

Labor Force Participation in Colombia

Marco Arena, Camila Casas and Roberto Perrelli

SIP/2025/146

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on September 15, 2025. This paper is also published separately as IMF Country Report No 25/281.

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Labor Force Participation in Colombia
Prepared by Marco Arena, Camila Casas and Roberto Perrelli*

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ABSTRACT: Colombia's labor force participation (LFP) showed a steady and gradual decline for both men and women between 2012 and 2019, which contrasts with rising LFP in regional peers. This paper assesses the factors behind LFP dynamics in Colombia to inform policy options for boosting participation and supporting Colombia's long-term growth, against the headwinds from slowing birthrates and population aging.

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SELECTED ISSUES PAPERS

Labor Force Participation in Colombia

Colombia

Prepared by Marco Arena, Camila Casas and Roberto Perrelli¹

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COLOMBIA

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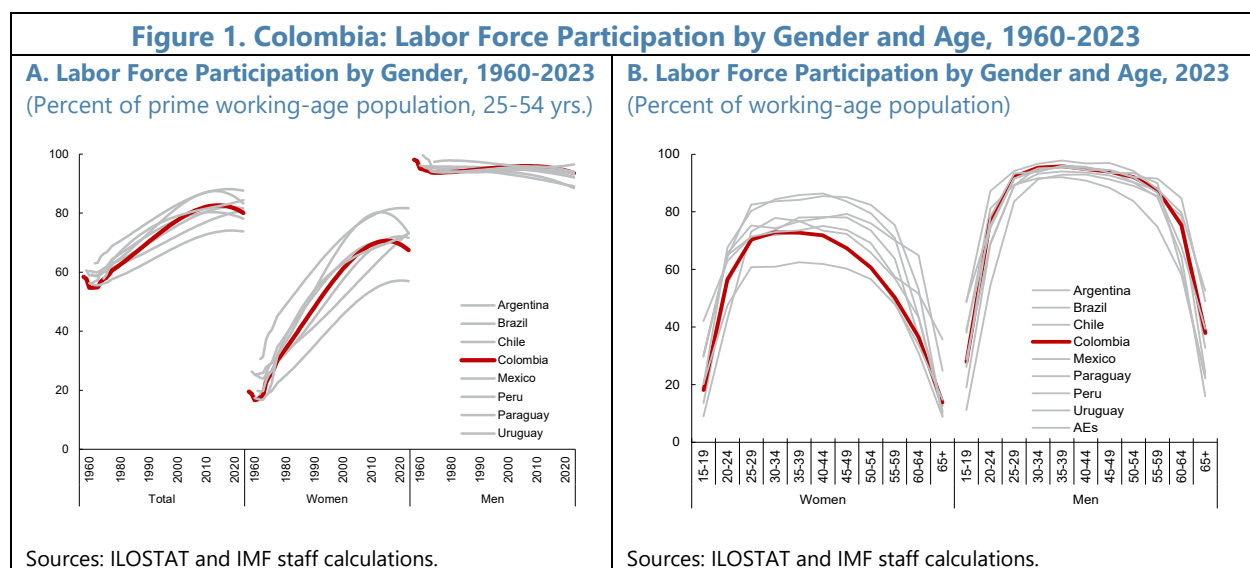
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LABOR FORCE PARTICIPATION IN COLOMBIA¹

Colombia's labor force participation (LFP) showed a steady and gradual decline for both men and women between 2012 and 2019, which contrasts with rising LFP in regional peers. This paper assesses the factors behind LFP dynamics in Colombia to inform policy options for boosting participation and supporting Colombia's long-term growth, against the headwinds from slowing birthrates and population aging.

Background

1. Colombia has experienced a gradual decline in labor force participation (LFP) over the last decade, especially among women. Colombia's LFP rose from less than 50 percent of the working-age population in the 1950s to 68 percent in 2010-12. Since then, it has declined to around 63 percent. While Colombia's male LFP has oscillated around 80 percent, its female LFP rose from 12 percent in the 1960s to 55 percent in the middle of last decade, falling to 52 percent since then. These patterns are even more noticeable when assessed in terms of prime working age population (Figure 1, Panel A). Moreover, female LFP starts to drop sharply at 45-49 years old—or 10 years earlier than male LFP (Figure 1, Panel B).

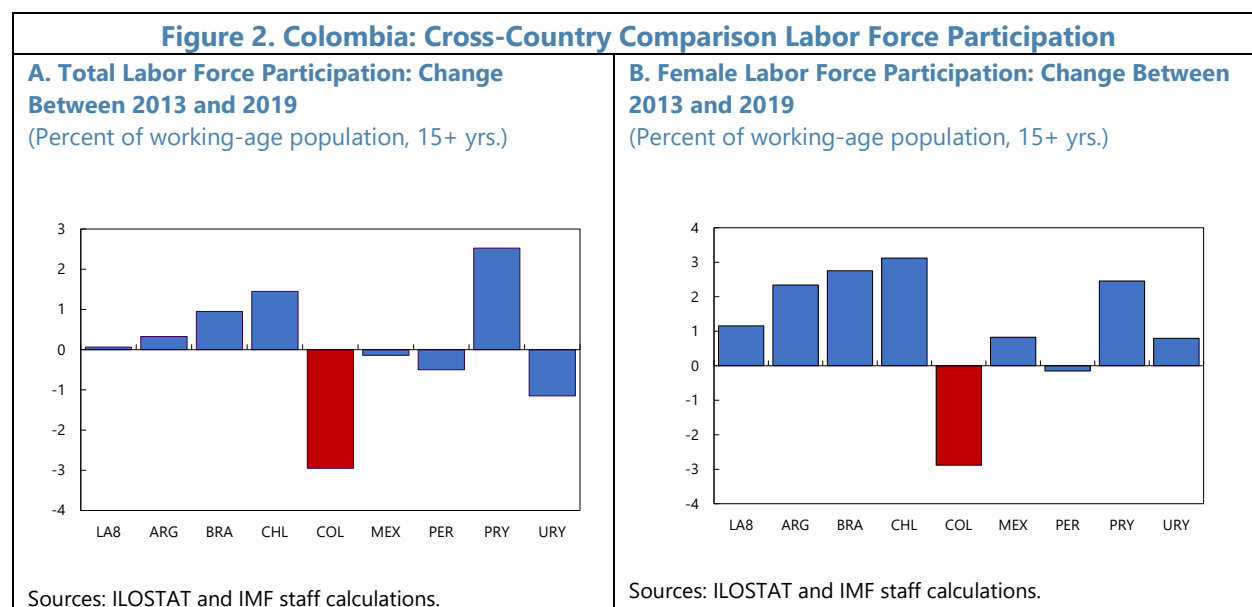


2. While declines in LFP coincided with the escalation of Venezuelan migration to Colombia, the latter does not seem to fully explain it. While the large influx of people may be correlated with labor market outcomes, it is unlikely that migration can fully explain the observed drop in Colombia's LFP. Exploiting cross-regional information, Alvarez and others (2022) find that regions with greater migration inflows did not experience larger declines in (male or female) labor force participation rates. Moreover, Bahar and others (2021) do not find a significant effect of an

¹ Prepared by Marco Arena, Camila Casas, and Roberto Perrelli (WHD).

increase in the number of residency permit (*Permiso Especial de Permanencia*, PEP) holders on the labor force. Bonilla and others (2024) find a causal and negative effect of migration on the probability of participation in the labor force, but the reduction is small (0.3 percentage points). Given these findings in the literature, we explore other potential reasons that can explain declines in LFP.

3. Understanding Colombia's persistent gender gaps in LFP is a critical aspect of this puzzle. At almost 25 percent, Colombia's current gender gap in LFP was second only to Mexico, which has also seen a faster and more dramatic reduction in the LFP gap since 2000.² Latin American peers, like Peru and Uruguay, presented gender gaps around 14-15 ppts, not far from the average gender gap found among advanced economies (11 ppts as of 2023). A closer look at the data suggests that, unlike most regional peers, the decline in Colombia's LFP took place prior to the pandemic (Figure 2, Panel A), especially for women. During 2013-19, Colombia's female participation in the labor force dropped almost 3 ppts whereas the average for the largest economies in the region was broadly unchanged or increased (Figure 2, Panel B). Since Colombia's LFP decline precedes the pandemic crisis, exploring the cross-country variation of the evolution of gender gaps will be essential to better understand these trends.

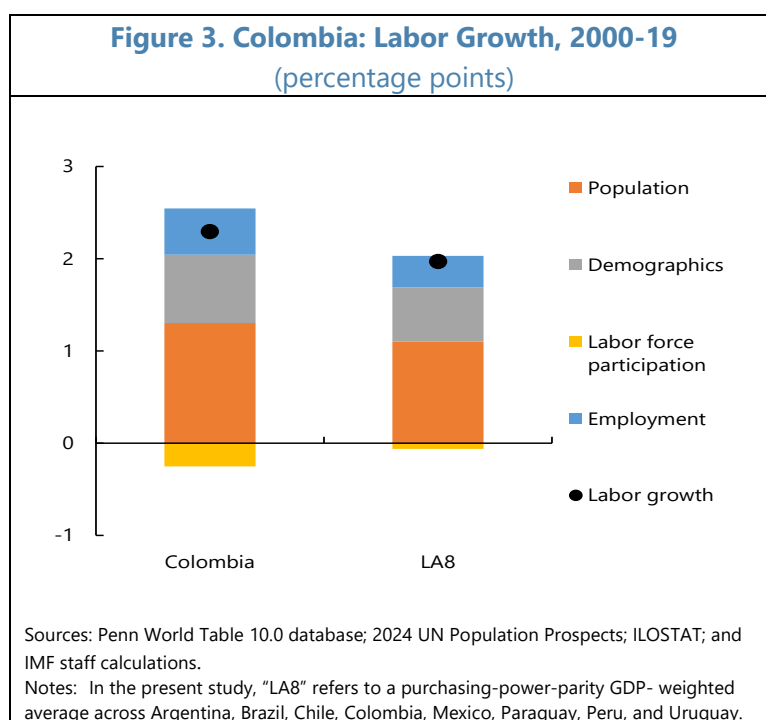


4. The decline in LFP has hampered Colombia's labor and real GDP growth over the past decade. During 2000-19, Colombia's labor has grown on average 2.3 percent per year—0.3 ppts faster than in its Latin American peers (LA8 countries).³ The lion's share of Colombia's labor growth comes from the growth in total population (1.3 percent in Colombia, 1.1 on average in LA8 countries) and in working age population ("demographics"; 0.7 percent in Colombia, 0.6 in LA8), with

² For details, see [Closing the Gap: Labor Market Participation in Latin America, IMF Regional Economic Outlook—Western Hemisphere](#).

³ Argentina, Brazil, Chile, Colombia, Mexico, Paraguay, Peru, and Uruguay.

both statistics including all residents (i.e., nationals and migrants). Employment growth was also higher in Colombia (0.5 percent) than in LA8 (0.3 percent) during 2000-19. However, Colombia's labor force participation growth (-0.3 percent) was the lowest among LA8 countries (Figure 3).



Data, Methodology, and Results

5. Econometric analysis is conducted using microdata from the Colombian household survey (*Gran Encuesta Integrada de Hogares*) together with the *migration modules* for all individuals 15-64 years old—a total of over 576 thousand observations (for 2023), of which 54 percent of the surveyed individuals were women. Probit regressions are done to assess the drivers explaining LFP (for both women and men) including household characteristics (head, married), young children, elders, education, whether the individual is a Venezuelan migrant, age, geographical domain (rural/urban). Also, the analysis includes a measure of security/crime (per capita rate of homicides). A robustness analysis is performed by estimating the probit regressions for the years 2019 and 2024. Additional regressions are also estimated for the individual years between 2013 and 2019 (pre-pandemic period) but excluding some variables due to data limitations (e.g., Venezuelan migrant).

6. For the pre-pandemic period (2013-2019), almost all the explanatory variables have similar marginal effects. Table 1 shows individual regressions for the years between 2013 and 2019 for women, men, and the total sample. The results suggest that only the variable "children" shows a declining marginal effect during the pre-pandemic period (from 0.0440 in 2013 to 0.0287 in 2019), which could be one factor behind the gradual decline in LFP during that period.

Table 1. Colombia: Drivers of Probability of Participating in the Labor Force, 2013-19
(Marginal effects)

Women	2013	2014	2015	2016	2017	2018	2019
head	0.149	0.148	0.149	0.150	0.149	0.151	0.157
married	-0.016	-0.012	-0.010	-0.010	-0.012	-0.012	-0.013
young_children	-0.052	-0.054	-0.054	-0.056	-0.049	-0.050	-0.055
children	0.044	0.042	0.039	0.037	0.033	0.027	0.029
education	0.093	0.092	0.091	0.093	0.093	0.095	0.097
age	0.002	0.002	0.002	0.002	0.002	0.002	0.001
rural	-0.065	-0.070	-0.055	-0.039	-0.042	-0.041	-0.055
Observations	260,118	270,358	271,547	269,567	265,528	265,121	263,841
Men	2013	2014	2015	2016	2017	2018	2019
head	0.065	0.068	0.069	0.064	0.059	0.059	0.058
married	0.125	0.121	0.121	0.127	0.128	0.128	0.129
young_children	0.052	0.048	0.050	0.052	0.059	0.062	0.059
children	-0.009	-0.010	-0.013	-0.015	-0.018	-0.016	-0.016
education	0.038	0.040	0.039	0.043	0.042	0.045	0.047
age	0.002	0.002	0.002	0.002	0.003	0.003	0.003
rural	0.080	0.067	0.077	0.075	0.088	0.091	0.081
Observations	220,901	231,190	234,259	233,224	229,690	230,247	228,222
Total	2013	2014	2015	2016	2017	2018	2019
gender	-0.194	-0.192	-0.189	-0.190	-0.190	-0.196	-0.198
head	0.159	0.156	0.156	0.155	0.153	0.153	0.156
married	0.047	0.049	0.051	0.053	0.052	0.052	0.051
young_children	-0.008	-0.010	-0.009	-0.009	<u>-0.002</u>	<u>-0.003</u>	-0.006
children	0.021	0.020	0.017	0.014	0.011	0.010	0.011
education	0.070	0.071	0.069	0.072	0.072	0.074	0.076
age	0.002	0.002	0.002	0.002	0.002	0.002	0.002
rural	0.006	<u>-0.001</u>	0.010	0.017	0.021	0.022	0.010
Observations	481,019	501,548	505,806	502,791	495,218	495,368	492,063

Marginal effects statistically significant at 1 percent (except the marginal effects in underlined cells, which are not statistically significant).

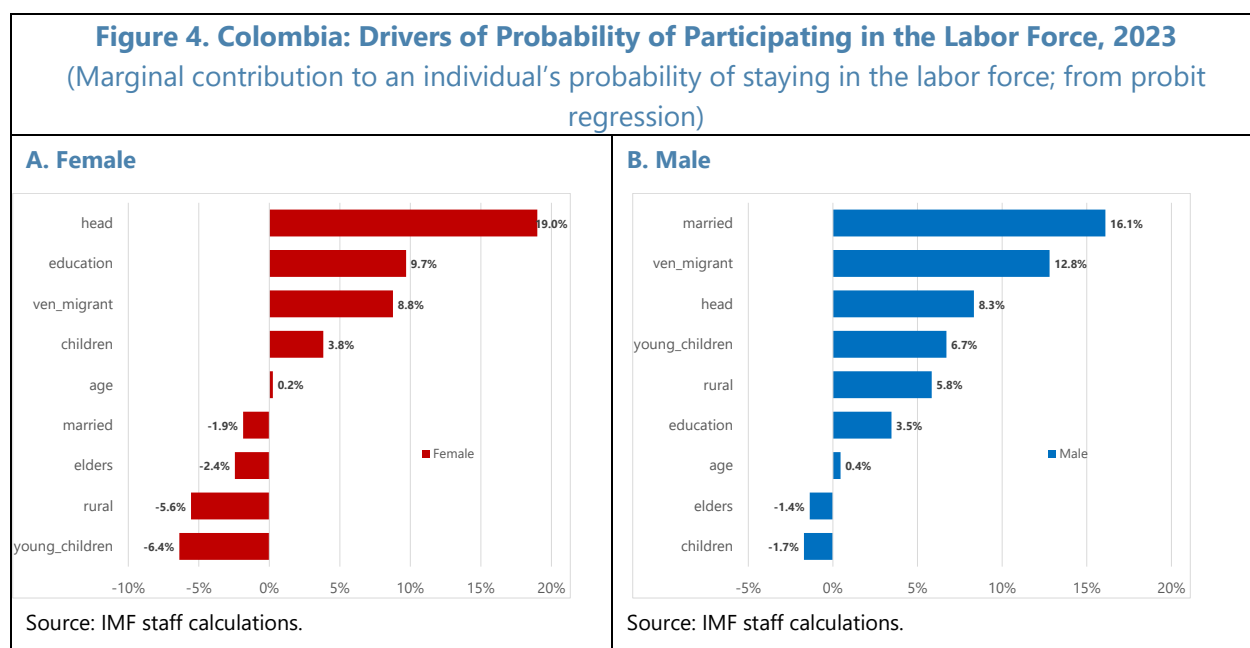
Source: IMF staff calculations.

7. Results suggest that childcare and eldercare appear to be among the main factors hindering female labor force participation in Colombia. The econometric analysis suggests that having young children (less than 5 years old) reduce women's probability of staying in the Colombian labor force by around 6 percentage points, whereas having elders living at home (for

example, parents and older family members) shaves this probability by additional 2 ppts (Figure 4, Panel A).

8. The rise of Venezuelan migrants, who have higher propensities to participate in the Colombian labor force, may have played a role. Among key patterns that have been identified in the literature (e.g., Alvarez et al, 2022), Venezuelan migrants appear to be more educated than the average Colombian. Also, migrants tend to be younger (28 years old on average) than Colombians (32 years old). These differences partially explain the migrant's higher labor force participation rate than that of the locals.⁴ After controlling for other characteristics, staff's econometric analysis shows that being a Venezuelan migrant boosts the probability of participating in the Colombian labor force by about 10 percentage points on average—9 ppts for women and 12 ppts for men (Figure 4, Panels A and B). It is possible, however, that higher inflows of Venezuelans in the country could have negatively impact female LFP through a reduction in LFP among less-skilled Colombians facing competition for jobs with them, while the opposite effect could be found among high-skilled women (Pedrazzi and Peñaloza-Pacheco, 2022).⁵

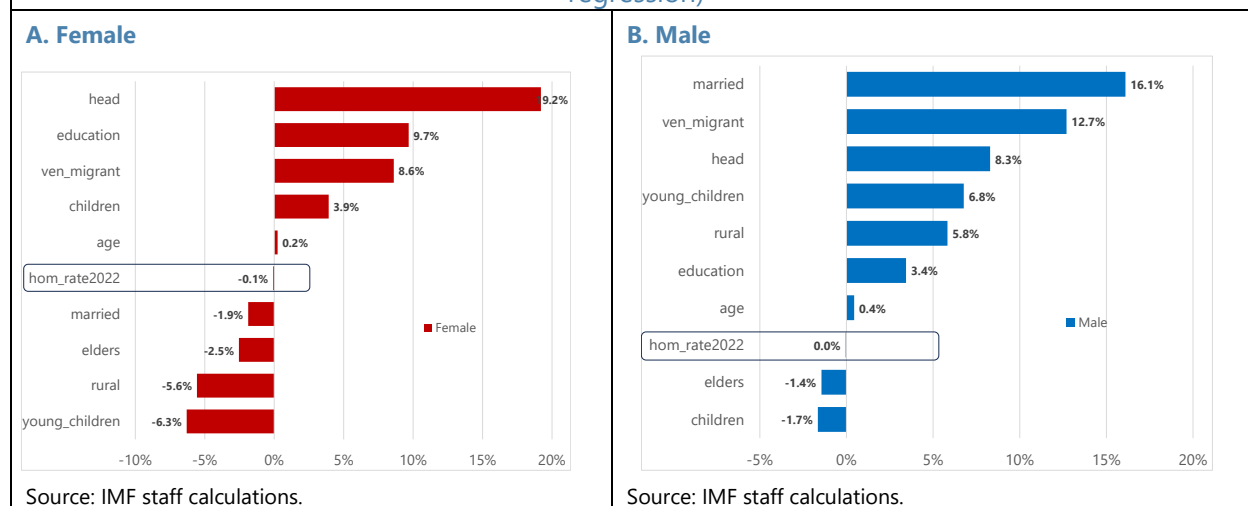
9. Other factors played a secondary role. While the measure of crime (homicide rates, in levels) is statistically significant, the size of the coefficient is small (Figure 5). However, care is needed with the interpretation that crime would not be an explanatory factor of LFP, as there could be other forms of crime and insecurity not captured by the chosen measure. No major differences were observed for the results using 2024 data.



⁴ About 74 percent of the Venezuelan migrants actively sought a job, compared with 63 percent of the locals.

⁵ Importantly, the authors find no evidence of such effect among high-skilled Colombian females. Moreover, a positive effect of the Venezuelan migration on Colombia's female LFP is found among high-skilled Colombian women living with at least one young child (up to 5 years old) as a dependent.

Figure 5. Colombia: Drivers of Probability of Participating in the Labor Force, 2023
(Marginal contribution to an individual's probability of staying in the labor force; from probit regression)

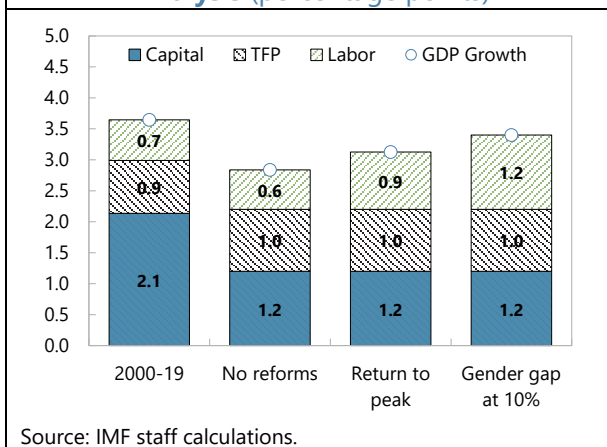


Recommendations

10. Policies to enhance work flexibility, expand childcare and eldercare services, and better integrate migrants in the labor force could raise Colombia's long-term growth potential.

- Demographic Drags.** In the two decades up to the pandemic, labor dynamics contributed on average with 0.7 percentage points to Colombia's annual real growth rate. Going forward, however, negative population changes are expected to weigh on growth and, all else equal, to reduce the labor contribution to long-term growth by 0.1-0.2 ppts. The falling contribution from labor could be larger as birth rates in Colombia have plummeted since the pandemic.⁶
- Impact of Boosting LFP.** A counterfactual analysis where the LFP rate would return to the peak could increase Colombia's long-term growth rate by 0.3 ppts. Moreover, if the gender gap in labor participation could be narrowed to 10 percent—the average gap observed in advanced economies—the contribution from labor could boost long-term growth by 0.6 ppts

Figure 6. Colombia: Labor Contribution to Long-Term Growth: A Counterfactual Analysis (percentage points)



⁶ According to Colombia's National Statistics Office (DANE), the number of births per year has declined from more than 200 thousand in 2019 to less than 90 thousand last year.

(Figure 6). Further integrating migrants in the labor force would add to these figures. Finally, increasing labor force participation would reduce funding pressures on Colombia's pension system.

- **Policies.** Enhancing work flexibility, expanding childcare and eldercare services, and better integrating migrants in the labor force could boost Colombia's LFP.⁷ Reaping the economic gains from migration requires further accelerating and strengthening labor market integration. Key dimensions include expanding access to formal labor markets through more integrated approaches and deepening active labor market policies including job search and labor protections. Formalizing migrant workers and easing access to the formal labor market would reduce misallocation and mismatching.

⁷ See, for instance, Berniell et al. (2023).

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