Driver's of Occupational and Sectoral Segregation in Developing Countries: Findings and Policy Issues

Mary Borrowman
New School for Social Research
Stephan Klasen
University of Göttingen

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Occupational and sectoral segregation

- Important factor in gender pay gaps, but little attention in the literature

- Remarkable persistence across countries and time;

- What are effects of growth, structural change, trade openness, human capital, and fertility?

- Which drivers/consequences of segregation are amenable to policy action?

Theories and Hypotheses

- Neo-classical view:
  - Gendered preferences and capital human investments;
  - Discrimination (would likely lead to segregation among employers);
- Statistical discrimination;
- Institutionalist, feminist views: Labor market segregation and queing;
- Hypotheses:
  - Growth, rising female education, and fertility decline should reduce segregation;
  - Openness and competition should reduce it;

Cross-Country Panel Analysis

- I2D2 database (based on household surveys), up to 60 developing countries, fixed effects panel regressions;
  - Crude measures of segregation (one-digit level);
- Findings:
  - Occupational and sectoral segregation rising over time;
  - No impact of growth on segregation;
  - Rising female labor force partication reduces sectoral, but increases occupational segregation;
  - Rising education tends to increase segregation;

Table 1: I2D2 Sectoral and Occupational Categories
Source: World Bank (2013)

Sectors	Occupations
Agriculture	Senior Officials
Mining	Professionals
Manufacturing	Technicians
Public utilities	Clerks
Construction	Service and market sales workers
Commerce	Skilled agricultural
Transport and communications	Craft workers
Financial and business-oriented services	Machine operators
Community and family-oriented services	Elementary occupations
Other services	Armed forces

Table 7: Changes in Segregation Indices within Countries over Time

		Increasing	**Decreasing**	**No change**
Sectoral	ID	24	16	8
	IP	28	9	11
Occupational	ID	13	11	4
	IP	15	6	7

Source: Authors' calculations based on World Bank (2013)

Table 6: National 18-64 Sectoral and Occupational ID and IP Regression Results

Explanatory Variables	Dependent Variable: Segregation Index			
	SID	SIP	OID	OIP
GDPpc	0.09	0.08	0.11	0.13
	(1.12)	(0.99)	(0.73)	(0.75)
Export Share	0.04	-0.05	0.20	0.18
	(0.98)	(-1.15)	(1.25)	(1.08)
Fertility	-0.01	-0.17	0.34	0.25
	(-0.08)	(-0.88)	(0.73)	(0.50)
FLFPR	-0.24**	-0.16	2.24**	2.27**
	(-2.40)	(-1.47)	(2.25)	(2.20)
Education Ratio	0.37**	0.24	0.19	0.20
	(2.42)	(1.32)	(0.40)	(0.36)
Average Education	0.02	0.03	0.42***	0.41***
	(1.08)	(1.34)	(3.96)	(3.19)

National 18-64 Sectoral and Occupational ID and IP Regression Results

Policy Issues

- Low-income countries: usually more basic gender issues to address first;

- Particularly relevant for middle-income countries with rising female labor force participation;

- Key question:
  - Address segregation or
  - Address consequences of segregation (esp. wage gaps);

Address Segregation

- Removal or formal barriers to women entering ‚male fields' (incuding some protective legislation);

- Special support programs for girls and women: mentorship, special support, quotas;

- Public sector can lead in implementing policiess;

- Not easy and quick (experience of industrialized countries);

Address Consequences of Segregation

- Gold standard: ‚comparable worth' policies:
  - But require national collective bargaining (and high degree of formality);
  - Example of Australia in the 1970s;
  - Not realistic in most developing countries;
- Implement comparaable worth in public sector;
- Increase public discussion;
- Increased transparency in private sector wage-setting;

Measures of Segregation

- 2 Measures of occupational and sectoral segregation (Duncan Index, Karmal and McLachlan Index);

$$(1) \quad ID = \frac{1}{2}\sum_i \left| \frac{M_i}{M} - \frac{F_i}{F} \right|$$

- Dominated by large sectors

$$(2) \quad IP = \frac{1}{N}\sum_i \left| \left(1 - \frac{M}{N}\right)M_i - \frac{M}{N}F_i \right|$$

- Sensitive to changes in female labor force participation rate;

Table 6: Regional Means for Gendered Sectoral and Occupational Segregation Indices

		ID	IP
East Asia and the Pacific	Sectoral	0.18	0.09
	N	9	9
	Occupational	0.20	0.09
	N	8	8
Eastern Europe and Central Asia	Sectoral	0.27	0.13
	N	5	5
	Occupational	0.23	0.11
	N	3	3
Latin America and the Caribbean	Sectoral	0.37	0.18
	N	20	20
	Occupational	0.32	0.16
	N	7	7
South Asia	Sectoral	0.30	0.13
	N	8	8
	Occupational	0.24	0.10
	N	7	7
Sub-Saharan Africa	Sectoral	0.21	0.10
	N	24	24
	Occupational	0.20	0.10
	N	18	18
Middle East and North Africa	Sectoral	0.41	0.15
	N	2	2
	Occupational	0.46	0.17
	N	2	2

Figure 1: IID-IIP Cross Correlation