Poor-Quality Employment

Central America

Looking at labour market developments without considering the many different aspects of employment is too simplistic. By using methods for calculating poor-quality employment analysts can get a better sense of where to target resources and policy efforts to improve the lives of individual workers and their dependents.

Introduction

This paper measures the level of Poor-Quality Employment (PQE) in six Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama). The paper adapts the methodology used for Latin America by Sehnbruch et al. (2020) to the Central American case, where a comprehensive survey of employment and health conditions was undertaken in 2011: the *Encuesta Centroamericana sobre Condiciones de Trabajo y Salud,* ECCTS (Central American Employment and Health Conditions Survey)[1].

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[1] *The survey questionnaire of the ECCTS is based on the European Working Conditions Survey, as well as on the ILO's guidelines on Occupational Injury Statistics and its 12-item General Health Questionnaire (Benavides et al., 2014) and was designed specifically to measure employment conditions at the individual level. The survey is representative at the national level for each country.*

The survey data used for this paper is one of its distinguishing features: Sehnbruch et al. (2020) and other papers use standard household or labour force surveys to measure employment deprivations. However, these surveys contain very few variables on employment conditions, namely earnings from work, occupational status, job tenure, social security contributions and excessive hours worked. By contrast the ECCTS also includes data on unemployment risk, work intensity, posture -related risk and other physical risks. This paper therefore presents an example of how a measure of multidimensional employment deprivations can be constructed across a set of developing countries when more detailed data is available, and therefore illustrates the advantages of having access to such information.

As detailed in Table 1, the paper uses a dual cut-off approach to measure four dimensions of employment deprivations in the region: labour income, employment stability, employment security, and employment conditions. The measure thus follows the same methodology of Alkire and Foster (2011) that has previously been used in papers on multidimensional poverty and employment deprivations. This method is particularly relevant to policymakers in Central America, where several countries already use multidimensional poverty indicators to guide social policies.

The paper highlights the contribution that such a measure can make to the discussion of labour markets in developing countries. In particular, the contribution that particular dimensions and indicators included in this measure make to its overall results are analysed, as well as the overall distribution of deprivations, in particular as it relates to urban and rural workers as well as to men and women.

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The Multidimensional Measure of Poor-Quality Employment (PQE)

This multidimensional measure assesses employment deprivations for individuals in six different Central American countries according to four dimensions, summarised in Table 1: labour income, employment stability, employment security and employment conditions. These four dimensions summarise the specific variables: earnings, tenure, unemployment risk, social security, occupational status, excessive working hours, high work intensity, high posture-related risk and high physical risk. For each of these variables, a deprivation cut-off line is established based on the existing literature that examines which dimensions of employment conditions are important. Each worker is then categorised according to whether he or she is deprived or non-deprived in each indicator, and a deprivation score is constructed based on the nested weight structure specified in Table 1: equal weights are assigned to each dimension, and equal weights are also assigned to each sub-dimension. Finally, a multidimensional cut-off line of 0.5 is established to determine overall multidimensional deprivations across dimensions.

Table 1: Dimensions, Indicators and Weights

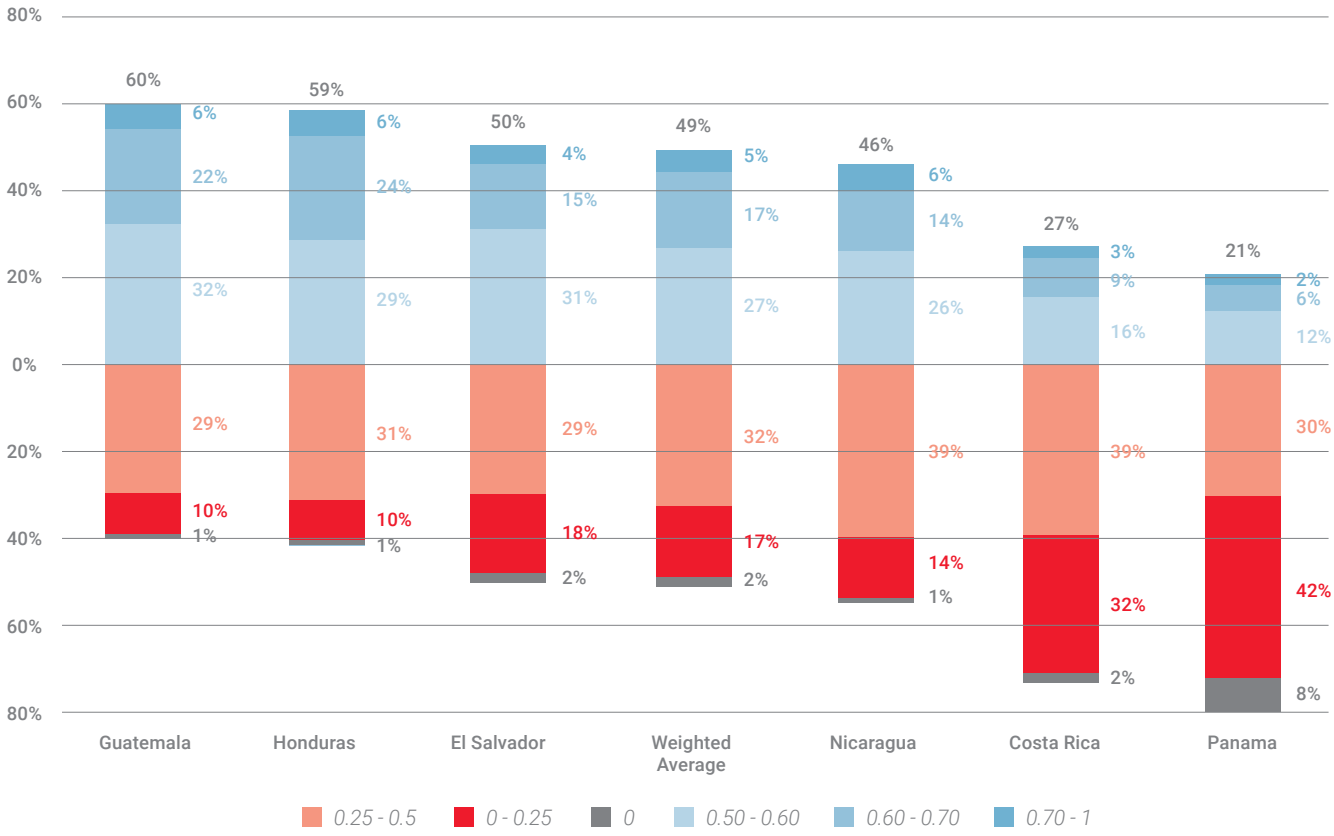
Dimensions	Indicator	Cut-offs (A individual is deprived if...)	Weight
Labour Income	Earnings	Income is lower than 6 times the national Basic Food Basket (Using ECLAC data)	1/4
Employment Stability	Tenure	Less than 36 months in the current job	1/8
	Unemployment Risk	Having been unemployed at least once during the previous 12 months	1/8
Employment Security	Social Security	No affiliation to a social security system	1/8
	Occupational Status	Self-employed without higher education or employed without a contract	1/8
Employment Conditions	Excessive Working Hours	Works more than 48 hours per week	1/16
	High Work Intensity	Frequently experiences at least two labour demands in the following dimensions: 1) working at very highspeed during more thanhalf of the workday, 2) working to tight deadlines more than half of the workday or 3) not having enough time to finish tasks	1/16
	High Posture Related Risk	Experiences at least two labour demands for more than half of the workday in the following aspects: 1) working in a tiring and painful position 2) carrying or moving heavy loads or 3) performing repetitive movements	1/16
	High Physical Risk	Experiences at least one labour demand related to the working environment for more than half of the workday in the following aspects: 1) exposed to high noise or 2) exposed to extreme temperatures	1/16

Note: *Population: All workers aged 18 or older, who respond to all component variables of the measure.*
Source: *authors' calculations based on ECCTS survey data from 2011.*

Evidence and analysis

Based on the Alkire-Foster method, each worker's deprivation profile is assigned a score, which reflects their simultaneous deprivations. Figure 1 shows how these scores are distributed within each country. The 0% marker in Figure 1 represents the 50% cut-off (k>=0.5). Individuals who are above this cut-off line are deprived with the graph illustrating their particular degrees of deprivation, while those below the line are not. The graph shows that Guatemala, Honduras and El Salvador have a higher percentage of deprived workers than the Central American weighted average. Nicaragua, Costa Rica and Panama have lower percentages of deprivation. In all countries, most of the deprived individuals are closer to the cut-off line, showing that only very few workers are deprived across all dimensions and therefore have higher scores (ci=[0.7,1]). Conversely, extremely few workers in the countries have perfect scores that show they are not deprived in any dimension or indicator. Only Panama has a percentage of workers with perfect scores that exceeds 5%.

Figure 1: Distribution of Deprivation Scores



Source: *authors' calculations based on ECCTS survey data from 2011.*

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 deprivation, called the Adjusted Headcount Ratio (M_0). Table 1 presents these measures for the six countries considered in the ECCTS survey in 2011, considering a 50% cut-off. The results show that levels of poor-quality employment vary substantially between Central American countries. Overall, Guatemala and Honduras present the highest H ratios, followed by Nicaragua and El Salvador, with Costa Rica and Panama showing the lowest levels of deprivation. Despite significant differences in the H ratios between countries, the range of the results in terms of the intensity of deprivation (A) is lower across the countries studied. This means that in all countries studied those workers, who are deprived in terms of their H ratios, are relatively equally deprived in terms of the number of indicators in which they are deprived.

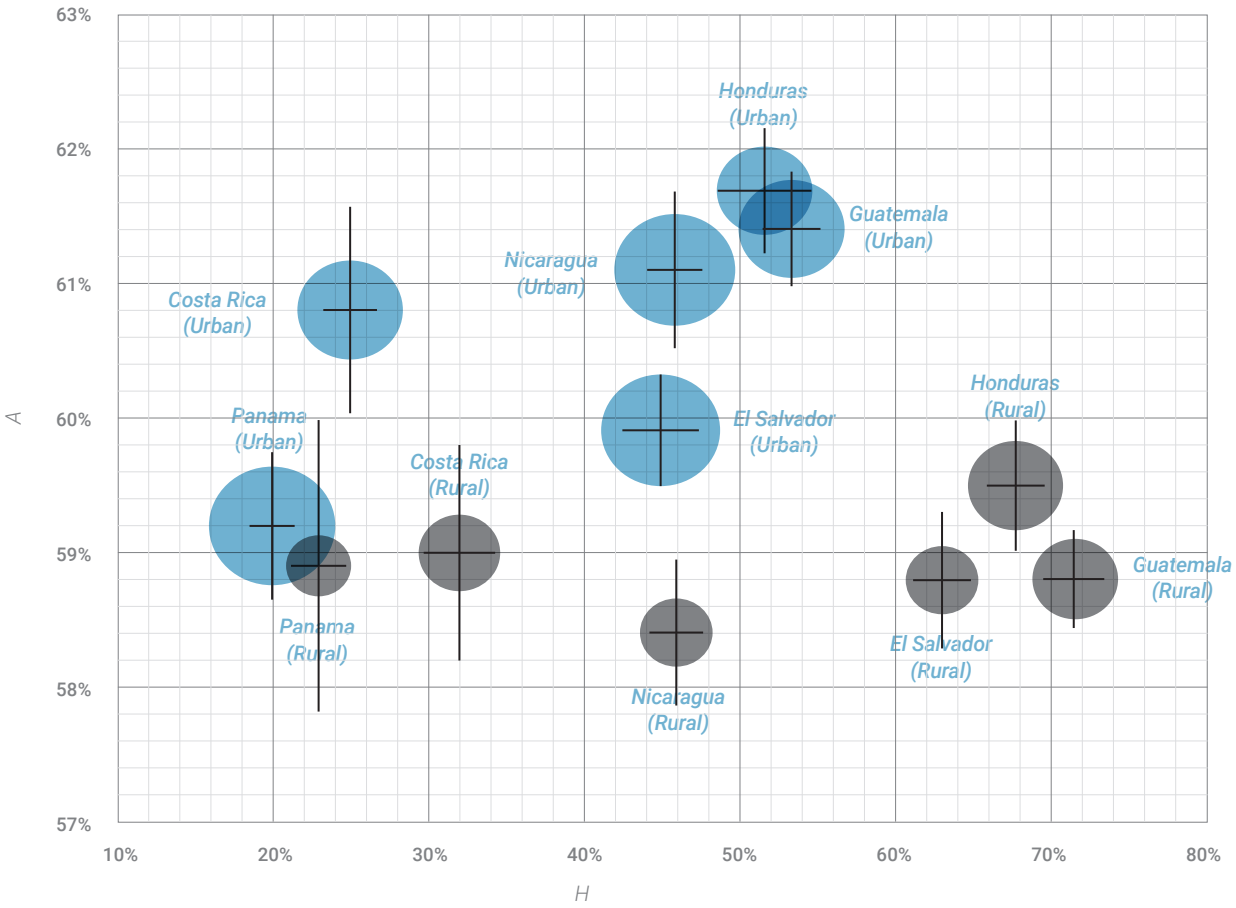
Table 1: Multidimensional Employment Deprivations by Country: Headcount Ratios (H), Intensity Ratios (A) and Deprivation Measure (M_0)

	Guatemala	El Salvador	Honduras	Nicaragua	Costa Rica	Panama
Headcount Ratio (H)	60.1%	50.4%	58.6%	45.7%	27.4%	20.6%
	(0.015)	(0.0217)	(0.018)	(0.013)	(0.015)	(0.012)
Average Intensity Share (A)	60.2%	59.5%	60.6%	60.1%	60.0%	59.1%
	(0.003)	(0.003)	(0.003)	(0.004)	(0.005)	(0.005)
Adjusted Headcount Ratio (M_0)	0.362	0.299	0.355	0.275	0.164	0.122
	(0.009)	(0.0128)	(0.014)	(0.008)	(0.009)	(0.007)

Note: *Standard errors in parentheses.*
Source: *authors' calculations based on ECCTS survey data from 2011.*

An advantage of this measure is that it shows how different deprivations are distributed among particular groups of workers. Figure 2, for example, presents the results for H and A by rural and urban areas and illustrates the patterns that emerge. In general, and compared to their urban counterparts, workers in rural areas are significantly more deprived in terms of their overall H ratio, while urban workers rank worst in terms of their intensity (A) ratios.

Figure 2: H and A for Urban and Rural subgroups



Source: *authors' calculations based on ECCTS survey data from 2011. The bubble size represents the percentage of urban or rural population within countries. Confidence intervals are represented by the crossed lines.*

Overall, one question that emerges from this type of analysis is whether this measure of poor-quality employment adds value to existing measures, such as the World Banks's definition of vulnerable employment (see Table 1 in this paper). A quick comparison of the H ratios produced by the measure shows that this index generates a greater percentage of deprived workers than the vulnerable employment rate. This prompts the question of why the H ratio is so much higher. Further analysis of the data presented in Figure 3 below provides a clue: as the definition of vulnerable employment includes only self-employed workers and non-remunerated family members, it implicitly assumes that formal salaried workers (not included in this definition) are not vulnerable in terms of their status in the labour market. Figure 3 shows that a significant number of workers with formal written contracts – both open-ended and fixed term – have such poor employment conditions overall that they are considered deprived by this index.

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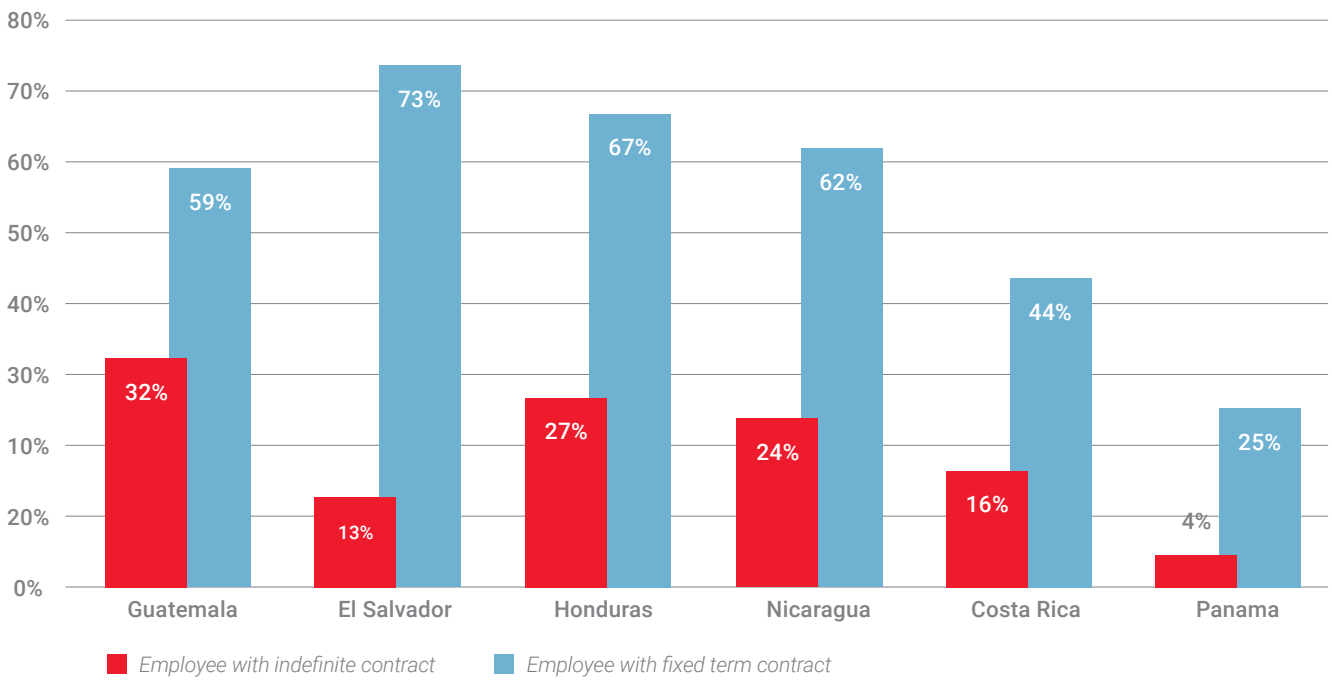
For instance, in Guatemala, 32% of the employees with indefinite contracts are considered deprived by this indicator. In Honduras and Nicaragua, nearly 1 out of 4 workers with indefinite contracts are deprived. In the case of workers with fixed-term contracts, the results are unambiguously worse. In El Salvador 73% of these workers are deprived, while in Guatemala, Honduras and Nicaragua this figure is above 59%. Even in Central America's best case scenario, Panama, a quarter of workers with fixed-term contracts turn out to be deprived according to our measure. These workers would not be considered deprived by traditional definitions of vulnerable employment.

Figure 3: Percentage of people with low quality of employment among employees with indefinite and fixed term contract by country

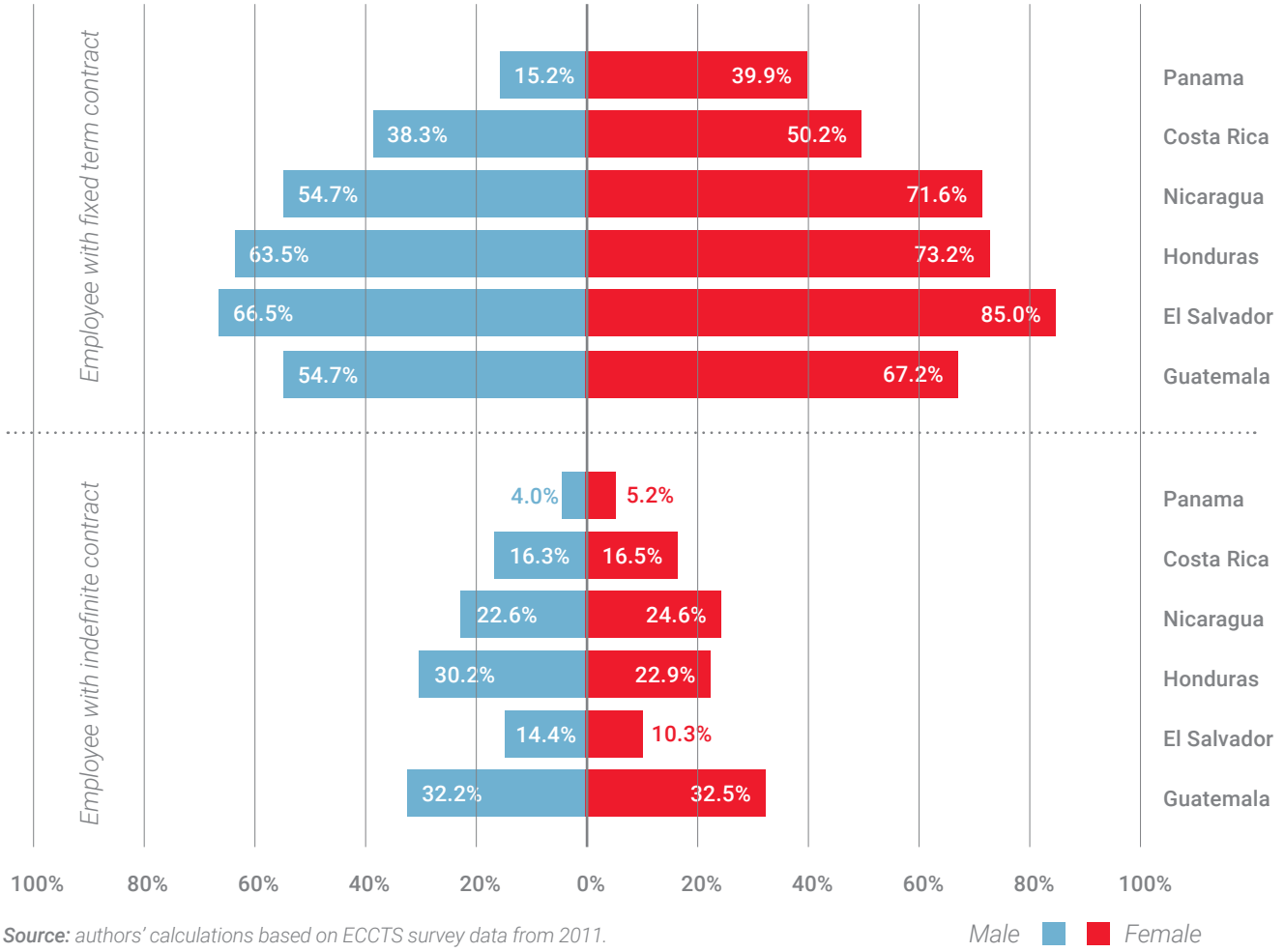


Source: *authors' calculations based on ECCTS survey data from 2011.*

An even more complex picture emerges if we consider how contracts and employment deprivation are distributed between men and women in the labour market. While the results presented in Figure 4 show that the proportion of workers with open-ended contracts who are deprived are equally distributed between men and women, with two countries (Honduras and El Salvador) even having lower levels of deprivation among women with open-ended contracts, the opposite picture emerges when we consider fixed-term contracts. Among this group of workers, women are significantly more deprived than men, even in the most developed countries of the region, Costa Rica and Panama.

[7] *This paper uses vulnerable employment as a definition for comparative purposes as the ILO's definitions of the informal sector have changed over time, and could not be replicated with data from this survey.*

Figure 4: Percentage of people with low quality of employment among employees with indefinite and fixed term contract by sex & country.



Source: *authors' calculations based on ECCTS survey data from 2011.*

Policy Implications and Conclusions

This research uses a multidimensional measure based on the Alkire Foster method to highlight how employment deprivations can be measured across countries and how such a measure changes our perspective of the labour market. In particular, such a measure leads to important policy conclusions such as the result that multidimensional deprivations levels are significantly higher than measures of vulnerable employment or that specific groups of workers, e.g. women with short-term contracts, suffer disproportionately higher levels of deprivation. Traditionally, analysts implicitly assume that salaried employees with formal written contracts are not vulnerable workers with precarious jobs. However, the results from this deprivation measure show this assumption is incorrect.

The inclusion of dimensions other than income in a measure of employment deprivations increases our understanding of labour market developments in Central America and provides policy makers with a clearer understanding of where resources and policy effort should be focused. For example, greater efforts should be devoted to ensuring that workers contribute to social security systems. However, a prerequisite for generating such an understanding is the availability of comparable data on employment conditions other than income. This is an important caveat as labour and household surveys in the region do not include comparable questions on employment conditions such as, for example, unemployment risk, physical or posture risks or work intensity. Employment surveys such as the European Working Conditions Survey, adapted by the *Encuesta Centroamericana sobre Condiciones de Trabajo y Salud (ECCTS)* to Central America, should become standardised methods of data gathering. Without this, a substantial information gap on employment conditions in the context of developing countries will persist.

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:

González, P, Apablaza, M., Sehnbruch, K., Méndez, R., & Arriagada, V. (2021). A Multidimensional Approach to Measuring Quality of Employment (QoE) Deprivation in six Central American Countries. Social Indicators Research, Vol. 158(1): 1-22