Occupational choice of skilled workers in the presence of a large development sector: Evidence from Sierra Leone

JAMELIA HARRIS

DPHIL CANDIDATE, UNIVERSITY OF OXFORD

JAMELIA.HARRIS@QEH.OX.AC.UK

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Motivation

Observations:

- Increased spending by national governments and international push for skills development (e.g. World Bank, DfID, EU)...... but little formal job creation to absorb the expanding skilled workforce Pritchett, 2001; World Bank, 2013).

- Increase in the skilled workforce, with a simultaneous skills gap being reported

Possible implications

- Returns to education may not be as high as previously estimated

- At the micro-level, happiness and well-being of skilled-labour is diminished due to low job-satisfaction and motivation

- Unemployment and unrests in LIC (Enria, 2018).

What are the aspirations and behaviour of skilled workers in the labour market?

# Labour markets in developing countries

Large informal sectors, labour supply decisions that are made by large households - and not just the individual worker, seasonality and holding multiple jobs, and uncertainty stemming from uninsured risks (Frolich and Haile, 2011).

In addition to this, I hypothesise that the ongoing presence of **the development sector** affects aspirations, decisions and behaviour in the labour market.

In this study, the *development sector* comprises those organisations whose **primary objective is promoting economic and social development in the local country** (save for the public sector), through policy, advocacy or implementation. This includes local NGOs, INGOs and donor organisations. In most cases, the ***source of funds is external***: either bilateral or multilateral ODA or private donations.
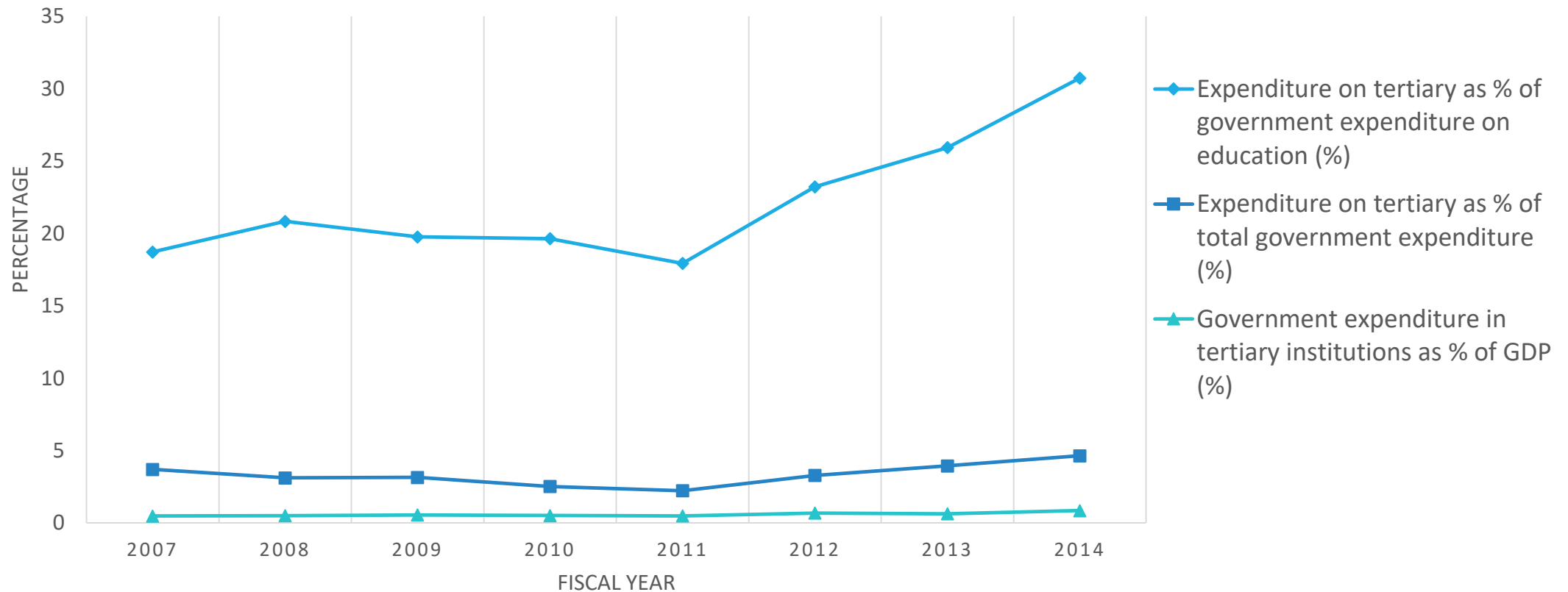
The development sector in LIC

ODA contribution to LICs (Source: World Bank Data)
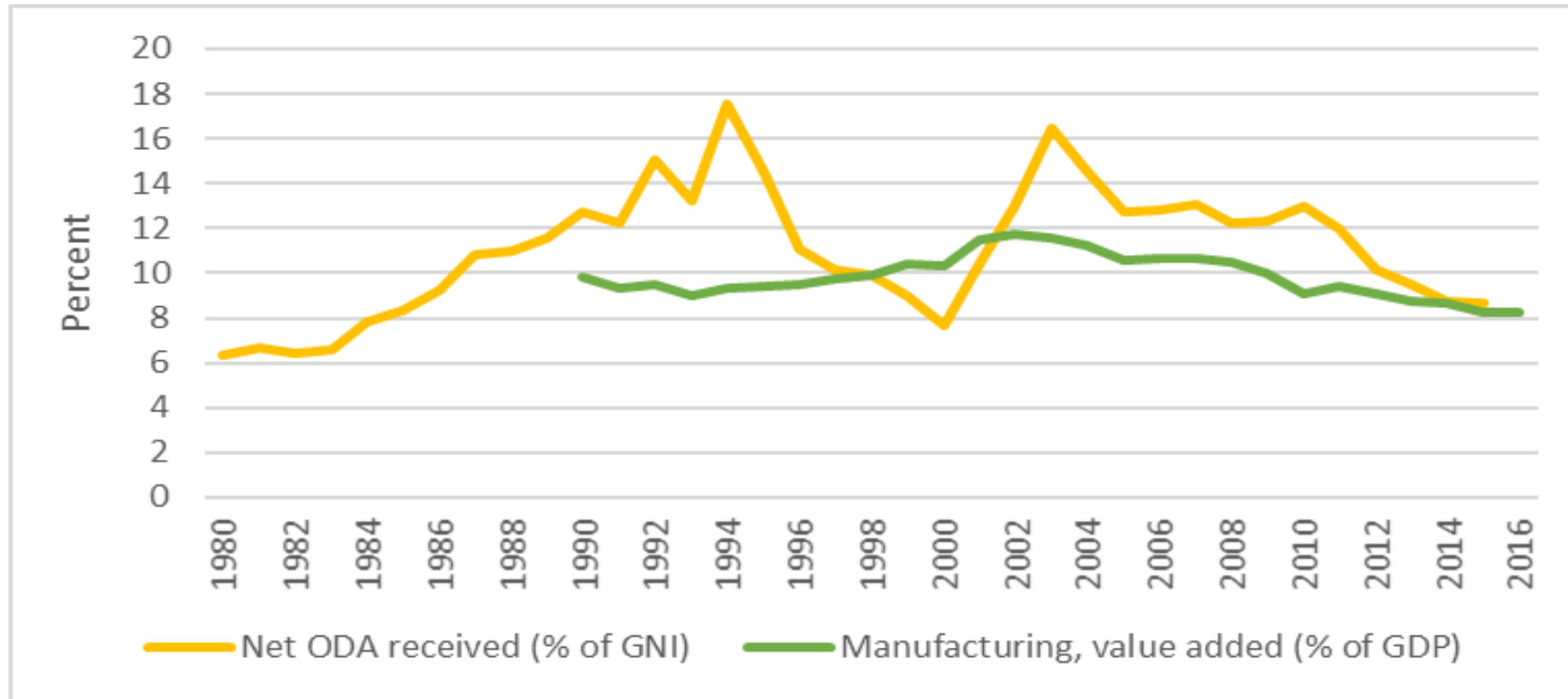
Sierra Leone as a Case Study
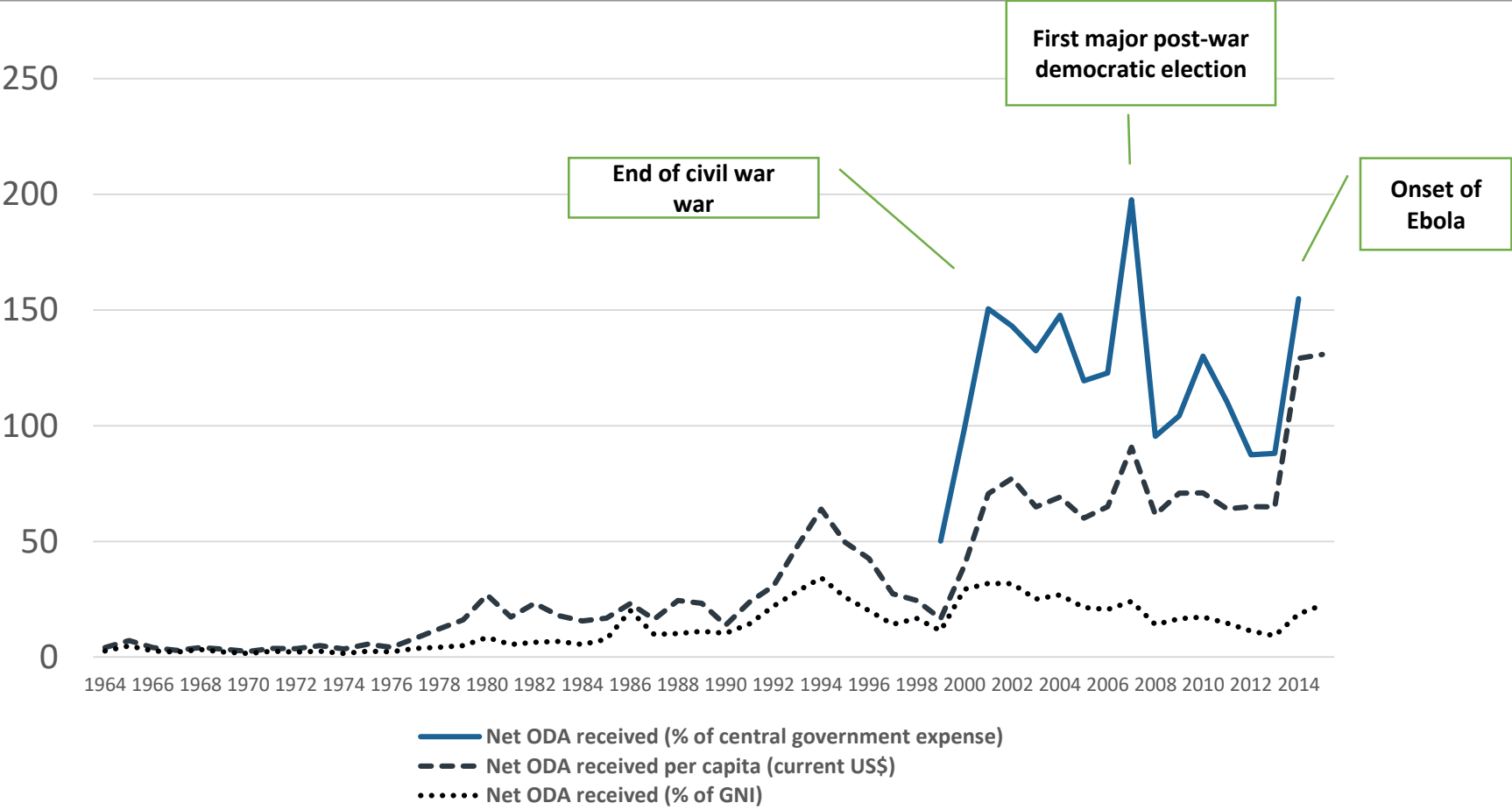
Why Sierra Leone – relative importance of tertiary education increasing

Research Questions

1. Do skilled job-seekers sort based on cognitive ability?

2. Does the presence of the development sector matter for occupational choice?

Data Collection (Aug – Dec 2017)

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- Survey of 392 undergraduates who were about to graduate – survey completed 1-2 weeks before final exams.

- Incentivised Raven's Matrices to measure cognitive ability

- Lab-in-field experiments (risk and time preferences using incentivised MPL, pro-social behaviour using incentivised dictator games and a "state of the world" game from psychology). Hypothetical questions used to triangulate

- Incentivised occupational choice - internships

Measuring cognitive ability -Raven's matrices
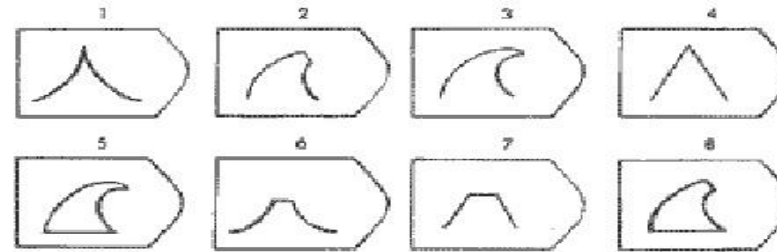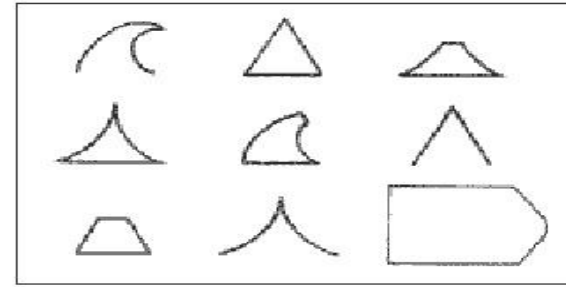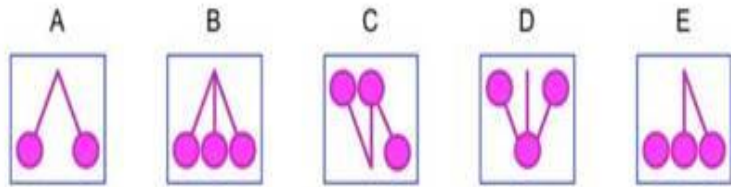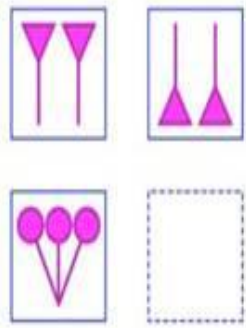
Sample Characteristics

Variables	Sample Proportion
Female	0.3469
Live in East Freetown	0.4031
Originally from Freetown	0.4719
Has children	0.3061
Married	0.1122
Has financial dependents	0.4694
Interned	0.5944
in the public sector	0.2806
in the private sector	0.1888
in the development sector	0.1582
in self-employment	0.0255
Volunteer experience	0.6173

The model

Does cognitive ability predict occupational choice by sector?

Three sectors (y variable): public sector, private sector and the development sector.

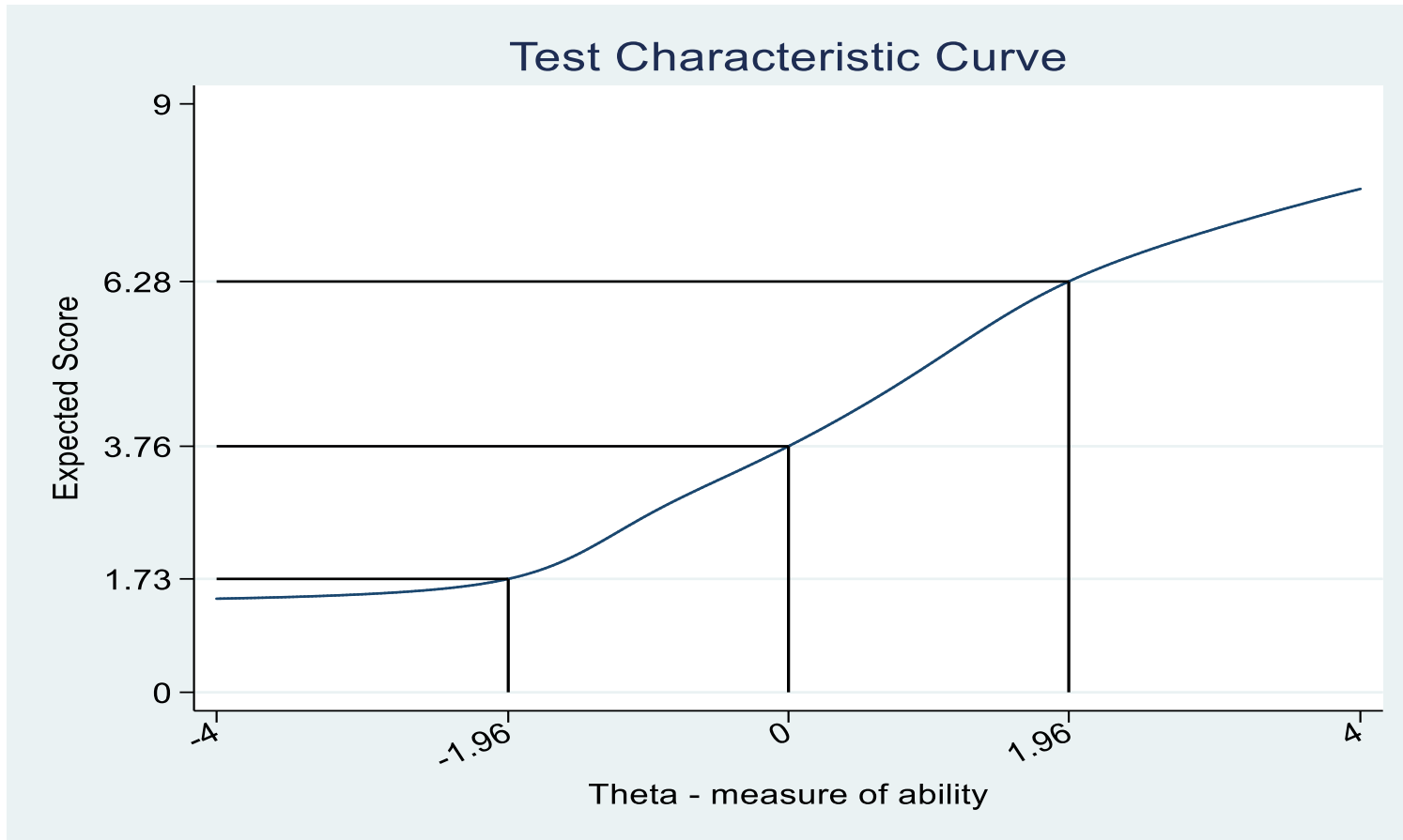$$P(y = j|x_i) = \beta_1\, ability_i + \gamma Z_i + \varepsilon_{ij}$$
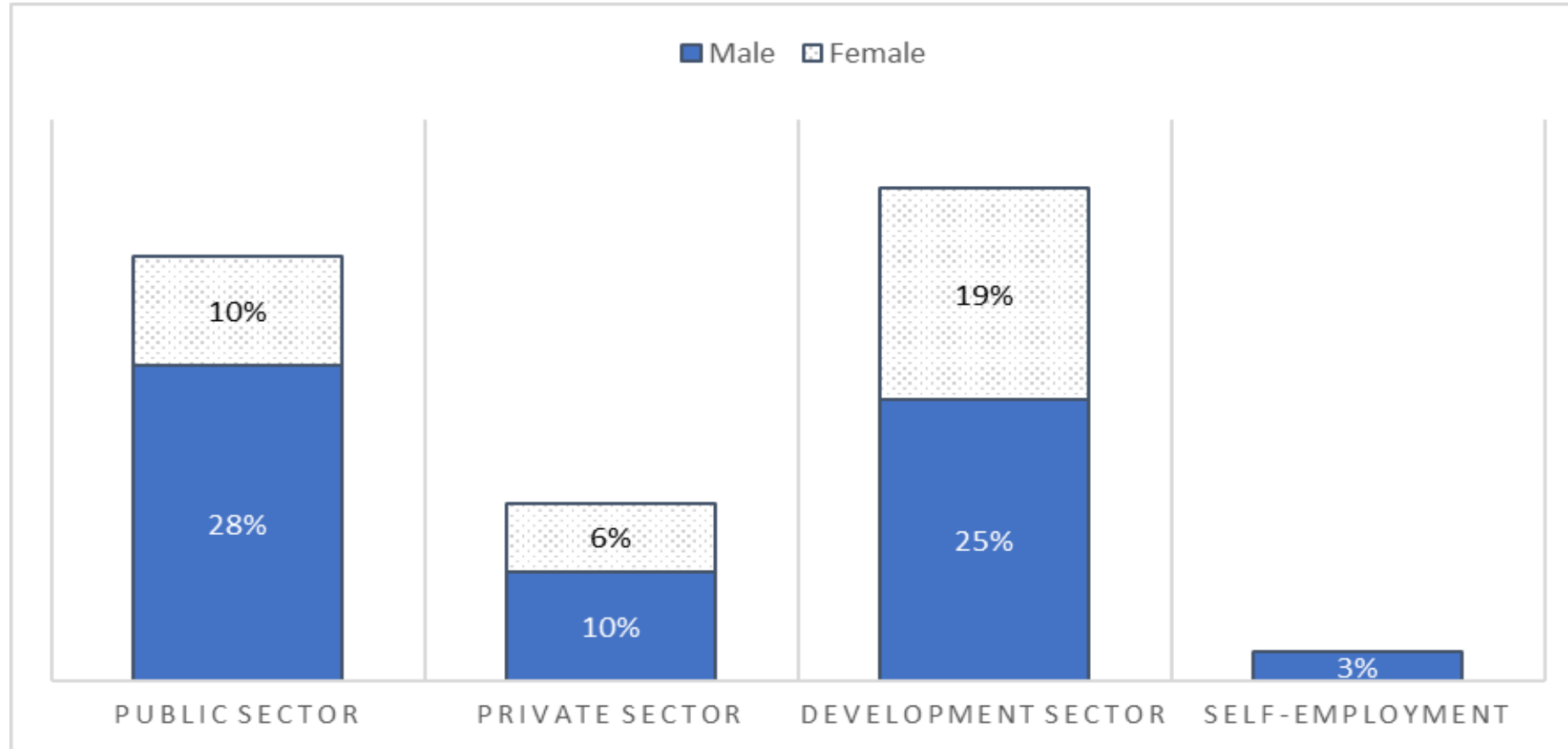
Estimate using Multinomial Probit Model

Z_i is a vector of controls that include measured preferences and socio-demographic factors.

➔ Measured preferences shown to be significant to occupational choice in previous studies (Desseranno, 2015 Falco et al, 2014 Dal Bo et al, 2013; Serra et al, 2011)

Measured Attributes – Ability

Sector choice

Findings

	Marginal effects (evaluated at the mean) - MEM		
VARIABLES	(1) Public_Sector	(2) Private_Sector	(3) Development_Sector
Cognitive ability	-0.0665* (0.0341)	0.0053 (0.0194)	0.0612* (0.0357)
Reservation wage	-0.00006 (0.0001)	0.00009 (0.00005)	-0.00003 (0.00012)
Prosociality	-0.1132 (0.1829)	-0.238** (0.118)	0.351* (0.191)
Desired status	-0.0442** (0.0182)	0.0014 (0.0117)	0.0427** (0.0189)
Present bias	0.0637 (0.0604)	-0.0056 (0.0386)	-0.0581 (0.0633)
Risk preference	0.0185 (0.0362)	-0.0130 (0.0217)	-0.0055 (0.0384)
Socio-demo controls	Yes	Yes	Yes

Obs = 380

Standard errors in parentheses. Standard errors are calculated based on sample weights.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

VARIABLES	Marginal effects (evaluated at the mean) - MEM		
	(3) Public_Sector	(4) Private_Sector	(5) Development_Sector
Cognitive ability	-0.0789**	0.0031	0.0758**
	(0.0335)	(0.0198)	(0.0357)
Reservation wage	-0.00006	0.00009	-0.00003
	(0.00011)	(0.00006)	(0.00011)
Prosociality	-0.2160	-0.235*	0.451**
	(0.1853)	(0.1217)	(0.198)
Desired status	-0.0484**	0.0056	0 .0428**
	(0.0187)	(0.0124)	(0.0192)
Present bias	0.0664	-0.0018	-0.0646
	(0.0633)	(0.0407)	(0.0663)
Risk preference	0.0051	-0.0149	0.0098
	(0.0374)	(0.0223)	(0.0393)
Pub sector perception	0.794***	-0.0945	-0.6996***
	(0.1265)	(0.0768)	(0.1334)
Priv Sect perception	0.0292	0.0383*	-0.0674**
	(0.0275)	(0.0198)	(0.0293)
Dev Sect perception	-0.0672**	-0.0445**	0.1117***
	(0.0288)	(0.0174)	(0.0317)
Socio-demo controls	Yes	Yes	Yes

Conclusions

1. The development sector is the preferred sector choice for the majority of final year university students

2. Higher ability graduates are more likely to choose the development sector, and less likely to choose the public sector in their early careers

3. Heuristics and perceptions matter so information is key

Thank you

JAMELIA HARRIS - DPHIL CANDIDATE - UNIVERSITY OF OXFORD