Special Issue Article

Global Social Policy
2023, Vol. 23(1) 67–91

DOI: 10.1177/14680181211070201
journals.sagepub.com/home/gsp
SAGE

Inequality in labour market opportunities for people with disabilities: Evidence for six Latin American countries

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Abstract

In Latin America, approximately 70 million individuals live with a disability. Although global evidence suggests that people with disabilities are one of the poorest groups and present lower employment rates, the evidence for Latin America is still weak. This article aims to contribute to the literature by estimating and analysing the levels of employment opportunity for persons with disabilities in six countries in Latin America (Chile, Bolivia, Mexico, Peru, Colombia, and Costa Rica). Using household survey data, we measure inequality of opportunities using the Paes de Barros approach and compare the probability distributions of being employed for people with disabilities according to different individual characteristics. This research makes several contributions to the literature. First, it analyses and compares the characteristics of persons with disabilities in six countries of the region. Second, it is the first paper in the region that computes and compares the levels of employment opportunities for persons with disabilities, using the Human Opportunity Index. Third, it analyses which are the main aspects contributing to the levels of employment opportunities for persons with disabilities in each of the countries. The main results of the study reveal that people with disabilities face high levels of inequality of employment opportunity compared with people without disabilities in the six countries. Peru shows the lowest disadvantage, with higher coverage of opportunities for people with disabilities. Colombia and Costa Rica were the countries where this group presents the largest disadvantages to be employed. In

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addition, women with disabilities and people with disabilities living in rural areas have a lower probability of being employed compared with people without disabilities. These findings reveal that policies in the region aiming to include this group in the labour market have not been effective, and there is a necessity to guarantee the proper labour inclusion of this group.

Keywords
Disability, employment, inequality of opportunities, Latin America, social inclusion

Introduction

Disability is a complex situation that affects individuals and families. It is estimated that 15% of the population around the globe live with a disability (World Health Organization and The World Bank, 2011) and that this percentage increases in low- and middle-income countries (LMIC) (Mitra and Sambamoorthi, 2014). According to the Economic Commission for Latin America and the Caribbean (ECLAC), 2014), around 13% of people with disabilities live in Latin America, which is approximately 70 million individuals in the region. This percentage is higher in Brazil and lower in Mexico, with 23.9% and 5.1%, respectively (ECLAC, 2013). In most countries, the largest percentage of people with disabilities is in the age group over 65 years. However, an important percentage of this group is of working age; therefore, they are part of the potential workforce of a country (González and Stang, 2014; Schkolnik, 2011; Stang Alva, 2011).

The Sustainable Development Goals (SDGs) recognise persons with disabilities as a vulnerable group and highlight the importance of disaggregating data by disability status (United Nations (UN), 2015). Goal 8 explicitly mentions the need to guarantee employment inclusion of people with disabilities, recognising their capacities, in equal pay for work of equal value (Target 8.5). This goal has two indicators that explicitly include disability, which are related to average hourly earnings and unemployment rate. The inclusion of persons with disabilities in this goal contributed to increasing awareness of the need to include people with disabilities in social policies intended to guarantee access to good quality jobs. In addition to the SDGs, article 27 of the Convention on the Rights of Persons with Disabilities (CRPD) emphasises the importance of protecting the human right of employment for people with any type of disability (UN, 2007).

Despite the increase in the recognition of the importance of including persons with disabilities in the labour market, this group continues to experience one of the lowest employment rates in the world and in Latin America. In addition, most people with disabilities who are working are in fact self-employed and usually do not have access to social security (Hall et al., 2013; Jones and McVicar, 2020; Lamichhane and Okubo, 2014; Mizunoya and Mitra, 2012; Sevak et al., 2015; UN, 2018).

By focusing on six countries of Latin America (Bolivia, Chile, Colombia, Costa Rica, Mexico and Peru), this article aims to compute and compare the level of employment opportunity for people with and without disabilities in each country. The main research questions that this article addresses are: what are the levels of employment opportunity

that people with disabilities face in each country? Are there important differences between counties? And are those differences related to other individual characteristics, such as age or sex? To respond to these questions, we first compute the Human Opportunities Index (HOI) developed by Paes de Barros et al. (2008) and then we compare between countries to identify differences in the levels of coverage and dissimilarity.

This article makes several contributions to the literature. First, it analyses and compares the characteristics of persons with disabilities in six Latin American countries. Second, it is the first paper in the region that computes and compares the levels of employment opportunity for persons with disabilities using the HOI. Third, it analyses which are the main causes of the low levels of employment opportunity for persons with disabilities and how those compare to the opportunities afforded to persons without disabilities.

The article is organised as follows. The next section briefly introduces the theoretical framework, situating the concept of disability and the experiences of persons with disabilities in the Latin American region. Then, the methodology is introduced, and the results of the study are presented. The final section discusses the findings and makes conclusions.

Disability, poverty and employment in Latin America

According to the Convention on the Rights of Persons with Disabilities, a person with a disability is an individual with a long-term physical, mental, intellectual, or sensory impairment that interacts with different barriers that affect their successful participation in a society with equal opportunities (UN, 2007). In this context, disability is a social construction, which results from the interaction of a limitation with a society that does not guarantee the equitable access to opportunities and social services, including access to health, education, employment and social participation (Oliver, 2013).

In Latin America, all countries have signed and ratified the Convention on the Rights of Persons with Disabilities and all Latin American countries with the exception of Colombia and Belize have also signed and ratified the Optional Protocol to the Convention (UN, 2021). This is one important step towards guaranteeing the rights of this group in the region. However, in spite of this, people with disabilities continue being one of the most vulnerable groups experiencing high levels of income and multidimensional poverty (ECLAC, 2019; Mitra, 2018; Mitra et al., 2013; Pinilla-Roncancio, 2018; Pinilla-Roncancio and Alkire, 2021), and also facing several barriers in access to health care, education and employment (ECLAC, 2014, 2019).

Although there is no official estimation of the percentage of persons with disabilities living in poverty in the region, the evidence suggests that their levels of poverty are higher than those of persons without disabilities (ECLAC 2019; Pinilla-Roncancio, 2018). In addition, they experience higher levels of deprivation in access to basic services and opportunities, an aspect that reduces their chances to overcome poverty and increases their risk of impoverishment and chronic poverty (Pinilla-Roncancio, 2018; UN, 2018).

As in other regions of the world, people with disabilities in Latin America face fewer opportunities in health, education, employment and social participation (González and Stang, 2014; UN, 2018). This lack of access is associated with discrimination towards people with disabilities and the assumption that this group does not have the same capabilities as a person without disabilities (ECLAC 2017; Trani et al., 2015). Also, there is a belief that the costs associated with the social inclusion of this group are higher than the benefits obtained for it.

In the context of access to decent work, people with disabilities usually face disadvantages related to their lower levels of education, lack of training, and attitudinal and physical barriers of employers and work places (Abidi and Sharma, 2014; ECLAC, 2019; Mizunoya and Mitra, 2012). These aspects have direct effects on the number of persons with disabilities willing to participate actively in the labour market and able to obtain good quality employment. Given that it has been established that access to good quality employment or decent work is one of the most effective ways to break the cycle of poverty and disability (Abidi and Sharma, 2014; ECLAC, 2017), the lower access to employment that this group faces increases the risk of chronic poverty for people with disabilities and their families.

Latin America is characterised as the most economically unequal region in the world, with high level of income inequality (ECLAC & ILO, 2016). In addition, the region has a high percentage of the population working in the informal labour market (ECLAC, 2019). Therefore, in most countries, more than 60% of the working age population do not contribute to a pension system (International Labour Organisation (ILO), 2021) and in some countries access to health care is only guaranteed for those who have a formal job (Mesa-Lago, 2007; Mesa-Lago, 2008). In addition, the distribution of employment opportunities is unequal in the society in general, that is, evidence shows that individuals with higher education opportunities are the group usually employed in the formal sector with better earnings and job conditions (ECLAC & ILO, 2019).

In the context of Latin America, only a few studies have analysed the level and quality of employment for people with disabilities (González and Stang, 2014; Instituto, Nacional, de, Estadísticae, and Informática, 2014; Paz-Maldonado, Silva-Peña, 2020; Yrigoyen, 2013). In most Latin American countries with data available, people with disabilities have lower levels of education and a higher percentage live in rural areas or in the poorest regions of the countries (ECLAC, 2014; Pinilla-Roncancio, 2018). In addition, people with disabilities participating in the labour market are usually self-employed and do not have social security benefits, such as access to a pension, maternal leave and paid holidays. Furthermore, they are more likely to have low-paying, informal and unstable jobs (ECLAC, 2019). The employment ratio of people with disabilities in the region is on average 31% compared with 58% for people without any type of disability (UN, 2018). In the region, important differences exist between countries, for example, the employment gap for people with disabilities ranges from 15% in Brazil to 31% in Uruguay (ECLAC, 2021). The situation is more complex for women with disabilities who usually face a double discrimination burden (disability and sex) and experience lower employment rates compared with women without disabilities and men with disabilities (ECLAC, 2019).

Most Latin American countries (except for Argentina) have at least some legislative prohibitions of workplace discrimination based on disability. However, in Colombia, Venezuela, Bolivia, Argentina, Paraguay and Uruguay, there is no legislation to guarantee reasonable accommodation to workers with disabilities and in most of the Latin American countries, there is no legislation prohibiting indirect discrimination on the basis of disabilities (Paz-Maldonado, Silva-Peña, 2020).

Furthermore, social assistance programmes for persons with disabilities are scarce in the region. In countries such as Brazil and Mexico, where social assistance transferences for persons with disabilities exist, the fulfilment of the condition of not participating in the labour market is mandatory to obtain the benefit. This aspect disincentivises the labour market participation of people with disabilities. In these cases, people with disabilities are forced to decide between working or receiving social transfers in the countries where this benefit exists (Pinilla-Roncancio, 2015).

Although the number of policies protecting the right of employment for people with disabilities in the region has increased in the last decade, in most countries contradictions exists in their legislation. For example, in most countries who have signed and ratified the Convention have legislation to protect the rights of people with disabilities based on a human rights perspective. Some countries have also enacted legislation against discrimination, where people with disabilities are one protected group (e.g. Mexico and Costa Rica). However, in most countries still there is a contradiction on how to define and identify who is disabled. Indeed, countries such as Colombia, Ecuador and Bolivia still define disability in their labour market regulation as a incapacity to work, aspect that limits the inclusion of people with disabilities in equal opportunities and in most cases exclude them from the labour market (Pinilla-Roncancio, 2015; Pinilla-Roncancio and Rodriguez Caicedo, in press). In addition, although countries have started to implement a certification process, which follows the suggestions made by the Convention, in all cases the implementation has been difficult and the medical model of disability continues to play an important role.

In this context, given the high levels of informal employment in the region, the lack of policies that properly guarantee the inclusion of persons with disabilities in the labour market, and also the barriers that persons with disabilities face to actively participate in the labour market, it becomes fundamental to analyse the equity of opportunities to being employed for persons with disabilities and compare those with the ones of persons without disabilities. This will allow a better understanding about the levels of disadvantage of this group and identify if there are countries that have advanced in the proper inclusion of persons with disabilities in the labour market.

Methodology

Data sources

Six countries were selected as part of this study: Bolivia, Chile, Colombia, Costa Rica, Mexico and Peru. The selection of the cases was based on the existence of comparable questions on disability and information on employment status. Surveys were conducted in 2016 and 2017 and are representative at the national level including both rural and

urban areas. All surveys were representative at the national level and for rural and urban areas. In all cases, the surveys were collected by the National Statistics Office in each country and are the main source of information for poverty statistics. In all countries, the surveys included in the analysis are used as one of the main sources of information to monitor the achievement of some of the SDG, and in the case of Chile, Costa Rica and Mexico, the surveys are also the source of employment statistics.

Definition of disability

In Colombia, Chile and Bolivia data on disability were collected following the suggestions made by the Washington Group on Disability Statistics (WG). In these countries, information on this topic was collected by asking each household member about the existence of limitations or difficulties related to six domains suggested by the WG as the four-level severity scale. In Costa Rica, Peru and Mexico, disability information was collected using yes and no questions related to limitations to walking, hearing, seeing, communication, understanding, or activities of daily life.

Aiming to improve comparability, we define a person with disability as a person who lives with at least one limitation. In cases where the severity scale was used, we classified people with disabilities as those who reported not to be able to do one activity or to have severe limitations (Table 1 presents the percentage of people with disabilities in each country and the absolute number). Given that the main objective of this article is to analyse the equity of employment opportunities, we limited our sample to individuals aged 18 to 60 years; the age group that is considered as economically active in the countries included. In addition, in Colombia, Bolivia and Chile we conduct the analysis for defining disability as a person who lives with a mild, or a severe functional limitation or who reported no being able to conduct at least one of the activities included in the survey.

The Human Opportunity Index

The Equality of Opportunities (EO) approach was developed by Roemer (1998), based on the philosophical conception of normative justice (Dworkin, 1981a, 1981b; Rawls, 1971; Sen, 1979). According to this approach, there are two main sources of inequality: circumstances and efforts. In a society that enjoys EO, the circumstances should not affect the individuals' achievement, and only effort should be the relevant factor that determines inequalities in the individuals' welfare outcomes. In this context, in a society of full EO the circumstance of living with a disability should not affect the individuals' opportunities.

Different empirical methodologies have been proposed for measuring inequality of opportunities for a welfare outcome computed by a metrical variable (e.g. Lefranc et al., 2008, 2009; Roemer, 1998; Roemer et al., 2003). However, our research is focused on a binary outcome (to be employed or unemployed). This is the reason why we use the Human Opportunity Index (HOI), which is an index that allows measuring inequality of opportunity in the case of a categorical welfare variable.

The HOI Index proposed by Paes de Barros et al. (2008) is based on a dissimilarity index D widely applied in sociology, which is equal to a weighted average of the

Table 1. Percentage of people with disability per country.

Country	Survey	year	Total sample	People with disability	Percentage	People without disability
Bolivia	Household Survey[a]	2017	22,004	258	1.17%	21,746
Chile	National Socioeconomic Characterization Survey[b]	2017	136,945	8,311	6.07%	128,634
Colombia	National Quality of Life Survey[c]	2016	44,944	1,689	3.76%	43,255
Costa Rica	National Household Survey[d]	2017	22,215	1,059	4.77%	21,156
Mexico	National Household Income and Expenditure Survey[e]	2016	152,198	9,323	6.13%	142,875
Peru	National Household Survey[f]	2017	71,431	2,370	3.32%	69,061

The original names of these surveys in Spanish are: Encuesta de Hogares (Bolivia), Encuesta de Caracterización Socioeconómica Nacional (Chile), Encuesta Nacional de Calidad de Vida (Colombia), Encuesta Nacional de Hogares (Costa Rica), Encuesta Nacional de Ingresos y Gastos de los Hogares (Mexico), Encuesta Nacional de Hogares (Peru).

[a]http://anda.ine.gob.bo/index.php/catalogue/84

[b]http://observatorio.ministeriodesarrollosocial.gob.cl/encuesta-casen

[c]https://www.dane.gov.co/index.php/estadisticas-por-tema/pobreza-y-condiciones-de-vida/calidad-de-vida-ecv

[d]https://www.inec.cr/encuestas/encuesta-nacional-de-hogares

[e]https://www.inei.gob.pe/estadisticas/encuestas/

[f]https://www.inegi.org.mx/temas/ingresoshog/.

probability gaps of the types $i = 1, 2, ..., I$ relative to the average chance to get the welfare target ω in a population. This dissimilarity index is defined as follows

$$D = \frac{1}{2}\sum_{i=1}^{m} \gamma_i \frac{|p_i - \bar{p}|}{\bar{p}} \quad (1)$$

The weights γ_i are the relative share of each type i in the population, p_i is the probability of access to the welfare target in question, conditioned to the vector of circumstances x_i ($p_i = p(x_i)$) and $\bar{p}$ is the average of this probability ($\bar{p} = \frac{H}{N}$, where H, is that the total availability of this welfare target in the population and is N the size of the target population). The dissimilarity index is defined in an interval $[0,1]$, that is when all opportunities are equally distributed, the index is worth zero, while in the event of maximum inequality the index is worth one. D measures should be interpreted as the fraction of all available opportunities that must be redistributed from advantaged to disadvantaged groups to achieve equality of opportunity between all groups.

The HOI is an index which is built in analogy with Sen's welfare function because it takes the average opportunity in the population (coverage) and subtracts the dissimilarity welfare loss (dissimilarity). The HOI index is defined as follows

$$HOI = \bar{p}(1 - D) \quad (2)$$

To calculate the *HOI*, an econometric estimation of p_i should be performed. We use a logistic regression model to fulfil this goal. We computed the decomposition for the differences in the *HOI* between groups, which was introduced also in Paes de Barros et al. (2008). This decomposition allows us to distinguish between the 'scale' and 'distribution' effects of a difference in the *HOI* between two groups: the difference in human opportunities due to the distributive component and due to the scale component. The scale component reflects the differences in mean opportunities given the dissimilarity observed in the baseline or reference group, which in this case is the group zero (people without disability). While the difference in the distributive component should be interpreted as the difference in inequality given the mean opportunity of group one (people with disability).

Estimation strategy

The probability of access to the target advantage under study (being employed) is estimated through a logistic regression model. We estimate an equation for each country sample based on the following specification

$$\ln\left(\frac{p_i}{1 - p_i}\right) = \alpha_0 + \alpha_1 d_i + \gamma w_i + \eta w_i z_i + \beta \mathrm{x}_i + \delta d_i \mathrm{x}_i \quad (3)$$

In the above equation, p_i is the probability that person i aged 18 to 60 is employed. The explanatory variable of interest d_i corresponds to a dummy that is worth one whenever person i has disability and zero if not. Given the gender differences that are commonly observed in the Latin American labour market, the equation includes the explanatory variable w_i which is worth one when the person is a woman and zero when a man. Vector z_i comprises the household characteristics that could significantly affect the probability of a woman being employed such as the number of preschool children, the number of school-age children and the number of other adults in the household. Vector x_i includes the variables commonly linked to the person's human capital in the labour economics literature such as years of schooling, age and age-squared, as well as other individual and household characteristics (marital status, ethnicity and living in rural/urban area). Interactions in terms of vector x_i with the binary variable d_i are also included since the coefficients associated with vector x_i could be affected by the disability condition itself. The parameters to estimate are the key scalar α_1, the constant term α_0 and the vectors γ, η, β and δ.

To obtain a global estimate of the probability p_i for the overall sample of the six study countries, we implemented a multilevel logistic estimation with fixed coefficients per country. Equation (4) contains the same elements as equation (3) but uses data from all countries and includes a fixed constant term for each country to capture the national heterogeneity. While equation (5) includes the term $c_j \mathrm{x}_i$, which corresponds to the interaction effects of vector x_i with the binary variable of each country. Thus, the heterogeneity of the effects of each variable of vector x_i within each country is captured through the estimates of parameters α_j and ϕ

$$\ln\left(\frac{p_i}{1-p_i}\right) = \alpha_0 + \alpha_1 d_i + \gamma w_i + \eta w_i z_i + \beta \mathrm{x}_i + \delta d_i \mathrm{x}_i + \alpha_j c_j \tag{4}$$

$$\ln\left(\frac{p_i}{1-p_i}\right) = \alpha_0 + \alpha_1 d_i + \gamma w_i + \eta w_i z_i + \beta \mathrm{x}_i + \delta d_i \mathrm{x}_i + \alpha_j c_j + \phi c_j \mathrm{x}_i \tag{5}$$

To test the results of the study against changes to the definition of disability, we also estimated the models for Colombia, Chile and Bolivia defining a person with disability as a person who reported having at least one of the functional limitations: *a little*, *a lot of difficulty* or *cannot do*. In addition, we estimated a linear probability model to compare the results with those obtained in the logistic regression, given that some authors have preferred the linear probability model over the logistic model because the former is much easier to interpret (Hippel and Workman, 2016). Also, we computed the logistic model restricting the sample only for people with disabilities in each of the countries (the results of both of these analyses are presented in Table 5 and 6 in the Appendix 1).

Results

Table 2 presents the socioeconomic characteristics of people with and without disabilities in the six countries included in the analysis. As presented in Table 1 the percentage of people with disabilities in the sample varies between countries, going from 1.17% in Bolivia to 6.13% in Mexico. In the six countries, these groups present similar characteristics, for example, they are more likely to be older compared to people without disabilities and in all the countries the average number of years of education is significantly lower than that of people without disabilities. Nevertheless, it is important to highlight that the differences vary between countries. For example, in the case of Chile people with disabilities have on average 9.5 years of schooling compared with 11.8 for people without disabilities, and in the case of Bolivia, people with disabilities have on average 4 years of schooling less than people without disabilities.

Only in Bolivia, a larger percentage of people with disabilities live in rural areas compared with people without disabilities (30% vs 20%). In Mexico and Peru, compared with other countries a larger percentage of indigenous people report living with disabilities (40% and 50%, respectively). Regarding marital status, people with disabilities are less likely to be married than people without disabilities in all countries except in Chile. Furthermore, they are also more likely to live in households with fewer children, and in households with a larger dependency ratio (ratio between working age members and other household members) compared with households without disabilities, and also to the average dependency ratio of the municipality where they live.

The results of the regression model revealed that living with a disability decreases the probability of been employed in five of the six countries (except in Costa Rica). In the cases of Colombia and Mexico, the results were significant at 1%. In Colombia, the country with the largest probability, people with disabilities have an almost 98% chance of not being employed compared with people without disabilities. In Chile, the reduction in the chances of people with disabilities being employed is equal to 25% compared with people without disabilities; however, this reduction is not significant. Another aspect associated with an increase in the likelihood of being employed is the number of years of schooling; indeed, one additional year of schooling for a person with disabilities increases their probability of being employed in four of the six countries, except for Costa Rica and Peru.

When we analyse the variable years of work experience for persons with disabilities, we found that in all countries an increased amount of work experience is positively associated with an increase in the probability of being employed. However, this increase has a lower magnitude compared with the increase that the same variable has on the probability of employment for people without disabilities in the six countries. Costa Rica and Peru are the countries with the lowest increase in the probability of being employed when the levels of experience for people with disabilities is considered. As expected, women with disabilities have a lower probability of being employed compared with women without disabilities, in addition, people with disabilities who are married have a higher chance of being employed compared with married people without disabilities (Table 3).

Table 2. Descriptive statistics of explanatory variables by disability status.

	Bolivia		Chile		Colombia		Costa Rica		Mexico		Peru	
	PwD	P without D	PwD	P without D	PwD	P without D	PwD	P without D	PwD	P without D	PwD	P without D
Years of schooling	6.15 (5.46)	10.47 (4.89)	9.53 (4.79)	11.79 (3.76)	5.90 (5.54)	8.93 (5.29)	6.18 (4.25)	9.15 (4.02)	9.23 (5.67)	12.99 (5.22)	8.34 (6.20)	12.01 (5.72)
Years of experience	20.59 (14.42)	32.42 (13.28)	22.29 (13.98)	31.34 (13.94)	26.32 (13.99)	35.31 (13.38)	23.48 (14.01)	34.28 (13.50)	18.64 (13.37)	32.47 (12.87)	21.43 (13.96)	31.13 (13.52)
Percentage woman	48.8%	51.7%	56.3%	52.4%	48.4%	53.0%	45.2%	52.4%	48.7%	52.3%	47.5%	52.0%
Percentage living in rural areas	26.4%	18.3%	18.5%	18.3%	23.3%	23.8%	33.3%	29.8%	38.0%	35.2%	40.4%	36.4%
Percentage of Indigenous population	33.5%	31.5%	11.7%	11.6%	18.5%	19.9%	100.0%	100.0%	35.3%	31.3%	45.7%	36.8%
Percentage of married	45.3%	62.7%	49.4%	52.7%	41.3%	59.5%	40.0%	54.5%	57.9%	65.9%	46.4%	61.0%
Average number of preschool children in the household	0.27	0.49	0.20	0.29	0.24	0.38	0.19	0.31	0.30	0.49	0.33	0.48
Average number of school-age children	0.65	0.93	0.47	0.60	0.69	0.85	0.54	0.72	0.72	0.99	0.76	1.04
Average number of other adults in the household	1.54	1.63	1.27	1.62	1.47	1.62	1.46	1.75	1.48	1.80	1.61	1.86
Household dependence ratio	0.43 (0.34)	0.29 (0.29)	0.47 (0.35)	0.36 (0.31)	0.49 (0.34)	0.33 (0.30)	0.55 (0.33)	0.36 (0.30)	0.38 (0.33)	0.29 (0.27)	0.30 (0.31)	0.23 (0.26)
Municipality dependence ratio	0.30 (0.03)	0.30 (0.03)	0.37 (0.04)	0.37 (0.04)	0.34 (0.04)	0.34 (0.05)	0.36 (0.03)	0.37 (0.03)	0.30 (0.03)	0.30 (0.03)	0.22 (0.06)	0.23 (0.06)

Standard error in parenthesis; PwD: people with disabilities; PwithoutD: people without disabilities.

Table 3. Logistic regression results in odd ratios. Dependent variable: person is employed (yes = 1; no = 0).

Variables	Bolivia odd ratio	Chile odd ratio	Colombia odd ratio	Costa Rica odd ratio	Mexico odd ratio	Peru odd ratio	Multilevel 1 odd ratio	Multilevel 2 odd ratio
Years of schooling	1.10***	1.12***	1.08***	1.12***	1.06***	0.98**	1.08***	1.05***
	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Experience	1.28***	1.24***	1.11***	1.24***	1.12***	1.08***	1.17***	1.10***
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)
Experience squared	1.00***	1.00***	1.00***	1.00***	1.00***	1.00***	1.00***	1.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Rural	1.16	1.05**	0.91**	1	1.06***	2.20***	1.08***	1.06***
	(0.10)	(0.02)	(0.04)	(0.04)	(0.02)	(0.28)	(0.01)	(0.02)
Indigenous	1.27***	1.04**	1.11***		1.03	1.21*	1.11***	1.05***
	(0.04)	(0.02)	(0.04)		(0.02)	(0.13)	(0.02)	(0.02)
Married	0.80***	0.64***	0.50***	0.53***	0.54***	0.47***	0.61***	0.61***
	(0.05)	(0.01)	(0.04)	(0.02)	(0.02)	(0.05)	(0.01)	(0.02)
Woman	0.05***	0.11***	0.03***	0.06***	0.04***	0.19***	0.07***	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)	(0.04)	(0.01)	(0.00)
Woman AND other adults	1.77***	1.21***	1.39***	1.33***	1.44***	0.85***	1.32***	1.33***
	(0.06)	(0.01)	(0.04)	(0.03)	(0.03)	(0.05)	(0.02)	(0.02)
Woman AND preschool children	0.29***	0.46***	0.54***	0.46***	0.37***	0.62***	0.40***	0.42***
	(0.05)	(0.02)	(0.03)	(0.03)	(0.01)	(0.10)	(0.01)	(0.01)
Woman*school-age children	0.77***	0.77***	0.79***	0.73***	0.75***	0.79***	0.74***	0.76***
	(0.04)	(0.02)	(0.03)	(0.04)	(0.01)	(0.05)	(0.01)	(0.01)
Disability	0.29	0.74	0.02***	1.41	0.11***	0.04	0.27***	0.35***
	(0.48)	(0.27)	(0.02)	(1.18)	(0.05)	(0.17)	(0.08)	(0.11)
Disability AND years of schooling	1.03	1.04***	1.01	0.95**	1	0.98	1.01*	1.02***
	(0.06)	(0.01)	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)	(0.01)
Disability AND experience	0.86	0.95***	1.04	0.86***	0.96*	1.07	0.96***	0.93***
	(0.08)	(0.02)	(0.05)	(0.04)	(0.02)	(0.21)	(0.01)	(0.01)

(Continued)

Table 3. (Continued)

Variables	Bolivia odd ratio	Chile odd ratio	Colombia odd ratio	Costa Rica odd ratio	Mexico odd ratio	Peru odd ratio	Multilevel 1 odd ratio	Multilevel 2 odd ratio
Disability AND experience squared	1	1.00**	1	1.00***	1.00**	1	1.00**	1.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Disability AND indigenous	1.42	1	1.33		1.30***	1.25	1.01	1.26***
	(0.47)	(0.10)	(0.38)		(0.10)	(0.40)	(0.07)	(0.08)
Disability AND being married	7.25***	1.42***	4.78***	6.22***	3.09***	1.80**	2.25***	2.41***
	(5.08)	(0.14)	(0.89)	(0.60)	(0.22)	(0.50)	(0.22)	(0.23)
Disability AND being a woman	2.94***	1.55***	5.79***	1.84***	3.73***	3.95***	2.68***	2.72***
	(0.72)	(0.12)	(1.35)	(0.15)	(0.32)	(1.35)	(0.19)	(0.20)
Number of Preschool children	2.42***	2.08***	1.78***	1.96***	2.48***	1.17	2.28***	2.18***
	(0.29)	(0.04)	(0.11)	(0.06)	(0.08)	(0.14)	(0.05)	(0.04)
Number of School-age children	1	1.09***	1.19***	1.16***	1.19***	1.08**	1.18***	1.15***
	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)	(0.04)	(0.01)	(0.01)
Number of other adults in the household	0.73***	0.85***	0.71***	0.76***	0.67***	1.07	0.76***	0.76***
	(0.03)	(0.01)	(0.03)	(0.02)	(0.01)	(0.06)	(0.01)	(0.01)
Relative per capita income	0.80***	0.93***	0.94***	0.86***	1	0.91***	0.99	0.99
	(0.04)	(0.01)	(0.01)	(0.01)	(0.00)	(0.03)	(0.01)	(0.01)
Household dependence ratio	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***	0.00***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Municipality dependence ratio	0.59	1.2	0.55	3.15***	0.24***	0.94	0.78	0.84
	(0.37)	(0.15)	(0.26)	(1.39)	(0.08)	(0.74)	(0.16)	(0.15)
Constant	41.91***	10.01***	349.44***	17.81***	313.60***	1,139.46***	46.05***	149.10***
	(12.65)	(1.08)	(143.65)	(2.99)	(45.26)	(380.81)	(9.32)	(19.31)
Observations	21,896	135,984	40,755	22,104	152,198	25,240	398,177	398,177
Pseudo R-squared	0.61	0.54	0.60	0.54	0.55	0.53	0.55	0.56

Multilevel model 1 correspond to definition in equation 7 (without interaction terms). Multilevel model 2 correspond to definition in equation 8 (without interaction terms).
Robust standard errors in parentheses.
***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

The results of the HOI revealed that in the six countries people with disabilities have fewer employment opportunities compared with people without disabilities. These differences were the results of lower levels of coverage and dissimilarity, with a larger difference in the coverage of opportunities for people with disabilities in all the countries; therefore, a lower percentage of people with disabilities is employed. Peru and Chile present the smallest differences in the HOI between people with and without disabilities (17.12 and 19.21, respectively). On the other hand, Colombia and Costa Rica have the largest HOI employment equality opportunity disadvantage for people with disabilities. When considering the two subindices included in the HOI, we found that people with disabilities face lower coverage and larger dissimilarity. Therefore, people with disabilities are less likely to be employed compared with people without disabilities (coverage). Furthermore, they also have larger differences within sub-groups such as gender, type of disability, age, and so on and face different HOI opportunities for employment (dissimilarity) (see Table 4 for details).

We also estimated a linear probability model to test the results change in comparison with the logistic regression. We found similar results to the ones in the logistic model in the centre of the distribution [0.2, 0.8], which is consistent with the finding of other works (Hippel and Workman, 2016). However, the differences at the tails of the distribution are relevant, an aspect that is important in this study, since the set of unemployed people is concentrated in the left tail of the distribution. To illustrate this, we present a multiple matrix graph of comparison between the probabilities obtained for both models (Table 5 and Figure 1 in the Appendix). The graphs show the concentration of the unemployed in the low probabilities of the left tail and a clearly sinusoidal relationship between the results of both models, except in the last graph in the lower left corner, which illustrates the linear relationship between both models for probabilities in the range [0.2, 0.8].

Finally, to complement the analysis we estimated a regression model just for people with disabilities and we found that when we only include people with disabilities, variables related to the increase in the number of years of schooling and the increase in experience were factors associated with the increase in the probability of being employed for this group. By contrasts, being a women or married reduced the chances of being employed in the six countries (Table 6 in the Appendix 1).

Discussion

This study analyses the levels of inequality of employment opportunities for people with and without disabilities in six countries in Latin America (Bolivia, Chile, Colombia, Costa Rica, Mexico and Peru), using household surveys in the years 2016–2017 and the Paes de Barros HOI. The findings suggest that in all countries people with disabilities face lower chances to be employed, and when the HOI is analysed, we found that in the six countries people with disabilities have lower coverage and larger dissimilarity.

In Costa Rica and Colombia, persons with disabilities face higher levels of disadvantage, which is explained by lower levels of coverage (lower percentage of persons with disabilities employed). On the other hand, Chile and Peru were the countries with the lowest levels of inequality of opportunity; in Peru the coverage of employment for people with disabilities is higher than 80% and the dissimilarity index is 13.7%, therefore,

Table 4. HOI estimates and decomposition.

	Bolivia	Chile	Colombia	Costa Rica	Mexico	Peru	All countries
Without disability							
Coverage (C)	70.68 (0.1822)	64.10 (0.0861)	69.63 (0.1375)	64.99 (0.2098)	71.75 (0.0748)	92.44 (0.1199)	69.84 (0.0467)
Dissimilarity (D)	22.95 (0.7712)	25.98 (0.3285)	23.68 (0.5793)	25.58 (0.823)	21.32 (0.304)	5.72 (0.5887)	22.67 (0.1861)
Human Opportunity Index (HOI)	54.46 (0.2518)	47.44 (0.1088)	53.14 (0.1869)	48.37 (0.2688)	56.45 (0.1032)	87.15 (0.1903)	54.01 (0.063)
With disability							
Coverage (C)	43.97 (1.7379)	46.36 (0.3524)	38.26 (0.7755)	31.63 (0.951)	52.50 (0.331)	81.11 (0.97)	49.05 (0.2202)
Dissimilarity (D)	42.85 (5.931)	39.10 (1.2281)	45.22 (2.8918)	49.42 (3.7445)	34.06 (1.0457)	13.67 (3.2634)	37.09 (0.7243)
Human Opportunity Index (HOI)	25.13 (1.6174)	28.23 (0.3476)	20.96 (0.6734)	16.00 (0.716)	34.62 (0.3475)	70.02 (1.398)	30.86 (0.2218)
Disadvantage in HOI	29.33	19.21	32.18	32.37	21.83	17.12	23.15
HOI difference decomposition							
Scale component (%)	52.04	56.22	53.40	52.13	58.14	57.10	56.48
Distribution component (%)	47.96	43.78	46.60	47.87	41.86	42.90	43.52

HOI: Human Opportunity Index.
Coverage: Percentage of people with disabilities having access to the opportunity (being employed). Dissimilarity: We are measuring if the opportunity of being employed is allocated equitable between people with and without disabilities, and we are comparing the probability of accessing this opportunity between groups. Scale component: It captures the impact of proportional changes in the coverage rates for all groups (people with and without disabilities). Distribution component captures the improvements in the coverage rates specifically for groups with below-average coverage rates relative to groups with above-average coverage rates (Barros et al. 2008).

this group has a higher employment rate and also the distribution of employment opportunities for persons with disabilities is not as unequal as in other countries of the region.

Although there were differences between countries in the level of HOI employment opportunity for people with disabilities, it is important to highlight that in all countries, people with disabilities face lower rates of employment. In addition, when disability is added to other individual characteristics associated with other disadvantages such as sex or ethnic group, the chances of being employed are even lower, for example, women with disabilities are less likely to be working compared with women without disabilities. Also, people with disabilities living in rural areas have lower levels of employment than people without disabilities in rural areas or living in similar regions of the county.

The results of this study revealed that in the region there is an important disability gap for employment, with higher levels in some countries compared with others. This gap in employment is related to the fact that people with disabilities usually have lower levels of education, a further aspect that reduces their chances of being employed. In addition, when this group is employed, they are usually engaged in jobs with lower remuneration or are self-employed (ECLAC, 2014, 2019). All these conditions increase the risk of poverty for people with disabilities and their families and are associated with lower levels of social and political participation, thus, higher levels of social exclusion.

When the components of the HOI are analysed, it is evident that in the six countries people with disability have worse coverage and dissimilarity. That is, persons with disabilities have lower employment rates (coverage) and more disperse within group probabilities (dissimilarity) compared with people without disabilities. In addition, in all countries the distribution of the opportunity among people with disabilities is different; thus, barriers to opportunities vary depending on the specific type of disability. For example, individuals with mental or psychosocial impairments face higher levels of discrimination and their employment rates are lower compared with individuals with other limitations (Qian et al., 2018). Given data limitations, it was not possible in this paper to analyse the distribution of opportunities for each type of impairment; however, given previous evidence on this topic, it is possible to hypothesise that the differences in the distribution of opportunities might be associated with barriers that people with different functional limitations face. In addition, the high dissimilarity within sub-groups of people with disabilities can also be associated with the fact that women with disabilities face two sources of discrimination to participate in the labour market, and usually have higher rates of unemployment and are more likely to be outside the labour force and face poor working conditions compared with men with disabilities or women without disabilities (Brown and Moloney, 2019; ECLAC, 2019; González and Stang, 2014).

The findings presented in this article reflect that policies as currently implemented in these countries have not been effective in achieving equality of inclusion of persons with disabilities. As described by Paz-Maldonado and Silva-Peña (2020), countries in Latin America have designed and enacted legislation to guarantee the right of labour for persons with disabilities; however, in most countries the implementation of this legislation is limited. Therefore, in all countries, persons with disabilities face barriers to actively participating in the labour market. In addition, in most countries the legislation regulating the labour market does not include a human rights perspective of disability and continue defining disability as the inability to work. Although, most Latin American

countries have implemented different mechanisms such as quotes or reduction of taxes for companies, to incentivise the employment of persons with disability in the formal labour sector, there is no evidence that these mechanisms have increased the labour inclusion of this group. Instead, a recent systematic review found that without the correct implementation of strategies to include persons with disabilities in the labour market, social and attitudinal barriers will limit the labour inclusion of persons with different functional limitations (Muñoz and Quintana, 2019).

To fulfil Agenda 2030, especially SDG 8, it is fundamental to guarantee the right of employment for persons with disabilities. Therefore, countries in the region should ensure that no matter the type or severity of disability, a person who has a functional limitation can participate in the labour market in equal conditions that a person without any functional limitations. In addition, governments need to commit to equalising opportunities, to implementing reasonable accommodations and to including a disability perspective in the design of policies, programmes and plans for the labour market.

The results of this study have several policy implications. First, the six countries need to re-evaluate the effectiveness of the policies implemented to guarantee the opportunity for people with disabilities, given that none of the countries we studied exhibited an equal distribution of employment opportunities for people with and without disabilities. Second, countries such as Colombia and Costa Rica need to define better strategies to include persons with disabilities in employment. These two countries presented the largest disadvantage where people with disabilities face lower rates of coverage and larger rates of dissimilarity, thus, not only people with disabilities are not in employment but also among those with disabilities the opportunity of being employed is unequal. Third, it is important to understand what policies have been implemented in Peru that have allowed a larger inclusion of persons with disabilities in employment. Finally, to properly guarantee the right of employment for persons with disabilities, it is fundamental to have a comprehensive programme which includes vocational training, access to health, rehabilitation, education and to have a social protection system that provides support to persons with disabilities without reducing the incentives to participate in the labour market. Such programmes must recognise the different needs of persons with disabilities, and that depending on these, different adaptations must be implemented.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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Appendix I

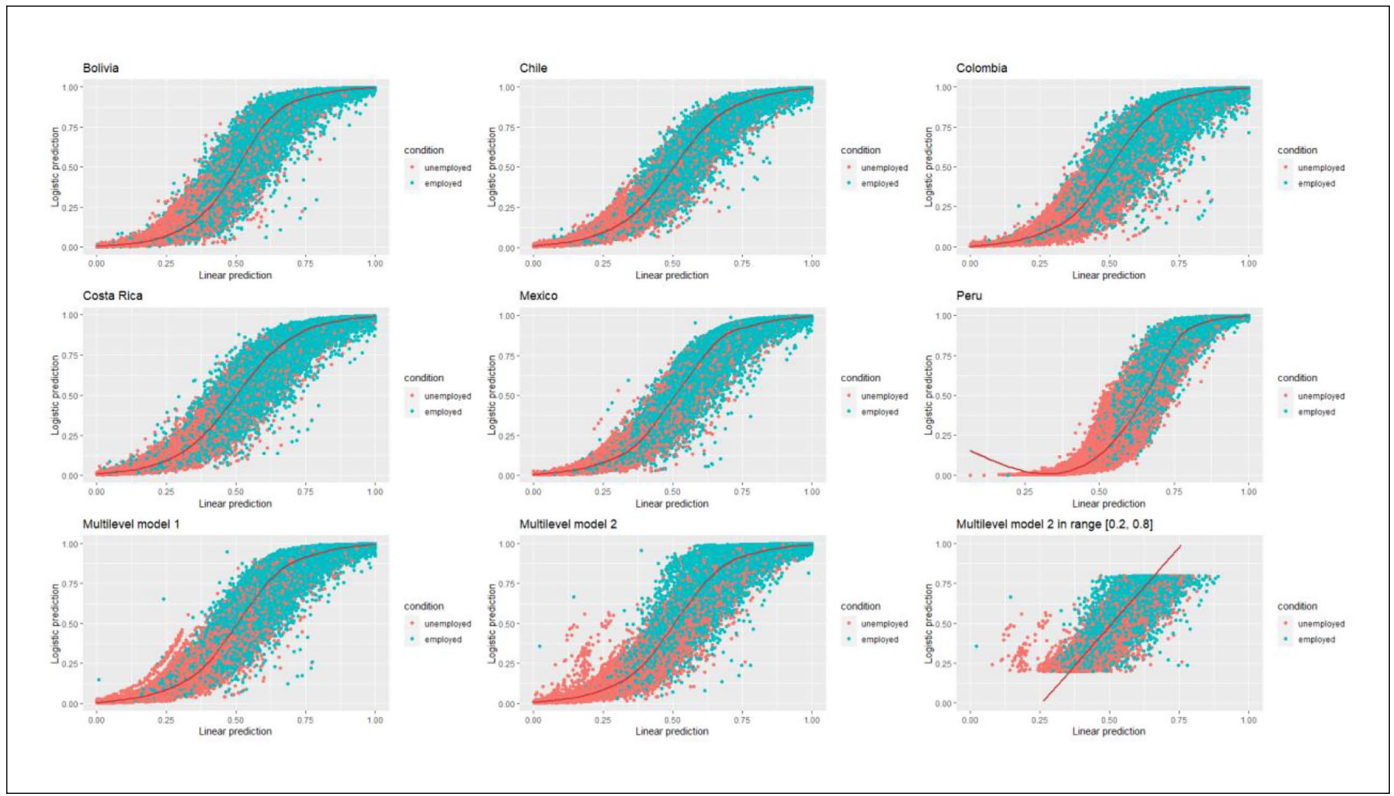

Figure 1. Comparison predictions logistic and lineal probability model for six countries.
In the lineal model, we only considered probabilities between 0 and 1.

Table 5. Lineal probability model results.

Variables	Bolivia	Chile	Colombia	Costa Rica	Mexico	Peru	Multilevel 1 odd ratio	Multilevel 2 odd ratio
Years of schooling	1.01	1.01	1.01	1.01	1.00	1.00	1.01	1.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Experience	1.02	1.02	1.01	1.02	1.01	1.00	1.01	1.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Experience squared	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Rural	1	1	0.99	1	1.01	1.02	1	1.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Indigenous	1.02	1.01	1		1	1.01	1.01	1.01
	(0.01)	(0.00)	(0.00)		(0.00)	(0.01)	(0.00)	(0.00)
Married	1	0.98	0.95	0.95	0.96	1	0.97	0.96
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Woman	0.85	0.87	0.79	0.81	0.80	0.95	0.83	0.81
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Woman AND other adults	1	0.98	0.98	0.99	1	0.97	0.99	0.99
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Woman AND preschool children	0.87	0.91	0.92	0.90	0.90	0.95	0.91	0.91
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)
Woman × school-age children	0.98	0.96	0.97	0.96	0.98	1	0.97	0.97
	(0.00)	(0.00)	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Disability	0.7	0.94	0.55	0.93	0.70	0.72	0.77	0.81
	(0.16)	(0.03)	(0.05)	(0.07)	(0.04)	(0.21)	(0.03)	(0.03)
Disability AND years of schooling	1	1.01	1	0.99	1.00	1.00	1.00	1.00
	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

(continued)

Table 5. (Continued)

Variables	Bolivia	Chile	Colombia	Costa Rica	Mexico	Peru	Multilevel 1 odd ratio	Multilevel 2 odd ratio
Disability AND experience	1	1.00	1.02	0.99	1.00	1.02	1	1
	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Disability AND experience squared	1.0000	1.00	1.00	1.00	1.0000	1	1.0000	1.0000
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Disability AND indigenous	1.04	1.01	1.03		1.04	1.02	1.01	1.03
	(0.05)	(0.01)	(0.02)		(0.01)	(0.03)	(0.01)	(0.01)
Disability AND being married	1.15	1	1.12	1.13	1.09	0.99	1.05	1.06
	(0.08)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Disability AND being a woman	1.10	1.03	1.16	1.08	1.10	1.03	1.07	1.07
	(0.04)	(0.01)	(0.03)	(0.02)	(0.01)	(0.03)	(0.01)	(0.01)
Number of Preschool children	1.09	1.08	1.06	1.08	1.08	1.01	1.08	1.07
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of School-age children	0.99	1.02	1.02	1.02	1.01	1	1.01	1.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of other adults in the household	1.01	1.01	1.01	1	1.00	1.02	1.01	1.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Relative per capita income	0.98	0.99	0.99	0.98	1	0.99	1	1
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Household dependence ratio	0.38	0.39	0.40	0.40	0.39	0.58	0.40	0.40
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
Municipality dependence ratio	1.02	0.99	0.91	1.04	0.88	1.20	1.04	1.04
	(0.06)	(0.01)	(0.03)	(0.03)	(0.02)	(0.06)	(0.03)	(0.03)
Constant	2.15	2.05	2.74	2.20	2.78	2.62	2.33	2.58
	(0.06)	(0.02)	(0.06)	(0.02)	(0.03)	(0.04)	(0.03)	(0.03)
Observations	21,896	135,984	40,755	22,104	152,198	25,240	398,177	398,177
R-squared	0.54	0.53	0.55	0.52	0.50	0.34	0.51	0.52

Table 6. Restricted sample estimates (only people with disabilities).

Variables	Multilevel 1 odd ratio	Bolivia odd ratio	Chile odd ratio	Colombia odd ratio	Costa Rica odd ratio	Mexico odd ratio	Peru odd ratio
Years of schooling	1.09	1.13	1.16	1.08	1.10	1.07	0.94
	(0.01)	(0.09)	(0.01)	(0.03)	(0.04)	(0.01)	(0.04)
Experience	1.07	1.19	1.12	1.06	1.08	1.02	1.09
	(0.01)	(0.11)	(0.02)	(0.03)	(0.03)	(0.01)	(0.10)
Experience squared	1.00	1	1.00	1.00	1.00	1.00	1
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Rural areas	1.18	0.52	1.23	1.01	1.2	1.13	2.10
	(0.08)	(0.26)	(0.09)	(0.18)	(0.53)	(0.08)	(0.94)
Indigenous	1.29	2.75	1	1.41		1.28	1.32
	(0.08)	(1.33)	(0.09)	(0.39)		(0.09)	(0.39)
Married	1.43	7.64	0.96	2.33	3.09	1.75	1
	(0.11)	(5.62)	(0.08)	(0.43)	(0.30)	(0.11)	(0.31)
Woman	0.15	0.37	0.16	0.10	0.10	0.12	1.15
	(0.01)	(0.27)	(0.02)	(0.06)	(0.04)	(0.01)	(0.35)
Woman AND other adults	1.32	0.88	1.24	1.57	1.43	1.41	0.76
	(0.04)	(0.31)	(0.08)	(0.30)	(0.15)	(0.06)	(0.19)
Woman AND preschool children	0.63	0.34	0.59	0.89	0.56	0.59	0.73
	(0.06)	(0.21)	(0.09)	(0.29)	(0.23)	(0.07)	(0.35)
Woman AND school-age children	0.85	1.11	0.81	0.91	0.66	0.86	0.57
	(0.04)	(0.42)	(0.08)	(0.18)	(0.15)	(0.06)	(0.14)
Number of preschool children	1.94	2.51	1.76	1.66	2.33	2.22	1.29
	(0.12)	(0.95)	(0.28)	(0.40)	(0.51)	(0.21)	(0.39)
Number of school-age children	1.17	0.99	1.11	1.18	1.15	1.23	0.89
	(0.03)	(0.43)	(0.05)	(0.13)	(0.13)	(0.05)	(0.13)

(Continued)

Table 6. (Continued)

Variables	Multilevel 1 odd ratio	Bolivia odd ratio	Chile odd ratio	Colombia odd ratio	Costa Rica odd ratio	Mexico odd ratio	Peru odd ratio
Other adults in the household	0.59	0.82	0.68	0.54	0.57	0.51	0.85
	(0.01)	(0.25)	(0.03)	(0.06)	(0.06)	(0.02)	(0.14)
Relative per capita income	1.01	0.59	0.87	1.04	0.59	1.02	0.84
	(0.01)	(0.25)	(0.03)	(0.05)	(0.05)	(0.00)	(0.10)
Household dependence ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Municipality dependence ratio	0.91	7082.52	1.09	28.48	0.16	0.26	7.26
	(0.61)	(63,143.98)	(0.90)	(32.73)	(0.35)	(0.29)	(23.72)
Constant	15.04	0.2	7.23	9.32	27.74	65.71	159.02
	(3.17)	(0.64)	(2.44)	(8.72)	(13.50)	(25.40)	(240.03)
Bolivia	1.07						
	(0.31)						
Chile	1.67						
	(0.16)						
Colombia	1.18						
	(0.11)						
Costa Rica	0.87						
	(0.07)						
Peru	2.31						
	(0.51)						
Observations	21,342	257	8,249	1,610	1,056	9,323	847