Methodology

To arrive at these findings, Pew Research Center researchers merged together data from several sources. These included global estimates of bilateral remittance flows from the World Bank; data on government policies from Oxford University's Coronavirus Government Response Tracker; data on mobility patterns from Google's COVID-19 Community Mobility Reports; and data on each country's 2018 gross domestic product from the World Bank's World Development Indicators database, accessed June 10, 2020.

Each of these data sources comes with different forms of uncertainty. The World Bank's global remittance estimates are based on a set of estimates about the size of the global migrant stock, as well as other information, such as incomes in migrants' destination countries.

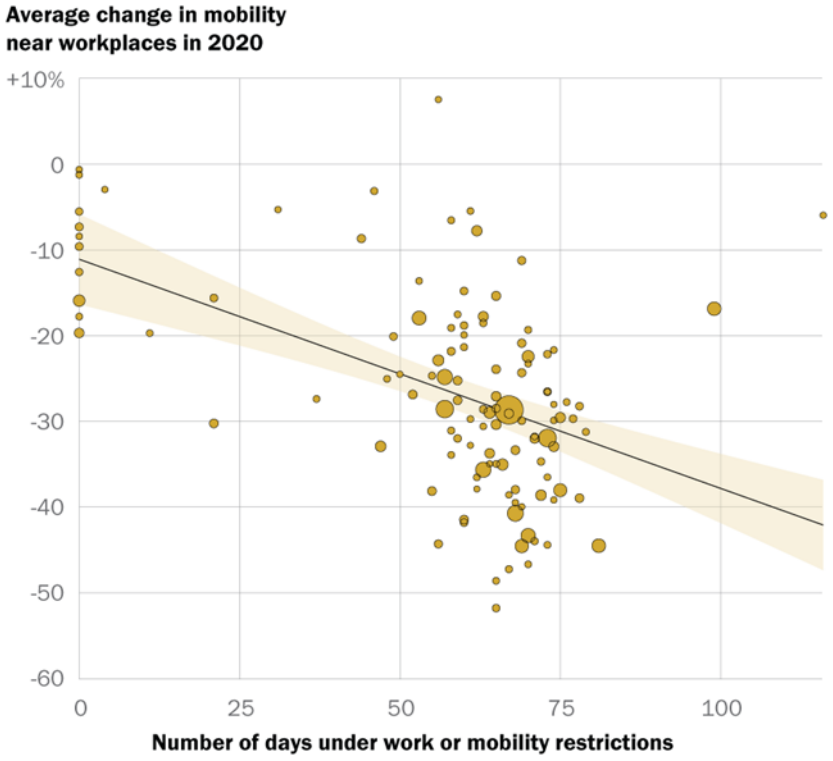
Oxford University's government response tracker is manually assembled from publicly available information about each country's restrictions on mobility due to COVID-19, such as stay-at-home orders and workplace closures. Publicly available information can be sparse for some countries, so the index is more likely to underestimate lockdown stringency than to overestimate it. For this analysis, researchers combined two variables from the Oxford data: one representing whether any region of a country implemented a mandatory stay-at-home requirement, and another representing whether any region of a country required at least some employees to work from home.

Google data, meanwhile, measures individual-level change in physical mobility, and is based on a subset of smartphone users in each country. Google does not provide demographic information about the users that provided data or information about how those users differ across countries. Each country's percentage change in mobility during the study period – in this case, Feb. 15 to May 21, 2020 – is calculated against a five-week baseline period from Jan. 3 to Feb. 6. We include only mobility change estimates for places of work, classified as such by Google.

Google cautions against comparing changes between countries when interpreting these mobility estimates. However, this research shows that countries that experienced stricter lockdowns also featured larger mobility declines. While this does not imply that the mobility measures are in fact comparable across countries, they do appear to have convergent validity with the policy measures.

Countries that spent more time under social distancing measures had larger declines in mobility near workplaces

Countries with greater remittance outflows experienced both larger declines in mobility and longer lockdowns (points sized by remittance outflow)



Note: Shaded area around the line represents a confidence interval of 95%.
Source: World Bank, Oxford University Coronavirus Government Response Tracker, Google COVID-19 Community Mobility Reports.

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