



# Poor-Quality Employment and Regional Convergence

## Insights from Chile, 1996-2017

This paper proposes a multidimensional synthetic index for measuring the poor-quality employment (PQE) using the Alkire/Foster (AF) method. The results generated by this index highlight important differences between Chile's regions, but also a process of convergence, which has been mostly driven by regulatory changes and public policy rather than economic growth. The paper shows how much a synthetic index can contribute to regional analysis and how it can inform policy makers by focusing attention on the most vulnerable workers in regional labour markets.



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## Introduction

Both the quantity and the quality of jobs often vary significantly across regions. An extensive analysis has been undertaken in the economic geography literature on the relationship between economic growth and employment in the regions of different countries, noting the regional inequalities that are found. There is a consensus in this literature that variables such as (un)employment rates or wage differentials do not present a complete picture of how job characteristics differ across regions (Green and Livanos, 2015). However, in practice, this approach has led to very fragmented conclusions, making it challenging to get an overview of how and why particular regions are being affected more or less by precarious employment; how job quality interacts with the quantity of jobs; what drives these regional differences and which public policies or institutions improve job quality at the regional level.

This paper uses the Alkire-Foster method (2011) to generate a multidimensional index of poor-quality employment following Sehnbruch et al. (2020) to examine how regional labour markets have developed in Chile between 1996 and 2017. It uses the case of Chile because a recent quality-of-life study of the OECD's regions shows that 9 of Chile's 15 regions are among the 20 OECD regions that most improved their multi-dimensional standard of living between 2003 and 2012 (Veneri and Murtin, 2019). Yet, research also shows that regional disparities and inequalities remain significant in Chile (Aroca et al., 2018; OECD, 2018). Using household survey data, this paper provides some answers to how Multidimensional Employment deprivation has developed over time, and which regions have improved more than others and why.

In addition, this paper illustrates the usefulness of a synthetic multidimensional measure as it would not be possible to undertake such an analysis with separate indicators, also known as dashboards, such as those used for example by the OECD (2014). Without a synthetic measure, it

Finally, studies that use dashboard indicators do not permit an analysis of joint distributions over time. This means that policymakers cannot pinpoint the most vulnerable workers in a particular regional labour market or focus public policy resources on the most deprived.

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would be difficult to examine, first, how the quantity and the quality of employment are related; second, how Poor-Quality Employment (PQE) develops over time; third, which region is the most deprived within a country; and fourth, to analyse which factors are driving regional disparities.

This is particularly necessary in developing countries where all social policies are specifically targeted at the most vulnerable.





## Poor-Quality Employment

The index presented in Table 1 follows the methodology used by Sehnbruch et al. (2020). The measure brings together five variables (earnings, occupational status, tenure, social security affiliation, and excessive working hours) in three dimensions (labour income, employment

stability and employment conditions). It uses a deprivation cut-off line to determine whether a worker is deprived or non-deprived in each variable. A deprivation score is then constructed based on the weights specified in Table 1: equal weights are assigned to each

dimension, and equal weights are also assigned to each sub-dimension. Finally, a cut-off line of 1/3 is established to determine overall multidimensional deprivation across dimensions.

**Table 1: Dimensions, Indicators and Weights**

Dimensions (Weight)	Labour Income (1/3)	Employment Stability (1/3)		Employment Conditions (1/3)	
Indicator (Weight)	Income (1/3)	Occupational Status (1/6)	Tenure (1/6)	Social Security (1/6)	Excessive Working Hours (1/6)
Deprivation Cut-off	Less than 6 basic food baskets (monthly calculation)	No contract, Self-employed	Less than 3 years employed in current occupation. Individuals between the ages of 18 and 24 are not considered deprived in this indicator.	No contributions to the pension system	More than 45 hours per week
Population	All occupied individuals between the age of 18-65, who respond this variable				

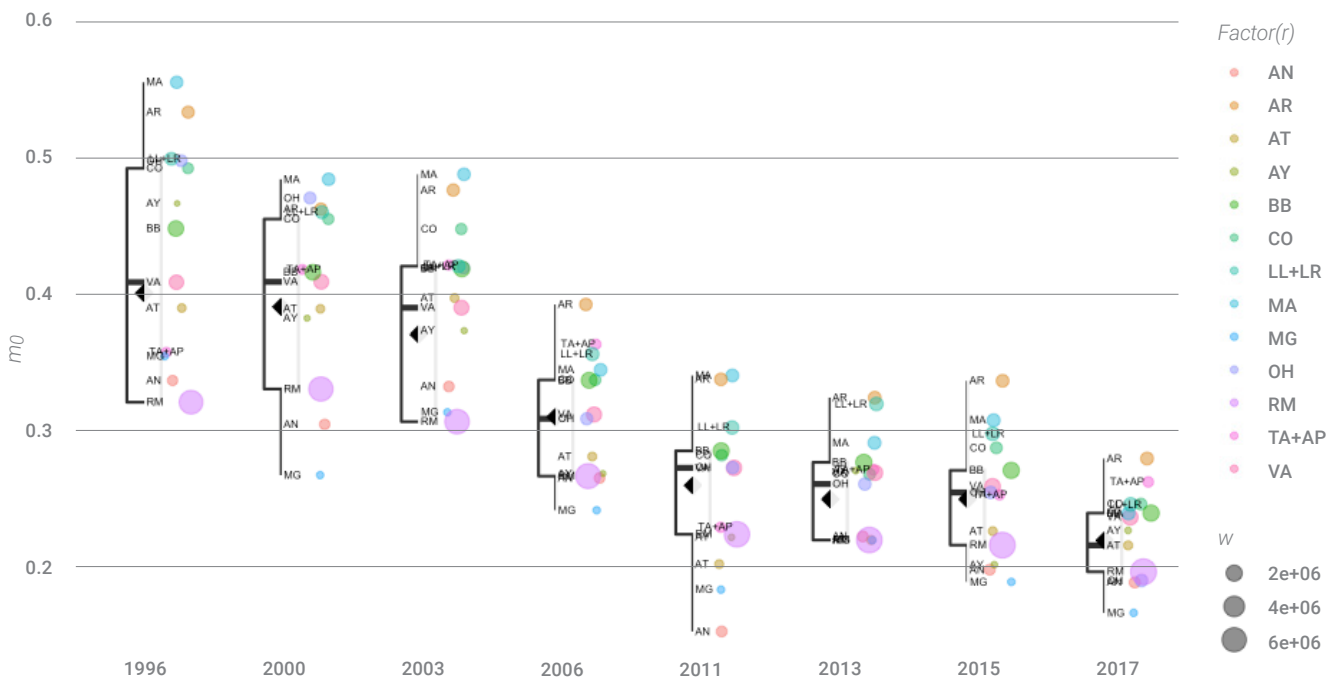
# Evidence and analysis

The Alkire-Foster method permits the calculation of a Headcount ratio (H), a measure (A) of how intensely a worker is deprived (whether in one, two or more variables), and then calculates an overall measure of poor-quality employment, called the Adjusted Headcount Ratio

( $M_0$ ). Figure 1 presents the national (black triangle) and regional results (coloured dots) of the index ( $M_0$ ) between 1996 and 2017. It shows that while the level of Poor-Quality Employment improved both at the national and regional level, there is still a significant degree of

heterogeneity between regions in terms of the extent of these improvements. Despite these variations, a convergence of regional results towards the national average can be detected over the period analysed.

**Figure 1: Changes over time QoE deprivation Index 1996-2017**



Source: Authors' calculations based on Casen data, 1996-2017.

To determine whether regional variations in QoE deprivation are due to economic growth, Figure 2 below plots the variation in Chile's regional annual GDP

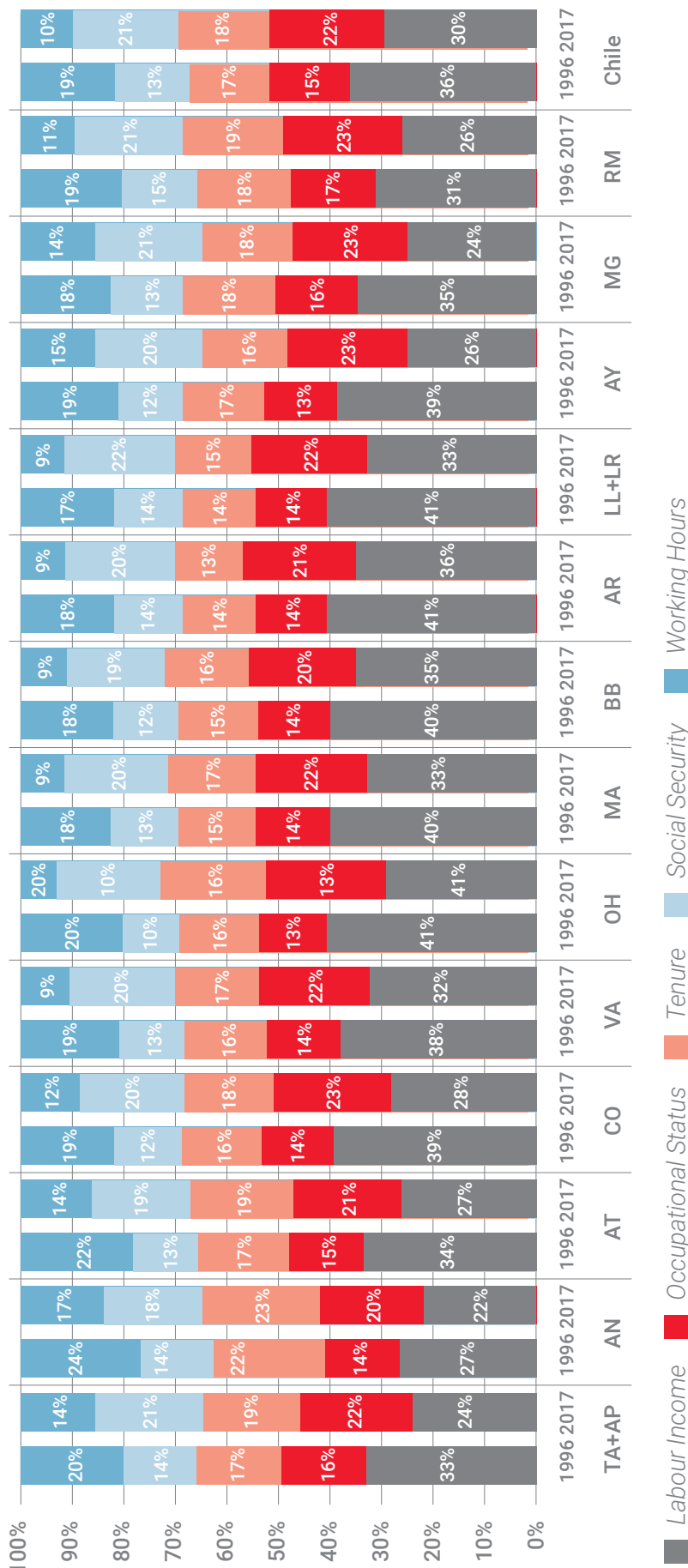
growth rates against the Poor-Quality Employment measure change. Over the period studied (1996-2017), regional growth does not seem to explain changes

in QoE deprivation. These results suggest a limited relationship between economic development (GDP per capita levels) and Poor-Quality Employment levels.

**Figure 2: Regional growth elasticity and the QoE deprivation index**



Figure 3: Percentage contribution to the QoE Index (M<sub>0</sub>) by region in 1996 and 2017



The analysis of dimensional contributions is one of the key features that distinguishes the AF method from traditional methodologies used to measure job quality such as dashboard indicators. Looking at which component of this measure contributes how much to the overall result is a particularly useful tool for policy makers as they can see on which variables they should focus policy efforts. When a dimension or variable contributes more to the overall level of Poor-Quality Employment than its respective weighting in the formulation of the index, then this means that policy attention should focus on improving this variable.

Figure 3 shows that the two variables that have contributed less to the index both at the national and regional level over time are income and excessive working hours. Conversely, the other three variables included in the index (occupational status, tenure and social security) have therefore increased in importance in terms of the contributions they make to poor-quality employment. This suggests that policy making urgently needs to focus on improving these outcomes.

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## Discussion

This measure of Poor-Quality Employment constitutes the first attempt to analyse how deprivation has evolved over time and across regions in a developing country by means of a single synthetic measure. By incorporating indicators such as occupational status, tenure, and working hours in this measure, it draws attention to those variables not usually considered by traditional measures of labour market performance. In particular, it shows that wages and hours worked have improved principally due to regulatory changes implemented at the national level, in particular the steady but significant increase of minimum wages. However, the results also show that policy issues such as formalising employment relationships, encouraging pension contributions and improving job stability have been neglected.

This measure offers new insights into the subject of Poor-Quality Employment (PQE). By demonstrating what this multidimensional measure can accomplish, it should foster the development of further national and regional indicators of this type in other

Latin American countries and help refocus policy debates that are still frequently stuck on traditional employment variables such as the unemployment rate or wage levels in countries where these indicators are meaningless. Most notably, it should challenge the assumption that economic growth and levels of Poor Quality

increasing numbers of intraregional migration, and the irruption of the gig economy in developing countries. There is a risk that all three challenges will focus policy attention on the quantity of jobs created while the quality of these jobs is relegated to the backburner. However, this would be a mistake. Indicators of job

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Employment are positively correlated. Looking to the future, it is important to consider how this measure can be used in times of economic crisis, significantly

quality should be closely monitored in conjunction with the quantity of jobs as the development of these two aspects may diverge significantly.

### Further reading

For a more detailed discussion of the arguments presented in this paper and a list of references, see the complete paper on which this policy brief is based:

**Apablaza, M., Sehnbruch, K., Méndez, R., & González, P. (2022)** “Regional Inequality in Multidimensional Quality of Employment (QoE): Insights from Chile, 1996-2017”. *Regional Studies* Vol 57:3, 416-433  
<https://www.tandfonline.com/doi/full/10.1080/00343404.2022.2093341>

