Unequal But Fluid: Social Mobility in Chile in Comparative Perspective

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A major finding in comparative mobility research is the high similarity across countries and the lack of association between mobility and other national attributes, with one exception: higher inequality seems to be associated with lower mobility. Evidence for the mobility–inequality link is, however, inconclusive, largely because most mobility studies have been conducted in advanced countries with relatively similar levels of inequality. This article introduces Chile to the comparative project. As the 10th most unequal country in the world, Chile is an adjudicative case. If high inequality results in lower mobility, Chile should be significantly more rigid than its industrialized peers. This hypothesis is disproved by the analysis. Despite vast economic inequality, Chile is as fluid, if not more so, than the much more equal industrialized nations. Furthermore, there is no evidence of a decline in mobility as the result of the increase in inequality during the market-oriented transformation of the country in the 1970s and 1980s. Study of the specific mobility flows in Chile indicates a significant barrier to long-range downward mobility from the elite (signaling high "elite closure"), but very low barriers across nonelite classes. This particular mobility regime is explained by the pattern*,* not the level*, of Chilean inequality—high concentration in the top income decile, but significantly less inequality across the rest of the class structure. The high Chilean mobility is, however, largely* inconsequential*, because it takes place among classes that share similar positions in the social hierarchy of resources and rewards. The article concludes by redefining the link between inequality and mobility.*

Intergenerational mobility and socioeconomic inequality are two well-established topics in sociology. Although closely linked, these two aspects of the social distribution of resources and rewards are conceptually distinct (Hout 2004). Whereas inequality describes the distribution of resources at a particular point in time, mobility measures how individuals move within this distribution over time (Marshall, Swift, and Roberts 1997). As expressed by standard statistical concepts, inequality refers to the variance of a particular distribution, and mobility refers to the intertemporal correlation (Gottschalk and Danzinger 1997). Thus, even if related, there is no necessary association between inequality and mobility. Furthermore,

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some analysts have argued that growing inequality can be offset by a rise in mobility, tacitly assuming that these two distributional phenomena can move in opposite directions (Friedman 1962).

At the theoretical level, approaches linking mobility and inequality tend to focus on micro-level mechanisms—the motivations and resources affecting individual decision making—connecting these macrostructural phenomena. Two perspectives can be distinguished. A "resource perspective" indicates that high inequality will result in decreased mobility because the uneven distribution of resources will benefit those most advantaged in the competition for success. In contrast, an "incentive perspective" argues that inequality will raise the stakes in the competition, thereby inducing higher mobility.

In the end, the question about the link between intergenerational mobility and socioeconomic inequality is empirical, and currently, the empirical evidence is thin and inconclusive. Part of the problem is that mobility has been studied in a small pool of mostly industrialized countries, all of which share relatively similar levels of inequality. To explore the link between mobility and inequality at the empirical and theoretical levels, this article introduces Chile to the comparative mobility project.

Chile is a middle-income country that has undergone significant political and economic change in the past few decades. In the mid–20th century, the Chilean development strategy was defined by import-substitutive industrialization. The economy of Chile was closed to international markets, and the state had a pivotal economic and productive role. Mounting social problems associated with unequal development and urban migration led to two progressive administrations in the 1960s and early 1970s. These administrations conducted major redistributive reforms, including the nationalization of enterprises, an educational reform, and an agrarian reform. This progressive path was violently halted by a military coup in 1973. Led by General Pinochet, the military took power and retained it until 1990.

Once in power, the authoritarian regime conducted a deep and fast market-oriented transformation, consisting of the now standard package of macroeconomic stabilization, privatization of enterprises and social services, and liberalization of prices and markets. As a result, Chile transformed from a closed economy with heavy state intervention into one of the most, if not the most, open and market-based economy of the world.

After a deep recession in the early 1980s, Chile has experienced substantial and sustained economic growth since the late 1980s, which concurs with the reestablishment of democratic rule. The period of redemocratization and growth during the 1990s has led to significantly improved living standards for the Chilean population. The dark side of this success story is the persistent economic inequality in the country. Inequality, historically very high, grew during the military government, and Chile currently ranks as the 10th most unequal country in the world. The Chilean pattern of inequality can be characterized by "concentration at the top": Chile is highly unequal because the wealthiest segment of the society receives a very large portion of the national income, whereas the differences between the poor and middle-income sectors are much less pronounced, lower even than in some industrialized nations. Although inequality is by definition associated with concentration, the Chilean case is extreme, as compared with the industrialized world and even with other Latin American nations.

These features render Chile an adjudicative case. If mobility and inequality are related, Chile should show mobility rates significantly different from those of its industrialized peers. To explore these issues, my analysis includes three components.

First, I analyze the Chilean mobility regime in a comparative perspective. Mobility is herein defined as the association between class of origin (father's class position) and class of destination (current class position) net of the changes in the class structure over time (structural mobility). Also known as "relative mobility" or "social fluidity," mobility represents the level of openness or degree of equality of opportunity in a society. I place Chile in the comparative context by fitting the "core model of social fluidity" to the Chilean intergenerational mobility table. This model claims to represent the basic similarity in mobility across countries, but it has been tested in only a few, mostly industrialized, countries (see, for example, Erikson and Goldthorpe 1992a, 1992b). By fit-

ting the core model to the Chilean table, I determine to what extent Chile departs, if it does, from the assumed international homogeneity in mobility regimes and what the sources of its possible departure are. Even if the core model has become a milestone in comparative analysis, it has a number of undesirable properties, discussed later in the Methods section. Thus, as a modeling alternative, I use a hybrid model that combines association parameters assuming a hierarchical conception of the mobility structure, with patterns accounting for class immobility. Interpretation of these two models provides a detailed description of the Chilean mobility regime, and an evaluation of the main factors—hierarchical differences across classes, class inheritance, barriers across sectors of the economy—driving Chilean mobility dynamics.

Second, I compare the level of mobility in Chile with that of other countries using primary data from France, England, Scotland, Ireland, Sweden, the United States, and Israel. All these countries have a much more egalitarian income distribution than Chile. Thus, if mobility is associated with inequality, the international comparison should show that mobility opportunities in Chile are significantly different from the opportunities in these industrialized nations.

Third, my analysis moves from an international to a temporal comparison. To explore the association between mobility and inequality further, I study Chilean mobility rates over time. Using a cohort analysis, I examine whether the significant increase in inequality associated with the market transformation of the 1970s and 1980s had any noticeable effect on Chilean mobility rates.

Advancing some of the major results, the findings present an interesting paradox. On the one hand, the Chilean mobility regime is found to be driven almost exclusively by the hierarchical distance between classes, which is determined in turn by the level of inequality in the country. This finding is consistent with the negative relationship between mobility and inequality posed by the "resource perspective." On the other hand, the international comparison indicates that Chile is impressively fluid despite its high economic inequality, and the temporal analysis shows no change in Chilean mobility over time despite the growing inequality during the military regime. Therefore, the international and temporal comparisons seem to contradict the negative relationship between mobility and inequality, and to suggest that high inequality may in fact induce mobility.

Solving this apparent paradox, I argue, requires switching the analytical focus from the *level* to the *pattern* of both mobility and inequality. When the pattern of these two distributive phenomena is considered, the contradiction disappears, and the mechanisms driving the mobility–inequality association can be examined.

The argument is organized as follows. Section 2 presents the empirical and theoretical evidence concerning the association of mobility with inequality. Section 3 describes the Chilean context. It discusses the most salient characteristics of the Chilean socioeconomic structure and presents a brief historical description of the major changes in the national political economy over the past few decades. Section 4 introduces the data and analytical approach. Section 5 presents the comparative analysis of mobility in Chile, including the description of the Chilean mobility regime, the international comparison of the fluidity level in Chile, and the analysis of change over time. Section 6 presents a summary of the findings, the conclusions, and the implications of the Chilean case for the comparative study of inequality.

ASSOCIATION BETWEEN INEQUALITY AND MOBILITY: EMPIRICAL AND THEORETICAL EVIDENCE

Although mobility and inequality "go together intuitively" (Hout 2004:969), they are different dimensions of the social distribution of advantage. The former refers to the cross-sectional dimension, which determines the individual position in a social hierarchy. The latter refers to its intergenerational dimension, specifically to differential access to these positions as determined by the position of origin (Marshall and Swift 1999:243; Marshall et al 1997:13).

At the conceptual level, the differences between these two distributional phenomena are clear. Inequality describes the distribution of resources at any particular point in time. Mobility describes inequality of opportunity, the chances that someone with a particular social origin will attain a more rather than a less advantaged destination regardless of the socioeconomic distance between these destinations. This

is why "individuals are anonymous for inequality but not for mobility" (Behrman 1999:72). In fact, mobility analysis assumes path dependence in the reproduction of the social structure across generations, and studies the extent and morphology of such intergenerational dependence.

The conceptual difference may have important practical implications. As argued by Friedman (1962), and echoed more recently by some researchers and policymakers, a given extent of income inequality under conditions of great mobility and change may be less a cause for concern than the same degree of inequality in a rigid system wherein the position of "particular families in the income distribution does not vary widely over time" (p. 171).

The key question is whether these two distributional phenomena are independent. Two theoretical approaches address this question. Both focus on the micro-level mechanisms that purportedly link these macrophenomena: the individual decision-making processes. The "incentive approach" claims that the motivation to pursue mobility is proportional to the amount of cross-sectional inequality. If inequality approaches zero, so does the payoff for mobility. Conversely, great inequality increases both the inducement to pursue mobility for those who are initially disadvantaged and the incentive to resist mobility for those who are initially advantaged. In other words, inequality raises the stakes of mobility (Hout 2004:970; see also Tahlin 2004).

The "resource approach" contends that mobility depends critically on resources rather than on incentives. The higher the inequality, the greater the distance in terms of human, financial, cultural, and social resources across different social origins. In a highly unequal society, the stakes of mobility will be high across the board, but the crucial resources controlled by individuals will be so unevenly distributed that competition certainly will benefit those more advantaged (see Goldthorpe 2000:254, Stephens 1979:54, and Tawney 1965 for a seminal elaboration of this argument). The outcome of high cross-sectional inequality will be the rigid reproduction of the class structure over time, i.e., low social fluidity.

Because resources and incentives work in different directions, the effect of inequality on mobility can be thought of as an additive calculation. If the impact of resources outweighs that of incentives, we should expect a negative association between inequality and mobility. Conversely, the association should be positive if incentives are more relevant than resources in the competition for advantaged positions. In what follows, I argue that consideration of resources and incentives affecting mobility at the micro-level should be preceded by a macro-level understanding of both mobility and inequality. This understanding should consider the pattern of these two distributional phenomena, not only their overall level, and should focus on the location and depth of the major cleavages in the social structure.

The Empirical Evidence

Empirical evidence concerning the mobility–inequality association is scarce. Although high-quality data on inequality exist for a large number of countries (e.g., Deininger and Squire 1996), comparable data on mobility are available only for a few, mostly industrialized nations. The most important source of comparable mobility data is the Comparative Analysis of Social Mobility in Industrialized Countries (CASMIN) project, which includes 15 industrialized nations.[1] The findings of the CASMIN project are highly relevant for the association between mobility and inequality. The CASMIN project concluded that whereas absolute mobility varies across countries and over time because of differences in national occupational structures, relative mobility—the association between class of origin and destination net of differences in marginal occupational distributions—is extremely homogeneous across countries and over time. These findings were expressed in the "common" and "constant" social fluidity hypotheses, respectively. The basic temporal and international similarity was systematized into a "core model" of social fluidity (Erikson and Goldthorpe 1987a, 1987b, 1992a; see Featherman, Jones, and Hauser 1975 and Hauser et al. 1975a, 1975b, for

[1] These include 12 European countries (England, France, the former Federal Republic of Germany, Hungary, Ireland, Northern Ireland, Poland, Scotland, Sweden, the former Czechoslovakia, Italy, and the Netherlands) and three industrial non-European countries (the United States, Australia, and Japan).

the original hypotheses). Common social fluidity is claimed to hold (at least) in industrial societies with a "market economy and nuclear family" (Featherman et al. 1975:340), and it would be explained by "the substantial uniformity in the economic resources and desirability of occupations" (Grusky and Hauser 1984).

The significant international similarity in mobility patterns has been confirmed largely in pairwise or three-country comparisons in a few industrialized countries: Erikson, Goldthorpe, and Portocarero (1979), Erikson et al. (1982), and Hauser (1984a, 1984b) for England, France, and Sweden; McRoberts and Selbec (1981) for the United States and Canada; and Kerckhoff et al. (1985) for England and the United States. As more industrialized countries were added to the comparative template, it was shown that Sweden and the Netherlands are more fluid (Erikson et al. 1982; Ganzeboom and De Graaf 1984), and that Germany, Japan, and Ireland are more rigid (Hout and Jackson 1986; Ishida 1993; Müller 1986). However, the most striking finding was the significant similarity across countries despite the different historical backgrounds and institutional arrangements.

On the basis of the CASMIN project, a relative consensus has emerged favoring the hypothesis of substantial international similarity in mobility patterns. Similarity does not mean complete homogeneity, however. There certainly exist some national deviations, but, it is argued, they can be explained by highly specific, historically based institutional factors rather than by systematic relationship to other variable characteristics of national societies. There seems to be only one exception to this "unsystematic fluctuation." Comparison of the CASMIN countries found that a small but significant portion of the international variation in mobility is related to economic inequality, with higher inequality leading to less fluidity (Erikson and Goldthorpe 1992a, chapter 12; also see Tyree, Semyonov, and Hodge 1979 for an earlier analysis).

This finding supports the resource approach linking the two distributive phenomena. Additional evidence consistent with the resources approach was presented by Jonsson and Mills (1993), who compared Sweden and England and found higher fluidity in the more equal Swedish society; by Bjorklund and Jantti (1997), who compared earnings mobility in the United States and Sweden and found mobility to be higher in Sweden; and by analyses of intergenerational earnings mobility in several Organization for Economic Cooperation and Development (OECD) countries, which suggest higher mobility in more equal nations (Solon 2002).[2]

However, a more recent comparative analysis of mobility trends between 1970 and 1990 in 11 industrialized countries does not find evidence of a relationship between inequality and fluidity (Breen and Luijkx 2004a:396). This supports an earlier indication of no association between the two distributional phenomena (Grusky and Hauser 1984).

In sum, evidence about a potential mobility-inequality association based on cross-country comparisons is inconclusive, not only because of divergent findings, but also because of the small number of countries included and the potentially high collinearity between inequality and other explanatory factors.

Empirical analysis of mobility trends within countries has not provided a conclusive answer either. The CASMIN finding of "constant social fluidity" over time has been recently tested in the aforementioned comparative analysis of mobility in 11 countries. This analysis, including 10 European nations and Israel (Breen 2004), finds growing fluidity in some countries, but null or slight temporal change in others. While Britain, Israel and less conclusively Germany display "constant fluidity"; some indication of growing openness is detected in France, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, and Sweden. However, in France, Hungary, Poland and Sweden all change occurred between the 1970s and 1980s, and stability has prevailed since then (Breen and Luijkx 2004b:54). Changes in Ireland and Italy are quite minor (Layte and Whelan 2004; Pisati and Schizzerotto 2004), and only the Netherlands displays a sustained increase in mobility over the entire period considered (Ganzeboom and Luijkx 2004). Mobility has also been found to

[2] To my knowledge, there is no empirical evidence supporting the incentive approach.

increase over time in the United States between the early 1970s and the mid 1980s (Hout 1988). However these increases in fluidity are not univocally preceded by a reduction of inequality, thus casting doubts on a potential association between inequality and mobility.

A careful analysis of mobility trends in Russia shows a significant decline in mobility associated with an increase in inequality after the market transformation of the early 1990s (Gerber and Hout 2004), which provides additional support for the resource approach. The advantage of the Russian study is that "the market transition in Russia . . . altered so many fundamental economic institutions so rapidly that we can confidently ascribe changes in social mobility . . . to this source rather than to cultural change or industrialization" (Gerber and Hout 2004:678). It is not clear, however, whether it is growth in inequality, recession, some other change associated with the radical liberalization of the economy, or a combination of these factors that triggered a decline in fluidity in contemporary Russia.

In this context, Chile presents an ideal case for an examination of the association between inequality and mobility. Given the extreme economic inequality in the country, if the unequal distribution of resources or incentives has an impact on mobility opportunities, the Chilean level of fluidity should be significantly different from that of industrialized nations. Additionally, given the increase in inequality associated with the market reform of the 1970s and 1980s, analysis of mobility before and after the reform would provide supplementary evidence concerning the potential mobility–inequality relationship. Naturally, a single case study will not supply a definitive answer to these questions. However, by combining an examination of the Chilean mobility regime in the context of historical transformations in the country with an international comparative analysis, and with an assessment of mobility trends over time, this article provides important insights into the existence of a link between mobility and inequality and the mechanisms driving it.

THE CHILEAN CONTEXT IN COMPARATIVE PERSPECTIVE

During the second half of the 20th century, Chile transformed from an agrarian, semifeudal society into an urban, service-based one. Between 1950 and 2000, the rural population declined from almost 40 to 17 percent (Braun et al. 2000; INE 2002). This defines Chile as a mostly urban country, with an 83 percent rate of urbanization, larger than the 78 percent rate in the United States. In tandem with urbanization, Chile experienced a reallocation of employment from the agricultural to the tertiary sector of the economy. The share of agriculture in total employment declined from 38 percent in 1950 to 17 percent in 2000. Whereas the share of manufacturing remained constant at about 18 percent, the share of the service sector rose from 42 to 65 percent (Braun et al. 2000; INE 2002).

Urbanization and tertiarization are processes that virtually all countries experienced during the 20th century. Within this secular trend, the Chilean political economy is marked by specific institutional developments that shape its stratification structure. From the 1940s to the 1970s, the Chilean economic landscape, as that of its Latin American neighbors, was defined by import-substitutive industrialization (ISI). Emerging as a reaction to the collapse of international trade caused by the Great Depression (Ellworth 1945) and based on the "deterioration of the terms of trade" theory (Prebisch 1950), ISI was based on two types of policies. The first was oriented to closing the Chilean economy to international markets, and the second was oriented to promoting national industrialization. The Chilean state became the leading productive agent, supporting industry through credit, investments, and technical assistance, and taking a direct productive role through the creation of public enterprises (Stallings 1978). After a sanguine beginning, with industrial production growing at almost 7 percent per year between 1940 and 1950 (Mamalakis 1976; Munoz 1968), ISI started to fail, economic growth stagnated, and social turmoil resulting from massive urban migration and vast social inequalities increased.

In 1964, a progressive administration took power and adopted as its mandate the correction of extreme inequality in the country by a

"Revolution in Freedom" (Gazmuri 2000). This progressive government launched redistributive policies, including an agrarian reform and an educational reform. The redistributive agenda, boosted by a socialist administration that came to power in 1970, was abruptly halted by a military coup in 1973. The military took power and retained it until 1990. During these 17 years, the military regime conducted a deep market-oriented transformation. Now turned into the "Washington consensus" paradigm (Williamson 1990), this reform included macroeconomic stabilization, deregulation of prices and markets, and the privatization of enterprises and social services. It transformed Chile from a closed economy with heavy state intervention into one of the most open, market-based economies in the world, with the productive and welfare role of the state reduced to a minimum (Edwards and Cox-Edwards 1991; Martinez and Diaz 1999; Meller 1996; Velasco 1994).

The depth of the market reform coupled with a world recession led in the late 1970s and early 1980s to the deepest economic crisis since the Great Depression. A third of the labor force was unemployed, and poverty afflicted nearly half of Chilean households (Meller 1991). The post-crisis recovery, starting in the late 1980s, was substantial and sustained, and coincided with the redemocratization of the country. The gross domestic product (GDP) per capita grew more than 6 percent annually for 15 years, a novel rate for Chile, only comparable in recent times to the "East Asian Miracle" (World Bank 1993). The sharp economic growth has transformed Chile from one of the poorest countries in Latin America (Hofman 2000) into a "middle-income economy" (World Bank 2003a). In the year 2000, the income per capita was approximately US$5,000, much lower than the United States average of US$31,910, but the highest in Latin America (World Bank 2003a). As a consequence of the sharp economic growth, Chileans have reached levels of consumption unthinkable two decades ago, and the poverty rate fell from 45 to 21 percent between 1985 and 2000 (MIDEPLAN 2000; Raczynski 2000).

The Chilean Level and Pattern of Inequality

The dark side of this "success story" is economic inequality. Structurally rooted in a feudal agrarian structure, the institutional legacy of the colonial period, and in the slow expansion of education (Engerman and Sokoloff 1997; World Bank 2003b), inequality has remained persistently high during the 20th century. The Gini coefficient reached .58 in the 1990s, which compares with a much lower Gini of .34 among the industrialized countries, and is large even in the highly unequal Latin American context, with its average Gini of .49 (Deininger and Squire 1996; Marcel and Solimano 1994). As Figure 1 indicates, Chilean inequality is almost twice that in most industrialized countries, and 1.5 times that in the United States, the most unequal nation of the industrialized world.

Not only the level, but also the pattern of inequality in Chile significantly departs from that of the industrialized world. With the wealthiest Chilean decile receiving 42.3 percent of the total national income (MIDEPLAN 2001), the Chilean pattern of inequality is characterized by high "concentration at the top." Although inequality is by definition related to concentration, the Chilean case is extreme, as compared with the industrialized world, and even with other Latin American countries. A comparison between the income of each decile and the income of the preceding (poorer) decile illustrates the point. The ratio between the wealthiest and the second wealthiest decile is *twice* as large in Chile as in the United States and England, and one of the largest in Latin America, depicting high elite concentration. In contrast, the ratio between the second poorest and the poorest deciles in Chile is *half* that of the United States and England, indicating that inequality at the bottom of the income distribution is much lower in Chile than in these industrialized nations (Szekely and Hilgert 1999).

In fact, as Figure 2 indicates, Chile is the fourth most unequal country in the most unequal region of the world. However, if the wealthiest decile is excluded, Chilean inequality is dramatically reduced, and Chile becomes the *most* equal Latin American country, even more equal than the United States (Inter-American Development Bank 1999).

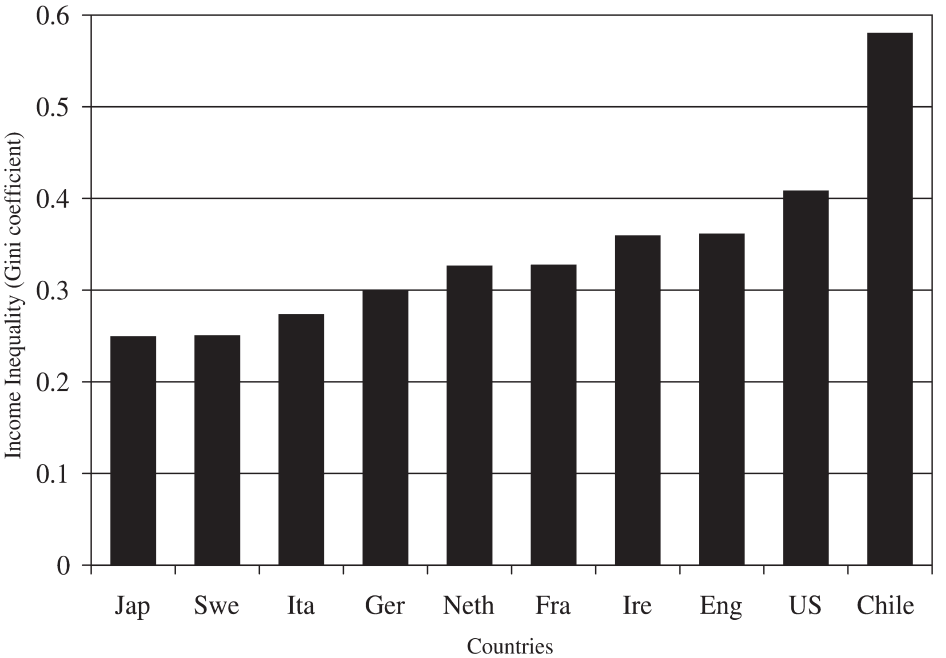

Figure 1. Income Inequality in Chile and Industrialized Countries Circa 2000

Note: Jap = Japan; Swe = Sweden; Ita = Italy; Ger = Germany; Neth = Netherlands; Fra = France; Ire = Republic of Ireland; Eng = England. *Source:* World Bank 2001.

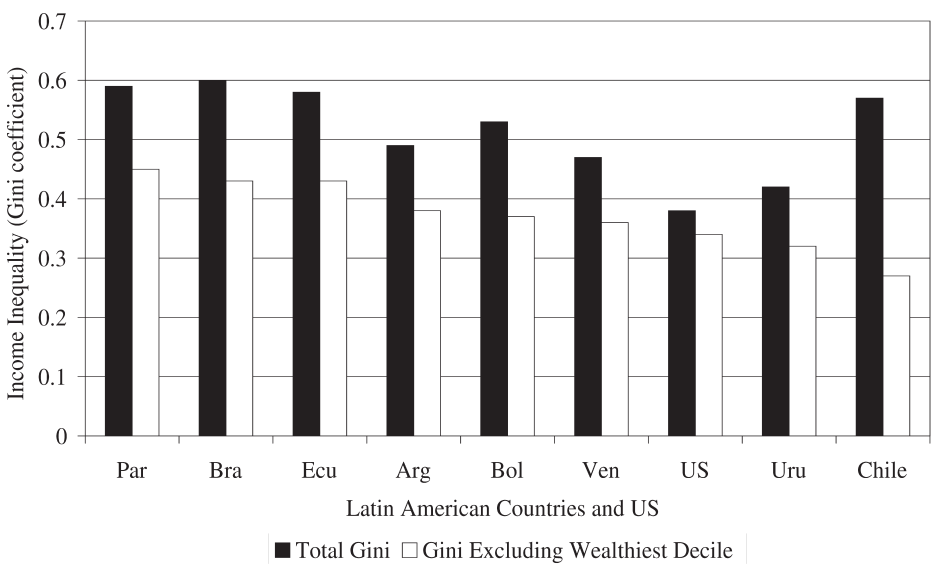

Figure 2. Gini Coefficient for Total Population, and Excluding Wealthiest Decile: Chile, other Latin American Countries, and Unites States in 1998

Note: Par = Paraguay; Bra = Brazil; Ecu = Ecuador; Arg = Argentina; Bol = Bolivia; Ven = Venezuela; Uru = Uruguay. *Source:* Inter-American Development Bank 1999.

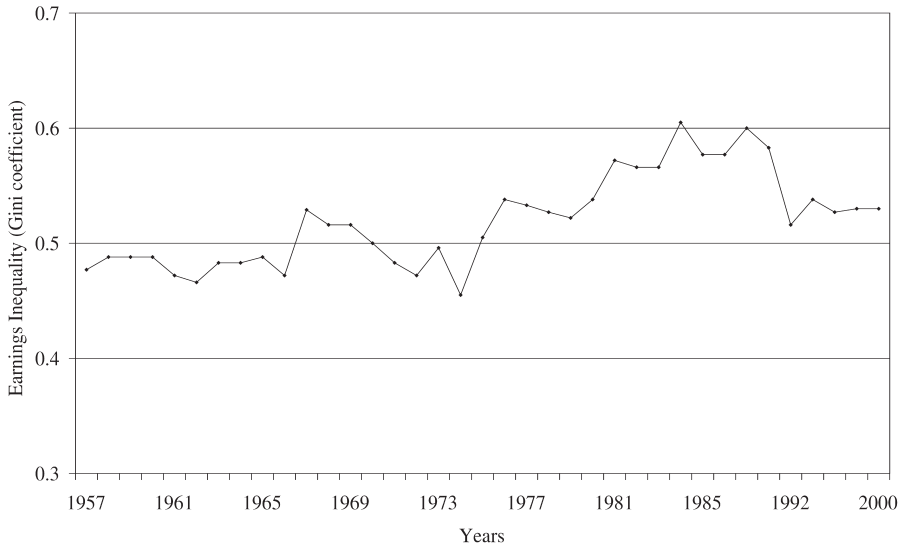

Figure 3. Earnings Inequality in Greatest Santiago 1957–2000
Source: Larranaga 1999 and calculations by the author.

Therefore, Chile is unequal largely because the elite concentrates an extremely high proportion of the national income. Across the nonelite classes, the distribution of resources is much more uniform.

Inequality is not a new development in Chilean society, but rather has deep historical roots. Figure 3 presents the longest available series on inequality in Chile, depicting earnings distribution since 1957 in Santiago[3] and showing persistently high inequality over the last half century. However, there is significant variation over time: a short decline of inequality during the progressive administrations of the mid-1960s and early 1970s, an increase since the military regime took power in 1973, a peak in 1984, and a small decline after the democratic transition to levels still higher than those that preceded the military regime.

LATE INDUSTRIALIZATION, MARKET REFORM, AND THE CHILEAN CLASS STRUCTURE

The "common social fluidity" hypothesis asserts that all international variation in mobility patterns is attributable to highly specific, historically formed national characteristics. In the Chilean case, these factors may be related to the market reform of the 1970s and 1980s and the rapid economic growth since the late 1980s. National mobility studies suggest that countries experiencing rapid industrialization may be characterized by weaker sector barriers to mobility, specifically barriers between the self-employed and employees and between agricultural and nonagricultural classes (Goldthorpe, Yaish, and Kraus 1997 and Yaish 2004 for Israel; Ishida, Goldthorpe, and Erikson 1991 for Japan; Park 2004 for Korea; and Costa-Ribeiro 2003 for Brazil).

In addition, two components of the Chilean market transformation may have contributed to the weakness of mobility barriers across sectors of the economy. The first component is the agrarian reform and subsequent counterreform undertaken by the military regime. The second one is the opening of the economy to international trade and the retrenchment of the state, which led to a decline in formal employment

[3] Santiago, the Chilean capital, comprises about one-third of the country's population. Assessment by Chilean experts suggests that Santiago trends present an unbiased picture of trends at the national level. Although earnings inequality is not as comprehensive a measure as total income inequality, it is an adequate, much more accurately measured, proxy (Galbraith 2002).

and to the growth and segmentation of the self-employed sector.

The main objective of the Chilean agrarian reform (1962–1973) was to reduce the extreme land concentration in the country. The reform was very successful. In 1955, the top 7 percent of landowners held 65 percent of the land, and the bottom 37 percent held only 1 percent. By 1973, the last year of the reform, 43 percent of the land had been expropriated (Kay 2002; Scott 1996). An agrarian counterreform was launched by the military regime as a way of returning the land to its former owners. It did not, however, restore the traditional hacienda order (Gomez and Echenique 1988; Rivera 1988). In fact, the military government returned only one-third of the plots to their old owners, sold another third, and adjudicated the remaining third to the small proprietors benefited by the agrarian reform. Unable to compete with the now cheap food imports, many small proprietors opted to sell their plots. As a consequence, as much as two-thirds of the Chilean agricultural land came up for sale, creating an active land market. The main beneficiaries of the "marketization of the countryside" were a new group of export-oriented entrepreneurs and international investors, who bought large tracts of land (Gwynne 1996; Kay 2002). Thus, the reform and counterreform triggered a massive "change of hands" in the Chilean countryside, likely altering the patterns of land inheritance.

The second major effect of the market reform on the class structure was the reduction of formal employment, caused by the decline of the industrial working class and by the shrinkage of the state. Incapable of competing with the now cheap imports, the working class plummeted from 34 percent of total employment in the early 1970s to 20 percent in 1980, while public employment dropped from 14 to 8.4 percent in the same period (Leon and Martinez 2000; Schkolnick 2000; Velasquez 1990). The decline in industrial and public employment led to an increase in self-employment from about 15 percent in 1970 to about 28 percent in 1980 (Thomas 1996), followed by a decline through the economic recovery before stabilization at about 22 percent of the total employment in 2000 (MIDEPLAN 2001). In contrast to industrialized countries, in which the self-employment rate usually is within the one-digit range and involves capital ownership, in Chile, it encompasses more than one-fifth of the labor force. Furthermore, self-employment had become a survival strategy for a large number of former industrial and public employees, appropriately labeled "forced entrepreneurialism" (Infante and Klein 1995; Portes, Castells, and Benton 1989). As a consequence, the Chilean self-employed sector is voluminous and segmented. It includes a small segment of entrepreneurs oriented to capital accumulation and able to hire employees, and a large segment of self-employed workers mostly engaged in "survival activities" and unable to hire the labor of others. Differences in economic well-being between these two groups are massive, with the former group earning, on average, three times more than the latter (MIDEPLAN 2001).

To be sure, a large self-employed sector is not a result of the market transformation. Self-employment has been historically high in Latin America because, according to some scholars, the region has experienced "dependent integration" into the world capitalistic system (Hopkins and Wallerstein 1982; Luxembourg 1951). However, the internal heterogeneity of the self-employed sector increased during the market reform, in a pattern that foretold what happened in the rest of Latin America during the 1990s (Klein and Tokman 2000; Portes and Hoffman 2003), and what may be current developments in the industrialized world (Arum and Müller 2004; Noorderhaven et al. 2003). These characteristics of the Chilean class structure are considered in the comparative analysis of Chilean mobility.

DATA AND ANALYTICAL APPROACH

This study uses the 2001 Chilean Mobility Survey (CMS). The CMS is a nationally representative, multistage, stratified sample of male heads of household ages 24 to 69. The sampling strategy includes the following stages. First, 87 primary sampling units (PSUs) (counties) are selected. Then blocks within the PSUs are selected, and finally, households within blocks are chosen. Counties are stratified according to size (fewer than 20,000; 20,000 to 100,000; 100,000 to 200,000; and more than 200,000 inhabitants) and by geographic zone (North, Center, South). All PSUs in the large size stratum are included in the sample to increase effi-

ciency. The fieldwork, conducted between April and June 2001, consists of face-to-face interviews in the respondent's household carried out by trained personnel. The survey excludes non–head-of-household males, which represent 17 percent of the male population of the relevant age (MIDEPLAN 2001). Among those excluded, 86.5 percent are the sons of the head of the household, 12.4 percent are another relative of the head, and 1.1 percent are other nonrelated males. Their occupational distribution, with control used for age, is almost identical to that of the heads of household. The small proportion represented by this group and their similar occupational distribution suggest that their inclusion would not significantly alter the findings presented in this article. Excluding the households not eligible for the survey, the response rate is 63 percent. Although nonresponse rates usually are not reported in Chilean surveys, exchange with Chilean experts indicates that the nonresponse rate is about 20 to 25 percent for face-to-face household surveys. The higher nonresponse rate of the CMS is likely attributable to the difficulty contacting male heads of household.[4] The total sample size is 3,544. I exclude individuals outside the age range of 25 to 64 years, which is conventionally used in comparative mobility research and cases with unusable data. After this exclusion, the usable sample size is 3,002.

Class Schema

This study uses a class perspective to describe the Chilean social structure. It utilizes the seven-category version of the classification developed by the CASMIN project. This classification is widely used in international comparative research, and describes the basic stratification of advanced industrial societies based on "employment relationships" (Erikson and Goldthorpe 1992a:35–47; Goldthorpe and Heath 1992). The seven classes included in the schema are I+II (service class), III (routine nonmanual workers), IVab (self-employed workers), V+VI (manual supervisors and skilled manual workers), VIIa (unskilled manual workers), IVc (farmers), and VIIb (farm workers).

Use of the 7-class categorization instead of an alternative detailed 12-class version produced by the CASMIN project (Erikson and Goldthorpe 1992b) induces some loss of information about the origin–destination association. A global test of all five aggregations obtained from the ratio of L^2 tests for the independence model in the collapsed and full tables indicates that the seven-class schema masks 29 percent of the association shown by the full set of classes ([L^2 full table – L^2 collapsed table]/L^2 full table = [1086.44 – 771.91]/1086.44 = .29). This proportion is high compared with that of the CASMIN countries, and is surpassed only by Sweden, with 31 percent (Hout and Hauser 1992, Table 2). A collapsed sevenfold class schema was however preferred because of the moderate sample size of the Chilean survey, and because it grants international comparability of the findings.[5]

Operationalization of this class classification is based on detailed information concerning job title (recoded into the standard ISCO-88 classification [ILO 1990]), industry, occupational status, and supervisory status of workers. Because the CMS is specifically designed to assess class mobility, it includes all the information necessary to produce the CASMIN class schema. The CASMIN project has not produced a standard algorithm to generate the class classification, but other researchers have produced such an algorithm, which I use in this analysis (Ganzeboom and Treiman 2003). Table 1 presents the basic intergenerational mobility table to be used in this analysis, including the counts and marginal percentage distribution for origin and destination classes.

[4] The nonresponse rate can yield bias if those who were unreachable or refused to participate differ from those included in the sample. To estimate the magnitude of this bias, I compared the distribution of key variables with the CASEN 2000 survey. CASEN is a large survey (n = 252,595) conducted by the Chilean government, and has a refusal rate lower than 10 percent. The comparison (available upon request) suggests that the CMS slightly underrepresents agricultural workers and the upper class. Overall, however, there is no indication of major nonresponse bias.

[5] Analyses were replicated using the detailed 12-class table, and no difference in substantive findings was found.

Table 1. Seven-Class Intergenerational Mobility Table for Chilean Men

	Class of Destination								
	I-II	III	IVab	IVc	V-VI	VIIa	VIIb	N	%
I-II. Service Class	229	49	81	2	37	30	2	430	14%
III. Routine Nonmanual	61	15	34	0	24	27	1	162	5%
IVab. Self-employed	123	37	173	28	102	90	20	573	19%
IVc. Farmers	42	16	68	54	58	54	24	316	11%
V-VI. Skilled Manual	91	33	116	13	155	135	36	579	19%
VIIa. Semiskilled and Unskilled Manual	49	43	115	13	111	123	44	498	17%
VIIb. Farm Workers	28	16	78	17	89	101	115	444	15%
N	623	209	665	127	576	560	242	3,002	
%	21%	7%	22%	4%	19%	19%	8%		

Note: Cell entries represent counts.

Methods

I fit two alternative models to the Chilean mobility table. The first is the "core model of social fluidity," which claims to capture basic international similarity in mobility. Although the core model has become a benchmark for mobility research, and currently is the only model that provides a comparative framework for mobility analysis, analysts have drawn attention to a number of its limitations. The model has been criticized for inadequately representing hierarchical mobility effects, for being tailored to a few industrialized countries, for the ad hoc nature of some effects it includes (specifically the affinity effects), and for lacking a criterion to determine how much divergence is necessary for it to be rejected (Ganzeboom, Luijkx, and Treiman 1989; Hout and Hauser 1992; Sorensen 1992; Yamaguchi 1987). I therefore also test an alternative "hybrid model" that combines the row–column (II) association model (Goodman 1979) with parameters accounting for class immobility. The international and temporal comparison of Chilean mobility patterns uses the uniform-difference (UNIDIFF) model, also known as the multiplicative layer effect model (Erikson and Goldthorpe 1992a; Xie 1992). Model comparison and selection is based on the Bayesian Information Criterion (BIC) statistic (Raftery 1995).

ANALYSIS OF CHILEAN MOBILITY IN COMPARATIVE PERSPECTIVE

The Core Model of Social Fluidity

I start by fitting the core model to the Chilean mobility table. The core model represents the basic international commonality in social fluidity using a topological formulation. In contrast to standard topological models constructed from a single allocation of cells (Hauser 1978), the core model uses eight matrices, each of which is designed to capture a particular effect that enhances or reduces mobility between specific classes (Erikson and Goldthorpe 1987a, 1992a, chapter 4). In this way, the model permits the sources of commonality across nations to be identified clearly, and likewise the departures from it. The effects are of four types: hierarchy, inheritance, sector, and affinity.[6]

Hierarchy effects. Hierarchy effects reflect the impact of status distances between classes on fluidity between them. To estimate these effects, the mobility table is divided into three strata, reflecting differences in resources and rewards across classes. The strata are the following: upper stratum (class I+II), middle stratum (classes III, IVab, IVc, and V-VI), and lower stratum (classes VIIa and VIIb). Because there are three strata, two hierarchy effects (HI1 and HI2) can be identified, each representing the crossing of one additional hierarchical barrier. The association between each pair of classes is expressed as an inverse function of the number of hierarchical strata crossed.

Inheritance effects. Inheritance effects are designed to capture the propensity for class

[6] Design matrices in Erikson and Goldthorpe (1992a:124–129).

immobility. They include three matrices: IN1 identifies immobility across all classes alike; IN2 identifies the higher immobility of the service class (I+II), the self-employed group (IVab), and farmers (IVc); and IN3 accounts for the highest immobility of farmers (IVc).

SECTOR EFFECTS. Sector effects are intended to identify the difficulty of moving between the agricultural and nonagricultural sectors of the economy (SE1).

AFFINITY EFFECTS. Affinity effects are intended to capture specific discontinuities (negative affinities) or linkages (positive affinities) between classes, which either reinforce or offset the overall effects of hierarchy and sector. There are two affinity effects. The first, AF1, identifies the difficulty of moving between the service class (I+II) and the class of farm workers (VIIb), which adds to their hierarchical distance. In contrast, AF2 identifies instances in which mobility is more frequent than accounted for by hierarchy and sector effects, and includes affinities within the nonmanual sector (I+II and III) and within the manual sector (V+VI and VIIa): a symmetrical affinity based on capital possession (IVab and IVc, and I and IVab) and an asymmetrical link between agricultural classes of origin (IVc and VIIb) and the unskilled manual class of destination (VIIa).[7]

[7] For a detailed account of the empirical derivation of the model, see Erikson and Goldthorpe (1987a, 1987b, and 1992a, chapter 4).

THE MOBILITY PATTERN IN CHILE: CONVERGENCE OR DIVERGENCE?

Table 2 presents the fit of several models applied to the Chilean data, and Table 3 displays the parameter estimates for each of these models. Model 1 in Table 2 indicates that the fit of the original core model to the Chilean table is unsatisfactory under standard statistical criteria, but it explains a significant 77.5 percent of association under independence. To assess the strength of the different factors driving mobility opportunities, I compare the Chilean coefficients with those obtained for the CASMIN countries. Coefficients from the original core model fitted to the Chilean table are reported in row 1 of Table 3; CASMIN coefficients are reported in row 2; and differences in coefficients' magnitude and the statistical significance of the differences are reported in row 3.[8]

All Chilean coefficients are significant and have the same sign as for the CASMIN countries. Comparison of the magnitude of the coefficients, however, shows significant departures from the core for five effects, which reveal interesting differences between Chile and the CASMIN countries. The hierarchy coefficients indicate that whereas the short-range hierarchical barriers are somewhat weaker in Chile

[8] CASMIN coefficients were obtained from fitting the core model to the combined table of France and England, standardizing both tables to have 10,000 cases, as recommended by Erikson and Goldthorpe (1992a:121). The coefficients obtained are virtually identical to those presented by Erikson and Goldthorpe (1992a, Table 4.4).

Table 2. Fit statistics, selected models to the Chilean Mobility Table

	L^2	BIC	df	*p*	Association Explained
Core Model					
1. Core Model, Original	137.5	28.5	28	.000	77.5%
2. Core Model, EHE	108.1	–0.8	28	.000	86.0%
3. Chilean version of Core Model ([Model 2] + Chilean Parameters)	72.4	–32.6	27	.000	90.6%
Association Models				.000	
4. Heterogeneous Quasi-RC(II) Model	73.4	–16.1	23	.000	90.5%
5. Homogeneous Quasi-RC(II) Model	80.3	–28.7	28	.000	89.6%
6. Quasi-Linear by Linear Association (SES row and column ranking)[a]	156.3	27.9	33	.000	79.8%

Note: EHE = empirical hierarchical effects; SES = eocioeconomic status.

[a] Linear-by-linear association model using socioeconomic status scores as presented in Appendix Figure A1 to rank origin and destination classes.

Table 3. Model Parameter Estimates for the Chilean Mobility Table

Effect	HI1	HI2	IN1	IN2	IN3	SE1	AF1	AF2	AF1–C	IN2–C
1. Core model original[a]	–.12*	–.65***	.41***	.39***	.68**	–.38***	–.76***	.33***	—	—
	(.05)	(.11)	(.08)	(.10)	(.24)	(.07)	(.21)	(.05)		
2. Core model CASMIN[b]	–.22***	–.45***	.43***	.84***	1.01***	–1.06***	–.83***	.45***	—	—
	(.02)	(.04)	(.03)	(.04)	(.11)	(.05)	(.13)	(.02)		
3. Difference, CASMIN—Chile[c]	–.10 †	.20 †	Insig.	.45***	Insig.	–.68***	Insig.	–.12*	—	—
	(.06)	(.12)		(.11)		(.08)		(.06)		
4. Core model EHE[d]	–.03	–.74***	.37***	.31*	.61*	–.42***	–.84***	.20***	—	—
	(.07)	(.09)	(.07)	(.13)	(.24)	(.07)	(.20)	(.06)		
5. Chilean version of core[e]	–.09 †	–.47***	.34***	—	.48*	–.20*	–.63**	.26***	–1.49***	.71***
	(.06)	(.10)	(.07)		(.23)	(.08)	(.21)	(.06)	(.46)	(.14)

Note: Data shown are model parameter estimates with standard errors in parentheses. EHE = empirical hierarchical effects.

[a] Model 1 from Table 2.

[b] Original Core Model fitted to the English and French mobility tables. See text for details.

[c] Difference in parameter magnitude between original core model fitted to the Chilean table (row 1) and to the CASMIN table (row 2).

[d] Model 2 from Table 2.

[e] Model 3 from Table 2.

† $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

(HI1), long-range hierarchical mobility is more difficult in this country (HI2). This suggests substantial inequality between the extremes of the class hierarchy combined with smaller differentiation in the middle of the distribution. As to the inheritance effects, the service class, the self-employed group, and the farmers (classes I+II, IVab, and IVc, respectively) have a significantly lower propensity to immobility in Chile than in the CASMIN countries, suggesting that class positions usually associated with independent work are less able to reproduce their class status intergenerationally than depicted by the core. Most impressive, the barrier between the agricultural and nonagricultural sectors of the economy (SE1) is much weaker in Chile, as is the affinity effect linking nonmanual classes, manual classes, and the classes that own capital among themselves (AF2).

Interestingly, all the significant differences in coefficients, with the single exception of the barrier to long-range hierarchical mobility, suggest that Chile is more fluid than the core model depicts. Higher fluidity seems to be driven by the weakness of horizontal barriers separating the agricultural, manual, and self-employed sectors of the economy. This is consistent with findings of weaker sector effects in countries that have experienced rapid industrialization, such as Korea (Park 2004), Brazil (Costa-Ribeiro 2003), Israel (Yaish 2004; Goldthorpe et al. 1997), and Japan (Ishida et al. 1991).

Additionally, in the Chilean case, the weakness of sector barriers may have been intensified by the deep market transformation of the 1970s and 1980s. On the one hand, the "change of hands" in the agricultural sector induced by the agrarian reform and counterreform likely increased fluidity between the agricultural and urban classes. On the other hand, the role of self-employment, as an ephemeral refuge against (industrial and public sector) unemployment may have reduced barriers between the self-employed group and the rest of the social structure. Added to the larger difficulty of long-range hierarchical mobility, these features suggest *weak sector cleavages in the Chilean fluidity pattern and high salience of the hierarchical dimension of mobility.*

For the countries in which the fit of the core model is not adequate, Erikson and Goldthorpe (1992a:145) suggest adding parameters that account for country-specific deviations from the model. I therefore introduce adjustments to reflect salient characteristics of the Chilean fluidity pattern, producing a "Chilean version" of the core model.

First, I modify the hierarchical effects. Fitting of the core model suggests that hierarchical barriers are a crucial determinant of mobility in Chile. This conclusion is, however, obscured by the fact that the hierarchical strata distinguished by the core model are not empirically obtained, and may not accurately represent the Chilean ranking of classes in terms of socioeconomic status (SES). To model hierarchical effects in Chile adequately, I rank classes using the unweighted average of their schooling and earning levels as a proxy for SES. I then collapse the seven classes into three hierarchical strata using cluster analysis. These three empirically obtained strata are the following: Upper stratum (service class: I+II), middle stratum (routine nonmanual and self-employed group: III and IVab), and lower stratum (manual and agricultural classes: V-VI, VIIa, IVc, and VIIb). Details on the ranking of classes, cluster procedures, and the comparison of the CASMIN and empirical Chilean class ranking can be found in the Appendix. Comparison of the CASMIN and the empirical class ranking suggests higher differentiation at the top than at the bottom of the social structure in the Chilean case.

Model 2 in Table 2 uses the empirically obtained hierarchical strata (EHE). The improvement in fit is massive (the difference in BIC is 29.3, without using any degrees of freedom). The model now accounts for 86 percent of the association under independence.

The large improvement in fit when empirical hierarchical strata are used challenges the assumption of an internationally homogeneous hierarchical class ranking. At the empirical level, there is no proof that the hierarchical ranking of classes assumed by the core model fits all CASMIN countries.[9] Moreover, some evidence points to significant cross-country dif-

[9] Erikson and Goldthorpe(1992a, Table 2.2) present the average ranking of classes based on standard status measures, but they do not show the empirical ranking of classes for each country. If the occupational composition of classes varies across countries, there may be significant international differences in the hierarchical ranking of classes.

ferences in the ranking of classes (Hout and Hauser 1992; Sorensen 1992). At the theoretical level, the creators of the core model highlight the relevance of highly specific, historically formed national attributes to explain international variation in mobility. These national particularities may very well result in different hierarchical positions of classes across countries.[10] Furthermore, even if the homogeneous ranking of classes imposed by the CASMIN researchers applied to most CASMIN countries, significant departures may be found in the late industrialized countries currently being added to the comparative mobility project. The Chilean findings suggest that instead of imposing international homogeneity to the hierarchical dimension of mobility, the ranking of classes should be treated as nationally specific parameters to be estimated, as mobility researchers routinely treat row and column marginals of the mobility table. The issue is important because the hierarchical dimension is the most relevant dimension of mobility (Hout and Hauser 1992; Wong 1992), and inadequate modeling can bias assessment of not only hierarchical effects of mobility but also other effects.

Two other changes were introduced to account for Chilean-specific deviations from the core model. First, the IN2 effect was rearranged to exclude the self-employed class (IVab) and to include the class of farm workers (VIIb). This rearrangement accounts for the fact that the Chilean self-employed class appeared less likely than depicted by the core model to reproduce its class position across generations; and the inheritance level of Chilean farm workers is higher than in the CASMIN countries. These changes are expressed in the Chilean-specific inheritance parameter IN2-C. Second, an affinity parameter (AF1-C) was added to capture the difficulty of long-range downward elite mobility. This negative asymmetrical affinity links flows from the service class to the agricultural classes, and from the routine nonmanual class to the class of farm workers. Note that the AF1-C *adds* to the hierarchical distance between the two extremes of the class structure, and to the negative affinity captured by AF1 to depict the extreme difficulty of long-range downward mobility from the Chilean elite. The fit of this 'Chilean version' of the core model is reported in Table 2, model 3. The improvement in BIC from model 2 is substantial. Furthermore, even if the model falls short in terms of standard statistical criteria, it accounts for a large 91% of the association under independence, thereby supporting the claim that it adequately represents the Chilean mobility pattern. The parameter estimates for the Chilean version of the core are reported in row 5, Table 3.

Because of the core model's undesirable properties, I also use an alternative approach to examine Chilean mobility patterns. This approach uses the now standard association row–column (II) (RC[II]) model (Goodman 1979; see also Hout 1983, and Wong 1992). In this model, both origin and destination classes are scaled so that the association can be expressed as a linear-by-linear interaction by a single parameter. The multiplicative form of the model can be expressed as follows:

$$F_{ij} = \tau\, \tau_i^O\, \tau_j^D \exp(\phi\, \mu_i\, \nu_j),$$

where *i* indexes class of origin, *j* indexes class of destination, F_{ij} is the expected frequency in the (*i,j*) cell, τ is the grand mean, τ_i^O pertains to the class of origin marginal effect, τ_j^D pertains to the class of destination marginal effect, ϕ is a global association parameter, μ_i is the scale value for the i^{th} class of origin, and ν_j is the scale score for the j^{th} class of destination, subject to the following normalization constraints: $\Sigma\mu i = \Sigma\nu j = 0$ (normalization of the location) and $\Sigma\mu i^2 = \Sigma\nu j^2 = 1$ (normalization of the scale).

The class scale scores reflect a latent continuous variable made manifest by the class categories. Empirically obtained from the data, these "distance" scores produce an optimal ranking of classes for the purpose of mobility analysis. The RC(II) model is appropriate for modeling the association of any two ordinal variables, but mobility tables are distinctive because of the correspondence between class of origin and class of destination (Gerber and Hout 2004:691).

[10] For instance, during the socialist period in Hungary, the status of the proletariat may have been indistinguishable from the status of the routine nonmanual class (Szelenyi 1998:62). In Scotland, given to early industrialization, the hierarchical barrier between the skilled and unskilled working classes that characterizes other CASMIN countries may not exist (Erikson and Goldthorpe 1992a:163).

I introduce two adjustments to account for this correspondence, transforming the formulation into a "hybrid model." First, topological parameters will account for the large counts in some diagonal cells reflecting immobility (inheritance) effects. These parameters distinguish two inheritance levels: "high inheritance" for the service class (I+II), farmers (IVc), and farm workers (VIIb), and "low inheritance" for all other classes, with the exception of the routine nonmanual workers.

Model 4 in Table 2 reports the fit statistic for this quasi-RC(II) model. The BIC statistic rejects it and prefers the more parsimonious Chilean version of the core model. Therefore, I introduce a second adjustment to account for the correspondence between rows and columns in mobility tables. Origin and destination scores are constrained to be the same, assuming that the scaling of classes has not significantly changed over time. Model 5 in Table 2 reports fit statistics for this homogeneous quasi-RC(II) model. On the basis of the BIC statistic, the fit of the model is as good as that of the Chilean version of the core model (Wong [1994] shows that BIC differences of less than 5 points should be considered indeterminate). Thus, under standard statistical criteria, the Chilean core model and the homogeneous quasi-RC(II) model are indistinguishable. Given that the Chilean version of the core model was tailored to fit the Chilean table, the fit of model 5 is impressive, and it indicates that a unidimensional scale can adequately capture mobility distances between classes.

The logical next question is what this scale represents, and specifically whether it represents the hierarchical ranking of classes in terms of SES. If a close correspondence is found between the mobility distances among classes and their distances in terms of SES, this finding would suggest that the intragenerational distribution of resources and rewards expressed in the SES ranking of classes drives the process of intergenerational mobility. In other words, this finding would support the resource approach's claim that differences in resources associated with diverse class positions determine mobility opportunities across generations.

To examine this possibility, I compare the class scores obtained from the homogeneous quasi-RC(II) model with the empirically obtained SES ranking of classes based on education and earnings (Appendix). Figure 4 presents the comparison between the standardized values of both sets of scores. The correspondence is striking. The mobility distances between classes closely reproduce their distances in terms of SES. This close isomorphism suggests that, at least in Chile, the intragenerational inequality in the distribution of social resources and rewards across classes largely drives the intergenerational mobility process. To test the isomorphism further, I use the SES class scores as row and column rankings to estimate a quasi–linear-by-linear association model (model 6, Table 2). The fit of model 6 is significantly worse than that of model 5, almost as poor as that of the original core model. This indicates that although the inter- and intragenerational dimensions of inequality are very similar in Chile, they have a somewhat different structure.

In summary, the central characteristic of the Chilean mobility regime is the predominance of long-range hierarchical barriers and the weakness of sector cleavages separating classes in the middle and at the lower end of the hierarchical structure. Findings from the "Chilean version" of the core model and the quasi-RC(II) hybrid models are consistent, depicting a social structure characterized by significant barriers between the top echelon and the rest of the class structure. The good fit of the homogeneous quasi-RC(II) model provides preliminary support for the resource approach linking inequality and mobility. Mobility dynamics seem to be driven largely by the hierarchical distances between classes, and overall, Chile seems not to be less fluid than the CASMIN countries.

Comparison of the Original and Chilean Versions of the Core Model

Although Chilean mobility dynamics seem to be driven by inequality across classes in a very unequal society, the fitting of the core model provides no indication that Chile is significantly less fluid than depicted by the core model. As a preliminary analysis of the Chilean level of fluidity, I compare the predicted propensities for mobility and immobility between specific pairs of classes in Chile with those in the CASMIN countries. Propensities are obtained from the original and Chilean versions of the core model, respectively (models 2 and 5 of Table 3).

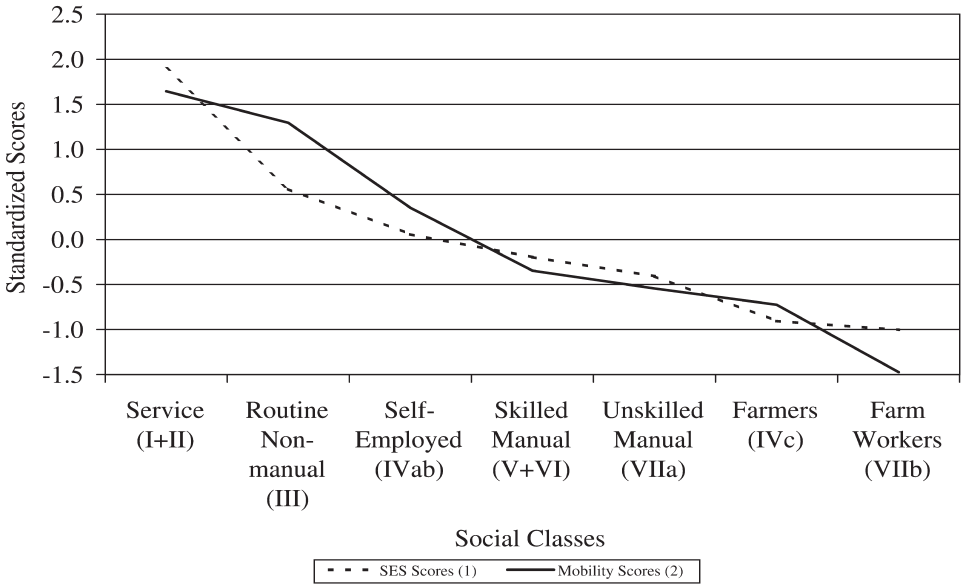

Figure 4. Class Scores Obtained from the Homogeneous Quasi-RC(II) Model and from Socioeconomic Status (SES) Ranking

Note: (1) = Class standardized socioeconomic status scores based on schooling and earnings; (2) = Class standardized scores based on the Homogeneous Quasi-RC(II) model (see text for details).

I begin with the immobility of those at the top of the class structure, namely the service class (I+II). The service class' propensity for immobility in the original core model is captured by two parameters, IN1 and IN2. This propensity is more than three times what it would be in the absence of these effects ($e^{.43+.84} = 3.56$). In Chile, the propensity for immobility of class I+II is captured by the same two parameters, and it is lower than what the core model expresses: 2.86 times larger than it would be in the absence of these effects ($e^{.34+.71}$). What about the immobility of the two agricultural classes? In the CASMIN countries, immobility of the IVc and VIIb classes is, respectively, 7.85 and 1.54 times what it would be in the absence of these parameters ($e^{.43+.84+1.01-.22}$ and $e^{.43}$, respectively). In Chile, the comparable values are 4.22 and 2.86 ($e^{.34+.71+.48-.09}$ and $e^{.43+.71}$, respectively), indicating the relatively low inheritance associated with land ownership in the Latin American nation. Thus, if attention is focused on the immobility in the upper and lower ends of the social hierarchy, the comparison does not indicate less fluidity in the highly unequal Chilean society.

What about the mobility rates between the two most distant classes in the hierarchical ranking, namely, the service class (I+II) and farm workers (VIIb)? In the case of the CASMIN countries, the mobility chances between these classes are captured by four parameters (HI1, HI2, SE1, and AF1), and is .077 times smaller than it would be in the absence of these effects ($e^{-.22\ -.45-1.06-.83}$). In Chile, the distance from class I to class VIIb is expressed by these same four parameters in addition to the asymmetrical disaffinity AF1-C. This yields mobility chances .056 times what would be obtained in the absence of these effects ($e^{-.09\ -.47-.20-.63-1.49}$). Thus, the barrier to long-range downward mobility from the elite is more significant in Chile than in the CASMIN countries. The same occurs with long-range downward mobility from class III.

If we measure the reciprocal flow (i.e., upward mobility from class VIIb *to* class I+II), we obtain the same value for the CASMIN countries, because all parameters are symmetrical in the original core model. For Chile, however, this calculation removes the asymmetrical barrier to elite downward mobility, which rais-

es the chances of mobility to .25 of what it would be in the absence of these effects ($e^{-.09\ -.47-.20-.63}$). Surprisingly for a society with such a high level of inequality, the barrier to long-range upward mobility is significantly less than in the CASMIN countries.

What about the relative chances of moving between classes that are closer in terms of status? The Chilean version of the core model suggests that the pattern should be as fluid in Chile, if not more so, because of the weak sector effects. For example, in CASMIN countries, the propensity to move from the farmer class (IVc) to the unskilled manual class (VIIa) is .44 times what it would be in the absence of these effects ($e^{-.22-1.06+.45}$). In contrast, in Chile there is higher fluidity, with mobility 1.28 times what neutral mobility would be ($e^{-.20+.45}$). Again, there is no indication of more rigidity in the Chilean fluidity pattern.

Finally, I compare the mobility flows between the voluminous skilled and unskilled working classes. Whereas in Chile there is no effect modifying the fluidity between classes V-VI and VIIa, in the CASMIN countries, they are separated by a hierarchical effect, but connected by an affinity effect. This marginally increases fluidity to 1.08 of what it would be in the absence of this effect ($e^{-.26+.34}$), indicating no significant international differences.

These case-by-case comparisons suggest that *although hierarchical effects, especially those associated with long-range downward mobility from the elite, are stronger in Chile, sector barriers are weaker, yielding a pattern that is as fluid, if not more so, than that in advanced industrial nations*.

The Level of Fluidity in Chile: A Multicountry Comparison

To explore further the level of fluidity in Chile in an international context, I compare the strength of the origin–destination association between Chile and seven industrialized countries: England, France, Sweden, Ireland, Scotland, the United States, and Israel. The rationale for including these countries is as follows. England and France are the central countries from which the core model was derived (Erikson and Goldthorpe 1987a, 1987b, 1992a); Sweden and the United States are among the most fluid countries in the CASMIN pool; Scotland and Ireland are found to be among the most rigid nations within the CASMIN set (Erikson and Goldthorpe 1992a, chapter 11); and Israel is the most fluid society in which empirical studies have been conducted, significantly more fluid than any of the CASMIN countries (Goldthorpe et al. 1997; Yaish 2000).[11]

In order to assess cross-national variation in social fluidity, I fit a set of models for the three-way table of class of origin, class of destination and country (Table 4). The model of conditional independence, assuming no association between origins and destinations across countries given different national margins (Table 4, column 1), is presented as a baseline against which other models may be assessed. As expected, the fit is very poor, indicating significant origin-destination association in the countries analyzed.

The second model tested is that of "common fluidity," which postulates that the strength of the origin-destination association is the same across countries.[12] As column 2 of Table 4 shows, the model significantly improves the fit, when compared with conditional independence ($L^2 = 987.2$ df = 252 BIC = –1767.8). Although the model does not fit the data well under standard statistical criteria, it accounts for a large 96 percent of the association under independence.

I then turn to the question of international variation. To test the hypothesis that the strength of the origin–destination association varies across countries, I use a model independently developed by Xie (1992) and Erikson and Goldthorpe (1992a), and known as the multiplicative layer effect, or uniform difference (UNIDIFF). The multiplicative formulation of the model is the following:

[11] Data on England, France, Sweden, the United States, Ireland, and Scotland were obtained from the CASMIN dataset. Data on Israel were obtained from the 1991 Israeli Social Mobility Survey. Samples are reduced to men ages 25 to 64 years in the CASMIN countries, and to Jewish men ages 25 to 64 years in Israel.

[12] Note that this is not the core model of fluidity estimated in the previous section, but a full interaction model, which uses one parameter for each cell of the table, but constrains the parameters to be homogeneous across countries.

Table 4. Fit Statistics for Mobility Models in Eight Countries

Model	1. Conditional Indendence	2. Common Social Fluidity	3. UNIDIFF
L^2	16971.7	987.2	639.7
df	288.0	252.0	245.0
BIC	13823.0	–1767.8	–2038.8
Association Explained	0.0%	94.2%	96.2%
ϕ Israel			.25
ϕ Chile			.26
ϕ USA			.30
ϕ Sweden			.31
ϕ England			.39
ϕ France			.41
ϕ Ireland			.42
ϕ Scotland			.43

Note: ϕ = country-specific deviation from overall origin-destination association (see text for details).

$$F_{ijk} = \tau\, \tau_i^{O}\, \tau_j^{D}\, \tau_k^{C}\, \tau_{ik}^{OC}\, \tau_{jk}^{DC} \exp(\psi_{ij}\phi_k),$$

where *i* indexes class of origin, *j* indexes class of destination, *k* indexes country, F_{ijk} is the expected frequency in the (i,j,k) cell, the τ parameters are subject to the ANOVA-type normalization constraint that they multiply to 1 along all appropriate dimensions, *n* represents the grand mean, τ_i^O pertains to the class of origin marginal effect, τ_j^D pertains to the class of destination marginal effect, τ_k^C pertains to the country marginal effect, ψ_{ij} describes the origin–destination association over all countries, and the ϕ_ks describe the country-specific deviation from the overall association. The extent of association in country *k* is now the product of two components: the origin–destination association common to all countries and the national deviation parameter ϕ_k.[13]

As indicated by column 3 of Table 4, the fit of the model is significantly improved when the strength of association is allowed to vary across countries. The ϕ_ks indicate country-specific departures from the overall level of association.[14] The larger the country-specific deviation ϕ_k parameter, the stronger the origin–destination association in country *k*, i.e., the less fluid the country is. Comparison of the parameters yields a striking conclusion: *Chile is more fluid than any of the advanced European countries*, and has a level of fluidity in between the highly fluid United States and Israeli societies. Finding high fluidity in a developing country is not completely novel. In fact, Park (2004) demonstrated that Korea is more fluid than France, England, and even Sweden. However, economic inequality in Korea is comparable with that in advanced industrial nations (Deininger and Squire 1996). What contradicts a resource approach-based expectation is to find high fluidity in a country with one of the highest levels of inequality in the world.[15]

The Level of Social Openness in Chile: Temporal Comparison

To explore further the association between mobility and inequality, I examine the change in mobility rates over time in Chile. Specifically, I test whether fluidity has changed across three periods: the redistributive period (1964–1973), the market transformation period (1974–1988), and the growth and democratization period

[13] Alternatively, I could have used the log-additive layer model (Yamaguchi 1987). The problem with this model is its requirement that the origin and destination categories be correctly ordered (in terms of mobility distances), which produces a different result for each combination of origin and destination ordering (Goodman and Hout 1998; Xie 1992).

[14] Following Xie's (1992) formulation, the scale of the ϕ_k parameters is normalized so that $\Sigma\phi_k^2$ equals 1.

[15] Note that I cannot say anything about the sources of fluidity in a particular country by using this method. Instead of a summary test such as the one used here, this would require a local test in which specific sets of cells are modeled (Wong 1990).

(1989–2000). Given the significant increase in inequality during the market reform (as Figure 3 indicates, the period-average Gini index grew from .49 to .55), an association between inequality and fluidity should express itself as a significant change in mobility rates during that period.

The advantage of a trend analysis is that by focusing on a single country, it controls for unobserved factors producing international variation. However, because the data come from a single, cross-sectional study, I divide the sample into three successive birth cohorts and interpret intercohort change as period effects. The first cohort (born between 1937 and 1943) reached occupational maturity—defined in this analysis as 30 years old—between 1967 and 1973, during the redistributive period. The second cohort (born between 1944 and 1958) reached occupational maturity during the market transformation period (1974–1988). The third cohort (born between 1959 and 1970) reached occupational maturity during the period of sustained economic growth and democratization (1989–2000). As is well known, a limitation of cohort analysis is the inability to distinguish between life cycle (age), period, and cohort interpretations of change (Ryder 1965).[16] The potentially confounding effects of life cycle differences are minimized by including only individuals who have reached occupational maturity, under the assumption that there is little career mobility after that point (Goldthorpe 1980; Heath and Payne 1999).[17] However, the analysis cannot distinguish between cohort and period interpretations of change. To assess changes over time, I use the UNIDIFF model introduced in the previous section.

Panel A in Table 5 presents the parameter estimates for the model of conditional independence (model 1), the "constant social fluidity" model (model 2), and the UNIDIFF model (model 3). The conditional independence model assumes no origin-destination association and, as expected, fits the data poorly. The key model comparison is between the constant fluidity model, assuming no variation across historical periods, and the UNIDIFF model, which postulates a significant change in the level of fluidity over time. A comparison of models 3 and 2 indicates that allowing the origin–destination association to vary across cohorts does not lead to a significant improvement of fit over that of the constant fluidity model. The model comparison, therefore, indicates that mobility did not decline as a result of the growth in economic inequality during the market transformation, nor is there any change associated with the slight reduction of inequality and significant economic growth during the growth and redemocratization period.

To provide a more robust assessment of trends, a replicate analysis is presented in panel B, which replaces current class position with class position in first job as class destination. Because first job identifies the same life cycle stage for all respondents, this formulation presents an alternative way of controlling for the confounding of age and period. Findings are insensitive to the specification of class of destination. As panel B shows, the model allowing for change in fluidity across cohorts (model 3) fits the data significantly worse than the model assuming constant fluidity over time (model 2).

In summary, the cohort analysis shows no significant change in mobility rates over time despite a growth in inequality during the market reform. This finding suggests no association between mobility and inequality. An alternative explanation can be offered, however. I have shown that economic inequality significantly increased during the market transformation (1974–1988). At the same time, some components of the market reform may have weakened the traditional barriers across sectors of the economy. The agrarian counterreform and consequent marketization of the countryside likely reduced the barriers separating agricultural classes, and the growth and diversification of the self-employed sector likely weakened the barriers separating the self-employed classes from the rest of the Chilean class structure. These processes may have induced two types of mobility change going in opposite directions. On the one hand, an increase in economic inequality would have heightened hierarchical barriers to mobil-

[16] It also is important to note that as a cohort grows older, it suffers attrition by some members. Thus, the groups analyzed here are not true cohorts, but their current survivors (Goldthorpe 1980).

[17] Studies in industrialized countries usually define occupational maturity as the age of 35 years. For this study, 30 years of age was chosen for the Chilean case because of the earlier entry to work that characterizes developing nations.

Table 5. Goodness of Fit Statistics for Chilean Mobility Models across Cohorts

Model	1. Conditional Independence	2. Common Social Fluidity	3. UNIDIFF
Panel A. Father's Class Position * Current Class Position			
L^2	822.1	137.4	130.0
df	108.0	72.0	70.0
BIC	–31.3	–431.9	–424.4
Association explained	0.0%	83.0%	84.0%
ϕ Redistributive period			.57
ϕ Market reform period			.51
ϕ Growth and redemocratization period			.66
Panel B. Father's Class Position * Class Position First Job			
L^2	1234.7	116.0	112.1
df	108.0	72.0	70.0
BIC	380.9	–453.2	–441.3
Association explained	0.0%	90.6%	90.6%
ϕ Redistributive period			.55
ϕ Market reform period			.54
ϕ Growth and redemocratization period			.63

Note: ϕ = Country-specific deviation from overall origin-destination association (see text for details)

ity. On the other hand, marketization of the countryside and transformation of the self-employed sector would have weakened sector barriers to mobility, thereby inducing horizontal fluidity. Because these two effects counteract each other, the aggregate result may have led to no change in the total level of fluidity. Granted, this interpretation is speculative at the moment, but its derivation from historical evidence and its consistency with observed trends make it a plausible account of mobility trends in Chile.[18]

SUMMARY AND CONCLUSION

Chilean Exceptionalism and a Redefinition of the Mobility–Inequality Relationship

This article uses an international comparative strategy to analyze the Chilean mobility regime, and exploits the particularities of the Chilean case to contribute to the international comparative study of mobility. The findings indicate that the Chilean mobility dynamics are defined by strong hierarchical effects combined with weak horizontal barriers separating sectors of the economy. In fact, a single unidimensional scale effectively captures the Chilean mobility opportunities, and this scale closely reflects the vertical distances between classes in terms of earnings and education. In other words, the intergenerational mobility chances to a large extent mirror the contemporaneous distribution of rewards and resources across Chilean classes. This finding is fully consistent with the resource approach, which maintains that mobility opportunities are largely driven by differential access to resources across classes. International and temporal comparative analyses seem to contradict, however, the association between inequality and mobility posed by the resource perspective. Comparison with seven industrialized countries shows that Chile is highly fluid, as fluid as the most open nations in the world despite its great inequality. Furthermore, the analysis of Chilean mobility trends shows constant mobility rates over time despite the significant increase in inequality during the market transformation period.

These findings depict Chile as an exceptional case, in which high inequality does not seem to depress mobility opportunities. However, if we consider the *pattern* of inequality and not only

[18] An empirical strategy to test this hypothesis would be to evaluate the change over time in magnitude of the different mobility effects of the Chilean version of the core model. Unfortunately, given the relatively small number of cases in the cohort-specific tables, coefficients representing temporal change are mostly statistically insignificant, thus not allowing a conclusive test.

its aggregate level, the Chilean exceptionalism disappears. A focus on the pattern of inequality shows that Chile is unequal because the elite concentrates a large proportion of the national income. High concentration at the top decile is, however, accompanied by much lower inequality—lower in fact than in the United States—across the rest of the social structure. The pattern of mobility closely follows the type of inequality that characterizes Chile. High hierarchical barriers to mobility, especially between the top stratum and the rest of the class structure, are combined with weak horizontal barriers between classes that are close in terms of SES. In other words, the Chilean case can be seen as the combination of two distinct regimes of both inequality and mobility. Income concentration at the top leads to strong mobility barriers between the top echelon and the rest of the class structure, and a more even income distribution between nonelite classes leads to significant fluidity among them. Distinction of these two components of the Chilean structure suggests that inequality and mobility are in fact related, but that their relationship is captured only when the specific features of these distributive phenomena are considered.

The focus on the pattern of inequality and mobility also provides a plausible explanation for the lack of change in Chilean mobility after the market-oriented transformation. Fluidity did not decline during the market reform because in concert with growing economic inequality, the liberalization of the economy led to a decline in nonhierarchical sector barriers to mobility. Thus, the lack of temporal trend may reflect the additive effect of two processes: growing hierarchical barriers between the top stratum and the rest of the class structure on the one hand and a decline in sector barriers to mobility across classes at the lower end of the class structure on the other hand. The lack of temporal mobility trend challenges Friedman's (1962:171) implication that "competitive, free enterprise capitalism" leads to growing mobility and suggests that even if some sector barriers may have declined, the market reform did not yield growing opportunities for advancement for the Chilean population.

This analysis has multiple implications for the comparative study of mobility. The most immediate conclusion is that the link between inequality and mobility should be explored in terms of the pattern exhibited by these distributive phenomena, and that it may be completely obscured if, as done in previous studies, only their aggregate level is considered.

The Chilean analysis also suggests that understanding the sources of international variation in mobility would benefit from two developments. First, the inclusion of countries beyond the industrialized core would add significant variation in terms of class structures and institutional arrangements affecting national mobility patterns. Second, understanding of the link between mobility and other national attributes would benefit from a combination of careful comparison of *specific* class barriers across countries, with a weighting of these barriers according to the hierarchical distance between the classes they separate. If we care about mobility, it is because it is not the same to be an unskilled manual worker as it is to belong to the service class in terms of access to the scarce resources and rewards that determine life chances. If it was the same, if there were not hierarchical but only sector differences between these two classes, then the issue of mobility would not be a question of equality of opportunity, but, at most, of diverse preferences or functional differentiation.

Therefore, it is important to distinguish between consequential and inconsequential mobility barriers. If a barrier is located between two classes that have a similar position in the SES hierarchy, then this barrier is less consequential in terms of equality of economic opportunity, in the sense that movers will not see their life chances significantly altered. Accordingly, this barrier should be assigned a lower weight in the analysis. In contrast, if the barrier is located between two classes that are distant in the social hierarchy, mobility among them will be highly consequential, because it will imply a significant change in the life chances of the movers. Accordingly, this barrier should be assigned a much higher weight. Chile is a paradigmatic example of high incidence of inconsequential mobility, but rare instances of consequential mobility.

At the theoretical level, the Chilean analysis underscores the limitations of theories that link inequality and mobility by focusing only on micro-level mechanisms, such as individual resources or incentives. The Chilean findings suggest that these theories should be preceded

by a macro-level understanding of the topography of inequality and mobility within the country to determine the precise distance across classes in terms of the resources enjoyed by each, and consequently, the differential incentives involved in the competition for success.

Shifting the focus from the level to the pattern of mobility and inequality also can illuminate other national cases. For instance, the case of the U.S. has puzzled researchers because of its high level of fluidity despite its status as the most unequal country in the industrialized world (Erikson and Goldthorpe 1992a:381). Attempting to explain this finding, some researchers have argued for the incentive approach, claiming that inequality promotes individual attempts to "get ahead," thus leading to enhanced fluidity. An alternative interpretation, however, would take into account the pattern of American inequality and mobility. Despite all the recent concern about "the rich getting richer" (Mishel et al. 2005; Wolff 1995), the U.S. pattern of inequality is exactly opposite that of Chile. The United States is unequal because the poor receive an extremely small portion of the national income (Alesina and Glaeser 2004:47; Atkinson 1996, Table 2; Smeeding and Rainwater 2002). Consistently, examination of mobility patterns in the United States reflects significant barriers to upward mobility for the lower class, and more fluidity in the rest of the table, which might result in an overall high level of fluidity (see Gottschalk and Danziger 1998, Tables 2 and 3, for evidence based on long-term income mobility, and Featherman and Hauser 1978, Table 4.12, for an early analysis of class mobility).

Combining a careful analysis of class rankings—to evaluate the consequence of different barriers to mobility—with a detailed examination of *specific* barriers between classes will permit researchers to take a new step in comparative analysis that addresses the systematic association between national economic and institutional characteristics of different countries and the opportunities of their citizen to alter their life chances.

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APPENDIX

Cluster-Analytic Technique for Collapsing Classes into Hierarchical Strata

The variables used in the analysis are education (year of schooling) and earnings (Chilean pesos/month). Figure A1 plots the mean standardized value of schooling and earnings across classes. Hierarchical strata presented in Table A1 were obtained from cluster analysis of mean schooling and earnings across classes.[19]

[19] In the cluster analysis, the variables used to collapse classes are integrated into a single function of (Euclidian) distance. A K-means clustering strategy, which allows the number of clusters produced to be specified, was used (Kaufman and Rousseeuw 1990).

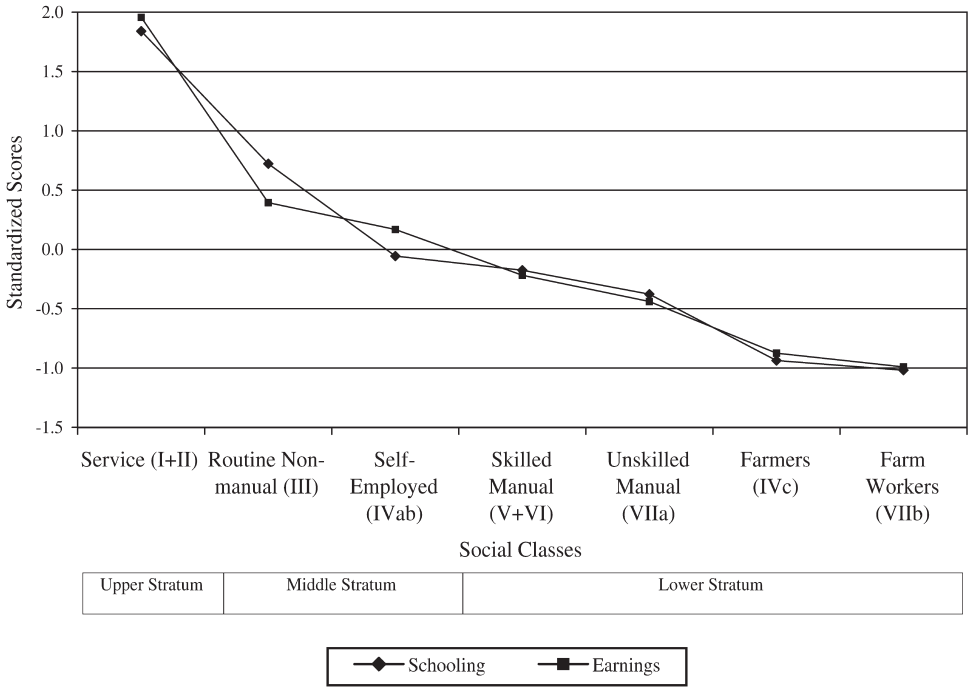

Figure A1. Standardized Values of Mean Schooling and Earnings across Classes: Chile 2001

Table A1. Comparison of CASMIN and Chilean Empirically-Obtained Ranking of Classes

Stratum	CASMIN	Chilean-Empirical
1 Upper	Service Class (I+II)	Service Class (I+II)
2 Middle	Routine Non-manual (III) Self-Employed (IVab) Skilled Manual (V+VI) Farmers (IVc)	Routine Non-manual (III) Self-Employed (IVab)
3 Lower	Unskilled Manual (VIIa) Farm Workers (VIIb)	Skilled Manual (V+VI) Unskilled Manual (VIIa) Farmers (IVc) Farm Workers (VIIb)

REFERENCES

Alesina, Alberto and Edward Glaeser. 2004. *Fighting Poverty in the US and Europe*. Oxford, UK: Oxford University Press.

Arum, Richard and Walter Müller, eds. 2004. *The Reemergence of Self-Employment: A Comparative Study of Self-Employment Dynamics and Social Inequality.* Princeton, NJ: Princeton University Press.

Atkinson, Anthony. 1996. "Income Distribution in Europe and the United States." *Oxford Review of Economic Policy* 12:15–28.

Behrman, Jere. 1999. "Social Mobility: Concepts and Measurements." Chapter 4 in *New Markets, New Opportunities?: Economic and Social Mobility in a Changing World,* edited by Nancy Birdsall and Carol Graham. Washington, DC: Brookings Institution.

Bjorklund, Anders and Markus Jantti. 1997. "Intergenerational Income Mobility in Sweden Compared to the United States." *The American Economic Review* 87:1009–18.

Braun, Juan, Matias Braun, Ignacio Briones, and Jose Diaz. 2000. *Economia Chilena 1810–1995 Estadisticas Historicas* (Chilean Economy 1810–1995 Historical Statistics). Documento de Trabajo 187. Santiago, Chile: Instituto de Economia P. Universidad Catolica de Chile.

Breen, Richard, ed. 2004. *Social Mobility in Europe*. Oxford, UK: Oxford University Press.

Breen, Richard and Ruud Luijkx. 2004a. "Conclusions." Chapter 15 in *Social Mobility in*

Europe, edited by Richard Breen. Oxford, UK: Oxford University Press.

———. 2004b. "Social Mobility in Europe between 1970 and 2000." Chapter 3 in *Social Mobility in Europe*, edited by Richard Breen. Oxford, UK: Oxford University Press.

Costa-Ribeiro, Carlos. 2003. *The Brazilian Occupational Structure*. Ph.D. dissertation, Department of Sociology, Columbia University, New York, NY.

Deininger, Klaus and Lyn Squire. 1996. "A New Data Set Measuring Income Inequality." *The World Bank Economic Review* 10:565–91.

Edwards, Sebastian and Alejandra Cox-Edwards. 1991. *Monetarism and Liberalization: The Chilean Experiment*. Cambridge, MA: Ballinger.

Ellworth, Paul T. 1945. *Chile: An Economy in Transition*. New York: Macmillan.

Engerman, Stanley and Kenneth Sokoloff. 1997. "Factor Endowments, Institutions, and Differential Paths of Growth among New World Economies." Pp. 260–304 in *How Latin America Fell Behind,* edited by Stephen Haber. Stanford, CA: Stanford University Press.

Erikson, Robert and John Goldthorpe. 1987a. "Commonality and Variation in Social Fluidity in Industrial Nations: Part I. A Model for Evaluating the FJH Hypothesis." *European Sociological Review* 3:54–77.

———. 1987b. "Commonality and Variation in Social Fluidity in Industrial Nations: Part II. The Model of Core Social Fluidity Applied." *European Sociological Review* 3:145–66.

———. 1992a. *The Constant Flux*. Oxford, UK: Clarendon Press.

———. 1992b. "The CASMIN Project and the American Dream." *European Sociological Review* 8:283–305.

Erikson, Robert, John Goldthorpe, and Lucienne Portocarero. 1979. "Intergenerational Class Mobility in Three Western European Societies." *British Journal of Sociology* 30:415–41.

———. 1982. "Social Fluidity in Industrial Nations: England, France and Sweden." *British Journal of Sociology* 33:1–34.

Featherman, David and Robert Hauser. 1978. *Opportunity and Change*. New York: Academic Press.

Featherman, David, Lancaster Jones, and Robert Hauser. 1975. "Assumptions of Social Mobility Research in the US: The Case of Occupational Status." *Social Science Research* 4:329–60.

Friedman, Milton. 1962. *Capitalism and Freedom*. Chicago: University of Chicago Press.

Galbraith, James. 2002. "A Perfect Crime: Inequality in the Age of Globalization." *Daedalus* 131:11–24.

Ganzeboom, Harry and Paul De Graaf. 1984. "Intergenerational Occupational Mobility in the Netherlands in 1954 and 1977: A Log-Linear Analysis." Pp. 71–90 in *Social Stratification and Mobility in the Netherlands,* edited by Bart Bakker, Jaap Dronkers, and H. Ganzeboom. Amsterdam, Netherlands: SISWO.

Ganzeboom, Harry, Ruud Luijkx, and Donald Treiman. 1989. "Intergenerational Class Mobility in Comparative Perspective." Pp. 3–84 in *Research in Social Stratification and Mobility,* vol. 8, edited by Arne Kalleberg. Greenwich, CT: JAI Press.

Ganzeboom, Harry and Donald Treiman. 2003. "Three Internationally Standardised Measures for Comparative Research on Occupational Status." Pp. 159–93 in *Advances in Cross-National Comparison: A European Working Book for Demographic and Socio-Economic Variables,* edited by Jurgen Hoffmeyer-Zlotnik and Christof Wolf. New York: Kluwer Academic Press.

Ganzeboom, Harry and Ruud Luijkx. 2004. "Recent Trends in Intergenerational Occupational Class Reproduction in the Netherlands 1970–99" Chapter 13 in *Social Mobility in Europe*, edited by Richard Breen. Oxford, UK: Oxford University Press.

Gazmuri, Cristian. 2000. *Eduardo Frei Montalva y su Epoca* (Eduardo Frei Montalva and his Epoch). Vol. II. Santiago, Chile: Aguilar.

Gerber, Theodore and Michael Hout. 2004. "Tightening Up: Declining Class Mobility during Russia's Market Transition." *American Sociological Review* 26:677–700.

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

———. 2000. "Outline of a Theory of Social Mobility." Chapter 11 in *On Sociology. Numbers, Narratives, and the Integration of Research and Theory*. Oxford, UK: Oxford University Press.

Goldthorpe, John and Anthony Heath. 1992. *Revised Class Schema 1992.* JUSST Working Paper 13. Nuffield College and SCPR, Oxford, UK.

Goldthorpe, John, Meir Yaish, and Vered Kraus. 1997. "Class Mobility in Israeli Society: A Comparative Perspective." *Research in Social Stratification and Mobility* 15:3–28.

Gomez, Sergio and Jorge Echenique. 1988. *La Agricultura Chilena: Las dos Caras de la Modernizacion* (Chilean Agriculture: The Two Faces of Modernization). Santiago, Chile: Flacso/Agraria.

Goodman, Leo. 1979. "Simple Models for the Analysis of Association in Cross-Classifications having Ordered Categories." *Journal of the American Statistical Association* 74:537–52.

Goodman, Leo and Michael Hout. 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.
Gottschalk, Peter and Sheldon Danzinger. 1998. "Family Income Mobility. How Much is There and Has it Changed?" Pp. 92–111 in *The Inequality Paradox,* edited by James Auerbach and Richard Belous. Washington, DC: National Policy Association.
Grusky, David and Robert Hauser. 1984. "Comparative Social Mobility Revisited: Models of Convergence and Divergence in 16 Countries." *American Sociological Review* 49:19–38.
Gwynne, Robert. 1996. "Direct Foreign Investment and Nontraditional Export Growth in Chile: The Case of the Forestry Sector." *Bulletin of Latin American Research* 15:341–57.
Hauser, Robert. 1978. "A Structural Model of the Mobility Table." *Social Forces* 56:919–53.
———. 1984a. "Vertical Class Mobility in England, France and Sweden." *Acta Sociologica* 27:87–110.
———. 1984b. "Vertical Class Mobility in England, France and Sweden." *Acta Sociologica* 27:387–90.
Hauser, Robert, John Koffel, Harry Travis, and Peter Dickinson. 1975a. "Temporal Change in Occupational Mobility: Evidence for Men in the United States." *American Sociological Review* 40:279–97.
Hauser, Robert, Peter Dickinson, Harry Travis, and John Koffel. 1975b. "Structural Changes in Occupational Mobility among Men in the United States." *American Sociological Review* 40:585–98.
Heath, Anthony and Clive Payne. 1999. *Twentieth Century Trends in Social Mobility in Britain.* Working Paper 70 CREST. National Centre for Social Research and Department of Sociology University of Oxford, Oxford, UK.
Hofman, Andre. 2000. *The Economic Development of Latin America in the Twentieth Century*. Cheltenham, UK: Edward Elgar.
Hopkins, Terence and Immanuel Wallerstein. 1982. "Patterns of Development in the Modern World-System." Pp. 41–82 in *World Systems Analysis: Theory and Methodology*, edited by T. Hopkins and I. Wallerstein. Beverly Hills, CA: Sage.
Hout, Michael. 1983. *Mobility Tables*. Beverly Hills, CA: Sage.
———. 1988. "More Universalism, Less Structural Mobility" The American Occupational Structure in the 1980s." *American Journal of Sociology* 93:1358–1400.
———. 2004. "How Inequality Might Affect Intergenerational Mobility." Pp. 969–87 in *Social Inequality,* edited by Kathryn Neckerman. New York: Russell Sage Foundation.
Hout, Michael and Robert Hauser. 1992. "Symmetry and Hierarchy in Social Mobility: A Methodological Analysis of the CASMIN Model of Class Mobility." *European Sociological Review* 8:239–65.
Hout, Michael and John Jackson. 1986. "Dimensions of Occupational Mobility in the Republic of Ireland." *European Sociological Review* 2:114–37.
ILO. 1990. *International Standard Classification of Occupations: ISCO-88*. Geneva, Switzerland: ILO.
INE. 2002. *Compendio Estadistico 2002* (Statistical Yearbook 2002). Santiago, Chile: INE.
Infante, Ricardo and Emilio Klein. 1995. "The Latin American Labor Market 1950–1990." Pp. 315–32 in *Latin America's Economic Development: Confronting Crisis,* edited by James Dietz. Boulder, CO: Lynne Rienner.
Inter-American Development Bank. 1999. *Facing Up to Inequality in Latin America: 1998–99 Report*. Washington, DC: IADB and The Johns Hopkins University Press.
Ishida, Hiroshi. 1993. *Social Mobility in Contemporary Japan*. Stanford, CA: Stanford University Press.
Ishida, Hiroshi, John Goldthorpe, and Robert Erikson. 1991. "Intergenerational Class Mobility in Postwar Japan." *American Journal of Sociology* 94:952–92.
Jonsson, Jan and Colin Mills. 1993. "Social Mobility in the 1970s and 1980s: A Study of Men and Women in England and Sweden." *European Sociological Review* 9:229–48.
Kaufman, Leonard and Peter Rousseeuw. 1990. *Finding Groups in Data: An Introduction to Cluster Analysis*. New York: Wiley and Sons.
Kay, Cristobal. 2002. "Chile's Neoliberal Agrarian Transformation and the Peasantry." *Journal of Agrarian Change* 2:464–501.
Kerckhoff, Alan, Richard Campbell, and Idee Laird. 1985. "Social Mobility in Great Britain and the United States." *American Journal of Sociology* 91:281–308.
Klein, Emilio and Victor Tokman. 2000. "Social Stratification under Tension in a Globalized Era." *CEPAL Review* 72:7–29.
Larranaga, Osvaldo. 1999. "Distribucion de Ingresos y Crecimiento en Chile" (Income Distribution and Growth in Chile). Santiago, Chile: Serie Ref. Economicas 35. MIDEPLAN.
Layte, Richard and Christopher Whelan. 2004. "Class Transformation and Trends in Social Fluidity in the Republic of Ireland 1973–1994." Chapter 7 in *Social Mobility in Europe*, edited by Richard Breen. Oxford, UK: Oxford University Press.
Leon, Arturo and Javier Martinez. 2000. "Social Stratification in Chile at the Close of the 20th Century." Pp. 283–308 in *Chile in the Nineties,* edited by Cristian Toloza and Eugenio Lahera. Santiago, Chile: Dolmen.
Luxembourg, Rosa. 1951. *The Accumulation of Capital*. London, UK: Routledge and Kegan Paul.
Mamalakis, Markos. 1976. *The Growth and Structure*

of the Chilean Economy. New Haven, CT: Yale University Press.

Marcel, Mario and Andres Solimano. 1994. "The Distribution of Income and Economic Adjustment." Pp. 217–55 in *The Chilean Economy: Policy Lessons and Challenges,* edited by Barry Bosworth, Rudiger Dornbusch, and Raul Laban. Washington, DC: The Brookings Institution.

Marshall, Gordon and Adam Swift. 1999. "On the Meaning and Measurement of Inequality" *Acta Sociologica* 42:241–50.

Marshall, Gordon, Adam Swift, and Stephen Roberts. 1997. *Against the Odds? Social Class and Social Justice in Industrial Societies*. Oxford: Clarendon Press.

Martinez, Javier and Alvaro Diaz. 1999. *Chile: The Great Transformation*. Washington, DC: The Brookings Institution, and Geneva, Switzerland: UN Research Institute for Social Development.

McRoberts, Hugh and Kevin Selbec. 1981. "Trends in Occupational Mobility in Canada and the United States: A Comparison." *American Sociological Review* 46:406–21.

Meller, Patricio. 1991. "Adjustment and Social Costs in Chile During the 1980s." *World Development* 19:1545–51.

———. 1996. *Un Siglo de Economia Politica Chilena* (One Century of Political Economy in Chile). Santiago, Chile: Andres Bello.

MIDEPLAN. 2000. *Pobreza, Indigencia e Impacto del Gasto Social en la Calidad de Vida* (Poverty, Indigence and Impact of Social Spending on Life Quality). Informe Ejecutivo N1, Encuesta Casen 2000. Santiago, Chile: MIDEPLAN.

———. 2001. *Socioeconomic Characterization Survey (CASEN) Year 2000*. Codebook and Technical Report. Santiago, Chile: Ministry of Planning Chile. MIDEPLAN Chile [producer and distributor].

Mishel, Lawrence, Jared Bernstein, and Sylvia Allegreto. 2005. *The State of Working America 2004–05*. Ithaca, NY: ILR Press.

Müller, Walter. 1986. "Soziale Mobilität: Die Bundesrepublik im internationalen Vergleich" (Social Mobility: The Federal Republic in Comparative Perspective). Pp. 339–54 in *Politische Wissenschaft und politische Ordnung*, edited by M. Kaase. Opladen, Germany: Westdeutscher Verlag.

Munoz, Oscar. 1968. *Crecimiento Industrial en Chile 1914–1965* (Industrial Growth in Chile 1914–1965). Santiago, Chile: Universidad de Chile.

Noorderhaven, Niels, Roy Thurik, Sander Wennekers, and Andre Van Stel. 2003. *Self-Employment across 15 European Nations: The Role of Dissatisfaction.* Rotterdam, Netherlands: Mimeo Faculty of Economics Erasmus University.

Park, Hyunjoon. 2004. "Intergenerational Social Mobility among Korean Men in Comparative Perspective." *Research in Social Stratification and Mobility* 20:227–53.

Pisati, Maurizio and Antonio Schizzerotto. 2004. "The Italian Mobility Regime: 1985–97." Chapter 6 in *Social Mobility in Europe*, edited by Richard Breen. Oxford, UK: Oxford University Press.

Portes, Alejandro, Manuel Castells, and Lauren Benton. 1989. "The Policy Implications of Informality." Pp. 298–311 in *The Informal Economy: Studies in Advanced and Less Developed Countries*. Baltimore, MD: The Johns Hopkins University Press.

Portes, Alejandro and Kelly Hoffman. 2003. "Latin American Class Structures: Their Composition and Change During the Neoliberal Era." *Latin-American Research Review* 38:41–82.

Prebisch, Raul. 1950. *The Economic Development of Latin America and Its Principal Problems*. New York: United Nations.

Raczynski, Dagmar. 2000. "Overcoming Poverty in Chile." Pp. 119–48 in *Social Development in Latin America: The Politics of Reform,* edited by Joseph Tulchin and Allison Garland. Boulder, CO: Lynne Reinner.

Raftery, Adrian. 1995. "Bayesian Model Selection in Social Research." *Sociological Methodology*, edited by Peter Marsden. Washington, DC: The American Sociological Association.

Rivera, Rigoberto. 1988. *Los Campesinos Chilenos* (The Chilean Farmers). Santiago, Chile: GIA.

Ryder, Norman B. 1965. "The Cohort as a Concept on the Study of Social Change." *American Sociological Review* 30:843–61.

Schkolnik, Mariana. 2000. *Impacto de la Globalizacion en la Estratificacion Social Chilena* (Impact of Globalization on Chilean Social Stratification). Mimeo. Santiago, Chile: ILO.

Scott, Christopher. 1996. "The Distributive Impact of the New Economic Model in Chile." Pp. 147–84 in *The New Economic Model in Latin America and Its Impact on Income Distribution and Poverty,* edited by Victor Bulmer-Thomas. New York: St. Martin's Press.

Smeeding, Timothy and Lee Rainwater. 2002. *Comparing Living Standards across Nations: Real Incomes at the Top, the Bottom, and the Middle.* SPRC Discussion Paper No. 120. Social Policy Research Center, University of South Wales, Sydney, Australia.

Solon, Gary. 2002. "Cross-Country Differences in Intergenerational Earnings Mobility." *Journal of Economic Perspectives* 16:69–6.

Sorensen, Jesper. 1992. "Locating Class Cleavages in Intergenerational Mobility: Cross-National Commonalities and Variations in Mobility Patterns." *European Journal of Sociology* 8:267–81.

Stallings, Barbara. 1978. *Class Conflict and*

Economic Development in Chile 1958–1973. Stanford, CA: Stanford University Press.
Stephens, John. 1979. *The Transition from Capitalism to Socialism*. Urbana: University of Chicago Press.
Szekely, Miguel and Marianne Hilgert. 1999. *What is Behind the Inequality We Measure: An Investigation Using Latin American Data for the 1990s.* Mimeo. Washington, DC: IADB.
Szelenyi, Sonja. 1998. *Equality by Design: The Grand Experiment in Destratification in Socialist Hungary.* Stanford, CA: Stanford University Press.
Tahlin, Michael. 2004. "Do Opposites Attract? How Inequality Affects Mobility in the Labor Market." *Research in Social Stratification and Mobility* 20:255–82.
Tawney, Richard H. 1965. *Equality*. New York: Barnes & Noble.
Thomas, Jim. 1996. "The New Economic Model and Labor Markets in Latin America." Pp. 79–102 in *The New Economic Model in Latin America and Its Impact on Income Distribution and Poverty,* edited by Victor Bulmer-Thomas. New York: St. Martin's Press.
Tyree, Andrea, Moshe Semyonov, and Robert Hodge. 1979. "Gaps and Glissandos: Inequality, Economic Development and Social Mobility in 24 Countries." *American Sociological Review* 44:410–24.
Velasco, Andres. 1994. "The State and Economic Policy: Chile 1952–92." Pp. 379–429 in *The Chilean Economy: Policy Lessons and Challenges,* edited by Barry Bosworth, Rudiger Dornbusch, and Raul Laban. Washington, DC: The Brookings Institution.
Velasquez, Mario. 1990. "Evolucion del Empleo Publico en Chile: 1974–1985" (Trends of Public Employment in Chile: 1974–1985). Pp. 113–33 in *Empleo Publico Frente a la Crisis: Estudios sobre America Latina,* edited by Adriana Marshall. Geneva, Switzerland: IIEL.
Williamson, John. 1990. "What Washington Means by Policy Reform." Pp. 7–20 in *Latin American Adjustment: How Much Has Happened?* edited by John Williamson. Washington, DC: Institute for International Economics.
Wolff, Edward. 1995. *Top Heavy*. New York: Twentieth Century Fund.
Wong, Raymond Sin-Kwok. 1990. "Understanding Cross-National Variation in Occupational Mobility." *American Sociological Review* 55:560–73.
———. 1992. "Vertical and Nonvertical Effects in Class Mobility: Cross-National Variations." *American Sociological Review* 53:396–410.
———. 1994. "Model Selection Strategies and the Use of Association Models to Detect Group Differences." *Sociological Methods and Research* 22:460–91.
World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. A World Bank Policy Research Report. New York: Oxford University Press.
———. 2001. *World Development Indicators 2001*. Washington, DC: The World Bank.
———. 2003a. *World Development Indicators 2003*. Washington DC: The World Bank.
———. 2003b. *Inequality in Latin America and the Caribbean: Breaking with History?* Washington, DC: The World Bank.
Xie, Yu. 1992. "The Log-Multiplicative Layer Effect Model for Comparing Mobility Tables." *American Sociological Review* 57:380–95.
Yaish, Meir. 2000. 'Old Debates, New Evidence: Class Mobility Trends in Israeli Society 1973–1991." *European Sociological Review* 16:159–183.
———. 2004. "Opportunity, Little Change: Class Mobility in Israeli Society, 1974–1991." Chapter 13 in *Class Mobility in Europe,* edited by Richard Breen. Oxford: Oxford University Press.
Yamaguchi, Kazuo. 1987. "Models for Comparing Mobility Tables: Toward Parsimony and Substance." *American Sociological Review* 52:482–94.