Centro de Estudios®
Espinosa Yglesias
PROMOVEMOS LA IGUALDAD
DE OPORTUNIDADES

# Gender Differences in Intergenerational Mobility in Mexico


Autora:

Florencia Torche
*Stanford University*



Documento de trabajo no.

11/2015

Centro auspiciado por: ESRU Fundación Espinosa Rugarcía

# Gender Differences in Intergenerational Mobility in Mexico[♣]

**Florencia Torche[♠]**

Septiembre 2015

## Resumen

Este trabajo examina las diferencias de género en la movilidad intergeneracional. La movilidad se mide como la fuerza de asociación entre los recursos socioeconómicos de los padres y la posición socioeconómica de los hijos adultos. Además, el análisis examina los mecanismos de movilidad en la sociedad mexicana. Los resultados muestran que la asociación socioeconómica intergeneracional es más fuerte entre los hombres que entre las mujeres, es decir, las posibilidades de movilidad son más abiertas a las mujeres. Sin embargo, los resultados muestran un patrón de movilidad asimétrico por género. Entre los hombres, la reproducción intergeneracional de la ventaja económica es mucho más frecuente que la reproducción intergeneracional de la pobreza. Lo contrario pasa con las mujeres —sus posibilidades de permanecer pobres, si vienen de un hogar desfavorecido, son superiores a sus posibilidades de mantener privilegios a través de las generaciones. La diferencia por género está totalmente impulsada por la transmisión directa de la ventaja a través de las generaciones, netos de la educación.

Palabras clave: género, movilidad social, reproducción intergeneracional.

[♣] Por publicarse en Vélez-Grajales, Huerta-Wong y Campos-Vázquez (eds.) (2015). *México, ¿el motor inmóvil?* México: Centro de Estudios Espinosa Yglesias.

[♠] New York University, Department of Sociology, Email: florencia.torche@nyu.edu.

## 1. Introduction

Most research on intergenerational mobility focuses on men. The reasons to exclude women are both substantive and practical. First, most common measures of mobility are based on labor market characteristics, such as class, occupational status, and earnings. The substantial proportion of women who are not in the labor market are by necessity excluded from the analysis. This restriction likely results in unobserved selectivity of women included, if those who are engaged in the labor force are different from those who are not. Second, many surveys simply do not include information about women. Faced with small sample sizes, researchers collecting mobility data opt to focus on men to avoid the risk of having to collect too few both men and women. But this produces an important void in the literature – not only because women are roughly half of the population, but also because excluding them from the analysis of mobility prevents understanding of how family dynamics affect mobility, to the extent that these dynamics are gender-specific. For example, if parents invest more in the education of their sons than their daughters in some contexts (Burgess and Zhuang 2001), we would expect intergenerational reproduction to be stronger for males.

The incorporation of women to the analysis of mobility also highlights the issue of the relevant unit of analysis for the study of stratification processes – whether stratification is better understood as a family/household process or an individual process. To date, different approaches to this question exist. Some argue for a "dominance approach" that measures the socioeconomic standing of households in which there are two partners based on the individual with the higher occupational position– usually the male (Erikson 1984). Alternatively, scholars have proposed an "individual approach" for women, in which her own occupational position is considered (Stanworth 1984).

This analysis uses a different perspective. I examine intergenerational mobility at the household rather than the individual level. This means not having to choose one particular individual to proxy the household's level of wellbeing, but rather directly measuring wellbeing of the household. This approach is based on the understanding that households divide labor in order to maximize welfare. In many contexts, such division of labor is gender-based, such that men tend to specialize in paid work and women tend to specialize in housemaking and childrearing (Becker 1991). If gender-based division of labor does indeed define family arrangements, then household wellbeing is the outcome of differentiated contributions by its members, and measuring it at the individual level is limited. Furthermore, if assortative mating ("who marries whom") contributes to intergenerational mobility, a focus households rather than individuals is recommended (Ermisch et al 2006). This analysis uses direct indicators of the household's economic wellbeing, rather than of the inputs that determine such capacity, such as individual occupation or earnings.

The use of household-level measures of wellbeing is particularly relevant in contexts where female labor force participation is low. This is the case in Mexico, where 42% of women 15 years old or older are engaged in paid employment. Even if this is an increase from a 34% of women in the labor force in 1990, Mexico is one of the countries with the lowest female labor force participation in Latin America (United Nations 2010, Table 4A).

I measure mobility as the strength of the association between parents' socioeconomic resources (social origins) and adult children's socioeconomic standing (destinations). A weak association identifies high mobility, a situation in which individual socioeconomic wellbeing is not strongly shaped by parental resources, and everyone has the same chance to succeed or fail, regardless of their social origins. A strong intergenerational association, in turn, reflects little mobility, and strong reproduction of socioeconomic advantage and disadvantage across generations.

Measures of intergenerational mobility provide important information about equality of opportunity in society. Naturally, equal opportunity does not imply eliminating all sources of socioeconomic similarities between parents and children. Specifically, equal opportunity does not require the elimination of inherited differences in ability, or early household socialization (Jencks and Tach 2006: 23). However, to the extent that intergenerational reproduction depends on differential constraints or privileges determined by parental socioeconomic resources, information about mobility is useful. The key question to evaluate the implications of mobility analysis is *which mechanisms* account for intergenerational reproduction. By offering an analysis of intergenerational association by gender, this analysis contributes to examining the mechanisms for mobility in Mexican society. This chapter proceeds as follows. After introducing the data, methods and analytical strategies, I examine the level and pattern of mobility in Mexico, and the differences in mobility between men and women. I then undertake a comparison of birth cohorts to assess change in mobility over time. I then move to the mechanisms driving mobility, focusing on the mediating role of education among Mexican men and women. The final section summarizes and discusses implications of the findings.

## 2. 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. EMOVI is a probabilistic nationally representative sample of non-institutionalized Mexican men and women 25-64 years of age. 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 an oversample of female heads of household, deemed a population of interest.

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, unweighted sample size is 11,001 – 6011 men and 4990 women. Post-stratification weights were constructed to bring sample distribution in accordance with the population of interest, and they are used in all analyses presented here.

**Analytical plan:** I evaluate the intergenerational association of socioeconomic status (SES) for men and women ages 30-50. The 30-50 age range ensures that respondent's socioeconomic attainment will closely reflect their long-term

socioeconomic standing given that standing measured earlier or later in individual life-course is likely to provide a poorer measure of permanent status (Mazumder 2005b, Haider and Solon 2006). I also exclude adult children co-residing with parents because in this case the household SES of both generations is by definition the same.

I construct a measure of socioeconomic standing (SES) by means of an *asset index*, which combines a set of household goods and services by means of principal component analysis (e.g., Filmer and Pritchett 1999, Torche and Spilerman 2006). 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 first component is the linear combination of the items included that accounts for the largest proportion of variance that is common to all items[1]. The advantage of this strategy to create a composite SES index is that it empirically obtains the weights for each indicator instead of arbitrarily equally-weighting them or imposing any other weights. Furthermore, the use of a composite measure disregards idiosyncratic determinants of item ownership that are only weakly correlated with standing. This strategy alleviates measurement error emerging from temporal fluctuation in economic indicators. The index will provide discrimination across the entire socioeconomic hierarchy, insofar as it includes items prevalent among the poor (for example, access to pumped water), and among the wealthy (for example, ownership of computer and internet connection).

In order to select household goods and services to include in our latent construct, in a first step I considered the entire list of household goods and services included in the survey (these are 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, domestic service some days a week, live-in domestic service), and obtained each item's uniqueness. 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, under the assumption that these items were very poor indicators of socioeconomic standing. This left the following items in the principal component analysis: piped water, inside toilet, stove, washing machine, fridge, TV, boiler, DVD, personal computer, cellular phone, landline, vacuum machine, microwave, toaster, internet, and cable/satellite.

I use a similar strategy to construct an asset index for parents and adult children. 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. Ideally, measures encompassing the entire childhood and adolescence of respondents would be used, but as it is standard in mobility surveys, measures were restricted to age 14. 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.

Note that the asset index for both generations captures socioeconomic status (SES) at the household, rather than the individual, level. As indicated, this

[1] Alternative versions of this approach were used, including principal components and factor analysis, and factor analysis for categorical variables. The scales obtained are substantively identical to those presented here.

operationalization is based on the assumption that wellbeing depends on the contributions of all household members, both in terms of paid and unpaid labor, and that the household is the relevant unit in which resources are pooled and shared. So this index captures economic wellbeing of men and women regardless of whether they are currently employed. Because this measure is based on consumption and access to services rather than income, it provides a measure of long-term economic wellbeing, less strongly affected by seasonality in labor market participation and volatility commonly affecting measures of current income.

Even if the focus of this analysis is household-level economic wellbeing, an alternative version of SES was devised, which adds to the items included a measure of individual occupational status. Occupational status was measured using the International Socioeconomic Index of Occupational Status (ISEI) (Ganzeboom et al 1992), which is widely used in international comparative research. I call this alternative measure of socioeconomic wellbeing "socioeconomic index" to distinguish it from the "asset index" measure. This measure provides a sensitivity test of the findings: Consistent findings across measures would indicate that the indexes are robust to the focus on household or the inclusion of individual attributes. If the findings substantially differ between the "socioeconomic index" and the "asset index", this would suggest household-level and individual-level measures may be capturing different dimensions of economic wellbeing.

The inclusion of occupational measures to the socioeconomic index restricts 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 in the age range work for pay – 94% of respondents 30-50 in the EMOVI 2011. However, this decision reduces the sample of women to 53% of those in the sample. Women in paid employment can be unrepresentative of their peers not working for pay, thus introducing selectivity if the socioeconomic index is used. Rather than attempting to decide which measure –asset index or socioeconomic index— is "better", I use both of them to evaluate whether the findings about mobility vary depending on the measure used.

I measure the intergenerational socioeconomic association using regression models in which socioeconomic standing of adult children is regressed on the socioeconomic standing of parents. Nonlinearities in the intergenerational association were tested by means of higher order (quadratic and cubic) terms of the independent variable, and removed if these terms were not significant. Even if the age range of respondents was narrowed to 30-50, terms for age and age squared were included to account for potential life-cycle effects. I analyze mobility separately by gender and evaluate the statistical significance of differences across gender.

## 4. Findings

**4.1. Intergenerational Mobility across Gender:** Table 1 offers the intergenerational socioeconomic status association using both formulations of SES for men and women. I pool the data for both genders, and allow for a different intercept and slope for men. The difference in intercepts is given by the parameter estimate associated with the dummy variable "male" and the gender difference in slopes is given by the interaction term of male * parents' socioeconomic standing. The model using

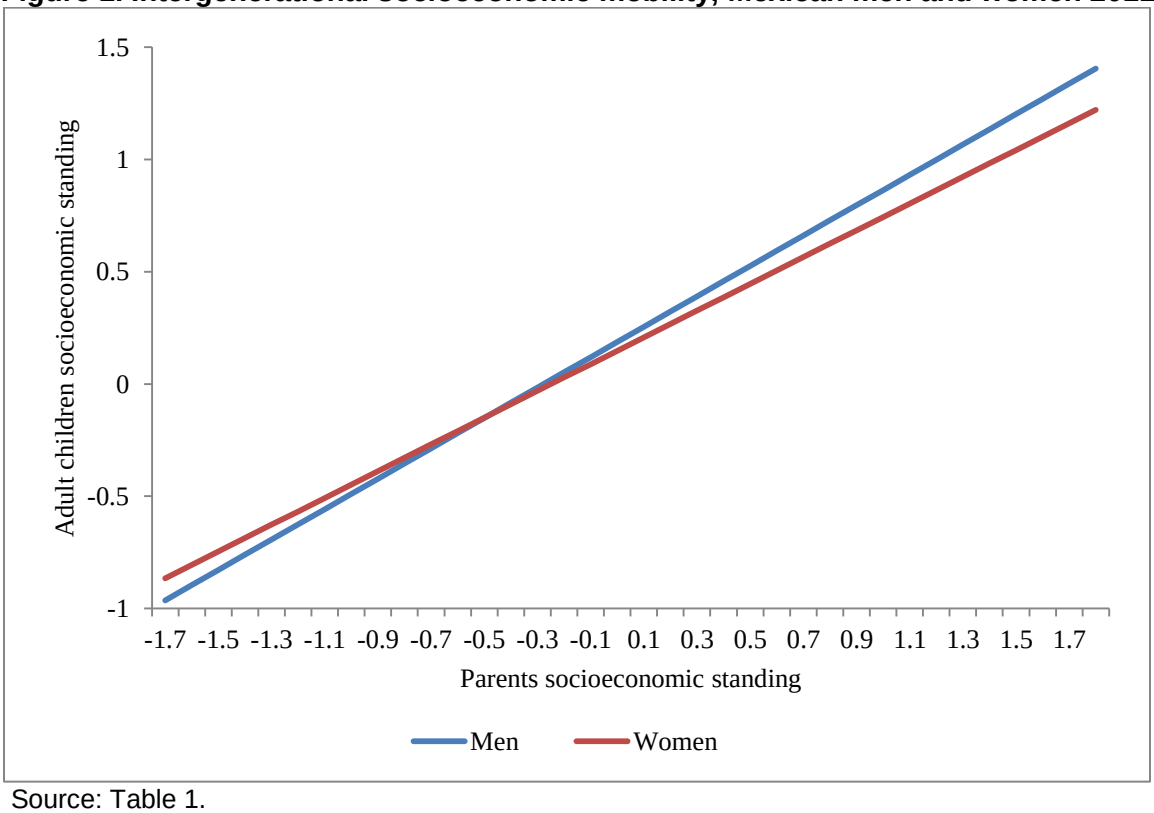
asset index as the measure of SES indicates that the slope for females is .596. The slope increases to .677 (.596+.081) for males, with the difference between genders statistically significant at the p=.026 level. In other words, intergenerational reproduction is significantly higher for Mexican men than for women. Figure 1 depicts this pattern, showing a stronger intergenerational association for Mexican men.

**Table 1. Intergenerational socioeconomic mobility, Mexican men and women 2011**

| | Asset Index | | Socioeconomic Index | |
|---|---|---|---|---|
| | b | s.e. | b | s.e. |
| Male | 0.039 | (0.026) | -0.243*** | (0.035) |
| Parent's socioeconomic standing | 0.596*** | (0.019) | 0.490*** | (0.029) |
| Male*Parents' socioec. standing | 0.081** | (0.026) | 0.148*** | (0.036) |
| Age | 0.026 | (0.002) | 0.023+ | (0.003) |
| Age squared | 0.000 | (0.000) | 0.001** | (0.001) |
| Constant | 0.148 | (0.023) | 0.125 | (0.033) |
| N | 4341 | | 2511 | |

Note: Higher-order (quadratic and cubic) terms for parents' socioeconomic standing were tested and dropped because they are statistically insignificant.

**Figure 1. Intergenerational socioeconomic mobility, Mexican men and women 2011**




Source: Table 1.

The gender-difference in intergenerational association is even more pronounced when the "socioeconomic index" replaces the "asset index" as a measure of SES for both generations. Now intergenerational association is .490 for women and .638 among men, and the difference is significant at the p=.036 level. So, the "asset index" offers a lower bound of the gender difference in mobility patterns and represents the entire population of females. In what follows I consistently use the asset index as measure of socioeconomic standing (alternative analyses using the socioeconomic index provide consistently similar results, except that the gender difference in mobility is exacerbated).

It is useful to benchmark these measures of intergenerational reproduction using findings from other countries. Analyses of mobility in advanced industrial countries find that the intergenerational association varies from approximately .15 in Nordic countries to close to .50 in the US, Italy, and the UK (Blanden 2009, Corak 2012). Using these figures, the intergenerational association for both men and women is stronger in Mexico. However, these analyses use average current income over several years as a measure for permanent income. The different operationalization of SES may result in artifactual differences in findings between Mexico and advanced industrial countries. We can compare, however, with mobility analysis in Chile, which uses a similar "asset index" to measure SES. Intergenerational association among Chilean men reaches .470, considerably lower than the .677 figure found for Mexican men. This indicates that equality of opportunity is more restricted in Mexico than in advanced industrial countries and a comparable Latin American country. Findings also indicate that intergenerational reproduction is stronger for Mexican men than Mexican women, and raise a question about the reasons accounting for gender differences.

**4.2. Have mobility chances for men and women changed over time?** Before examining gender differences in mobility, I analyze potential changes in mobility among men in the recent past. This analysis attempts to evaluate if the high intergenerational reproduction found among Mexican men in 2011 results from idiosyncratic period or survey effects. I draw on a comparison between EMOVI 2011 and EMOVI 2006. This temporal comparison is restricted to men because the sample of females in the 2006 survey is not representative of the national population of women.

What should we expect about changes in mobility over time? The answer depends on which social dynamics drive mobility change. Researchers have usefully distinguished age, period, and cohort determinants of change. Age effects refer to variation associated with growing older and transitioning through different stages of the life-cycle. Period effects refer to economic, political or cultural events that affect the entire population. For example, if access to a new technology favors everyone living in a particular historical time, it will constitute a period effect. Cohort effects, in contrast, affect only groups that experiencing a relevant event together –in the case of birth cohorts, being born at the same time. Changes across birth cohorts suggests that some cohorts have experienced strong durable influences during their formative years, for example an economic crisis, or substantial occupational upgrading (Ryder, 1965). From a cohort perspective, social change will occur through a slow demographic dynamic of replacement in which older cohorts exposed to specific formative experiences are substituted by younger ones exposed to different formative events.

The measurement of mobility explicitly controls by age effects by selecting a group of individuals who have reached "occupational maturity" (Goldthorpe 1980) – those 30-50 years of age in this case – and by controlling for potential age effects in the regression model. But cohort and period provide alternative, plausible, interpretations of change. Studies in advanced industrial countries have found that mobility change is largely a "cohort phenomenon" driven by the replacement of senior, less mobile cohorts with younger, more fluid ones (Breen and Jonsson 2007).

However, in some historical circumstances substantial economic or political transformations may result in period changes affecting all birth cohorts. This is the case of Brazil, where mobility was found to increase for all cohorts –not only the younger ones— as a result a decline in the economic returns to schooling in a context of economic liberalization (Torche and Ribeiro 2010), or the case in Russia where the deep economic crisis that followed the transition to a market system resulted in widespread downward mobility (Gerber and Hout 2004). One study about Mexico suggests a similar period change in mobility during the 1990s (Cortes and Escobar 2004). The authors hypothesize a widespread decline in mobility for the entire adult population, in a context of economic liberalization and structural transformation. However, given data availability, the strategy to capture change over time was to compare mobility across different age groups observed at the same point in time – 1996. Given this restriction, it is not possible to disentangle age from cohort determinants of change. In general, period changes in mobility appear to occur in exceptional circumstances, and to be driven by deep economic or institutional transformations that affect the mobility chances of the entire population of adults, rather than the youngest cohorts only.

Based on the literature, then, we expect change in mobility from 2006 to 2011 to be small, because when we restrict the age range of those examined to 30-50, in both years, the majority of this group is observed both in 2006 and 2011. The only difference at the population level is that birth cohorts born between 1956 and 1960 (who were 46-50 in 2006) are not observed in 2011 and cohorts born between 1977 and 1981 (who are 30-34 in 2011) are not observed in 2006.

Given that the mobility analysis controls for age, any change in socioeconomic standing over this 5-year time-span cannot be due to age effects. Period effects altering mobility chances of the entire adult population are plausible but unlikely. Mexico was hard hit by the global economic crisis of 2009, with its real GDP per capita dropping from U$8,579 in 2008 to U$7,901 in 2009. But the recovery was equally fast and by 2011 the per capita GDP had recovered its 2008 level (USDA 2012), and no major changes in the economic structure took place within the 2006-2011 period. So, even if economic recession has been found to hamper mobility across all age-groups in some national contexts such as Russia (Gerber and Hout 2004), the 2009 economic recession in Mexico was probably too short-term to alter the mobility opportunities of the Mexican population.

Table 2 offers the results of the change in men's mobility between 2006 and 2011. I divide the birth cohorts observed in both surveys into two groups: Those born 1961-68 ("senior cohort" aged 43-50 in 2011) and those born 1969-76 ("younger cohort" aged 36-42 in 2011). I then evaluate intergenerational association for these male

cohorts over time. Change in the intergenerational mobility across cohorts will point to a cohort effect, while changes within cohort across years will signal a period effect.

**Table 2. Intergenerational socioeconomic mobility by period and birth cohort, Mexican men 2006 and 2011**

| | 1961-68 cohort | | 1969-76 cohort | |
|---|---|---|---|---|
| | 2006 | 2011 | 2006 | 2011 |
| Parents' SES | 0.696***(0.024) | 0.647***(0.034) | 0.775***(0.022) | 0.711***(0.030) |
| Age | 0.300 (0.456) | 0.009 (0.094) | -0.548 (0.343) | 0.052* (0.022) |
| Age squared | -0.003 (0.005) | 0.004 (0.007) | 0.008+ (0.005) | 0.011+ (0.006) |
| Constant | -6.737 (9.455) | 0.131 (0.280) | 8.613 (5.714) | 0.155***(0.040) |
| N | 1235 | 681 | 1097 | 813 |

The findings indicate that intergenerational association for both cohorts is weaker in 2011 than in 2006, but differences are very small and statistically insignificant (p-value [1961-1968 cohort]= 0.23, p-value [1969-1976 cohort]=.08. This rules out a significant period effect. This and other p-values for the differences in parameter estimates are calculated using the standard formula to calculate the statistical significance of the difference in coefficients across populations assuming independent samples, in which the coefficient for the difference is obtained from subtraction of the two coefficients and the standard error for the difference is the square root of the sum of the variance of the two coefficients (see for example Knoke et al. 2002: 281). This strategy is naturally identical to pooling the samples from the two populations (male/female), including a dummy variable for male and interacting each predictor with the male dummy (see Torche and Kleinhaus 2012).

If we compare the intergenerational association across cohorts, we find that the association is stronger among the young cohort of Mexican men in both 2006 (p-value[2006]=.02) but not in 2011 (p-value[2011]=.16). The indication of stronger intergenerational association for the younger cohort an auspicious sign, because it suggests that mobility will not increase –and it may even decline—as younger cohorts enter the labor force and older cohorts leave it. But this conclusion is at the moment preliminary because the difference between cohorts is insignificant in 2011. Only future research examining a longer time span and more birth cohorts will provide a conclusive answer. The findings also indicate that the high level of male intergenerational association in 2011 is not the result of a period shock or a sample idiosyncrasy. Rather, it reflects limited equality of opportunity among Mexican men compared with other countries.

**4.3. The Pattern of Mobility across Gender:** We now return to the differences in mobility across gender. So far, the analysis has found stronger intergenerational reproduction among men than women. This finding refers exclusively to the level of mobility. The pattern of mobility – i.e. whether the strength of intergenerational reproduction varies across social origins—may also vary across gender. The strategies

used to address this question are empirically driven. The first strategy adds higher-order terms for parental socioeconomic standing to capture potential non-linearities in the association. These terms are consistently insignificant suggesting that a linear formulation adequately captures the intergenerational association for men and women.

The second strategy used to examine differences in mobility patterns across gender, I implement quantile regression. We estimate models to examine several conditional percentiles of children's socioeconomic status. We include the $20^{th}$, $40^{th}$, $50^{th}$ (median), $60^{th}$ and $80^{th}$ percentile of children's socioeconomic status separately for men and women. By plotting these conditional percentiles graphically, the variance of the distribution of children's SES at each level of parental advantage can be examined. Figures 2A and 2B present the result and show very different patterns across gender. Among males, the variance in children's SES declines as parental SES increases. This indicates that Mexican males with socioeconomically advantaged origins experience strong intergenerational reproduction – they cluster tightly around the high predicted median. In contrast, men of disadvantaged origins experience more mobility, with a low conditional mean but much variation across it. In other words, among Mexican men, the *reproduction of economic advantage is stronger than the reproduction of poverty*. Results are opposite for females. Women with advantaged origins experience more mobility than those with disadvantaged origins, who are largely concentrated at the bottom of the distribution. For Mexican women, then, having disadvantaged social origins deterministically shape low socioeconomic attainment, whereas advantaged origins do not ensure a high-status position.

The marked gender differences in mobility patterns suggest a disadvantaged situation for women. Ono average, women experience more mobility than men. However, the pattern of mobility is not symmetric. Women are more likely to maintain socioeconomic disadvantage across generations and less likely to maintain socioeconomic advantage. So even if overall fluidity is higher among women, the sources of female intergenerational reproduction capture a difficulty to overcome disadvantaged origins. These patterns suggest the existence of family dynamics based on sons' preferences that vary across social class, for example upper class parents are more likely to provide financial support to their sons than to their daughters. These hypotheses are speculative at the moment, as we do not directly observe family decision making and behaviors leading to gender-specific outcomes.

**Figure 2A. Intergenerational Socioeconomic mobility quantile regression. Mexican men 2011**

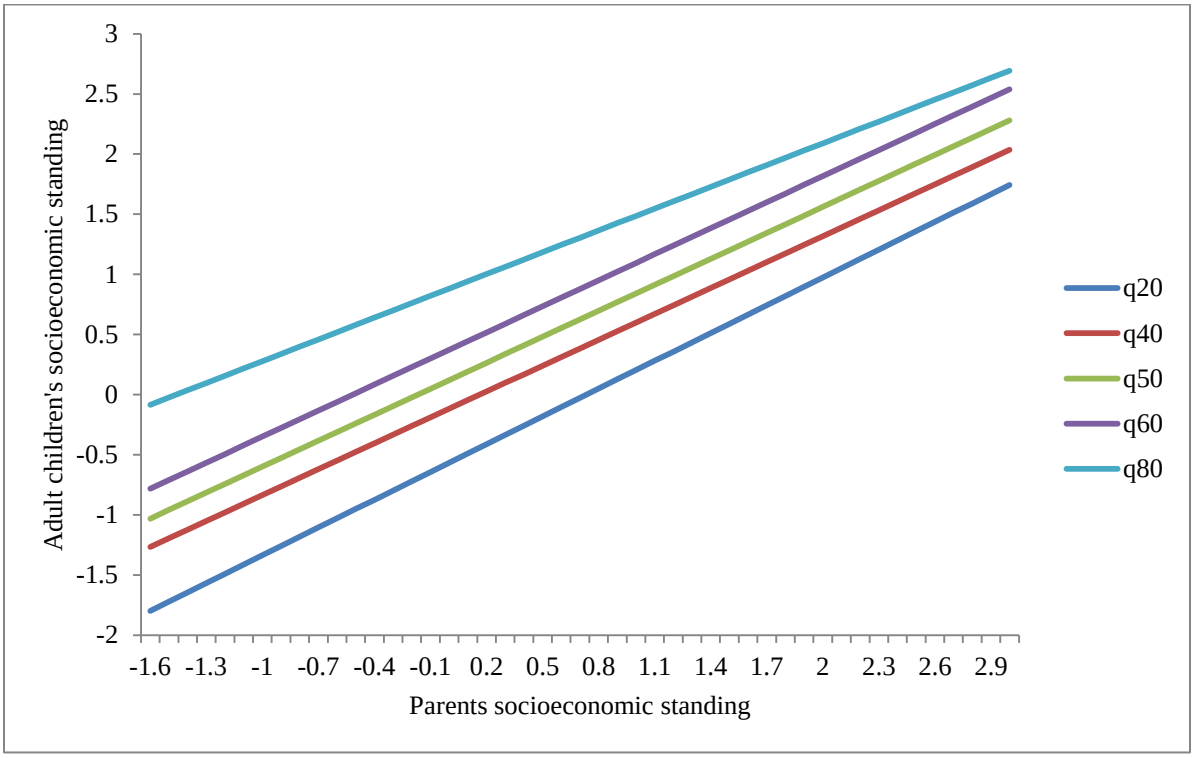
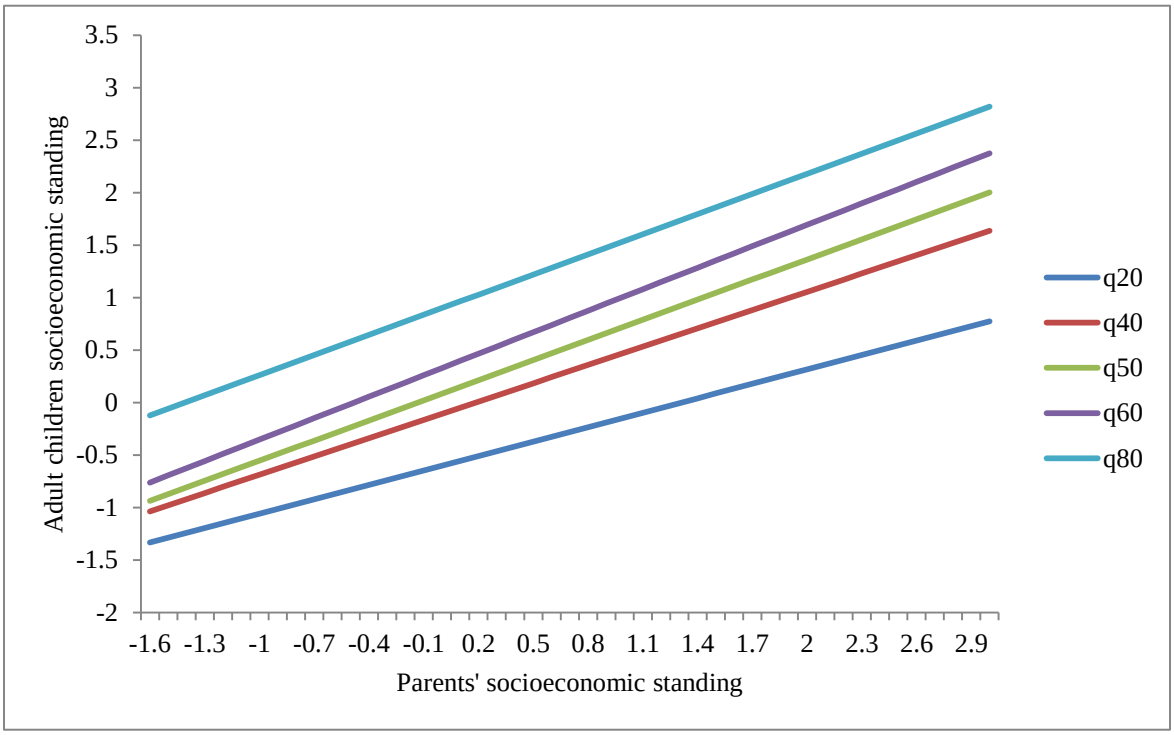



**Figure 2B. Intergenerational Socioeconomic mobility quantile regression. Mexican women 2011**



**4.4. The Role of Education in the Mobility Process:** As a final step to examine the determinants of gender differences in mobility, I analyze the role that education plays in accounting for gender differences. Education is both the main mechanism for intergenerational reproduction and the main vehicle for mobility (Hout and DiPrete 2006). Education is a mechanism of 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 at the same time a mechanism for mobility because factors other than parental advantage account for much of the variance in educational attainment, thus weakening the link between socioeconomic origins and destinations. The stronger intergenerational association among men may be due, then, by parental educational investments that favor sons.

In order to account for the role of education, I offer a path-analytic formulation that measures the mediating role of education in the mobility process (Figure 3). This formulation is estimated separately for men and women, and educational attainment is measured by total number of years of schooling completed. The path analysis divides the total intergenerational association into three components: (1) The association between parental socioeconomic resources and children's educational attainment, (2) the association between educational attainment and adult children's socioeconomic standing, and (3) the association between parents' and children's socioeconomic standing that is net of education. All models in this formulation adjust for age and age squared[2].

Figure 3 shows that the association between parental socioeconomic resources and educational attainment is *stronger* for women than for men. A model pooling both genders an adding an interaction for the difference shows that the gender difference is significant at the p=.002 level. On average, a one standard deviation increase in parental socioeconomic standing results in a .515 standard deviation increase in years of schooling for women but only .430 standard deviation increase for men. This finding is striking because the overall intergenerational association is stronger for men than for women. So, the reason for stronger intergenerational reproduction among Mexican men is *not* that parents with more socioeconomic resources invest more in the education of their sons than their daughters.

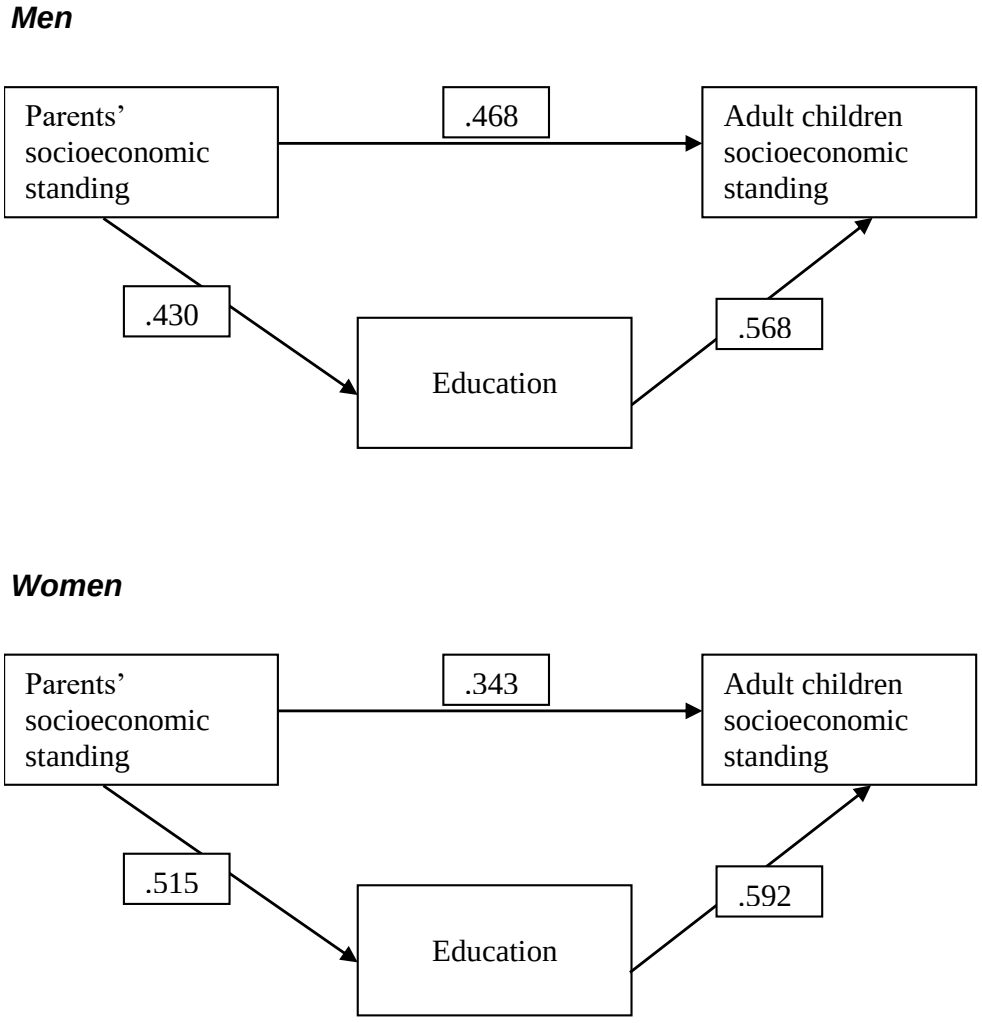
The association between educational attainment and socioeconomic standing – the socioeconomic returns to schooling – is very similar for men and women. Among men, an additional standard deviation in years of schooling results in an increase of .592 standard deviation in their socioeconomic standing; the increase is .568 for men. The gender difference in the payoff of education is statistically insignificant. This finding indicates that even if a large proportion of women do not engage in paid employment, their education pays off in terms of socioeconomic attainment. A potential channel for the economic returns to education among women not in the labor force is educational homogamy, which has been shown to be substantial in Mexican society (Torche 2010).

[2] All coefficients are standardized, i.e. the scale the associations by the standard deviation of the variables, separately for men and women. While using standardized coefficients may induce problems of comparability (if standard deviations are different across gender), this is a non-issue in this case, because the standard deviations of all variables involved are extremely similar for men and women.

Education is likely to increase the chances that they marry a highly educated man with high earning power.

Finally, the horizontal arrow at the top of Figure 3 captures the association between parents' SES and adult children SES that is net of education. This link captures direct transmission of advantage through processes such as business inheritance, use of social capital for occupational placement, or financial gifts and transfers by parents. Marked gender differences emerge in the net association. The standardized coefficients are .343 for women, but .486 among men, a statistically significant gap. This gap explains gender differences in mobility: The "excess immobility" among men is entirely driven by a stronger direct transmission of parental advantage – net of parental investments in education – to sons than to daughters.

**Figure 3. The role of education in the intergenerational mobility process, Mexican men and women 2011[1]**




[1] Numbers describing each arrow are standardized parameter estimates obtained from a regression model. All coefficients significant at the p<.001 level.

## 5. Conclusions

This analysis examines on gender differences in intergenerational mobility in Mexico. Mobility is measured at the household rather than the individual level, under the assumption that households pool and share resources, and they engage in gender based division of labor to maximize welfare. Findings are clear: The intergenerational socioeconomic association is stronger among men than among women, i.e. mobility chances are more open for women.

While mobility analysis usually concentrates in the level of intergenerational mobility, I have also considered the pattern of mobility by comparing intergenerational persistence at different levels of children's socioeconomic advantage. The findings indicate a highly gender-asymmetric pattern of mobility. Among men, intergenerational reproduction of economic advantage is much more prevalent than intergenerational reproduction of poverty. The opposite is true for women – their chances of remaining poor if they come from a disadvantaged household are higher than their chances of retaining privilege across generations.

The analysis also sheds light on the mechanisms accounting for the gender differences in mobility. "Excess immobility" among men is not driven by a stronger association between parents' socioeconomic advantage and sons' educational attainment, or by larger returns to schooling among men. Rather, the gender difference is entirely driven by the direct transmission of advantage across generations, net of education. Several mechanisms could account for such difference – parents may make more financial transfers or gifts to their sons than their daughters, or may be more likely to help sons with occupational placement or business launching. Further research is needed to ascertain the family-level mechanisms leading to gender differences in mobility in Mexico.

## References


Becker, G. 1991. *A treatise on the family*. Cambridge, MA: Harvard University Press.

Blanden, J. 2009. “How much can we learn from international comparisons of intergenerational mobility?” Centre for the Economics of Education WP#111, London School of Economics.

Breen, R. and J. Jonsson. 2007. “Explaining change in social fluidity: Educational equalization and educational expansion in twentieth-century Sweden” *American Journal of Sociology 112*(6) 1775–1810.

Burgess, R. and J. Zhuang 2001. “Modernisation and Son Preference”, Manuscript, Department of Economics LSE.

Erikson, R. 1984. “Social Class of Men, Women and Families” *Sociology* 18: 500-514.

Corak, Miles. 2012. “Inequality from Generation to Generation: The United States in

Comparison” in *The Economics of Inequality, Poverty, and Discrimination in the 21st Century*, edited by R. Rycroft. ABC-CLIO, forthcoming.

Cortes, F. and A. Escobar. 2004. “Movilidad social intergeneracional en el México urbano” *Revista de la Cepal* 85: 149-167.

Ermisch, J., M. Francesconi, and T. Siedler. 2006. “Intergenerational mobility and marital sorting.” *Economic Journal* 116:659–79.

Filmer, D., and L. Pritchett. 1999. “The effect of household wealth on educational attainment: Evidence from 35 countries”‖ *Population and Development Review* 25(1): 85–120.

Ganzeboom, H., P. de Graaf and D. Treiman. 1992. “A Standard International Socio-Economic Index of Occupational Status”‖ *Social Science Research* 21: 1-56.

Gerber, T. and M. Hout. 2004. “Tightening Up: Declining Class Mobility during Russia’s Market Transition” *American Sociological Review* 26:677–700.

Goldthorpe, J. 1980. *Social Mobility and Class Structure in Modern Britain*. Oxford, UK: Clarendon Press.

Haider, S. and G. Solon. 2006. "Life-cycle Variation in the Association between Current and Lifetime Earnings. *American Economic Review,* 96(4): 1308-1320.

Hout, M., and T. DiPrete. 2006. “What we have learned: RC28’s contributions to knowledge about social stratification”. *Research in Social Stratification and Mobility 24*: 1–20.

ILO. 1990. *International Standard Classification of Occupations: ISCO-88*. Geneva, Switzerland: ILO.

Jencks, C. and L. Tach. 2006. “Would equal opportunity mean more mobility” in *Mobility and Inequality: Frontiers of Research from Sociology and Economics* (Eds) S. Morgan, D. Grusky, and G. Fields, Stanford University Press, Stanford.

Knoke D, Borhrnstedt G., Mee A. 2002. Statistics for Social Data Analysis, 4th edn. Belmont, CA: Wadsworth/Thomson.

Mazumder, B. 2005. “Fortunate sons: New estimates of intergenerational mobility in the U.S. using social security earnings data”‖ *Review of Economics and Statistics* 87(2): 235-255.

Ryder,N. 1965. “The cohort as a concept in the study of social change” *American Sociological Review*, *30*, 843–861.

Stanworth, M. 1984. “Women and Class Analysis: A Reply to John Goldthorpe” *Sociology* 18:159-170.

Torche, F. and S. Spilerman. 2006. “Parental Wealth Effects on Living Standards and Asset Holdings: Results from Chile” in Wolff, E. ed. *International Perspectives on Household Wealth.* Northhampton MA: Edward Elgar.

Torche, F. and C. C. Ribeiro. 2010 “Pathways of change in social mobility: Industrialization, education and growing fluidity in Brazil” *Research in Social Stratification and Mobility* 28 291–307.

Torche, F. 2010. ““Educational Assortative Mating and Economic Inequality: A Comparative Analysis of Three Latin American Countries” *Demography* 47(2): *481-502.*

Torche, F. and K. Kleinhaus. 2012. “Reply: Are the significant effects really significant?” *Human Reproduction*, in press.

United Nations. 2010. *The World’s Women 2010. Trends and Statistics*. New York: United Nations.

USDA (US Department of Agriculture). 2012. “International Macroeconomic Dataset” online at: http://www.ers.usda.gov/data-products/international-macroeconomic-data-set.aspx.