More but not better jobs in Chile?
The fundamental importance
of open-ended contracts

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Abstract. *Chilean governments since 1990 have relied on economic growth to generate employment, higher wages and better conditions of employment. But the results of this policy have been mixed: quantitative improvements in employment and wages have not been matched by improvements in job quality. Contrasting Chile's seemingly rigid regulatory framework with its actual labour market flexibility, the authors stress the importance of employment conditions in assessing labour market performance. They empirically explore the effects of individual and job characteristics on employment and income-generating capabilities, whose most powerful determinant, they find, is employment under an open-ended contract. They conclude with a discussion of policy implications.*

Chile is one of Latin America's best economic performers and its "best-case scenario" in terms of labour market prospects on account of increasing participation rates, rising wages, and a relatively small informal sector. However, despite these features, Chile's labour market also highlights many unresolved problems that are common across Latin America. Although historical data are somewhat scarce, there is an accumulation of evidence suggesting that while the overall quantity of jobs has increased steadily in Chile during recent decades, the "contractual status" of these jobs is and always has been poor, and may even have deteriorated further since the 1990s.

This article discusses several key points made in the introduction to this special feature of the *International Labour Review*. First, it highlights the inadequacy of existing data on the Chilean labour market, which mirrors problems experienced by other Latin American countries as well. Second, it illustrates the contrasting behaviours of traditional indicators of the *quantity* of employment and indicators of *quality* of employment, thus confirming the need for a theoretical distinction between the two categories. Finally, the Chilean case also illustrates how contractual conditions can change significantly even when labour market regulation remains unchanged. Indeed, while the country's regulatory framework has remained constant de jure, its de facto application has undergone important changes, which in turn have led to an extremely flexible labour market. An important conclusion of this article is that economic growth cannot necessarily be relied upon to generate jobs with better contractual conditions.

The remainder of this article is organized into three main sections. The first presents a brief overview of legislative and actual developments in the Chilean labour market in recent decades. The descriptive data clearly highlight the importance of variables related to the quality of employment. The second section then analyses how those variables impact upon the capability of Chilean workers to generate income and maintain themselves employed. Based on this analysis, we conclude that the occupational status of workers, particularly their type of contract, is key to these two fundamental capabilities. The third section concludes by discussing the public policy implications of this result in the context of the overall development of Chile's labour market, which has not been as successful as quantitative employment indicators may suggest.

The Chilean labour market: An overview

Before we delve into the available data, it is necessary to present a brief overview of the historical development of Chile's labour legislation, which forms the basis of our empirical analysis. As this section will show, successive labour reforms have shaped not only legislation, but also its application.

Historical background and legislation

Labour market regulation has been one of the most disputed public policy issues in Chile's recent history. The power of Chile's union movement, which increased significantly during the 1960s, and culminated under the Allende administration (1970–73), is widely associated with the economic and social instability of those years. When the Pinochet dictatorship took power in 1973, it systematically persecuted trade unions and their leaders, while simultaneously pursuing labour reforms that weakened their political power (Campero, 2000). Their political power was further undermined by the severe economic crisis of 1975, and labour legislation was neither applied nor enforced during these years (Sehnbruch, 2006). A major labour reform was then undertaken in 1979 which significantly flexibilized employment legislation by allowing

workers to be dismissed without cause, restricting union and collective bargaining rights, and subsequently capping the amount of severance pay at five months' wages. During this period, the labour courts ruled much more readily in favour of employers than they previously had done (Haagh, 2002; Frank, 2002a and 2004; Frías Fernández, 2003; Sehnbruch, 2006; Urmeneta, 1999).

When the so-called *Concertación* took office in 1990,[1] labour reform was one of the most delicate and important political negotiations it faced. The combined effects of two economic crises and Chile's structural adjustment process had resulted in high unemployment and wages below pre-crisis levels, together with high levels of poverty and social vulnerability that the incoming democratic government also had to address. Accordingly, the far-reaching labour reform undertaken in 1990 concentrated on the two main issues of re-regulating the termination of contracts and union rights (Frank, 2002b; Mizala, 1998; Sehnbruch, 2006). Indeed, the most important provision was arguably that employers were again obliged to justify dismissals. On paper, this meant that they could no longer hire and fire at will, as had been permitted under the 1979 legislation. But in practice, this provision had little effect because employers could still make workers redundant for economic reasons without having to comply with any procedural or legal requirements (Frank, 2002b; Haagh, 2002; Sehnbruch, 2006). The 1990 reform also raised the ceiling on severance payments in cases of redundancy from five to 11 months' wages, thereby increasing the cost of dismissal for employers. As will be discussed in the following section, however, the impact of this reform has been limited because few wage earners with formal contracts in Chile today have sufficiently long tenure to qualify.

The reform marginally strengthened the position of the unions: inter-firm collective bargaining was permitted provided that all parties concerned agreed (in practice, this almost never happens). Also, the establishment of trade unions was facilitated, particularly in smaller firms; the 60-day limit on strikes was abolished (but with the provision that employers can hire replacement workers);[2] and other aspects – e.g. union financing and bargaining rights – were strengthened. Again, most of these provisions were symbolic concessions to the unions that had relatively little impact on how they would function in practice (Henríquez Riquelme, 1999).[3]

An important, but little-known fact that must also be considered in this context is that the legislation governing short-term contracts has hardly changed over time. Short-term contracts have been provided for under the Chilean Labour Code since 1931, originally for a maximum period of six months.

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[1] The *Concertación* was an alliance of centre-left political parties that had campaigned for the "no" vote in the 1988 referendum on Pinochet's continuation in power.

[2] For details on the strike regulation, see Mizala (1998) and González (1996). Employers can temporarily replace strikers, from day one if their last wage offer matched the CPI forecast, or after 15 days of strike otherwise.

[3] For a more detailed analysis of both the legislative reforms regarding unions and collective bargaining and the complexities of the situation of unions since 1990, see Frank (2002b and 2004) and Haagh (2002).

In 1979, however, their maximum statutory duration was extended to two years. Democratic governments since 1990 have essentially maintained this regulation, but as we will see in the next section, the use that is made of these contracts has changed significantly.

Although the 1990 reform was thus significant in some respects, it did not reinstate pre-1973 union rights and left all social actors somewhat dissatisfied. Unions continued to demand the restoration of their historically acquired rights, while employers have been demanding the repeal of severance pay regulations and resisting any efforts to strengthen union rights. Developments over the past two decades illustrate the extent to which labour reform remains ideologically divisive and politically sticky. Although numerous attempts have been made to pursue the reform process, particularly to reinstate union rights and bring them in line with international standards, all such attempts have essentially failed (Cook, 2007; Sehnbruch, 2012). Agreement could only be achieved on issues unrelated to the core principles of employment legislation, which generated fewer ideological tensions. These have included the institution of an unemployment insurance system in 2002, increased levels of resources for vocational training and the institutions that administer it, a reduction of weekly working time from 48 to 45 hours, and increased protection for subcontracted workers that made holding companies indirectly responsible for them.[4]

Two fundamental trends can be distinguished from the processes of labour reform described above. First, the Chilean labour movement has never really regained the political power it lost under the military dictatorship and is therefore constantly struggling to recover it. Second, Chilean business has focused on achieving maximum labour market flexibility and deregulation. Together, these polarized positions maintain a highly charged ideological framework for any discussion of potential reform.

The ensuing political stalemate surrounding labour reform in Chile has, in turn, had two important effects on public policy. The first is that, rather than engaging in potentially futile legislative struggles, successive governments have put their faith in above-average long-term economic growth rates as a solution to labour market problems.[5] The expectation underlying this policy has been that steady wage growth combined with reasonably low unemployment rates and gradually increasing participation would contain voter demands for improved employment conditions, while the labour market would eventually grow tight enough to improve overall employment conditions automatically without requiring the Government to engage in sticky political struggles (Sehnbruch, 2013). The second effect of the political stalemate has been that labour

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[4] Holding companies are ultimately responsible for ensuring that the companies to which they outsource workers respect labour legislation.

[5] "The main source of employment generation is economic growth. There is no public policy, government subsidy or … substitute for sustained growth, it is the best insurance against unemployment. This is why macroeconomic growth and stability have been a priority of the *Concertación*." (Authors' translation of Michelle Bachelet's 2005 Election Manifesto.)

market policies in general have not figured prominently on the policy agendas of democratic governments (idem, 2006; Velasco and Huneeus, 2011). This, in turn, means that policy tools ranging from structural legislative reform to active labour market policies have been neglected in Chile's development roadmap.

As a result of the reform process described above, Chile has ended up with a legislative framework that looks relatively rigid on paper, but employment practices that are extremely flexible. As we will see in the following section, employers have invented numerous mechanisms for circumventing legislation they disagree with.

Labour market trends over the past 20 years: A puzzle with missing pieces

This section first briefly examines the performance of traditional, "quantitative" labour market indicators – i.e. employment and wages – and then goes on to discuss employment conditions related to the "quality" of employment. Before looking more closely at the available data, however, we begin with a brief discussion of their sources. Indeed, the Chilean labour market presents a statistical puzzle of which several pieces are missing: to get an overview of employment trends, we must resort to different sources of data and information, confronting significant discrepancies between them (particularly between administrative and survey data) and numerous "black holes" where the data are simply non-existent.

Chile's National Employment Survey (ENE) includes very few variables, but it is undertaken on a three-monthly rolling basis, which allows us to relate its findings to economic data. However, there is a discontinuity in the data after 2009, when a new survey was introduced. To complement our analysis, we had to resort to data from this New National Employment Survey (NENE), applied by the National Institute of Statistics as from 2010. But this means that current data cannot be matched with the historical time series that began in the 1950s. Working around this shortcoming, we can attempt to compensate for the limited number of variables included in the official employment data by supplementing them with information from household surveys, which go back to the 1980s. However, the latter were never designed as official sources of information on the labour market and are therefore problematic in several regards. First, they are not undertaken frequently and therefore do not provide timely information. Second, their questions often change, thus precluding the construction of coherent time series.[6] Third, household survey data on employment are often inaccurate because respondents frequently fail to answer questions correctly, as reflected in contradictory answers (e.g. self-employed workers stating that they have a contract) and inconsistencies between

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[6] Prior to 1996, the National Socio-economic Survey (CASEN), for example, did not include any questions on the occupational status of workers, while the data after 2009 are distorted by changes in the formulation of the survey questions. This effectively interrupts the historical time series in 2006 (the date of the previous CASEN survey), thereby creating another of the above-mentioned gaps.

administrative and survey data. As we will see below, the employment surveys still leave us with many information gaps – aspects of employment on which we simply have no data, such as specific legislative provisions (e.g. the actual payment of severance entitlements) or the rotation of workers between different tax identification numbers.

To begin with, however, we have to highlight the strong performance of traditional labour market variables – employment rates and wages – which tend to be highly correlated with economic growth rates. Figure 1 shows the consistent decline in Chile's official unemployment rate after 1990, to a low of 5.3 per cent in 1997. Although the economic crisis that affected Latin America in 1999 and 2000 brought about a dramatic increase in unemployment, to 9.8 per cent, this rate was still below the Latin American average of 10.5 per cent at the time. Although unemployment has since then been slow to decrease, spiking again during the 2009 global crisis, it eventually declined to less than 7 per cent in 2011.

Over roughly the same period (i.e. 1990–2012), average wages in Chile increased by 53 per cent, a rate of growth surpassed only by Costa Rica (76 per cent). Minimum wages, however, increased more than sixfold. Furthermore, on a continent where almost half of the labour force works informally (according to the ILO's definition of informal employment), the proportion of informal workers in Chile is just under one-third of the labour force. Chile's weakest labour market indicator is perhaps its labour force participation rate, which has remained consistently below the Latin American average of around 70 per cent, at roughly 60 per cent, since 1990. This is mainly due to the low participation rates of Chilean women.

However, as soon as we begin to examine employment variables not related to the traditional quantitative indicators reviewed above, the performance of the Chilean labour market presents a more mixed picture. In the analysis of non-traditional indicators, the variable "contractual or occupational status" must be considered as fundamental to the concept of quality of employment because it determines not only potential job tenure but also employees' statutory rights and entitlements, e.g. to a pension or to health and unemployment insurance (Sehnbruch, 2006).

Table 1 shows the distribution the labour force across the different types of occupational status in the period 1996–2006.[7] In 2006, only 43.5 per cent of the total labour force still had a traditional, open-ended contract, i.e. the type of contract on which Chile's employment legislation is based. The remainder worked under "atypical" contracts (12.9 per cent) or without written contracts (18.9 per cent). Employment legislation gives these workers more limited rights. For example, workers on short-term contracts face a greater risk of becoming unemployed and enjoy fewer benefits (e.g. unemployment insur-

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[7] This classification of workers was developed in Sehnbruch (2006) based on the argument that other analytical approaches miss the legal entitlements constitutive of an employment relationship. Unfortunately, the data series was interrupted after 2006 so it is difficult to continue this classification with subsequent surveys.

Figure 1. Employment and wages in Chile, 1990–2012
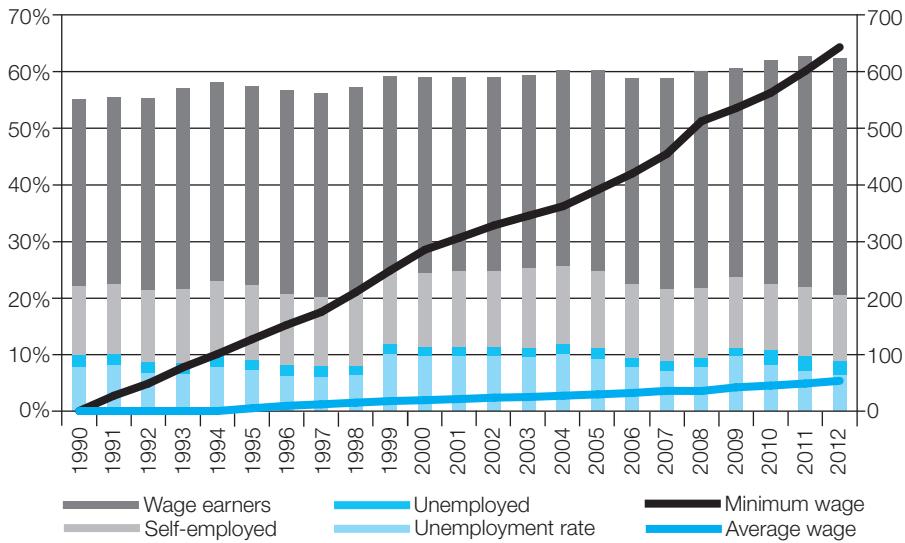
Source: National Employment Survey, National Institute of Statistics, 1990–2012.
Note: The survey was changed in 2009–10. Subsequent data are therefore not strictly comparable. Left-hand scale: Labour force participation rate; Right-hand scale: Wage growth measured by reference to 1990 as the base year.

Table 1. Labour force distribution by occupational status, 1996–2006 (percentages)

Occupational status	1996	1998	2000	2003	2006
Open-ended contracts	46.4	46.4	46.8	44.2	43.5
Atypical contracts	9.7	9.1	9.7	11.2	12.9
No contract	20.0	20.5	19.4	20.2	18.9
Employers	3.7	4.1	4.3	4.0	3.1
Self-employed professionals	2.0	2.6	2.6	2.9	3.2
Self-employed (non-prof.) workers	18.3	17.4	17.2	17.6	17.4
Total	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculations based on CASEN data, 1996–2006.

ance). Workers without formal contracts obviously face similar risks.[8] Outside wage employment, the combined proportion of self-employed non-professional workers, self-employed professionals and employers remained roughly stable throughout the period, at around 24 per cent.

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[8] Unless they can prove the existence of an employment relationship. Indeed, Chilean labour law recognizes that an employment relationship may exist even in the absence of a contract, but obtaining such recognition (and the associated entitlements) requires the worker to take legal action, which involves time-consuming and costly procedures that workers in this category can rarely afford. In practice, not having a contract is thus equivalent to not having any legal protection at all.

Figure 2. Labour force distribution by occupational status, 2009–12 (percentages)
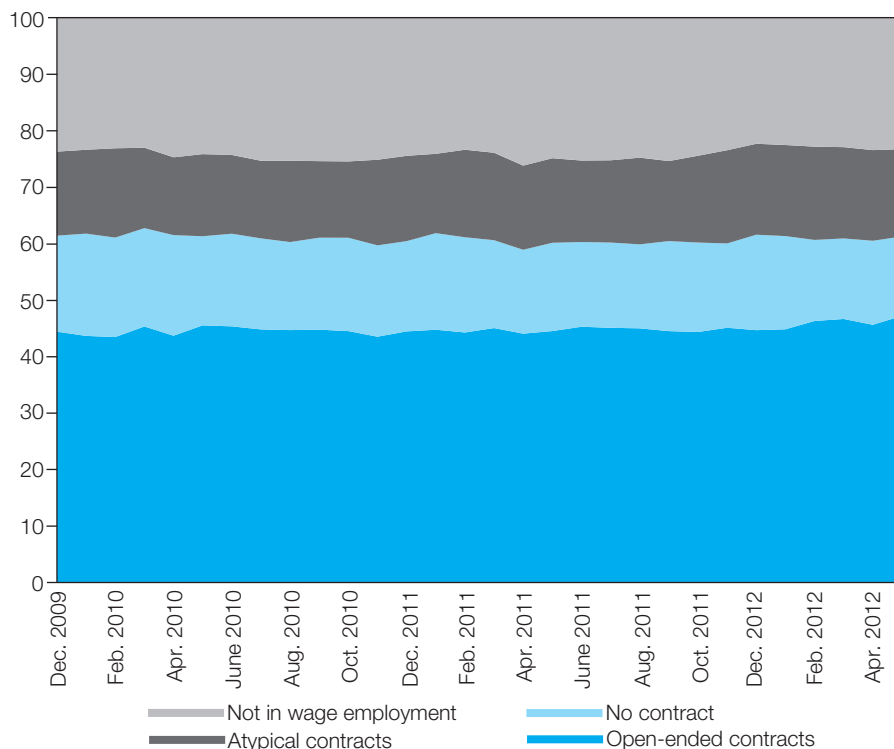
An analysis of other employment characteristics based on this typology of the labour force shows that the most precarious category of employment is that of wage earners without a formal written contract (Sehnbruch, 2006; Ruiz-Tagle and Sehnbruch, 2010). These workers earn the lowest wages; they do not pay social security contributions; they generally receive no vocational training whatsoever; they have the shortest tenures, moving frequently from one low-quality job to another; they cannot unionize; they can obviously be hired and fired at will; and they are not entitled to severance pay or unemployment insurance. Indeed, failure to consider the employment conditions of workers without formal written contracts would thus amount to ignoring one of the most important problems of the Chilean labour market. Carrying our analysis forward, figure 2 shows the results of our calculations based on NENE data for 2009–12, a period during which economic growth averaged 4 per cent per year, unemployment dropped to 6.4 per cent, and some 600,000 new jobs were created.

While confirming the stability of the distribution by occupational status, the official data from the national unemployment insurance administration

Table 2. Contributors to the unemployment insurance system by type
of contract, 2002–10 (percentages of formal wage-employment total)

Type of contract	2002	2003	2004	2005	2006	2007	2008	2009	2010
Open-ended	21.6	37.0	46.4	51.4	55.6	58.4	61.2	64.1	62.4
Fixed-term	78.4	63.0	53.6	48.6	44.4	41.6	38.8	35.9	37.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculations based on data from the unemployment insurance database.
Note: All data are year-end statistics, except 2010 (September).

present different proportions. Indeed, table 2 illustrates the contradictions between survey and administrative data. If we restrict the 2006 CASEN data universe to formal employment, the distribution between open-ended and atypical (or fixed-term) contracts is 77.1 versus 22.8 per cent, respectively.[9] But according to information from the unemployment insurance administration, the proportion of fixed-term contracts fluctuates between 36 and 39 per cent of the formal labour force, with open-ended contracts representing between 61 and 64 per cent. Since the insurance system was only introduced in 2002, the first five years of the time series presented in table 2 reflect its gradual implementation (through new contracts), which is why fixed-term contracts initially accounted for a higher proportion of the total number of contributors. By 2009, however, the insurance already covered 79 per cent of the labour force in formal wage employment, which in itself is an indicator of the levels of flexibility and turnover (Sehnbruch and Carranza, 2015). Since the distribution of open-ended and fixed-term contracts has stabilized in recent years, we can now consider that the data genuinely reflect contractual conditions in Chile's labour market.

Table 3 shows job tenure among workers in formal wage employment. Overall, 58.4 per cent of jobs lasted less than 13 months,[10] while the proportion of workers who remained in the same job for more than five years was very small. (Admittedly, these figures still reflect the gradual implementation of the insurance system.) These data also show that workers with fixed-term contracts are much more likely to experience short tenure and, therefore, to become unemployed.

By tracking the duration of jobs, these data indicate high levels of turnover. Yet, we must consider that workers may be repeatedly re-employed by the same firm under different tax identification numbers pertaining to a single holding company. In Chile, this device is known as "*Multiruts*", and constitutes a common practice used by employers to restrict the labour rights of their employees. Workers whose contracts never last longer than a year do not accumulate

[9] These proportions are similar to those of the NENE survey, which found 75.5 per cent of formal wage earners to have open-ended contracts and 24.5 per cent to have fixed-term contracts.

[10] The reasons for the termination of jobs include the expiry of fixed-term contracts, actual job loss (due to being made redundant or fired), as well as voluntary job changes between companies. Unfortunately, we have no coherent data on the reasons for job changes.

Table 3. Contributors to the unemployment insurance system by type
               and duration of contract (percentages of formal wage-employment total)

Type of contract	0–13 m	+13 m –2 yrs	+2–3 yrs	+3–4 yrs	+4–5 yrs	+5–6 yrs	+6–7 yrs	Total
Open-ended	19.8	10.0	7.5	5.4	4.2	3.4	3.0	53.3
Fixed-term	38.6	5.1	1.7	0.6	0.3	0.2	0.1	46.7
Total	58.4	15.1	9.2	6.1	4.5	3.6	3.2	100.0

Source: Authors' calculations based on data from the unemployment insurance database, 2008.

severance pay rights. Equally importantly, employers' corporate organization into multiple legal entities prevents workers from organizing effective unions. Unfortunately, there are no specific data at present in Chile which would allow us to estimate the extent of this phenomenon. The *Multirut* hiring practice accounts for one of the big missing pieces in the puzzle that is the Chilean labour market.[11]

The foregoing discussion leads to four important conclusions. First, the data show the extent to which information on the Chilean labour market is contradictory, difficult to analyse in historical perspective, and incomplete on key issues. Second, they show that economic growth cannot be relied upon to improve employment conditions beyond wage levels and employment rates. Third, while Chile's Labour Code may contain provisions that seem overly "rigid" de jure, particularly in regard to severance pay, the empirical evidence shows that the labour market is extremely flexible in practice. This contrast between statutory regulation and de facto application is an important point that much labour market analysis ignores. Finally, the descriptive data illustrate the importance of considering the different categories of occupational status and, more specifically, contractual status. Any labour market analysis or public policy that ignores such indicators of the quality of employment is bound to be simplistic and incomplete.

Measuring the effect of occupational status on worker capabilities

Building on the findings of the previous section, we now undertake a statistical analysis of the relevance of a worker's occupational status to his or her capacity to function in the labour market. Although the capacity of workers to generate income has been widely studied in simple wage models, the capacity to remain employed or to secure re-employment following job loss has received scant attention in research on developing economies, mainly for lack of suitable data. Here, we exploit the rich data set of Chile's Social Protection Survey (EPS), which accounts for employment trajectories over time and regis-

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[11] Legislation was passed in 2015 that made it more difficult to use multiple tax identification numbers to circumvent employment legislation.

ters the characteristics of each job held by each worker, to develop empirical models that explore the relationship between contractual status and both of the above capabilities.[12]

We begin by developing a general statistical framework assess labour market capabilities, and then present our results focusing on the relevance of occupational status.

Methodology and definitions

The capabilities that we study are the ability to participate effectively in the labour market and the ability to generate satisfactory levels of personal income, which we will refer to as "employment capability" and "income capability", respectively. Employment capability, in turn, comprises two components, which must be considered as two sides of the same coin: if a worker is employed, we consider her/his ability to stay employed, and, if unemployed, we consider her/his ability to find a (new) job.

These two capabilities are related both to individual worker characteristics and to job characteristics. Some individual worker characteristics cannot be changed, such as age or ethnicity. Other characteristics, however, can be changed, such as educational attainment, vocational training and professional experience. Similarly, particular job characteristics can change. For example, occupational status or type of contract, social security coverage, income level, and many other characteristics depend not only on the worker, but also – directly or indirectly – on public policies. The variables we consider here are the type of contract (or occupational status), social security provisions (including health and pensions), level of human capital (education and vocational training), income, unionization, and labour force participation.

For the purposes of our statistical analysis, employment capability is captured both by the probability of "keeping a job" – equal to 1 minus the probability of "losing a job" – and by the probability of finding a new job in the event of unemployment, which is equal to 1 minus the probability of staying unemployed. Following this logic, employment capability can be calculated with "probabilistic duration models" referring to the situations of employment and unemployment. Specifically, we estimate "survival functions" using exponential distribution.[13] These models permit a multivariate analysis of the probability over time of remaining employed or becoming unemployed. The estimated regressions allow us to compute each worker's probability of maintaining a particular employment status at a particular moment in time, according to his or her characteristics. It thus becomes possible to assess the relevance of the type of contract to employment capability.

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[12] For more information on the EPS, see: http://www.proteccionsocial.cl/.

[13] The "survival function" indicates the probability of remaining in the current status (here employed or unemployed) after a given period of time (months, in our case). We estimated several models considering different distributions (semi-parametric Cox models and parametric exponential, Weibull and Loglogistic models), but since results were highly robust we only present the exponential model here.

In parallel, income capability can be estimated from the income that a worker could generate on average based on her or his particular characteristics, using income estimates derived from Mincer wage equations. Expected income levels for the employed as well as for the non-employed (i.e. inactive or unemployed) can thus be estimated, regardless of a worker's current employment situation. This framework allows us to study the relevance of the type of contract to income capability.

The estimation of wage equations to quantify a person's income capability involves dealing with the problem of "sample selection bias": estimations based solely on the wages of those who are actually working (i.e. whose wages are observed) would be biased. This problem is dealt with by using a model that corrects for sample selection bias (Heckman, 1979). Accordingly, in a first stage, a probabilistic equation of participation is used (participation being understood as "having received a wage"). The predicted probabilities based on these estimates are used in the second stage of the wage estimates to correct the estimates by plugging in the Inverse Mills ratio as an additional regressor.

Statistical analysis

In this section, we first look at the estimation results of the duration models that assess the probability of keeping a job, and then turn to the models that deal with the probability of exiting unemployment (i.e. finding employment in the event of job loss). We finally review the estimation results of the wage equations used to investigate income capability.

Determinants of the ability to stay employed

This subsection presents results from the duration models that estimate the probability of losing a job based on an employment history of the past 17 years.[14] As noted above, we actually estimated several models that consider different distributions, but given the robustness of the results we only present those related to the exponential distribution (see Ruiz-Tagle and Sehnbruch, 2010).

In order to facilitate the interpretation of our estimates, we present the results showing the coefficients in the $\exp(\beta)$ form, where β is the coefficient from the regression.[15] A coefficient greater than 1 represents an increase in the probability of losing a job, while a coefficient lower than 1 represents a decrease of the probability of losing a job. For example, a coefficient of 1.22 implies an increase of 22 per cent in the probability of losing a job, whereas a coefficient of, say, 0.65 would imply a 35 per cent lower probability of losing a job relative to the reference probability of losing a job.

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[14] In fact, we estimated models with a six-year time frame (2001 to 2006), a ten-year time frame (1997 to 2006) and a 17-year time frame (1990 to 2006). The estimation results were robust regardless of the different time frames used.

[15] Since survival models are inherently non-linear, the interpretation of the coefficients becomes non-trivial. The exponential form allows the identification of proportional changes in the probabilities, independently of the reference probability.

Table 4 presents the estimation results of the survival models for the probability of losing a job (i.e. 1 minus the probability of remaining employed). The models include a number of socio-demographic characteristics of individuals and job attributes, such as occupational status or type of contract. All of their coefficients are highly significant, which demonstrates their relevance in explaining the probability of losing a job. As expected, however, we observe significant differences in labour market performance between men and women: the predicted duration of employment is 64.7 months for men versus 54.1 months for women, implying that the latter have a higher probability of losing their job, by approximately 14 per cent.

Although education is usually associated with better labour market outcomes, our estimation results indicate that workers with a higher level of education have a higher probability of ending their jobs: the coefficients associated with secondary, tertiary and postgraduate education have an impact of between 7 and 32 per cent above those with only primary education (the excluded reference category). This result reflects the dynamic nature of employment among people with high educational attainment, who play the labour market by moving from one job to another. Nevertheless, as we will see below, it is the aggregate effect on employability, beyond the probability of maintaining a job, on which we concentrate. Although there are some differences between women and men, these are concentrated at the secondary and tertiary education levels. As regards age differences, a convex profile can be observed, where the probability of losing a job decreases until approximately 40 years, but then increases progressively until the age of 65. This result is similar for both men and women.

Turning to the type of contract, our findings confirm the precariousness of atypical employment. Both male and female workers with short-term contracts or without a formal written contract face a probability of job loss that is twice as high as do their counterparts with open-ended contracts (the reference category). This highlights the significantly lower probability of losing a job under an open-ended contract, even after controlling for other individual and job characteristics.

An additional channel through which the type of contract seems to have an effect is "specialization". Specifically, workers who have stayed longer under their current type of contract (as a percentage of their total time in employment)[16] exhibit a lower probability of losing their job, reflected in coefficients below 1. For example, a worker who currently holds an atypical contract, and who also has mainly worked under atypical contracts during his or her employment history, has a 33 per cent lower probability of job loss than a worker currently on an atypical contract but without that background. However, the data show that women benefit a bit less than men from this "specialization effect". Also notable is that self-employed workers (both skilled and unskilled) exhibit a significant specialization effect: the more time they have

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[16] This is also referred to as type-of-contract "density".

Table 4. Probability of losing a job, by sex (survival exponential model, coefficients in exp(β) (form)

Variables	Men	Women	Variables	Men	Women
Age	0.934*** −0.000144	0.920*** −0.000148	Density employer x (employer =1)	0.317*** −0.00176	0.511*** −0.00355
Age^2	1.001*** −1.73E−06	1.001*** −1.95E−06	Incorrectly specified activities sector	1.398*** −0.00636	1.339*** −0.00837
Secondary education	1.185*** −0.00115	1.071*** −0.00124	Agricultural sector	1.423*** −0.00299	1.739*** −0.0051
Tertiary education	1.146*** −0.00117	1.086*** −0.00128	Mining sector	1.189*** −0.00463	0.910*** −0.0143
Postgraduate education	1.326*** −0.00185	1.307*** −0.00206	Energy sector	0.919*** −0.00653	1.481*** −0.0197
Atypical contract	1.886*** −0.00272	2.115*** −0.00402	Construction sector	1.236*** −0.00248	0.978*** −0.00674
No contract	1.875*** −0.00357	2.097*** −0.00482	Commerce sector	0.961*** −0.00207	1.055*** −0.00278
Self-employed professional	1.516*** −0.00732	1.705*** −0.0129	Transport sector	0.914*** −0.00228	1.320*** −0.00525
Self-employed non-professional	1.603*** −0.00347	1.653*** −0.00527	Finance sector	0.964*** −0.00259	0.942*** −0.0033
Employer	1.910*** −0.0051	2.125*** −0.00813	Social and communal services sector	0.950*** −0.0022	0.922*** −0.00245
Density open-ended contract x (open-ended contract =1)	0.662*** −0.00116	0.707*** −0.00167	Density incorrectly specified activities	0.606*** −0.00789	0.406*** −0.0039
Density atypical contract x (atypical contract =1)	0.672*** −0.00142	0.694*** −0.00177	Density agricultural sector	0.413*** −0.000971	0.437*** −0.00164
Density no contract x (no contract =1)	0.558*** −0.00143	0.716*** −0.00194	Density mining sector	0.378*** −0.00258	0.873*** −0.0215
Density self-employed prof. x (self-employed prof. =1)	0.418*** −0.0037	0.406*** −0.0052	Density manufacture sector	0.598*** −0.00155	0.559*** −0.00198
Density self-employed non-prof. x (self-employed non-prof. =1)	0.361*** −0.000972	0.407*** −0.00165	Density energy sector	0.426*** −0.00539	0.375*** −0.00907
			Density construction sector	0.437*** −0.0011	1.046*** −0.00961

Table 4. Probability of losing a job, by sex (survival exponential model, coefficients in exp(β) (form) *(concl.)*

Variables	Men	Women	Variables	Men	Women
Density commerce sector	0.732***	0.677***	Region VII	1.023***	1.119***
	–0.00173	–0.00169		–0.0016	–0.002
Density transport sector	0.616***	0.491***	Region VIII	1.089***	1.073***
	–0.00209	–0.00253		–0.0013	–0.00153
Density finance sector	0.588***	0.692***	Region IX	1.092***	1.032***
	–0.00211	–0.00284		–0.00188	–0.00217
Density social and communal services	0.575***	0.608***	Region X	1.159***	1.131***
	–0.00154	–0.00147		–0.00163	–0.0019
Current wage	1.261***	1.008***	Region XI	0.868***	1.161***
	–0.00135	–0.0013		–0.00389	–0.0075
Average wage	0.710***	0.880***	Region XII	1.338***	1.169***
	–0.000774	–0.00115		–0.0042	–0.00443
Social security contributions	1.065***	1.116***	Household head	0.565***	0.754***
	–0.00116	–0.0014		–0.0005	–0.000711
Training	0.711***	0.725***	Experience	0.352***	0.368***
	–0.00075	–0.000879		–0.000517	–0.000487
Union membership	1.023***	0.969***	Dependency ratio	1.037***	1.037***
	–0.00127	–0.0016		–0.000234	–0.000321
Region I	1.002	0.842***	Only household member employed = 1	1.046***	0.944***
	–0.00253	–0.00258		–0.000794	–0.000787
Region II	0.965***	0.925***	Firm size: 1 worker	0.829***	0.887***
	–0.00208	–0.00228		–0.00122	–0.0013
Region III	0.785***	0.978***	Firm size: 10–19 workers	1.197***	1.204***
	–0.00211	–0.00333		–0.00173	–0.00205
Region IV	1.063***	1.076***	Firm size: 20+ workers	1.378***	1.291***
	–0.00188	–0.00227		–0.00141	–0.00156
Region V	0.990***	0.989***	Constant	0.432***	0.722***
	–0.00123	–0.00137		–0.00309	–0.00585
Region VI	1.231***	1.133***	Predicted job duration (months)	64.7621	54.1503
	–0.00188	–0.00209			

* significant at the 10 per cent level; ** significant at the 5 per cent level; *** significant at the 1 per cent level.

worked in a self-employed capacity, the less likely they are to become un-employed. This applies to both men and women.

A specialization effect also occurs in relation to economic sectors.[17] Workers in all sectors except agriculture exhibit a lower probability of los-ing their job if they have been working in their current sector for a longer period (the coefficients of all sectors except agriculture are significantly below 1). Gender differences do not appear to be significant in regard to such sectoral specialization.

We also find significant wage effects on the probability of losing a job. We observe that a higher average wage over the course of a worker's employ-ment history leads to a lower probability of losing a job (12 per cent lower for women and 29 per cent lower for men). In the case of men, however, a higher salary in the current job increases the probability of losing the job, although the predominant effect remains that of the average past wage. Thus, it may be that what matters for the ability to keep a job is the overall wage history rather the transitory current wage.

The formality of employment is captured by the existence of a contract (with open-ended contracts appearing to be the most desirable) and the type-of-contract density. Social security contributions capture only an incremental effect over contract characteristics. The estimated effect of contributions is to increase the probability of job loss by 6 per cent for men and 11 per cent for women. This counter-intuitive result may be explained by the fact that self-employed workers typically do not contribute to social security, but adjust to lower economic growth through lower income levels, by working fewer hours or initiating a new self-employed activity altogether.

Vocational training in the current job reduces the probability of job loss for both men and women by 28 per cent. This confirms the importance of in-vestment in human capital in the construction of long-term employment rela-tionships.[18] By contrast, union membership does not have a significant impact on the probability of losing a job (a probability 2 per cent higher for men, and 3 per cent lower for women). Chile's low levels of unionization could be the reason for this.

Firm size is another variable which presents intriguing results. Single workers in micro-enterprises present a lower probability of losing their job than those in firms employing between two and nine workers (the reference category). This is probably closely related to self-employment, in which work-ers tend not to lose their jobs, as explained above. However, workers in me-dium-sized enterprises (10–19 workers) present a probability of job loss that is 20 per cent higher than in the smaller firms. Moreover, workers in large firms (20 or more workers) face a 36 per cent higher risk of losing their job. Only

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[17] Economic sector specialization is computed as the percentage of working time that the individual has worked in the current economic sector.

[18] Unfortunately, the data do not allow us to distinguish between training inside or outside the firm.

in these large firms can we observe a gender difference: men are 8 per cent more likely to lose their job than women. The overall pattern in regard to firm size may reflect the fact that larger companies are more likely to adjust to economic circumstances by firing workers than by adjusting wages.

Another interesting point is that both being the head of the household and having greater experience significantly reduce the probability of job loss. In principle, being the head of the household is related to the worker being the main income provider of a family.[19] The probability of losing a job while being the head of the household is 43 per cent lower for men and 25 per cent lower for women.

Determinants of the ability to find a job when unemployed

In terms of a worker's employability, the counterpoint of the probability of losing a job is the probability of finding a new one versus remaining unemployed. Accordingly, as in the previous subsection, we analyse a survival model of the probability of remaining unemployed (i.e. 1 minus the probability of finding a job).[20]

Table 5 presents the results of the survival models for men and women, combining the socio-demographic characteristics of the individuals with those of their last job and their labour market history. The coefficients are again given in the exponential form for easy interpretation, and most of them are highly significant, indicating their usefulness in explaining the probability of finding a job. These estimates allow us to predict unemployment duration, which is nine months for men and 11 months for women.

Our unemployment duration estimates indicate that age plays a non-linear role in determining the probability of finding a job: it has a diminishing (negative) effect on the probability of finding a job until age 40 and an increasing effect thereafter. Higher levels of education, by contrast, are consistently associated with higher probabilities of finding employment. Relative to the reference category of primary education, secondary education increases the probability of exiting unemployment by 23 per cent for men but by only 2 per cent for women, while tertiary education increases that probability by 25 per cent for men and 23 per cent for women.

In line with our previous findings, our results here again point to the prevalence of atypical contracts among women. Using open-ended contracts as the reference category, we observe that an atypical contract in the previ-

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[19] Note that "household head" is self-reported, regardless of the income that an individual contributes to the household.

[20] In order not to bias the estimates towards ongoing histories of unemployment, we restrict the data to those trajectories that do not exhibit right-hand side censoring, i.e. employment histories that end before the date of the survey. From the point of view of the analyst, labour histories with right-hand side censoring are associated to inactivity. On the other hand, we considered the sub-sample of histories that started when workers were aged 25 or older and ended when they were under 55; i.e. workers who are mainly active in the labour market. We also considered a third sub-sample of labour histories featuring an immediately preceding spell of employment (in the previous month). Estimations with all three sub-samples did not differ significantly.

Table 5. Probability of finding a job, by sex (survival exponential model, coefficients in exp(β) (form)

Variables	Men	Women
Age	0.950*** -0.000368	0.917*** -0.000469
Age^2	1.000*** -4.99E-06	1.001*** -7.04E-06
Secondary education	1.231*** -0.00225	1.016*** -0.0026
Tertiary education	1.259*** -0.00233	1.229*** -0.00307
Postgraduate education	1.056*** -0.00356	1.082*** -0.00438
Atypical contract	1.007*** -0.00284	1.389*** -0.00584
No contract	0.979*** -0.00352	1.190*** -0.00616
Self-employed professional	1.141*** -0.0197	1.268*** -0.026
Self-employed non-professional	1.074*** -0.0053	1.341*** -0.0129
Employer	1.155*** -0.00906	1.608*** -0.0219
Density open-ended contract x (open-ended contract =1)	0.904*** -0.00361	0.929*** -0.00601
Density atypical contract x (atypical contract =1)	0.657*** -0.00283	0.792*** -0.00543
Density no contract x (no contract =1)	0.758*** -0.00361	0.685*** -0.00496
Density self-employed prof. x (self-employed prof. =1)	0.286*** -0.00915	0.347*** -0.0128
Density self-employed non-prof. x (self-employed non-prof. =1)	0.576*** -0.00415	0.590*** -0.009

Variables	Men	Women
Density employer x (employer =1)	1.006 -0.0256	0.602*** -0.016
Incorrectly specified activities sector	1.322*** -0.0165	2.195*** -0.0428
Agricultural sector	1.306*** -0.00467	1.557*** -0.00864
Mining sector	1.031*** -0.00779	0.367*** -0.0169
Energy sector	0.890*** -0.0207	0.784*** -0.0286
Construction sector	1.212*** -0.00418	1.278*** -0.0191
Commerce sector	0.948*** -0.00385	1.219*** -0.00665
Transport sector	0.852*** -0.00431	0.865*** -0.00706
Finance sector	0.775*** -0.00497	1.01 -0.00777
Social and communal services sector	0.688*** -0.00336	1.230*** -0.00673
Density incorrectly specified activities	0.468*** -0.017	0.443*** -0.0121
Density agricultural sector	0.758*** -0.00332	0.685*** -0.00617
Density mining sector	1.041*** -0.0149	2.277*** -0.12
Density manufacture sector	0.653*** -0.00328	0.965*** -0.00795
Density energy sector	0.768*** -0.0328	2.195*** -0.142
Density construction sector	0.656*** -0.003	0.730*** -0.0138

Table 5. Probability of finding a job, by sex (survival exponential model, coefficients in exp(β) (form) *(concl.)*

Variables	Men	Women	Variables	Men	Women
Density commerce sector	1.011**	0.643***	Region VII	0.883***	0.854***
	–0.00527	–0.00442		–0.00245	–0.0031
Density transport sector	1.255***	1.176***	Region VIII	0.868***	0.897***
	–0.00854	–0.0128		–0.00196	–0.00279
Density finance sector	0.909***	1.180***	Region IX	0.960***	0.808***
	–0.00791	–0.0118		–0.00326	–0.00417
Density social and communal services	1.753***	0.633***	Region X	0.948***	0.980***
	–0.0115	–0.00431		–0.00267	–0.00365
Current wage	1.358***	1.066***	Region XI	1.209***	0.551***
	–0.00332	–0.00415		–0.0118	–0.0113
Average wage	0.844***	1.213***	Region XII	1.245***	0.552***
	–0.00203	–0.00476		–0.00885	–0.00402
Social security contributions	1.053***	1.135***	Household head	1.137***	0.992***
	–0.00229	–0.00322		–0.00185	–0.002
Training	1.025***	0.948***	Experience	1.623***	0.987***
	–0.00199	–0.00244		–0.00489	–0.00349
Union membership	0.892***	0.774***	Dependency ratio	0.989***	0.990***
	–0.0026	–0.00361		–0.000431	–0.000696
Region I	0.765***	0.612***	Only household member employed = 1	1.020***	0.934***
	–0.00497	–0.00447		–0.00145	–0.00174
Region II	0.610***	0.848***	Firm size: 1 worker	1	1.121***
	–0.00299	–0.00615		–0.00373	–0.0041
Region III	0.962***	0.576***	Firm size: 10–19 workers	1.281***	1.045***
	–0.00574	–0.00606		–0.00331	–0.00385
Region IV	1.058***	0.857***	Firm size: 20+ workers	1.335***	1.191***
	–0.00361	–0.00381		–0.00264	–0.00318
Region V	0.882***	0.826***	Constant	0.0421***	0.0180***
	–0.00205	–0.00258		–0.000633	–0.000359
Region VI	0.949***	0.875***	Predicted unemployment duration (months)	9.262155	10.597
	–0.00256	–0.00341			

* significant at the 10 per cent level;   ** significant at the 5 per cent level;   *** significant at the 1 per cent level.

ous job increases the probability of finding a job by 1 per cent for men and by 38 per cent for women. Similarly, having no contract in the previous job diminishes the probability of finding a job by 1 per cent for men and by 20 per cent for women. These results reinforce the point that women's employment tends to be more precarious.

One of the most striking results relates to how the type-of-contract density (i.e. the percentage of time worked under a particular type of contract) interacts with the last type of contract the worker had: all type-of-contract coefficients indicate a lower probability of exiting unemployment. These results show that a worker who has mostly been exposed to atypical contracts and whose previous job was also under an atypical contract has a lower probability of exiting unemployment than a worker who has not been so exposed. The same goes for those who were under an open-ended contract in their last job following an employment history dominated by open-ended contracts. However, this specialization effect is less damaging for those whose last contract was open-ended. And these results are similar for both women and men. It is interesting to compare this with our findings on the probability of losing a job. Our interpretation is that a worker who is used to working in atypical employment relationships is less likely to lose her job, but if she does, it will be harder for her to find a new one.

The role of wages in determining the probability of finding a new job is twofold. For both men and women, the wage earned in the last job has a positive effect on the probability of finding a job, whereas average wage has a negative effect for men and a positive effect for women. Nevertheless, in the case of men, it is the last-job wage effect which predominates over the average-wage effect.

Formality, proxied by social security contributions, has a positive effect on the probability of exiting unemployment for both men and women (by 5 and 14 per cent, respectively). However, having received vocational training in the last job has a small positive effect for men (increasing their probability of finding a job by 3 per cent), but a negative effect for women (−5 per cent). Having been a union member in the previous job actually reduces the probability of exiting unemployment. These findings confirm that although prior experience of formality helps in finding a job, the role of training and unionization is limited in terms of empowering workers in the labour market. In particular, trade unions do not seem to work as a "safety net" in helping workers to find a new job.

Finally, although the head-of-household effect is almost negligible for women, we find that it increases the probability of exiting unemployment for men by 14 per cent, possibly reflecting the urgency of finding a new job when they are head of their household.

Determinants of income capability

This section statistically assesses workers' ability to generate satisfactory levels of income, by estimating wage equations (and correcting for sample selection bias with the Inverse Mills ratio, as explained above). The main

Table 6. Probability of working: Selection equation estimation by sex (Probit model)

Variables	Men	Women
Years of primary education	0.0331***	0.000861
	−0.0128	−0.0139
Years of secondary education	0.0155	0.0702***
	−0.0162	−0.015
Years of tertiary education	0.0270***	0.0435***
	−0.00888	−0.00837
Experience	0.0180***	0.0243***
	−0.00528	−0.00515
Experience^2	−0.000671***	−0.000673***
	−9.14E−05	−9.72E−05
Household head	0.486***	
	−0.0494	
Number of children aged between 0–6 years old	0.112***	−0.341***
	−0.0397	−0.0332
Number of children aged between 7–14 years old	0.011	−0.177***
	−0.0298	−0.0254
Total household income	−6.47e−08*	−9.16e−08**
	−3.70E−08	−3.92E−08
Constant	0.407***	0.0746
	−0.112	−0.121
Observations	6889	6094

* significant at the 10 per cent level;   ** significant at the 5 per cent level;   *** significant at the 1 per cent level.

objective is to shed light on how the type of contract may affect workers' income capability.

Table 6 presents our preferred estimations of the probability of partici-pating in the labour market by sex, showing the significance of the variables "education" and "experience". Another distinctive characteristic of the selec-tion models is the importance of variables related to household composition. For both women and men, we consider the number of children between zero and six years of age, the number of those between seven and 14 years of age, and the total income of the household. Except in the case of men with children between seven and 14, these variables are statistically significant.[21]

In table 7 we present the results of the estimates of the wage equation by sex, corrected for selection bias as described above. The coefficients have the expected signs, but the results show up some differences between men and women. For example, the return to secondary education is higher for men, whereas the return to tertiary education is higher for women. The type-of-contract densities also show some gender differences. In fact, the density of open-ended contracts generally increases income levels, but significantly more so for women than for men (by 27 and 17 per cent, respectively). The density of atypical contracts has no significant effect for women, but a 10 per

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[21] The statistical significance of these variables is required for identification purposes with a view to the wage equation we estimate later on.

Table 7. Wage equation estimates corrected for selection bias
         (OLS Model, second stage)

Variables	Men	Women
Years of primary education	0.0304*** −0.00693	0.0152 −0.0101
Years of secondary education	0.0507*** −0.00716	0.0303*** −0.011
Years of tertiary education	0.0792*** −0.00394	0.0876*** −0.00516
Experience	0.0233*** −0.00283	0.0277*** −0.00343
Experience2	−0.000278*** −5.83E−05	−0.000477*** −6.85E−05
Density open-ended contract x (open-ended contract =1)	0.173*** −0.0252	0.267*** −0.0377
Density atypical contract x (atypical contract =1)	0.108* −0.0647	−0.0324 −0.0714
Density no contract x (no contract =1)	−0.629*** −0.0941	−0.740*** −0.0686
Density self-employed prof. x (self-employed prof. =1)	−0.455* −0.234	−0.591** −0.253
Density self-employed non-prof. x (self-employed non-prof. =1)	−0.572*** −0.0461	−0.804*** −0.0733
Density employer x (employer =1)	0.753*** −0.116	−0.0861 −0.151
Region I	−0.181*** −0.0544	−0.137* −0.0702
Region II	0.0359 −0.0495	0.0273 −0.0622
Region III	−0.0949 −0.0582	0.0689 −0.0826
Region IV	−0.197*** −0.0383	0.037 −0.0552
Region V	−0.133*** −0.0277	−0.184*** −0.0367
Region VI	−0.149*** −0.0373	−0.152*** −0.051
Region VII	−0.235*** −0.0332	−0.184*** −0.0465
Region VIII	−0.182*** −0.0255	−0.249*** −0.0362
Region IX	−0.434*** −0.0375	−0.234*** −0.0541
Region X	−0.123*** −0.0314	−0.0980** −0.0438
Region XI	0.0655 −0.0942	0.182 −0.121
Region XII	−0.0586 −0.0941	0.0853 −0.12

Table 7. Wage equation estimates corrected for selection bias
        (OLS Model, second stage) *(concl.)*

Variables	Men	Women
Incorrectly specified activities sector	0.0901	0.101
	−0.0966	−0.132
Agricultural sector	−0.214***	0.184*
	−0.047	−0.0976
Mining sector	0.334***	0.1
	−0.078	−0.418
Energy sector	0.108	−0.571
	−0.128	−0.534
Construction sector	0.0011	0.384**
	−0.0418	−0.174
Commerce sector	−0.0123	−0.00557
	−0.0439	−0.0663
Transport sector	−0.0136	0.167
	−0.0479	−0.105
Finance sector	0.0207	0.398***
	−0.0539	−0.0869
Social and communal services sector	−0.0827*	−0.158**
	−0.0454	−0.064
Density incorrectly specified activities	−0.308	0.841**
	−0.506	−0.361
Density agricultural sector	0.0201	−0.125
	−0.0545	−0.171
Density mining sector	0.277*	1.855
	−0.153	−2.154
Density manufacture sector	0.0827	0.151
	−0.0591	−0.0986
Density energy sector	0.517*	2.320**
	−0.266	−0.937
Density construction sector	0.279***	0.0846
	−0.0592	−0.295
Density commerce sector	0.0839	0.245***
	−0.0534	−0.063
Density transport sector	0.263***	0.329**
	−0.0694	−0.156
Density finance sector	0.410***	0.073
	−0.0862	−0.113
Density social and communal services	0.181***	0.389***
	−0.0521	−0.0489
Inverse Mills ratio	−0.529***	−0.0545
	−0.0976	−0.0897
Constant	11.71***	11.29***
	−0.0835	−0.137
Observations	5529	3419
R-squared	0.373	0.409

* significant at the 10 per cent level;   ** significant at the 5 per cent level;   *** significant at the 1 per cent level.

cent positive effect for men. However, the densities of "no-contract" and self-employment (both professional and non-professional) have negative effects on wages. In other words, experience gained under formal open-ended contracts is thus associated with higher wages, whereas experience gained from other types of employment carries no such wage premium.

Conclusions

The statistical analysis presented above highlights some important results. First, it shows how important open-ended contracts are to the overall employment conditions of workers. Such contracts are indeed associated with a lower probability of losing a job, a higher probability of finding a new one, and higher income levels. In short, open-ended contracts are key to generating better employment and income capabilities. Our findings also illustrate the significance of specialization in a particular type of contract. The capabilities of workers who have had open-ended contracts over a long period of time are further improved. The combination of these statistical results with our earlier finding that high levels of economic and employment growth do not necessarily increase the number of open-ended contracts highlights an important policy conclusion. Specifically, given the importance of open-ended contracts, public policy should focus on two strategies. On the one hand, it should aim to increase the proportion of open-ended contracts in the labour market. On the other, it should focus on eliminating the differences between contract types in order to reduce labour market segmentation, and disincentivize employment relationships designed solely to circumvent labour legislation.

To achieve this, it would be useful to combine regulatory reform with targeted incentives. For instance, to address the problem of *Multirut*, whereby employees are regularly rotated between different tax identification numbers, a simple solution would be to outlaw this practice. However, regulation requires effective oversight, for which Latin American States do not always have sufficient resources. One way of complementing regulatory reform, therefore, would be to disincentivize the repeated use of short-term contracts. This could be done by charging employers a higher rate of contribution to the unemployment insurance system at the beginning of any new employment relationship, and reducing the rate over time in line with employment duration. Ideally, such mechanisms should also be connected to appropriate and certifiable investments in vocational training.

Following the same principle, the labour market segmentation produced by severance pay regulation could be addressed by replacing severance pay with higher social security contributions – particularly for pensions and unemployment insurance – that would be mandatory regardless of the type of contract. Such contributions could also be structured degressively along the lines suggested above to address the practice of Multirut.

Beyond such specific policy options, we also have to consider the broader implications of highly segmented and precarious employment conditions. Pol-

icies that focus only on indicators related to the quantity of employment ignore the connections between employment conditions and social security systems, as well as between employment conditions and productivity levels.

As Latin American countries endeavour to move towards more equitable social security systems by increasing universal benefits that provide a minimum floor for workers, we have to consider that the cost of these benefits increases when employment conditions remain precarious. Workers who are frequently unemployed do not accumulate sufficient funds in their pension accounts to provide themselves with decent pensions, and will frequently find themselves not contributing to health insurance systems. Overall, workers in precarious employment will thus constitute a much greater fiscal burden than those with formal and stable jobs. Since Chile has long been Latin America's trendsetter in terms of labour market development, there is every indication that other Latin American countries will be following suit in this area as well.

Indeed, highly flexible and precarious labour market conditions ultimately present governments with two policy options: either to invest in universal benefits by increasing the fiscal resources devoted to them, or to undertake policies that will systematically incentivize the improvement of employment conditions. So far, most countries have focused on the former rather than the latter, particularly because labour reforms are ideologically charged and politically complicated. However, the Chilean case illustrates the increasing cost of this strategy, which is not automatically mitigated by economic growth.

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