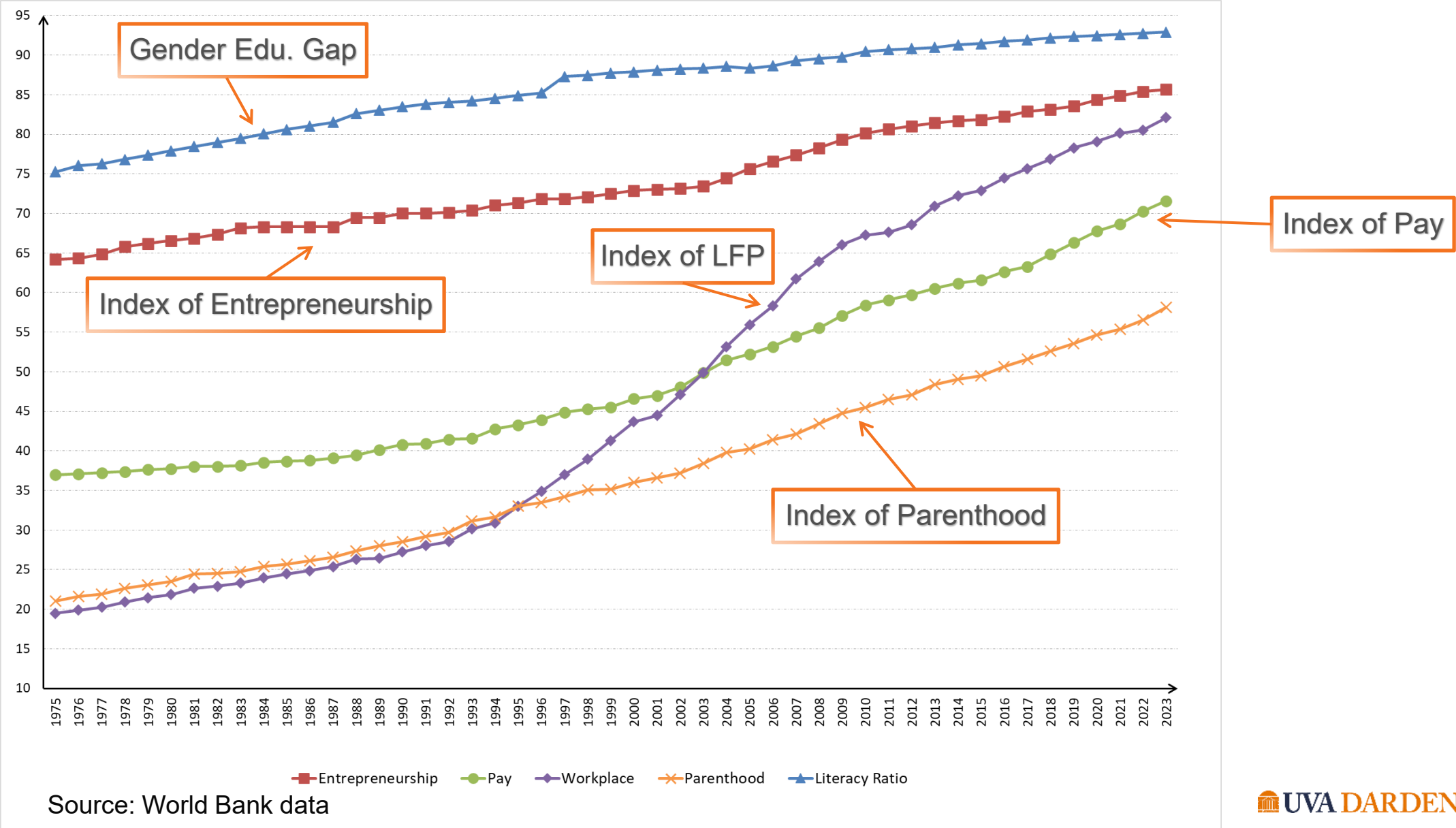

Falling Barriers?

Gender, Structural Change, and Economic Development

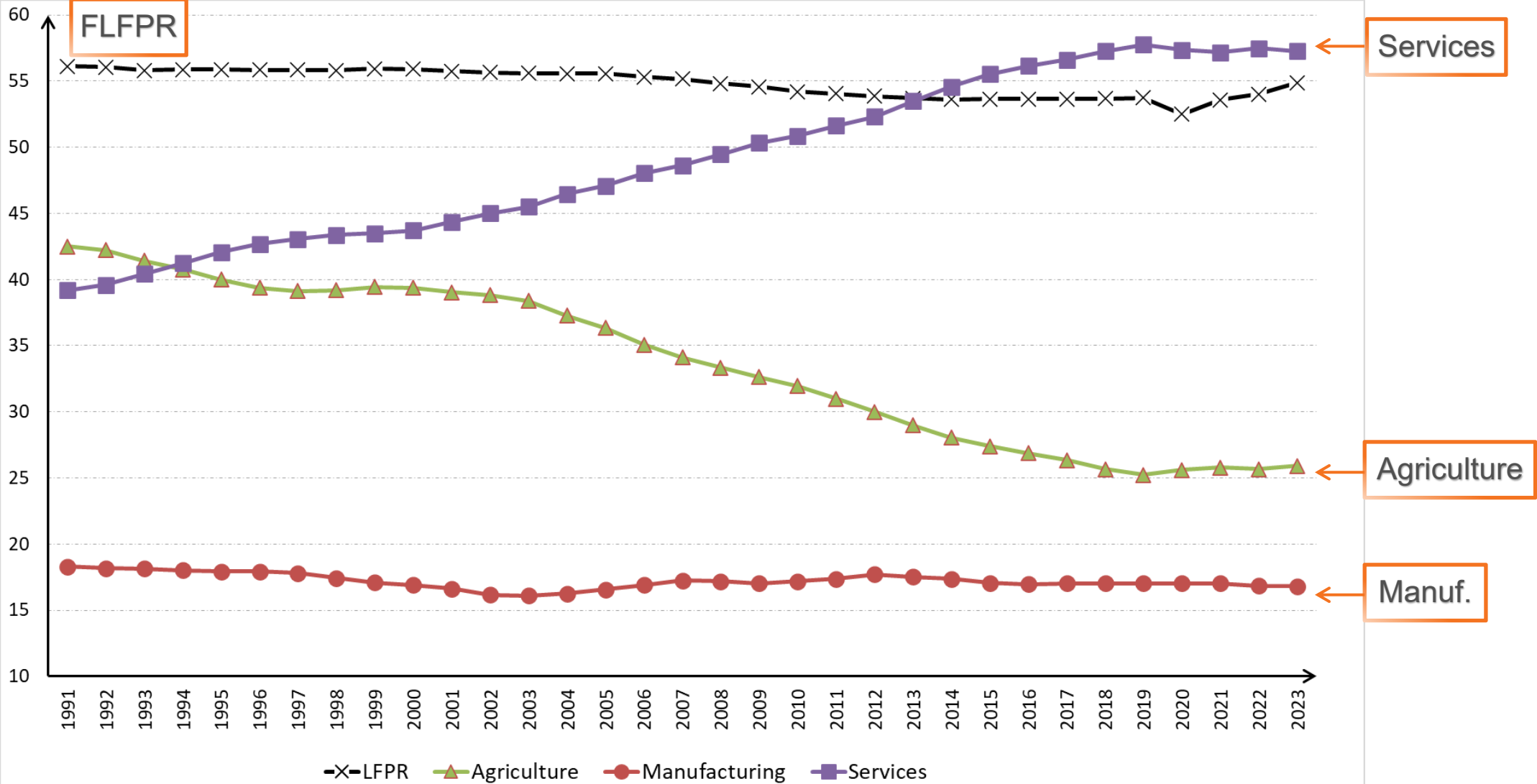
Gaurav Chiplunkar
University of Virginia

Tatjana Kleineberg
World Bank

Female Education and Work Norms Over The Last 50 Years



Women's Employment Transition from Agriculture to Services



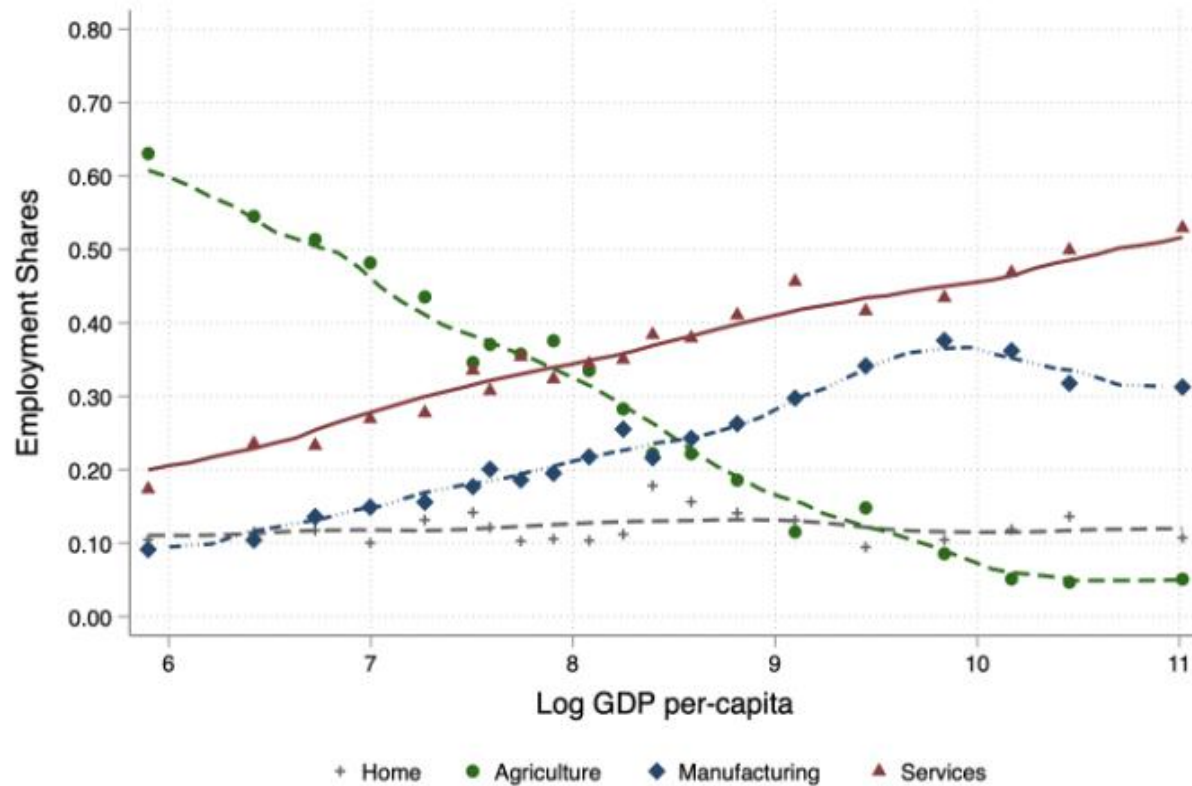
Source: World Bank data

Important for Linking Role of Gender and Economic Growth

- Use detailed nationally representative employment data from ~100 countries, from 1960-2020
- Document gender-specific employment transitions across the spectrum of development
 - In and out of the labor force + within LFP across sectors + within sectors across occupations
- A model-based approach to decompose and quantify the sources of these transitions
 - Economic channels: technological change, education, returns to skill, income effects
 - Gender barriers to participating and earning in the labor force
- Help understand whether gender barriers are a *cause* or *consequence* of economic development
 - Cause: lower gender barriers → improve talent allocation → generates economic growth
 - Consequence: economic growth → demand in sectors/occs. where women face lower barriers to begin with

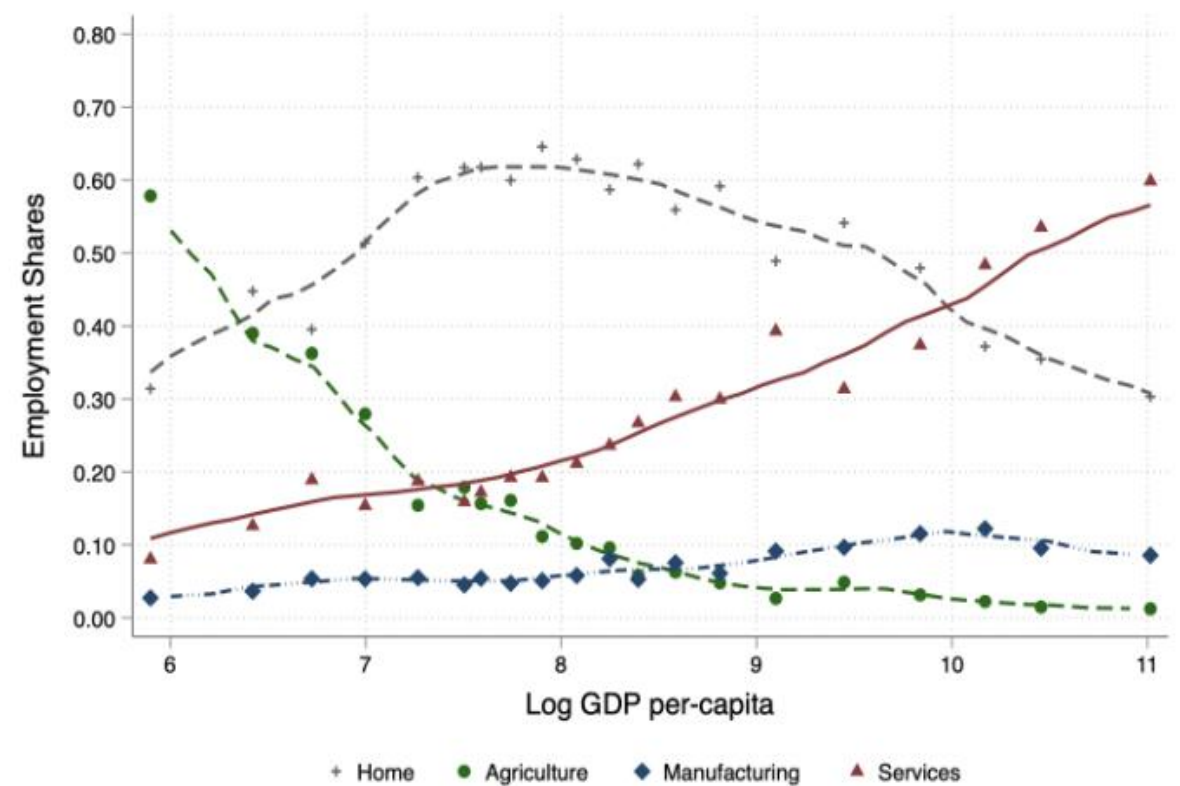
Employment Transitions Across Sectors

Male



Canonical structural change: exit A, and enter M and S

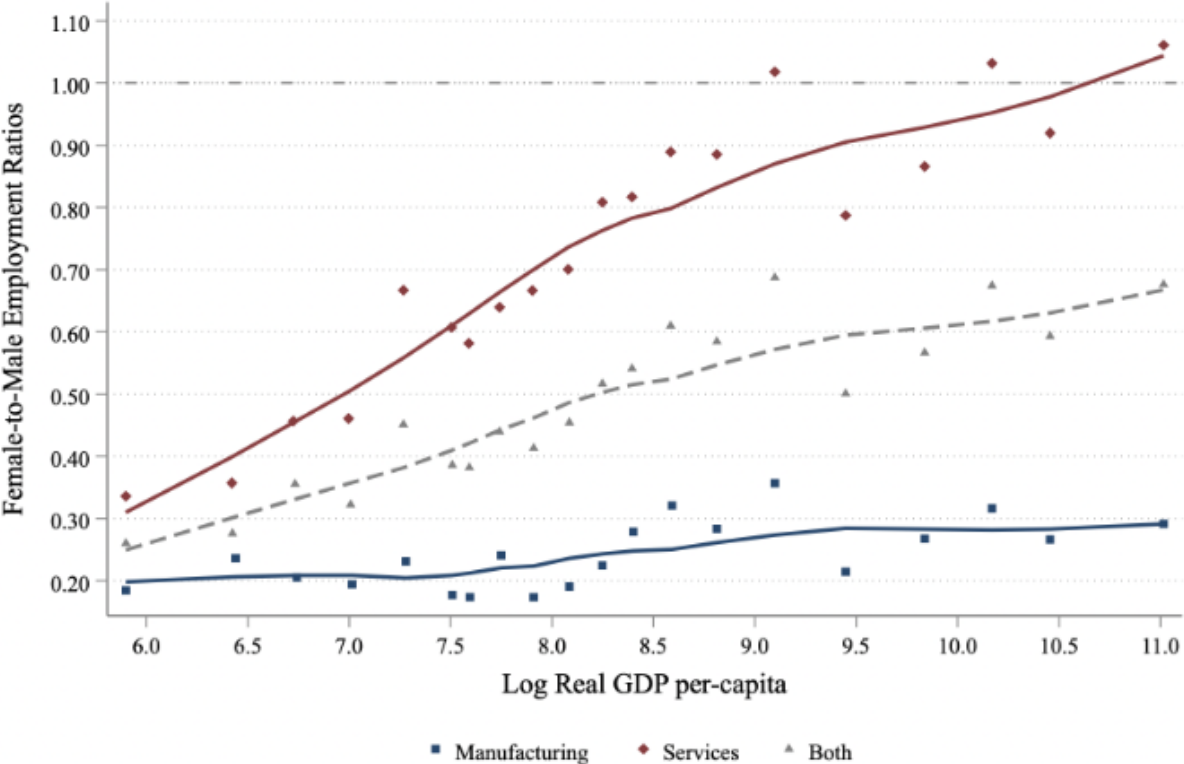
Female



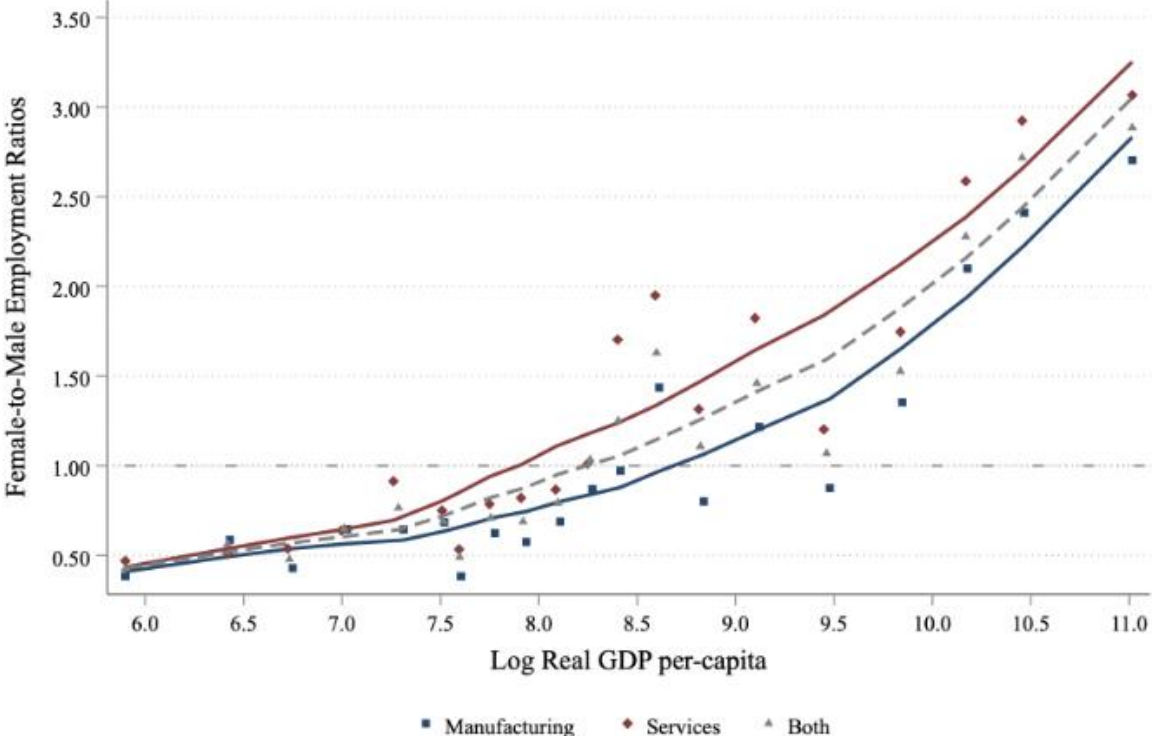
Margin of LFP entry + 'service-biased' structural change

Employment Transitions *Within* Sectors, Across Occupations

Managerial and Professional Occupations



Clerical Occupations



Decomposing the Source: A Model-Based Approach

- Observed gender differences in employment gaps (in occ-sector)

$$\boxed{\text{Emp. Gap}} \ln \frac{p_{oj}^f}{p_{oj}^m} \propto \ln \frac{I_{oj}^f}{I_{oj}^m} + \ln \lambda_{oj} \quad \boxed{\text{Barriers to LFP}}$$

$\boxed{\text{Real Inc. Gap}}$

- Observed gender wage gap (in occ-sector)

$$\boxed{\text{Wage Gap}} \ln \frac{w_{oj}^f}{w_{oj}^m} \propto \ln \frac{h_{oj}^f}{h_{oj}^m} + \ln \tau_{oj} \quad \boxed{\text{Barriers to Earnings}}$$

$\boxed{\text{Real Human Capital Gap}}$

- Estimate the model using six countries: long time-periods + rich data for education, wages, employment at the gender-occupation-sector-country-year level

Countries: India, Indonesia, Brazil, Mexico, Canada, and U.S.

How Much Do Gender Barriers Contribute to Growth?

- Simulate ‘counterfactual’ growth paths by fixing gender barriers to 1970s, but letting all other economic forces (technology, education, etc.) evolve across countries
- Compare counterfactual to the actual growth path → diff. driven by changing barriers
- Lower gender barriers can explain (on average across countries)
 - Half the growth in service and manufacturing sectors
 - 1/3rd the growth in professional and managerial jobs
 - 1/3rd output in services; 20% in manufacturing, and 12% in agriculture
- Explain 28% of the growth in GDP per-capita across countries over the last 50 years
Range from 10% in IDN to 27% in USA, 40-50% in CAN, BRA, and MEX

THANK YOU

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