A typology of precarious employment for Chile: precariousness as a cross-class phenomenon[1]

Osvaldo Blanco and Dasten Julián

Abstract

This article presents a proposal for defining and measuring precarious employment. We begin by relating this phenomenon to the changing faces of work and social class. We then expound a methodology that combines the techniques of correspondence analysis and k-means clustering to produce a typology of nine groups of precarious employment. This reveals such employment to be a multidimensional phenomenon combining aspects of stability, insecurity, income, working conditions and working hours. The results point to a phenomenon that is not tied to any one class or position in the labour market or to any one dimension or indicator but is rather a multidimensional process that cuts across class divides and pervades different positions and situations throughout the Chilean employment structure.

Keywords

Employment, working conditions, employment policy, labour contracts, hours of work, measurement, social classes, Chile

JEL classification

A14, J31, J01, J81

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I. Introduction

The concept of "precariousness" seems to be encountered more and more often in different contexts and in different references to the field of the social sciences. In order to establish some criteria for analysis, this article will seek to present a multidimensional approach to precariousness that takes in different aspects associated with the features of contractual relations, social and health security, income, working conditions and working hours. Precariousness does not seem to be so much about occupying a particular place or configuring a single class or subject, but rather captures a multifaceted and fluid situation of traits and weaknesses linked to the profound changes that have taken place in labour markets, production relations and forms of accumulation. Setting out from this premise, our aim is to remedy the lack of proposals for generating employment profiles from the perspective of precariousness.

We intend to contribute to the debate on precariousness as a concept that provides a general background associated with the transformations of capitalism and the world of work and that has found a place in the literature on the sociology of work and the social sciences. Thus, precariousness is part of the recomposition of the sociology of labour, as a concept that reorders (and transcends) the debate on the crisis and supposed end of work. This revitalization of the sociology of work entails reflection on and awareness of the concept of precariousness in a discussion that remains ongoing but that we participate in here with an unprecedented proposal for measuring the phenomenon in Chile. In our country, precariousness appears to be pervasive throughout the structure of employment, starting with the multidimensional and complex impact on working conditions that we will address here.

Thus, the profound transformations affecting work make it necessary to propose new instruments and approaches, and we believe that the concept of precariousness serves to identify different forms of weakening and uncertainty arising from changes in business management models, pauperization and oversight or monitoring at work, among other structural factors. Precariousness can be understood as a social relationship and a heterogeneous class condition that breaks down and problematizes traditional approaches to understanding the structural characteristics of the composition of social classes based on work. In sum, the features of work have shattered and been reconfigured in such a way that different manifestations have proliferated, and precariousness is a prism for identifying the different faces and morphologies of class situations, reorganizing segments and profiles and necessitating the presentation of new perspectives for their study and comprehension.

II. Reference framework

1. Precarious employment

Precariousness has spread as a cross-cutting phenomenon of deteriorating working and living conditions which, coupled with the dual structure (formal/informal) of the labour market, is problematizing the old spaces of recognition and identification. Deteriorating conditions of employment have been displacing the processes of recognition and (psycho)social malaise from formality to informality, from stability to instability and from security to insecurity, as cross-cutting phenomena of colonization of the worlds of working life and the imaginaries of work (Julián, 2017). These processes of increasing precariousness not only cut across segments of low-skilled workers, but also affect professions traditionally associated with greater status and stability.

At a subjective level, precarious employment is manifested in the appearance of phenomena of individuality, risk, uncertainty (absence of certainties) and insecurity (Beck, 2000; Castel, 2010). In this set of problematizations for the study of labour, the formation of a (supposed) "new working class" has

a contradiction at its heart: on the one hand, the ways the links just mentioned, which shaped the core of identity(ies) traditionally associated with work, have deteriorated and fragmented; and, on the other, the gestation of structural convergence and cohesion under precarious employment conditions as an expression of a new "social issue of labour".

This article explores numerous facets of precarious employment in its objective aspect and proposes a diverse typology of groups as a way of arriving at an initial statistical mapping that will then need to be enhanced both qualitatively and geographically. The absence of subjectivity in our typology of precariousness is due primarily to the complexity involved in including all this knowledge in an article for scientific dissemination, rather than to any neo-positivist epistemological approach to the social situation.[2]

The central hypothesis guiding this investigation is that precariousness has moved fluidly through the structure of employment after originating in a multidimensional form of incidence in working conditions, inducing conditions of uncertainty and insufficiency that are expressed both in new modes of business management and in individual and collective strategies to cope with their consequences.[3] In this context, the idea of precariousness introduces a problematization into the traditional approaches to employment, since it flags up the concern for the transversality of the forms taken by work in the geography of the new global order (in relation to labour policies, institutions, social classes and the economic dynamics of contemporary capitalism).

Precariousness can be associated with different aspects and dimensions that have become an international trend in the reorganization of work spaces and the restructuring of production since the 1980s (Auer and Cazes, 2000; Antunes, 2001; Castel and Dörre, 2009; Marín, 2013). This incorporation of precariousness as part of the new reality of employment reveals an apparent permeability and internalization of the debates in the labour sciences and studies on changes in the socioproductive mix (Kalleberg, 2011; Paugam and Zhou, 2007; Van der Linden, 2014), a new context of increasingly flexible employment relations (Esping-Andersen and Regini, 2000; Thompson and Van den Broek, 2010) and a special connotation with respect to the processes constituting resistance, collectivities and social mobilization (Frege and Kelly, 2003; Ross, 2008; Barattini, 2009; De la Garza, 2001). At the theoretical level, a number of approaches have been used to study precariousness, of which three can be highlighted: (a) an institutionalist and regulationist approach, focusing on social protection and the identification of precariousness as the outcome of a process of State breakdown, erosion of employment conditions and retreat of social insurance policies (Castel, 2004 and 2010); (b) a neo-Marxist approach that problematizes the relationship and reproduction of precariousness with global processes and changes in the patterns of capital accumulation, especially through financialization, dispossession and the overexploitation of labour (Dörre, 2009); and (c) a post-structuralist approach that conceives of precariousness as part of a strategy and regime of governance that redefines the forms of control, domination and subordination of specific populations (Butler, 2004; Lorey, 2015).

The concept of precariousness is used instead of the concept of poverty mainly because the latter has generally been understood in terms of the possession or lack of resources (income), ignoring its relationship with work and employment. In a "multidimensional" sense, poverty implies

[2] For our study, conducted as part of FONDECYT Regular Project No. 1161347, we conducted interviews focusing on four levels of analysis: (i) meanings and narratives of work; (ii) the work process; (iii) impacts on spheres outside work; and (iv) forms of associativity, collective action and survival strategies. We have also held discussion and debating events with trade union organizations from various industries and regions of the country on the subjectivations attached to each type of cluster as set out in this article. This stands in for a more extensive study and is an attempt to synthesize a larger and further-reaching research process that cannot be shown here.

[3] Changes in the organization of work, increased labour flexibility and the uptake of technologies in workplaces has increased the importance of and interest in the skills and competitiveness required in globalized economies, and this has had repercussions for labour processes and relations (Boltanski and Chiapello, 1999). This has not fully occurred in Chile, however, because changes in firms have been characterized by an "unbalanced modernization" (Ramos, 2009): although production processes and labour relations have undergone organizational changes, these have not greatly changed the situation of workers, who remain in secondary, weak and highly subordinate positions (Aravena, 2016, pp. 108–111).

a practical interconnection in forms of habitat, health, education, occupation and social security, but "precariousness" is still a term that more specifically highlights the centrality of work. Precariousness implies a relationship with poverty: some precarious workers are also poor. However, this is not the only dimension of precariousness, since it intersects with conditions of risk and working situations that transcend poverty and call into question the institutionalization of mechanisms of vulnerability, rejection and social security, understood as an indissoluble part of the profound transformations being undergone by capitalist societies. Similarly, the concept of "quality of employment" is not used, since it is confined to a normative set of conditions conceived from a statist, wage-based and restrictive view of work. Precariousness can be understood as implying the burden of power and class relations that are constituted by deprivation in working and living conditions, so that "quality" is not to be automatically attributed as a practical imperative for subjectivation.

2. Measuring precariousness in social classes

Precariousness is a phenomenon significantly associated with the transformations of work, moving fluidly through the structure of employment. In contemporary capitalism, the social division of labour and exploitation both require increasing precariousness as a relationship instituted to pressurize and strain the potential for reproduction of the labour force. Its institutionalization in neoliberal policies and its structural persistence in Chilean society allow it to be treated as a central, instituted and constitutive social relationship of social reproduction. This has shaped heterogeneous manifestations of precarious work, as well as the formation and composition of existing social classes.

Thus, precariousness is directly related to the new features of work and social class. However, difficulties in quantifying it appear as soon as we realize how significantly problematic it is to measure social classes by occupation or employment variables. In principle, social classes and occupations belong to different theoretical orders: occupational variables express the internal stratification of the technical and functional division of labour, while social classes are defined by their position in the social relations of power, struggle and domination over the production and distribution of surpluses. The problem of how to measure social classes by occupation and employment variables is surely one of the most important considerations when it comes to proposing statistical research on social classes and, more specifically, precariousness as a cross-cutting, cross-class phenomenon.

The main reason for this lies in the complex analytical dimensions that have been raised in debates about social class, something that can make the concept difficult or downright impossible to operationalize in concrete research. The polysemy of the concept brings together a wide range of perspectives regarding its meaning, and in the area of sociology there are profound debates about the resolution of aspects linked to the mutual determination of structural and agential dimensions (Giddens, 1996; Archer, 2009), the best way to link the microsocial and macrosocial levels (Wright, 1994; Grusky, Weeden and Sørensen, 2001; Goldthorpe, 2010), the contrast between abstract and concrete ontological perspectives (Marx, 1971; Wright, 1994) and objective and subjective emphases (Bourdieu, 1994, 2001, 2002 and 2011). In general, there is a degree of consensus that the different topics of social class analyses distinguish between an analysis concerned with addressing questions related to macrophenomena of transformation or reproduction of social structures on a large scale, and an analysis concerned with explaining microphenomena in the attitudes, behaviours or life chances of specific agents.

Moreover, some approaches interpret the crisis of the Keynesian-Fordist wage society as the advent of consumer societies, with the symbolic and ideological practices around consumption expressing, at the level of consciousness and subjectivity, its supremacy as a mechanism of identity and social cohesion. However, our approach is to define classes on the basis of the transformations that have taken place in the realm of work, i.e., the spaces of production (where work is applied and put into practice) and the labour market (where work is sold as a commodity), this being crucial to

our objective of exploring the precariousness of work and classes in a peripheral-dependent society such as ours (Blanco, 2016 and 2019). Besides the importance that can be assigned to consumption as a locus for the configuration of inequalities and identity, we maintain that it is in the processes of production, i.e., of work as a social relationship, that classes experience situations of subordination, control or surveillance, as well as a network of contractual forms and forms of access to qualifications, income, security systems, length of working weeks and so on, which go to make up the multifaceted and specific features of precariousness in our society.

However, we come back to the original problem: is it possible to use occupational and employment variables to capture class relationships and models? A review of the literature shows that this problem is often avoided and the discussion of how occupations relate to concepts of social class becomes a "black box" (González and Carabaña, 1992). Some authors have indicated that class models cannot be reduced to mere classifications of labour markets (Crompton, 1994), but do not offer practical solutions for moving from one sphere to another, or for how occupations can be used as a proxy for class. This lack of explanation is a common feature in the output of many authors who have produced a wealth of empirical research.[4]

What is proposed here is a flexible research design, with the profound transformations undergone by work being the justification for the use of employment variables. To the functional division by skill levels we add the dimension of employment situations as indicators of positions in labour relations (Blanco, 2019). Thus, a social class is treated as a set of major aggregates not only of skills, but also of positions in the labour relations of production. The profound historical transformations of capitalism multiplied the forms of work, creating a wide range of groupings and segments in which occupations and employment situations are core structuring elements when we come to consider these fragments of work.

III. Methodology

1. The variables used: the five components of precariousness

The changes in capitalism involve new production paradigms that are manifested in changes to the working process and the (re)organization of work in enterprises (Ramos, 2009), more flexible employment (Echeverría and López, 2004) and the emergence of non-standard jobs (De la Garza, 2000 and 2001; Neffa, 2010). This has been shaping new conditions for production and the constitution of productive experiences, as well as the process of organizing meanings at work (Antunes, 2005). The dynamics of production models and the transformation of forms of rational work management, in addition to the transformations arising from the crisis in the hegemony of the industrial-Keynesian-Fordist model, have had a profound impact on the contractual and organizational dimensions (Gálvez, 2001; Palomino, 2001).

[4] Bourdieu, for example, uses occupational categories taken from the classification of the French National Institute for Statistics and Economic Studies (INSEE) and seems to have no qualms at all about this taxonomy. Adopting a rampant pragmatism, he argues that it is necessary to move beyond the choice "between either a pure (and simple) theory of social classes, which is based on no empirical data (position in the relations of production) and which has practically no capacity to describe the state of the social structure or its transformations; or empirical studies, like those of INSEE, which are based on no theory but which provide the only available data for analysing the division into classes." (Bourdieu, 1992, p. 31). There are other researchers who have simply done away with this step of operationalizing occupational variables in class indicators and ended up proposing empirical measurements of occupations of a markedly microscopic nature, thus replacing large class aggregations (Grusky and Weeden, 2005), excluding any type of broad social aggregate from their class analysis and moving towards class analyses based on specific occupations at the most disaggregated level possible (Grusky and Sørensen, 1998). In these two examples, it can be said that researchers take the indicators available to them without any great effort to operationalize their variables theoretically or methodologically.

Thus, in this research, precariousness is considered in five specific dimensions: (i) stability (contractual and temporal), (ii) security (social protection), (iii) sufficiency (earnings), (iv) working conditions (accident rate by occupation and characterization of workplaces) and (v) working hours[5] (see table 1).

Table 1
Multidimensional operationalization of precarious employment

Component	Operational definition	CASEN 2013 indicator
(In)stability	No contract, temporary and short-term contracts, contracts of uncertain duration.	– Is your main work or business…?
		– Contract type
		– Written contract of employment
		– With whom did you sign your contract or enter into your employment agreement?
(In)security	This component refers to the absence (or presence) of health and social security coverage.	– Affiliated to social security system
		– Paying into some social security system
		– Social security system (health)
(In)sufficiency	This component refers to the amount of wages/income.	– Earnings (grouped)
		– Earnings from main occupation (grouped)
Working conditions	Dimension that includes accident rates by occupation and characterization of workplaces.	– Place where activity carried out or business located
		– Sickness or accident
Working hours	This component is based on the number of hours worked weekly.	– Working hours in main job (grouped)

Source: Prepared by the authors.

The precariousness of work has been problematized methodologically in different ways and with different experiences and instruments for its measurement in Latin America, and these contributions need to be engaged with so that a comprehensive model of analysis can be developed (Escoto, 2010; Grau and Lexartza, 2010; Rubio, 2010; Monteforte, 2012; Mora, 2010; Fernández, 2014; Guadamarra, Hualde and López, 2015).[6] Hence, the analysis we propose works with five central components of precariousness, arrived at after a review of methodological proposals for measuring the precariousness of work in different Latin American contexts. These five levels of problematization of precariousness in wage employment take account of the proposals made by Mora (2010), whose indicators of precariousness are iconic. The data source was the 2013 National Socioeconomic Survey (CASEN 2013), which contains all the variables included in this operationalization (unlike CASEN 2015).[7]

2. Variables used: classes, occupations and employment situations

Two other significant variables are the International Standard Classification of Occupations (ISCO-1988) and the International Classification of Status in Employment (ICSE), both developed and elaborated for decades by the International Labour Organization (ILO). The reference framework defines the term "social class" as a set not only of skill aggregates, but also of positions in the labour relations of production. This translates into two central dimensions of the concept: classes as employment situations and classes as occupations (Blanco, 2019).

[5] By precariousness in terms of working hours we mean both situations of underemployment (activities falling well short of 45 hours a week) and situations where this standard working week is significantly exceeded.

[6] However, it is impossible in such a short space to enter on a discussion of the ways of measuring precariousness, considering that to detail specifically each of the measurement models cited would involve a rigorous analytical effort that lies outside the scope of this article. A whole article would be needed to supplement the proposal outlined here, detailing each of the models deployed to measure the precariousness of work and employment in Latin America.

[7] The important variable o26 disappears in the CASEN 2015 survey, which led us to choose the 2013 version in order to have as many indicators as possible for all the dimensions of precariousness presented here.

Employment, as operationalized by the ICSE*rec* (see table 2), involves work as a social relationship, i.e., a diversity of forms of direct and indirect subjection, taking in the porous boundaries between wage-paying work as an employee, own-account work and other non-standard forms of labour relations, expressing the transformations in contractual relations and in forms of organization/exploitation that have emerged in recent decades (Gálvez, 2001; Palomino, 2001). Meanwhile, occupation, which was operationalized by means of the ISCO*rec* variable (see table 3), expresses the functional division of trades and professions, distinguishing between different degrees of skill (manual, non-manual, services and commerce, skilled professionals, mid-level technicians, office workers, agricultural work, unskilled and others). Both variables have been recodified: in the case of ICSE*rec*, employers were removed, while in the case of ISCO*rec*, new groups were created, such as corporate managers, legislators, senior officials, farmers and subsistence agricultural and fishery workers, etc.

Table 2
The International Classification of Status in Employment (ICSE) and its recodification (ICSE*rec*)

ICSE	ICSE*rec*	Abbreviation
Own-account worker	Own-account worker	Own-account
Public sector employee or worker (central government and municipalities)	Public sector employee or worker	Pub sec emp
Public sector employee or worker (public enterprises)		
Private sector employee or worker	Private sector employee or worker	Pri sec emp
Live-in domestic service	Live-in domestic service	Dom ser in
Live-out domestic service	Live-out domestic service	Dom ser out
Unpaid family member	Unpaid family member	Unpaid fam

Source: Prepared by the authors.

Table 3
The International Standard Classification of Occupations (ISCO) and its recodification (ISCO*rec*)

ISCO	ISCO*rec*	Abbreviation
Legislators, senior officials and managers	Legislators and senior government officials	Leg sen gov off
	Traditional chiefs and heads of villages	Trad chiefs
	Senior officials of special-interest organizations	Off spe int org
	Corporate managers	Corp man
Professionals	Professionals	Professionals
Technicians and associate professionals	Technicians and associate professionals	Tech assoc pro
Clerical support workers	Clerical support workers	Cler support
Service workers and shop and market sales workers	Service workers and shop and market sales workers	Serv work sales
Skilled agricultural, forestry and fishery workers	Skilled and semi-skilled agricultural, forestry and fishery workers	Skilled semi-skilled ag
	Subsistence agricultural and fishery workers	Subs agr fish
Craft and related trades workers	Craft and related trades workers	Craft rel trades
Plant and machine operators, and assemblers	Plant and machine operators, and assemblers	Plant mach ass
Elementary occupations	Unskilled workers	Unskilled

Source: Prepared by the authors.

Variables such as economic sector, region and sex have been used to characterize the clusters. A variable termed the "class fraction" has also been created, combining the modalities of occupation (ICSE*rec*) and employment status (ICSE*rec*), to give a total of 78 categories (13x6) (see table 4). This is because no social class is an internally homogeneous social alignment in itself: within it there will be significant differences and variabilities reflecting "intra-category inequalities" (Fitoussi and Rosanvallon, 1997, pp. 73–81). With this it will be demonstrated that in each precariousness cluster there is a wide and fragmented range of groupings and segments, where labour contexts break up, fissuring the traditional forms of work and directly affecting the features of classes.

Table 4
The "class fraction" variable

ISCO*rec*	ICSE*rec*					
	1. Own-account	2. Pub sec emp	3. Pri sec emp	4. Dom ser in	5. Dom ser out	6. Unpaid fam
1. Unskilled	1.1	1.2	1.3	1.4	1.5	1.6
2. Plant mach ass	2.1	2.2	2.3	2.4	2.5	2.6
3. Craft rel trades	3.1	3.2	3.3	3.4	3.5	3.6
4. Subs agr fish	4.1	4.2	4.3	4.4	4.5	4.6
5. Skilled semi-skilled ag	5.1	5.2	5.3	5.4	5.5	5.6
6. Serv work sales	6.1	6.2	6.3	6.4	6.5	6.6
7. Cler support	7.1	7.2	7.3	7.4	7.5	7.6
8. Tech assoc pro	8.1	8.2	8.3	8.4	9.5	9.6
9. Professionals	9.1	9.2	9.3	9.4	10.5	10.6
10. Corp man	10.1	10.2	10.3	10.4	11.5	11.6
11. Off spe int org	11.1	11.2	11.3	11.4	12.5	12.6
12. Trad chiefs	12.1	12.2	12.3	12.4	13.5	13.6
13. Leg sen gov off	13.1	13.2	13.3	13.4	14.5	14.6

Source: Prepared by the authors.

3. Statistical techniques

The data processing combines a factorial analysis technique for categorical data involving multiple correspondence analysis (MCA) with k-means cluster analysis. The MCA technique studies the relationship between variables and categories of the nominal or ordinal variables, while reducing the joint variability to factors/dimensions that summarize them (Escofier and Pagès, 1992; Ferrán, 2001; Visauta and Martori, 2003; Pérez, 2004; Le Roux and Rouanet, 2010). Charts expressing these relationships visually are obtained, with closeness and distance proving particularly relevant: related categories are closer than unrelated ones that are further off.

The second technique used was a cluster analysis with a non-hierarchical k-means model that serves to find grouping patterns and thence how individuals are clustered or differentiated from one another (Ferran, 2001; Visauta and Martori, 2003; Perez, 2004). Cluster analysis estimates the similarities between individuals or objects through the correlation (distance or association) of the different variables. Subsequently, a procedure is established to compare the groups by virtue of the similarities, wherein the researcher can decide how many groups are to be constructed, the aim being to form the smallest possible number of groups that are as homogeneous as possible within themselves and as different as possible from one another.

The steps to be able to generate the typology of precariousness can be summarized as follows:

- Initially, the variables in table 1 plus the recodifications of ICSE (table 2) and ISCO-88 (table 3) are incorporated into a multiple correspondence analysis (MCA). With this procedure we obtain the two continua that synthesize the information of all the variables included in the model.
- These two factors summarizing the multivariate information are stored in the database as two new metric variables referring to the coordinates of the cases. These two new metric variables are used in a cluster analysis of k-means, establishing the clusters. Neither the precariousness variables nor the occupation and employment situation variables were introduced into the cluster analysis, then, but solely and exclusively the object/case scores along both dimensions. This made it possible to avoid including non-metric variables (nominal or ordinal) in the k-means method, which is designed to be used with continuous variables.

- Different options for reducing the internal variance of the groups are analysed by means of a one-way ANOVA, whereby the final number of profiles is determined.
- The next step is to characterize the groups by means of a series of employment, socioeconomic and demographic variables. Both the variables for the operationalization of precariousness and the ICSE and ISCO-88 recodifications are incorporated, as are other socioeconomic and demographic characterization variables. Each cluster was named for the most relevant precariousness and class characteristics in it.

IV. Results

1. The multidimensional model of precarious employment

The factorial model of the multiple correspondence analysis carried out with the precariousness and social class variables forms two dimensions, with a Cronbach's alpha coefficient of 0.873 for the first factor and 0.746 for the second. As regards inertia, the two-factor model explains a total of 64.3%, with the first factor accounting for 39.6% and the second for 24.7% (see tables 5 and 6).

Table 5
Model summary

Dimension	Cronbach's alpha	Variance quantified for	
		Total (eigenvalue)	Inertia
1	0.873	5.149	0.396
2	0.746	3.211	0.247
Total		8.36	0.643
Mean	0.824[a]	4.18	0.322

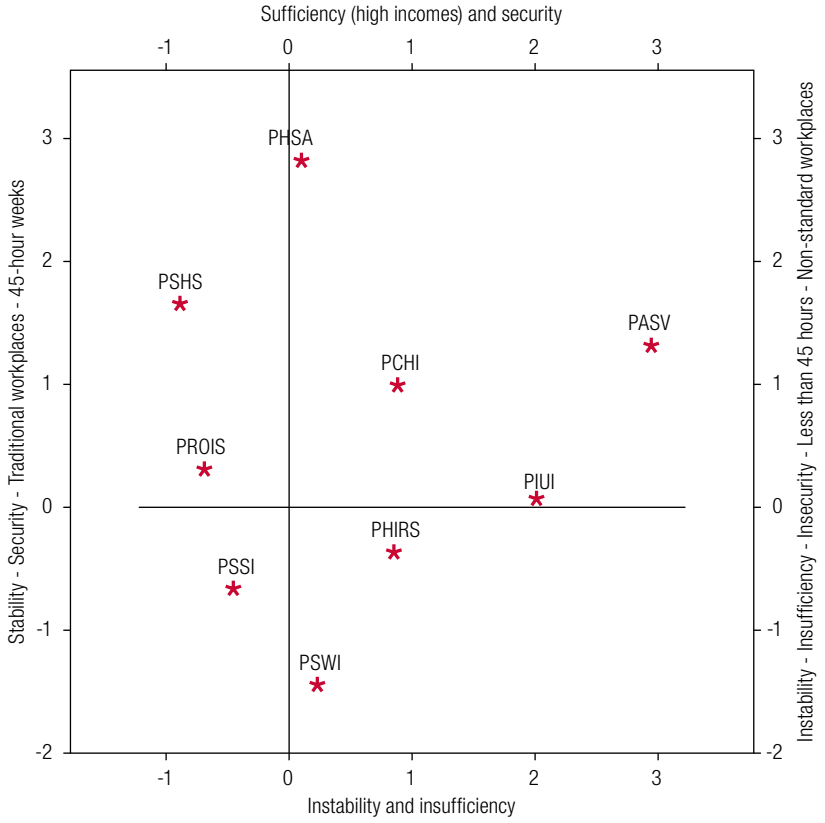
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] The mean of Cronbach's alpha is based on the eigenvalue mean.

Table 6
Discriminating measures

	Dimension		Mean
	1	2	
o.12. Is your main work or business…?	0.349	0.144	0.246
o.16. Contract type	0.156	0.119	0.138
o.17. Written contract of employment	0.263	0.053	0.158
o.20. With whom did you sign your contract or enter into your employment agreement?	0.071	0.049	0.06
o.26. Place where activity carried out or business located	0.527	0.203	0.365
o.29. Affiliated to social security system	0.409	0.018	0.213
o.30. Paying into some social security system	0.385	0.061	0.223
s.14. Social security system	0.538	0.405	0.471
s.17. Sickness or accident	0.015	0.005	0.01
o.10. Working hours in main job (grouped)	0.251	0.079	0.165
Earnings from main occupation (grouped)	0.682	0.722	0.702
Earnings (grouped)	0.692	0.709	0.7
Class fraction	0.813	0.644	0.729
Cluster[a]	1.132	0.981	1.056
Active total	5.149	3.211	4.18

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] Supplementary variable.

Figure 1
Precarious employment profiles in the multidimensional space



Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
Note: Precarious, highly skilled and autonomous (PHSA); Protected, stable and highly secure (PSHS); Precarious and constantly intensive (PCI); Precarious, autonomous and systemically vulnerable (PASV); Precarious, informal and unstable with insufficiency (PIUI); Precarious and seasonal with wage insufficiency (PSWI); Precarious with secure and stable insufficiency (PSSI); Precarious, highly insecure and relatively stable (PHIRS).

2. First dimension/pillar 1

When analysing the categories with the greatest contributions of inertia explained by this dimension, it can be said that while negative scores indicate situations of protection in employment, positive scores point to situations of precariousness (see tables 7 and 8 and figures 1 and 16). Negative scores are associated with stability (signed contracts, open-ended employment and direct negotiations with the company), security (employees affiliated to the social security system/pension fund administrators (AFP)), good working conditions (associated with traditional workplaces: factories, offices and the like) and good working hours (45-hour working week) (see table 7). There are no social class categories with significant contributions to inertia and positive factor scores. However, when clusters are incorporated as supplementary variables, it can be seen that one of the most protected clusters in the Chilean labour market, namely the Protected, stable and highly secure (PSHS) group, can show both substantial contributions in this first dimension and negative factor scores.

Table 7
Categories with negative factors scores and larger contributions (first dimension/pillar 1)

Category	Variable	Dimension of precariousness	Contribution of the dimension to the inertia of the point *(percentages)*	Factor coordinates
Yes, signed	o.17	(In)stability	56	0.509
Yes, AFP. Compulsory employee contributions	o.30	(In)security	50	0.492
Open-ended	o.16	(In)stability	37	0.493
Directly with the company or negotiates at workplace	o.20	(In)stability	27	0.307
In an independent establishment (factory, office, etc.)	o.26	Working conditions	22	0.407
Yes, affiliated to social security system	o.29	(In)security	15	0.157
45 hours	o.10	Working hours	11	0.394
PSHS[a]	Cluster	–	10	0.882

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] Supplementary variable category.

Positive scores in this first dimension (see table 8) indicate higher contributions to inertia because of situations of instability (occasional or casual employment), insufficiency (low-income deciles), insecurity (Group A of the FONASA public health system, not affiliated to the social security system or, if affiliated, not paying in), working conditions (activities carried out in non-standard places such as the customer's or own home) and working hours (less than 44 hours per week) (see table 8). Positive scores in this first dimension also have a significant relationship with own-account manual occupations and unskilled jobs that are also own-account. Considered as supplementary variables, the clusters most closely related to this area of the factorial plane are the Precarious, informal and unstable with insufficiency (PIUI) and Precarious, autonomous and systemically vulnerable (PASV) clusters, both of which have a high degree of vulnerability and informality.

Table 8
Categories with positive factor scores and higher contributions (first dimension/pillar 1)

Category	Variable	Dimension of precariousness	Contribution of the dimension to the inertia of the point *(percentages)*	Factor coordinates
Decile I	Earnings from Main Occupation	(In)sufficiency	42	-2.226
FONASA public system Group A	s.14	(In)security	37	-1.43
PASV[a]	Cluster	–	33	-2.944
Not affiliated to social security system	o.29	(In)security	32.5	-1.729
Decile I	Earnings	(In)sufficiency	32	-2.451
Occasional or casual	o.12	(In)stability	23	-1.986
<= 44 hours	o.10	Working Hours	23	-0.735
PIUI[a]	Cluster	–	23	-2.011
Not paying in	o.30	(In)security	21	-1.203
Decile II	Earnings	(In)sufficiency	17	-1.389
Craft rel trades & Own-account[b]	Class fraction	–	12	-1.885
Unskilled & Own-account[c]	Class fraction	–	12	-2.412
Employer's or customer's home	o.26	Working Conditions	12	-1.201
Own home	o.26	Working Conditions	11	-1.892

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] Supplementary variable category.
[b] Own-account craft and related trades workers.
[c] Own-account unskilled workers.

3. Second dimension/pillar 2

The categories contributing most to the inertia explained by this second dimension show negative scores associated with situations of precariousness, while positive scores are related to protected conditions (see tables 8 and 9 and figures 1 and 16). Thus, on the side of the negative scores for this second factor we have dimensions of precariousness associated with instability (fixed-term employment) and insufficiency (deciles III of earnings from work and from the main occupation) (see table 8). The class fraction of unskilled private sector employees shows a strong relationship with the negative scores of this second dimension, which is also the case for the Precarious and seasonal with wage insufficiency (PSWI) and Precarious with secure and stable insufficiency (PSSI) clusters. Thus, this is a sector of the factorial plane characterized by situations of precariousness in dependent employment, with or without signed work contracts, with low or no skills and earnings.

Table 9
Categories with negative factor scores and higher contributions (second dimension/pillar 2)

Category	Variable	Dimension of precariousness	Contribution of the dimension to the inertia of the point *(percentages)*	Factor coordinates
PSWI[a]	Cluster	–	22	1.456
PSSI[a]	Cluster	–	20	0.659
Decile III	Earnings Main Occupation	(In)sufficiency	17	0.908
Fixed-term	o.12	(In)stability	14.5	0.775
Unskilled & Pri sec emp[b]	Class fraction	–	14	1.009
Decile III	Earnings	(In)sufficiency	13	0.878

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] Supplementary variable category.
[b] Unskilled private sector employees.

Positive scores for this second factor include conditions associated with sufficiency (deciles X of earnings from work and from the main occupation) and security (health insurance institution, ISAPRE) (see table 10). The class fraction associated with this sector of the factor space is that of professionals in dependent employment in the private sector, while the most representative clusters are Precarious, highly skilled and autonomous (PHSA) and Protected, stable and highly secure (PSHS). Thus, this area of the factorial plane seems to be characterized by conditions approximating to high skills, with variable employment conditions ranging from self-employment (own-account) to protected dependent (salaried) employment.

Table 10
Categories with positive factor scores and higher contributions (second dimension/pillar 2)

Category	Variable	Dimension of precariousness	Contribution of the dimension to the inertia of the point *(percentages)*	Factor coordinates
Decile X	Earnings	(In)sufficiency	37	-1.871
Decile X	Earnings Main Occupation	(In)sufficiency	36	-1.991
PSHS[a]	Cluster	---	36	-1.645
ISAPRE	s.14	(In)security	33	-1.275
Professionals & Pri sec emp[b]	Class fraction	---	13	-1.351
PHSA[a]	Cluster	---	11	-2.81

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).
[a] Supplementary variable category.
[b] Unskilled private sector employees.

4. The nine types of precariousness in Chilean employment: main characteristics

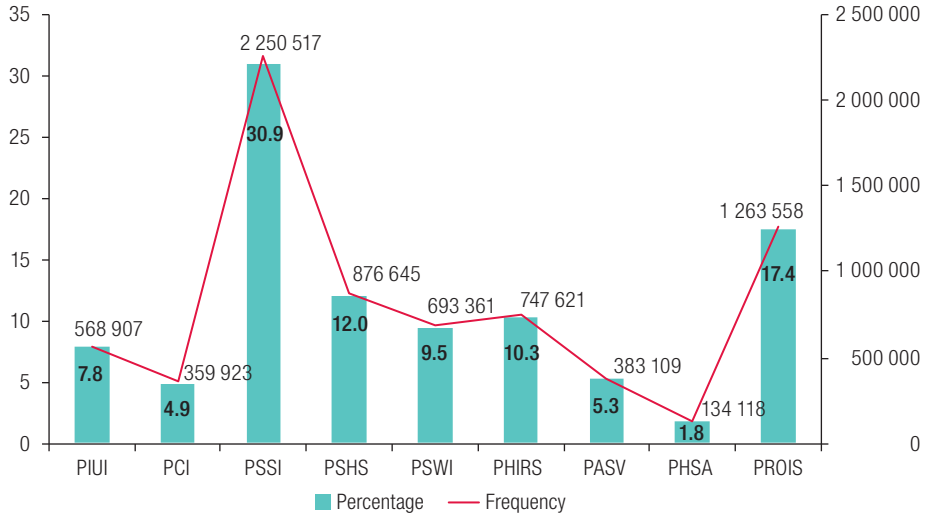
The results of the combined processing of the data with multiple correspondence analysis and k-means clustering yielded nine clusters classifying different types of situations vis-à-vis precariousness. A description and characterization of the groups identified in the typology will now be presented, detailing their main features as regards precariousness, gender composition, geographical distribution, economic sector, income deciles and fit with the occupational categories.

Table 11
Chile: the nine precariousness clusters in employment

Name		Percentage	Essential characteristics
PSHS	Protected, stable and highly secure	12% N=876 645	Group characterized mainly by highly skilled activities in a situation of dependent employment in the private and public sectors. These activities are secure in the dimensions of stability, protection, sufficiency and working conditions. The only dimension of significant precariousness is that of working hours, mainly because of the frequency of working weeks of more than 45 hours.
PROIS	Protected with intermediate sufficiency	17.4% N=1 263 558	Manual and non-manual high- and low-skilled activities in a situation of dependent employment in the private and, to a lesser extent, the public sector. An intermediate level of precariousness is observed in the dimensions of income (sufficiency) and working hours.
PHSA	Precarious, highly skilled and autonomous	1.8% N=134 118	High- and medium-skilled activities in a situation of own-account employment. High earnings, but precariousness is observed in the dimensions of stability, security, employment conditions and working hours (the last mainly because of underemployment).
PASV	Precarious, autonomous and systemically vulnerable	5.3% N=383 109	Medium- and low-skilled activities in a situation of own-account employment. Precariousness is observed in the dimensions of stability, security, sufficiency and working conditions.
PCI	Precarious and constantly intensive	4.9% N=359 923	Medium-skilled activities in a situation of own-account employment. Precariousness appears in the dimensions of security, sufficiency (intermediate), working conditions and working hours (this last because of an excessive weekly time load).
PIUI	Precarious, informal and unstable with insufficiency	7.8% N=568 907	Low-skilled and unskilled activities in a situation of own-account employment, with fractions of domestic service activities. Precariousness is observed in the dimensions of stability, security, sufficiency, working conditions and working hours.
PSSI	Precarious with secure and stable insufficiency	30.9% N=2 250 517	Private sector employees in low-skilled and unskilled activities. Low earnings, i.e., precariousness is concentrated in the sufficiency dimension.
PSWI	Precarious and seasonal with wage insufficiency	9.5% N=693 361	Mainly unskilled and low-skilled activities in a situation of dependent employment in the private sector. The significant dimensions of precariousness in this group are stability, security, sufficiency and working conditions.
PHIRS	Precarious, highly insecure and relatively stable	10.3% N=747 621	Group mainly composed of low-skilled and unskilled activities in a situation of dependent employment in the private sector combined with situations of own-account employment. The main dimensions of precariousness are stability, security, sufficiency and working conditions.

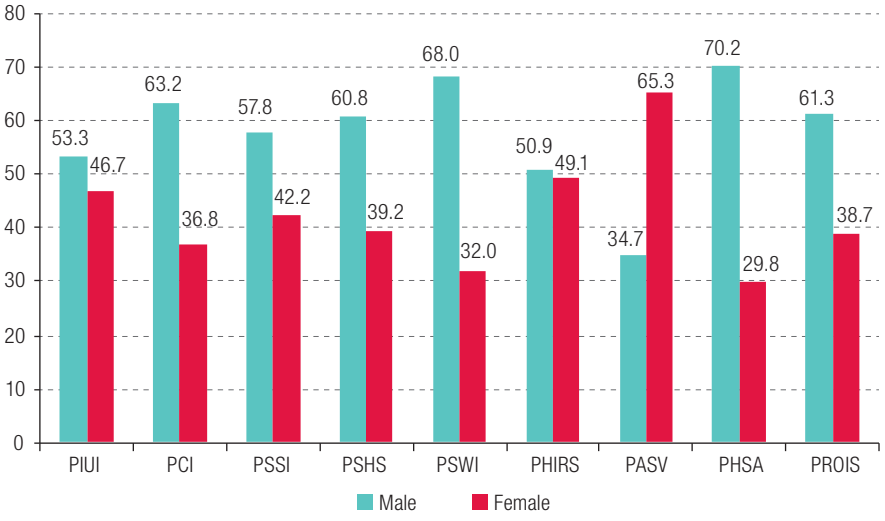
Source: Prepared by the authors.

Figure 2
Employment clusters with multidimensional precariousness
(Percentages and weighted absolute frequencies)



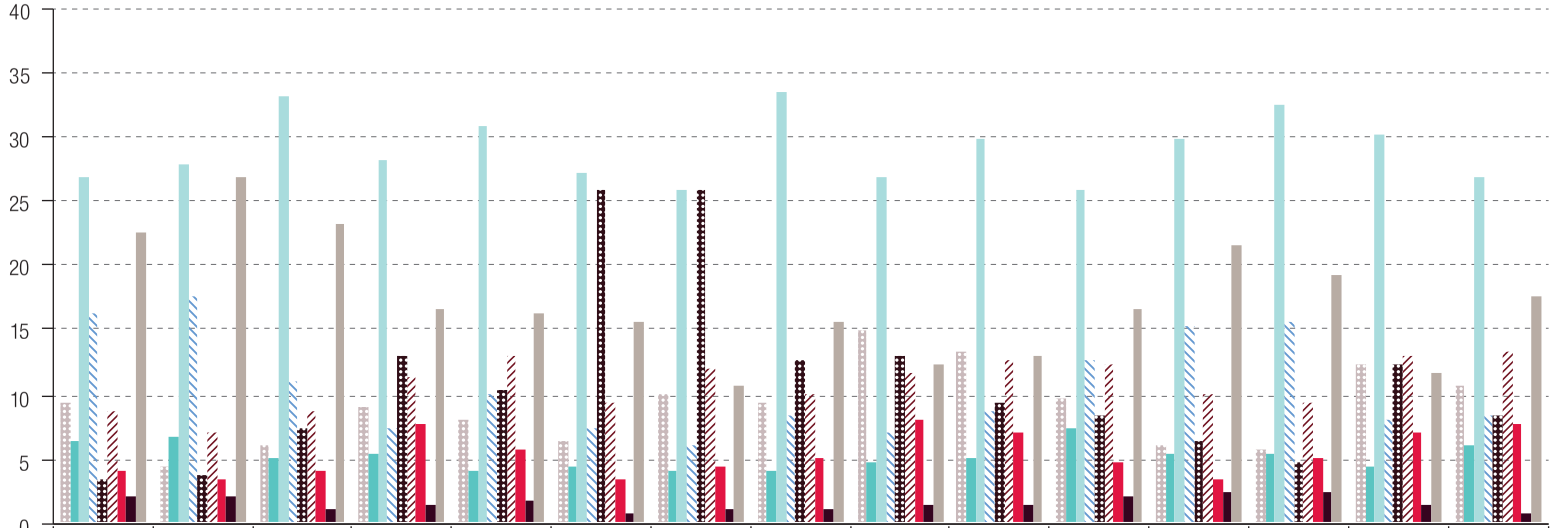
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Figure 3
Precariousness clusters by sex
(Percentages)



Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

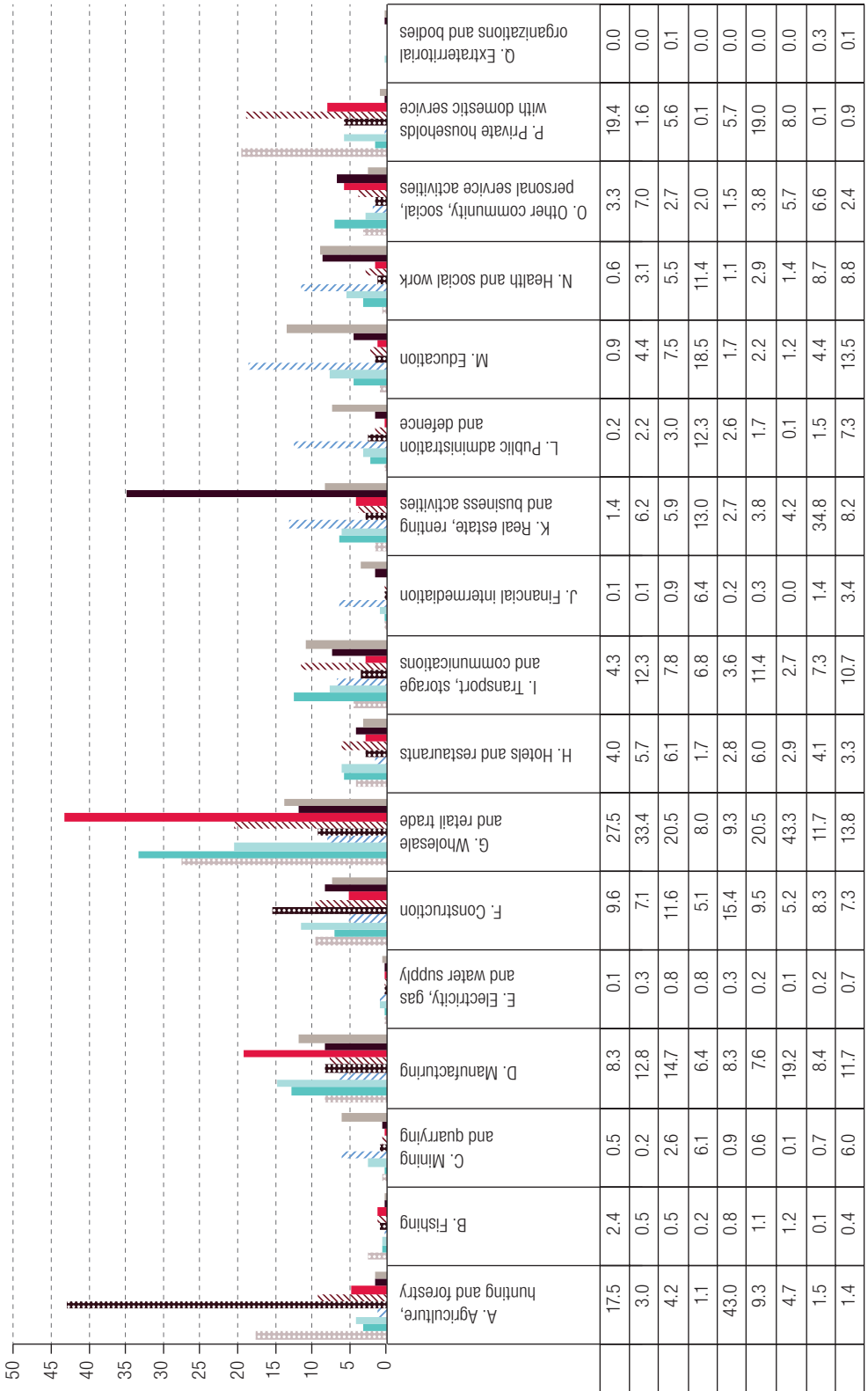
Figure 4
Precariousness clusters by region
(Percentages)



	I. Tarapacá	II. Antofagasta	III. Atacama	IV. Coquimbo	V. Valparaíso	VI. O'Higgins	VII. Maule	VIII. Biobío	IX. La Araucanía	X. Los Lagos	XI. Aysén	XII. Magallanes	Metropolitan	XIV. Los Ríos	XV. Arica and Parinacota
PIUI	9.2	4.4	6.1	9.1	8.0	6.3	10.0	9.4	15.0	13.2	9.8	6.1	5.8	12.3	10.7
PCI	6.3	6.8	5.0	5.4	4.1	4.4	4.0	4.1	4.7	4.9	7.3	5.5	5.3	4.4	6.1
PSSI	27.0	28.1	33.3	28.4	31.1	27.2	26.1	33.7	27.1	29.9	26.1	29.8	32.5	30.3	26.9
PSHS	16.4	17.6	10.9	7.4	9.9	7.2	6.1	8.2	7.0	8.8	12.5	15.4	15.8	7.9	8.2
PSWI	3.5	3.7	7.4	13.1	10.4	25.8	26.1	12.8	12.9	9.4	8.5	6.3	4.6	12.4	8.5
PHIRS	8.8	7.0	8.7	11.2	12.9	9.3	11.9	10.0	11.6	12.5	12.4	9.9	9.3	12.9	13.4
PASV	4.0	3.5	4.1	7.7	5.6	3.5	4.2	5.1	8.1	6.9	4.7	3.3	5.0	6.9	7.6
PHSA	2.0	1.9	1.1	1.2	1.6	0.7	0.9	1.1	1.4	1.5	2.1	2.2	2.5	1.3	0.8
PROIS	22.7	27.1	23.4	16.5	16.4	15.7	10.8	15.6	12.2	12.9	16.6	21.7	19.2	11.6	17.8

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

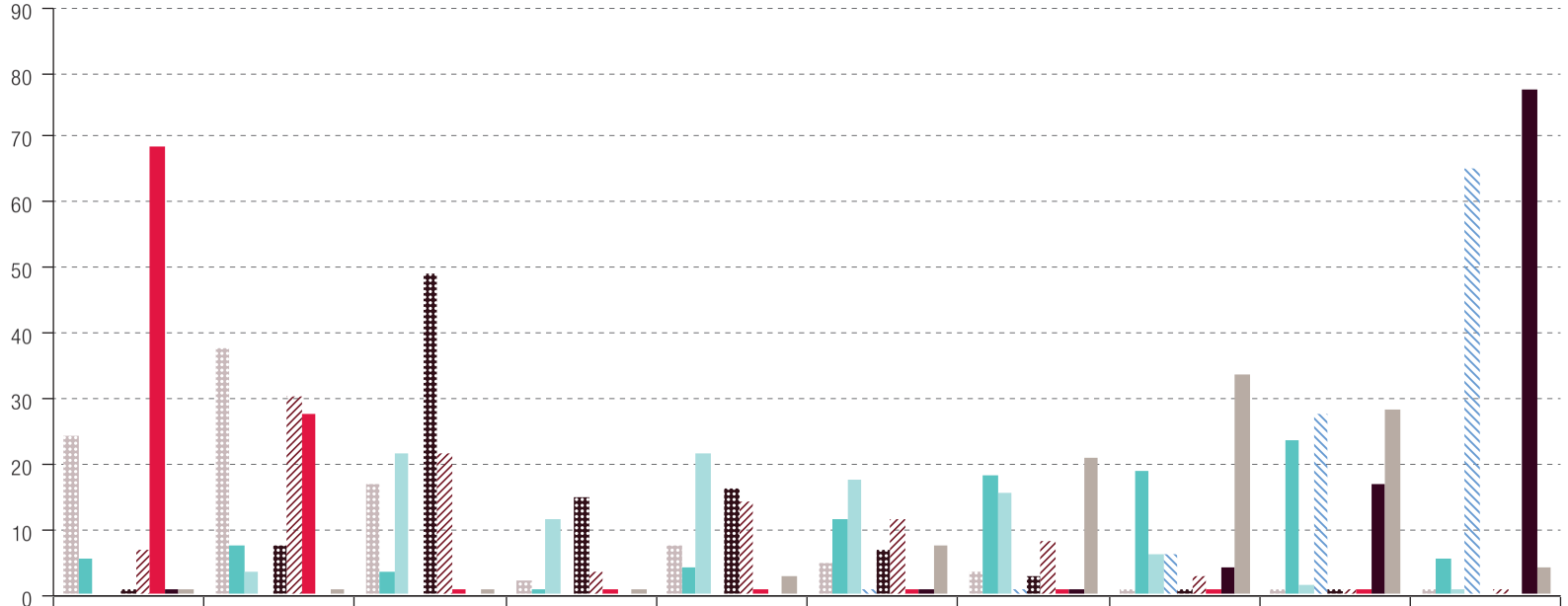
Figure 5
Precariousness clusters by economic sector
(Percentages)



	A. Agriculture, hunting and forestry	B. Fishing	C. Mining and quarrying	D. Manufacturing	E. Electricity, gas and water supply	F. Construction	G. Wholesale and retail trade	H. Hotels and restaurants	I. Transport, storage and communications	J. Financial intermediation	K. Real estate, renting and business activities	L. Public administration and defence	M. Education	N. Health and social work	O. Other community, social, personal service activities	P. Private households with domestic service	Q. Extraterritorial organizations and bodies
PIUI	17.5	2.4	0.5	8.3	0.1	9.6	27.5	4.0	4.3	0.1	1.4	0.2	0.9	0.6	3.3	19.4	0.0
PCI	3.0	0.5	0.2	12.8	0.3	7.1	33.4	5.7	12.3	0.1	6.2	2.2	4.4	3.1	7.0	1.6	0.0
PSSI	4.2	0.5	2.6	14.7	0.8	11.6	20.5	6.1	7.8	0.9	5.9	3.0	7.5	5.5	2.7	5.6	0.1
PSHS	1.1	0.2	6.1	6.4	0.8	5.1	8.0	1.7	6.8	6.4	13.0	12.3	18.5	11.4	2.0	0.1	0.0
PSWI	43.0	0.8	0.9	8.3	0.3	15.4	9.3	2.8	3.6	0.2	2.7	2.6	1.7	1.1	1.5	5.7	0.0
PHIRS	9.3	1.1	0.6	7.6	0.2	9.5	20.5	6.0	11.4	0.3	3.8	1.7	2.2	2.9	3.8	19.0	0.0
PASV	4.7	1.2	0.1	19.2	0.1	5.2	43.3	2.9	2.7	0.0	4.2	0.1	1.2	1.4	5.7	8.0	0.0
PHSA	1.5	0.1	0.7	8.4	0.2	8.3	11.7	4.1	7.3	1.4	34.8	1.5	4.4	8.7	6.6	0.1	0.3
PROIS	1.4	0.4	6.0	11.7	0.7	7.3	13.8	3.3	10.7	3.4	8.2	7.3	13.5	8.8	2.4	0.9	0.1

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Figure 6
Precariousness clusters by earnings deciles
(Percentages)



	I	II	III	IV	V	VI	VII	VIII	IX	X
PIUI	24.7	38.1	16.7	2.4	7.6	5.1	3.7	1.2	0.4	0.1
PCI	5.6	7.6	3.3	0.9	4.6	11.7	18.1	18.7	23.9	5.5
PSSI	0.0	3.5	21.5	11.5	22.0	17.8	15.8	6.1	1.5	0.1
PSHS	0.0	0.0	0.0	0.0	0.0	0.1	0.3	6.2	27.9	65.4
PSWI	0.4	7.9	49.2	14.9	16.6	7.2	3.0	0.7	0.1	0.0
PHIRS	6.8	30.2	21.4	3.5	14.1	11.4	8.2	3.0	1.1	0.3
PASV	68.7	27.6	1.1	0.1	0.3	0.5	0.7	0.3	0.8	0.0
PHSA	0.3	0.0	0.0	0.0	0.0	0.2	1.0	4.3	17.0	77.2
PROIS	0.2	1.2	1.0	0.3	2.7	7.5	21.1	33.8	28.1	4.1

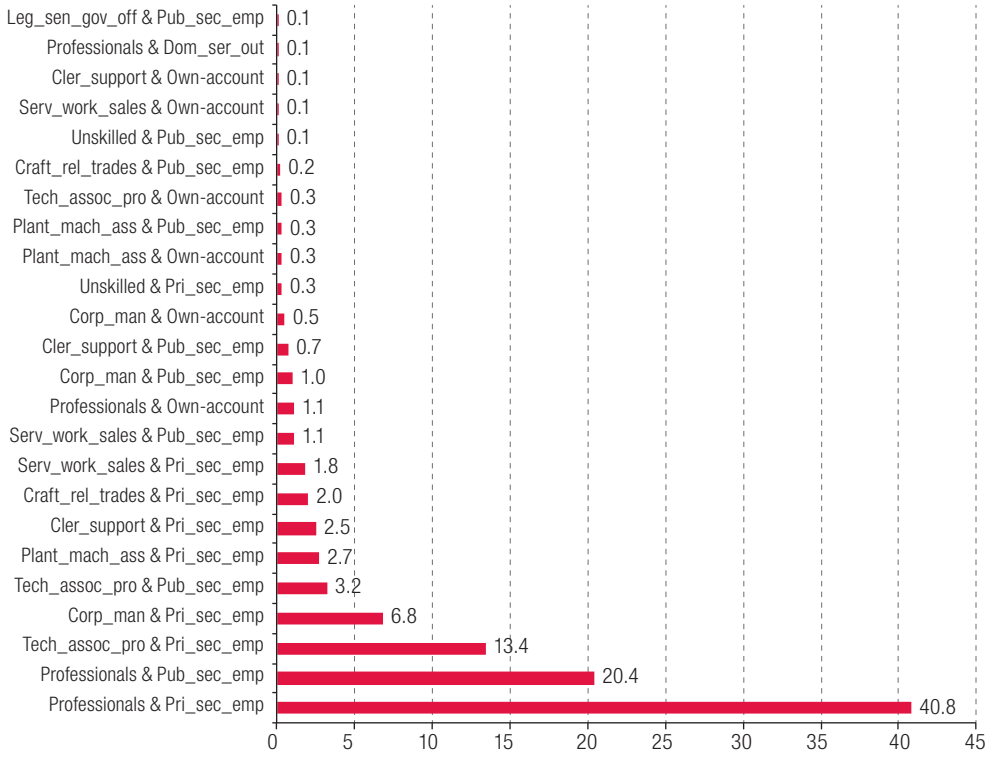
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(a) Protected, stable and highly secure (PSHS)

This group, which accounts for 12% of all cases in the Chilean labour market (see figure 2), is made up of wage workers in a situation of dependent employment who work the legally mandated hours. These are permanent activities carried out under stable employment and contract conditions, without intermediation or subcontracting. They are found in both the public and private sectors and are highly skilled. Membership of a social security system is almost universal, while ISAPREs are the predominant health system. The incomes of this group are in the top two deciles, with a population average ranging from 1,383,812 pesos to 1,389,449 pesos (estimate with 95% confidence) (see table A1.9). Although this is the most protected cluster in the whole classification, there is an element of precariousness in the working hours dimension, i.e., the number of hours worked per week exceeds the average of 45 (see table A1.12).

The class composition of the Protected, stable and highly secure cluster falls essentially into two types of professionals working in conditions of salaried dependent employment: those employed in the private sector (41%) and those employed in the public sector (20%). There are also fractions of mid-level professional technical workers who are employees in the private sector (13%) and corporate managers in the private sector (7%) (see figure 7). The main economic sectors of this male-dominated cluster (61% of its members are men) are education (18.5%), real estate, renting and business activities (13%), public administration and defence (12%) and health and social work (11%). The regions where this type of cluster is seen most are Tarapacá, Antofagasta, the Metropolitan Region, Magallanes, Aysén, Atacama and Valparaíso.

Figure 7
Class fractions in the PSHS cluster (N = 876,645)
(Percentages)

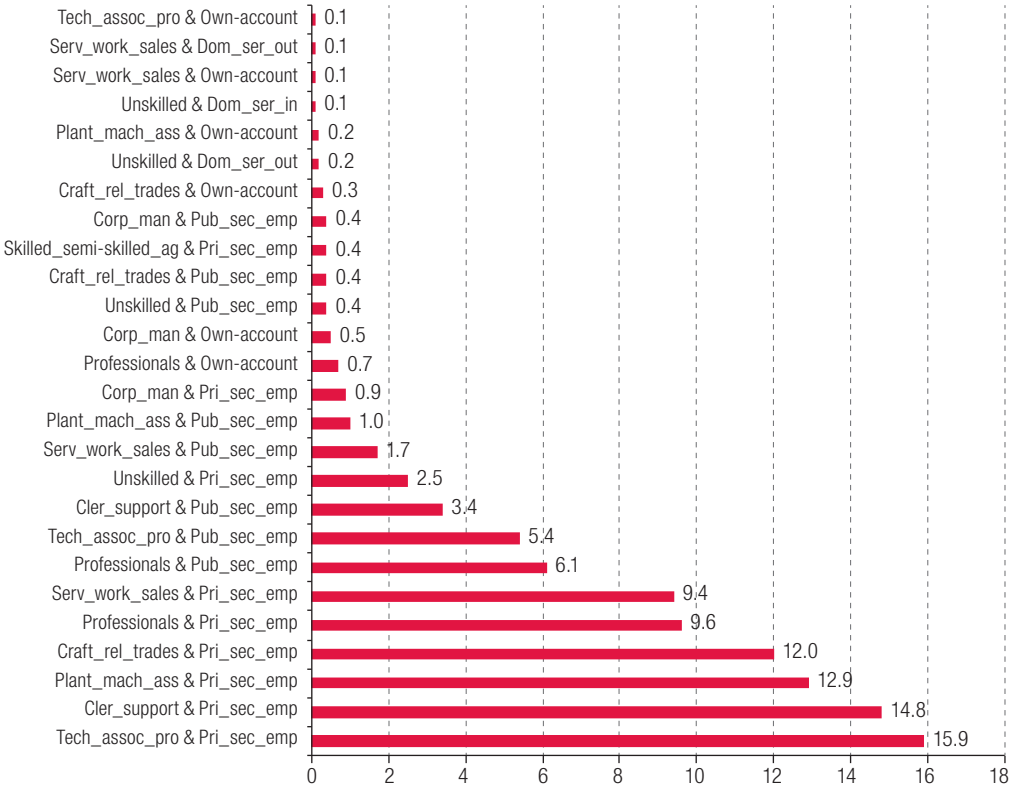


Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(b) Protected with intermediate sufficiency (PROIS)

This large group, which accounts for 17% of the labour market (see figure 2), is composed of low-, medium- and high-skilled manual and non-manual private sector employees (see figure 8). There is a high level of health protection and social security system membership. They also share a high degree of job stability, with high levels of wage employment and formal work contracts. As regards income sufficiency, few members of this group are in the last decile, and it thus has intermediate sufficiency, which may be associated with the heterogeneity of the skills and occupations represented in it. Thus, its members are distributed between deciles VII (32.7%), VIII (25.9%) and IX (23%).

Figure 8
Class fractions in the PROIS cluster (N = 1,263,558)
(Percentages)



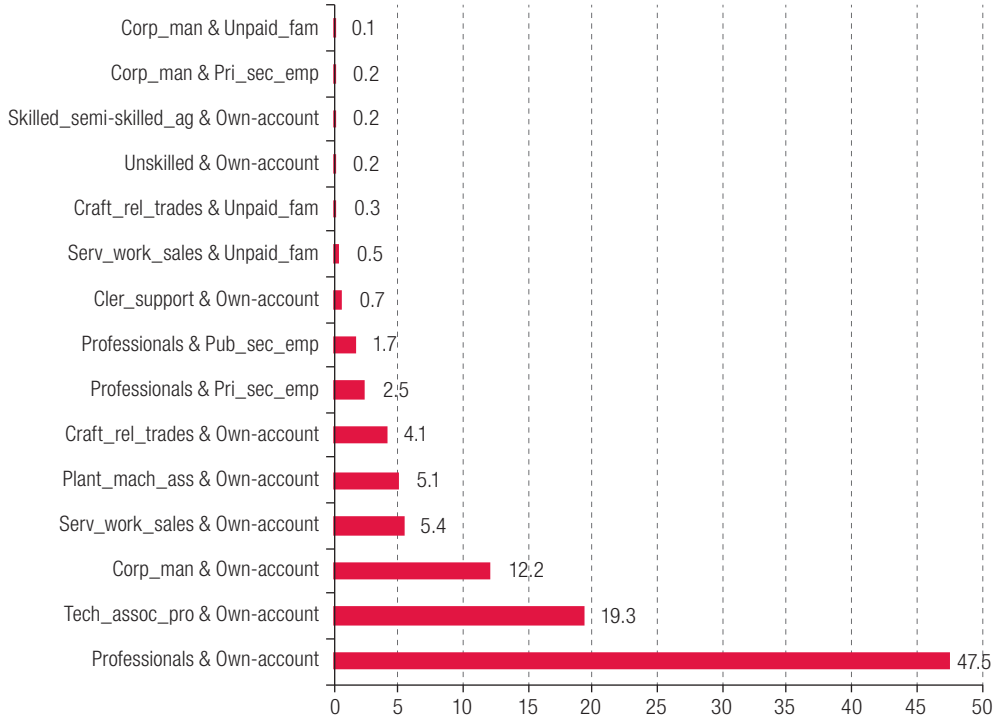
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Class fractions in a situation of dependent employment in the private sector are: technicians and associate professionals in dependent employment (16%), clerks in dependent employment (15%), machine operators and installers in dependent employment (13%), craft and related trade workers in dependent employment (12%), professionals (10%) and service workers and shop and market sales workers in dependent employment (9%). There are also fractions associated with the public sector, such as professionals in dependent employment (6%), technicians and associate professionals in dependent employment (5%) and clerks (3%).

(c) Precarious, highly skilled and autonomous (PHSA)

This group, which accounts for just 1.8% of the total Chilean labour market (see figure 2), is characterized by carrying out own-account activities in high- and medium-skilled non-manual occupations. Its working hours are undemanding and flexible. Although there is a fraction of workers stating that they have employment contracts, the central characteristic of the group is own-account work, while most employees work under open-ended contracts.

Figure 9
Class fractions in the PHSA cluster (N = 134,118)
(Percentages)



Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

There is flexibility in workplace location, which may be associated with professionals working from home and in establishments where freelance work predominates. This is a group with high earnings from their main occupation: 74% are in the top earnings decile, and this is associated with the fact that a substantial proportion prefer private health institutions and are affiliated to one of them. With regard to social security, however, there is a segment that is not affiliated, while a quarter are and do not actually pay contributions. There is a proportion of cases that show the risks of this situation; there is a 25% chance of entering a subgroup with greater exposure to risks and precariousness.

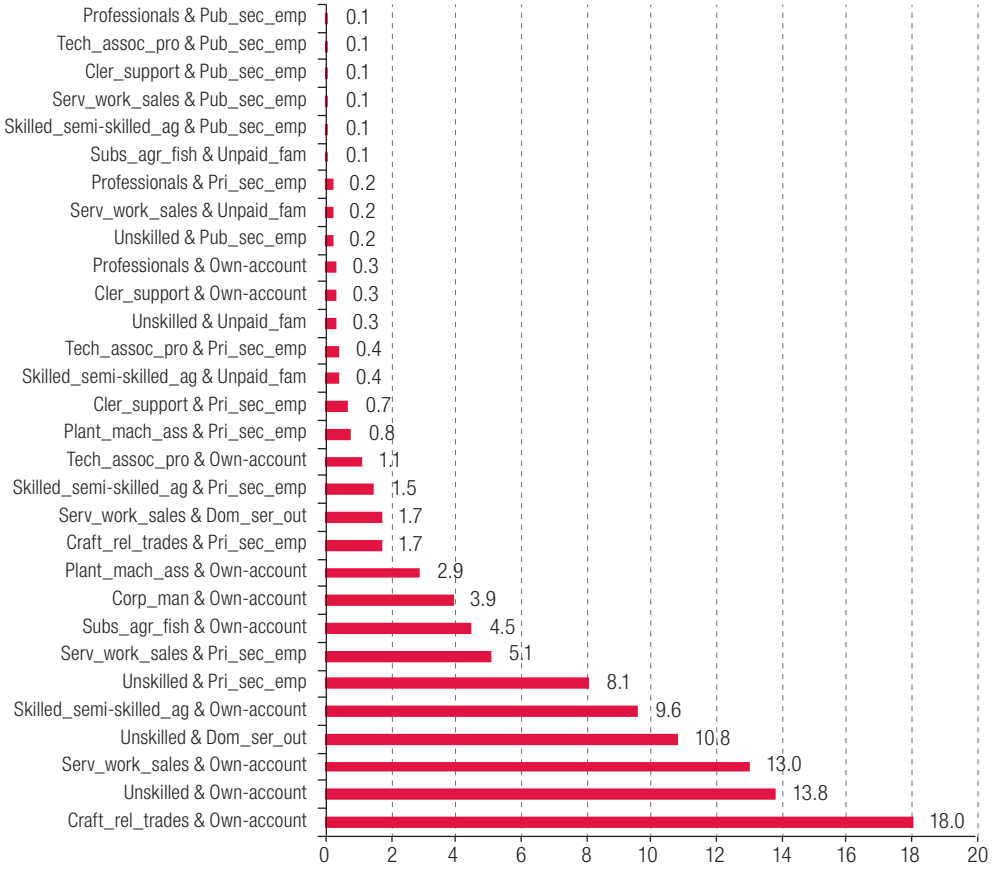
The most significant class fractions in the Precarious, highly skilled and autonomous groups are all self-employed: professionals (47.5%), technicians and associate professionals (19%) and corporate managers (12%) (see figure 9). In addition, this is a very male-dominated group (70%) whose greatest presence is in the Metropolitan and Magallanes regions and which carries out its activities mainly in the areas of real estate, renting and business activities (35%) and commerce (12%).

(d) Precarious, informal and unstable with insufficiency (PIUI)

This cluster, which accounts for 7.8% of the total (see figure 2), is essentially made up of workers who are highly informal, since they do not contribute to the social security system, do not have an employment contract and belong to Group A of FONASA. They work few and flexible hours because their businesses and production activities are highly unstable. Own-account workers are found together with unskilled and unformalized employees on low incomes. Thus, these workers are characterized by a web of vulnerabilities in terms of protection, security and solvency.

Figure 10 shows that the class composition of the Precarious, informal and unstable with insufficiency group is mainly formed by the following categories: own-account craft and related trades workers (18%), own-account unskilled workers (14%), own-account service workers and shop and market sales workers (13%), unskilled live-out domestic service workers (11%), skilled and semi-skilled own-account agricultural workers (10%) and unskilled employees in the private sector (8%). Furthermore, this cluster does not show any significant difference as regards sex, but includes both men and women. La Araucanía, Los Lagos and Los Ríos are the regions where this type of precariousness is most prevalent, while commerce, households with domestic service workers and agriculture are the most important economic sectors.

Figure 10
Class fractions in the PIUI cluster (N = 568,907)
(Percentages)



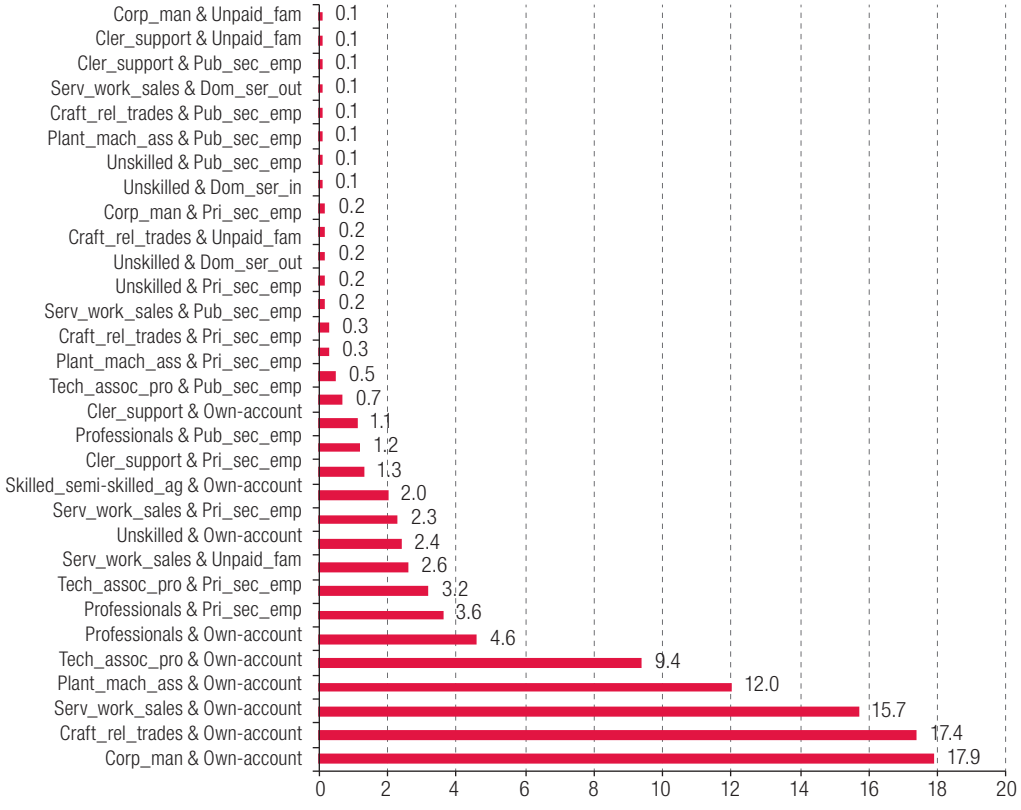
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(e) Precarious and constantly intensive (PCI)

This group makes up 4.9% of the total (see figure 2), with working days that exceed statutory norms and workplaces located in areas close to housing or in the public street, making it difficult to distinguish between family and working life. Businesses are permanent, even though contracts for those who have them are mostly fixed-term. Income levels are uneven, which is reflected in health coverage. There is a discrepancy between social security system membership and the actual payment of contributions, associated with the prevalence of own-account work and unstable employment. Permanence stems from this structural condition of intensive working hours coupled with disparities in the value set on the workforce.

The most important class fractions within this cluster are self-employed. Among the main ones are own-account service workers and shop and market sales workers (16%), own-account plant and machine operators, and assemblers (12%), and own-account technicians and associate professionals (9%) (see figure 11). Although with significantly lower figures, it is also possible to find some cases of dependent employment in the public and private sectors, with low and high skill levels and both manual and non-manual occupations. With regard to economic sectors, the main ones include commerce (33%), industry (13%) and transport, storage and communications (12%). In addition, men are in a substantial majority (63%), while Aysén and Antofagasta are the most important regions.

Figure 11
Class fractions in the PCI cluster (N = 359,923)
(Percentages)



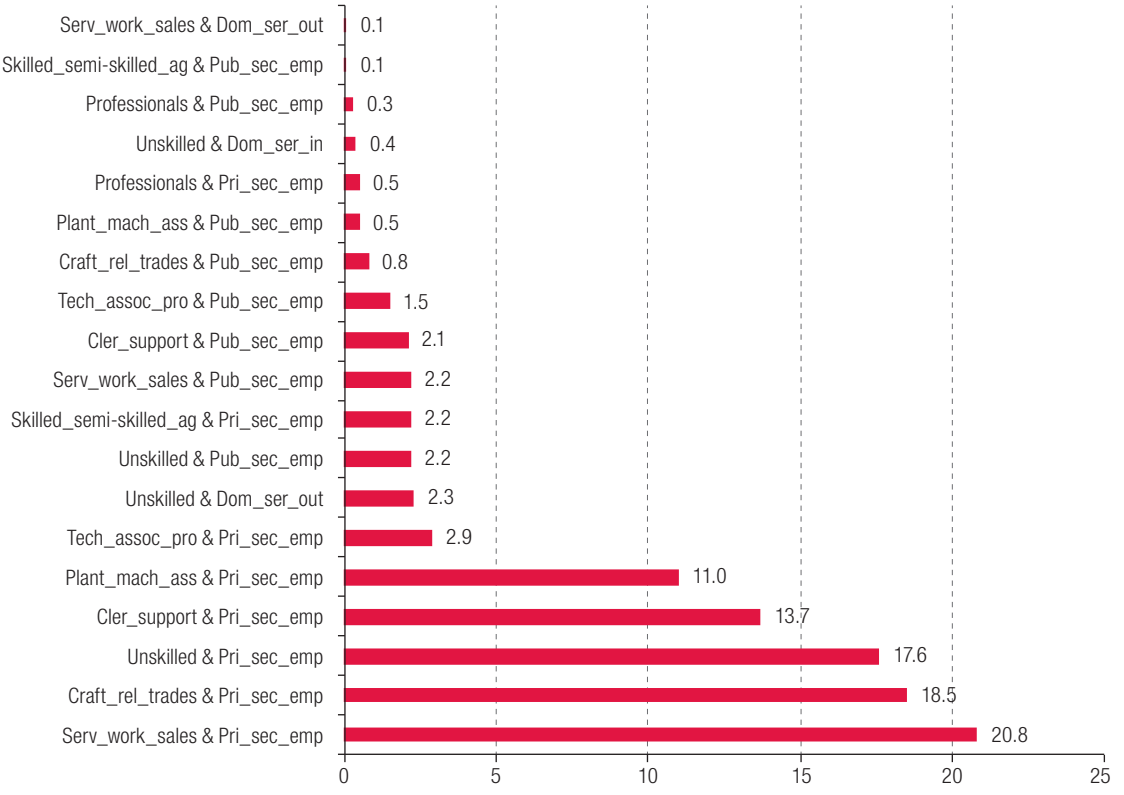
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(f) Precarious with secure and stable insufficiency (PSSI)

This is the group with the most cases in the whole typology (31%) (see figure 2); it is composed of a set of workers with a very high level of dependent wage employment. This status as employees and the prevalence of formal contracts ensure that they participate in social security networks and institutional health care support. Their work is mainly carried out in independent establishments outside the home, subcontracting is found to a marginal extent and employment is highly stable. Notwithstanding the social and working time guarantees offered by these types of formal wage-paying employment, 62% of these jobs pay less than the minimum wage, while 82% pay no more than 300,000 pesos. Thus, the insufficiency dimension is a key feature of this group, as is its concentration in the private sector of the economy.

The fractions composing this group are mainly in a situation of dependent employment in the private sector: service workers and shop and market sales workers (21%), craft and related trades workers (18.5%), unskilled workers (18%), clerks (14%) and machine operators, and assemblers (11%) (see figure 12). The Precarious with secure and stable insufficiency group is 58% male, while the regions with the greatest presence of cases belonging to this cluster are Biobío, Atacama, the Metropolitan Region and Los Ríos. Lastly, the most important branches observed are commerce (20.5%) and industry (15%), although it is important to note that this cluster is distributed across many economic sectors.

Figure 12
Class fractions in the PSSI cluster (N = 2,250,517)
(Percentages)



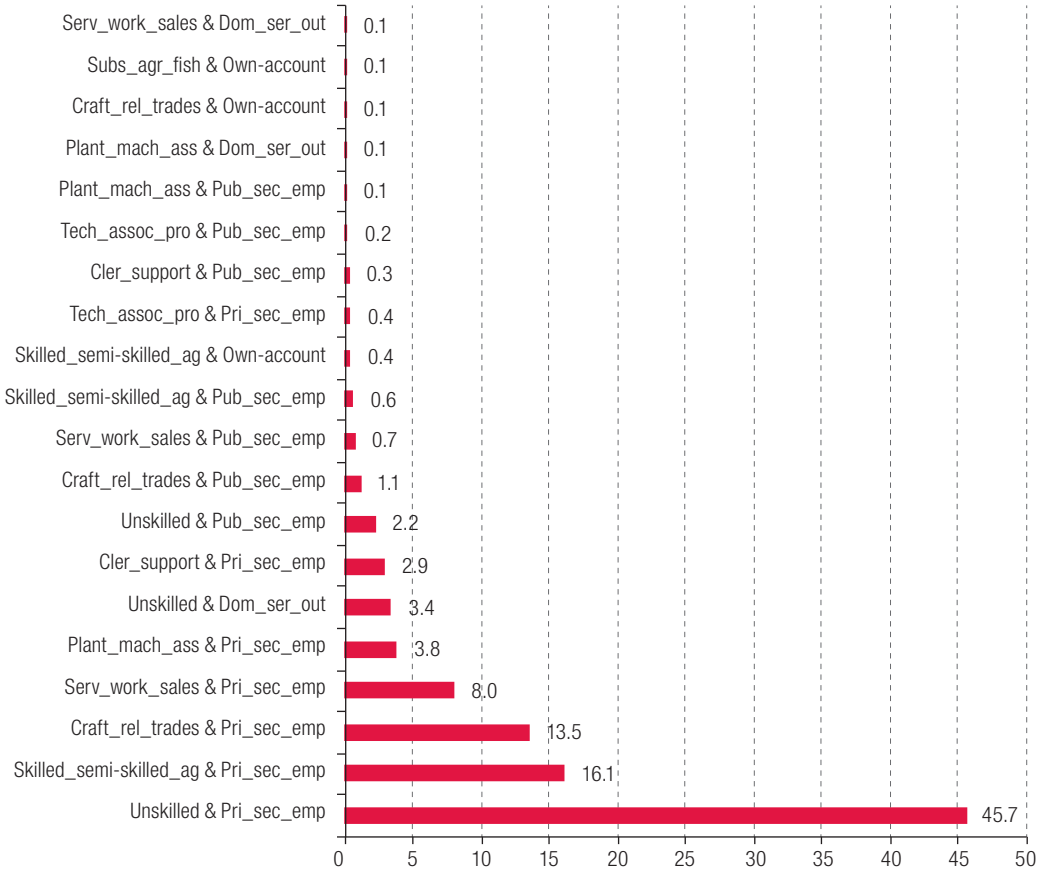
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(g) Precarious and seasonal with wage insufficiency (PSWI)

This group represents 9.5% of the cases studied (see figure 2) and comprises low-skilled and unskilled workers. They work in the private sector, in businesses that are mostly seasonal or temporary. Thus, the predominance of fixed-term contracts indicates a high level of employment instability, and this in a sector (28.5%) that does not have signed contracts. This situation, atypical in dependent waged employment, implies a vulnerable situation as regards social security, something that is not fully illustrated by the stability of contributions and the irregularity of working conditions in terms of hours. Lastly, the vulnerability of this sector is borne out by its position in the State health system (Funds A and B), which is of a piece with the income insufficiency affecting most of the group.

The Precarious and seasonal with wage insufficiency cluster is largely made up of workers in dependent private sector employment: unskilled workers (46%), followed by skilled and semi-skilled agricultural workers (16%) and craft and related trades workers (13.5%) (see figure 13). This cluster is 68% male and most heavily concentrated in the Maule and O'Higgins regions, with agriculture, hunting and forestry as its most important economic sector (43%), followed a long way behind by construction (15%).

Figure 13
Class fractions in the PSWI cluster (N = 693,361)
(Percentages)



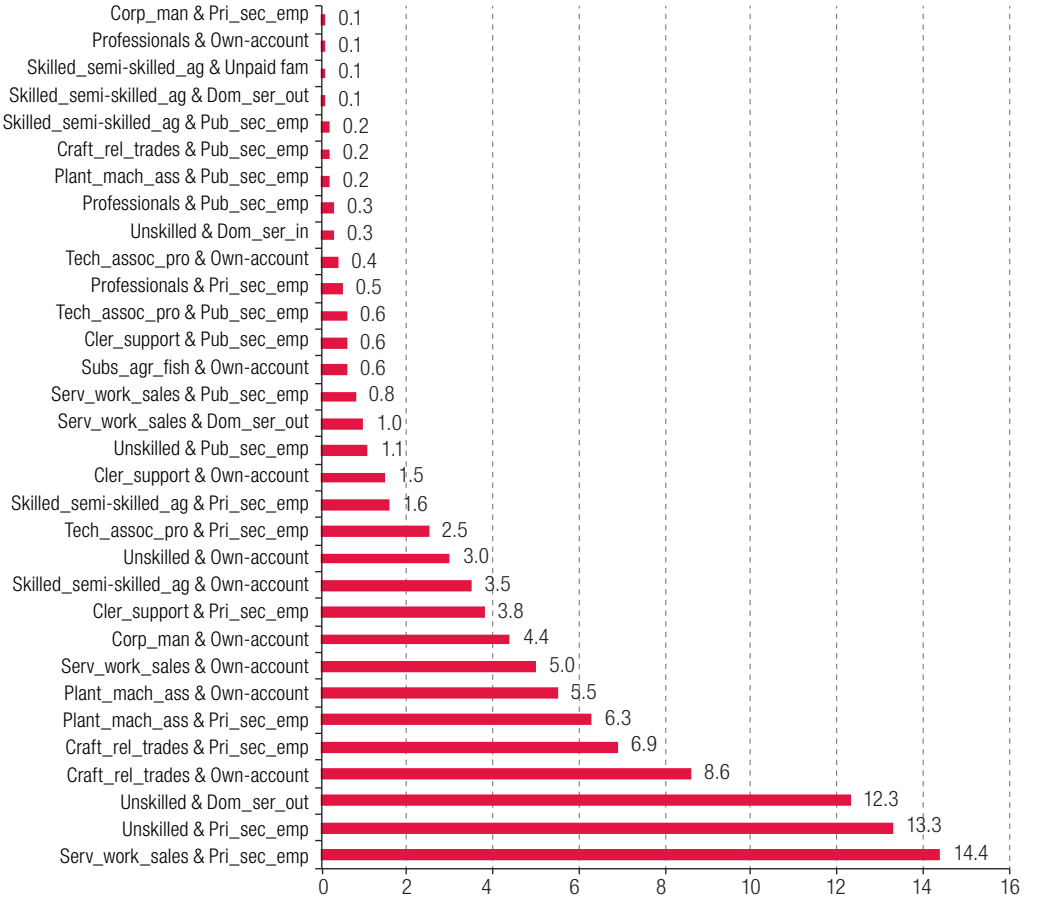
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(h) Precarious, highly insecure and relatively stable (PHIRS)

This group accounts for 10.3% of cases (see figure 2) and is composed of unskilled workers and low-skilled or unskilled non-manual workers who are in a grey area between stable and unstable work. This cluster predominantly lacks contracts, while the level of threat to the stability of employment is high. At the same time, the spatial location of activity is heterogeneous, which is explained by the large shares of live-out domestic service workers and private sector street workers. A critical element that identifies this group is the marked lack of social security coverage or actual contributions by many of its members (34.8%). In addition, these workers present a high degree of income insufficiency, with most being in the low deciles II and III, earning less than the minimum wage (79.1%).

These workers are concentrated in the private sector, where they work as employees. The class fractions that characterize the cluster are unskilled workers, unskilled market and sales workers, and live-out domestic service workers (see figure 14). They are found in the branches of commerce (20%) and domestic service (19%). Men and women have an equal share. They are characterized by membership of the FONASA system (Funds A and B) and, although the vast majority are dependent wage earners, over 50% are not paying into the social security system.

Figure 14
Class fractions in the PHIRS cluster (N = 747,621)
(Percentages)



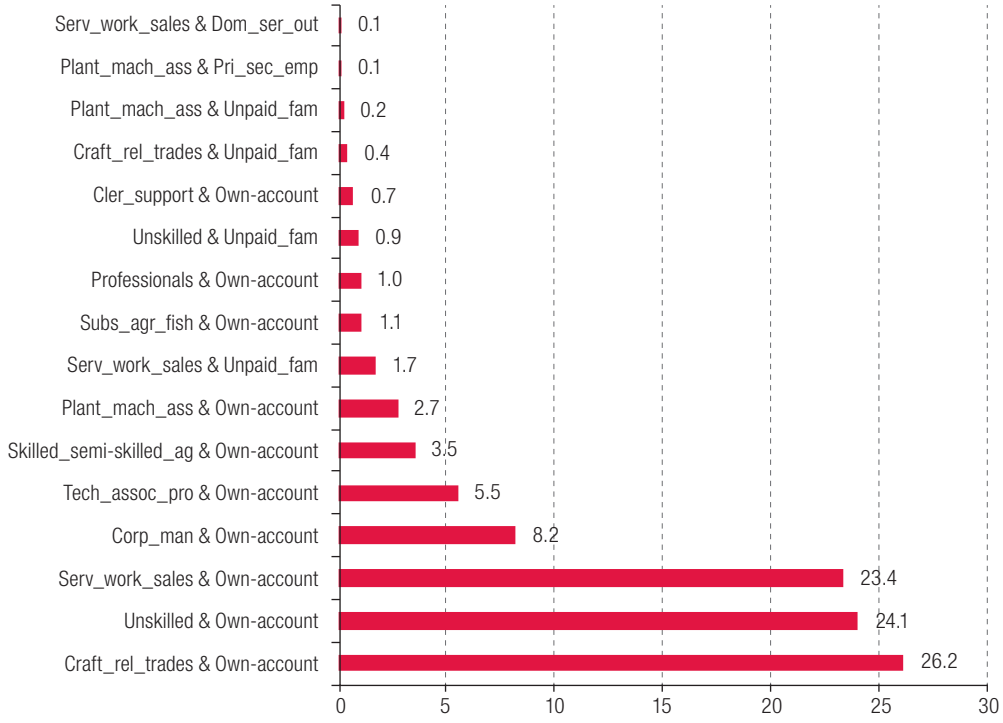
Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

(i) Precarious, autonomous and systemically vulnerable (PASV)

This group accounts for 5.3% of the total (see figure 2) and is made up of low-skilled or unskilled own-account workers with profiles ranging from manual to non-manual activities. Jobs are unstable, being short-lived and without signed contracts. This may be linked to a high prevalence of subcontracting, together with practices on the part of the companies or main businesses that weaken contractual ties.

The location of the work is another symptom of the vulnerability of such jobs, since they are carried out in private premises such as the worker's or employer's home, and often in the public street. Women are overrepresented in this cluster (65%), and it is concentrated in the regions of Araucanía, Coquimbo and Arica and Parinacota. More than 40% of its members work in the commerce sector.

Figure 15
Class fractions in the PASV cluster (N = 383,109)
(Percentages)



Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Another characteristic of this group is the great lack of social security coverage and of actual contributions to the social security system. It is one of the groups with the largest number of sick workers, although this situation is not directly associated with work and is supported by Fund A of FONASA. Lastly, the group is characterized by main incomes that barely exceed the poverty line, while incomes grouped by work (main and secondary) are less than 171,000 pesos in almost all cases (96.3%). For all these reasons, this is a group that presents systemic vulnerability vis-à-vis the dimensions of precariousness in work.

Table 12
Clusters and the component(s) of precariousness they possess

Cluster	Components
PIUI	Instability, Insecurity, Insufficiency, Working conditions, Working hours.
PSWI	Instability, Insecurity, Insufficiency, Working conditions.
PASV	Instability, Insecurity, Insufficiency, Working conditions.
PHIRS	Instability, Insecurity, Insufficiency, Working conditions.
PCI	Insecurity, Insufficiency (intermediate), Working conditions, Working hours.
PHSA	Instability, Insecurity (intermediate), Working conditions, Working hours.
PROIS	Insufficiency and Working hours (both intermediate).
PSSI	Insufficiency.
PSHS	Working hours.

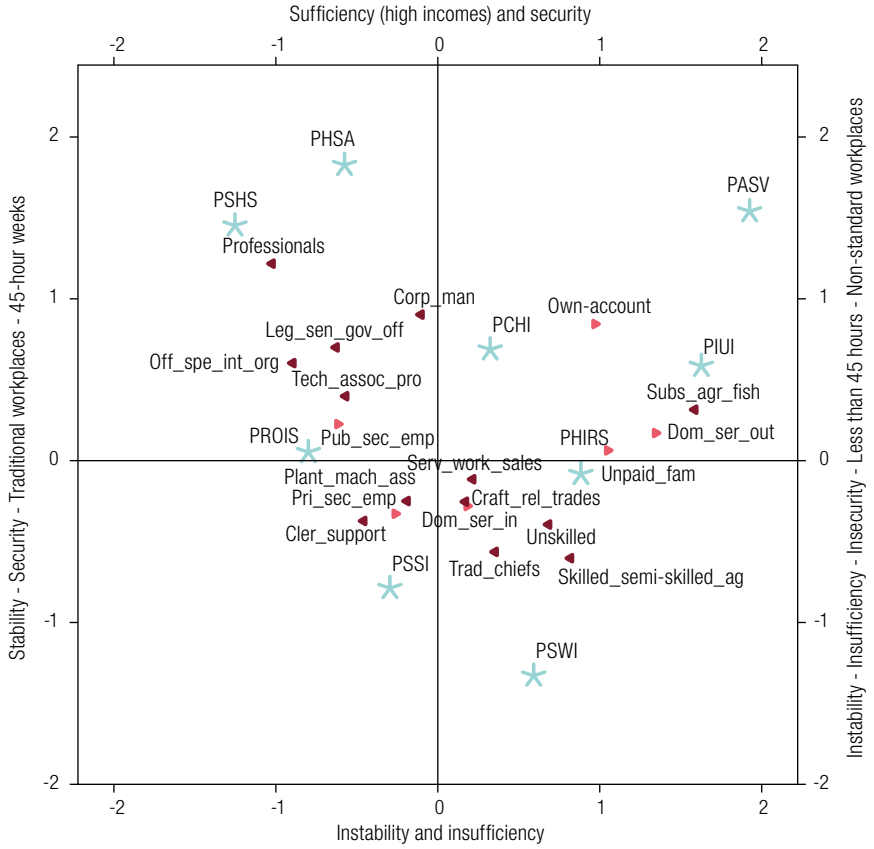
Source: Prepared by the authors.

Table 13
Presence of precariousness in the clusters

	(In)stability	(In)security	(In)sufficiency	Working conditions	Working hours
PSHS	+	+	+	+	–/+
PROIS	+	+	–/+	+	–/+
PHSA	–	–/+	+	–	–
PASV	–	–	–	–	–
PCI	+	–	–/+	–	–
PIUI	–	–	–	–	–
PSSI	+	+	–	+	+
PSWI	–	+	–	–	+
PHIRS	–	–	–	–	+

Source: Prepared by the authors.
Note: (+) Indicates a positive situation (protection) in the dimension; (–) indicates a negative situation (precariousness) in the dimension; (–/+) indicates substantial but not preponderant precariousness in the dimension.

Figure 16
Precariousness profiles, ISCO*rec* and ICSE*rec* in the multidimensional space



Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

V. Conclusions

Precariousness linked to the "(in)stability" component embodies situations involving the absence not only of employment contracts, but also of contributions to the social security and health systems, low earnings and highly seasonal jobs, all of which makes the activities performed unstable and is found in class fractions in situations of self-employment and dependent employment alike. The clearest example of this can be found in the Precarious, informal and unstable with insufficiency (PIUI) and Precarious and seasonal with wage insufficiency (PSWI) clusters.[8] Features of this type of precariousness are also found in the Precarious, highly insecure and relatively stable (PHIRS) cluster[9] and, to a lesser extent, the Precarious, autonomous and systemically vulnerable (PASV)[10] and Precarious with secure and stable insufficiency (PSSI)[11] clusters.

[8] Both groups show a significant presence of precariousness in the four variables of the "(in)stability" dimension: a large proportion of non-permanent and fixed-term employment, absence of written contracts and subcontracting. See tables A1.2, A1.3, A1.4 and A1.5 for estimates of the sample point statistic and the population parameters with their 95% confidence intervals.

[9] With a substantial presence in non-permanent and fixed-term employment, and absence of contracts (see tables A1.2, A1.3 and A1.4).

[10] With precariousness in non-permanent jobs and subcontracting (see tables A1.2 and A1.5).

[11] With precariousness only in fixed-term employment (see table A1.3).

A second precariousness issue concerns the "(in)security" component. Non-contribution to the social security system and to health systems is a marker of those activities, which are mainly carried out on a self-employed basis and tend to be very unstable in terms of working time, low incomes, social security shortfalls and inability to access health plans. The clusters most representative of this component are the Precarious, informal and unstable with insufficiency (PIUI), Precarious, autonomous and systemically vulnerable (PASV),[12] Precarious and constantly intensive (PCI)[13] and, to a lesser extent, Precarious, highly insecure and relatively stable (PHIRS) and Precarious, highly skilled and autonomous (PHSA) groups.[14]

The "(in)sufficiency" component affects low-income activities and is associated with a whole model of labour force valuation in the country (Julián, 2014) and the proliferation of forms of work that are subject to poverty. Its presence across almost all the clusters indicates an income structure subject to precariousness and lack of financial resources in daily life, raising questions about the supplementary economic and associative strategies that make possible the reproduction of labour and life. The clusters with the lowest average incomes are the Precarious, autonomous and systemically vulnerable (PASV) and Precarious, informal and unstable with insufficiency (PIUI) clusters, to which we might add the Precarious, highly insecure and relatively stable (PHIRS), Precarious and seasonal with wage insufficiency (PSWI) and Precarious with secure and stable insufficiency (PSSI) clusters (see table A1.9).

The fourth component is "working conditions". The variable that proved most relevant for describing precariousness in this dimension was the performance of work in non-standard locations (places other than factories or offices), which may be the worker's or customer's own home, workshops attached to dwellings, the public street, open-air production or work sites, etc. The groups most likely to be present in such places are the Precarious, autonomous and systemically vulnerable (PASV), Precarious, informal and unstable with insufficiency (PIUI), Precarious and constantly intensive (PCI), Precarious and seasonal with wage insufficiency (PSWI), Precarious, highly insecure and relatively stable (PHIRS) and Precarious, highly skilled and autonomous (PHSA) clusters (see table A1.10). Occupational sickness or accidents are significantly rare in the nine groups studied.

In the case of "working hours", it is possible to identify phenomena such as underemployment and autonomy in setting hours, as well as overwork and long working days that exceed the legal maximum. Thus, the differentiation of working time evinces heterogeneous situations. First, long hours are worked in situations of self-employment, which implies an individual strategy or inducement. However, some of the self-employed work very short hours. In the case of employees, protection may be accompanied by long working hours. In general, the longest hours are worked by the Precarious and constantly intensive (PCI) and Protected, stable and highly secure (PSHS) groups, while the shortest hours are worked by the Precarious, informal and unstable with insufficiency (PIUI) and Precarious, autonomous and systemically vulnerable (PASV) groups (see table A1.12).

Lastly, tables 11, 12 and 13, which show the main dimensions of precariousness and protection in each group, can be reviewed by way of summary. From all this it is possible to conclude that our typology not only includes a configuration of precariousness for lower class positions, with manual occupations and situations of own-account, dependent and other non-wage employment, but also shows that precariousness permeates segments of the middle and upper working classes. A first example of this is the Precarious, highly skilled and autonomous (PHSA) cluster, a small group (1.8%) of high-income, highly skilled workers who have significant weaknesses in that most are own-account workers, as well as working in non-standard workplaces (in their homes, workshops or premises attached to their homes, etc.). The other group of workers in the middle and upper segments are the Protected, stable and highly

[12] The Precarious, informal and unstable with insufficiency (PIUI) and Precarious, autonomous and systemically vulnerable (PASV) clusters have a high level of non-affiliation to social security systems and lack of actual contributions (see tables A1.6 and A1.7).

[13] Group with a marked lack of actual contributions (see table A1.7) and without health system coverage (see table A1.8).

[14] These last two groups have a high level of non-payment of contributions (see tables A1.7 and A1.8).

secure (PSHS) cluster, who, though protected in different ways, have the third-longest average working day. Thus, the processes leading to precariousness (in its various dimensions) have become pervasive not only in the low-skilled segments, but also in activities that have traditionally enjoyed a higher status, forcing these groups of non-manual workers to undergo processes of adaptation and subsistence in a context of great instability and job churn. All of this reveals levels of precariousness distributed across different social classes, occupations (skilled and unskilled) and employment situations (self-employed, dependent employees in the private sector, etc.).

In short, precariousness as a multidimensional condition is expressed as a cross-cutting and cross-class phenomenon that reaches to the different corners of the Chilean labour market. The consequences and social impacts of precariousness are expressed in the inequality, insufficiency, lack of rights and persistent social vulnerability in which a large part of the working population lives. These kinds of precariousness in working life could be considered the main feature of a society far removed from sociopolitical projects focused on welfare, a precarious society which needs to be made aware of the consequences of this precariousness, and for which mechanisms must be designed to improve the life opportunities of its population.

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Annex A1

Table A1.1
Precariousness groupings by the variables of instability, insecurity, working conditions and working hours
(Percentages)

		PIUI	PCI	PSSI	PSHS	PSWI	PHIRS	PASV	PHSA	PROIS
Is your main work or business…?	Permanent	54.1	82.9	89.9	97.5	31.4	71.3	44.3	86.0	94.2
	Seasonal	17.5	3.4	2.7	0.5	42.9	11.7	8.1	2.9	1.5
	Casual	25.0	10.1	0.9	0.2	4.0	10.4	46.7	9.1	0.6
	Probationary	0.3	1.6	0.5	0.0	2.8	1.2	0.2	0.1	0.2
	Fixed-term	3.0	2.0	5.9	1.8	18.9	5.4	0.7	1.9	3.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Contract type	Open-ended	30.9	49.2	83.7	93.0	22.6	56.4	18.0	78.2	89.7
	Fixed-term	69.1	50.8	16.3	7.0	77.4	43.6	82.0	21.8	10.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Written contract of employment	Yes, signed	4.9	54.2	96.2	97.5	64.5	37.7	0.0	74.5	96.5
	Yes, but not signed	2.0	1.3	0.7	0.6	3.6	3.0	10.9	3.6	1.1
	No	91.1	42.1	2.2	1.6	28.6	56.1	89.1	18.9	1.7
	Don't remember or don't know if contract signed	2.0	2.4	0.9	0.4	3.4	3.2	0.0	3.0	0.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
With whom did you sign your contract or enter into your employment agreement?	Directly with the company, or negotiates at workplace	96.5	98.4	89.2	98.5	81.4	93.9	73.7	100.0	94.6
	With a goods or services contractor or subcontractor	2.6	1.6	10.0	1.4	16.7	5.5	26.3	0.0	5.1
	With a temporary services firm, staff supplier or employment agency	0.9	0.0	0.7	0.1	1.9	0.6	0.0	0.0	0.3
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Social security system	Yes	47.5	65.8	98.9	99.0	91.3	74.4	43.0	76.9	98.8
	No	52.5	34.2	1.1	1.0	8.7	25.6	57.0	23.1	1.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paying into some social security system	Yes, AFP. Compulsory employee contributions	4.5	23.9	96.1	89.3	76.9	35.4	3.1	30.9	93.1
	Yes, AFP. Voluntary contributions by self-employed worker	3.0	22.0	0.4	2.7	0.5	4.2	4.7	39.0	1.0
	Yes, Institute of Social Security (IPS), formerly Institute of Social Security Standardization (INP). Retirement Fund for Public Sector, Private Sector Employees, Social Security Service (SSS), etc.	1.2	0.4	0.4	0.3	0.6	1.5	1.4	0.5	0.4
	Yes, National Defence Retirement Fund	0.1	0.7	0.1	2.6	0.0	0.1	0.2	0.8	0.8
	Yes, Carabineros Pension Service	0.0	0.4	0.0	2.7	0.0	0.0	0.4	1.0	0.5
	Yes, other. Please specify	0.0	0.5	0.1	0.3	0.0	0.1	0.1	0.5	0.2
	Not paying in	91.1	52.1	3.0	2.0	22.0	58.6	90.0	27.2	4.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table A1.1 (concluded)

		PIUI	PCI	PSSI	PSHS	PSWI	PHIRS	PASV	PHSA	PROIS
Health	FONASA A	66.5	24.6	6.7	0.5	27.4	40.2	59.1	4.0	1.9
	FONASA B	17.6	24.3	38.5	2.6	47.0	32.0	20.1	8.5	10.5
	FONASA C	3.1	5.8	28.9	1.8	12.8	7.6	3.6	4.1	15.1
	FONASA D	1.7	5.4	12.6	9.1	3.3	4.1	3.4	7.1	29.5
	FONASA group unknown	2.0	5.6	8.9	1.6	5.0	4.1	3.0	2.8	7.0
	Armed forces and police	0.5	2.2	0.3	5.8	0.0	0.5	1.4	3.6	2.6
	ISAPRE	1.1	17.5	2.3	77.6	0.1	2.9	3.7	61.6	31.0
	None	6.6	13.6	0.5	0.6	3.0	7.6	5.2	7.4	1.3
	Other system	0.7	0.9	1.3	0.3	1.3	1.0	0.5	0.7	0.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Place where activity carried out or business located	In home	7.6	17.2	0.3	0.4	0.1	1.7	33.0	22.4	0.7
	Workshop or premises attached to home	6.3	17.5	1.0	0.8	0.6	4.0	8.3	8.4	0.9
	In an independent establishment (factory, office, etc.)	13.4	34.0	73.2	86.1	29.8	39.7	7.5	49.7	77.4
	On a farm	16.8	2.1	2.4	0.5	41.7	8.1	2.7	0.8	0.5
	At sea	1.5	0.4	1.0	0.4	1.0	1.0	0.6	0.2	0.8
	In employer's or customer's home	31.6	8.8	4.7	1.0	7.7	23.9	19.1	5.8	1.7
	In the public street, land, air or water transport	18.3	15.5	5.9	2.3	5.5	15.0	22.2	6.5	7.0
	Production and construction sites, mines, etc.	1.8	1.9	10.3	7.0	12.9	4.3	0.6	2.3	9.8
	Elsewhere	2.7	2.6	1.2	1.4	0.8	2.2	5.9	3.8	1.2
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sickness or accident	Yes, sickness caused by work	2.6	2.7	3.3	3.8	2.3	2.3	3.1	3.4	3.5
	Yes, sickness not caused by work	14.4	14.5	11.8	14.0	10.4	13.8	19.9	12.3	12.1
	Yes, accident at work or school	0.6	0.2	0.7	0.6	0.8	0.7	0.3	0.4	0.5
	Yes, accident not at work or school	1.5	1.2	0.8	1.0	0.7	0.8	2.1	0.9	0.9
	No sickness or accident	80.9	81.3	83.3	80.6	85.8	82.4	74.7	83.0	83.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Working hours	<= 44	66.8	46.9	18.1	33.9	19.7	47.7	84.5	47.7	25.2
	45–45	10.5	12.8	60.7	41.8	61.3	23.4	3.0	16.8	50.9
	46+	22.7	40.3	21.2	24.4	19.1	28.9	12.5	35.5	23.8
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.2
Parameter estimates: non-permanent jobs

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval (percentages)	
				Lower	Upper
PIUI	568 907	45.67	49.81	45.54	45.80
PCI	359 923	17.01	37.57	16.89	17.13
PSSI	2 250 517	10.05	30.07	10.01	10.09
PSHS	876 645	2.51	15.64	2.48	2.54
PSWI	693 361	68.42	46.48	68.31	68.53
PHIRS	747 621	28.54	45.16	28.44	28.64
PASV	383 109	54.72	49.78	54.56	54.87
PHSA	134 118	13.90	34.59	13.71	14.08
PROIS	1 263 558	5.78	23.33	5.73	5.82

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.3
Parameter estimates: fixed-term employment

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	21.45	41.05	21.34	21.56
PCI	359 923	6.53	24.71	6.45	6.61
PSSI	2 250 517	16.25	36.90	16.21	16.30
PSHS	876 645	6.55	24.73	6.49	6.60
PSWI	693 361	76.56	42.36	76.47	76.66
PHIRS	747 621	28.29	45.04	28.19	28.39
PASV	383 109	0.24	4.90	0.22	0.26
PHSA	134 118	0.81	8.99	0.77	0.86
PROIS	1 263 558	9.91	29.89	9.86	9.97

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.4
Parameter estimates: no written contract

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	29.51	45.61	29.39	29.63
PCI	359 923	5.90	23.56	5.82	5.98
PSSI	2 250 517	3.81	19.15	3.79	3.84
PSHS	876 645	2.28	14.93	2.25	2.31
PSWI	693 361	35.13	47.74	35.02	35.24
PHIRS	747 621	40.06	49.00	39.95	40.17
PASV	383 109	0.29	5.41	0.28	0.31
PHSA	134 118	0.95	9.72	0.90	1.00
PROIS	1 263 558	3.37	18.04	3.34	3.40

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.5
Parameter estimates: subcontracting

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	42.34	49.41	42.22	42.47
PCI	359 923	13.40	34.07	13.29	13.51
PSSI	2 250 517	3.63	18.71	3.61	3.66
PSHS	876 645	0.70	8.31	0.68	0.71
PSWI	693 361	46.76	49.90	46.65	46.88
PHIRS	747 621	22.00	41.42	21.90	22.09
PASV	383 109	53.83	49.85	53.67	53.98
PHSA	134 118	11.93	32.42	11.76	12.11
PROIS	1 263 558	2.04	14.13	2.01	2.06

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.6
Parameter estimates: not affiliated to social security system

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	50.78	49.99	50.65	50.91
PCI	359 923	32.81	46.95	32.66	32.96
PSSI	2 250 517	1.05	10.17	1.03	1.06
PSHS	876 645	0.99	9.91	0.97	1.01
PSWI	693 361	8.45	27.82	8.39	8.52
PHIRS	747 621	24.92	43.26	24.83	25.02
PASV	383 109	56.02	49.64	55.87	56.18
PHSA	134 118	22.58	41.81	22.35	22.80
PROIS	1 263 558	1.22	11.00	1.21	1.24

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.7
Parameter estimates: affiliated to social security system but not paying in

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	41.71	49.31	41.59	41.84
PCI	359 923	32.41	46.80	32.25	32.56
PSSI	2 250 517	2.91	16.82	2.89	2.93
PSHS	876 645	1.99	13.98	1.96	2.02
PSWI	693 361	19.19	39.38	19.09	19.28
PHIRS	747 621	41.72	49.31	41.61	41.83
PASV	383 109	37.77	48.48	37.61	37.92
PHSA	134 118	19.89	39.92	19.68	20.10
PROIS	1 263 558	3.90	19.35	3.86	3.93

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.8
Parameter estimates: not affiliated to health system

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	6.51	24.66	6.44	6.57
PCI	359 923	13.24	33.89	13.13	13.35
PSSI	2 250 517	0.50	7.05	0.49	0.51
PSHS	876 645	0.55	7.42	0.54	0.57
PSWI	693 361	2.91	16.80	2.87	2.95
PHIRS	747 621	7.44	26.24	7.38	7.50
PASV	383 109	5.15	22.10	5.08	5.22
PHSA	134 118	7.27	25.97	7.14	7.41
PROIS	1 263 558	1.29	11.28	1.27	1.31

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.9
Parameter estimates: mean earnings

Cluster	N	Point estimate of the mean *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	551 355	156 790	119 834	156 474	157 106
PCI	338 834	470 009	402 979	468 652	471 366
PSSI	2 225 037	280 413	105 838	280 274	280 552
PSHS	874 723	1 386 631	1 344 898	1 383 812	1 389 449
PSWI	664 417	221 514	52 453	221 388	221 640
PHIRS	718 468	217 396	127 915	217 100	217 692
PASV	361 915	78 191	78 014	77 937	78 446
PHSA	131 587	1 688 940	1 487 077	1 680 906	1 696 975
PROIS	1 247 400	513 347	312 763	512 798	513 896

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.10
Parameter estimates: non-standard workplaces

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	86.16	34.53	86.07	86.25
PCI	359 923	65.27	47.61	65.12	65.43
PSSI	2 250 517	26.81	44.30	26.75	26.87
PSHS	876 645	13.92	34.62	13.85	14.00
PSWI	693 361	70.22	45.73	70.11	70.32
PHIRS	747 621	60.04	48.98	59.93	60.15
PASV	383 109	91.89	27.30	91.80	91.98
PHSA	134 118	49.97	50.00	49.70	50.23
PROIS	1 263 558	22.61	41.83	22.54	22.68

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.11
Parameter estimates: occupational sickness or accidents

Cluster	N	Point estimate of the proportion *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	3.11	17.37	3.07	3.16
PCI	359 923	2.89	16.75	2.83	2.94
PSSI	2 250 517	3.99	19.57	3.96	4.01
PSHS	876 645	4.29	20.26	4.25	4.33
PSWI	693 361	3.08	17.28	3.04	3.12
PHIRS	747 621	2.92	16.85	2.89	2.96
PASV	383 109	3.29	17.84	3.23	3.35
PHSA	134 118	3.64	18.74	3.54	3.74
PROIS	1 263 558	3.91	19.37	3.87	3.94

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).

Table A1.12
Parameter estimates: average weekly hours

Cluster	N	Point estimate of the mean *(percentages)*	Standard deviation *(percentages)*	95% confidence interval *(percentages)*	
				Lower	Upper
PIUI	568 907	40.7	85.1	40.5	40.9
PCI	359 923	50	86.4	49.7	50.3
PSSI	2 250 517	46.5	39	46.4	46.5
PSHS	876 645	47.9	58.4	47.7	48
PSWI	693 361	46.1	39.4	46	46.2
PHIRS	747 621	45.1	72.8	45	45.3
PASV	383 109	38.1	118.5	37.7	38.5
PHSA	134 118	46.1	58.9	45.8	46.4
PROIS	1 263 558	48.4	59	48.3	48.5

Source: Prepared by the authors, on the basis of the 2013 National Socioeconomic Survey (CASEN).