Single
Male	0.059*	0.001
	(0.028)	(0.068)
Parents' SES/Occ. status	0.561***	0.670***
	(0.021)	(0.038)
Male × Parents' SES	0.121***	−0.295***
	(0.029)	(0.073)
Age (centered)	0.021	−0.236***
	(0.033)	(0.073)
Age^2 (centered)	0.0001	0.003***
	(0.0004)	(0.001)
Constant	−0.974	4.520**
	(0.650)	(1.460)
N	3,123	910

Note: Linear regression model of children's socioeconomic status on parents' socioeconomic status. Robust standard errors in parentheses. Married/cohabiting sample includes 1,474 men and 1,649 women. Single sample includes 716 males and 174 females.
* $p < .05$ ** $p < .01$ *** $p < .001$

then the gender difference in mobility should be particularly pronounced among married respondents.

Table 5 shows that this is indeed the case. Among married respondents, the intergenerational association is 0.561 for women and 0.682 (0.561 + 0.121) for men, a difference significant at the $p < .001$ level. The pattern reverses among single respondents: The association is 0.670 for women and 0.375 (0.670 − 0.295) for men, with a difference significant at the $p < .001$ level. In other words, married men experience much stronger intergenerational persistence than married women, but the opposite is true for unpartnered individuals. These findings are consistent with the hypothesis that parents are more likely to transfer resources to sons than to daughters upon marriage. An alternative explanation is that married men may benefit more from family-based occupational opportunities or social networks, leading to better jobs than women. In order to provide an initial assessment of this possibility, we estimated models in table 4C, adding controls for respondents' occupational status, and found that gender differences persist unmodified (results available from the authors upon request).

Another potential explanation for the stronger direct intergenerational association among married men than women is marital homogamy based on social origins. If Mexican men marry women who are more similar to their parents in terms of socioeconomic resources than Mexican women, then ceteris paribus this pattern of gender-specific origins-based homogamy will result in stronger intergenerational reproduction among men. We test this hypothesis by examining the correlation between respondents' parents' years of schooling and spouses' years of schooling for men and women. The correlations are 0.410 for

Figure 4. Correlation between parents' schooling and spouse's education among married/cohabiting respondents, Mexico 2011
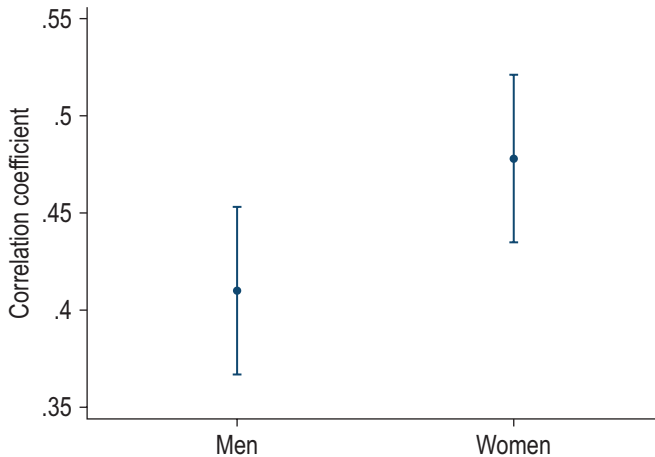
Note: Solid circles are parameter estimates; vertical bars are 95 percent confidence intervals. Parents' and spouse's education measured as total years of schooling completed. Parents' education refers to the parent with the highest level of educational attainment, or the parent for whom information was available if available for only one parent. Confidence intervals calculated by using Fisher's *z*-transformation.

men and 0.478 for women (figure 4). This runs against the hypothesis of stronger origins-based homogamy among men: Men feature a lower rather than a higher level of origins-based homogamy, although gender differences are not statistically significant at the conventional $p < .05$ level. Assortative mating is likely not a pathway accounting for Mexican men's "excess immobility." Instead, it is possible that the stronger intergenerational association net of education among Mexican men than women is related to the direct transfer of resources, support, and opportunities from parents to married sons over married daughters.

Conclusions

This analysis has examined gender differences in intergenerational mobility in Mexico. We measure economic well-being of parents and children directly at the household level through an index of goods and services, which captures the family's consumption capacity, under the assumption that household members pool and share resources and they engage in division of labor to maximize welfare. While most sociological research agrees in considering the family as the unit of stratification at a theoretical level, scholars tend to employ an indirect proxy for the family socioeconomic standing by relying on the occupation or class position of the head of the household (or a combination of the head and spouse/partner). Economic studies of mobility focus on earnings and total family income. While family income includes occupational and extra-occupational sources of well-being and is a result of family-level decision-making and resource pooling, income is an input rather than a direct measure of household's consumption. Given the substantial short-time and life-cycle fluctuation of income levels, averaging over time is needed if the attempt is to approach a permanent income measure. Instead, this article uses a well-being index that plausibly captures the family's consumption capacity directly by considering the goods owned by the family and the services it has access to. Given that the focus of this analysis is the difference between men and women and that many Mexican women do not work for pay, this strategy permits examining mobility of all Mexican women and not only the (likely selected) group in the labor force.

The use of an economic well-being index is not above criticism. A central question is the underlying concept this index captures. Even though a composite index based on family's goods and services closely aligns with the theoretical notion of "permanent economic well-being" that the mobility literature attempts to capture, testing its validity in different national contexts is necessary. Such evaluation could start with the assessment of the empirical correlation with other measures of permanent income, such as over-time averages of income and earnings and social class as well as concurrent and predictive validity in the sphere of production, consumption, and lifestyles (e.g., Evans and Mills 1998).

The findings from this study are clear. The intergenerational persistence of economic well-being is stronger among Mexican men than among women; that is, Mexican women experience higher levels of mobility. This finding contributes to a relatively small literature comparing mobility by gender. Prior research in the

industrialized world has found somewhat stronger intergenerational reproduction among men than women when mobility is measured at the individual level—through individual class position or earnings. However, total family income mobility appears to be similar across gender. Our study departs from such gender similarity and suggests gender-specific processes of intergenerational persistence of advantage in Mexican society.

While mobility analysis usually concentrates on its overall level, we have also considered its pattern by comparing intergenerational persistence at different levels of parents' socioeconomic advantage. Analysis of nonlinearities indicates that the gender gap in intergenerational persistence is wider at the upper end of the distribution, approximately in the top quintile. Affluent parents are more likely than their poorer counterparts to pass their advantage to their sons rather than their daughters. In fact, the sons of advantaged parents have consistently higher living standards than daughters of advantaged families. As shown by the quantile regression analysis, women's chances of remaining poor if they come from a disadvantaged household are higher than their chances of retaining privilege if they come from affluent origins. The findings show the importance of considering not only the conditional mean of children's SES but also expanding the analysis to its variance across levels of parents' advantage with strategies such as quantile regression. They also invite the question about mechanisms driving gender differences in mobility patterns.

The analysis examines some of these mechanisms, with a focus on the role of educational attainment. "Excess immobility" among men is not driven by a stronger association between parents' socioeconomic advantage and sons' educational attainment, or by larger economic returns to schooling for men than women. Rather, the gender difference is entirely driven by the direct transmission of advantage across generations, net of education, among men than women. While this result is clear, its sources deserve further examination. This analysis suggests that parents may be more likely to make financial transfers or gifts to their sons than their daughters when they marry and start their own household. But this is a preliminary suggestion. Other factors, such as gender-specific social selection into marriage (or out of marriage and into single household headship) by men than women, could account for the direct intergenerational association. Further research, including qualitative approaches, is needed to ascertain the family-level mechanisms leading to gender differences in mobility in Mexico and other national contexts.

Notes

1. Among unpartnered respondents, 53.8 percent are divorced or separated, 16.5 percent are widowed, and 29.7 percent have never been married.
2. Models were alternatively estimated using a multiple imputation by chained equations (MICE) strategy to preserve observations with missing values, with a predictive mean matching imputation method to substitute missing values in five imputed data sets. Results are effectively identical to those excluding missing cases, without changes in magnitude or statistical significance in any instance.
3. The parameter estimate capturing the intergenerational association for the entire sample is .622 ($p < .001$).

Supplementary Material

Supplementary material is available at *Social Forces* online, http://sf.oxfordjournals. org/.

About the Author

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