UNITED NATIONS UNIVERSITY
UNU-WIDER

WIDER Working Paper 2023/94

Impact of the COVID-19 pandemic on employment

Findings from national labour surveys in five Latin American countries

Martha Alter Chen and Joann Vanek*

July 2023

In partnership with

WIEGO
Women in Informal Employment: Globalizing and Organizing

United Nations University World Institute for Development Economics Research

wider.unu.edu

Abstract: This paper provides a comparative summary of recent national statistics from five Latin American countries on employment losses and gains during the peak COVID-19 years compared with pre-pandemic levels. As part of its work on the impact of the pandemic on informal workers, the Women in Informal Employment: Globalizing and Organizing (WIEGO) network commissioned analyses of recent national labour force data in Brazil, Chile, El Salvador, Mexico, and Peru; and undertook a separate analysis of South African data on employment losses and gains during COVID-19 (see Rogan and Skinner 2022). This paper also presents, in Section 2, micro-evidence from a WIEGO-led study of the impact of COVID-19 on informal workers. This information supplements the national statistics in Section 1, with information on the dynamics of employment losses and gains for workers in specific groups of urban informal workers. It is based on a panel study carried out by the WIEGO network in mid-2020 and mid-2021 on the impact of the pandemic on informal workers in 11 cities around the world, using both a survey questionnaire and in-depth interviews (see Chen et al. 2022a). The paper concludes with reflections on the use of mixed data sources and research methods and on policy responses to the informal economy going forward.

Key words: formal employment, informal employment, employment losses, COVID-19 pandemic

* Both authors: WIEGO, Manchester, United Kingdom; corresponding author: M.A. Chen, martha_chen@gsd.harvard.edu.

This study has been prepared within the UNU-WIDER project Transforming informal work and livelihoods.

Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-402-1

https://doi.org/10.35188/UNU-WIDER/2023/402-1

Typescript prepared by Ayesha Chari.

United Nations University World Institute for Development Economics Research provides economic analysis and policy advice with the aim of promoting sustainable and equitable development. The Institute began operations in 1985 in Helsinki, Finland, as the first research and training centre of the United Nations University. Today it is a unique blend of think tank, research institute, and UN agency—providing a range of services from policy advice to governments as well as freely available original research.

The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

Katajanokanlaituri 6 B, 00160 Helsinki, Finland

1 Impact of COVID-19 on employment: national estimates

This section is based on data from national labour force surveys in five Latin American countries—Brazil, Chile, El Salvador, Mexico, and Peru—as reported in the WIEGO statistical briefs.[1] It provides estimates of employment losses and gains during the COVID-19 pandemic for total employment, informal employment, specific groups of mainly informal workers, and women and men. The peak period of lockdowns and restrictions in all five countries occurred in late March or April 2020, so the estimates of initial employment losses are from 2020.[2] Estimates of employment losses or gains after the initial impact of the pandemic were available for only three of the five countries because the country reports were undertaken at different times, specifically 2021 for El Salvador and Peru and the first quarters of 2021 and 2022 for Mexico.

Informal employment represents a significant share of total employment in the countries considered here. The pre-COVID-19 statistics for three of the countries show that informal employment predominated: comprising 56% of total employment in Mexico, 69% in El Salvador, and 73% in Peru. In the other two countries, informal employment represented a lower but still significant share of total employment: 41% in Brazil and 27% in Chile.

Each sub-section begins with summary text (in *italics*) of comparative employment losses and gains across the countries followed by details for each country.

1.1 Impact on total employment

The COVID-19 pandemic, and associated restrictions and recession, had a major impact on total employment, as seen in the percentage and numbers of all workers pre-COVID-19 who lost work during the onset of the pandemic: 7% in El Salvador (around 191,000 workers), 9% in Brazil (8.3 million workers), 12% in Chile (1.1 million workers), 13% in Peru (2.2 million workers), and 19% in Mexico (10.3 million workers).[3] In four of the countries, the percentage losses were significantly higher for women than for men, whereas in El Salvador they were about the same. By 2021, employment in Peru had reached the pre-COVID-19 level; by 2022 in Mexico, employment had surpassed the pre-COVID-19 level.

Brazil: Between 2019 and 2020, 8.3 million workers (nearly 9% of the pre-COVID-19 workforce) lost employment. Out of the 8.3 million workers, 7.6 million (92%) had worked in urban areas. A higher percentage of women workers (11%) than men workers (7%) lost work.

Chile: Between 2019 and 2020, around 1.1 million workers (12% of the pre-COVID-19 workforce) lost employment. In small towns the employment loss was greater (41%) than in large cities such as Santiago (9%). And a far higher percentage of women (16%) than men (9%) lost work.

---

[1] See Bouvier and Vanek (forthcoming), Bouvier et al. (2022), Chen et al. (2022a), Ramírez et al. (2023), Ramírez and Vanek (forthcoming), and Salazar and Vanek (2022). The specific national surveys are listed in the 'Data sources for WIEGO statistical briefs' at the end of this paper.

[2] The data for the pre-COVID period in Mexico are from the first quarter of 2020 and for the period of peak employment loss from the second quarter of 2020. Employment recovery began in Mexico in the third quarter of 2020 and continued into 2021 and 2022. Data for employment recovery in Mexico are from the first quarters of 2021 and 2022.

[3] Throughout Section 1 employment loss refers to 'net loss' as some workers who lost employment may have taken another job before the survey.

El Salvador: Between 2019 and 2020, over 7% of the pre-COVID-19 workforce lost employment. The percentage loss was slightly higher in urban areas (8%). By 2021, the number of workers who were able to work had recovered to around 94% of pre-pandemic levels, except in the capital, San Salvador, where employment continued to decline. There was only a slight difference between women and men (1% or less) in both employment losses and recovery.

Mexico: During lockdown in the second quarter of 2020, 10.3 million workers (19% of the 55.1 million workers pre-pandemic) lost employment. The numbers employed recovered steadily in the second half of 2020 to 50.8 million in the third quarter and 53.1 million in the fourth quarter of 2020. The loss in employment by the first quarter of 2021 compared with pre-COVID-19 levels was just over 2 million workers (4% of the pre-COVID-19 workforce), of which 1.5 million were women and 600,000 men. Nearly two-thirds of the loss (65%) by early 2021 was in urban areas, the majority in Mexico City.

By the first quarter of 2022 in Mexico, employment levels were slightly higher than pre-COVID-19 levels: at 102% for all workers (101% for women and 102% for men). However, the employment rate remained slightly lower than that pre-COVID: down from 58% to 57% (from 44% to 42% for women and 74% to 73% for men).

Peru: Between 2019 and 2020, 2.2 million workers (13% of the pre-COVID-19 workforce) lost work, virtually all in urban areas and especially in Metropolitan Lima where 1.2 million (22% of all workers) lost employment. Agriculture helped to cushion the loss, absorbing 629,000 additional workers. By 2021, the numbers employed reached the pre-COVID-19 level, although recovery for women was slightly lower than for men (98% compared with 101%). However, the total employment rate was lower than pre-COVID-19 levels: 68% compared with 70%.

1.2 Impact on informal employment

In four of the countries, the COVID-19 pandemic, and associated restrictions and recession, had a disproportionate impact on informal workers. During the height of the lockdowns and other restrictions, employment loss among informal workers ranged from 8% in El Salvador to around 15% in Brazil and 16% in Chile to 26% in Mexico. In Mexico, between the first and second quarters of 2020, 26% of informal workers and 10% of formal workers lost employment. However, in Peru, although a large percentage of informal workers (10%) lost employment, the percentage of formal workers who lost employment was more than twice as high (21%). Among informal workers, a higher percentage of women than men, suffered employment loss, except in El Salvador where slightly more men (by less than 1%) than women suffered employment loss.

The recovery was uneven across countries and between women and men. In El Salvador, between 2019 and 2021, formal employment recovered to 96% and informal employment to 94% of pre-COVID-19 levels. In Peru, employment gains were significantly higher in the informal than in the formal economy: to higher than pre-COVID-19 levels at 106% for all informal workers (108% for men and 102% for women). In Mexico, by 2022, total employment had recovered to 102% of the pre-COVID-19 level and was slightly higher for formal workers (103%) than for informal workers (101%). Between the first quarters of 2021 and 2022 in Mexico, the number of women in formal employment increased by 6% compared with 5% for men whereas the number of women in informal employment increased by 11% compared with 3% for men.

Brazil: Between 2019 and 2020, 15% of informal workers experienced employment loss compared with 5% of formal workers. Considered another way, 70% of lost employment was among informal workers. Among both formal and (more so) informal workers, a higher percentage of women than men lost employment: 6%of women compared with 4% of men among formal workers, and 18% of women compared with 12% of men among informal workers.

Chile: Between 2019 and 2020, 16% of informal workers and 10% of formal workers experienced employment loss. In urban Chile, the declines were significantly less but also higher among informal workers (3%) than among formal workers (less than 1%). Losses were higher for women than for men in both formal employment (12% compared with 8%) and informal employment (23% compared with 11%).

El Salvador: Between 2019 and 2020, around 8% of informal workers and 5% of formal workers lost employment followed by a slow recovery between 2020 and 2021. The increase in numbers employed was only slightly higher for informal workers than for formal workers. By 2021, informal employment recovered to 94% and formal employment to 96% of pre-COVID-19 levels. Nationally, women led the increase in formal employment and men led the increase in informal employment. In urban El Salvador, informal employment increased by 3% whereas formal employment increased by 1%. By contrast, in the capital city of San Salvador, there was a decrease in both informal employment (by 4%) and formal employment (by 2%).

Mexico: Between the first and second quarters of 2020, 26% of informal workers and 10% of formal workers lost employment. By 2022, informal employment had increased to 101% and formal employment to 103% of pre-COVID-19 levels. In Mexico City, the increase in numbers was higher for formal workers (16%) than for informal workers (12%). Nationally, the recovery between 2021 and 2022 was highest among women informal workers (an 11% increase) followed by women formal workers (6%), men formal workers (5%), and men informal workers (4%).

Peru: Between 2019 and 2020, nationally, nearly 10% of informal workers and 21% of formal workers lost employment. In urban Peru, 14% of informal workers and 21% of formal workers lost employment; but in Metropolitan Lima a similar percentage of informal workers (22%) and formal workers (21%) lost employment. Among both formal and (especially) informal workers, women suffered greater losses compared with men: only slightly higher among formal workers but nearly three times higher among informal workers. Between 2020 and 2021, the number of informal workers increased to a higher level (106%) than pre-COVID-19 levels, with a higher recovery in the number of men informal workers (108%) than of women informal workers (102%).

1.3 Impact on specific groups of informal workers

While the overall impact of COVID-19 on informal workers was quite severe, the impact varied across groups of workers.[4] *Among four main groups of (largely) informal workers—domestic workers, home-based workers, street vendors, and market traders—home-based workers were the only group to see a dramatic increase in numbers due to new entrants. Among the other groups, the percentage losses in numbers during 2020, after the onset of the pandemic and associated restrictions, varied across countries. Domestic workers suffered the greatest loss (42%) in Peru compared with 37% in Chile, 20% in Brazil, and 9% in El Salvador. Street vendors suffered the greatest loss (37%) in Peru compared with 24% in Chile and 19% in both Brazil and Mexico.*[5] *Market traders suffered the greatest loss (40%) in Chile compared with around 21% in Brazil, 19% in Peru, and 16% in Mexico. In the*

[4] The specific worker groups included in each country analysis were based on requests by informal worker organizations and on the availability of data. This section focuses on the four worker groups covered in all five of the country analyses: domestic workers, home-based workers, market traders, and street vendors. Not all countries had data on waste pickers or on workers in informal construction and informal transport. However, in countries where data were available, these groups are also included.

[5] The data on specific groups in Mexico are from the first quarters of 2020, 2021, and 2022; thus, any sharp losses in the second quarter of 2020 are not reflected.

three countries with data, waste pickers suffered a greater loss (22%) in Peru than in Brazil (17%) and El Salvador (3%).

By 2021 in Peru, the numbers of home-based workers and waste pickers had increased to around 104% of pre-COVID-19 levels compared with around 87% for street vendors and market traders and 81% for domestic workers. By the first quarter of 2022 in Mexico, the number of home-based workers had reached 106% of the pre-COVID-19 number compared with 94% for domestic workers, 91% for market traders, and 90% for street vendors. In El Salvador, the number of workers in these groups taken together recovered to a level higher than the pre-COVID-19 level, with an overall gain among home-based workers and waste pickers but a loss for other worker groups, especially for market traders.

Brazil: Five groups of (largely) informal workers—domestic workers, home-based workers, market traders, street vendors, and waste pickers—represented 15% of total employment in 2019: 25% of women's employment and 7% of men's employment. In 2020, after COVID-19 hit, the total number of workers in these five groups dropped by around 14%. Excluding home-based workers, whose numbers increased, the other four groups suffered an average loss in numbers of 20%, ranging from 17% of waste pickers to around 20% of both domestic workers and street vendors to just over 21% of market traders. Percentage losses were higher for women than for men among domestic workers but higher for men than for women among street vendors and (more so) waste pickers. The losses among market traders were roughly the same for women and men.

Chile: Six groups of (largely informal) workers—domestic workers, home-based workers, market traders, street vendors, informal construction workers, and informal transport workers—represented 21% of total employment in 2019: 24% of women's employment and 18% of men's employment. Between 2019 and 2020, the total number of workers in these six groups increased. This is because the number of home-based workers more than doubled as workers in education, finance, real estate, and other services began working at home. Excluding home-based workers, the total number of workers across the other five groups decreased by 27%, ranging from 24% of street vendors to 37% of domestic workers to 40% of market traders. Among street vendors and construction workers, a higher percentage of women than men lost employment; among street vendors, 28% of women compared with 20% of men lost employment, whereas among market traders the same percentage of women and men (40%) lost employment. The notable increase in the number of home-based workers in Chile between 2019 and 2020 (by 390,474 women and 282,000 men) shifted the distribution of home-based work across industries. Education became the predominant industry for women home-based workers (accounting for 31%). At the same time, there was a sharp decline in the percentage of women home-based workers engaged in trade (from 36% to 22%) and in manufacturing (from 30% to 16%). Among men home-based workers, there was a dramatic increase in the percentage engaged in education (from less than 1% to 21%) as well as a significant increase in the percentage in other services (from around 9% to 23%) and a marked decline in the percentage engaged in manufacturing (from around 30% to 13%).

El Salvador: The five groups of (largely) informal workers—domestic workers, home-based workers, market traders, street vendors, and waste pickers—represented 24% of total employment in 2019: 43% of women's employment and 10% of men's employment. Employment numbers in these five groups taken together grew by 10% between 2019 and 2020 and declined by less than 1% between 2020 and 2021. The largest changes occurred among home-based workers whose numbers increased by 21% in 2020 and then dropped by 3% in 2021 and among market traders whose numbers increased by 19% in 2020 and then dropped by 22% in 2021. The number of street vendors also increased by 9% between 2019 and 2020 and then increased by another 4% by 2021. By 2021, employment in the five groups taken together recovered to a level higher than the pre-COVID-19 level (109%) and a slightly higher share of total employment at 28%. Unlike the other countries, employment among market traders and street vendors, not just among home-

based workers, increased between 2019 and 2020. However, between 2020 and 2021 in El Salvador, employment decreased among home-based workers (by 3%), market vendors (by 21%), and domestic workers (by 1%) but increased among street vendors (by 4%). The increase in home-based work between 2019 and 2020 in El Salvador was greater for men (31%) than for women (17%) and was followed by a four times higher decrease by 2021 for women (4%) than for men (1%). Of the five groups, waste pickers, the smallest in numbers pre-COVID, lost 6% of employment between 2019 and 2020, mainly among men; the numbers had grown by 59% by 2021, with an increase of 70% for men and 23% for women.

Mexico: Six groups of (largely) informal workers—domestic workers, home-based workers, market traders, street vendors, informal construction workers, and informal transport workers—represented 27% of total employment in 2020: 31% of women's employment and 24% of men's employment. The total number of workers in the six groups dropped in 2021 but rose in 2022 to higher than pre-COVID-19 levels. This pattern is reflected across four of the groups, but not among home-based workers and informal construction workers. The number of home-based workers increased by nearly 1.5% between the first quarters of 2020 and 2021 and by another 5% between the first quarters of 2021 and 2022, reaching a level of employment in early 2022 that was higher than pre-COVID-19 levels. The number of construction workers rose by just over 3% between the first quarters of 2020 and 2021 and by another 4% between the first quarters of 2021 and 2022. In Mexico, numbers in each of the other four groups declined but to varying degrees: the highest losses by the first quarter of 2021 were among those who provided services both on the streets (by 28%) and in markets (20%), followed by those who sold non-food/beverages on the streets (17%) and in markets (15%), followed by transport workers (13%), domestic workers (13%), and street vendors and market traders who sold food and beverages (10% each). By the first quarter of 2022, home-based workers had the greatest recovery surpassing the number of workers pre-COVID-19 for both women and men. The number of men in informal construction work and domestic work also increased to higher than pre-COVID-19 levels, whereas the number of women in construction work and domestic work recovered to 75% and 94%, respectively. Among market traders, the number of men recovered to 98% and women to 84%. Among street vendors, the numbers for both women and men recovered to around 90% of pre-COVID-19 levels.

Peru: Five groups of (largely) informal workers—domestic workers, home-based workers, market traders, street vendors, and waste pickers—represented 22% of total employment in 2019: 36% of women's employment and 10% of men's employment. Unlike in the other countries, the number of home-based workers decreased during 2020 (by 44%). Among the other groups, domestic workers suffered the greatest loss in numbers employed (by 42%) followed by street vendors (37%), waste pickers (22%), and market traders (19%). By 2021, the numbers for both home-based workers and waste pickers increased to around 104% of pre-COVID-19 levels compared with around 87% for street vendors and market traders and around 81% for domestic workers. Between 2019 and 2020 in Peru, the total employment loss among the five groups of workers was much higher for women than for men. Despite recovery in 2021, women's employment in the five groups did not reach pre-COVID-19 levels with the exception of home-based workers. There were higher numbers of women home-based workers in 2021 than in 2019, both nationally and in urban Peru. Meanwhile, although the number of men increased in each group, the numbers did not recover to pre-COVID-19 levels in any group.

One of the countries—Brazil—has estimates on the intersection of race and informal employment.[6] In Brazil, a far higher percentage of informal workers than formal workers is Black or mixed-race. In 2019, among the five groups of (largely) informal workers, waste pickers had the highest concentration of Black and mixed-race workers (72%) followed by market traders (68%), domestic workers (67%), and street vendors (61%). In each group, a higher percentage of women than men were Black or mixed-race. All four of these predominantly Black and mixed-race groups suffered significant employment losses. By contrast, even before the new entrants due to COVID, home-based workers had the highest concentration of white workers (45%) and a higher percentage of men (50%) than women (45%) home-based workers were white.

Considering the employment impact of COVID-19 on these different groups of (largely) informal workers, home-based workers stand out as an anomalous group and deserve special attention: see Box 1 for further analysis of employment losses and gains among home-based workers in Brazil, Chile, and Mexico.

Box 1.

Home-based workers in Brazil, Chile, and Mexico: employment losses, gains, and distribution across sectors

The number of home-based workers increased dramatically during the COVID-19 crisis years, as many workers, including white-collar and professional workers, who could work remotely began working from their homes. Meanwhile, many of those who produced goods and services from in or around their homes pre-COVID-19 were not able to work during the COVID-19 crisis (see Section 2 for more details).

In *Brazil*, among home-based workers, the loss of employment was concentrated in the manufacturing sector (for women and men) and also in the trade sector (for men). While the increase in home-based work was in professional, technical, and education sectors (for women and men), the largest increases in home-based work among men were in financial, health, and other services, especially in São Paulo where the percentage of men home-based workers in these sectors increased from 37% to 46%. Overall, the net impact was that home-based work increased among men (by 10%) and decreased among women (by 3%). The entrance of higher-earning workers into home-based work is reflected in their earnings. In São Paolo, between 2019 and 2020, the percentage of home-based workers earning *three or more* times the minimum wage jumped from 26% to 31%; in the rest of Brazil, where there were presumably fewer new higher-earning entrants into home-based work, the proportion earning the *minimum wage or less* increased from 55% to 60%.

In *Chile*, the number of home-based workers more than doubled between 2019 and 2020 and this dramatic increase in numbers was accompanied by a marked shift in the percentage distribution of home-based workers across branches or sectors of the economy. Among women home-based workers, there was a sharp decline in trade: from 36% to 22% nationally and from 34% to 23% in urban Chile. A similar decline occurred for women in manufacturing. Meanwhile, education became the predominant sector for women home-based workers: from less than 2% in 2019 to 31% nationally. Among men home-based workers, there was a marked decline in manufacturing from around 30% of all men home-based workers in 2019 to 13% in 2020. However, the percentage of men home-based workers in education and other services increased dramatically: in education from less than 1% pre-COVID-19 to 21%, and in other services from 10% to around 25%. Another impact of newcomers into home-based work was that the share of home-based workers who were informally employed decreased from 56% to 35% during 2020.

In *Mexico*, where the reference periods were later than in other countries, the increase in numbers and the distribution shift among home-based workers were not as marked as in Brazil and Chile. Between the first quarters of 2020 and 2021, the number of home-based workers increased by 1.5%. By the first quarter of 2022, the percentage of home-based workers who were in manufacturing decreased to 28% from 30% pre-

[6] The South Africa data, presented in Rogan and Skinner (2022), also illustrate the intersection of race and informality in determining employment impacts of the COVID-19 pandemic.

COVID. Meanwhile, the share of workers in professional services increased to 8% from 6% pre-COVID-19 and the share in other services increased slightly to 37% from 36%.

1.4 Impact on women and men workers

In four of the countries, loss of employment was higher among women than men during the initial year of the COVID-19 crisis: by 7 percentage points in Chile and Peru, 4 percentage points in Brazil and less than 1 percentage point in El Salvador. In Mexico, there was a 19 percentage point loss of employment for both women and men between the first and second quarters of 2020; by the first quarter of 2021, employment had recovered but losses among women workers were 5 percentage points higher than that among men. As the data also show, the differential impact of the COVID-19 crisis on women and men workers was in large part mediated by where women and men workers were situated within the workforce pre-COVID: whether they were formally or informally employed, in which branch of the economy and which goods or services they produced or provided, and where they worked.

Between 2019 and 2020, in three of the countries, the percentage losses were greater for women than for men in both formal and (more so) informal employment. In Brazil, there was a 2 percentage point difference between women and men in formal employment compared with 6 percentage points in informal employment. In Chile, there was a difference of 4 percentage points in formal employment and 13 percentage points in informal employment. In Peru, there was a difference of 2 percentage points in formal employment and 10 percentage points in informal employment. In Mexico, between the first and second quarters of 2020, there was a greater loss among women than among men in informal employment (5 percentage point difference), but among formal workers the loss was greater for men than for women (6 percentage point difference in favour of women). There was little difference between loss of employment for women and men informal workers and for women and men formal workers in El Salvador between 2019 and 2020.

In two of the three countries with more recent data, the recovery in women's employment was striking given the much greater losses they had sustained in the initial period of the pandemic. In Mexico, women's employment increased to 101% of the pre-COVID-19 level, only slightly less than the increase to 102% for men. In Peru, women's employment increased to 98% of the pre-COVID-19 level whereas men's increased to 101%. Among the informal workforce, employment recovery in Mexico was 99% of the pre-COVID-19 level for women and 102% for men, and in Peru, 102% for women and 108% for men. This reflects a greater percentage increase in total women's employment (by 9%) than in men's (by 4%) between 2021 and 2022 in Mexico, and in Peru by 19% for women and 12% for men between 2020 and 2021. In El Salvador, neither total employment nor informal employment reached pre-COVID-19 levels for women or men.

The four groups of (largely) informal workers were a larger source of employment for women than for men pre-COVID; women's employment in the groups tended to be hit harder than men's during the pandemic. However, among home-based workers, a higher percentage of men than women lost employment, except in Brazil. Also, in Mexico and Peru during late 2020 and 2021, respectively, the increases in home-based work were greater for women than for men.

Brazil: Between 2019 and 2020, a higher percentage of women (11%) than men (7%) experienced employment loss. However, the gender differences were overshadowed by the difference in impact between formal and informal workers: 5% of formal workers lost employment compared with 15% of informal workers. Nationally, among formal workers, 6% of women and 4% of men suffered loss of employment, whereas among informal workers, 18% of women compared with 12% of men lost employment. In other words, three times as many informal workers, both women and men, faced losses compared with their formal counterparts; among both formal and informal workers, women faced 1.5 times as many losses as men. Women working in the five groups of

informal workers were especially hard hit: four times as many women as men in the groups lost employment.

Chile: Between 2019 and 2020, a higher percentage of women workers (16%) than men workers (9%) and a higher percentage of informal (16%) than formal (10%) workers lost employment. The gender differences were affected by whether the worker was in formal or informal employment. Among women, 23% of informal workers compared with 12% of formal workers lost employment; among men, 11% of informal workers compared with 8% of formal workers lost employment. In 2019 in Chile, employment in the four groups (domestic workers, home-based workers, market traders, and street vendors) represented 23% of total employment for women and 16% for men.. Between 2019 and 2020, the number of women and men in these groups increased by 121% and 138%, respectively, largely because of the doubling of the number of home-based workers.

El Salvador: Between 2019 and 2020, a slightly higher percentage of women than men workers (7% compared with 6%) lost employment. However, between 2020 and 2021, there was a slightly higher recovery among women than men workers (by 2% compared with by 1%). The net result was that by 2021 the number of women workers was higher than pre-COVID-19 levels whereas the number of men workers was lower. However, the employment rate of men (75%) remained considerably higher than that of women (44%). In El Salvador, there is little difference in the losses or gains in employment between formal and informal workers and between women and men. Nationally, among formal workers, 6% of women and 4% of men suffered loss of employment, whereas among informal workers, 7% of women compared with 8% of men lost employment. By 2021, among formal workers, there was a 7% employment gain among women and an additional 3% loss among men; among informal workers, there was less than a 1% employment gain among women and 2% among men.

Mexico: Although employment had begun to recover in the latter half of 2020, a higher percentage of women (7%) than men (2%) continued to suffer employment loss between the first quarters of 2020 and 2021: the relative loss of employment for women and men in formal employment was similar but much greater loss was noted for women than for men in informal employment (10% compared with 2%). Moreover, the percentage loss of employment experienced by women informal workers was much higher than those of women formal workers, except in Mexico City where the rates were similar. By the first quarter of 2022 compared with the first quarter of 2021, the percentage increases in employment were greater for women than for men nationally (9% compared with 4%), in urban Mexico (10% compared with 7%), and in Mexico City (18% compared with 11%). The increases were substantial in both formal and informal employment for both women and men and especially among women in formal employment in Mexico City. For women, total employment increased in Mexico City and urban Mexico to levels higher than pre-COVID-19 and nationally to levels only slightly less. For men, who lost less employment than women during the pandemic, employment increased beyond pre-COVID-19 levels in all three geographic areas.

In each of the four groups of (largely) informal workers, the decline in numbers between the first quarters of 2020 and 2021 was greater for women than for men. However, while employment increased for both women and men between 2021 and 2022 in each of the groups, men's employment recovered to a greater degree, except among street vendors with roughly 90% recovery for both women and men. Among home-based workers, the number of women recovered to 104% of the pre-COVID-19 level whereas the number of men recovered to 110%.

Peru: Between 2019 and 2020, a higher percentage of women workers than men workers lost employment: 17% compared with 10% among all workers and 15% compared with 5% among

informal workers. An increase of men in agricultural employment likely contributed to the smaller drop in employment for men. By 2021 there was a significant recovery in informal employment. Women's employment increased more than men's; however, the increase in women's employment in the worker groups did not compensate for earlier losses. As a result, in 2021, women's employment in the worker groups remained below pre-COVID-19 levels while men's employment in the groups recovered to higher than pre-COVID-19 levels. By another indicator, employment rates did not fully recover for women or men and women's employment rate remained substantially lower than men's. Between 2019 and 2021, the employment rate for women decreased from 62% to 59% and for men from 78% to 77%. In Peru in 2019, the four groups of workers represented 36% of women's employment and 10% of men's. Between 2019 and 2021, women's employment in the groups taken together increased to 94% of pre-COVID-19 levels and men's to 89%.

Two of the countries—Brazil and Mexico—have data on earnings during the pandemic. In pre-COVID-19 Brazil, average earnings were quite low among informal workers, especially among women. With the onset of the pandemic, among informal workers, the average earnings dropped further still but the gender gap in earnings remained relatively unchanged. Street vendors as a group were hardest hit: pre-COVID, 59% earned less than the minimum wage; by mid-2020, this had increased to 65%.

The data for Mexico on average hours per week and average earnings for the first quarters of 2020 (pre-COVID), 2021, and 2022 are detailed in Box 2.

Box 2.

Hours of work per week and earnings in Mexico: first quarters of 2020 (pre-COVID), 2021, and 2022

Hours of work per week

In the first quarters of both 2020 (pre-COVID) and 2021, the majority of women in four groups of mainly informal workers (domestic workers, home-based workers, market traders, and street vendors) taken together worked a short work week of 35 hours or less. But there was a shift in the percentage of women working fewer than 35 hours per work week across the specific groups: an increase for domestic workers (from 54% to 57%) but a decrease for home-based workers (from 70% to 69%), market traders (57% to 52%), and street vendors (68% to 65%). In the four groups, the share of men working fewer than 35 hours per work week was much lower than the share of women pre-COVID-19 but increased by 2021 (from 26% to 29%). Moreover, between the first quarters of 2020 and 2021, there was a decrease in the share of men working more than 48 hours per week and the percentage decrease varied by group: from 35% to 30% for domestic workers, from 22% to 20% for home-based workers, from 37% to 34% for market traders, and from 33% to 29% for street venders. There was also a decrease in the share of women working a long work week: 13% in both 2020 and 2021. However, the percentage of women street vendors working more than 48 hours per week increased from 12% in in the first quarter of 2020 to 15% by 2021.

Average hourly earnings

Pre-COVID, in the first quarter of 2020, among two groups of workers—domestic workers and market traders—men earned a few more pesos per hour on average than women. Among home-based workers, men earned around 15 pesos more per hour than women. However, among street vendors, women earned around 4 pesos more per hour than men. These earnings gaps between women and men across the worker groups remained mixed through 2021. The most notable change was among home-based workers, with an increase of 7 pesos for both women and men. Average earnings for women and men in domestic work went up slightly. Women's earnings in both market trade and street vending declined while men's earnings in market trade increased (by 5 pesos) but decreased in street vending (by a few pesos). By the first quarter of 2022, average earnings of both women and men increased across all worker groups, except for men in domestic work. Among home-based workers, average earnings increased by an additional 11 pesos for men

compared with less than 1% for women. Among street vendors, women continued to earn more than men by 6 pesos per hour.

To summarize, the national estimates reveal certain common patterns of employment loss and gain during the COVID-19 pandemic, with only a few exceptions.

- The first year of the COVID-19 pandemic, with its associated restrictions and lockdowns, had a dramatic impact on employment. Around 22 million workers lost employment across the five countries during the pandemic. The employment losses during 2020 ranged from nearly 7% in El Salvador to 19% in Mexico. Recovery in numbers employed by 2021 was significant: to 94% of the pre-COVID-19 levels in El Salvador, 96% in Mexico, and 100% in Peru. By the first quarter of 2022, employment recovery in Mexico was to 102% of the pre-COVID-19 level.
- The informal workforce suffered a higher percentage loss in numbers employed than the formal workforce in four of the countries, but not in Peru where the losses were greater in formal employment. However, in Metropolitan Lima the percentage losses were similar in formal and informal employment. Of the three countries with post-2020 data—El Salvador, Mexico, and Peru—informal employment led the recovery in numbers employed nationally. However, in Mexico City and urban Mexico, formal employment led the recovery and in San Salvador both formal employment and especially informal employment continued to decline.
- Women workers suffered higher employment losses than men, both in percentage terms and in absolute numbers in Brazil, Chile, and Peru. However, in El Salvador and Mexico the initial losses in numbers were higher for men than for women, with little difference in the percentage losses. In all three countries with post-2020 data—El Salvador, Mexico, and Peru—the percentage increases for women were higher than for men nationally.
- The difference in employment losses and gains was greater between informal and formal workers than between women and men workers in Brazil, Mexico, and Peru and roughly the same in Chile and El Salvador.
- In four of the countries, with the exception of El Salvador, the differences in employment losses and gains were generally greater between women and men in the informal workforce than in the formal workforce. In Mexico, the difference during the initial loss of employment in 2020 was roughly equal between women and men in formal and informal employment; but by the first quarter of 2021, as the numbers employed began to recover, women workers recovered far less (by 10%) than men workers in informal employment but to the same percentage as men in formal employment.
- Within the informal workforce, traditional forms of home-based work (in manufacturing and trade) and domestic work were particularly hard hit and women tended to be over-represented in these segments.

2 Impact of the COVID-19 pandemic on informal employment: insights from 11 cities

This section presents relevant city-level findings from the 11-city study led by Women in Informal Employment: Globalizing and Organizing (WIEGO) to supplement and help interpret the

national estimates presented in Section 1, particularly on specific groups of informal workers.[7] The micro-evidence will illustrate some of the dynamics behind the employment losses and recovery within four groups of (largely) informal workers (domestic workers, home-based workers, street vendors/market traders, and waste pickers) and between women and men within these groups.[8]

2.1 Impact on informal employment

The 11-city study findings confirm the dramatic initial decline in informal employment plus the slow recovery in numbers of informal workers able to work during the COVID-19 crisis. In addition, estimates of the average days of work per week and the average earnings from work are provided, confirming the national data on these variables from Brazil and Mexico.

Numbers able to work

Across the 11 cities, nearly two-thirds (65%) of the respondents were not able to work at all during the peak lockdowns/restrictions in April 2020. By mid-2020, when severe restrictions had been eased or lifted, over two-thirds were still unable to work and, by mid-2021, over 20% were unable to work.

Days of work per week

Prior to the COVID-19 crisis, the respondents in the 11-city study sample worked 5.5 days per week on average. Their average days worked per week dropped to 1.3 in April 2020 but recovered to 3.4 days per week by mid-2020. However, between mid-2020 and mid-2021, their average days worked per week increased by only half a day, to 4 days per week in mid-2021.

Average earnings

Not surprisingly, the slow return to full-time work was associated with a slow recovery in earnings. For the 11-city sample as a whole, median earnings were just over one-third (35%) of pre-COVID-19 levels in mid-2020 and just under two-thirds (65%) by mid-2021. However, one group—the home-based workers—were earning only 2% of their pre-COVID-19 earnings by mid-2021. It should be noted that the average pre-COVID-19 earnings of the study sample were close to, or below, the national poverty line in most cities.

In sum, among the 11-city study sample of informal workers, recovery measured in terms of numbers able to work was slow and partial but greater than recovery measured in terms of average days of work per week and average earnings. These findings are confirmed by the national estimates from Mexico and illustrate the need to understand and study employment recovery, and other employment trends, not simply in terms of numbers able to work or employment rates.

[7] The 11 cities in this study are Accra (Ghana), Ahmedabad (India), Bangkok (Thailand), Dakar (Senegal), Delhi (India), Durban (South Africa), Lima (Peru), Mexico City (Mexico), New York City (United States of America), Pleven (Bulgaria), and Tiruppur (India). The data from these 11 cities are based on a WIEGO-led panel survey conducted in mid-2020 and mid-2021.

[8] Since the sample for the 11-city study includes only informal workers, this section does not consider the impact of the COVID-19 crisis on total employment or formal employment.

2.2 Impact on specific groups of informal workers

The 11-city findings confirm that the impact of the COVID-19 crisis on informal workers was not uniform and varied between and within different groups of informal workers.

Ability to work

Unlike the national labour force survey samples that contained new entrants into home-based work, the 11-city sample contained only those home-based workers who had been engaged in home-based work pre-pandemic. Unlike the national estimates that showed an increase in the number of home-based workers, the 11-city study found that home-based workers suffered the greatest loss in employment and were the slowest to recover. Less than 20% of home-based workers were able to work in April 2020, just over half in mid-2020, and around 60% by mid-2021, because of the lack of demand and work orders and disruptions in supply chains for raw materials and finished goods. Second to home-based workers, street vendors were the least able to work in all periods and faced decreased demand and sales even once they could return to work. In contrast, over one-third of domestic workers were able to work in April 2020, nearly 60% in mid-2020, and just over 80% by mid-2021. Waste pickers were the most able to work in all periods but faced a decline in access to waste, in market outlets and in prices for reclaimed waste. Overall, across the study sample, home-based workers and street vendors were the least able to work and had the lowest recovery in median earnings by mid-2021, although street vendors fared significantly better than home-based workers on both counts.

Reasons for loss of work

In April 2020, among the 11-city study sample, all four groups cited government restrictions on movement and commerce as the most significant reason for not being able to work, and disruptions in markets and supply chains as the second most significant reason. Between mid-2020 and mid-2021, government restrictions followed by market and supply chain disruptions remained the most significant constraints on the ability of home-based workers and street vendors to work; but as government restrictions were eased, employer hiring practices became the most significant constraint for domestic workers and health concerns became the most significant constraint for waste pickers.

Average earnings

In April 2020, at the peak of restrictions and lockdowns across all cities, the median earnings in all four sectors were zero relative to pre-COVID-19 earnings. However, there was substantial variation in earnings recovery by mid-2020 and mid-2021. Home-based workers were the hardest hit: with no recovery in earnings by mid-2020 and slow recovery by mid-2021. Street vendors had the second lowest recovery at both points in time, but significantly higher than home-based workers. Waste pickers, who had the lowest average earnings pre-COVID, had the highest recovery of earnings by mid-2020 and the second highest in mid-2021 whereas domestic workers had the second highest recovery of earnings by mid-2020 and the highest by mid-2021.

Key differences within groups

Within each group of informal workers, the employment impacts were different for key sub-groups.

Domestic workers: There are two main groups of domestic workers in the 11-city sample: *live-in* and *live-out*. Most live-ins were allowed to continue to work but were not allowed to go out on days

off or to visit family; most live-outs were not able to work during the peak restrictions and many were not hired back by their employers once restrictions were eased. As a consequence, during 2020, the average earnings of live-in domestic workers were far higher than that of live-out domestic workers, especially in April 2020 when live-out domestic workers could not work or earn. By mid-2021, the average earnings of live-in domestic workers reached the pre-COVID-19 level whereas the average earnings of live-out domestic workers were 88% of the pre-COVID-19 level.

Home-based workers: There are two main groups of home-based workers: *subcontracted* workers, who depend on work orders from firms or factories through their intermediaries, and *self-employed* workers, who sell to individual customers or buyers. After the initial restrictions or lockdown, the self-employed fared better than the sub-contracted in the ability to work and in average earnings. By mid-2021, mainly due to on-going disruptions in the supply chains that limited work orders, the median earnings of sub-contracted home-based workers were around 0% of pre-COVID-19 earnings compared with 24% for self-employed workers.

Street vendors/market traders: Pre-COVID-19, more than half of the street vendors/market traders in the 11-city study sample sold food items, either fresh or cooked; those who sold food earned significantly more on average than those who sold non-food items. During the COVID-19 crisis, in several cities, local governments recognized street food vendors as essential workers, reflecting a high demand for food. By mid-2021, around 90% of all vendors/traders were able to work but the average earnings of food vendors/traders had recovered more than those of non-food vendors/traders.

Waste pickers: Among the four main sectors in the 11-city sample, waste pickers fared the best, although from the lowest base of earnings and working conditions pre-COVID-19 and with the notable exception of those who collected waste from dumpsites that were closed during the COVID-19 crisis. By mid-2020, three-quarters of waste pickers had returned to work; by mid-2021, almost 90% of waste pickers had returned to work. Across the four sectors, waste pickers experienced the greatest recovery of median earnings by mid-2020 and second highest by mid-2021: to 48% and 78%, respectively, of pre-COVID-19 earnings. In part, this is because most waste pickers are self-employed and can operate below the radar of the municipal government. However, it should be noted that, pre-COVID-19, waste pickers earned the least of the four sectors in most cities.

2.3 Impact on women and men in informal employment

In terms of the employment impact of the COVID-19 crisis on women and men informal workers, the 11-city study findings confirm what the national estimates found: namely, that women informal workers were hit harder and recovered less well than men informal workers. In part, this is due to the burden of childcare and domestic chores borne by women, although the 11-city study found an increase in care work and domestic work among both men and (somewhat more so) women during the COVID-19 crisis. Additionally, and importantly, the 11-city study findings show that key differences between and within groups of informal workers help explain why women informal workers tended to fare worse than men informal workers.

Distribution of women and men across groups

Among the 11-city study sample, the largest group was street vendors/market traders (698), followed by waste pickers (590), domestic workers (350), and home-based workers (294). Of the total sample of just under 2,000 informal workers, 70% were women. Among the samples for the specific groups, women comprised nearly 90% of home-based workers who fared least well and nearly two-thirds of street vendors/market traders who also did not fare well. However, women

represented half of the waste pickers who fared the best relatively and nearly 100% of domestic workers who also fared relatively well.

Differences between women and men within groups

Domestic workers and home-based workers: Given the predominance of women in the samples for these two groups, the differences between men and women within these groups are not statistically significant. In the study sample, out of 356 domestic workers only 7 were men of which one was a live-in (the sub-group more likely to be able to continue working); and out of 294 home-based workers, 33 were men of which 12 were sub-contracted (the sub-group less likely to be able to continue working).

Street vendors/market traders: Pre-COVID, women vendors/traders were more likely than men to sell food items and earned less on average than men vendors. During both 2020 and 2021, a slightly lower percentage of women than men street vendors/market traders were able to work. While the median earnings of both women and men were very low in April 2020, earnings recovered by mid-2021 to 70% for men and 55% for women compared with pre-COVID-19 earnings. In Delhi and Pleven, the earnings gap between women and men vendors/traders increased between mid-2020 and mid-2021. In Delhi, the 2021 survey was carried out during a festival season when the demand for non-food specialty items increased. In Pleven, as the COVID-19 crisis dragged on and given their lower earnings pre-COVID, some women vendors could no longer afford to rent a space in street markets or bazaars.

Waste pickers: In April 2020, a lower percentage of women waste pickers than men waste pickers were able to work**.** This gender gap in ability to work widened by mid-2020 but narrowed by mid-2021. The gender gap was due in part to key differences between waste pickers according to what tasks they perform and where they collect, sort, and store waste. Pre-COVID, among the study sample, a higher percentage of women than men collected and sorted waste at dumpsites (some of which were closed during the COVID-19 crisis); and a higher percentage of men than women collected waste from homes and from businesses. Also, a higher percentage of women than men waste pickers reported the threat of arrests and fines by the police and local authorities.

In sum, the percentage of women and men in the 11-city samples for specific groups of informal workers partially explains the gendered difference in the employment impact of the COVID-19 crisis, as women were over-represented in the two hardest hit sectors, especially among home-based workers (the hardest hit) but also among street vendors/market traders (the largest group in the overall sample). But other factors also contributed to the differential impact on women and men. Among the one group in the sample that was not predominantly female and fared the best—waste pickers—women were worse hit and recovered less than men. Within the sectors, a range of factors helped explain the differential impact on women and men, including place of work, tasks performed, product sold, and treatment by local authorities.

As summarized in this section, the micro-findings from the 11-city study provide important insights into the dynamics of employment loss and recovery within the informal economy: illustrating that branch of industry, status in employment, place of work of individual workers plus the goods or services they provide are key determining factors as well as the policies or practices of government, employers, and dominant actors in supply chains (for more details, see Chen et al. 2022a). The micro-findings also confirm a common finding in several of the national estimates: namely, that it is the new entrants into home-based work who account for the increased numbers in that sector as the numbers of those engaged in home-based work pre-COVID-19 dropped dramatically early into the COVID-19 crisis and recovered only slowly. The micro-findings also

show that the earnings of pre-existing home-based workers dropped even more dramatically and recovered even more slowly than the numbers employed.

3 Closing reflections

The joint findings, national and local, presented in this paper illustrate that the pandemic, and associated restrictions and recession, exposed and exacerbated pre-existing inequalities within the total workforce notably between formal and informal workers but also by branch of the economy, by status in employment, and, intersecting with these variables, by gender and (as the Brazil and South Africa data show) by race.

3.1 Mixed data sources and research methods

The joint findings also illustrate the value of using mixed data sources to inform and illuminate each other. For 25 years, the WIEGO network has been recognized as an informed user of official national data; it works closely with the International Labour Organization, the United Nations Statistical System, national statisticians, and data analysts to promote improved measurement of informal employment, contributing to the 2018 publication by the International Labour Organization of the first-ever global estimates of informal employment which, in turn, contributed to the availability and analysis of recent national data from seven countries reported in this study. And, for 25 years, the WIEGO network has generated multiple multi-site studies on different topics related to the informal economy, such as the 11-city COVID-19 study, using a mix of quantitative (survey questionnaire) and qualitative (focus groups and in-depth interviews) methods. These micro-studies have been used to inform the production and analysis of national data as they illustrate the importance of key variables—branch of the economy, status in employment, place of work—in measuring informal employment. The micro-studies have also served to illustrate the intersection of these key individual variables with wider structural variables—economic trends and crises, economic and urban policies and the practices of government, employers and dominant actors in supply chains—in driving employment outcomes, not only during crises, thereby serving to inform policy towards—as well as measurement of—the informal economy.

3.2 Future policy responses to the informal economy

The joint findings presented in this paper confirm that informal workers represent a significant share of total employment and were badly affected during the COVID-19 pandemic. They should, therefore, be given priority in economic recovery efforts and in future policies. But this requires a shift in the dominant narratives about the informal economy: from stigmatizing and penalizing informal workers to seeing them as the broad base of the economy providing essential goods and services. Hopefully, the evidence in this paper will make the case for this necessary shift.

The evidence presented in this paper also illustrates that policy support to the informal economy requires a differentiated approach to address the dynamics of different segments of the informal workforce. Two papers, one on universal social protection for informal workers (Alfers and Juergens-Grant 2023) and the other on a new social contract for informal workers (Chen et al. 2022b), offer guidelines for a new policy approach that supports, rather than penalizes, informal workers and that recognizes and addresses the heterogeneity of the informal economy.

Data sources for WIEGO statistical briefs

Brazil: The data are based on the *Pesquisa Nacional por Amostra de Domicílios Contínua* (PNAD, National Sample Survey of Households) which, since 2012, has been the Brazilian Labour Force Survey.

Chile: The data are based on the fourth quarter of the 2017, 2019, and 2020 *Encuesta Nacional de Empleo* (ENE, Labour Force Survey), a quarterly survey of the Instituto Nacional de Estadisticas (INE, National Institute of Statistics).

El Salvador:: The data are based on the *Encuesta de Hogares de Propósitos Múltiples* (EHPM, Multi-Purpose Household Survey), conducted by the Dirección General de Estadística y Censos (DIGESTYC, General Directorate of Statistics and Census).

Mexico: The data are based on the first quarters of the 2020, 2021, 2022 *Encuesta Nacional de Ocupación y Empleo* (ENOE, National Occupation and Employment Survey), a quarterly survey of the Instituto Nacional de Estadisca y Geografia (INEGI, National Institute of Statistics and Geography). Additional data are also included for the second quarter of 2020.

Peru: The data are based on the annual results of the *Encuesta Nacional de Hogares* (ENAHO, National Household Survey) for 2019, 2020, and 2021 carried out by the Instituto Nacional de Estadistica e Informatica (INEI, National Institute of Statistics and Informatics).

References

Alfers, L., and F. Juergens-Grant (2023). 'Social Protection, the COVID-19 Crisis, and the Informal Economy: Lessons from Relief for Comprehensive Social Protection'. WIDER Working Paper 2023/93. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2023/401-4

Bouvier, M., and J. Vanek (forthcoming). *Informal Workers in El Salvador: A Statistical Profile, 2019–2021*. WIEGO Statistical Brief. Manchester, UK: WIEGO.

Bouvier, M., J. Vanek, and F. Roubaud (2022). *Informal Workers in Brazil: A Statistical Profile*. WIEGO Statistical Brief 33. Manchester, UK: WIEGO.

Chen M., E. Grapsa, G. Ismail, S.O. Reed, M. Rogan, and M. Valdivia (2022a). 'COVID-19 and Informal Work: Degrees and Pathways of Impact in 11 Cities around the World'. WIDER Working Paper 2022/45. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2022/176-1

Chen M., S. Plagerson, and L. Alfers (2022b). 'A New Social Contract Inclusive of Informal Workers'. WIDER Working Paper 2022/49. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2022/180-8

Ramírez, T., R. Carcelén, C. Roca, and J. Vanek (2023). *Informal Workers in Peru: A Statistical Profile, 2015–2021*. WIEGO Statistical Brief 34. Manchester, UK: WIEGO.

Ramírez, T., and J. Vanek (forthcoming). *Informal Workers in Mexico. Statistics on the Impact of COVID-19, 2020–2023*. WIEGO Statistical Brief Series. Manchester, UK: WIEGO.

Rogan M., and C. Skinner (2022). 'The COVID-19 Crisis and the South African Informal Economy: A Stalled Recovery'. WIDER Working Paper 2022/40. Helsinki: UNU-WIDER. https://doi.org/10.35188/UNU-WIDER/2022/171-6

Salazar, J.J.L., and J. Vanek (2022). *Informal Workers in Chile: A Statistical Profile*. WIEGO Statistical Brief 30. Manchester, UK: WIEGO.