

INTERGENERATIONAL INFLUENCES OF WEALTH IN MEXICO

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Abstract: Using the 2006 Mexican Social Mobility Survey, this article evaluates the influence of parental wealth on several outcomes of adult children, including educational attainment, consumption level, asset holdings, home ownership, and home value. Three main findings emerge from the analysis. First, parental wealth is a strong determinant of educational attainment, net of the standard indicators of socioeconomic advantage. Furthermore, the influence of parental wealth appears to be stronger among the most disadvantaged children—those with low cultural capital residing in rural areas. Second, the mechanism of parental influence on adult children's economic well-being differs depending on the outcome: in the case of consumption level, the influence is largely indirect, mediated by offspring's human capital, while the opposite is true for children's asset holdings, where a direct transfer of resources predominates. Third, access to homeownership is only weakly stratified by economic resources, but parental wealth significantly affects home value. The findings here highlight the critical but largely neglected impact of wealth on inequality and mobility in Latin America.

INTRODUCTION

This article explores the association between parental wealth and adult children's economic well-being in Mexico. Wealth, as a dimension of inequality, has been neglected by stratification researchers, who have tended to focus primarily on labor market resources and rewards, particularly education and earnings. However, wealth has attractive properties that distinguish it from earnings. It provides a means of raising long-term consumption and enables consumption smoothing, thereby protecting households against adverse events such as unemployment or illness. Wealth permits the financing of entrepreneurial activities, either directly or by use as collateral for business loans (Keister 2000; Spilerman 2000).

One dimension of well-being for which family wealth may be critical is children's educational attainment. Aside from the direct financial costs of schooling, parental wealth may afford the opportunity costs of education

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and provide for extracurricular activities such as computer use or tutoring (Conley 2001). Research on the influence of parental wealth is, however, scarce in the industrialized world and almost nonexistent in Latin America. In the United States, a seminal study by Rumberger (1983) suggests significant wealth effects on children's education. Hill and Duncan (1987) found a positive association between income from assets and the educational attainment of daughters but not of sons, while Axinn, Duncan, and Thorton (1997) and Conley (2001) found modest wealth effects on overall educational attainment and, in particular, on the transition to higher education. In summary, these studies indicate that wealth may have a positive but small influence on the educational attainments of offspring.

The role of parental wealth may be stronger in Latin America than in the United States. Where income is low and employment intermittent, household savings rather than income are often the source of ongoing payments such as school tuition. It therefore may be household assets, more than income, that are responsible for continuous enrollment in school in Latin American countries, particularly in the noncompulsory high school grades. The influence of family wealth on children's educational attainment should be particularly strong in contexts where social insurance programs are limited and where credit markets are weak, thus exacerbating a family's vulnerability to economic crisis. Although household financial constraints may not be a major educational deterrent in the industrialized world (Carneiro and Heckman 2002), they are important obstacles in Latin America (Flug et al. 1998). A well-documented survival strategy in response to economic crises in the region is to incorporate older children into the labor market, resulting in high dropout rates in secondary school (Binder 1999; Giorguli-Saucedo 2002; Moser 1998). Very little is known, however, about the influence of parental wealth on children's educational success net of other parental resources such as income and education. This is the first task we undertake here, with respect to Mexican society.

From the perspective of children's economic well-being, educational attainment is not an end in itself but a means to produce the income stream necessary to afford a particular standard of living. Therefore, after studying the impact of parental assets on children's education, we investigate the mechanisms of parental influence on the adult children's standard of living. Parents can contribute to their children's well-being indirectly by investing in the amount and quality of education, which in turn yields labor market returns. Alternatively, parents can help their offspring through a direct, unmediated transfer of resources in the form of inter vivos financial assistance and inheritance. The mechanism parents choose may reasonably vary depending on the dimension of children's well-being under consideration. In this article, we distinguish two dimensions of economic well-being of adult offspring—consumption level and asset holdings. The

former identifies the ability to sustain a particular standard of living, as expressed in consumption durables and everyday expenses, and the latter refers to a stock of accumulated resources.

Previous research in Chile (Spilerman and Torche 2004; Torche and Spilerman 2006) suggests that parental wealth has a significant effect on both dimensions but that the path of influence is different. The impact on consumption level is almost entirely indirect, mediated by parental investments in children's education. In contrast, the influence on wealth holdings is mostly direct, which suggests an unmediated transfer of resources. To address the questions about the intergenerational influences of parental wealth in Mexican society, this article is organized as follows: The next section briefly describes the Mexican context; we then introduce the data, variables, and methods; we then present the analysis; and the final section discusses the main conclusions.

THE MEXICAN CONTEXT

Mexico is a middle-income country with a current per capita income of US\$7,310, which compares with an average of \$4,008 in Latin America (World Bank 2006). Mexico has experienced a significant economic transformation over the past few decades. Import-substitution industrialization led to substantial economic growth from the 1940s to the late 1960s, a period known as the Mexican miracle (Middlebrook and Zepeda 2003). This model started to show its limitations in the 1970s, and in the early 1980s, the Mexican economy experienced a severe recession (Boltvinik 2003; Lustig 1998; Salas and Zepeda 2003). Since the 1980s, the country has implemented extensive trade liberalization and privatization of enterprises and the social safety net, resulting in intermittent growth and persistent economic fluctuation, with a major downturn in 1995 (Middlebrook and Zepeda 2003; Vega and De la Mora 2003). Driven by a growing college premium, income inequality rose in the second half of the 1980s, stabilized during the 1990s, and may have dropped in the early 2000s (Cragg and Epelbaum 1996; Szekely 2005). Poverty remained relatively constant at about 20 percent between 1980 and the mid-1990s, rose to more than 33 percent following the 1995 crisis, and returned to the earlier levels in the 2000s (Szekely 2005). Given the lack of unemployment insurance and other social insurance for the majority of the population, widespread vulnerability of Mexican families has accompanied these trends (Salas and Zepeda 2003; Solis and Villagomez 1999).

Mexico experienced significant educational expansion throughout the twentieth century, but this expansion slowed during the economic crisis of the 1980s. The crisis resulted in the decline in government educational expenditures, which fell by 40 percent in real terms between 1981 and 1989 (Binder 1998; Reimers 1991). Driven by the dire macroeconomic

conditions, enrollment rates stagnated (Behrman, Duryea, and Szekely 1999; Binder 1999) and intergenerational educational mobility decelerated (Binder and Woodruff 2002; Torche 2009).

The few studies of the association between parental resources and children's educational outcomes in Mexico show that parental characteristics heavily determine attainment. Binder (1998) finds that parental education has a strong effect on attained schooling. Binder and Woodruff (2002) and Giorguli-Saucedo (2002) also found a significant impact of parental education, occupation, family structure, sibship size, and rural residence; Parker, Rubalcava, and Teruel (2003) highlight the influence of parents' indigenous status. To date, there is no empirical analysis of the parental wealth effect on children's educational outcomes.

Wealth in Mexico

Although much is known about income-based poverty and inequality in Mexico, very little research exists on the wealth distribution. The extant evidence suggests very high wealth concentration (De Ferranti, Perry, Ferreira, and Walton 2004; Torche and Spilerman 2008). To put the wealth holdings of the Mexican population in context, we present in table 1 information on the ownership of several asset types and the distribution of ownership by household income level in Mexico and the United States. Data for Mexico were obtained from the 2006 Mexican Social Mobility Survey (MSMS), and for the United States, from the 2004 Survey of Consumer Finances (SCF).

The asset types considered are financial holdings (stock, bonds, and mutual funds), nonresidential real estate, residential property, business equity, vehicle ownership, and primary residence. From table 1 it is evident that financial holdings are the scarcest asset in Mexico, with ownership of mutual funds, savings bonds, and stock by only 1.8 percent of households, as opposed to 15 percent, 16.7 percent, and 20.7 percent for mutual funds, saving bonds, and stock, respectively, in the United States. In Mexico, the ownership rate ranges from almost zero for the first three quintiles to approximately 8 percent in the highest category. Note that while the increase in the rate is fairly linear in the United States, in Mexico, there is a sharp gap between the top decile and the rest of the income categories. This gap is consistent with the pattern of economic inequality in Latin America, characterized by high concentration in the very top percentiles (Portes and Hoffman 2003). Low ownership rates of financial assets are not surprising, given the limited access of the majority of the Mexican population to financial institutions. For example, ownership of checking and saving accounts reaches only 7.1 and 10.5 percent in Mexico, which compare with 89 and 47 percent, respectively, in the United States.

Table 1 Distribution of Asset Ownership by Income Group, Mexico and the United States

Percentile of income	Financial assets ¹			Real estate ²			Residential property ³		Business		Vehicle		Primary residence		
	Mexico	U.S.	U.S.	Mexico	Mexico	U.S.	Mexico	U.S.	Mexico	U.S.	Mexico	U.S.	Mexico	U.S.	
		mutual funds	saving bonds												stock
Less than 20	1.2	3.6	6.2	5.1	28.3	0.6	2.7	0.1	3.6	7.3	3.7	20.5	65.0	72.2	40.3
20–39.9	0.9	7.6	8.8	8.2	17.2	1.0	3.8	0.3	6.9	11.8	6.7	33.9	85.3	68.0	57
40–59.9	0.7	12.7	15.4	16.3	13.8	1.3	7.6	0.1	10.0	11.9	9.5	42.3	91.6	65.6	71.5
60–79.9	1.9	18.6	26.6	28.2	15.8	1.8	10.6	0.7	14.0	15.7	12.0	57.7	95.3	69.7	83.1
80–89.9	2.3	26.2	32.3	35.8	18.0	3.3	12.8	3.7	19.3	18.1	16.0	72.6	95.9	73	91.8
90–100	7.8	39.1	29.9	55.0	22.1	13.4	20.8	8.8	37.2	27	34.7	87.1	93.1	78.2	94.7
All households	1.8	15.0	16.7	20.7	19.7	2.4	8.3	1.4	12.5	13.3	11.5	44.5	86.3	70.3	69.1

Source: 2006 Mexican Social Mobility Survey for Mexico. Survey of Consumer Finances, 2004, for the United States (reported in Bucks et al. 2006). Both surveys were weighted to be nationally representative.

¹U.S. figures separate stocks, bonds, and mutual funds; Mexican figures combine the three categories.

²Includes farm, land, commercial and rental property, and other types of nonresidential real estate. Mexican figures separate land from other real estate; U.S. figures combine the two categories.

³Includes second homes, vacation homes, time shares, and other types of residential property.

Real estate ownership averages 8 percent in the United States. Given the relevance of landownership in Mexican society—until recently largely rural—we distinguish ownership of land from ownership of other nonresidential property, and we find disparate patterns. A substantial 20 percent of Mexican households own land, and the ownership pattern is U-shaped, with those at the top and bottom of the income distribution displaying higher rates. This is partly a result of an agrarian reform that followed the Mexican Revolution, which transferred land from the haciendas to peasants, creating a system of communal ownership known as *ejido* (Cardoso and Helwege 1992). Other real estate ownership is, however, very scarce in Mexico, averaging only 2.4 percent and showing a sharp concentration in the wealthiest decile. Residential property ownership is also scarce in Mexico, with an average rate of 1.4 percent, much lower than the 14.5 percent in the United States; and the distributional pattern is similar to that of financial assets and real estate with significant concentration in the top income category.

With an ownership rate of 13 percent in Mexico and 12 percent in the United States, business equity is equally prevalent in both countries. Furthermore, the distribution of this asset is slightly more even in Mexico. Although we cannot examine the value of business equity with the Mexican data, the high prevalence of small and informal enterprises—peddler stands and home-front stores—suggests that the value of business equity is quite modest for most households that report this asset.

In contrast, the rate of vehicle ownership is much lower in Mexico than in the United States—45 percent versus 86 percent. Moreover, the distributions across income groups are strikingly different, especially at the low end of the scale. In the United States, there is little variation beyond the second quintile, which suggests that by this income level, car ownership is a lifestyle choice. In Mexico, in contrast, there is a monotonic increase across income levels, suggesting a strong financial constraint on vehicle ownership.

The most interesting difference between the two countries concerns primary residences. Although the average rate is virtually identical—70 percent in Mexico and 69 percent in the United States—the distributions across income categories are quite disparate. In the United States, the trend is one of a linear increase with income level, beginning with an ownership rate of some 40 percent for the lowest category. This income gradient is also found in most industrialized countries (Kurz and Blossfeld 2004). In contrast, home ownership in Mexico is hardly sensitive to income level, with ownership rates around 70 percent and only a moderate spike at 78 percent for the highest income decile and somewhat lower rates in the middle income segments.

The weak association between home ownership and income is characteristic of most Latin American countries (Torche and Spilerman 2008),

and it is exacerbated in Mexico by a weak rental market, which results in one of the highest rent-to-income rates in the world (World Bank 1993). High home-ownership rates are partly a result of public expenditures in housing provision: about 1 percent of the gross domestic product is spent on housing subsidies, but they largely benefit the middle classes (De Ferranti et al. 2004, 201). Among the poor, high home ownership is likely associated with informal tenure of modest, sometimes makeshift, residences. Indeed, it is estimated that between one-fourth and one-third of urban homeowners lack formal title (Fay and Wallenstein 2005, 92), and this proportion could be as high as one-half in poor urban neighborhoods (De Ferranti et al. 2004, 201). Lack of title may reduce the ability of households to rent or use their residence as collateral, thereby affecting the potentially beneficial effects of home ownership.

There are three conclusions from this section. First, the proportion of households that own some of the noted assets is lower in Mexico than in the United States for most but not all asset categories, and wealth ownership is not confined solely to the Mexican elite. Indeed, land and business ownership is more widespread in Mexico, although the monetary value held in these items may be low for most holders. Second, the distribution of most assets is very unequal, with a substantial gap between the top income segment and the rest of society. Third, the distribution of home ownership departs from the pattern of the other asset types and from the ownership pattern in the United States in that even the very poor have a high rate of access to residence ownership. With this background information, we move on to analyze the influence of parental asset holdings on children's living standards.

DATA AND ANALYTIC STRATEGY

The data come from the 2006 Mexican Social Mobility Survey (MSMS), conducted by the Fundación Esru. The MSMS is a probability, stratified, multistage survey of Mexican households. The sample is representative of the national population and probabilistic in all stages. Respondents within the 25–64 age range were selected at random, and no replacement of household or respondent was allowed. The sample size is 7,288 and the response rate is 88.9 percent.

The MSMS contains detailed information on respondent's social background, characteristics of the parental household, migration, ethnicity, education and occupation, as well as household assets and living standards. For married/cohabitating respondents, information on spouse's background, education, and occupation was also collected. Thus, the MSMS permits a consideration of the social background characteristics of both members of the couple.

Variables

We investigate the net association between parental wealth and four offspring outcomes—educational attainment, consumption level, wealth holdings, and home ownership. The unit of analysis for the study of a child's educational attainment is the individual. Unfortunately, information on important determinants of educational attainment (e.g., mother's education, number of siblings, indigenous background) is not available for all women in the sample, so this study is restricted to male respondents, for an analytical sample of 6,322.¹ For all other dependent variables, the unit of analysis is the married/cohabiting couple, and we therefore limit our sample to households where there is currently a co-resident couple. Our findings therefore apply to this household type, which, according to the 2000 Mexican Census, represents 75.3 percent of all Mexican households.²

Measuring the monetary value of a household's wealth holdings poses difficulties associated with limited knowledge, refusal, and misreporting by respondents. Given such constraints, our strategy is to inquire about the ownership of different kinds of assets: financial assets (stocks, bonds, and mutual funds), saving accounts, business equity, land, other real estate, residential property, and cars, and to create an index combining them. To assign appropriate weights to the indicators, we use a factor analysis for categorical indicators. The asset index is constructed as the first factor, which is the linear combination that captures the largest amount of information that is common to all the variables, an approach that Filmer and Pritchett (1999), Sahn and Stifel (2003), and McKenzie (2005) have validated. In contrast to those indexes, which use various living-standard indicators, our index is constructed only from items that are stores of wealth, thus providing face validity to our measure.

By the same token, we measure consumption level using the first factor in a factor analysis of twelve measures of household services and consumer durables: inside toilet, stove, electricity, hot water, refrigerator, washer, telephone, cellular phone, television, cable, computer, and hired housekeeper. To explore access to home ownership, we construct a variable measuring waiting time to ownership since marriage or the beginning of cohabitation.

1. Information is available for women who are single heads of household but not for spouses or partners of a male head of household.

2. Single female heads of household are excluded because we do not have information on their marital history (and therefore on potential contribution from former partners and their parents), and because their substantially different patterns of socioeconomic attainment require separate analysis.

The key independent variable in this analysis is parental wealth. We measure parental wealth holdings when respondent and spouse or partner were in their adolescence. It is impossible to ask respondents about the value of parental assets, given limited knowledge and currency fluctuation. Consequently, for each set of parents, we use the same strategy used to construct the household wealth index by combining seven wealth indicators—financial assets, business, land, other real estate, residential property, saving accounts, and cars—and using the first factor from a factor analysis. Note that parental homeownership is excluded from this index. We introduce home ownership separately because much literature highlights the distinct effect of parental home ownership as an indicator of residential stability and quality of the home environment and neighborhood rather than as just a store of wealth (Aaronson 2000; Green and White 1999; Haurin, Parcel, and Haurin 2002).

Other independent variables in the model for educational attainment are father's and mother's schooling, and father's occupational status—a proxy for family permanent earnings—measured by the International Socioeconomic Index (ISEI) (Ganzeboom, de Graaf, and Treiman 1992). As an indicator of cultural capital in the household, we use the number of books available when the respondent was growing up, coded into four ordered categories: no books, one to two books, about ten books, and twenty or more books.³

We also include an indicator for whether the respondent grew up in a city, to account for the differential availability of schools in urban and rural areas. We capture family structure with two variables: a dichotomous measure distinguishing those who grew up with both biological parents and a variable for number of siblings, the second intended to account for potential resource dilution (Downey 1995). We also added an indicator for indigenous status to account for significantly lower educational attainment by Mexicans of indigenous descent (Parker et al. 2003). Finally, terms for age and age squared capture period effects associated with educational expansion, under the assumption that by the age of twenty-five Mexicans have completed their educational career (Behrman et al. 1999); therefore, we avoid the possible confounding of age and period effects.

The analysis of the couple's consumption level, wealth holdings, and time to home ownership include the following measures of parental resources: parental wealth and parental home ownership; father's education

3. This variable excludes textbooks and other required reading materials, to avoid confounding the family voluntary investment in literary culture with school requirements that depend on the number of school-age children in the household. Note that the top category, which may appear as a low threshold in the industrialized world, comprises only 11 percent of respondents in Mexico.

Table 2 *Descriptive Statistics for Variables in the Analysis and Factor Loadings for Parental Wealth Indexes*

<i>Panel A. Descriptive statistics</i>			
Variable	Mean	s.d.	Observations ¹
<i>Male partner's background</i>			
Father's years of schooling	3.72	3.91	4872
Mother's years of schooling	3.28	3.55	4899
Father's occupational status (ISEI)	28.77	10.15	4956
Parental wealth ²	.07	.39	5207
Home ownership	.76	.43	5213
Number of books at home ³	.85	1.07	5034
Intact family ⁴	.85	.35	5269
Number of siblings	5.55	3.38	5236
Indigenous background	.03	.17	5267
Urban residence	.47	.50	5184
Age	42.78	11.36	5274
Age (squared)	1958.90		5274
<i>Female partner's background</i>			
Father's years of schooling	3.57	3.74	4539
Father's occupational status (ISEI)	28.38	9.68	4696
Parental wealth ²	.05	.33	5054
Home ownership	.78	.42	5046
<i>Married/cohabitating couple</i>			
Consumption level index ⁵	-.01	.69	5248
Asset holdings index ⁶	.00	.72	4976
Married ⁷	.76	.43	5274
Age of male respondent at marriage	24.25	6.22	5187
Years of marriage	19.39	11.12	5187
Home ownership	.70	.46	5268
Years from marriage/cohabitation to home	6.67	7.39	3122
Husband's years of schooling	8.05	4.49	5266
Wife's years of schooling	7.39	4.10	5236
Husband's occupational status (ISEI)	34.01	13.01	5274
Wife not employed ⁹	.53	.50	5269
Wife occupational status (ISEI)	16.50	20.39	5253

and occupational status; and controls for age, indigenous status, and a set of dummies that capture urban or rural status and population size of the couple's locality of residence.⁴ We measured the couple's socioeconomic

4. This set of dummies controls for differential access to household services or goods. These controls are included in all models but are not presented here to save space.

Panel B. Factor Loadings, Parental Wealth Indexes¹⁰

Variable	Husband's parents		Wife's parents	
	Ownership (%)	Factor loading	Ownership (%)	Factor loading
Car	19	.745	18	.713
Business equity	11	.642	10	.574
Land	29	.139	29	.120
Residential property	1	.798	2	.735
Other real estate	3	.765	2	.692
Financial assets	1	.888	1	.888
Savings account	5	.838	4	.836
<i>Fit statistics</i>				
Chi square	198.1*** (14)		93.56*** (14)	
CFI/RMSEA	.949/.045		.962/.033	

*** $p < .001$

Source: 2006 Mexican Social Mobility Survey

¹ Sample restricted to married/cohabiting couples ($N = 5274$).

² Estimate of parental wealth based on factor analysis of financial assets, business equity, land, other real estate, residential property, saving accounts, and vehicles.

³ Number of books at home when respondent was in adolescence, coded into the following categories: 0, 1–2, about 10, 20 or more.

⁴ Coded as 1 if respondent lived with both biological parents during adolescence and 0 otherwise.

⁵ Estimate of couple's consumption level based on first factor in factor analysis of a set of household goods and services.

⁶ Estimate of couple's wealth holdings based on first factor in factor analysis of a set of household financial and real assets.

⁷ Coded as 1 if couple is married and 0 if cohabitating.

⁸ Time from marriage or cohabitation to home acquisition. Calculation is for homeowners.

⁹ Coded as 1 if wife has never been employed since marriage and 0 otherwise.

¹⁰ Factor analysis for categorical variables, Geomin-rotated factor loadings.

resources by the schooling and occupational status of both partners (we retained the 53 percent of cases in which the female partner was not employed by means of an indicator variable for wife not employed). We also introduced controls for age of husband at marriage or cohabitation and number of years in current union. These variables proxy two different processes: the accumulation of savings before marriage or cohabitation and subsequent savings by the couple; we expect each to be a function of the pertinent temporal variable, and we view each as adding to a couple's ability to finance living-standard expenditures. Table 2 presents descriptive statistics and factor loadings for the parental wealth indexes.

Some of the parental variables have rates of missing data that approach 20 percent. To retain these observations without introducing bias, we used a multiple imputation procedure (Rubin 1987). Five complete data

sets were created, the analysis was replicated with each data set, and the parameter estimates and standard errors were then combined.⁵

ANALYTICAL STRATEGY

Our strategy to assess the two avenues of parental transmission—investments in offspring's human capital and direct transfers of resources—consists of estimating two models of the impact of parental resources on the couple's consumption level and asset holdings. The first model reports the total effect of the parental resource terms, as measured by the coefficients in a reduced form model. The second adds the schooling terms for the couple, measures of their occupational status, and the control variables, and it is intended to assess the extent to which the initial parental effects are diminished by these terms—an indication of indirect parental transmissions operating through investments in human capital.

We utilize ordinary least squares regression for models predicting the respondent's years of schooling, consumption level, and wealth holdings. To measure the determinants of time to home ownership, we use a Cox proportional hazard model, with duration from marriage or cohabitation to the year of the first owned home as the clock, and we right-censor households that are not homeowners. The model's coefficients capture the association between each predictor and the risk of becoming a homeowner.

PARENTAL EFFECTS AND CHILDREN OUTCOMES

Respondent's Education

We start by assessing the influence of parental resources on completed years of schooling. Results in model 1, table 3, support the relevance of parental resources and particularly of parental wealth, in offspring's human capital.

Each additional year of father's schooling results in an increase of .25 years of respondent's schooling; and each year of mother's schooling translates into a comparable .18-year increment. The influence of father's occupational status (a proxy for permanent income) is positive and small. Given that status is measured in the ISEI scale, which lacks a concrete metric, we note that a one-standard-deviation difference—the difference, for instance, between a manager in manufacturing and an engineer, or between a farmworker and a bricklayer—results in a gain of .14 years of respondent's schooling. In comparison, a one-standard-deviation change

5. In contrast to alternative strategies such as including missing data indicators or list-wise deletion, this approach yields unbiased estimates, assuming that the data are missing at random (Allison 2001).

Table 3 Parental Resource Effects on Years of Schooling Completed, Mexican Males Age 25–64, 2006

	Model 1	Model 2	Model 3
Father's years of schooling	.251*** (.018)	.253*** (.018)	.254*** (.018)
Mother's years of schooling	.173*** (.018)	.173*** (.018)	.173*** (.018)
Father's occupational status (ISEI)	.014* (.006)	.015* (.006)	.014* (.006)
Books at home ¹	.803*** (.048)	.824*** (.050)	.805*** (.048)
Urban residence	.949*** (.096)	.946*** (.096)	.982*** (.096)
Intact family ²	.137 (.125)	.135 (.125)	.152 (.125)
Indigenous background	-1.331*** (.254)	-1.320*** (.254)	-1.309*** (.254)
Number of siblings	-.040** (.013)	-.041** (.013)	-.041** (.013)
Parental home ownership ³	.353*** (.105)	.350*** (.105)	.358*** (.105)
Parental wealth ⁴	.789*** (.131)	1.068*** (.197)	1.306*** (.206)
Parental wealth × Books at home		-.188* (.099)	
Parental wealth × Urban residence			-.797*** (.244)
Age	.110*** (.014)	.110*** (.014)	.111*** (.014)
Age squared	-.004*** (.0003)	-.004*** (.0003)	-.004*** (.0003)
Constant	4.832*** (.232)	4.807 (.232)	4.787*** (.232)
R ²	.407	.409	.410

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

Notes: Ordinary least squares regression. Robust standard errors in parentheses. $N = 6322$.

¹Number of books at home when respondent was in adolescence, coded into the following ordered categories: 0 books, 1–2, about 10, 20 or more.

²Coded 1 if respondent grew up with both biological parents and 0 otherwise.

³Coded 1 if parents owned home in respondent's adolescence and 0 otherwise.

⁴Estimate of parental wealth based on factor analysis of parental assets.

in father's and mother's schooling results, respectively, in a gain of .93 and .57 years of schooling.

The number of books at home has a substantial association with educational attainment.⁶ An increase from zero books to one to two books at home results in a gain of .8 years of schooling, and a difference between zero books and twenty or more books is related to a substantial gain of 2.4 years. It is likely that this gain reflects both the positive influence of exposure to books and the unobserved effects of parental motivation for study by book-owning families.

Living in an urban area is associated, on average, with a gain of almost one year of schooling. This coefficient captures differential availability of schools in urban and rural communities, a well-documented cleavage in

6. We compared a linear formulation of this variable with a set of dummies for each ordered category, which accounts for potential nonlinearities. The linear specification was chosen on the basis of its better fit.

Mexican society (Garza 2003). Belonging to an indigenous group has a sizable negative association with educational attainment. On average, respondents of indigenous descent complete 1.3 fewer years of schooling. Given that this association is net of parental educational and economic resources, it points to factors such as geographic isolation, language barriers, differential expectations, and discrimination. The coefficient associated with living with two biological parents is positive, but it fails to reach significance, which may be related with the fact that no distinction is made among different types of nontraditional families. As previous research suggests, nontraditional families headed by a woman are not at a disadvantage with respect to education when compared to two-biological-parent families (Giorguli-Saucedo 2002). Number of siblings displays a negative association with educational attainment, thus pointing to increased demands on parental resources associated with sibship size. The combined coefficients for respondent's age and age squared indicate that older Mexicans, on average, have less schooling. The nonlinear trend across age groups signals reduced gains in educational attainment for younger cohorts. This trend is consistent with the stagnation of educational expansion resulting from the economic crisis in the 1980s.

Moving now to the central variable of interest, we note that parental wealth has a substantial positive influence on respondent's years of schooling, which is net of other educational, cultural, and economic resources. A one-standard-deviation increase in the parental wealth index results in a gain of .31 years of respondent's schooling, much greater than the influence of our proxy for parental permanent income. This substantial association supports the contention that private wealth plays a substantial role in contexts defined by liquidity constraints, economic instability, and a weak safety net. Home ownership also displays a significant association with offspring's educational attainment: children of homeowners have, on average, .35 more years of schooling, a result that reproduces findings in the United States (Aaronson 2000; Green and White 1999; Haurin, Parcel, and Haurin 2002).⁷ Given that homeownership is a rather illiquid asset that may constitute little financial value for many Mexican households, we speculate that this beneficial effect may be due to residential stability and quality of home environment among homeowners. It is interesting to note the rather limited impact of parental earnings, proxied by father's occupational status, once wealth is controlled. This supports the contention about the critical role of parental asset holdings, and not only their income flow, in children's educational attainment.⁸

7. At the moment, we do not control for potential selection bias due to differences between parents who choose to own versus other tenure arrangements.

8. To account for the fact that father's occupational status may be a limited proxy of permanent income, we estimated a model that includes father's social class using the

A further question is whether the beneficial influence of wealth varies depending on the level of parental control of other resources. If we conceive of educational attainment as doubly determined by financial resources and by parental motivation and encouragement, it is interesting to hypothesize a nonadditive effect of the two inputs. Wealth identifies financial resources necessary to afford the direct and opportunity cost of education, particularly in times of income fluctuation. Number of books in the household captures parental motivation, under the assumption that the variable is a valid indicator of the value attached to education and to parental interest in promoting exposure to scholarly culture among children.

To test for a nonadditive influence between the two dimensions, model 2 in table 3 includes an interaction term between parental wealth and number of books at home. Results are clear. The coefficient associated with the interaction term is negative and highly significant. The beneficial influence of wealth appears to decrease as the number of books at home increases. Accordingly, a one-standard-deviation increase in wealth results in a gain of .4 years of schooling if there are no books at home, but this gain declines to .31 years when there are about ten books, and only .19 years for twenty or more books. Thus, while books in the parental home and parental wealth contribute to years of schooling, the effect of each decreases in the presence of high values of the other. A large number of books (signaling abundant parental motivation) is especially important when wealth is low, and conversely, parental assets turn critical when books are few.

By the same token, we reason that parental wealth should matter more for those children growing up in rural environments where access to credit markets is limited and indirect costs of education are higher given limited supply of schooling. An interaction between wealth and urban residence assesses this hypothesis in model 3 of table 3. The coefficient for the interaction term is negative and significant, indicating that the relevance of wealth is lower among respondents who grew up in a city. Indeed, a one-standard-deviation increase in parental wealth results in a gain of .53 years of schooling for respondents who grew up in rural areas but only of .19 years if the respondent grew up in a city.

In summary, this analysis of the determinants of educational attainment in Mexico shows the critical relevance of parental wealth, net of parental cultural and economic resources, family structure, indigenous background, and rural residence, and it highlights that wealth may matter most for families that face disadvantages in other domains, such as low cultural capital or rural isolation.

eleven-class classification devised by Erikson and Goldthorpe (1992: 37–47). After including the class variables, the coefficient associated with parental wealth remains virtually unchanged (results available from the authors on request).

Note also that parental wealth can affect educational attainment through the direct and opportunity costs of maintaining a child in school or through residence in poor neighborhoods, where schools are distant or unavailable. Because we lack a refined measure of school supply in different communities when the respondents were in their student years, we risk confounding this factor with the parental burden of keeping a child in school, which is the focus of our study. At one level, the distinction in the underlying cause of low attendance is irrelevant; both mechanisms refer to parental resources. But the distinction is relevant if one seeks to ameliorate the problem, in that a different solution is suggested in each case. Where low rates of attendance are due to a lack of educational facilities, the construction of schools is recommended; where the problem stems from the parental burden of supporting a dependent child, the response should include reducing family's liquidity constraints through programs such as conditional cash transfers (Alarcón 2003).

Parental Wealth and Consumption Level

To explore intergenerational influences on adult children's well-being, we now analyze the sample of households headed by a married or cohabiting couple. The total influence of parental resources on the couple's consumption level is presented in model 1 of table 4.

The coefficients associated with father's education and occupational status are positive and significant for both sets of parents, whereas parental home ownership plays a negligible role. Of particular relevance is that both parental wealth terms have a significant impact on the couple's consumption level, which is net of other indicators of parental advantage. To gauge the magnitude of these associations, note that for the male partner's father, a one standard deviation change in schooling (approximately four years of schooling) results in a .21 standard deviation gain in consumption level by the couple, while a one standard deviation change in father's occupational status and parental wealth generate, respectively, a .05 and .17 standard deviation increase in offspring's consumption level. The comparable figures for wife's parents' resources are .11, .04, and .11 standard deviations. In summary, parental wealth has a substantial influence on the standard of living that a couple is able to maintain.

In the second model, we add measures of the couple's human capital and permanent earnings along with controls. Both the years of marriage and the male partner's age at marriage have positive effects—the former is 1.7 times the latter—signaling the relevance of resource accumulation before and especially after marriage. Married couples display a substantially higher consumption level than cohabiting couples. As expected, the male and female partners' schooling and occupational status have significant, positive effects on the couple's ability to sustain a higher consumption level.

Table 4 Parental Resource Effects on Adult Children's Consumption Level

	Model 1	Model 2
<i>Male partner's parents</i>		
Father's years of schooling	.031*** (.003)	.017*** (.003)
Father's occupational status (ISEI)	.0039*** (.001)	.0003 (.001)
Parental wealth ¹	.302*** (.025)	.201*** (.022)
Home ownership	-.033 (.019)	-.035* (.017)
Indigenous background	-.419*** (.043)	-.295*** (.039)
<i>Female partner's parents</i>		
Father's years of schooling	.016*** (.003)	.005* (.002)
Father's occupational status (ISEI)	.003** (.001)	-.0007 (.001)
Home ownership	.012 (.020)	.013 (.017)
Parental wealth ¹	.226*** (.027)	.131*** (.024)
Age at marriage ²		.010*** (.001)
Years since marriage ³		.017*** (.0007)
Married ⁴		.167*** (.022)
Husband's years of schooling		.030*** (.002)
Wife's years of schooling		.033*** (.003)
Husband's occupational status (ISEI)		.006*** (.0007)
Wife not employed ⁵		-.051*** (.014)
Wife's occupational status (ISEI)		.002*** (.0007)
Constant	-.282 (.041)	-1.439*** (.056)
R ²	.314	.479

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

Notes: Ordinary least squares regression. Robust standard errors in parentheses. Sample ($N = 5274$) reduced to households with a coresident couple. Dependent variable is estimate of couple's consumption level based on first factor in factor analysis of household goods and services.

¹ Estimate of parental wealth based on factor analysis of parental assets.

² Age of male respondent at time of marriage or initiation of cohabitation.

³ Years of marriage or cohabitation.

⁴ Coded as 1 if couple is married and 0 if cohabiting.

⁵ Coded as 1 if wife never employed since marriage and 0 otherwise.

A principal concern of this study is whether the influence of parental resources is direct or mediated by parental investment in children's human capital. We address this question by evaluating the change in the coefficients associated with parental resources in moving from model 1 to model 2. The changes are indeed large: education and the occupational status of the female partner's father become insignificant, while for the male partner they remain significant, though smaller in magnitude: by 45 and 92 percent, respectively. The parental wealth terms also drop by 33 percent for the male partner and 42 percent for the female partner

(significant at $p < .05$). This indicates that a substantial component of the parental influence on adult children's consumption level is indirect, mediated by investment in offspring's human capital, which in turn translates into higher labor market earnings and greater consumption capacity.

Parental Wealth and Asset Holdings

To ascertain the path of influence of parental wealth on the couple's asset holdings, we follow a strategy analogous to the examination of consumption level. Model 1 in table 5 presents the total effects of parental resources, and model 2 adds the couple's socioeconomic resources, thus allowing for an evaluation of the impact of the parental terms net of the couple's human capital and earnings.

Model 1 indicates that parental education and occupational status have limited impact. In contrast, parental wealth has considerable influence—a one-standard-deviation increase in husband's parents' wealth results in a .233 standard deviation gain in the couple's asset holdings. This compares with a gain of .045 and a .050 standard deviation gain associated with a one-standard-deviation change in parental education and occupational status, respectively. Interestingly, the influence of wealth is almost identical for both sets of parents, which suggests that there is no gender bias in parental assistance.

Model 2 adds the indicators of the couple's human capital and permanent income along with other controls. Let us first note that cohabitating couples have, on average, fewer assets than married couples, but the difference is not statistically significant. Years of current union has a substantial effect—twenty years of marriage increase wealth holdings by .281 standard deviation—and husband's age at marriage is inconsequential, signaling that the most relevant accumulation process occurs after marriage. Not surprisingly, education and socioeconomic status of husband and wife have strong effects on the couple's wealth holdings.

Moving to the central concern of this analysis, when the couple's resources terms are added in model 2, all the parental resource terms become insignificant, with the exception of both parental wealth terms, which decline modestly in magnitude, by about 13 percent (not statistically significant at $p < .05$). As a comparison, the analogous drop in the estimation of consumption level was 33 percent and 42 percent for husband's and wife's parental wealth, respectively. This finding suggests that the bulk of the parental asset influence on the couple's asset holdings results from the direct transfer of resources, unmediated by parental investments in children's human capital.

A comparison of the proportion of variance explained by the couple's human capital and labor market resources in the consumption level and asset holdings equations is also informative. In the case of consumption,

Table 5 Parental Resources Effects on Adult Children's Wealth Holdings

	Model 1	Model 2
<i>Male partner's parents</i>		
Father's years of schooling	.008*** (.003)	.002 (.003)
Father's occupational status (ISEI)	.005** (.001)	.001 (.001)
Parental wealth ¹	.433*** (.029)	.377*** (.028)
Home ownership	.021 (.022)	.022 (.022)
Indigenous background	-.023 (.051)	.035 (.050)
<i>Female partner's parents</i>		
Father's years of schooling	.007* (.003)	.002 (.003)
Father's occupational status (ISEI)	-.002 (.001)	-.004** (.001)
Parental wealth ¹	.419*** (.031)	.361*** (.031)
Home ownership	.008 (.023)	.007 (.022)
Age at marriage ²		.003 (.002)
Years of marriage ³		.010*** (.001)
Married ⁴		-.033 (.029)
Husband's years of schooling		.013*** (.003)
Wife's years of schooling		.013*** (.003)
Husband's occupational status (ISEI)		.005*** (.0009)
Wife not employed ⁵		-.068*** (.019)
Wife's occupational status (ISEI)		.004*** (.0009)
Constant	-.248*** (.048)	-.822*** (.071)
R ²	.176	.230

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

Notes: OLS regression. Robust standard errors in parentheses. Sample ($N = 5274$) reduced to households with a coresident couple. Dependent variable is estimate of couple's wealth holdings based on first factor in factor analysis of financial and real assets.

¹ Estimate of parental wealth based on factor analysis of parental assets.

² Age of male respondent at time of marriage or initiation of cohabitation.

³ Years of marriage or cohabitation.

⁴ Coded as 1 if couple is married and 0 if cohabiting.

⁵ Coded as 1 if wife never employed since marriage and 0 otherwise.

adding the couple's educational and occupational terms increases the R^2 by 53 percent ($R^2_{M2} - R^2_{M1} = .479 - .314$). The increase is only 30 percent in the asset holdings equation ($R^2_{M2} - R^2_{M1} = .230 - .176$). This substantial difference suggests that, while the couple's labor market income provides a contribution to consumption level that is independent of parental assistance, it has a much lower impact on wealth accumulation, which remains strongly dependent on parental resources.

In summary, we have found evidence of two different paths for the influence of parental wealth on adult children's living standards. In the

case of consumption level, the process appears to be largely indirect, mediated by the parental investments in offspring's human capital and consequent labor market returns that allow offspring to afford a higher standard of living. In addition, we found that, in Mexican society, education and occupational attainment are not merely vehicles for the intergenerational reproduction of advantage, though they also serve that function. The substantial increase in proportion of explained variance in couple's consumption level, after adding the terms for couple's resources, suggests that the educational system does provide opportunities for individuals from disadvantaged backgrounds to achieve a higher standard of living. The mechanism is different with respect to adult children's wealth holdings. Here we find stronger evidence of a direct pattern of transmission operating outside of the educational system and the labor market, and less evidence of the couple being able to accumulate wealth through their own savings. The smaller increase in explained variance when the couple's human resources and earnings are added to the equation suggests that the intergenerational reproduction of wealth is strong and that opportunities for wealth mobility through educational attainment and labor market attainment are limited in Mexico.

Parental Wealth and Home Ownership

Finally, we assess the influence of parental resources on adult children's home ownership. As table 1 notes, the home ownership rate in Mexico is high in all income levels, which suggests weak determination by parental resources. We analyze the determinants of time to home ownership using a Cox proportional hazard model, with time from marriage or start of cohabitation to the year of home acquisition as the clock; couples who have never owned are right-censored. Couples who obtained their houses up to five years before marriage were coded as having obtained them at time of marriage, accounting for the possibility that some homes were acquired in anticipation of marriage. The only departure from the previous models is the exclusion of a measure of years of marriage, strongly correlated with the dependent variable. Results are presented in table 6.

Not surprisingly, given the particular status of home ownership in Mexico, parental resources have only a marginal influence (model 1). Parental education is insignificant for both sets of parents, and the occupational status of the female partner's father has a negative influence on the probability of acquiring a home. As for the parental wealth terms, only the husband's parental wealth has a significant, positive influence, but it is quite small—a one-standard-deviation increase in parental wealth results in a 4.6 percent change in the hazard rate of becoming a homeowner ($e^{[.118 \times .385]}$). This sharply contrasts with findings in industrialized coun-

Table 6 Parental Resource Effects on Time to Home Acquisition, Mexico 2006

	Model 1	Model 2
<i>Male partner's parents</i>		
Father's years of schooling	.0005 (.007)	-.005 (.007)
Father's occupational status (ISEI)	.002 (.002)	.0001 (.002)
Parental wealth ¹	.118* (.056)	.072 (.056)
Home ownership	.203*** (.045)	.191*** (.046)
Indigenous background	.075 (.100)	.136 (.101)
<i>Female partner's parents</i>		
Father's years of schooling	.011 (.007)	.003 (.007)
Father's occupational status (ISEI)	-.006** (.002)	-.008** (.002)
Parental wealth ¹	.108 (.061)	.067 (.062)
Home ownership	.273*** (.047)	.275 (.047)
Age at marriage ²		.018*** (.003)
Time of marriage ³		
Married ⁴		.408*** (.066)
Husband's years of schooling		-.001 (.006)
Wife's years of schooling		.020** (.007)
Husband's occupational status (ISEI)		.002 (.002)
Wife not employed ⁵		-.036 (.038)
Wife's occupational status (ISEI)		.001 (.002)
LR chi ² (df)/pseudo R ²	150.5 (13)	218.0 (19)

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

Notes: Cox proportional hazard model of time from marriage or cohabitation to home acquisition. Robust standard errors in parentheses. $N = 5274$. Residences acquired up to five years before marriage coded as acquired at time of marriage. Sample reduced to households with a coresident couple.

¹ Estimate of parental wealth based on factor analysis of parental assets.

² Age of male respondent at time of marriage or initiation of cohabitation.

³ Years of marriage or cohabitation.

⁴ Coded as 1 if couple is married and 0 if cohabiting.

⁵ Coded as 1 if wife never employed since marriage and 0 otherwise.

tries, where parental resources are crucial to facilitating early access to home ownership by offspring (Englehardt and Mayer 1994; Mulder and Smits 1999). In contrast, home ownership by parents significantly reduces the waiting time from marriage to home acquisition—husband's parental home ownership is associated with a 23 percent increase in the hazard rate ($e^{.203}$), while wife's parental home ownership produces a 31 percent increase ($e^{.273}$). Because parental wealth is controlled, this considerable asso-

ciation points to socialization processes and the formation of preferences among respondents who grew up in parental-owned homes (Boehm and Schlottman 1999).

Model 2 adds the measures of the couple's resources. The results indicate that married couples are much more likely than cohabitators to be homeowners—marital status results in a 50.4 percent ($e^{.408}$) increase in the hazard rate; also, husband's age of marriage has a modest influence: holding the other variables constant, a ten-year delay in marriage results in a 31 percent shift in the hazard rate ($e^{[.027 \times 10]}$). Although age of marriage signals the individual's ability to accumulate savings before entering into a union, the marriage advantage may be related to the higher stability of marriage in contrast to cohabitation—which may foster long-term investments such as taking on a mortgage—or it might relate to the fact that cohabitators are more likely to have experienced dilution of resources resulting from a marital breakup. While we do not have information on whether the respondents had earlier unions, the probability of cohabiting is significantly lower among older respondents—it decreases from 20 percent among respondents twenty-five to thirty-four years old to 7 percent among those aged fifty-five to sixty-four—suggesting that the first hypothesis is more plausible. In terms of the couple's human capital and earnings, only the female partner's education has a significant influence, but the impact of this variable is modest; all the other measures of couple's resources are insignificant.

In summary, this analysis shows that parental wealth and the couple's resources are weakly related to the probability of becoming a homeowner. Access to home ownership appears to be sensitive to sociodemographic factors—stage in the life cycle in which union is entered and marriage versus cohabitation—but otherwise weakly stratified in Mexican society. Ancillary analysis (available from the authors on request) indicates that, while access to a residence is insensitive to socioeconomic advantage, the value of the home that a couple can afford reflects their economic resources, including those of their parents. As in the determination of the couple's wealth holdings, the impact of parental wealth comes primarily through direct assistance rather than from parental investments in the human capital of the offspring. This suggests that home ownership is weakly stratified in Mexico, but being able to afford a home of higher value critically depends on parental resources.

CONCLUSIONS

The main hypothesis in this analysis is that parental wealth is a critical determinant of adult children's socioeconomic outcomes in Mexico. This is a consequence of the large number of households facing liquidity constraints, the weakness of social insurance programs, and the limited

access to credit. Our analysis has largely confirmed this hypothesis: parental wealth has a substantial influence on children's educational attainment, consumption level, and wealth holdings.

Furthermore, we found two distinct avenues of parental wealth influence. As for the effect of parental wealth on consumption level, the influence is largely indirect, mediated by investment in offspring's human capital and subsequent returns from labor market participation. In contrast, a direct transfer of resources appears to predominate for wealth holdings. Human capital appears to play a limited role in the ability of Mexican families to build wealth, which is largely, and directly, determined by parental assets. This finding need not have been the case. We could have found a substantial mediating effect of children's human capital on wealth accumulation. That we have not found that suggests that it is very difficult for Mexicans to build an asset reserve from their labor market income only. Probably, in a context of low wages for the large majority of the population, earnings are barely sufficient to finance consumption needs, with very little left for accumulation, thus leading to reduced wealth mobility.

Distinguishing between the two transfer paths has important policy implications. If promoting asset building in the population is a policy objective, our findings suggest that doing so is not enough to foster human capital and that policies directly targeted toward asset accumulation may be necessary in Mexico (e.g., Sherraden 1991). Furthermore, the findings in this article are remarkably similar to those for Chile (Spilerman and Torche 2004; Torche and Spilerman 2006). They support a broader conception of economic well-being in Latin America, which includes the impact of asset accumulations and not only of income flows (e.g., Moser 1998).

Two caveats are important. First, our substantive argument emphasizes the role of parental assistance and intergenerational transfers, but our observations are restricted to parental assets; a transfer process is presumed to account for the parental effects on living standards but the details of the transmission are not spelled out in this study. Specifically, by restricting our measure of parental wealth to the adult children's youth, we do not account for assistance from parents to adult children over the life course. Even though downward flows from aging parents to children may be less prevalent in Mexico than in the industrialized world (Pelaez and Martinez 2002; Wong and Higgins 2007), this may change as institutional systems for old-age support consolidate. Second, the influence attributed to parental wealth may, to some extent, be a result of unmeasured variables that are correlated with parental assets and that affect children's outcomes; this would result in a spurious association. Although we have controlled for a large set of potential confounders, omitted variables that refer to personality traits or cognitive ability, among others, may have a significant influence on children's outcomes. We cannot entirely rule out this possibility, but it is difficult to imagine that such factors would be correlated with

wealth but not with other measures of parental advantage that have been included in the model. To be conservative, however, we emphasize that the reported coefficients may be upper bounds in that better controls may result in their reduction. Further research with more refined measures of wealth, a more extensive set of controls, and a more detailed operationalization of transfer mechanisms is essential to advance our understanding of the intergenerational influence of wealth in different national contexts. In this article, we have provided an initial assessment of the importance of wealth in the process of intergenerational stratification in Mexico, and, more generally, in Latin American societies.

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