Contents lists available at ScienceDirect



Research in Social Stratification and Mobility



journal homepage: www.elsevier.com/locate/rssm

Climbing up a steeper staircase: Intergenerational class mobility across birth cohorts in Argentina (2003-2010)



Pablo Dalle

CONICET / Instituto de Investigaciones Gino Germani, Universidad de Buenos Aires, Argentina

ARTICLE INFO

ABSTRACT

Keywords: Intergenerational class mobility Working class Structural opportunities Closure of the class structure Argentina

This article introduces Argentina as a relevant case of intergenerational class mobility in Latin America because of its earlier modernization, relatively open and integrated class structure and its subsequent economic decline in the last quarter of the 20th Century. The article explores trends of intergenerational class mobility rates and social fluidity across men and women birth cohorts born from 1940 to 1985 and focuses on the opportunities of upward mobility from working class origins.

The results firstly show the relevance of the expansion of vacancies in the service class in impelling of upward class mobility processes. The rates of vertical upward mobility have been lower for men when compared with other Latin American countries, Italy and Spain. These rates are higher for women, situated in similar levels to those in late industrialized countries which have experienced substantial economic advances. These results are related to higher rates of class structure upgrading for women than men. Secondly, results demonstrate that long distance upward mobility to the service class as well as recruitment of the service class from working class have decreased over time for both men and women in a context of low and unsteady economic development. Thirdly, the results about social fluidity across birth cohort suggest that underneath a general trend of constant fluidity, there have been suggestive changes on the pattern of class mobility that consist of an increment of fluidity between classes at the bottom half of the class structure and less long-distance mobility between working classes and the service class. The offspring's of working class families have been climbing a steeper stairway because class barriers in the upper middle classes have increased, especially among men. These findings contribute to support previous studies which emphasize the decisive role of structural upgrading of class structure in vertical upward class mobility and the effect of the corrosion of working class welfare conditions on negative social fluidity.

1. Introduction

"The great potential of society's human resources can be more fully exploited in a fluid class structure with a high degree of mobility than in a rigid social system. Class lines that restrict mobility and prevent men born into the lower classes strata from even discovering that their capacities might be constitute a far more serious waste of human talent than the often deplored lower birth rates of the higher strata."(Blau & Duncan, 1967: 431)

"The role of the state underscores the point that social mobility reflects a nation's political economy...politics and public policy shape the opportunity structure."(Hout, 2006:133)

During the middle decades of the 20th century, Argentina stood as a distinctive case amongst other Latin American countries by its earlier economic modernization, its wide and open middle classes, and by its strong trade unions, which granted relatively high salaries and welfare

benefits to the working class. Yet, since the mid-1970s, Argentina has no longer been considered a paradigm of either steady economic development or high opportunities of social upward mobility. There are many studies which address the impact of market oriented policies on the labor market (e.g., the expansion of precarious work, the increase in poverty and income inequality); however, there have been few empirical studies that analyze the effects of economic reforms in trends in absolute intergenerational class mobility and changes in the degree of openness in class structure.

The relatively high integration of the Argentinean Class Structure was consolidated during the first and second Peronist Governments (1946-1955) as a result of strong active protection of the internal market, redistributive income policies and labor laws which encouraged high rates of unionization, thus favoring the working class and salaried middle classes (Torre & Pastoriza, 2002). Despite some nuclei of marginality, rooted in an unequal regional economic development and an unassimilated urban migration, the lower classes in

https://doi.org/10.1016/j.rssm.2017.12.002

0276-5624/ © 2017 Elsevier Ltd. All rights reserved.

E-mail address: pablodalle80@hotmail.com.

Received 8 September 2016; Received in revised form 21 November 2017; Accepted 15 December 2017 Available online 21 December 2017

Argentina were primarily composed by urban working classes (Torre, 2010; Svampa, 2005).

The general aim of this paper is to discuss the links between intergenerational class mobility and models of economic development in Argentina from 1970 until the beginning of the 21st Century. In order to explore this, we will analyze trends of intergenerational class mobility across birth cohorts from 1940 to 1985, focusing on how occupational change and the evolution of inequalities of condition in the class structure, have affected the opportunities of upward mobility from working class origins.

This study aims to contribute to the research about the significance of institutional change on social stratification (Hout, 2006; Hout & Gerber, 2004). The link between economic change and social mobility is a central topic in sociology. Recent studies of industrial societies show that change in opportunities for class mobility have mostly moved from less to more open, even though, inequality has increased in most of these societies during the last 30 years (Hout & Gerber, 2004; Hout & Di Pietre, 2006; Breen, 2004).

This paper introduces Argentina to this line of research in order to explore how and to what degree inequality of opportunities for social mobility have changed in the last four decades. We particularly analyze patterns of intergenerational class mobility, before and after the working class material conditions were regressively transformed by a mix of drastic market reforms, policies of stabilization and economic crisis. Argentina may be an instructive case when compared with other societies in the region where market transformation was developed because of its past of relatively high integration and quite openness of the social stratification system.

The empirical study of social mobility has increased in Latin America at the beginning of the 21st Century, mainly focused on the analysis of the effects of the economic transition from Industrialization by Import Substitution to a neoliberal economic model. The results indicate that, in opposition to Europe, where there has been a trend to openness in the class structure (Breen, 2004), in most of the Latin American societies, there has been has been a persistent inequality of opportunities or closure in class structure (Solís & Boado, 2016). Moreover, the class mobility regime of Latin American countries is more hierarchical than the European ones; there is a strong association at the edges and a wide social fluidity in the intermediate zone (Solís, 2016: 491), a similar pattern described by Torche (2005) to introduce Chile, a Latin American case, to the academic discussion on intergenerational class mobility taking place in advanced industrialized nations. These extensive fluidity between intermediate classes implicate do not imply relevant changes either in income levels or in the occupational status (Torche, 2005). In Argentina, the results show that the hierarchical distance between classes is the key aspect to understand the way in which mobility opportunities are socially distributed (Jorrat & Benza, 2016).

To the concern of social fluidity in Argentina, from a temporal perspective, recent studies suggest the idea of a persisting inequality in class mobility across birth cohorts (Jorrat, 2014; Jorrat, 2016; Jorrat & Benza, 2016; Dalle, 2015) and find a "weak" version of the dominant hypothesis on the unrelenting inequality in educational opportunities notwithstanding the expansion of high education levels (Jorrat, 2010, 2016). These studies are indeed a source of inspiration to deepen the analysis of the way in which and in what degree, economic reforms and structural transformations have affected upward mobility rates for people with working class origins and the class structure degree of openness in Argentina.

The analytic strategy used to explore the above mentioned issues is at follows. Firstly, we describe the occupational changes in the last four decades, focusing on the impact of different models of economic development on the openness of structural opportunities. Secondly, we compare absolute rates of social mobility in Argentina to those of other Latin American and European countries to get an intuitive idea of the *outcomes* of structural change in the opportunities of upward mobility. Thirdly, we introduce a temporal perspective in order to analyze trends of mobility rates across birth cohorts. The analysis is performed in two steps: i) we describe trends in absolute rates of social mobility across birth cohorts, to observe whether the structural change has positively or negatively impacted the odds of persons from working class origin to move up to professional and managerial positions. ii) We analyze changes in social fluidity over time, concentrating on the opportunities of upward mobility from working class origin. Finally, we summarize the findings and present the reflections of the case of Argentina, under the lenses of the linkages between economic change, State intervention and social mobility.

2. Economic development stages and social stratification in Argentina

In a sense, from 1870 to 1930 Argentina was seen, as the United States of America, as a land of "milk and honey", attracting large waves of European immigrants tempted by the open agriculture frontier and a prosperous economy in the main cities. Following the hypothesis of Lipset and Bendix (1963 [1959]), Germani (1963, 1966) claimed that as in the United States, the absence of an aristocracy of feudal inheritance in Argentina's most economically developed area (Pampa Húmeda), contributed to the idea of a quite open society.

Analyzing census data from 1869 to 1947, Germani (1963, 1966) and Sautu (1969) showed how the cumulative impact of European immigration, economic growth and occupational change contributed to large rates of upward mobility from the lower classes (agricultural workers, modest farmers and unskilled manual workers) to the lower middle and middle classes. Due to the small size of the population in the Pampa Húmeda, the first waves of European immigrants¹ experienced a rapid upward mobility into the middle classes, especially through selfemployment: such as small entrepreneurs in industry, services, and agriculture and urban craftsmen with modest capital. Others, of course, enlarged the expanding working class in the ports cities of Buenos Aires and Rosario. In their flourishing, these port cities provided an abundance of job opportunities in industry and services. A high proportion of the working class offspring would then move up to the salaried middle classes through educational credentials (Germani, 1963).

The rapid modernization of social stratification, mainly in the central economic area of Argentina, took place under the so-called agroexporting economic development (Sautu, 1969). By the end of the 1930s, Argentina went into the ISI (Industrialization by Import Substitution) economic model, thus furthering the expansion of local manufacturing industries, a process that would be deepened by the Second World War, acting as a natural shield to the expansion of local manufacturing industries. The urbanization and tertiarization induced by ISI would eventually reinforce the expansion of opportunities for upward social mobility (Germani, 1963; Torrado, 1992). Further on, while European immigrants were ceasing to arrive in massive numbers to urban centers internal migrants from rural areas contributed to the expansion of the manufacturing industry's labor force. These internal migrants, who had grown up in underdeveloped regions, had inferior qualifications than those of urban origins (Buenos Aires, Rosario, Córdoba and Mendoza), that is why these newcomers filled the lower positions in the occupational hierarchy, while natives acquired higher positions (Blau & Duncan, 1967; Germani, 1963; Lipset & Bendix, 1963).

¹ From the end of the 19th to the middle of 20th Century, the large immigration wave from Europe and the persistent inmigration from Latin American countries made Argentina the country with the second-largest number of immigrants only surpassed by the United States. The majority of immigrants, came from Europe, mostly from Italy and Spain and to a lesser but considerable extent from Russia, Poland (a large part of Jewish population) as well as France, Germany, Turkey and Sirya (population from different religion origins). Most of South American immigrants came from Paraguay, Bolivia Perú and Chile, and shared characteristics of internal migrants.

Gino Germani's classic study of intergenerational mobility (1963) – based on data from the Metropolitan Area of Buenos Aires in the early 1960s- showed that almost 45% of the persons whose parents were blue-collar workers moved up to middle and upper middle classes, mainly through three channels: administrative jobs, professional employment, and small business capital. Furthermore, half of the workers whose parents were unskilled manual workers–a high proportion of them with farm origins—achieved skilled labor status in manufacture industries or they became skilled manual self-employed workers within the same period.

As most of his contemporaries, Germani (1963) did not analyze the level of equality of opportunities for social mobility,² yet, it is plausible to assume that Argentina was quite an open society³ from the last decades of 19th century to the middle of the 20th, especially for European immigrants and their descendants. A high proportion of them experienced lower hierarchical barriers than those of their places of origin, and were able to take advantage of opportunities for economic advancement. Such as in the United States, in Argentina flourished an "egalitarian feeling" among white European immigrants. It looked as if the Argentinean society had opened opportunities for workers with low status backgrounds to achieve better life conditions and as if at the beginning of their occupational trajectories there was nothing unreachable (Torre, 2010). The higher upward social mobility of European immigrants was also rooted in public policies which don not only attracted them but also favored these immigrants, while discriminating indigenous ascendance Argentinean natives. This discrimination has still operated as well as subtle manners and practices in everyday life (Adamovsky, 2009; Dalle, 2016).

The strong active protection of local produce and the income policies favored the development of consumer manufacturing industries until the late fifties and, subsequently, contributed to the production of plastic products, metal mechanic, and electronic durable consumer goods. Nonetheless, in both stages of ISI, manufacturing industries were highly dependent on the export revenues generated by the agricultural sector.

The turning point for ISI took place in the late seventies during the strong dictatorship which liberalized foreign trade, thus catalyzing a process of deindustrialization. Complementing this policy, it also repressed grassroots political protest movements, disappearing and murdering activists. During the eighties, there were some attempts to recreate the ISI but the failure of this effort submerged the State in sequential periods of stagnation and crisis. It was indeed in the nineties that the real change in the economic model took place due to markedly the adoption of markedly market reforms.

The structural reforms included the privatization of public assets and enterprises, the de-regulation of foreign trade, the corporatization and financialization of the economy with strong foreign presence (Sautu, 2016), and a monetary Convertibility Plan, which fixed the nominal exchange rate to the US dollar. This forced the country to equal the productiveness of one of the most developed economies in the world. The consequences were a jump in imports of consumer-goods, the destruction of a high proportion of small and middle-sized firms, a decline of wages, widespread precarious labor and a subsequent hike in unemployment and poverty-rates (Fig. 1).

These changes implied that greater portions of the working class fell to unemployment, informality and precarity. However, the two kinds of workers: formal and informal could be interpreted as belonging to the same social class because of the fluidity of the boundary that separates them in terms of occupational trajectories and family linkages. Instead of a class cleavage, this boundary is better defined as the separation between fractions of the working class with different well-being conditions (Elbert, 2017).

Since the ISI model of economic development crisis, impoverishment of fractions of the low middle classes and the working class became an actual experience in the Argentinean society. Whereas in the 1980s, wage-dependent workers were the most affected by high rates of inflation, in the 1990s it was the turn of the unemployed ones and precarious workers (Kessler & Di Virgilio, 2010: 202–203). As a result of this, the class structure became increasingly polarized from 1976 to 2002 (Torrado, 2007).

Since the crisis of 2001-2, Argentina has been implementing a model that favors exporting agricultural products and industrialization oriented to the internal market. These changes in a context of an intense cycle of economic growth between 2003 and 2013 have reversed some of the regressive changes in the class structure during the neoliberal period. Due to the reindustrialization, the salaried fractions of the middle classes and the skilled working class have been increasing since 2003 (Palomino & Dalle, 2012; Benza, 2016) which favor the expansion of flows of short distance upward mobility from unskilled working class to the skilled working class and lower middle class (Dalle, 2015; Pla, Rodríguez de la Fuente y Melián, 2016). Simultaneously, these classes have been improving their income mainly due to trade union's revitalization (Palomino & Dalle, 2016). However, these changes have taken place in a context of still high levels of income inequality in which large portions of the lower classes being inserted into the informal labor market (Dalle, 2012). Even though, the economic growth and the reorientation of the role of the State have generated structural spaces for upward mobility, especially in the middle of the class structure, the available data, might not allow us to assess the impact of such structural changes on the strength of class barriers.

The empirical questions that guide our research are: How have structural changes linked with the market oriented economic reforms influenced the opportunities of upward mobility for working class families' offspring? Has the growth in the living conditions' gap between significant fractions of the working class and upper middle classes affected the degree of openness in class structure? Which is the extent of inequality of opportunities in Argentinean class structure and how has it changed over time? Which channels of upward mobility from lower class origins have grown over the last four decades, and in turn, which class barriers have been reinforced, thus hindering occupational attainment for sons and daughters of working class backgrounds?

3. Theoretical background & research hypotheses

3.1. Structural mobility and social fluidity

There are two key concepts in the study of social mobility: a) structural mobility, and b) social fluidity. The first one is the mobility produced by changes in the occupational structure and demographic patterns, which force flows between origins and destinations; the second one, refers to the net association between class positions and it is related to the permeability among class barriers. These two notions have been empirically studied in the last four decades by two types of measures: a) absolute rates, and b) relative mobility (Breen, 2004; Featherman, Jones, & Hauser, 1975; Erikson & Goldthorpe, 1992; Hout, 1983, among others).

Regardless the individuals' class origin, structural mobility creates opportunities in some class destinations and limits others. As Mike Hout (1989: 2) claims: "[If] new positions mean opportunity, the sociologist asks, 'Opportunity for whom?". This key issue is analyzed by social fluidity, which refers to "the relative chances between people of different class origins of being found in one destination class rather than another", and it expresses the degree of equality of opportunities in

 $^{^2}$; Germani (1963) was aware of this issue and estimated the extent of social mobility from 1895 to 1914 considering fixed proportions of exchange mobility and adding it to the structural mobility.

³ Yaish and Andersen (2012) have found that social mobility is positively related to the level of migration in a country. "The available data do not allow us to definitively say whether migrants are pulled to more open societies or if the influx of immigrants to a society causes high levels of openness but they are consistent with the idea that migration matters" (2012: 537).

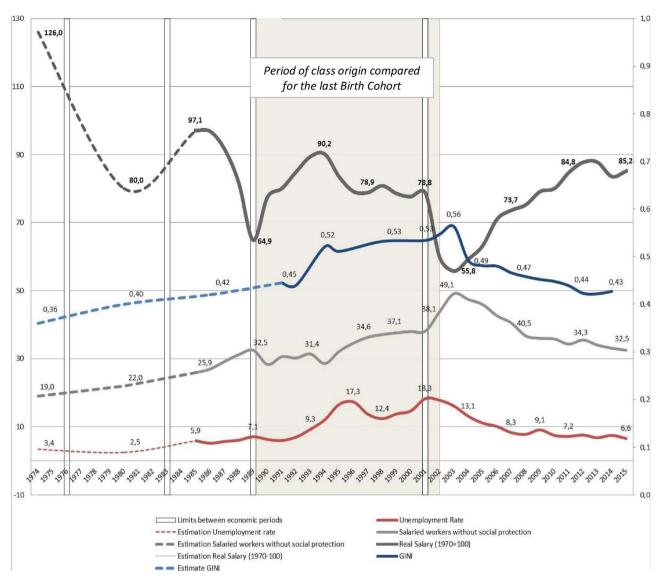


Fig. 1. Decline of welfare conditions in Argentina from 1976 to 2002. Unemployment and unregistered workers, Gini Index and workers real wage (1974–2015). Note: From 1974to 1989 the rates of unemployment and unregistered work corresponds to Buenos Aires Metropolitan Area (AMBA). From 1990 onwards, it is the total urban agglomerates covered by the survey.

Source: Own elaboration based on Permanent household survey INDEC and data from Ministerio de Empleo, Trabajo y Seguridad Social. We used data for October from 1990 to 2002 and third trimester from 2003 onwards.

class structures (Breen, 2004: 4).

The liberal theory of modernization states that industrialization induces a greater openness in society by changing the shape of the occupational structure and that it will be a common trend for countries that follow the pathway of industrialization (Lipset & Zetterberg, 1963 [1959]). Germani subscribed to this interpretation analyzing the decades of massive European immigration (1880–1930) and of manufacture industrial expansion (1940–1960) in Argentina. However, these first studies do not allow for comparisons of changes in the permeability of class structure. A society can be fairly opened owing to a deep change in the size of class positions (reduction in the bottom of stratification and growth of spaces in the middle classes), however, this does not account for the relative chances of mobility among people from different class origins.

In *The Constant Flux*, Erikson and Goldthorpe (1992) (E&G) do an extensive comparative study of social mobility in several countries of Europe, the United States, Australia and Japan. Their study supports

Featherman et al. (1975) hypothesis (FJH) which claim that patterns of social fluidity tend to show little variation between countries and over time. Both FJH and E&G hypothesis sustain that there is no systematic change over time in social fluidity, but that instead, there is some divergence in absolute mobility rates associated with changes in occupational structure, different models of economic development, historical and cultural characteristics among countries and within them over time. According to these studies the pattern of mobility in the context of class structure, tends to be similar across countries, since each position defined by class relations has distinctive propensities for mobility. Each class position represents a frame of relative economic and cultural resources (such as money, goods, means of production, values, aspirations, social ties) available to be transmitted across generations, as well as relative barriers for access to different class positions. Yet unequal distribution of resources is so deeply rooted in the capitalist class structure that it leads to a general and persistent level of inequality of opportunities over time and across countries.

Nonetheless, in spite of the similarity in the pattern of mobility, countries can differ in the degree of inequality in social stratification: "Some countries have relatively open class structures and/or hierarchies that are readily breached by upwardly mobile persons from less privileged origins; other societies are relatively closed to intergenerational mobility. These are differences of degree but not kind" (Hout & Di Pietre, 2006: 5).

3.2. The role of political intervention and social fluidity in temporal perspective

A society experiences a process of openness when occupational positions become distributed with higher levels of equality among people from different class origins. On the contrary, a process of closure means that class destinations become more dependent on class origin, thus hindering the chances of people from lower class origins of reaching higher occupational positions. In this sense, closure implies an increase in the gap between classes' opportunities (Hout, 1989).

Diverging with the liberal hypothesis of an increase in social fluidity, E& G (1992) find evidence of considerable stability in relative mobility. These temporal comparisons are based on birth cohorts (in fact "age groups") drawn from a single sample per country. In their words, "the liberal theory would here appear to fail, because the logic of industrialism has not in fact generated the changes within the process of social selection which were expected of it, and through which a steady increase in fluidity and openness would be expected" (1992: 104). This finding was particularly interesting because their analysis of mobility tables of the 1970s covered the golden age of capitalism, after World War II, during which economic growth, as well as the expansion of welfare policies, had a greater impact on lower rates of unemployment and income inequality.

Breen's compilation on Social Mobility in Europe (2004) – using the same class schema as E&G– advances further on, analyzing surveys from 1970 to 2000, trying to identify divergences or convergences in absolute and relative rates among countries, and shifts in changes over time. One of his major methodological advances is that the data from different decades within each country have allowed scholars to distinguish the effects of birth cohorts and period in mobility opportunities. Most of the studies in this collective research find a general trend of increasing social fluidity.

Given that most of the countries exhibiting higher levels of social fluidity – whether sate-socialist or social democratic countries, Breen and Luijkx (2004: 401) suggest that direct political interventions oriented to equality in condition between class positions can weaken class origins effects. Some of these policies managed to further income redistribution and improve the quality of education through the upgrading of public schools.

As stated by the authors of *Inequality by Design*: "Greater opportunity would bring this country closer to fulfilling the American dream. Securing this kind of opportunity depends, in turn, on our social choices. Policies that simply promote equal opportunity may not be sufficient to provide full opportunity (...); greater inequality of outcomes necessarily decreases both opportunity and equality of opportunity" (Fischer et al., 1996: 215–216).

Strong and long-run State interventions in education, which equalize access and improve the quality of public schools, can mitigate the effect of class barriers. Nevertheless, they should be complemented with policies oriented to "equality of results" (such as income redistribution policies, educational programs and health care policies to support lower class origin offspring,⁴ or income supplements for poor

working class families). On the contrary, our assumption is - though there is not clear evidence of it- that the growth in the level of income inequality can negatively affect social fluidity.

3.3. Hypothesis

We included three hypotheses concerning the changes in the economic and social development model, its impact on inequality of living conditions among social classes and on intergenerational class mobility patterns.

- i. Given the earlier economic, occupational and educational modernization processes in Argentina from the early 1900 to the middle of the XX Century, the less economic dynamism from 1976 to 2002 (See Fig. A1 Appendix) and the fewer upgrading movement in class structure, the expectancy is that absolute rates of upward mobility have been lower than in other Latin American countries in the last decades. We assume that there should be a process of convergence of Argentina with these countries and less upward mobility than European countries, related to a lower level of economic development and the underdevelopment of the service class.
- ii. During the Market oriented Reforms (1976–2002) and the recent neo-development model based on the expansion of primary goods exports and State intervention oriented to reindustrialization, there was an expansion of the middle classes, though at a lower rhythm than during the agro-exporting economic development and ISI stages. As a corollary, the expectation is a *diminishing of the intergenerational upward mobility in most recent cohorts.*
- iii. The crisis in the job market and the corrosion of working class welfare conditions related to the market transition might have increased the effect of class backgrounds as a determinant of life chances. It is plausible to think then, that in a context of high rates of unemployment and expansion of precarious work, working class families had less material and symbolic resources to transmit to their offspring, and there should have been a "tightening up" of the mobility regime, using Hout and Gerber's expression (2004). Moreover, the entrance of the country to globalization - high technology and large scale global companies- catalyzed higher competitiveness in the labor market (Sautu, 2016). The last generations of persons from working class origin were then raised in an environment in which their parents had less job stability, and an increased proportion of them did not earn wages that reached a minimum standard of welfare. All of a sudden, these new generations of working class families offspring were put at disadvantage, for these new jobs demanded high qualifications which were more extended in people from privileged class origins.

4. Data and methodological strategy

Data sources include six National Social Mobility Surveys – 2003, 2004, 2005a, 2005b, 2007 and 2010–directed by Raúl Jorrat at the Gino Germani Institute, University of Buenos Aires. Each sample was carried out by a multi-stage probabilistic sampling design, with randomness in each stage. It is a representative sample of the adult population in Argentina above 18 years old, at the begging of the 21st century.

After joining the surveys, the total sample size is 10,510. Excluding individuals outside the age range of 25–65 years –the age range conventionally used in comparative mobility research-, and cases with missing data, the usable sample size is 6112.

We used rates of mobility and three ways log-lineal models applying the traditional mobility tables. Each analysis was done by sex. The models used to explore changes in the degree of openness in class structure were constant fluidity (Erikson & Goldthorpe, 1992), Uniform

⁴ The educational composition of the labor force could catalyze a process of openness of class structure. Hout (1988) observes that in the United States, the increasing prevalence of college graduates contributed to the decline in the overall level of inequality of opportunity. This is because the relationship among class origins and destinations is nil among college graduates. "By expanding low-cost higher educational facilities, the governments of many US states gave working-class youth the opportunity of a lifetime. They got the chance to earn credentials that their parents had not been able to try for, and found that the returns on that degree exceeded their expectations" (Hout, 2006: 127).

Differences (Erikson & Goldthorpe, 1992; Xie, 1992), and the logmultiplicative regression-type model (Goodman & Hout, 1998).⁵

The conditional independence model is based on the assumption of a perfect mobility across birth cohorts. This model is commonly taken as a baseline measure, denoting a hypothetic society without privileges and disadvantages transmitted across generations, assuming this characteristic remains constant over time. The constant social fluidity model (CnSF) describes persistent inequality in the opportunities of class mobility across cohorts and no variation in the pattern of social fluidity. We then fit the UNIDIFF model, which postulates significant change in the level of fluidity over time. This model assumes that the strength of the association may vary across the four birth cohorts, but that the association between class origins and destinations takes the same pattern. Finally, we fit the Goodman and Hout model to explore if there have been any changes in the strength of association between origins and destinations and also to identify variations in the pattern of fluidity in class structure across birth cohorts.

Due to the lack of national surveys before the 21 st century, we conducted an analysis based on birth cohorts, assuming that each group had been exposed to similar education opportunities and that were inserted into the labor market in the same model of economic development.

With the purpose of examining further links between mobility and models of economic development in Argentina, we specifically test whether fluidity changed across four birth cohorts, since, they entered the labor market during different economic periods, they experienced different educational opportunities due to different rates of expansion of higher education since the 1960s, and most relevant, they underwent unequal opportunity transmission, due to the variable circumstances of class origins in different economic stages. Fig. 2 briefly illustrates the main economic and social circumstances these birth cohorts were exposed to.

Fig. 2 We assume that changes across birth cohorts on rates of relative mobility give us an intuitive idea of how and to what extent the degree of openness in class structure has changed along the following economic stages: i. the last part of the ISI model (1965–1976), ii. the first market reforms and the subsequent de-industrialization (1976–1983), iii. the failure in the intent of recreating the ISI model and the following stagnation crisis during the eighties (1983–1989), and iv. the deepened market transformations which worsen de-industrialization including the privatization of public service companies and the high participation of foreign capital in the economy (1990–2001).

Several authors have warned about the limitation of cohort analysis, for its inability at distinguishing between life cycle (age), period, and cohort of change (Breen, 2004; Breen & Jonsson, 2003). However, though this approach may be affected by possible life cycles, we consider that it is possible to minimize this distorting effect by including individuals who have reached (or are close to reaching) occupational maturity, under the assumption of scarce career mobility after this instance. Furthermore, we selected individuals who were not older than 65 years old in order to avoid selective mortality by class origin or by class trajectories. In spite of these practical decisions, older birth cohorts are farther away than younger ones from their class backgrounds and probably less associated with them. Regarding cohort and period effects, the analysis cannot distinguish between them concerning the interpretations of change in this cross-sectional study. In strict terms, we were only able to asses some trends on temporal variations in class

structure level of openness, probably related to shifts on economic development models and to social classes living and inheritance conditions.

4.1. The class schema

This study uses a class perspective to capture trends in intergenerational social mobility. Herein, we have used a version of Erikson-Goldthorpe schema that – we think – is more suitable to the contemporary Argentine labor market. It is based on the 11 class categories used in the CASMIN Project, aggregated in a different seventh class's schema.⁶

The seven classes included in our schema are: I. Managers, High Professionals and Proprietors (with more than 10 employees); II. Lower Professionals, Higher Grade Technicians, Lower Managers; III. Routine Non-manual Workers; IV. Small Proprietors and Petit Bourgeoisie; V. Skilled Manual Workers; VI. Unskilled Manual Workers; VII. Farmers and Farm Workers. In this version of the seven class schema, we divide the two fractions of the service class in order to observe differences between men and women in their opportunities to reach the higher fraction of the service class. It also allows us to better explore the differences in the influence of some class barriers based on either authority/ownership of capital or expertise credentials. It is important to point out that the higher fraction of the service class is not only composed of managers and capital proprietors but of high professionals as well, ant that in fact most of them have some degree of authority.⁷ However, when we analyze the probabilities and the relative odds of access to the service class, we aggregate the two fractions. The other difference with Erikson and Goldthorpe's seven class schema is that we merge the small farmers and agricultural laborers because their material conditions are in fact very similar.

We have conducted a sensitivity analysis using a standard EGP schema and a six classes schema merging the two agricultural classes.

The EGP class schema is a methodological tool to capture differences of life chances based on the positions in the labor market. These positions involve advantages and disadvantages that are passed on from parents to their offspring. Classes contribute to defining the frame of opportunities to new generations in a family, not only by the intergenerational direct transmission of economic resources such as capital, expertise, managerial skills, crafts but also through the transmission of abilities, skills, horizons of expectations, social ties and dispositions (Bourdieu, 2006 [1979]; Goldtorpe, 2010; Sautu, 2011).

5. Structural change and its impact on flows of social mobility (1970-2010)

The question we intend to answer in this section is: Did the process of economic change open structural opportunities for upward mobility from working class origins? Table 1 shows class origin and class destination distributions by gender. Taking into account the mean age of the sample, we are comparing on average, the class distribution of fathers⁸ in 1980 with the class distribution of the population between 25

⁵ For the model of conditional independence, Vallet (2004) presents this formula (p. 6): Log (moec) = 1 + loO + leE + lcC + locOC + lecEC. It is estimated with C × (O-1) × (E-1) degrees of freedom. For the constant association model, the formula is (p. 7): Log (moec) = 1 + loO + leE + lcC + locOC + lecEC + loeOE. It is estimated with (C-1) × (O-1) × (E-1) degrees of freedom. The formula used by Vallet UNIDIFF model is (p. 12): Log (moec) = 1 + loO + l eE + lcC + locOC + lecEC + βc Yoe Yoe. It is estimated with (C-1) × (O × E-O-E) degrees of freedom. The equation of Goodman and Hout(1998) model is: ln θ ij|k = a ij + bij φk.

⁶ The decision to work with categories of a conventional class schema was based on its potentialities for comparative purposes. Researchers who want to replicate this study can reconstruct our version of the schema by combining the eleven class categories the same way we did.

⁷ This version of Erikson and Goldthorpe's schema is similar to the one used by Mike Hout and Gerber (2004) in the analysis of changes in intergenerational occupational mobility in Russia before and after the fall of the Communist regime.

⁸ Data limit the possibility to include mothers in the class origin distribution. Beller (2009) demonstrates that joint parent measures of class origin capture mobility patterns significantly better for both women and men than conventional measures of class origin do. Her updated analyses (2009: 524) "capture significant declines in social class fluidity among men born between 1965 and 1979 (compared with earlier cohorts) in the United States. This decline is a function of the growing association between mothers' class and sons' class destinations".

		Economic and							5	
		01	rigin-	Compar	ison	for e	ach birt	h cohort		
		1956- 1970)	1971-1	980	198	1-1990	1991-200)1	
		Low rates of unemployme relative high w and welfare ber for the worki class in the cor of industria expansion	nt, ages nefits ng ntext l	Decreas the re wages o worki class	al f the ng	decr th wage wo cla incr	lation, rease in e real es of the orking ss and rease of verty.	Higher inequality a high rates precarious v unemploym especially lower class	of vork ent, in	
Age group				I		pirico alysis		•		I
56-65										Ch1
46-55								Ch1		Ch2
36-45						Ch1		Ch2		Ch3
25-35			•	Ch1	•	Ch2		Ch3		Ch4
15-24		CH1	•	Ch2		Ch3		Ch4		
0-14	CH1	Ch2	•	Ch3		Ch4				
Years	1940-1954	1955-1964	196	5-1974	197	5-198	85 1	986-1995	19	96-2010
Stages of economic development	Import Su	bstitution Indust	rializat	ion	Mar orie refo	nted	Economic Stagnation	Deepening privatizati and deregulati	on	Re- industralization

Fig. 2. Birth Cohorts and Socio-historical Experiences.

Source: Own elaboration based Golthorpe, Llewellyn, and Payne, 1980 and Quartulli (2016) for the design.

Table 1

Class origins and class destination distributions by sex (in%) (Persons between 25 & 65 years old, Argentina, 2003–2010).

	Men		Women	
EGP Class categories	Class origins	Class destinations	Class origins	Class destinations
I. Service Class	12	19	12	25
Ia. Middle proprietors, managers and high professionals	7	9	7	8
Ib. Lower professionals and Technicians	5	10	5	17
III. Routine Non manual employees	6	9	8	20
IV. Petit bourgeoisie	14	16	14	11
V. Skilled manual workers	24	23	23	9
VI. Unskilled manual workers	24	25	24	34
VII. Farmers and agricultural workers	20	7	19	2
Total	100,0	100,0	100,0	100,0
Ν	3,066	3,066	3,045	3,045

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires). and 65 years old in 2007.⁹ The changes in occupational structure shape the framework of upward mobility opportunities, while changes in the size of the different class positions reflect variations in the demand of occupational services, related to technological and educational advances, which in turn, are linked to the transformations of economic development in each country.

As seen in Table 1, nearly 20 per cent of men and women originated in the farmers and agricultural laborers class. This percentage is not high if compared with other Latin American countries, and it is in the average if measured up to some countries in Europe, such as Italy, France (Breen, 2004) and Spain in the 1990s. As mentioned above, the central region of Argentina experienced an early modernization and a rapid urbanization in the first decades of 20th century.

As a general trend, we observe that there was an upgrading movement in the occupational structure in the last quarter of the 20th century and the first decade of the 21st century. From origins to destinations, the service class increased from around 12% to 22%, especially the lower fraction, which tripled its size. Most of this growth for the service class took place among women. Table 1 shows slight more men

 $^{^{9}}$ Blau and Duncan (1967) warn that the occupational distribution of fathers is not an actual distribution of men existing at any earlier period. In spite of this, the origin and destination class distributions show an intuitive idea of structural change as well as its directionality over time.

Table 2

Descriptive aspects of Men's Intergenerational Class Mobility of Argentina in comparison with others Latin American countries and two European countries related historically with Argentina (%).

Mobility Absolute Rates** (Men currently in employment)	Argentina 2003–2010	Brazil 2008	Chile 2009	Mexico 2011	Spain 2011	Italy 2005
Total Mobility	67	77	63	69	73	73
Vertical Upward Mobility	29	35	31	30	38	39
Vertical Downward Mobility	18	14	16	20	16	17
Ratio of MVA/MVD	1.6	2.5	1.9	1.5	2.4	2.3
Mobility to the Service Class from the Working Class	12		13	12	22	19
Service Class Recruitment in the Working Class (V + VI, VIIa & VIIb)	37		43	34	42	36
Origin-Destination Dissimilarity index (Δ)	13	31	13	22	22	23
% Service Class at Destination	19	18	21	18	28	27
Δ Service Class with Origin	7	7	10	12	16	14
N (Men, 25-64 years old)	2,814	2,631	1,153	3,930	6,678	1,830

Sources: Own elaboration based on the following surveys:

** They are calculated using the standard seventh EGP class schema.

Argentina: Instituto de Investigaciones Gino Germani-UBA, survey directed by Rául Jorrat.

México: Centro de Estudios Espinosa Yglesias given by Patricio Solís.

Chile: CONICyT Projetc Anillo SOC12, Universidad de Chile, Universidad de Santiago, Universidad Diego Portales y Centro de Estudios de la Mujer.

Brazil: we used data from Solís (2016).

Italy: Italian Households Longitudinal Study (Ilfi) given by Sonia Marzadro. See Schizzerotto and Marzadro, 2010 Schizzerotto & Marzadro (2010).

Spain: Living Conditions Survey, The Spanish Statistical Office, given by Sandra Fachelli.

occupying the highest fraction of the service class –which requires a certain degree of authority and expertise- than women (9%–8%). Yet, the proportion of women is over-represented in lower professional and technical occupations (17%–10%).

The routine non-manual class shows an increase for both sexes from origins to destinations, but this growth is largely explained by the progressive insertion of women in the labor force.

As for men, the distributions of class origins and destinations show that the petit bourgeoisie, the skilled working class and the unskilled working class have remained almost constant in their sizes. There is a small increment in the proportion of the petit bourgeoisie (from 14% to 16%) and of the unskilled manual workers (24% to 25%) as well as a small decrease in the proportion of the skilled fraction of the working class (24%–23%).

Compared with their fathers' class positions, women's class distributions reflect either an important reduction in the size of the skilled working class (23%–9%) or a large increase in the proportion of the unskilled working class (24%–34%). The patterns suggest that there is gender segregation in the class structure. Men are mostly inserted in occupations which involve high levels of authority as well as in skilled manual jobs, whereas women are found in non-manual activities (Administration, Education, Health and Welfare systems) as well as in unskilled manual jobs, which have precarious conditions and lower wages. Since the distribution of class positions varies considerably between sexes, influenced by gender segregation mechanisms, the comparison with their fathers class positions generates greater structural mobility among women (Tables 2 and 3).

As a general trend, class origin and destination distributions show the expansion of service occupations, both skilled (managers, professionals and technicians) and unskilled (routine white collar employees and manual workers in personal services). On the one hand, this is indicating an increase in opportunities for upper-middle and middle classes, but also a transfer of labor force from skilled manufacturing positions to unskilled jobs in commerce and personnel services.

These changes in class structure have been related to transformations in the model of economic development from an economy based on manufacture industrialization oriented to the internal market into: i.) a model based on open market mechanisms (1976–1983/1990–2001), and ii.) the recent neo-development model based on the expansion of primary goods exports such as soy, corn, wheat, as well as on an

Table 3

Descriptive aspects of Women's Intergenerational Class Mobility of Argentina in comparison with others Latin American countries and two European countries related historically with Argentina (%).

Mobility Absolute Rates** (Women currently in employment)	Argentina 2003 – 10	Brazil 2008	Chile 2009	Mexico 2011	Spain 2011	Italy 2005
Total Mobility	75	81	71	80	78	73
Vertical Upward Mobility	35	34	33	35	38	35
Vertical Downward Mobility	20	16	24	18	15	19
Ratio of MVA/MVD	1.7	2.1	1.4	2.0	2.6	1.8
Mobility to the Service Class from the Working Class	19		16	14	20	16
Service Class Recruitment in the Working Class (V + VI, VIIa & VIIb)	39		53	32	37	29
Origin-Destination Dissimilarity index (Δ)	33	38	29	32	41	29
% Service Class at Destination	29	18	21	20	28	26
Δ Service Class with Origin	14	6	11	13	16	11
N (Women, 25-64 years old)	1,963	2,249	919	1,712	5,197	1,766

Sources: Own elaboration based on the following surveys:

** They are calculated using the standard seventh EGP class schema.

Argentina: Instituto de Investigaciones Gino Germani-UBA, survey directed by Rául Jorrat.

México: Centro de Estudios Espinosa Yglesias given by Patricio Solís.

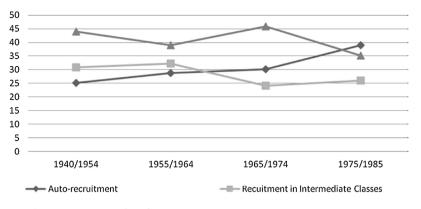
Chile: CONICyT Projetc Anillo SOC12, Universidad de Chile, Universidad de Santiago, Universidad Diego Portales y Centro de Estudios de la Mujer.

Spain: Living Conditions Survey, The Spanish Statistical Office, given by Sandra Fachelli.

Brazil: we used data from Solís (2016).

Italy: Italian Households Longitudinal Study (Ilfi) given by Sonia Marzadro.

P. Dalle



------ Recruitment in working classes

increase in manufactory industry (2003–2015). Yet, it should also be considered that these shifts have occurred in a context of persistent increase in women's participation in the labor force, ever since 1970s.

Argentinean class structure has now several particularities can be highlighted with respect to other Latin American and European countries. First, the service class is considerably smaller than European countries. Second, the petty bourgeoisie stands at a high level. Third, the non-skilled working class has not reduced in the last decades and represents a greater share of the class structure than other Latin American countries (Solís, 2016).

Which are the characteristics of absolute mobility rates in Argentina when compared to three Latin American countries (Brazil, Mexico and Chile) and to the two main European countries, whose intense migratory fluxes influenced the formation of the Argentinean social structure (Spain and Italy)? Tables 2 and 3 compare five measures of class mobility within each country.

We report the total mobility rate, the proportion who were vertical upward mobile¹⁰ (whose destination class is at higher level than origin), the proportion of vertical downward mobile (those who moved to lower level), the ratio between vertical upward and vertical downward mobility, and finally the percentage of entrance to the service class from the working class and the recruitment of the service class from the working class. We also include the dissimilarity index, the percentage of the service class in the destination distributions and its dissimilarity with the size of the service class in the origin distribution.

Among men, we observe that there is a *convergence* with Chile and Mexico but not with Brazil and European countries. Argentina exhibits a slightly lower vertical mobility rate, and a higher descendant male mobility rate than all the countries except México. These patterns are due to three factors: the fact of having started from a more modern class structure at the half of the XX Century, of having a low economic dynamism in the last quarter of the Century, and less volume in the expansion of the structural opportunities in the most qualified classes. Italy and Spain, show slightly lower vertical descendant mobility, but mainly outstand, for their higher vertical ascendant mobility rates. Furthermore, Argentina and Mexico show the lower levels of male upward mobility from working class origins to the service class and a moderate proportion of service class recruitment from the working class.

Among women, Argentina has higher rates of vertical upward mobility and upward mobility from working class origins to the upper middle class than the late industrialized countries which have experienced substantial economic advances (i.e Spain, Fachelli & López-Roldán, 2015). It is related with the expansion of the professional and technical occupations for women labor force described above.

To sum up, if seen in comparative terms, other countries, which experienced a greater development surpassed Argentina in terms of Fig. 3. Intergenerational Recruitment of the Service Class by Birth Cohort, 25–64 years old Men, Argentina 2003–2010 (%). Sources: Own elaboration based on Social Stratification and Mobilitýs

Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

vertical upward mobility and in terms of access to the service class from working class origins among men but not among women. For them, the class structure may be *de facto* considered quite open.¹¹

In order to examine whether structural change has positively influenced the odds of persons of working classes origins, we analyzed the inflows of the service class (Figs. 3 and 4) and the outflows to the service class by class origins and birth cohorts (see Figs. 5 and 6). The inflow and outflow rates reflect both the structural mobility and the level of association between origins and destinations – this considered as an indicator of the degree of inequalities in the mobility regime.

The inflow rates of the service class and the recruitment of this class in the intermediate and working classes show a slight tendency to closure of the class structure for men (Fig. 3). On the one hand, the self-recruitment in the service class that controls capital resources, authority and professional expertise has tended to systematically increase. On the other hand, recruitment in the working classes shows certain fluctuations, although in the last cohort it decreases considerably if compared with the formers. Similarly, the recruitment in the Routine non-manual and in the petit bourgeoisie has decreased in the last two cohorts.

Turning to women, the self-recruitment of the service class shows a tendency to remain constant across cohorts while this recruitment of the working classes shows – like among men- fluctuations, and a significant drop in the last cohort, which decreases around 10 p.p (Fig. 4). Nevertheless the recruitment in Routine non-manual class and in the petit bourgeoisie increases in the last cohort.

Another thoughtful way to examine changes in absolute mobility rates, is the performing of outflows to the service class, by class origins and birth cohort. The probability of attaining managerial and professional positions is a significant indicator of genuine upward mobility from working class origins (Figs. 5 and 6).

On the one hand, the service class shows increasing levels of intergenerational inheritance over time, though more markedly among men than among women. It should be noted that the slope of the youngest male birth cohort which remains in the service class appears to be steeper than the previous cohorts. Among women, the trend of inheritance in the service class is not so clear; it is higher in the two middle birth cohorts. The access to the service class from routine non manual and petit bourgeoisie origins is significantly greater in the 1955–1964 birth cohort.

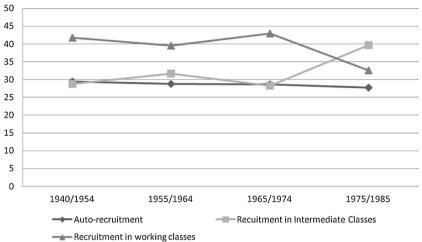
The cohorts analysis shows that the long distance upward mobility from working class origins has decreased in the last birth cohort of both men and women. In a previous study we show two complementary

¹⁰ To examine vertical class mobility, Classes I and II comprise the highest class level, VIIa and VIIb the lowest, and III, IVab, IVc and V&VI are between these (Breen, 2004).

¹¹ "...If the focus of one's interest is on class formation – rather than on questions of equality of opportunity- assessments of mobility in such relative terms would seem not altogether to the point: it is absolute, *de facto* patterns which must surely be accorded greatest importance. In other words, what matters is not much the degree of equality of opportunity in chances to access to a class for persons of different origin, but the outcomes of these chances, whatever they may be in terms of the composition of the class (Golthorpe et al., 1980).







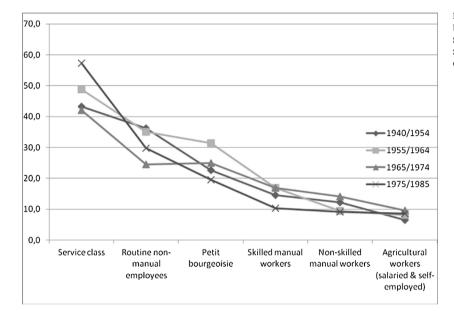


Fig. 5. Percentage of Argentinean Men Employed in the Service Class by Class Origin and Birth Cohort.

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

trends in the outflows from working class origins: i.) a greater shortdistance mobility to technical and routine non manual salaried occupations, and ii.) a reduction of social inherence or upward mobility through skilled manual jobs in manufacturing industries (Dalle, 2016). It is important to remark that the decrease in long distance upward mobility takes place in a context of expansion of high-skilled service occupations, specially for women,—as seen above—, and the growth of university and technical degrees.

6. Has equality of opportunity in Argentina mobility increased over time?

Vallet describes very clearly one of the challenges of the study of social fluidity over time. His questions are, "Do the trends in the absolute mobility rates result entirely from changes in the origin and destination class distributions (and thus, attributable to structural mobility) or do they *also* express change in the underlying mobility regime, that is to say, in the general level and/or structure of the association between origins and destinations?" (2004: 128). Do the economic changes affect the degree of equality of opportunities between classes?

Table 4 presents the parameter estimates for the model of conditional independence (model 1), the "constant social fluidity" model (model 2), the UNIDIFF model (model 3) and the regression type model (model 4) for men. We began the analysis for both men and women by fitting the conditional independence model, which as expected, does not fit the data well. The key of the analysis is to contrast the constant fluidity model, the UNIDIFF and the regression type model.

The constant social fluidity model (CnSF) fits well in terms of conventional statistical tests (L square and the p-value) and on the basis of the BIC statistic. It misclassifies 7% of the total sample and explains 86.3% of the association in relation with the baseline model the perfect mobility across cohorts (Table 4). We then fit the UNIDIFF model, which estimates three supplementary parameters in order to capture a general trend of variation in the strength of the origin-destination association over the four cohorts. According to the p-value (0,081) and the association explained (87.4%), UNIDIFF produces a slight improvement in the goodness of fit. However, a traditional statistical contrast (using chi square) between the UNIDIFF and the Constant fluidity model indicates that this last model is more suitable. The result (6.1; p = ,105) shows that the three parameters used by the former model do not capture a significant association in the data at 95% level of confidence.

Nonetheless, in the observation of the estimated parameters of the model we found a trend of a progressive increase from 1.000 for the first cohort to 1.290 in the last one, suggesting that class barriers could

P. Dalle

Research in Social Stratification and Mobility 54 (2018) 21-35

Fig. 6. Percentage of Argentinean Women Employed in the Service Class by Class Origin and Birth Cohort.

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

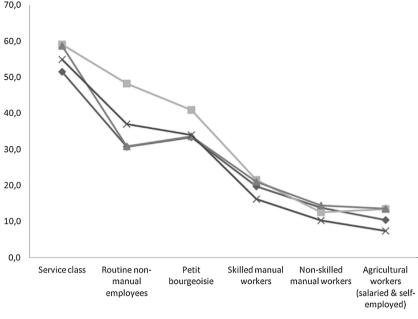


Table 4

Goodness of Fit Statistics for Mobility Models across Cohorts, Argentina 2003-2010.

Men 25-65 years old						
Model	L^2	df	BIC	ID	Assoc. explained	d p-value
I. Independency II. Constant Fluidity III. Unidiff	962.6 131.9 125.8	144 108 105			86.3% 87.4%	.000 .058 .081
IV. Regression Type model	78.7	70	- 482.9		91.8%	.222
Testing which model fits the	e data be	etter				
			L ² Differ	rences	Df	p-value
Dif. Constant Fluidity & Uni			6.1		3	.105
Dif. Constant Fluidity & GH	Model		53.2		38	.051
Dif. Unidiff & GH Model			47.1		35	.083
UNIDIFF Parameters Birth cohorts:						
1940–1954: 1.000 1955–1964: 1.196 1965–1974: 1.231 1975–1985: 1.290						

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

have risen for recent cohorts of men in the context of the growth in economic inequality. It is important to point out that this trend is consistent too, with age effect, since origins are more important to early occupational careers than to late ones.¹²

Finally, we fit the Goodman and Hout model which fits the data

better than the others, in terms of the L square and the p-value. This model misclassifies less than 5% of the data and exhibits a considerable improvement in the association explained in relation to the perfect mobility model.¹³ A comparison among models 4, 2 and 3 indicates that the Regression type model is more suitable than the CnSDF model, yet not more advantageous than the UNIDIFF model.

When we observe the log odds ratios using the expected frequencies of Goodman and Houís model, it is possible to observe interesting results and hypothesize about changes in *strength* and about *the pattern* of class mobility. Figs. 7 and 8 for men and Figs. 9 and 10 for women report short distance fluidity and long term fluidity respectively (based on Goodman & Hout, 1998: 200–203).

In each figure, the first bar is a reference to the strength of association between origin and destination (in our case, it is a strength of association between O and D for the 1 st cohort). If all log odds-ratios had this height, it would mean that there is no variance in strength between O and D across the birth cohort. If log odds ratios for a certain birth cohort were smaller, it would mean that the association between O and D for that cohort is weaker than for the 1 st cohort. On the contrary, if log odds ratios for a certain birth cohort were higher, it would mean that the association between O and D for that cohort is stronger than for the 1 st cohort. Through the interpretation of how far and in which direction each log odds-ratio is departed from the first bar, we can interpret how the *strength* of association changes across birth cohort groups. On the other hand, through the ordering of expected log odds-ratios for each pair (i,j) we can present the *pattern*.

Fig. 7 shows that there is more fluidity between adjacent classes for the latest cohort, particularly among the working classes. There is more fluid exchange between the farm class fraction and the unskilled working class; between the unskilled and skilled working class, and between the skilled working class and the petit bourgeoisie.

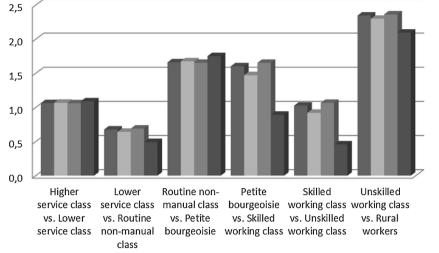
Concerning the pattern of mobility, the general tendency of short distance mobility can be ranked 1st/3rd (very similar), 2nd and 4th birth cohort from strongest to weakest association. However, there are two exceptions: i. the patterns of social fluidity between the two

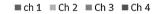
¹² In the sensitive analysis using a six class schema (not splitting the service class) and with the standard EGP, the best fit seems to be showed by the constant association model, suggesting a certain invariance of the class origin-class destination relationship, taking into account birth cohorts; but if we consider the parameters of Unidiff it is possible to observe a slight tendency to strengthen the class origin effect (around 20% between the first and fourth cohort using the six class schema and around 10% using a standard EGP. For women it was not possible to fit the models using the standard EGP because there are few cases in the category Farm Small Proprietors). (See Appendix Tables A1 & A2).

¹³ However, it is less parsimonious than the others, and the BIC statistic suggests considering the former models. In spite of its less parsimony, it is powerful for capturing trends and meaningful specifications of changes in the pattern of intergenerational class mobility.

Fig. 7. Log-odds-ratios expected under model M4 for men (Short term fluidity).

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).





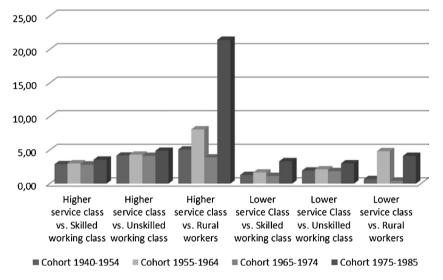


Fig. 8. Log-odds-ratios expected under model 4 for men (Long term fluidity).

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

fractions of the service class have remained almost constant across the birth cohorts; ii. the barriers between non manual employees and petit bourgeoisie for 4th cohort seem to be slightly stronger than one for the 1 st birth cohort.¹⁴

On the other hand, the analyses of the long distance mobility between working classes and the two fractions of the service class show that there is less fluidity among the last birth cohorts. (Fig. 8).This pattern suggests a progressive decline of opportunities for long distance upward mobility for the sons with working class backgrounds, as well as long downward mobility from the highest service class.

Turning to women, Table 5 shows that constant fluidity makes a considerable improvement in fitting the data in relation to the independence model, and that it fits quite well in terms of conventional statistical tests (L2 and the p-value) and on the basis of the BIC statistic. It misclassifies 6.7% of the total sample and explains 82% of the association in comparison with that of perfect mobility across cohorts. The UNIDIFF model does not reach a better fit; its parameters are not statistically significant.

These results suggest that there is no change in the origin-destination association. Although differences between younger and older women reflect changing structural opportunities, class barriers do not

Table 5

Goodness of Fit Statistics for Mobility Models across Cohorts, Argentina 2003-2010.

Women	25 - 65	vears	old

Wollien 25-05 years old						
Model	L^2	Df	BIC	ID	Assoc. Explained	p-value
I. Independency	745.3	144	-409.1	18.9%		.000
II. Constant Fluidity	133.9	108	-731.8	6.7%	82.0	.046
III. Unidiff	128.9	105	-712.8	6.3%	82.7	.056
IV. Regression Type model	67.1	70	-494.1	5.0%	91.0	.578

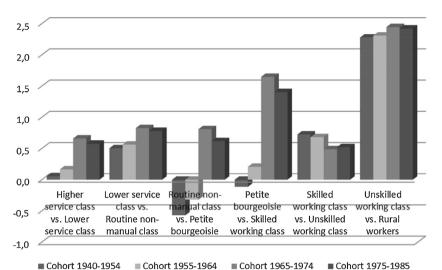
Testing which model fits the data better

	L ² Differences	Df	p-value
Dif. Constant Fluidity & Unidiff	5.0	3	.172
Dif. Constant Fluidity & GH Model	66.8	38	.003
Dif. Unidiff & GH Model	61.8	35	.003
Birth Cohorts parameters:			
Birth Cohorts parameters:			
Birth Cohorts parameters: 1940–1954: 1.000 1955–1964: 1.307			
1940–1954: 1.000			

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

¹⁴ It could be related with a general trend of higher proportions of informal manual workers in the petite bourgeoisie that were salaried manual workers in previous cohorts.

P. Dalle





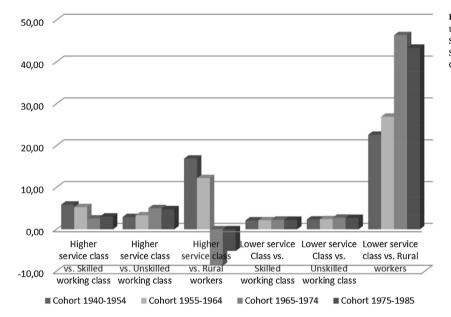


Fig. 9. Log-odds-ratios expected under model M4 for women (Short term fluidity).

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

Fig. 10. Log-odds-ratios expected under model 4 for women (Long term fluidity).

Sources: Own elaboration based on Social Stratification and Mobilitýs Surveys directed by Raúl Jorrat (Instituto de Investigaciones Gino Germani-Universidad de Buenos Aires).

appear to have changed over time.

Goodman and Hout's model attains better levels of fit, suggesting that for women, both the strength of origin and destination association and the mobility regimes have varied across cohorts. Though this last model reaches a better level of fit following the L square value, the p-value and the explained association, is less parsimonious than the others (Table 5). Following BIC, we would prefer the constant fluidity model, but we would also consider an interpretation of the regression type model parameters to hypothesize whether there have been any changes in the *pattern* of the mobility regime over time, and, the trend of these changes (Figs. 9 and 10).

The parameters suggest that the overall strength of association seems to increase in the last cohorts of women, with more rigidity in the fluidity between adjacent classes, as well as stronger barriers for long distance mobility between unskilled working class and upper service class. In general terms, it appears that exchanges between lower classes and the higher class fractions have become more difficult, with the exception of the skilled working class and the upper service class, which have become significantly more fluid in younger cohorts. This last trend could be related with the fact that younger cohorts of women from skilled working class origin attain higher levels of education, especially technical degrees, and higher levels of education mitigate the effect of class origins for women, even though this pattern is not found among men. 15

In the case of women, ordering of expected log odds-ratios for each pair (i,j) show some interesting changes in the pattern of mobility. The fluidity between skilled working class and non-skilled working class in the last two cohorts shows an opposite direction of the trend toward higher barriers between adjacent classes –described above-, being this an exceptional case (Fig. 9). These kinds of exceptions are more frequent in the long term fluidity graph (Fig. 10). If these exceptional cases followed the general trend towards higher barriers to social mobility across birth cohorts, the Unidiff model would have fit better than it did, and in that case it would have been more suitable than the regression type model.

The results of the regression type model for men and women allow us to hypothesize suggestive changes not only in *strength* but also in the *pattern* of social mobility across birth cohorts – unobserved in previous

¹⁵ For further analysis regarding the effects of education on intergenerational social mobility, see Solís & Dalle (2018).

models-. For men, we could summarize these changes in two outlines: i. an increment of fluidity between adjacent classes, and ii. less longdistance mobility between working classes and upper middle classes. For women, the trend of the pattern is less clear but we also observe more fluidity between the two fractions of the urban working class and stronger barriers for long distance mobility, with the exception of women of skilled working class origin and the higher service class.

To sum up it is worth noting that, the values of the UNIDIFF parameters for both sexes, show evidence of the first cohort having the lower level of strength in the origin-destination association and therefore being more independent from its class origin for occupational achievement. Persons who were born during the years of World War II and in the immediate postwar period, went into the labor market at a time of steady economic growth, low rates of unemployment and low income inequalities. During their youth, they experienced "the sixties", a period of time characterized by a liberalizing thought, mainly at high educational circles before the *Coup détat* in 1966. Turning to consider their class origin, they grew up when the working and middle classes had better material conditions than the ones prevailing in coming decades that is, higher wages, stable occupational careers, access to better education and health public services as well as a shorter income inequality.

7. Conclusions and final reflections

This paper engaged with the debate concerning the impact of economic change and the role of the State in social stratification. In the context of this current debate, we illustrated why Argentina stands as a relevant case of analysis in Latin American, for its earlier modernization and greater levels of upward mobility from working class origins. From 1976–2002, during the market oriented reforms and globalization process (including the emergence of high tech large companies), Argentina transitioned from a relatively highly integrated class structure to a more polarized one, with unprecedented levels of inequality. Moreover, many public policies oriented to equalize opportunities were hindered by a reduction in public funding and through the State regressive redistributive and regulatory policies which favored marketcompetitive mechanisms.

The four issues addressed in the analysis were: i. the type of structural mobility for men and women and its impacts on absolute rates of upward mobility from working class origins, ii. the degree of upward mobility from working class origins to the service class, considering structural changes in a comparative perspective, iii. the observation of the level of social fluidity over time, and iv. whether there have been any changes in the pattern of social mobility, focusing on the extent in which opportunities of upward mobility for persons of working class origins have varied across birth cohorts.

The analysis showed that women have undergone a deep occupational upgrading and thus opened considerable structural opportunities to upward mobility from working class origins. For men, though, this shift towards the expansion of desirable occupations has been significantly lower. It also showed that structural mobility also increased the proportion of unskilled manual occupations due to the process of de-industrialization which took place between 1976 and 2001.

From a comparative perspective, "the upward movement in the class structure" among the male population was lower than in the Latin American and European countries analyzed. As a corollary, we observe lower vertical upward mobility, particularly stressed in the case of the probabilities of the working class offspring of reaching the service class.

Regarding women, Argentina still keeps a greater size of the service class if compared to the other Latin American countries and, thus, high rates of vertical upward mobility. Moreover, rates of upward mobility from the working class to the service class are slightly higher, placed in very similar levels to those in late industrialized European countries. These patterns strengthen the thesis of previous studies which state that the structural expansion of highly qualified employment is decisive to foster class vertical upward mobility (i.e Germani, 1963; Lipset & Bendix, 1959).

Seen under a long term perspective, the expansion of highly-skilled service class is not compatible with the rapid and steady growth of the middle classes—including autonomous sectors and capital proprietors—that took place during the first half of the XX Century. The cumulative impact of European immigration, economic growth and occupational change, during Agro-exporting and Industrialization by Import Substitution economic models, contributed to large rates of upward mobility from the unskilled working classes to the skilled working class and middle classes. In that society under construction, the "structural modernizing change" was undoubtedly greater. For Argentineans, it seems that the best has been left in the past, as many popular "tango songs" claims.

Birth cohort analysis of outflow rates to the service class for men and women supported this extended "social representation"; younger birth cohorts of working class origins have had less long distance upward mobility but greater short-distance mobility to technical and routine non-manual salaried occupations. The inflows rates of the service class showed: i the persistent increase in self-recruitment of the service class among men, ii. the increase of recruitment in intermediate classes in the last cohort among women and iii. the decrease in the recruitment in the working classes in the last cohort, both in men and women. The evidence given showed that in spite of the openness of some vacancies in middle and upper middle classes - specially for women-, the younger offspring of the working classes seemed to have reached fewer of the highest positions in terms of socio-economic status and prestige than in previous birth cohorts and that, simultaneously, the upper middle and middle classes have had increased their inheritance of privileged positions over time.

The examination of trends on social fluidity led us conclude that if we consider the *pattern* and not only the *trend* of social fluidity a new hypothesis could be drafted going beyond previous studies that found a general trend of persistent inequality in class mobility over time or, if there were changes, they would have implied a decrease in social fluidity (Jorrat & Benza, 2016; Dalle, 2015). The results of the regression type model showed: 1.) an increment of adjacent fluidity between classes in the bottom half of the class structure for men (and for women only between the two fraction s of the urban working class), and, 2.) a rise of barriers for mobility between working classes and upper middle classes – with the exception of women of skilled working class origin. Considering both trends together; it is plausible to conjecture that there are still opportunities of moving up from lower classes on the staircase of class structures, yet through shorter jumps.

This study might be seen as a contribution to demonstrate that public policy is decisive for shaping the pattern of economic development which favors an upgrading in the class structure as well as equality of opportunities. First of all, ever since the model of import substitution industrialization crisis (circa 1970), Argentina has not found a strategy to achieve steady economic development. From 1976-2002, Argentina went through four big crises (1982, 1989, 1994 and 2001-2) which generated regressive consequences in the labor market and social structure. The recent process between 2003 and 2015 might be a partial exception. The model of economic development ("neo developmentalism") characterized by the exporting of agricultural products and industrialization based on redistributive and protectionist policies intended to boost the internal market has promoted inclusive development but has revealed external vulnerabilities since 2013 (especially to the reduction of currency reserves, the contraction of the global market) as well as persistent inflation. Despite economic growth during most of the 2000s, class barriers remained intact or have increased.

Should the recent changes in the economic model of development be oriented to socio economic integration, it would then be possible to expect that such changes had a favorable impact on equality of opportunities. Yet, as well known, a change in the level of openness of the class structure is a long-run process which involves persistent and durable policies oriented to reduce both inequalities of conditions and inequalities in opportunities. The results of this study focused on the consequences of previous reforms suggest a widening in the gap between the middle classes and the working classes. The offspring of working class families who experienced the corrosion of working class welfare aaaa conditions seem to be climbing a steeper stairway.

Acknowledgments

I would like to thank Michael Hout for theoretical and methodological advice that contributed to the development of this paper during a visiting scholar stay at Berkeley Population Center at the Institute for the Study of Societal Issues, University of California, Berkeley (2012). Ruth Sautu made valuable theoretical suggestions about historical changes in Argentina `s social structure. I also thank Keun Bok Lee & Santiago Rodríguez for helping with some of the loglineal models and Estela Pittatore for her helpful suggestions on grammar and style concerns. I am grateful to Sonia Marzadro and Sandra Fachelli for providing the mobility tables of Italy and Spain respectively, Diego Quartulli for helping to plot figures 1 and 2 and two anonymous reviewers for valuable advice. Finally, I thank Raúl Jorrat for providing me the data set of the stratification and social mobility surveys directed by him at the Instituto de Investigaciones Gino Germani.

Direct all correspondence to Pablo Dalle, Instituto de Investigaciones Gino Germani, Universidad de Buenos Aires, Pte J. E. Uriburu 950, 6to (C1114AAD), Ciudad Autónoma de Buenos Aires. The article is dedicated to Paula and my daughters Lucía & Malena for her love and patience.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.rssm.2017.12.002.

References

- Adamovsky, E. (2009). Historia de la clase media argentina. Buenos Aires: Planeta. Beller, E. (2009). Bringing intergenerational social mobility research into the twenty first century: Why mothers matter. American Sociological Review, 74, 507-528.
- Benza, G. (2016). La estructura de clases argentina durante la década 2003-2003: ¿una menor fragmentación y desigualdad entre las clases? In G. Kessler (Ed.). La sociedad argentina hoy, Radiografía de una nueva estructura. Buenos Aires: Siglo Veintuno editores.
- Blau, P., & Duncan, O. D. (1967). The american occupational structure. New York: Wiley. Bourdieu, P., 2006-1979-. La distinción. Criterios y bases sociales del gusto, Santillana: Madrid.
- Breen, R. and Jonsson, J. O. (2003). Period and Cohort Change in Social Fluidity: Sweden 1976–1999. Working Paper, Oxford: Nuffield College.
- Breen, R., & Luijkx, R. (2004). Conclusions. In R. Breen (Ed.). Social mobility Europe. Oxford, UK: Oxford University Press.
- Breen (comp.), R. (2004). Social mobility in Europe. New York: Oxford Press.
- Dalle, P. (2012). Cambios recientes en la estratificación social de Argentina (2003-2011. Inflexiones y procesos emergentes, Argumentos. Revista de Crítica Social, 14, 77-114. Dalle, P. (2016). Movilidad social desde las clases populares. Un estudio sociológico en el Àrea
- Metropolitana de Buenos Aires (1960-2013). Buenos Aires: IIGG-CLACSO. Dalle, P., (2015). Movilidad social intergeneracional en Argentina. Oportunidades sin
- apertura de la estructura de clases, Revista de Ciencias, 28 (37), 139-165. Elbert, R. (2017). Union organizing after the collapse of neoliberalism in Argentina: The
- place of community in the revitalization of the labor movement (2005-2011). Critical Sociology, 43(1), 129-144. Erikson, R., & Goldthorpe, J. (1992). The constant flux: A study of class mobility in industrial
- societies. Clarendon: Oxford. Fachelli, S., & López-Roldán, P. (2015). ¿Somos más móviles incluyendo a la mitad in-
- visible?: Análisis de la movilidad social intergeneracional en España en 2011. Revista Española de Investigaciones Sociológicas, 150, 41-70.
- Featherman, D., Jones, F. L., & Hauser, R. (1975). Assumptions of mobility research in the United States: The case of occupational status. Social Science Research, 4, 329-360.
- Fischer, C. S., Hout, M., Jankowski, M. S., Lucas, S. R., Swidler, A., & Voss, K. (1996). Inequality by design: Cracking the Bell curve myth. Princeton: NJ: Princeton University Press.
- Germani, G. (1963). La movilidad social en la Argentina. In S. Lipset, & R. Bendix (Eds.) Movilidad social en la sociedad industrial (pp. 317-365). Buenos Aires: EUDEBA.
- Germani, G. (1966). Política y Sociedad en una época de transición. Buenos Aires: Paidós. Goldtorpe, J. H. (2010). De la sociología. Números, narrativas e integración de la

investigación y la teoría. Madrid: CIS.

- Golthorpe, J. H., Llewellyn, C., & Payne, C. (1980). Social mobility and class structure in Modern Britain, Oxford: Clarendon Press.
- Goodman, L., & Hout, M. (1998). Statistical methods and graphical displays for analyzing how the association between two qualitative variables differs among countries among groups or over time: A modified regression-type approach. Sociological Methodology, 28, 175-230.
- Hout, M., & Di Pietre, T. (2006). What we have learned: RC28's contributions to knowledge. Research in Social Stratification and Mobility, 24, 1-20.
- Hout, M., & Gerber, T. (2004). Tightening up: Declining class mobility during Russiás market trasnition. American Sociological Review, 26, 277–700. Hout, M. (1983). Mobility tables. Thousand Oaks, CA: Sage.
- Hout, M. (1988). More universalism, less structural mobility: The American occupational structure in 1980. The American Journal of Sociology, 93(1358), 400.
- Hout, M. (1989). Following in father's footsteps: Social mobility in Ireland. MA: Cambridge University Press.
- Hout, M. (2006). Economic change and social mobility. In G. Therborn (Ed.). Inequalities of the world. New Theoretical frameworks, multiple empirical approaches. Verso: London. Jorrat, J. R., & Benza, G. (2016). Movilidad intergeneracional de clase en Argentina,
- 2003-2010. In P. Solís, & M. Boado (Eds.). Y sin embargo se mueve...Estratificación social y movilidad intergeneracional de clase en América Latina (pp. 133-191). México D.F: Centro de Estudios Espinosa Iglesias y El Colegio de México
- Jorrat, J. R. (2010). Logros educacionales y movilidad educacional intergeneracional en Argentina. Desarrollo Económico, 49(196), 573-604.
- Jorrat, J. R. (2014). De tal padre, ¿tal hijo?: estudios sobre movilidad social y educacional en Argentina (Documentos de Trabajo; 70). Buenos Aires: Instituto de Investigaciones Gino Germani.
- Jorrat, J. R. (2016). De tal padre.¿Tal hijo? Estudios sobre movilidad social en Argentina. Buenos Aires: Dunken.
- Kessler, G., & Di Virgilio, M. (2010). The new poverty in Argentina and latin america. In L. Hanley, B. Ruble, & J. Tulchin (Eds.). Becoming global and the new poverty of cities. Washington, D.C: Woodrow Wilson International Center for Scholar.
- Lipset, S., Bendix, R., 1963 [1959]. Movilidad social en la sociedad industrial, Buenos Aires: EUDEBA.
- Lipset, S., Zetterberg, H.L., 1963 [1959]. "Movilidad social en las sociedades industrials", en Lipset S. y Bendix, R. Movilidad social en la sociedad industrial, (pp. 27-92). Buenos Aires: EUDEBA.
- Palomino, H., & Dalle, P. (2012). El impacto de los cambios ocupacionales en la estructura social de Argentina (2003-2011). Revista De Trabajo, 8(10), 59.
- Palomino, H., & Dalle, P. (2016). Movilización, cambios en la estructura de clases y convergencia de ingresos en Argentina entre 2003 y 2013. Desarrollo económico, 56(218), 59–100.
- Pla, J., Rodríguez de la Fuente, J., & Fernández Melián, M. C. (2016). ¿Ascenso social o movilidad espuria?: un análisis de las trayectorias de movilidad social. Argentina 2007-2008. Temas Y Debates, 20(31), 99-122.
- Quartulli, D. (2016). Efectos de origen clase en la Argentina 1955-2001 (Tesis de Doctorado). Buenos Aires, Argentina: Universidad de Buenos Aires. https://www.aacademic org/diego.guartulli/38.
- Sautu, R. (1969). Economic development and social stratification in Argentina 1850-1950. The London school of economics and political science. University of London [Tesis de Doctorado].
- Sautu, R. (2011). Teorías y métodos para el análisis de las clases sociales. Buenos Aires: Luxemburg.
- Sautu, R. (2016). Economía, clases sociales y estilos de vida. Buenos Aires: Ed. Luxemburg. Schizzerotto, A., & Marzadro, S. (2010). Social mobility in Italy since the beginning of the twentieth century. Rivista di Politica Economica, 9/10, 5–40 [XCVIII 3rd Series].
- Solís, P., & Dalle, P. (2018). ¿Nivelando el terreno? Efectos de la escolaridad en la movilidad intergeneracional de clase en Argentina, Chile y México en el siglo XXI. España: Revista Internacional de Sociología [en evaluación]
- Solís, P., Boado, M. (comps.) (2016). ¿Oportunidades similares o caminos divergentes? Estratificación y movilidad social en Argentina, Brasil, Chile, México, Perú y Uruguay, México. Centro de Estudios Espinosa Iglesias - Centro de Estudios Sociológicos de El Colegio de México., Brasil, Chile, México.
- Solís, P. (2016). Algunos rasgos distintivos de la estratificación y movilidad de clase en América Latina: síntesis y tareas pendientes. In P. Solís, & M. Boado (Eds.). Y sin embargo se mueve...Estratificación social y movilidad intergeneracional de clase en América Latina (pp. 477-498). México D.F: Centro de Estudios Espinosa Iglesias y El Colegio de México.
- Svampa, M. (2005). La sociedad excluyente. La Argentina bajo el signo del neoliberalismo. Buenos Aires: Taurus.
- Torche, F. (2005). Unequal but fluid: Social mobility in Chile in comparative perspective. American Sociological Review, 70(3), 422-450.
- Torrado, S. (1992). Estructura social de la Argentina 1945-1983. Buenos Aires: Ediciones de la Flor.
- Torrado, S., (2007). Estrategias de desarrollo, estructura social y movilidad. In S. Torrado (Vol. Ed.), Población y Bienestar Social en Argentina del Primero al Segundo Centenario. Una historia social del siglo XX. Tomo 1 (pp. 31-67). Buenos Aires: Edhasa.
- Torre, J. C., Pastoriza, y E., (2002). La democratización del bienestar. En J. C. Torre (dir.), Los años peronistas (1943-1955) (pp. 257-312). Buenos Aires: Sudamericana Torre, J. C. (2010). Transformaciones de la sociedad argentina 1910-2010. In R. Russel
- (Ed.). Argentina. Balance del siglo (pp. 167-225). Buenos Aires: Taurus.
- Vallet, L. A. (2004). Change in intergenerational class mobility in France from 1970 to 1990 the and its explanation: An analysis following the CASMIN approach. In R. Breen (Ed.). Social mobility in europe. New York: Oxford Press.
- Xie, Y. (1992). The Log-Multiplicative Layer Effect Model for Comparing Mobility Tables. American Sociological Review, 57, 380-395.
- Yaish, M., & Andersen, R. (2012). Social Mobility in 20 Modern Societies: The Role of Economic and Political Context. Social Science Research, 41, 527-538.