

Social classes, economic sectors and changes in the Chilean social structure, 1992 and 2013

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Abstract

According to recent research studies, a central characteristic of Chilean society is its mesocratization, in other words the sustained growth of the middle class. This article tests that thesis empirically, using Erik O. Wright's class model and the shift-share analysis technique to study the changes that occurred in Chile's class structure in two periods 1992–2003 and 2003–2013. The study concludes that the idea of mesocratization is questionable; between 1992 and 2013, there are substantially fewer people located in middle-class positions than in the “popular” classes (working class and informal self-employed). Moreover, the growth of the middle class has been relatively marginal and has been accompanied by trends that contradict the idea of a mesocratic society (such as the expansion of the working class between 2003 and 2013).

Keywords

Social structure, social classes, middle class, working class, measurement, economic analysis, Chile

JEL classification

A14, C80, J21

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¹ The author gratefully acknowledges the support provided to this research by the Centre for Conflict Studies and Social Cohesion, COES (FONDAP/15130009); and he also thanks Erik O. Wright and Alejandro González for important comments made at various stages of the work.

I. Introduction

For several decades the transformation of the class structure in advanced capitalist societies was analysed through the lens of two opposing theses. A variety of analysts highlighted the advent of a post-industrial, post-capitalist or programmed society, which meant the consolidation of a large middle class that was defined as one of the main classes of capitalism in the second half of the twentieth century (Bell, 1973; Dahrendorf, 1959; Touraine, 1971). These authors interpreted the phenomenon as the result of the de-proletarianization of the post-industrial work process; in other words, as a consequence of how that process started to require a more skilled labour force, with higher levels of technical knowledge and autonomy. Some even claimed that the transformations in question would give rise to a “new class” that would significantly alter the foundational patterns of wage labour (Mallet, 1975; Touraine, 1971).

In contrast to this perspective, other analysts projected an image of capitalist development centred on the concept of “proletarianization”. Starting with the famous study by Harry Braverman (1975), many argued that the transformation of the class structure in the second half of the twentieth century instead expressed a tendency for wage earners to lose control over the work process, along with the development of highly routine work subject to “top-down” control (Wright and Singelmann, 1982).

These two divergent interpretations fuelled a series of empirical investigations that produced often conflicting results (Crompton and Jones, 1984; Marshall and Rose, 1988; Wright and Martin, 1987; Wright and Singelmann, 1982). In recent decades, an important part of these debates was used to examine the transformations of the class structure in less industrialized nations. These studies analysed how the economic development and entry into globalized markets of countries such as the Republic of Korea, Taiwan Province of China and Turkey transformed their class structures (Kaya, 2008; Koo, 1990; Sen and Koo, 1992).

The debates on the post-industrial theses and proletarianization have not had a direct correlate in the recent analysis of class structures in Latin America and, more specifically, in Chile. Nonetheless, many of the arguments in the debate have been reproduced in one way or another in recent decades. Since the 1990s, many studies have claimed to identify a process of mesocratization in the class structure of Latin America in general and Chile's in particular (Franco, Hopenhayn and León, 2010; Hopenhayn, 2010; León and Martínez, 2007; Ruiz and Boccardo, 2015). This line of research sees the phenomenon as driven by the sustained growth of middle-class positions, which have medium-high skill levels or are invested with authority in the productive process, in other words the positions of “experts”, supervisors or managers. Recently, however, a number of studies have questioned this idea, noting that the tertiarization of the economy has not produced an exponential growth of the middle class or a weakening of traditional class barriers, at least in the case of Chile (Gayo, Méndez, and Teitelboim, 2016).

This article aims to contribute to this debate by analysing the recent transformations of the Chilean class structure. Drawing on basic elements of the neo-Marxist class structure proposed by Erik O. Wright (1985 and 1997) and using the shift-share analysis technique, it attempts to empirically test the thesis that the growth of the middle class is one of the important, if not the central, characteristics of the structural change observed in Chilean society. Drawing on data from the National Socioeconomic Characterization Survey (CASEN) and the National Survey of Employment, Labour, Health and Quality of Life of Workers in Chile (ENETS), the study analyses the changes that occurred in the class structure in two periods: 1992–2003 and 2003–2013. The results of the analysis cast doubt on the idea of an increasingly mesocratic society. The data show that while some middle-class positions grew between 1993 and 2013, this growth was weak. Moreover, in 2003–2013, it was accompanied by an increase in the number of people employed in working-class positions, which is the largest class in absolute terms if the two periods are considered jointly.

II. Transformations of the Chilean class structure

Class structure change has been the subject of many studies in recent decades. In both Chile and Latin America generally, much of the research has focused on the study of the middle class (Castellani and Parent, 2011; Espinoza, Barozet and Méndez, 2013; Franco, Hopenhayn and León, 2011); Gayo, Méndez and Teitelboim, 2016; Gayo, Teitelboim and Méndez, 2013; López-Calva and Ortiz-Juárez, 2014; Ruiz and Boccardo, 2015). These studies broadly support the idea of an increasingly mesocratic social structure, that is, one with an increasingly large middle class. This mesocratization of the class structure has frequently been explained in terms of the growth of non-manual employment and the rising income levels of a large segment of the employed population (Franco, Hopenhayn and León, 2011; Franco and León, 2010, Hopenhayn, 2010).

In their analysis of Chilean society in the mid-1990s, Arturo León and Javier Martínez (1987) defended that idea by arguing that the expansion of the non-manual services sector fuelled a sustained expansion of the middle class in the country. According to these authors, the process implied both better chances of ascending to middle-class positions and the dismantling of the old worker cultures centred on industrial labour (León and Martínez, 2007, p. 312). The mesocratization thesis has recently been pursued further by Ruiz and Boccardo (2015), who analysed the transformations of the Chilean class structure using an update of the social categories matrix developed by León and Martínez.

Based on this framework, Ruiz and Boccardo claim that Chilean society has experienced steady growth of middle-ranking sectors of medium- and high-skill wage earners employed mainly in private-service office work (2015, pp. 64 and 65). The authors note that this process has been reinforced by an expansion of higher education in the country, which has produced new contingents of skilled labour, together with the sustained growth of “middle management sectors” on the back of the thriving financial or primary export sectors which have a higher status than the middle-ranking groups of the past, linked to State activity (2015, p. 112).

From a complementary perspective, other research has shown that both the region as a whole and several individual countries (including Chile) have experienced significant increases in rates of upward social mobility, defined as the transition between a manual working-class origin towards a non-manual middle class (do Valle Silva, 2007, Espinoza, 2006; Jorrat, 2005; Palomino and Dalle, 2012; Solís, 2005; Torche, 2014). Building on this idea, Torche (2005) described Chilean society as “unequal but fluid”, in view of the significant levels of intergenerational mobility existing between the low-status locations (manual workers) and the middle-ranking positions (non-manual workers) in the class structure.

In Chile, the mesocratization thesis has not been confined to describing objective changes in the class structure, but has also been used to interpret the weakness of traditional class actors, such as the industrial working class. Several analysts have noted that the growth of the middle class is one of the main structural trends explaining the consolidation of meritocratic values among wage earners and, as a result, the weakness of the trade union movement in relation to industrial labour (León and Martínez, 2007, p. 312; Ruiz and Boccardo, 2015, p. 135). Other researchers have argued that the mesocratization of the class structure has led to the consolidation of a social structure in which “class struggle” has been superseded by “status struggle” (Espinoza, Barozet and Méndez, 2013, p. 180; Franco and León, 2010, pp. 72–74).

The mesocratization thesis thus highlights two interrelated processes. Firstly, it reveals the existence of a constantly expanding middle class, associated with occupational activities of medium and high skill levels, mainly in the private sector and in services. Secondly, this perspective also reveals the existence of middle-class identities that have not only been consolidated among wage earners in the private sector and services, but have also generated strong subjective barriers between these “white collar” wage earners and classical (industrial) manual workers.

III. Critical analyses of mesocratization in Chile

Some of central elements of this thesis have been the subject of debate in recent years. Addressing the subjective aspects of the notion of mesocratization, recent research on class consciousness in Chile has cast doubt on the idea that work that is commonly defined as middle class (non-manual work in service sectors such as trade and finance) inevitably produces identities and interests that differ from those of manual or industrial workers (Pérez-Ahumada, 2017).

Similarly, Gayo, Méndez and Teitelboim (2016) analysed patterns of cultural taste and consumption and concluded that, contrary to the idea of a middle-class society, the Chilean social structure contains symbolic and cultural class barriers that are still quite persistent (Gayo, Méndez and Teitelboim, 2013). These authors also argue that some of the variables traditionally associated with the study of inequality (such as economic resources, education and occupation) are decisive factors in the differences that exist in Chilean cultural practices. Based on this, Gayo and his collaborators infer that, although Chile's occupational structure has undergone a tertiarization process, this has not led to the emergence of a less polarized society, either economically or culturally. This conclusion is of vital importance for assessing whether Chile is in fact a middle-class society. Moreover, in keeping with the views expressed by the exponents of class analysis (Crompton, 1993; Oesch, 2006; Wright, 1985), this finding casts doubt on the idea that growth of the service sector inevitably means expansion of the middle class.

Research of this type has made a major contribution to the debate on mesocratization in Chile, which has been loaded with complexities associated, among other things, with the problematic definition of the concept of “middle class”, and with a relative lack of data to make it possible to construct theoretically-based class structures that help define this concept empirically (Crompton, 1993). This partly explains why many studies base their findings and conclusions on varied definitions of what is meant by “middle class”; for example, definitions that reflect the position of individuals or families in the middle segment of the income distribution, their intermediate location in the income deciles or quintiles, or an occupation or simultaneous position in certain occupational and income scales (Barozet and Fierro, 2011; Castellani and Parent, 2011; Franco, Hopenhayn and León, 2011; Franco and León, 2010; Gayo, Teitelboim and Méndez, 2013; León and Martínez, 2007; Lora and Fajardo, 2013; Ruiz and Boccardo, 2015).

Despite the use of sometimes mutually inconsistent definitions, these studies have made a substantial contribution to analysis of the class structure. Especially significant, in the case of Chile, has been the contribution of research founded on theoretically-based class models, such as the work of Gayo, Méndez and Teitelboim (2016) based on Bourdieu (1984), or the study by Torche (2005) derived from the Erikson and Goldthorpe (1992) model. Drawing on approaches used in contemporary sociological literature, these studies have added a comparative dimension when examining the Chilean class structure, which affords a better understanding of its specific features.

IV. Research focus, analytical framework and hypothesis

Pursuing the line of theoretically-based research, this paper aims to contribute to the study of class structure in Chile within the neo-Marxist class model proposed by Erik O. Wright (1985 and 1997). The article makes an empirical analysis of the basic, and hence central, claim of the mesocratization thesis, namely the sustained growth of the middle class which has generated a clearly mesocratic class structure. It draws upon data from the CASEN survey and from ENETS to analyse the transformations of the Chilean class structure that occurred between 1992 and 2003 and in 2003–2013. A further aim

is to contribute to the analysis of classes in Chile through a statistical technique that is seldom used but highly relevant for studying changes in the class structure: shift-share analysis. As will be shown later, this technique makes it possible to identify the sources of change that explain the transformations seen in the class structure (in particular, sources associated with changes across economic sectors and changes in the class composition within each sector).

Like the neo-Weberian model proposed by Robert Erikson and John Goldthorpe (1992), Erik O. Wright's neo-Marxist scheme is a theoretically-based model that has been widely used in empirical research on class structures (Bergman and Joye, 2001; Crompton, 1993; Leiulfsrud, Bison and Jensberg, 2005; Li and Singelmann, 1999). In Chile, it was recently used to analyse the joint effect of class and gender on the quality of employment (Aguilar and others, 2016).

According to Wright (1997, pp. 17–26), class location stems from unequal control over the three main productive assets in contemporary capitalist society. The first of these are the means of production, the unequal ownership of which generates the distinction between the owner and non-owner (wage-earning) classes. The second and third productive assets of unequal ownership are skill and organizational assets (expressed respectively in the possession of expert knowledge and the occupation of positions vested with authority in the relations of production). Unequal possession of skill and authority assets is the fundamental mechanism that generates class distinctions among wage earners —for example, between unskilled and skilled workers or between managers or supervisors and workers without authority.

In Wright's schema, unequal control over these three productive assets determines the position of individuals in relations of exploitation. While the owners of means of production occupy the position of exploiters insofar as they contract the labour of others, those who do not own these means occupy the position of exploited when selling their labour power. In this context, middle-class positions are defined as being in a contradictory class location (Wright, 1985), for although they are exploited in their capacity as wage earners, they are also exploiters (or comparatively less exploited) as they assume the control of productive assets “qualifications” and “authority”. Thus, a manager or a professional would be part of the middle class and, according to this model, an example of a contradictory class location. Although managers and professionals sell their labour power, they are also endowed with high levels of skill or authority, which gives them a privileged position relative to unskilled workers and those without authority.

If the mesocratization thesis is applied to this analytical model, the contradictory class locations —middle-class positions endowed with skills and authority— would be expected to grow steadily over time, while those of the working class would decline in an inversely proportional way. This is the main hypothesis that this article seeks to test in the ensuing empirical analysis.

V. Variables, data and techniques of analysis

1. Variables

The two main variables in this study are social class and economic sector. The former was constructed from the Wright (1997) class structure scheme; but a slightly modified version of the model of 12 social classes proposed by Wright was designed to better serve the aims of this article.² Specifically, the “petty bourgeoisie” category (self-employed who do not hire other people's labour power) was divided between the petty bourgeoisie itself and the informal self-employed, to represent the situation of the Chilean labour market more realistically. Accordingly, the owners of the means of production were divided into four class locations: capitalists, small employers, petty bourgeoisie and informal self-employed.

² Details on the criteria used to construct this class scheme can be found in Wright (1997, pp. 74–90).

The wage-earning population was analysed in terms of four class categories: managers, supervisors, experts and workers (skilled and unskilled). These four categories were chosen to make the results of this research comparable with those of similar studies based on the same class framework (Wright, 1997; Wright and Martin, 1987). The homogenization of these wage-earning class categories is especially important for this study for the following reason. Several research studies that propound the thesis of mesocratization tend to express this in terms of the growth of highly skilled work positions in wage-earning modalities, operating in the private service sector (Orellana, 2011, pp. 80 and 81; Ruiz and Boccardo, 2015, p. 64). For this reason, most of the analyses presented below were focused on the wage-earning class positions (managers, supervisors, experts and workers).

Table 1 shows the main criteria under which the eight class categories were constructed. The owner classes are subdivided into capitalists, small employers, petty bourgeoisie (self-employed persons who carry out activities that require medium and high skill levels and belong to groups 1 to 4 of the 1988 International Standard Classification of Occupations (ISCO-1988)) and informal self-employed (working in occupations located in groups 5 and 9 of ISCO-1988)³ Moreover, among the wage-earning population, the respondents were distinguished by skill level and according to what Wright (1997, pp. 20–22) defines as “organizational assets” or authority.

Table 1
Class categories

	Owns means of production	Employs labour	Has decision-making power over the firm's management and organization ^a	Supervises the work of others	The job requires high-level educational qualifications ^b
1. Capitalists	Yes	Yes (more than 10 persons)	—	—	—
2. Small employers	Yes	Yes (between 2 and 9 persons)	—	—	—
3. Petty bourgeoisie	Yes	No	—	—	—
4. Informal self-employed	Yes (but low skill levels)	No	—	—	—
5. Managers	No	No	Yes	—	—
6. Supervisors	No	No	No	Yes	—
7. Experts	No	No	No	No	Yes
8. Workers	No	No	No	No	No

Source: Prepared by the author, on the basis of E. O. Wright, *Class Counts: Comparative Studies in Class Analysis*, Cambridge, Cambridge University Press, 1997; and E. O. Wright and B. Martin, “The transformation of the American class structure, 1960–1980”, *American Journal of Sociology*, vol. 93, No. 1, Chicago, The University of Chicago Press, 1987.

Note: A long dash indicates that the criterion is not applicable to the classification of individuals in that category.

^a Refers to the capacity to hire or fire workers, alter the goods or services produced by the company, change the way work is organized and influence the budget.

^b For example, professional diplomas.

The economic sector variable was analysed on the basis of the International Standard Industrial Classification (ISIC). Because the various databases used different versions of this classification, it was decided to harmonize the data by constructing 22 categories derived from ISIC Rev 3.1 (data comparability problems made it impossible to generate a more fine-grained classification). In some more specific analyses, which are mentioned in the results section, aggregate versions of the economic sectors were used.

³ Although there are many definitions of “work” and the “informal sector” (Portes and Haller, 2004), the available data were only sufficient to use the general classification criteria proposed by PREALC (1978).

2. Data

The data used in this article come from two sources. The first is the National Socioeconomic Characterization Survey (CASEN), which is a household survey widely used in Chile because its sample frameworks and the number of cases are suitable for making nationally representative estimates. It also has adequate information (although not sufficient) to estimate the number of people employed in various class locations. In other words, it makes it possible to correctly estimate the number of people that comprise the classes that own the means of production (employers and the self-employed).

The problem arises when classifying wage earners. The CASEN survey only has the traditional variable derived from ISCO-1988; but it does not include data that would make it possible to distinguish, for example, a worker without authority from a supervisor or a manager (that is, a high-level wage earner, with administrative capacities that go beyond mere supervision of the work of others). As the central aim of this study is to test the mesocratization thesis from a theoretically-based class perspective, this is not a minor problem. In order to solve it, the cases of the CASEN survey were classified according to information obtained from ENETS, which is the second data source used in this study. The latter was applied between September 2009 and October 2010 by the Ministry of Health, the Ministry of Labour and Social Security and the Labour Safety Institute of Chile, and it is representative at the national level (persons aged 15 years or older; $n = 9,503$). Unlike the CASEN survey, ENETS does allow for the construction of theoretically-based class schemas, since it contains enough information to operationalize the authority dimension proposed in the Wright framework.

The next section explains the classification of the cases of the CASEN survey on the basis of ENETS data, which made it possible to estimate the size of the wage-earning classes for 1992, 2003 and 2013. This estimate may be subject to problems associated with the time lapse between the ENETS and CASEN surveys (problems discussed in the next section). Nonetheless it was decided to work with ENETS, since it is still the only survey that makes it possible to apply the Wright model to the Chilean case.

3. Estimated wage-earning class locations for 1992, 2003 and 2013

The method used in this paper to estimate the class structure was developed in previous research on transformations of this structure (Wright, 1997; Wright and Martin, 1987; Wright and Singelmann, 1982). As noted above, the method was used only to estimate the size of wage-earning class locations (the estimates for the owner classes were calculated directly from the CASEN survey), following all the recommendations made in those earlier studies (Wright and Martin, 1987, pp. 25–28; Wright and Singelmann, 1982, pp. 192 and 193). The estimation of the cases was done in three stages. First, based on ENETS data, a three-way class/occupation/economic sector table was constructed, which revealed the class distribution in each occupation within each sector of the economy. The table thus presented the distribution of the four wage-earning classes within the nine occupational groups (as defined by the single-digit ISCO-1988 classification) for each of the 22 sectors of the economy. Then, the CASEN survey data were used to construct two-way occupation/economic sector tables, which made it possible to distinguish the total number of people in each occupation within each sector for 1992, 2003 and 2013. Lastly, the percentages of class/occupation/economic sector table obtained from ENETS were used to estimate the distribution of classes within the cells of the occupation/economic sector tables obtained from the CASEN survey. For example, if ENETS indicated that 20% of office workers (as per the “occupation” variable) who were employed in the financial services and insurance area (according to the “economic sector” variable) were supervisors (according to the “social class” variable),

then 20% of the members of this occupation in that economic sector according to the CASEN survey were defined as supervisors. This imputation process made it possible to calculate the total number of people in each wage-earning class location for 1992, 2003 and 2013 (errors in the occupation coding of the public version of the 1990 CASEN survey did not allow analysis for that year).

This method of estimating class size assumes that the class distributions within each occupation (within economic sectors) remain constant (Wright and Martin, 1987; Wright and Singelmann, 1982, p. 193). This may not be the case in some circumstances; for example, if proletarianization or mesocratization phenomena occur within each occupation. If so, this estimation method would probably not be the most suitable for studying the distribution of the population in the class structure. Nonetheless, the studies in which this form of imputation has been used have shown that, aside from these potential shortcomings, the technique is appropriate in cases where the focus is on transformations of the class structure over a period of years, rather than on the absolute distribution of the labour force in each class category. These research studies have also suggested that the potential biases associated with a procedure such as this should not affect the analysis of changes in the structure insofar as they remain constant over time —in other words, whenever the same estimation method is used in all periods studied (Wright and Martin, 1987, pp. 10–11).⁴ Potential limitations aside, therefore, this imputation technique proved very useful for analysing changes in the class structure from the standpoint of Wright's neo-Marxist analysis and using databases that ensure the national comparability and representativeness of the data.⁵

4. Technique of analysis

This article analyses the hypothesis of mesocratization using the shift-share technique, which is common in empirical analyses of transformations of the class structure (Gubbay, 2000; Marshall and Rose, 1988; and Martin, 1987; Wright and Singelmann, 1982) and is appropriate for the purposes of this paper. Moreover, this method makes it possible to divide the global changes that occur in the class structure in a given period of time, between those associated with changes in the class composition within each economic sector (the “class composition shift effect”) and changes derived from the transformation of industries or economic sectors in themselves (the “industry shift effect”). In addition, the technique makes it possible to distinguish a third cause of transformation, namely the “interaction effect”, which is a residual component indicating the combined effect of changes in the size of the economic sectors and the class composition within each of them.

This technique involves constructing counterfactual frequency tables for the distribution of classes in each economic sector. In doing this, the aim was to analyse the three sources of change mentioned above in the periods 1992–2003 and in 2003–2013.

In order to examine the effect of a change in class composition within individual sectors of the economy, a counterfactual table was constructed showing how many people of a certain social class (such as the working class) there would have been in a given year (2003 for example) —without considering the overall growth of the labour force— *if* the size of the economic sectors had not changed relative to 1992, but the distribution of classes within each sector had changed (as seen in 2003). This type of

⁴ Further details on the possible biases associated with this estimation technique can be found in Wright and Martin (1987, pp. 25–28) and Wright and Singelmann (1982, pp. 207–208).

⁵ Another possible bias concerns the level of aggregation of the variables. The data used in this study only permitted a breakdown into 22 economic sectors (rather than 37 as in the previous research in which this method of imputation was used). To test the possible flaws arising from with this problem, the author estimated the size of the classes with different versions of the “economic sector” variable for the years in which the data allowed this (2003 and 2013). These analyses revealed only minor variations in the size of each class (variations which were no more than 1% in relation to the total class structure presented here). More importantly, the analysis of these data showed that the pattern of change in the class structure —that is, the increase or decrease in class size— was exactly the same as that presented in this article.

class-composition effect reveals how a class expands or contracts in absolute terms, independently of the changes that might exist in the economic sectors. The mesocratization of the class structure should thus be expressed as an increase in the number of individuals located in middle-class positions within each economic sector (or in most of them), even if the sectors with the largest number of working-class people (for example, agriculture) had grown faster than those with a larger number of middle-class people (such as financial services).

The industry shift effect was analysed through a table of counterfactual data that indicate how many people of any social class there would have been in a given year (for example, 2003) —without considering the growth of the labour force— *if* the class composition within each sector had been the same as that of the previous year of analysis (1992), but the size of each economic sector (that is, the number of people employed in them) had changed (as seen in 2003). In conceptual terms, this type of effect shows how class structure changes as a result of the growth or contraction of specific economic sectors. Thus, the growth of the education and social-service sectors could be seen as a major force driving the mesocratization of the class structure, insofar as these sectors have large contingents of highly skilled workers. If these sectors grow faster than others that have a large unskilled labour force (such as agriculture), then the middle-class locations in the overall class structure should expand both absolutely and in relative terms. In this analytical technique, this is viewed as an effect of a change in economic sectors.

Lastly, the interaction effect is a residual element that represents changes in the class structure that result from people moving from one class within an economic sector to another in a different sector. For example, many analysts of the Latin American class structure have argued that the neoliberal transformation of the 1980s and 1990s entailed a process of deindustrialization and tertiarization, together with an increase in the petty bourgeoisie (especially the informal type), resulting from the “forced entrepreneurship” into which many former wage earners were driven (Klein and Tokman, 2000; Portes and Hoffman, 2003; Weller, 2004). According to the technique presented in this article, the interaction effect would be seen in the contraction of “blue-collar” working-class positions and the decline of the industrial sector that generated them, together with an increase in the tertiary sector and own-account activities. In other words, this effect should be understood as the joint result of the change in the composition of classes within industries (in this case, a decrease in wage-earning workers and an increase in self-employment) and the global transformation of the economic sectors (shown by a contraction of the industrial sector and the expansion of the service sector).

The procedures used to compile these counterfactual data tables are outlined in the annex.

VI. Results

Table 2 shows the main changes recorded in the size of the economic sectors, grouped into 22 categories, between 1992, 2003 and 2013. The data confirm the trends indicated in several previous research studies, namely that Chile’s economic structure has experienced a sustained reduction in employment in the primary sector (especially in agriculture, hunting and forestry), the contraction of some industrial activities (for example, those related to textiles and leather) and an increase in employment in the service sector (Gayo, Méndez and Teitelboim, 2016; León and Martínez, 2007). These facts would support the thesis of mesocratization, since financial intermediation, real estate and business activities tend to require high skill levels. Their growth should therefore be expressed in a sustained increase in wage-earning middle-class positions and in the consolidation of a more mesocratic structure (Ruiz and Boccardo, 2015, p. 112).

Table 2
Chile: total employed population by economic sector, 1992–2013
(Number of persons and percentages)

	1992		2003		2013	
	No. of persons	Percentages	No. of persons	Percentages	No. of persons	Percentages
1. Agriculture, hunting and forestry	677 907	14.3	688 707	11.9	610 668	8.6
2. Fishing	66 621	1.4	80 457	1.4	51 792	0.7
3. Mining and quarrying	104 665	2.2	87 497	1.5	200 190	2.8
4. Manufacture of food products, beverages and tobacco	164 105	3.5	209 540	3.6	272 644	3.8
5. Manufacture of textiles and leather products	237 681	5.0	127 450	2.2	91 067	1.3
6. Manufacture of wood, paper and other products	160 458	3.4	179 689	3.1	181 574	2.5
7. Manufacture of petroleum and chemical products	52 391	1.1	62 155	1.1	41 334	0.6
8. Manufacture of plastic and non-metallic mineral products	55 292	1.2	42 639	0.7	44 008	0.6
9. Manufacture of basic metals	92 204	1.9	109 625	1.9	106 699	1.5
10. Manufacture and repair of equipment	49 370	1.0	55 286	1.0	65 517	0.9
11. Electricity, gas and water supply	37 132	0.8	33 949	0.6	40 261	0.6
12. Construction	431 564	9.1	508 957	8.8	680 510	9.5
13. Wholesale and retail trade	736 562	15.5	966 941	16.7	1 174 812	16.5
14. Hotels and restaurants	111 914	2.4	174 016	3.0	313 968	4.4
15. Transport, storage and communications	339 412	7.2	464 319	8.0	562 806	7.9
16. Finance, insurance and real estate activities	95 606	2.0	142 020	2.4	174 508	2.4
17. Business services	126 288	2.7	276 861	4.8	431 162	6.0
18. Public administration and defence	104 206	2.2	156 074	2.7	260 790	3.7
19. Teaching	269 574	5.7	402 411	6.9	554 876	7.8
20. Health and social work	168 871	3.6	243 170	4.2	389 898	5.5
21. Community and personal services	609 600	12.9	710 352	12.2	757 653	10.6
22. Recreational services	52 511	1.1	79 344	1.4	120 872	1.7
Total	4 743 934	100	5 801 459	100	7 127 609	100

Source: Prepared by the author, on the basis of data from the National Socioeconomic Survey (CASEN).

The consolidation of a “mesocratized” structure is put in perspective, however, when analysing the data in table 3, which reports the changes observed in the Chilean class structure between 1992, 2003 and 2013. For comparison purposes only, this table also includes percentage data for the United States between 1960 and 1980, calculated by Wright and Martin (1987), with a class structure model that is basically the same as the one used in this study.

Two phenomena stand out: first, in all three years, the majority of Chileans (around 59%) almost invariably are in a working-class location. This casts doubt on the middle-class nature of the Chilean class structure, especially considering the large number of informal self-employed (who are commonly understood in Latin American literature as an integral part of popular sectors along with the working class). Despite having shrunk over the years, in 2013 informal self-employed workers accounted for almost 15% of the total employed. Thus, in that year almost 75% of the population belonged to the lowest part of the class structure (informal self-employed and working class).

The second phenomenon is that wage-earning middle-class locations — managers, supervisors and experts — did increase between 1992 and 2013, but the increase was only moderate (between 1992 and 2013 none of these categories grew by more than 1.5 percentage points). Moreover, in 2003–2013 middle-class growth was accompanied by a similar expansion of the working class (by 1.4 percentage points). The data thus indicate that in the year in which the class structure was most mesocratized (2013),

wage-earning middle-class locations represented only 18.6% of the total employed. This is striking if the data are compared with those of the United States, which show that, in 1980, managers, supervisors and experts jointly accounted for just over 40% of total employment. It can also be seen that the managers class in that country has always represented a significant portion of the labour force, rising from 14.8% in 1960 to over 18% in 1980. In Chile, however, managers represented no more than 1.5% in any of the years considered. The experts category displays a similar picture, although it grew from 2.8% in 1992 to 3.8% in 2013, possibly as a result of the expansion of higher education during recent decades (Espinoza, Barozet and Méndez, 2013; Ruiz and Boccardo, 2015). Nonetheless, this increase is quite modest compared to that of the United States, and it is insufficient to reverse the weakly mesocratic nature of the Chilean class structure.

Table 3
Changes in the class structure in Chile (1992–2013) and the United States
(Number of persons and percentages)

Social class	Chile						United States ^a		
	1992		2003		2013		1960	1970	1980
	No. of persons	Percentages	No. of persons	Percentages	No. of persons	Percentages	Percentages		
<i>Owners</i>									
1. Capitalists	41 631	0.9	50 705	0.9	29 106	0.4	8.0	5.5	5.0
2. Small employers	126 337	2.7	176 896	3.0	84 840	1.2			
3. Petty bourgeoisie	166 874	3.5	302 064	5.2	372 109	5.2	5.8	4.4	4.3
4. Informal self-employed	877 442	18.5	903 190	15.6	1 054 839	14.8			
<i>Wage earners</i>									
5. Managers	66 446	1.4	81 276	1.4	104 560	1.5	14.8	16.3	18.4
6. Supervisors	557 486	11.8	708 075	12.2	947 584	13.3	11.5	12.4	13.2
7. Experts	130 984	2.8	192 922	3.3	271 451	3.8	5.6	7.4	8.6
8. Working class	2 776 735	58.5	3 386 332	58.4	4 263 120	59.8	54.3	54.1	50.5
Total	4 743 934	100	5 801 459	100	7 127 609	100	100	100	100

Source: Prepared by the author, on the basis of data from the National Survey on Employment, Work, Health and Quality of Life of Workers in Chile (ENETS) (2009–2010) and the National Socioeconomic Survey (CASEN) (1992–2013) and E. O. Wright and B. Martin, “The transformation of the American class structure, 1960–1980”, *American Journal of Sociology*, vol. 93, No. 1, Chicago, The University of Chicago Press, 1987.

^a In the United States, the “Capitalist” and “Small employers” classes are combined in a single large category. Similarly, the “Petty bourgeoisie” category encompasses both “Petty bourgeoisie” and “Informal self-employed” as defined here.

Having discussed these global changes in the class structure, it is now appropriate to describe these phenomena more specifically. Table 4 shows a decomposition of changes in the class structure obtained from the shift-share analysis for 1992–2003 and 2003–2013. Column I shows the total change observed in each class (in other words, how much it increased or decreased in each period); while column II shows the expected change, or how much each class should have grown if it had increased in the same proportion as the total employed population. Column III reports the net change in each social class —calculated controlling for the growth of the labour force— while columns IV to VI show the source or origin of that change (hence the sum of these effects is equal to the net change of each class). In other words, columns IV to VI represent changes in the class structure as an effect of: (i) the transformation of the economic sectors (column IV); (ii) shifts in the class composition within each sector (column V); and (iii) the combined effect or interaction of both factors (column VI).⁶ Columns VII to X display the same information as columns III to VI, but as a percentage of the number of people in each class at the start of the periods analysed (1992 for the first period and 2003 for the second).

⁶ As noted in the methodological section, the annex provides a brief explanation of the counterfactual tables from which the figures shown in table 4 were obtained.

Table 4
Chile: basic decomposition of changes in class structure, 1992–2003 and 2003–2013
(Number of persons and percentages)

	Net change and its decomposition ^a (no. of individuals)				Net change and its decomposition (percentages)					
	Total observed change I	Expected change II	Net change III	Effect of the shift in economic sectors IV	Effect of the shift in class composition V	Interaction effect (residual component) VI	Net change VII	Effect of the shift in economic sectors VIII	Effect of the shift in class composition IX	Interaction effect (residual component) X
1992–2003										
1. Capitalists	9 074	9 280	-206	-1 884	-281	1 959	-0.5	-4.5	-0.7	4.7
2. Small employers	50 559	28 163	22 396	5 324	19 027	-1 955	17.7	4.2	15.1	-1.5
3. Petty bourgeoisie	135 190	37 200	97 990	31 919	65 962	109	58.7	19.1	39.5	0.1
4. Informal self-employed	25 748	195 601	-169 853	-55 429	-85 232	-29 192	-19.4	-6.3	-9.7	-3.3
5. Managers	14 830	14 812	18	-135	-556	709	0.0	-0.2	-0.8	1.1
6. Supervisors	150 589	124 276	26 313	22 435	64	3 814	4.7	4.0	0.0	0.7
7. Experts	61 938	29 199	32 739	33 044	-231	-74	25.0	25.2	-0.2	-0.1
8. Working class	609 597	618 994	-9 397	-35 275	1 248	24 630	-0.3	-1.3	0.0	0.9
2003–2013										
1. Capitalists	-21 599	11 591	-33 190	439	-34 416	787	-65.5	0.9	-67.9	1.6
2. Small employers	-92 056	40 436	-132 492	-456	-132 395	358	-74.9	-0.3	-74.8	0.2
3. Petty bourgeoisie	70 045	69 049	996	18 596	-26 016	8 417	0.3	6.2	-8.6	2.8
4. Informal self-employed	151 649	206 459	-54 810	-109 853	67 082	-12 039	-6.1	-12.2	7.4	-1.3
5. Managers	23 285	18 579	4 706	2 225	2 302	179	5.8	2.7	2.8	0.2
6. Supervisors	239 510	161 858	77 652	58 561	18 715	376	11.0	8.3	2.6	0.1
7. Experts	78 528	44 100	34 428	34 260	251	-83	17.8	17.8	0.1	0.0
8. Working class	876 788	774 078	102 710	-3 772	104 477	2 005	3.0	-0.1	3.1	0.0

Source: Prepared by the author, on the basis of data from the National Survey on Employment, Work, Health and Quality of Life of Workers in Chile (ENETS) (2009–2010) and the National Socioeconomic Survey (CASEN) (1992–2013).

^a The values of the cells in column III represent the changes in the number of people in each class category, without considering the overall change in the population. Because of this, in both periods the sum of those cells is equal to zero in the vertical direction. The values of the columns between IV and VI indicate the different components (effects) that explain the net change. Therefore, the sum of these components for each class coincides with the net change. Variations in the decimals of the sum are due to rounding of the calculations. The text and the annex provided more detailed explanations of this table.

A review of columns III and VII in the 1992–2003 section shows that, without considering the growth of the employed labour force, the experts category grew by 32,739 people (equivalent to an increase of 25%), while the working class experienced a net decrease of 9,397 people, representing a net change of -0.3%. In the case of experts, a breakdown of the net change shows that its growth reflects a change in the economic sectors, which resulted in a net increase of 33,044 people (column IV). This was equivalent to a net increase of 25.2% (column VII), which was offset by slight reductions: 0.2% as a result of the change in class composition and 0.1% as a result of the interaction effect (columns VII and VIII).

Between 2003 and 2013, the trends are similar to those exhibited in the first period. Nonetheless, two phenomena should be noted; firstly, unlike the 1992–2003 period, when managers experienced virtually no net change, in the second period this category recorded net growth of 5.8% (column VII). The increase was not very significant in absolute terms, however (as shown in column III, this 5.8% is equivalent to just 4,706 people). The second phenomenon that warrants consideration is the net growth of the working class, as shown by the fact that in 2013 there were 102,710 more workers than in 2003 (column III). The large size of this class explains why the absolute net growth (which was the highest of those observed with respect to any of the classes in either of the two periods) only meant a 3% increase (column VII). The breakdown of that percentage suggests that much of the growth in the working class is an effect of the change in class composition within the economic sectors (column IX).

It is also interesting to note what happens in both periods with the petty bourgeoisie and the informal self-employed categories. The former displays constant growth which, nonetheless, slows sharply in the second period (between 1992 and 2003 this class recorded net growth of 58.7%, while in 2003–2013 growth was just 0.3%). The opposite trend prevailed among the informal self-employed, as the shrinking of this category slows down in the second period. The net change in this class was -19.4% between 1992 and 2003, but -6.1% in 2003–2013.

These results cast doubt on the mesocratization thesis, at least with respect to the two periods analysed here. Although between 1992 and 2013 there was net growth of wage-earning middle-class positions, this was extremely small and did not produce significant transformations in the class structure. Moreover, the growth was accompanied in 2003–2013 by a net increase in the number of people employed in working class positions. This increase was, in fact, the highest in absolute terms considering the two periods studied (see column III of table 4). In short, the data indicate that the idea of an increasingly mesocratic structure is hard to sustain from a class perspective, such as the one used in this study.

To gain a more complete picture of these trends, table 5 reports the effects of the changes that have occurred in industries and the class composition (columns VIII and IX of table 4), broken down into five large economic sectors.⁷ This table is useful as a complement to the information already described in table 4. For example, when analysing the latter, it was noted that the net increase in experts between 1992 and 2003 mostly reflected the change in economic sectors (as explained above, this effect was expressed as net growth of 25.2%). The data in table 5 suggest that most of this increase associated with the transformation of economic sectors is explained by the growth of activities grouped under the “Public, social, community and personal services” category. In effect, the expansion of these activities meant a net increase of 94.7% for the experts category. A similar trend can be seen in the second period analysed. As happened between 1992 and 2003, the net increase in experts in 2003–2013 is largely a consequence of the change in economic sectors and particularly the growth of activities associated with public, social, community and personal services.

⁷ These economic sectors resulted from the grouping of the 22 sectors presented in table 2, which was done as follows: Extractive sector (activities 1 to 3); Manufacturing, construction and supply sectors (4 to 12); Trade, hotels/restaurants, transportation and communications (13 to 15); Insurance, financial services and business services (16 to 17); and public, social, community and personal services (18 to 22).

Table 5 also explains the net increase in the number of people employed in working-class positions between 2003 and 2013. As noted earlier, this positive net change is basically an effect of changes in the distribution of classes within the economic sectors (which meant a 3.1% increase in workers, according to column IX of table 4). Most of this net increase is due to the growth of the working class within the extractive sector, which experienced a net increase in workers of 5.9%, as shown in table 5. This means that within this sector, and aside from its growth or contraction, there was a proletarianization process which meant that there were more people employed in working-class positions in 2013. According to Table 5, something similar —but to a lesser degree— occurred with the growth of the working class in activities associated with the manufacturing, supply and construction sectors.

Table 5
Chile: breakdown of the effects of the change in the economic sectors and in the class composition by economic sector, 1992–2003 and 2003–2013
(Percentages)

	Extractive sector	Manufacturing, supply and construction	Trade, hotels, transport and communications	Insurance, financial and business services	Public, social, community and personal services	Total
1992–2003						
1. Capitalists						
Change in economic sectors	0.6	15.2	8.3	-0.9	-27.8	-4.5
Change in class composition	-0.5	22.4	-2.6	-20.3	-0.7	-0.7
2. Small employers						
Change in economic sectors	1.1	-8.0	31.7	3.1	-23.7	4.2
Change in class composition	0.5	11.3	16.7	-14.8	15.1	15.1
3. Petty bourgeoisie						
Change in economic sectors	-15.8	-18.2	36.4	21.2	-4.5	19.1
Change in class composition	-12.6	-10.9	68.4	-12.2	39.5	39.5
4. Informal self-employed						
Change in economic sectors	4.5	-2.9	13.9	-7.7	-14.1	-6.3
Change in class composition	8.2	10.2	-3.5	-16.1	-9.7	-9.7
5. Managers						
Change in economic sectors	-3.0	6.4	-8.5	5.9	-1.1	-0.2
Change in class composition	0.2	10.2	-9.4	-3.3	-0.8	-0.8
6. Supervisors						
Change in economic sectors	-4.9	6.5	-5.6	1.3	6.6	4.0
Change in class composition	-1.5	8.8	-6.4	1.1	0.0	0.0
7. Experts						
Change in economic sectors	-17.5	-25.1	-29.3	2.5	94.7	25.2
Change in class composition	-17.2	-25.0	-29.5	72.0	-0.2	-0.2
8. Working class						
Change in economic sectors	1.3	1.9	-5.4	0.5	0.5	-1.3
Change in class composition	5.8	4.2	-6.3	-1.0	0.0	0.0
2003–2013						
1. Capitalists						
Change in economic sectors	-3.9	13.9	1.4	8.6	-19.1	0.9
Change in class composition	-6.5	-8.4	-25.4	0.9	-28.5	-67.9
2. Small employers						
Change in economic sectors	-4.5	-0.1	15.6	6.4	-17.7	-0.3
Change in class composition	-8.8	-13.5	-19.5	-4.6	-28.5	-74.8
3. Petty bourgeoisie						
Change in economic sectors	-12.6	-17.0	40.8	12.1	-17.1	6.2
Change in class composition	-10.8	-14.5	14.9	10.0	-8.2	-8.6
4. Informal self-employed						
Change in economic sectors	4.2	7.0	4.5	-9.6	-18.2	-12.2
Change in class composition	8.6	10.0	12.6	-8.8	-14.9	7.4

Table 5 (concluded)

	Extractive sector	Manufacturing, supply and construction	Trade, hotels, transport and communications	Insurance, financial and business services	Public, social, community and personal services	Total
5. Managers						
Change in economic sectors	-1.7	3.8	-5.5	6.4	-0.3	2.7
Change in class composition	0.9	7.4	-6.5	4.3	-3.3	2.8
6. Supervisors						
Change in economic sectors	-2.3	3.1	-4.0	1.0	10.4	8.3
Change in class composition	-1.4	6.2	-4.3	-0.6	2.6	2.6
7. Experts						
Change in economic sectors	-13.9	-24.1	-31.4	-0.2	87.4	17.8
Change in class composition	-14.3	-23.9	-31.1	-1.2	70.7	0.1
8. Working class						
Change in economic sectors	1.6	0.1	-2.9	0.7	0.4	-0.1
Change in class composition	5.9	2.6	-2.8	-0.9	-1.7	3.1

Source: Prepared by the author, on the basis of data from the National Survey on Employment, Work, Health and Quality of Life of Workers in Chile (ENETS) (2009–2010) and the National Socioeconomic Survey (CASEN) (1992–2013).

Note: The values of each cell should be interpreted as the contribution of each economic sector to the components of change in the economic sectors and in class composition. The total of each row therefore represents the effects of the change of the economic sectors and of the class composition of table 4 (columns VIII and IX).

VII. Conclusions

The main conclusion to be drawn from this study is that the central claim of the mesocratization thesis in Chile, namely that the growth of the service sector has given rise to a middle-class social structure, is questionable, at least in relation to the period analysed. It is true that Chile has experienced a steady reduction in the labour force employed in the industrial sector. It is also true that the growth of some activities in the services sector has a positive effect on the rise of the middle class (which is precisely what was revealed in this study when it was found that the net increase in experts is an effect of the growth of activities linked to public, social, community and personal services). Nonetheless, although these trends have been correctly highlighted by many of the proponents of mesocratization (León and Martínez, 2007; Ruiz and Boccardo, 2015), what is debatable is whether these phenomena are important enough in quantitative terms (absolute and relative) to be able to speak of an increasingly mesocratic class structure. As noted above, the Chilean class structure is characterized by the great persistence of its general features. These indicate that Chilean society is much more working class than middle class (according to the framework used in this study, while the working class alone accounts for about 60% of total employed, its share increases to nearly 75% when the informal self-employed are included). These results are similar to those obtained in other studies that have questioned whether the tertiarization of the Chilean economy has turned Chile into a middle-class country (Gayo, Méndez and Teitelboim, 2016).

Considering the pace of expansion of middle-class positions, together with the increase in the number of people employed in working-class positions between 2003 and 2013, it is hard to see the middle class becoming a numerically dominant sector of the class structure at some point. The outlook is even less optimistic when one considers that the two periods analysed should have captured the positive effects of two decades of rapid economic growth (Chile's gross domestic product (GDP) grew by an average of over 4% per year except in 1999 and 2009). Similarly, a comparison with similar research undertaken in the United States in the late 1980s (Wright and Martin, 1987) shows that the association between deindustrialization, the emergence of a service society and the growth of the middle class may well apply (under certain circumstances) to advanced capitalist societies, but may be insufficient to understand the case of Chile.

So what explains why the idea of mesocratization has become one of the most widely used concepts to analyse the recent changes in Chilean society? One possible explanation concerns the way in which the concept of social class has been defined in research studies; specifically, the fact that the definitions used reflect a tendency to automatically associate change in economic sectors —the growth of the services sector for example— with a change in the class structure —allegedly expressed in the expansion of non-manual middle-class jobs. Under the analytical strategy adopted in this study, this automatic association confuses two different sources of change: one observed across economic sectors and the other in the class composition within each one. By empirically identifying both sources of change and using theoretically-based analytical frameworks, this paper has attempted to contribute to the class analysis, showing how the Chilean class structure is more polarized and resistant to change than many assume.

Bibliography

- Aguilar, O. and others (2016), “The intersection between class and gender and its impact on the quality of employment in Chile”, *CEPAL Review*, No. 120 (LC/G.2694-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- Barozet, E. and J. Fierro (2011), “Clase media en Chile, 1990–2011: algunas implicancias sociales y políticas”, *Serie de Estudios*, No. 4, Santiago, Konrad Adenauer Foundation.
- Bell, D. (1973), *The Coming of Post-Industrial Society*, New York, Basic Books.
- Bergman, M. M. and D. Joye (2001), “Comparing Social Stratification Schemas: CAMSIS, CSP-CH, Goldthorpe, ISCO-88, Treiman, and Wright” [online] <http://forscentre.ch/wp-content/uploads/2013/11/indicateurs-position-sociale-en1.pdf>.
- Bourdieu, P. (1984), *Distinction: A Social Critique of the Judgement of Taste*, Cambridge, Massachusetts, Harvard University Press.
- Braverman, H. (1998), *Labor and Monopoly Capitalism: the Degradation of Work in the Twentieth Century*, New York, Monthly Review Press.
- Castellani, F. and G. Parent (2011), “Being ‘middle-class’ in Latin America”, *Working Paper*, No. 305, Paris, Organization for Economic Cooperation and Development (OECD).
- Crompton, R. (1993), *Class and Stratification. An Introduction to Current Debates*, Cambridge, Polity Press.
- Crompton, R. and G. A. Jones (1984), *White-Collar Proletariat: Deskillling and Gender in Clerical Work*, London, MacMillan.
- Dahrendorf, R. (1959), *Class and Class Conflict in Industrial Society*, Stanford, Stanford University Press.
- Do Valle Silva, N. (2007), “Cambios sociales y estratificación en el Brasil contemporáneo (1945–1999)”, *Estratificación y movilidad social en América Latina. Transformaciones estructurales de un cuarto de siglo*, R. Franco, A. León and R. Atria (coords.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC)/LOM Ediciones.
- Erikson, R. and J. H. Goldthorpe (1992), *The Constant Flux: A Study of Class Mobility in Industrial Societies*, Oxford, Clarendon Press.
- Espinoza, V. (2006), “La movilidad ocupacional en el Cono Sur. Oportunidades y desigualdad social”, *Revista de Sociología*, No. 20, Santiago, University of Chile.
- Espinoza, V., E. Barozet and M. L. Méndez (2013), “Estratificación y movilidad social bajo un modelo neoliberal: el caso de Chile”, *Laboratorio*, No. 25, Buenos Aires.
- Franco, R., M. Hopenhayn and A. León (2011), “The growing and changing middle class in Latin America: an update”, *CEPAL Review*, No. 103 (LC/G.2487-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- _____(2010), *Las clases medias en América Latina*, Mexico City, Siglo XXI/Economic Commission for Latin America and the Caribbean (ECLAC).
- Franco, R. and A. León (2010), “Clases medias latinoamericanas: ayer y hoy”, *Estudios Avanzados*, No. 13, Santiago, University of Santiago, Chile.
- Gayo, M., M. L. Méndez and B. Teitelboim (2016), “La terciarización en Chile. Desigualdad cultural y estructura ocupacional”, *CEPAL Review*, No. 119 (LC/G.2683-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).

- Gayo, M., B. Teitelboim and M. L. Méndez (2013), "Exclusividad y fragmentación: los perfiles culturales de la clase media en Chile", *Universum*, vol. 1, No. 28 [online] <http://dx.doi.org/10.4067/S0718-23762013000100006>.
- Gubbay, J. (2000), "Shifting classes: interactions with industry and gender shifts in the 1980s", *Sociological Research Online*, vol. 5, No. 3, SAGE.
- Hopenhayn, M. (2010), "Clases medias en América Latina: sujeto difuso en busca de definición", *Clases medias y desarrollo en América Latina* (LC/L.3240), A. Bárcena and N. Serra (eds.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC)/CIDOB Foundation.
- Jorrat, J. R. (2005), "Aspectos descriptivos de la movilidad intergeneracional de clase en Argentina: 2003–2004", *Laboratorio*, year 7, No. 17/18, Buenos Aires.
- Kaya, Y. (2008), "Proletarianization with polarization: industrialization, globalization, and social class in Turkey, 1980–2005", *Research in Social Stratification and Mobility*, vol. 26, No. 2, Amsterdam, Elsevier.
- Klein, E. and V. Tokman (2000), "Social stratification under tension in a globalized era", *CEPAL Review*, No. 72 (LC/G.2120-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- Koo, H. (1990), "From farm to factory: proletarianization in Korea", *American Sociological Review*, vol. 55, No. 5, Washington, D.C., American Sociological Association.
- Leiufrud, H., I. Bison and H. Jensberg (2005), "Social Class in Europe. European Social Survey 2002/3" [online] https://www.europeansocialsurvey.org/docs/methodology/ESS1_social_class.pdf.
- León, A. and J. Martínez (2007), "La estratificación social chilena hacia fines del siglo XX", *Estratificación y movilidad social en América Latina. Transformaciones estructurales de un cuarto de siglo*, R. Franco, A. León and R. Atria (coords.), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC)/LOM Ediciones.
- _____(1987), *Clases y clasificaciones sociales. Investigaciones sobre la estructura social chilena, 1970–1983*, Santiago, Centro de Estudios del Desarrollo.
- Li, J. H. and J. Singelmann (1999), "Social mobility among men: a comparison of neo-Marxian and Weberian class models", *European Sociological Review*, vol. 15, No. 1, Oxford, Oxford University Press.
- López-Calva, L. F. and E. Ortiz-Juárez (2014), "A vulnerability approach to the definition of the middle class", *The Journal of Economic Inequality*, vol. 12, No. 1, Springer.
- Lora, E. and J. Fajardo (2013), "Latin American middle classes: the distance between perception and reality", *Economía*, vol. 14, No. 1, Washington, D.C., Brookings Institution Press.
- Mallet, S. (1975), *The New Working Class*, Nottingham, Spokesman Books.
- Marshall, G. and D. Rose (1988), "Proletarianization in the British class structure?", *British Journal of Sociology*, vol. 39, No. 4, Wiley.
- Oesch, D. (2006), "Coming to grips with a changing class structure: an analysis of employment stratification in Britain, Germany, Sweden and Switzerland", *International Sociology*, vol. 21, No. 2, SAGE.
- Orellana, V. (2011), "Nuevos estudiantes y tendencias emergentes en la educación superior. Una mirada al Chile del mañana", *Nueva geografía de la educación superior y de los estudiantes. Una cartografía del sistema chileno, su actual alumnado y sus principales tendencias*, M. Jiménez and F. Lagos (eds.), Santiago, Ediciones Universidad San Sebastián.
- Palomino, H. and P. Dalle (2012), "El impacto de los cambios ocupacionales en la estructura social de la Argentina: 2003–2011", *Revista de Trabajo*, vol. 8, No. 10.
- Pérez-Ahumada, P. (2017), "The end of a traditional class distinction in neoliberal society: 'white-collar' and 'blue-collar' work and its impact on Chilean workers' class consciousness", *Critical Sociology*, vol. 43, No. 2, SAGE.
- Portes, A. and W. Haller (2004), "La economía informal", *Social Policy series*, No. 100 (LC/L.2218-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- Portes, A. and K. Hoffman (2003), "La estructura de clases en América Latina: composición y cambios durante la época neoliberal", *Social Policy series*, No. 68 (LC/L.1902-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- PREALC (Regional Employment Programme for Latin America and the Caribbean) (1978), *Sector informal. Funcionamiento y políticas*, Santiago, International Labour Organization (ILO).
- Ruiz, C. and G. Boccardo (2015), *Los chilenos bajo el neoliberalismo. Clases y conflicto social*, Santiago, Nodo XXI/El Desconcierto.
- Sen, Y.-S. and H. Koo (1992), "Industrial transformation and proletarianization in Taiwan", *Critical Sociology*, vol. 19, No. 1, SAGE.
- Solís, P. (2005), "Cambio estructural y movilidad ocupacional en Monterrey, México", *Estudios Sociológicos*, vol. 23, No. 67, Mexico City, El Colegio de México.

- Torche, F. (2014), "Intergenerational mobility and inequality: the Latin American case", *Annual Review of Sociology*, vol. 40.
- (2005), "Unequal but fluid: social mobility in Chile in comparative perspective", *American Sociological Review*, vol. 70, No. 3, SAGE.
- Touraine, A. (1971), *The Post-Industrial Society. Tomorrow's Social History: Classes, Conflicts and Culture in the Programmed Society*, New York, Random House.
- Weller, J. (2004), "Tertiary sector employment in Latin America: between modernity and survival", *CEPAL Review*, No. 84 (LC/G.2258-P), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC).
- Wright, E. O. (1997), *Class Counts: Comparative Studies in Class Analysis*, Cambridge, Cambridge University Press.
- (1985), *Classes*, London, Verso.
- Wright, E. O. and B. Martin (1987), "The transformation of the American class structure, 1960–1980", *American Journal of Sociology*, vol. 93, No. 1, Chicago, The University of Chicago Press.
- Wright, E. O. and J. Singelmann (1982), "Proletarianization in the changing American class structure", *American Journal of Sociology*, vol. 88, Chicago, The University of Chicago Press.

Annex A1

Construction of counterfactual data tables

Table 4 presented a summary of the sources of the transformation of the Chilean class structure in the two periods analysed. The data were obtained by constructing two tables of counterfactual data that show the following, with respect to each period in question: (i) the effects associated with the transformation of the economic sectors; and (ii) the effects of changes in the class composition within the economic sectors. These tables were developed following the steps described by Wright and Singelmann (1982, pp. 202–205). For explanatory purposes, the following paragraphs describe what these tables consist of and how they were produced for the 2003–2013 period.

1. Table of counterfactual data to measure the effects of the transformation of the economic sectors

Columns 1 and 2 of table A1.1 show the observed frequencies in each class category in 2003 and 2013. Column 3 indicates the expected change, in other words how much each class should have grown if it had done so in the same proportion as the total employed population. For example, in 2013 the size of the employed population increased by 22.86% relative to 2003. Thus, column 3 shows how many people there would have been in each class if each class had also grown by 22.86%. These three columns are the basis for the figures shown in columns 5 (Observed change), 6 (expected change) and 7 (Net change, which is the difference between the observed and expected change). The data from these three columns was presented in full in columns I, II and III of table 4.

Column 4 of table A1.1 reports the change in class size associated with the transformation of economic sectors. This weighted change represents how the classes would have been distributed, in 2013, in each of the 22 economic sectors if, apart from the expansion or decline of the sectors themselves, the distribution of the classes within them was been the same as in 2003. This was calculated by weighting the size of each economic sector in 2013 based on the distribution of classes observed in 2003. The values for each class thus represent the sum of each class category across the 22 economic sectors used in the calculations. Based on the above, column 8 presents a specific measure to capture the change in the class structure resulting from the transformation of economic sectors. This is defined as the difference between the weighted change (column 4) and the expected change (column 3). Thus, column 8 represents the increase or decrease in the number of people in each class category if there had been a change in economic sectors (controlled by the growth of the employed population), but not in the composition of classes within the sectors. The results of column 8 were shown in full in column IV of table 4.

Lastly, column 9 of table A1.1 reports the number of people that would have been in each social class if there had only been a change in the class composition within the economic sectors plus a joint transformation of the class composition and the economic sectors (that is, an interaction of the two effects). These values are not shown in any column of table 4 since it is impossible to interpret them directly. The information in question should be complemented with the results of table A1.2, which shows the effect of changes in the class composition and is presented in the following section.

Table A1.1
Chile: effect of the transformation of economic sectors and changes
in the structure of classes, 2003–2013
(Number of persons)

Column number	Social class	Employment				Change			Causes of the change	
		2003	2013	Expected 2013	Weighted as per 2003 ^a	Observed	Expected	Net	Effect of the transformation of economic sectors	Effect of the transformation on the class composition and interaction effects
		(1)	(2)	(3)	(4)	(5) = (2) - (1)	(6) = (3) - (1)	(7) = (5) - (6)	(8) = (4) - (3)	(9) = (2) - (4)
1.	Capitalists	50 705	29 106	62 296	62 734	-21 599	11 591	-33 190	439	-33 628
2.	Small employers	176 896	84 840	217 332	216 876	-92 056	40 436	-132 492	-456	-132 036
3.	Petty bourgeoisie	302 064	372 109	371 113	389 709	70 045	69 049	996	18 596	-17 600
4.	Informal self-employed	903 190	1 054 839	1 109 649	999 796	151 649	206 459	-54 810	-109 853	55 043
5.	Managers	81 276	104 560	99 854	102 080	23 285	18 579	4 706	2 225	2 481
6.	Supervisors	708 075	947 584	869 933	928 494	239 510	161 858	77 652	58 561	19 091
7.	Experts	192 922	271 451	237 022	271 282	78 528	44 100	34 428	34 260	168
8.	Working class	3 386 332	4 263 120	4 160 410	4 156 638	876 788	774 078	102 710	-3 772	106 482
	Total	5 801 459	7 127 609	7 127 609	7 127 609	1 326 150	1 326 150			

Source: Prepared by the author, on the basis of data from the National Socioeconomic Survey (CASEN) (2003 and 2013) and the National Survey on Employment, Work, Health and Quality of Life of Workers in Chile (ENETS) (2009–2010).

^a Weighted by the class composition prevailing in each economic sector in 2003.

2. Table of counterfactual data to measure the effects of the change in the class composition within the economic sectors

The first three columns of table A1.2 display the same information as the corresponding columns of the table described above. This is not the case in column 4, which shows how the classes would have changed if there had not been a transformation of economic sectors; in other words, if only the distribution of classes within them had changed. Mathematically, this is obtained by calculating the size that the economic sectors would have had in 2013 if each of them had continued to absorb the same proportion of the labour force as in 2003. Then, based on those expected totals for each economic sector, the size of each class within them is calculated from the percentages observed in 2013 — that is, assuming that the class composition changed as it did. The change in the size of the classes could then be quantified by also assuming that the structure of the economic sectors was the same in 2013 as in 2003. As in the previous case, the figures shown in column 4 generate those of column 8, which represents the effect of the change in class composition abstracting from the growth of the employed population. These values were presented in full in column V of table 4.

The figures displayed in column 8 of this table also served to isolate the interaction effect reported in column 9 of table A1.1. As noted above, this column shows the effect of the change in class composition plus the effect of the interaction between changes in classes and economic sectors. The “pure” interaction effect was calculated as the difference between those values (column 9 of table A1.1) and those shown in column 8 of table A1.2 (Wright and Singelmann, 1982, p. 205). This “pure” interaction effect was presented in column VI of table 4.

Table A1.2
Chile: effect of the transformation on the class composition and changes
in the class structure, 2003–2013
(Number of persons)

	Employment				Change			Causes of the change	
	2003	2013	Expected 2013	Weighted as per 2003 ^a	Observed	Expected	Net	Effect of the transformation of economic sectors	Effect of the transformation on the class composition and interaction effects
	(1)	(2)	(3)	(4)	(5) = (2) - (1)	(6) = (3) - (1)	(7) = (5) - (6)	(8) = (4) - (3)	(9) = (2) - (4)
1. Capitalists	50 705	29 106	62 296	27 880	-21 599	11 591	-33 190	-34 416	1 226
2. Small employers	176 896	84 840	217 332	84 938	-92 056	40 436	-132 492	-132 395	-98
3. Petty bourgeoisie	302 064	372 109	371 113	345 096	70 045	69 049	996	-26 016	27 013
4. Informal self-employed	903 190	1 054 839	1 109 649	1 176 731	151 649	206 459	-54 810	67 082	-121 892
5. Managers	81 276	104 560	99 854	102 156	23 285	18 579	4 706	2 302	2 404
6. Supervisors	708 075	947 584	869 933	888 648	239 510	161 858	77 652	18 715	58 937
7. Experts	192 922	271 451	237 022	237 273	78 528	44 100	34 428	251	34 178
8. Working class	3 386 332	4 263 120	4 160 410	4 264 887	876 788	774 078	102 710	104 477	-1 768
Total	5 801 459	7 127 609	7 127 609	7 127 609	1 326 150	1 326 150			

Source: Prepared by the author, on the basis of data from the National Socioeconomic Survey (CASEN) (2003 and 2013) and the National Survey on Employment, Work, Health and Quality of Life of Workers in Chile (ENETS) (2009–2010).

^a Weighted by the structure of economic sectors prevailing in 2003.