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Social mobility in Mexico

Patricio
Solís Gutiérrez

Trends, Recent Findings and Research Challenges

El Colegio de México

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Resumen: La recesión de los años ochenta y la subsecuente reestructuración económica tuvieron un profundo impacto en la sociedad mexicana. No obstante, sus consecuencias sobre la movilidad social no fueron analizadas hasta finales de los noventa, cuando una serie de estudios empíricos revelaron las continuidades y los cambios en los patrones de movilidad social. En este artículo se discuten cuatro tendencias recientes: la continuidad de las altas tasas absolutas de movilidad intergeneracional; la reducción de las recompensas monetarias asociadas a la movilidad ocupacional; la creciente rigidez en las tasas relativas de movilidad; y el ajuste del caso mexicano al patrón de movilidad general propuesto por Erikson y Goldthorpe. El panorama que resulta de estas tendencias es el de una sociedad que, a pesar los efectos negativos de la crisis y los cambios estructurales de los años ochenta y noventa, ha mantenido altas tasas de movilidad social, pero sufre en otros aspectos como la calidad de las oportunidades de movilidad ascendente y la creciente desigualdad de oportunidades asociada a los orígenes de clase. El artículo concluye con una discusión sobre posibles líneas futuras de investigación de los estudios sobre movilidad social en México.

Abstract: The recession of the 1980s and subsequent economic restructuring in the 1990s had a profound impact on Mexican society. However, the consequences in social mobility were not fully explored until the end of the 1990s, when a series of empirical studies revealed continuities and changes in mobility patterns. The purpose of this article is to discuss trends in intergenerational social mobility. Four findings are discussed: the continuity of high overall and upward mobility rates; the reduction of monetary gains associated to upward occupational mobility; the increasing rigidity in relative rates of occupational mobility; and the overall compliance of the Mexican case to Erikson and Goldthorpe's core model of social fluidity. The picture emerging from these findings depicts a society that, notwithstanding the negative effects of the economic recession and structural changes of the 1980s and 1990s, maintained high rates of structural mobility, but suffered in other aspects such as the decrease in the quality of opportunities of upward mobility, as well as the increasing inequality of opportunity by class origins. The article concludes with a discussion of future avenues of research for social mobility studies in Mexico.

Résumé: La récession des années 1980 et la subséquente restructuration économique des années 1990 a causé un impact profond sur la société mexicaine. Néanmoins, ses conséquences sur la mobilité sociale n'ont été entièrement explorées qu'à la fin des années 1990, quand une série d'études empiriques a dévoilé des continuités et des changements dans les modèles de mobilité. Le but de cet article est d'analyser les tendances de la mobilité sociale inter-générationnelle. Le débat porte sur quatre découvertes: la continuité de taux élevés d'ascension dans l'échelle sociale; la réduction des entrées monétaires associée à une mobilité occupationnelle plus importante; la rigidité croissante des taux relatifs à la mobilité occupationnelle; et la totale conformité du cas mexicain au modèle type de fluidité sociale d'Erikson et Goldthorpe. L'image qui émerge de ces résultats décrit une société qui, malgré les effets négatifs de la récession économique et les réformes structurelles des années 1980 et 1990, maintient de hauts indices de mobilité structurelle, mais qui paie les conséquences d'autres aspects tels que la baisse de la qualité des opportunités d'ascension dans l'échelle sociale, ainsi que l'augmentation de l'inégalité d'opportunités données par la classe d'origine. L'article conclut par une discussion sur les futures voies de recherche possibles pour affiner les études sur la mobilité sociale au Mexique.

[modelos de movilidad, economía, escala social, reformas estructurales, recesión]

During the 1960s and 1970s three major research projects addressed social stratification and mobility patterns in urban Mexico. These studies were the "Monterrey Geographic and Social Mobility Project", developed by Balán, Browning and Jelin (1973), and two studies carried out in Mexico City, the first coordinated by Muñoz, Oliveira and Stern (1977), and the second by González Casanova (Contreras 1978). There are several features common to these three studies that reflect the main topics of sociological inquiry in Latin America at that time. First, they intended to identify the effects of rapid industrialization on the occupational structure and the impact of these transformations on occupational opportunities. Second, they explored the

mechanisms of assimilation of rural migrants into urban labor markets, as well as the links between rural-urban migration and the so called “urban marginality”. Third, they shared an interest on the effects of social stratification on the universe of values and attitudes of individuals, whether on the sphere of family values or in the realm of political attitudes and positions. Obviously, there was also an interest in studying social mobility, both for city natives and rural migrants. Finally, in the Monterrey project there was a remarkable effort to make a comparative analysis of the status attainment process in Monterrey and the United States, within the framework proposed by Blau and Duncan (1967).

Based on these studies we can identify three major features of intergenerational social mobility¹ during the industrialization by import-substitution (ISI) period. First, absolute upward mobility rates were remarkably high. High mobility rates were explained by a combination of rural-urban migration, which implies by definition social mobility, and rapid industrialization, which provided opportunities of mobility into unskilled and skilled manual positions. At that time, the distinction between “structural” and “relative” mobility that shapes current debates on the field was not as relevant, so there was no explicit attempt to separate these two forms of mobility. However, the prevailing interpretation focused on the role of urbanization and industrialization as the main engine for upward social mobility, thus emphasizing the importance of structural mobility.

The second feature is that chances of upward mobility in urban areas were available both for city natives and rural migrants. Upward mobility rates were similar for individuals raised in the cities and those who came from rural communities. This finding contributed to refine the concept of urban marginality, which became simultaneously a structural phenomenon and a condition that might be temporary across the life course of rural migrants.

The third feature is a distinctive profile in the status attainment process. This profile was characterized by four elements. First, social origins, measured through father’s and mother’s education and father’s occupation, had a strong influence on educational attainment. This influence was even higher than the observed in the United States during that period. Second, education was the most important determinant of occupational attainment. Third, social origins had only a marginal direct influence on occupational attainment, thus suggesting that their influence was mainly channeled through education. Fourth, there was a trend towards the reduction of the effect of social origins on education.

In sum, the landscape of social stratification and mobility during the ISI period was one of high rates of mobility, where inequality of opportunity was evident – particularly regarding educational attainment –, but was somewhat blurred by plentiful opportunities of upward mobility that were available for individuals coming from different social backgrounds and migratory origins.

An important question addressed after the economic recession of the 1980s and structural transformations of the 1990s was to what extent these changes altered patterns of social mobility in Mexico (Escobar Latapí 2001). However, at first it was not easy to answer to this question because during the 1980s and the first half of the 1990s there was not a follow-up of the pioneering social mobility studies of the 1960s and 1970s. It is interesting that studies on social mobility were disregarded precisely during a period of structural turmoil and increasing social polarization (Filgueira 2001). The absence of studies may be attributed to several reasons. One of them is the increasing dominance of the “historical-structural” paradigm in Latin American social sciences, which despised anglosaxon inspired stratification studies and downplayed survey research – and also modern statistical techniques – as useful tools for social research. Other possible reason is the displacement of research interests to other issues, such as the study of household survival strategies, women’s labor force participation, or the measurement of poverty.

In any case, by the end of the 1990s it was not clear whether the characteristics of social mobility identified in the pioneering studies were still present or, as many scholars suggested but could not demonstrate due to the absence of empirical evidence, had suffered significant changes after the intense economic, social and political transformations of the 1980s and 1990s.

A series of new studies published since then have helped to shed some light on these issues². The purpose of this article is twofold. On one hand, it summarizes the most significant findings of research carried out by myself (on my own or along with other colleagues) on this field. On the other, it reevaluates these findings with additional evidence, thus validating whether they can be replicated with different data sets and can be generalized to the national context. Finally, the paper concludes with a discussion of the main challenges for research on social mobility in Mexico.

CONTINUITIES AND CHANGES IN SOCIAL MOBILITY DURING THE 1980s AND 1990s

In this section I discuss what I consider to be the four most important findings regarding recent patterns of social mobility in Mexico. I focus on intergenerational occupational mobility, although some of these findings may extend to other forms of mobility, such as educational mobility. I present these findings as stylized facts, that is, generalizations that may require further examination. The presentation is supported with selected empirical evidence.

The continuity of high upward mobility rates

The first finding is that, despite the negative social effects of the crisis and economic restructuring, absolute upward mobility rates remained high, with levels similar to those observed during the 1960s and 1970s. Intergenerational absolute mobility rates reported in several studies are reproduced in Table 1. High mobility predominates independently of the geographical context (Monterrey, urban areas, or national), the classification scheme (4, 6 and 7 classes) or even the strategy used to distinguish age and cohort effects (occupation at age 30 or the more common cross-sectional approach to mobility tables).

	<i>Males</i>			<i>Females</i>		
	<i>Up</i>	<i>Down</i>	<i>Total</i>	<i>Up</i>	<i>Down</i>	<i>Total</i>
<i>Urban areas (>15,000), 1998 /1/</i>	55	13	68	-	-	-
<i>Monterrey, 2000 /2/</i>	52	8	60	-	-	-
<i>National, 2005 /3/</i>	44	15	59	62	18	80
<i>National, 2011 /4/</i>	49	18	67	53	19	72

Table 1 - Intergenerational Social Mobility Rates in Mexico According to Recent Studies.

/1/ Mobility between father's and respondent's class at age 30, birth cohort 1966-1968, four-class scheme (Zenteno and Solís 2006).

/2/ Mobility between father's and respondent's class at age 33, birth cohort 1955-1967, four-class scheme (Solís 2007).

/3/ Mobility between father's and respondent's current occupation, respondents between ages 30 and 59 in 2005, six-class scheme (Solís and Cortés 2009).

/4/ Mobility between father's and respondent's current occupation, respondents between ages 30 and 59 in 2011, Modified Erikson and Goldthorpe (1987) seven-class scheme. Solís (forthcoming).

Depending on the study, estimated mobility rates for males fluctuate between 59% and 67%. Most of this mobility was in an upward direction (between 44% and 55%). In order to establish whether these rates are high or low it is necessary to perform international comparisons with a comparable class scheme. The most widely used classification is the so-called “CASMIN” scheme, proposed by Erikson and Goldthorpe (1987). The last row in Table 1 presents absolute mobility rates estimated after the application of a slightly modified version of this classification. The total mobility rate for males under this scheme amounts to 67%. This value is similar to the observed in European countries (Breen and Luijkx 2004) and also to that reported in other Latin American countries, such as Chile (74%) and Brazil (70%)³.

Mobility rates are considerable higher for women, partly because they reflect not only changes in the occupational structure and other factors typically affecting men's mobility rates, but also the effects of occupational segregation by gender⁴. An analysis of sex differences in destinations (not shown) suggests that higher mobility rates among women are produced by the “deficit” of cases in destinations typically dominated by men (jobs in agriculture or skilled manual positions in manufacturing, for example), and the “excess” of cases in “feminized” occupations, such as clerical positions and unskilled service positions.

Although the finding of persistent high mobility rates is somewhat surprising, it can be explained by three contextual determinants of social mobility: a) the direction and timing of long term changes in the occupational structure; b) demographic trends; c) the fact that observed absolute mobility rates are not only dependent on overall changes in the class structure, but also on the degree of circulation between classes net of these changes. Before moving on to the next section I will briefly discuss these contextual determinants.

Long term changes in the occupational structure can be analyzed in Table 2, which presents the distribution of the working population by occupational groups in 1960, 1970, 1990, and 2000⁵. In 1960, agricultural occupations were still dominant (50.5%), followed by manual occupations in manufacturing activities (21.2% if we include in this group craft and related trades workers, plant and machine operators, and workers in elementary occupations in manufacturing). Top-level positions (Legislators, Senior Officials, Managers, Professionals, and Technicians) accounted for only a minor fraction of the working population (6.1%).

The changes observed during the 1960s reveal the fast transformation of the occupational structure characteristic of the ISI period. By 1970, agricultural activities reduced their share

Table 2 - Changes in the Occupational Structure (population 15-64), Mexico, 1960-2000.

Source: Own calculations based on the micro-data sample files of the 1960, 1970, 1990 and 2000 population censuses (Minnesota Population Center 2011).

<i>Occupational position</i>	1960	1970	1990	2000
Legislators, Senior Officials and Managers	0.9	2.7	2.6	2.1
Professionals	3.9	4.5	7.9	8.8
Technicians and Associate Professionals	1.4	2.1	3.7	3.4
Clerks	6.1	8.5	10.3	9.5
Service Workers and Shop and Market Sales	10.0	11.2	13.3	17.8
Agricultural and Fishery Workers	50.5	39.0	20.9	14.9
Crafts and Related Trades Workers	15.0	18.3	18.6	18.5
Plant and Machine Operators and Assemblers	5.5	7.4	10.8	10.8
Elementary Occupations in Manufacturing	1.2	0.6	4.2	4.3
Elementary Occupations in Services	4.8	5.4	7.5	9.7
Armed Forces	0.7	0.4	0.2	0.2
<i>Total</i>	100.0	100.0	100.0	100.0

to 39.0%, whereas manual positions in manufacturing increased to 26.4%. Top-level positions showed also some increase (9.2%), and the remaining change spread among middle and low-level positions, both manual and nonmanual.

These transformations continued in the 1970s and 1980s, but with occupations linked to services having the highest expansion rates. Service-oriented positions expanded not only at the top and the middle (clerks, sales workers), but also at the bottom of the occupational hierarchy (elementary occupations in services). Finally, in the 1990s the pace of change decreased: occupations in agricultural activities kept declining (14.9% in 2000); manual jobs in manufacturing maintained their share in relation to 1990 (with about one third of the working population), and the only significant expansion was among middle-level and “unskilled service positions”: service workers and shop and market sales (17.8%), and elementary occupations in services (9.7%).

In sum, in the long term the occupational structure of Mexico experienced significant transformations, even when the pace of change reduced after 1990. This is important because intergenerational mobility rates are more susceptible to long-term than to short-term changes in the occupational structure, and therefore the persistent high mobility rates are partly explained by such long-term changes.

There are also demographic factors that may have facilitated social mobility. Two trends are particularly important. First, the onset of the fertility decline in the 1970s produced an increasing gap in fertility levels across social classes (with lower fertility rates among the upper class), probably facilitating a redistribution of opportunities towards the bottom of the occupational structure. Second, higher migration rates, domestic and to the United States, may have also produced an increase in intergenerational mobility, not only through the internal redistribution of the population into regions with higher opportunities (a typical result of rural-urban and interregional migration), but also by selecting out international migrants that otherwise would have competed for opportunities of upward mobility within Mexico.

Finally, high absolute mobility rates have also persisted because social mobility is explained not only by macro changes in the occupational structure but also by circulation mobility that takes place beyond structural change. For example, in the 2011 intergenerational mobility table, the dissimilarity index between the marginal class distributions of fathers and sons was only 20%. This percentage represents the intergenerational mobility that is “forced” by intergenerational shifts in the occupational structure. If these shifts were the only force driving social mobility, the expected absolute mobility rate would also be 20%. However, the observed mobility rate is much higher (67%), thus suggesting that, in addition to the transformation of the occupational structure, other allocation processes at the meso- and micro-level are also producing social mobility.

Reduction of income gains associated to upward occupational mobility

One of the main underlying assumptions of the sociological approach to social mobility is that the position of individuals in modern society can be derived from their position in the labor market (Grusky and Kanbur 2006). According to this assumption, occupations are the institutionalized bridges that link individuals to valuable resources and assets. These resources come in “reward packages” of different sort that include not only monetary assets, but also other kind of assets such as power, prestige, etc. Based on this assumption, sociological research tends to equalize occupational mobility with social mobility. If an individual experiences occupational mobility, then his/her access to valuable assets will significantly increase or decrease and therefore he/she will experience upward or downward social mobility.

However, the assumption that links social mobility to occupational mobility may become problematic if the association between occupational position and rewards changes or weakens over time. Some of this may have happened in Mexico as a result of the recession and economic restructuring in the 1980s and 1990s. Based on survey data on wages by occupation in 1965 and 2000, Solís (2007) reported an overall reduction in real wages in Monterrey during this period, a finding that is not surprising given the negative effects of the crisis and economic restructuring. However, drops were higher for nonmanual occupations, with a consequent reduction in the wage gap between manual and lower nonmanual positions. This implies that the economic advantages associated to upward mobility from manual to nonmanual occupations were reduced.

A question is whether these conclusions can be generalized to the national context. Analyzing long term changes in wages by occupation at the national level is difficult because there are not comparable surveys for the years before 1992⁶. However, the micro-data samples of the 1960, 2000 and 2010 population censuses can help us to explore these changes. Figure 1 displays the average monthly wages by occupation for males. Values are adjusted for inflation so that they reflect the equivalent value in pesos for 2010. Between 1960 and 2000 the wage gap between top-level occupations and the rest increased. In addition, real average wages for professionals and lower non-manual positions such as office clerks and sales workers decreased. The wages for skilled manual occupations (plant and machine operators and craft workers) and low-level positions (elementary and agricultural/fishery occupations) remained basically unchanged. This situation accentuated between 2000 and 2010 (although mean wages for top-level occupations decreased significantly, perhaps due to the financial crisis experienced by the country in 2008-2009).

These results are indicative of a shift in stratification of wages and also in the expected economic rewards associated to upward mobility. During the ISI period, upward mobility from manual to lower nonmanual positions was associated to significant gains in wages. After the structural changes of the 1980s and 1990s these gains were more uncertain. Only long distance mobility to highly skilled technical and professional positions, or top-level occupations in the public or private sector, guaranteed upward mobility in wages.

This reduction in the financial retributions of upward occupational mobility from higher manual to lower non-manual occupations is a pattern that might be generalized to other Latin

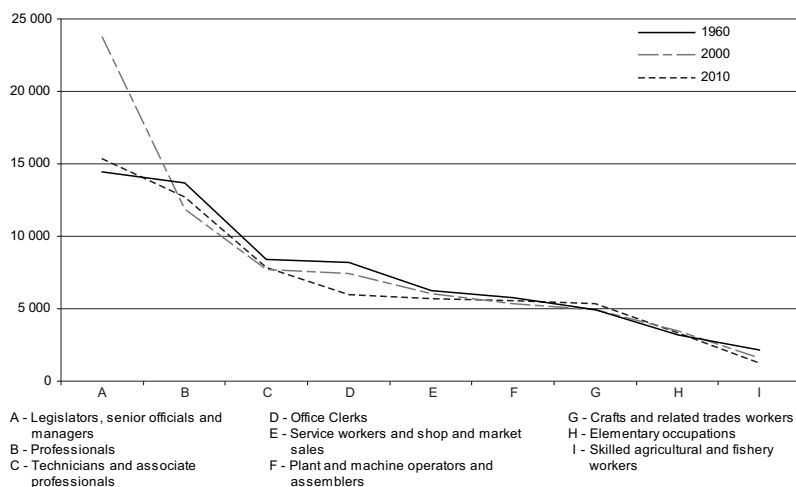


Figure 1 - Monthly Average Wages by Occupation in Mexico. Males, 1960, 2000 and 2010*.

* Average wages for the working population aged 20-64. Values adjusted for inflation to the equivalent in pesos in the year 2010.

Source: Own calculations based on the micro-data sample files of the 1960, 2000 and 2010 censuses (Minnesota Population Center 2011).

	<i>Auto</i>	<i>Hot water</i>	<i>Computer</i>	<i>Refrigerator</i>	<i>VCR</i>	<i>Washing machine</i>
<i>Legislators, senior officials and managers</i>	81	89	51	98	84	88
<i>Professionals</i>	66	79	37	94	74	80
<i>Technicians and associate professionals</i>	52	68	21	92	65	77
<i>Office clerks</i>	49	70	20	92	65	77
<i>Service workers and shop and market sales</i>	35	45	4	81	44	63
<i>Plant and machine operators and assemblers</i>	43	55	11	83	52	67
<i>Crafts and related trades workers</i>	31	40	6	72	40	57
<i>Elementary occupations</i>	22	32	5	65	33	49
<i>Skilled agricultural and fishery workers</i>	18	12	1	34	13	21

Table 3 - Availability of Household Appliances by Occupation in 2000, Mexico (%)^{*}.

Auto - % of individuals with automobile in their household.

Hot water - % of individuals with hot water in their household.

Computer - % of individuals with computer in their household.

Refrigerator - % of individuals with refrigerator in their household.

VCR - % of individuals with Video Cassette Recorder in their household.

Washing machine - % of individuals with washing machine in their household.

^{*} Working population between ages 20 and 59.

Source: Own calculations based on the micro-data sample files of the 2000 Census (Minnesota Population Center 2011).

American countries. According to Kessler and Espinosa (2003), who studied the Argentinean case, the declining social rewards for the middle class during the 1980s and 1990s derived in a situation where occupational mobility into destinations typically associated to this sector was no longer followed by mobility in social rewards, thus producing what they called “spurious mobility”.

Going back to the Mexican case, “spurious mobility” may have significantly increased in the 1980s and 1990s. However, it would be an overstatement to argue that occupational hierarchies are no longer important for social stratification. Indeed, when instead of income we use other measures of standard of living (such as the availability of household appliances), important differences among occupational groups emerge (Table 3). In addition, there are important distinctions in tastes and cultural consumption patterns among members of the different occupational groups (Solís 2002, 2005). A proper evaluation of the social distance among occupational groups must consider other dimensions of stratification, such as hierarchies in cultural capital, social capital and social status.

Increasing rigidity in class mobility

As mentioned before, absolute social mobility rates have remained high in Mexico. However, contemporary sociological evaluations about social mobility and social justice are usually based not on absolute mobility rates but in “relative” mobility, that is, in “how strongly parental social class predicts the social class in which the child will be located when he or she is an adult” (Breen 2010). The emphasis on relative mobility stems from its relationship with inequality of opportunity: a perfectly “fluid” society, that is, a society where parental social class is not a determinant of individuals’ class destination, would represent an extreme example of equality of opportunity. On the contrary, a perfectly “rigid” society (where there is a one-to-one as-

sociation between origins and destinations) would represent the extreme case of inequality of opportunity. Evidently, perfect fluidity and rigidity are only “ideal types” and no known society adjusts to these patterns. Therefore the question is not whether a society is “fluid” or “rigid” but how much fluidity exists and how it changes over time.

Few studies in Mexico have empirically evaluated changes over time in social fluidity (Cortés and Escobar Latapí 2005; Solís 2002, 2007; Zenteno and Solís 2006). The study of Zenteno and Solís reviews the association between parental social class and the destination of males belonging to birth cohorts born between 1925 and 1968. The study is limited to the city of Monterrey and national urban areas. Ordered logistic regression models are adjusted where the dependent variable is the respondent's social class at age 30 and the independent variables are father's social class, the size of the community of origin, and years of schooling. Results are presented in Table 4.

Results are similar for Monterrey and the overall context of national urban areas. There is no significant effect for father's social class in the models for the oldest cohort (1936-1938 in the national context and 1925-1932 in Monterrey). This indicates that during the ISI period (these birth cohorts reached age 30 during the 1950s and 1960s), social origins had little or no effect in class attainment, once the indirect effect through education was controlled in the model.

In contrast, in the youngest cohorts (1966-1988 for the national urban context and 1963-1967 for Monterrey), the magnitude of the coefficients associated to social class increases and they become statistically significant. Thus, for example, at the national level a son of a skilled manual worker had odds 52% lower of attaining a higher social class than a son of a non-manual worker. In the case of unskilled manual workers the odds were four times lower. These disadvantages are additional to those that may come from differences in educational attainment.

In sum, these results suggest that, despite the persistence of high absolute mobility, the fluidity of social stratification in Mexico may have decreased for birth cohorts exposed to the crisis and structural change of the 1980s and 1990s, at least in urban areas. Although more research is needed, these results are remarkable because there are only a few international examples that show a similar trend⁷, and they oppose what has been reported in other Latin American countries such as Brazil, where the pattern of association between origins and destinations has become more fluid (Costa Ribeiro 2007).

	<i>National</i>			<i>Monterrey</i>		
	<i>1936-1938</i>	<i>1951-1953</i>	<i>1966-1968</i>	<i>1925-1932</i>	<i>1948-1956</i>	<i>1963-1967</i>
<i>Father's Occupation</i>						
<i>Non-manual (reference)</i>	-	-	-	-	-	-
<i>Higher manual</i>	0.77	0.68	0.48*	0.99	0.52*	0.29**
<i>Lower manual</i>	0.81	1.53	0.22**	0.67	0.38*	0.25**
<i>Community of origin</i>						
<i>Rural (reference)</i>	-	-	-	-	-	-
<i>Urban</i>	1.97	0.98	1.50**	0.99	0.97	1.10
<i>Education (years)</i>	1.39**	1.39**	1.50**	1.58	1.47**	1.48**
<i>Pseudo R squared (McFadden)</i>	0.19	0.17	0.24	0.27	0.26	0.21
<i>n</i>	146	180	171	233	336	177

Table 4 - Effects of Social Origins and Educational Attainment on Occupational Attainment (around age 30). Odds Ratios from Ordered Logit Models. National Urban Context (15,000+) and Monterrey, by Birth Cohort*.

Source: Zenteno and Solís (2006).

Prevalence of Erikson and Goldthorpe's Core Model

Finally, the fourth feature is that, despite Mexico's historical and institutional peculiarities, relative mobility patterns conform quite well to the core model of social fluidity proposed by Erikson and Goldthorpe for industrialized countries (Erikson and Goldthorpe 1987, 1993).

An important branch of contemporary sociological research on social mobility has focused on the identification of patterns of association between social class origins and destinations through the empirical analysis of the mobility table. The predominant approach is to adjust log-linear models to the observed frequencies in the table. These models may include different sets of parameters, which in turn reflect the hypothesized pattern of association postulated by the researcher. Erikson and Goldthorpe's Core Model includes eight parameters, and reflecting four theoretical effects (inheritance, sector, hierarchy, and affinity).

Solís and Cortés (2009) adjusted a modified version of the Core Model to a 144 cell three-way table featuring a 6x6 class intergenerational mobility table across 4 regions of the country (see tables A1 and A2 in the Appendix for details of the occupational classification and the specification of the loglinear coefficients). Their results are presented in Table 5. The table also includes results for the "main diagonal" and "quasi-perfect mobility" models, which are simpler models and are presented for comparison purposes⁸.

Results show that the modified version of the Core Model (model 3) fits quite well the frequencies of the table for males. The dissimilarity index between fitted and observed frequencies (Δ) is 5.0%, a figure of similar magnitude to that reported by Erikson and Goldthorpe (1987, 1992) for industrialized nations. In addition, the inclusion of interaction parameters for region-specific effects (model 4) does not produce significant improvements in the model, thus suggesting that a unique model is appropriate to account for the pattern of association across different regions. The model fits also reasonable well for females ($\Delta=7.6$), indicating that the Core Model appropriately describes relative intergenerational mobility patterns between fathers and daughters.

What do these models tell us about the pattern of intergenerational class mobility in Mexico? First, at least in this aspect Mexico is not an exception or an isolated case. The core model works reasonably well in Mexico and this may help to include the country in comparative international studies contrasting the strength of inheritance and other forces driving occupational mobility.

<i>Males</i>	G^2	df	Δ
1. Main diagonal, region-fixed effects	741.3	99	13.5
2. Quasi-perfect mobility, region-fixed effects	354.5	94	7.6
3. Modified version of Erikson and Goldthorpe's Core Model, region-fixed effects	177.7	93	5.0
4. Modified version of Erikson and Goldthorpe's Core Model, region-specific effects	153.1	72	4.6
<i>Females</i>	G^2	df	Δ
1. Main diagonal, region-fixed effects	964	99	12.9
2. Quasi-perfect mobility, region-fixed effects	642.8	94	9.6
3. Modified version of Erikson and Goldthorpe's Core Model, region-fixed effects	300.5	93	6.9
4. Modified version of Erikson and Goldthorpe's Core Model, region-specific effects	258.2	72	6.1

Table 5 - Goodness of Fit Statistics for Log-linear Models of intergenerational Occupational Mobility Tables, Mexico, 2005.

Source: Solís and Cortés (2009).

Second, the model also fits quite well for women, suggesting that it may be used to open an avenue of research –the intergenerational occupational mobility of women– scarcely explored in Mexico. The odds ratios obtained from the models (Table 6) are informative of the forces shaping mobility patterns in Mexico. The most important effects are those associated to inheritance and affinity. The magnitude of inheritance reflects the strength of intergenerational reproduction, particularly among the service class and farmers. The first affinity parameter (actually a dis-affinity rather than an affinity parameter) reflects how low chances for mobility between farm occupations and the service class are; the second affinity parameter shows the higher chances of mobility between the service class and other routine nonmanual positions, as well as between skilled and unskilled manual positions.

Finally, the only major difference between males and females is that the second hierarchy coefficient is statistical significant for women. The estimated effect is of a similar magnitude than those associated to the inheritance and affinity dimensions ($eB = 0.56$). Thus, in relation to males, females confront additional barriers for long term mobility between unskilled manual/farm occupations and the service class.

DISCUSSION AND CONCLUSIONS: FUTURE RESEARCH ON SOCIAL MOBILITY IN MEXICO

At the end of the 1990s knowledge about social mobility patterns in Mexico was scarce. It was not possible to answer basic questions about the impact of social and economic changes on social mobility. A number of studies carried out since then have helped to shed some light on this topic. The purpose of this paper has been to summarize the most important findings of recent studies of social mobility, evaluating as well whether these features can be generalized to the overall national context.

I have discussed four major findings: a) the continuity of high overall and upward mobility rates; b) the reduction of income gains associated to upward occupational mobility; c) the increasing rigidity in relative rates of occupational mobility; and d) the extent to which the Mexican case conforms to the core model of social fluidity proposed by Erikson and Golthorpe.

The overall picture emerging from this findings is of a society that, notwithstanding the negative effects of the economic recession and structural changes of the 1980s and 1990s, maintained its high rates of structural mobility, but suffered in other aspects such as the decrease of the economic rewards associated to upward mobility, as well as the increasing rigidity in relative mobility patterns.

	<i>Males</i>	<i>Females</i>
<i>Parameter</i>		
<i>Hierarchy 1 (hi1)</i>	0.81*	0.77*
<i>Hierarchy 2 (hi2)</i>	0.92	0.56*
<i>Inheritance 1 (in1)</i>	2.16*	1.56*
<i>Inheritance 2 (in2)</i>	2.47*	2.34*
<i>Sector (se)</i>	0.63*	0.70*
<i>Affinity 1 (af1)</i>	0.49*	0.46*
<i>Affinity 2 (af2)</i>	1.88*	2.09*

Table 6 - Odds Ratios for the Parameters of the Modified Version of Erikson and Golthorpe's Core Model.

* $p < 0.05$

Although these findings are important, there are many aspects that require further study. I will finish this article by briefly mentioning to four of them.

First, more and better data sources are needed. There have been significant improvements in this aspect. Information on occupational mobility was included for the first time in a national survey in 2005, and there have been two additional national surveys carried out in 2006 and 2011⁹, as well as surveys for specific cities such as Mexico City (Solís 2011). However, the inclusion of social mobility as a regular topic in official surveys has not been accomplished. Incorporating measurements of social mobility into official statistics would produce more reliable measures and also contribute to enhance the importance of social mobility as a topic in the agenda of public policy.

Second, it is important to direct more attention to the mechanisms and processes leading to the intergenerational reproduction of social inequalities, particularly in the fields of education and occupation. Recent studies on social mobility have documented the extensive of opportunity currently existing in Mexico. Some studies have linked inequality of opportunity to the social and economic changes that have taken place after the crisis of the 1980s, and particularly to the implementation of neoliberal economic and policies (Cortés, Escobar and Solís, 2007). However, as appealing as this hypothesis may be, inequality of opportunity was high long before the application of these policies. This suggests that the underlying meso- and micro-mechanisms producing inequality of opportunity were active before the structural changes of the 1980s and 1990s and may still be operating today. However, little is known about these specific mechanisms. For example, research on the effects of social networks on the reproduction of inequality or on the multiple ways in which inequalities in parental origins become institutionalized in the educational field is still scarce. Therefore, new studies on inequality and social mobility must pay increasing attention to the study of these mechanisms.

Third, studies of social mobility may benefit from a comparative approach with other countries. At the same time that studies of social mobility were abandoned in Mexico during the 1980s and 1990s, the field experienced significant evolution in industrialized countries, both in theoretical perspectives and in methodological approaches. One of the major developments has been the proliferation of comparative studies that involve a growing number of countries (Grusky and Hauser 1984, Erikson and Golthorpe 1993, Breen and Luijckx 2004). Incorporating Mexico to these studies is important to establish similarities and differences in social mobility patterns with other nations. As I have discussed earlier, some features of social mobility in Mexico –such as the persistence of high rates of overall mobility– are shared with many other nations, but at the same time other features –such as the apparent rise in rigidity– may be distinctive of Mexico. A logical step to further test hypotheses about the commonalities and specificities of Mexico would be to carry out comparative analyses with countries in the region with available recent data, such as Argentina, Chile and Brazil.

Finally, studies on social mobility cannot ignore the importance of international migration as an endogenous component of social stratification. There are close to 10 million Mexicans between ages 15 and 64 in the United States, a figure equivalent to 16% of the working-age population (Giorgili, Gaspar and Leite, 2007). An exodus of this magnitude has important implications for social stratification within Mexico. For example, the exit of migrants may alleviate pressures in the labor market and reduce competition for upward mobility, not only because the stock of individuals in search of better occupations decreases, but also because migrants transfer significant amounts of money to their families in Mexico, thus alleviating social and economic demands. On the other hand, a massive return of migrants to the country might produce the opposite effect. However, more research is needed to fully understand these and other possible links between social mobility in Mexico and international migration.

APPENDIX

<i>I. Service Class</i>	Profesionals, managers, high level officials in the public and private sector, university professors
<i>II. Nonmanual routine workers</i>	Middle level managers in the public and private sector, teachers, artists, office clerks, sales agents in realty and insurance services
<i>III. Sales</i>	Sales employees in established businesses
<i>IV. Specialized manual workers</i>	Factory supervisors, machine operatives, craft workers, vehicle drivers, specialized laborers
<i>V. Unspecialized manual workers</i>	Workers in street sales and personal services, domestic workers, security workers, helpers, craft apprentices, nonspecialized factory workers, nonspecialized construction workers
<i>VI. Farm workers</i>	Unskilled and semi-skilled laborers in agriculture

Table A1 - Class scheme used to fit loglinear intergenerational mobility models of Tables 5 and 6.

		<i>Respondent's class</i>					
		I	II	III	IV	V	VI
<i>Parental class</i>	I	in1	0	0	0	0	0
	II	0	in1	0	0	0	0
	III	0	0	in1	0	0	0
	IV	0	0	0	in1	0	0
	V	0	0	0	0	in1	0
	VI	0	0	0	0	0	in1

2. Quasi-perfect mobility

		<i>Respondent's class</i>					
		I	II	III	IV	V	VI
<i>Parental class</i>	I	in1	0	0	0	0	0
	II	0	in2	0	0	0	0
	III	0	0	in3	0	0	0
	IV	0	0	0	in4	0	0
	V	0	0	0	0	in5	0
	VI	0	0	0	0	0	in6

3. Modified version of Erikson & Goldthorpe's Core Model

		<i>Respondent's class</i>					
		I	II	III	IV	V	VI
<i>Parental class</i>	I	in1+in2	hi1+af2	hi1	hi1	hi1+hi2	hi1+hi2+se+af1
	II	hi1+af2	in1	0	0	hi1	hi1+se
	III	hi1	0	in1	0	hi1	hi1+se
	IV	hi1	0	0	in1	hi1+af2	hi1+se
	V	hi1+hi2	hi1	hi1	hi1+af2	in1	se
	VI	hi1+hi2+se+af1	hi1+se	hi1+se	hi1+se+af2	se+af2	in1+in2

Table A2 - Specification of Parameters for Log-linear Models presented in Tables 5 and 6.

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NOTAS

- 1 Even when social mobility can be studied across several dimensions (i.e. education, income, status, etc.), sociological studies on social stratification have typically focused on intergenerational occupational mobility. Occupations are usually collapsed into a limited set of “social classes” that reflect major economic and social divisions (Grusky 1994, Olin Wright 2005, Solís 2009). In this article I follow this tradition, so when I talk about “social mobility” I am referring to intergenerational mobility across occupational classes, unless otherwise noted.
- 2 See, among others: Behrman, Gaviria and Székely (2001), Solís (2002, 2005, 2007), the series of articles published in Cortés, Escobar and Solís (2007) and Serrano Espinosa and Torche (2010).
- 3 See Torche and Wormald (2004) for Chile and Valle Silva (2004) for Brazil.
- 4 Mobility rates for woman are calculated from social mobility tables where origins are measured using as parental class father’s and not mother’s occupation. It is not practical to generate mobility tables using mother’s class as origin because most mothers never had work experience.
- 5 The micro-data were provided by the IPUMS-international Project of the University of Minnesota (Minnesota Population Center 2008).
- 6 National employment surveys were implemented in the 1970s, but the micro-data necessary to estimate wages by occupation are only available for the years after 1992.
- 7 One of them is Russia before and after the Soviet era, see Gerber and Hout (2004).
- 8 As in Table 1, in the case of females the parental class is measured through father’s occupation at age 15, and the occupation of destination is the current or last occupation.
- 9 Part of the results reported in this article come from the 2005 survey, see (Rabell 2009). The 2006 and 2011 national surveys were funded by the Centro de Estudios Espinosa Yglesias, which has actively promoted research on social mobility in Mexico in recent years (see: <http://www.movilidadsocial.org>).