



**NEW ZEALAND POLICY
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Occupational persistence across generations in New Zealand

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Disclaimer

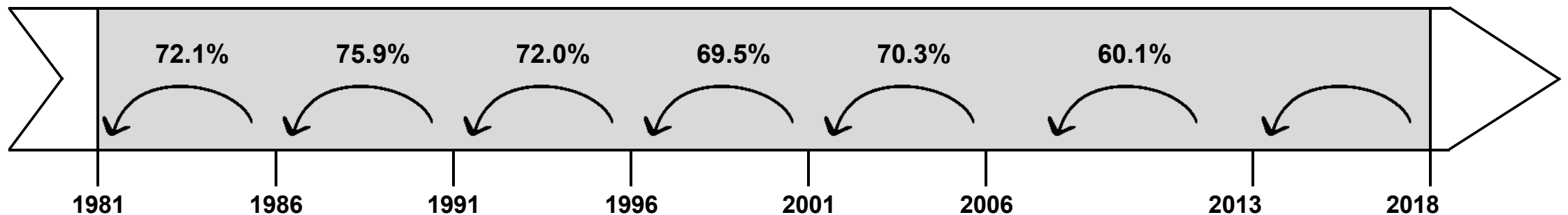
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Aim

- Question: *To what extent do children follow their parents into occupations?*
- A high degree of persistence of occupations across generations may indicate inequality of opportunity, misallocation of talent, and barriers in the labour market, but may also reflect the transmission of abilities
- Aim: Quantify the degree of intergenerational persistence between parents and their offspring in New Zealand for different occupations, and how this differs by sex
- The study uses data from the *New Zealand Longitudinal Census* – census microdata linked at the individual level over 1981 to 2018 containing parent-offspring links
- Estimates ‘occupational following’ for 23 occupational groups, and by each parent-offspring dyad
- No previous New Zealand studies of ‘occupational following’ but sociologists have looked at intergenerational mobility in social class

New Zealand Longitudinal Census

- NZLC links people's census records backwards through pairs of censuses



- Linkage over time depends on how many *consecutive* censuses were filled out and consistency of reported information used to match records
- Potential for selection bias from groups less likely to be linked (young adults, males, Māori, Pacific, Asian, those living in higher-deprivation neighbourhoods, the residentially mobile) and those who, by construction, cannot be linked (emigrants)

Coding of occupation variable

New Zealand Census year							
1981	1986	1991	1996	2001	2006	2013	2018
NZSCO68	NZSCO68	NZSCO68	NZSCO68	NZSCO99			
		NZSCO90	NZSCO90				
			NZSCO95				
					NZSCO99	NZSCO99	
					ANZSCO	ANZSCO	ANZSCO

----- Conceptual 'break' between classifications

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NZSCO68	NZSCO68	NZSCO68	NZSCO68	NZSCO99			
		NZSCO90 ↓ NZSCO95 ↓ NZSCO99	NZSCO90 NZSCO95				
					NZSCO99	NZSCO99	
					ANZSCO	ANZSCO	ANZSCO

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		NZSCO90	NZSCO90				
		↓	NZSCO95				
		NZSCO95					
		↓					
		NZSCO99					
					ANZSCO	ANZSCO	ANZSCO

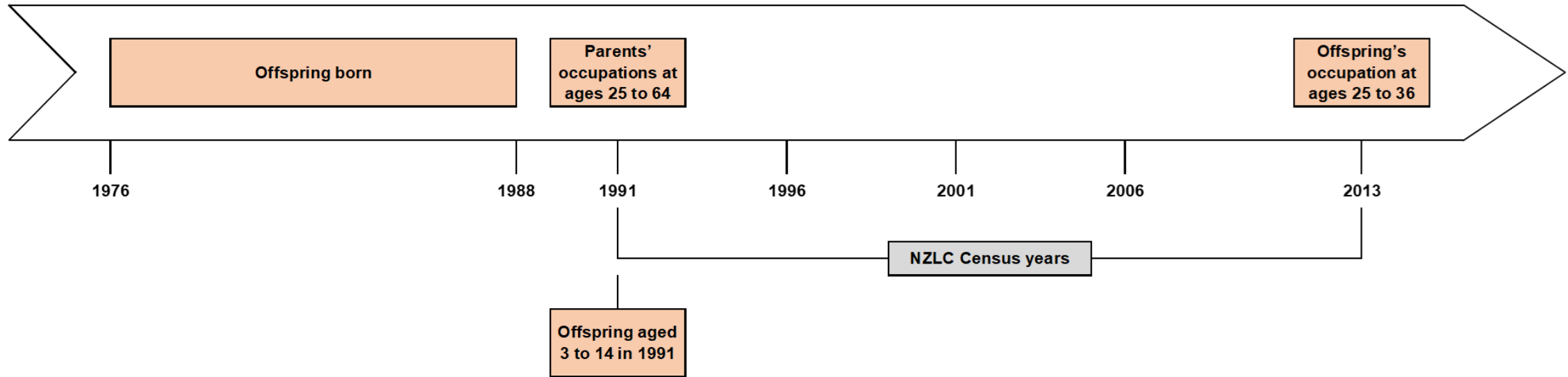
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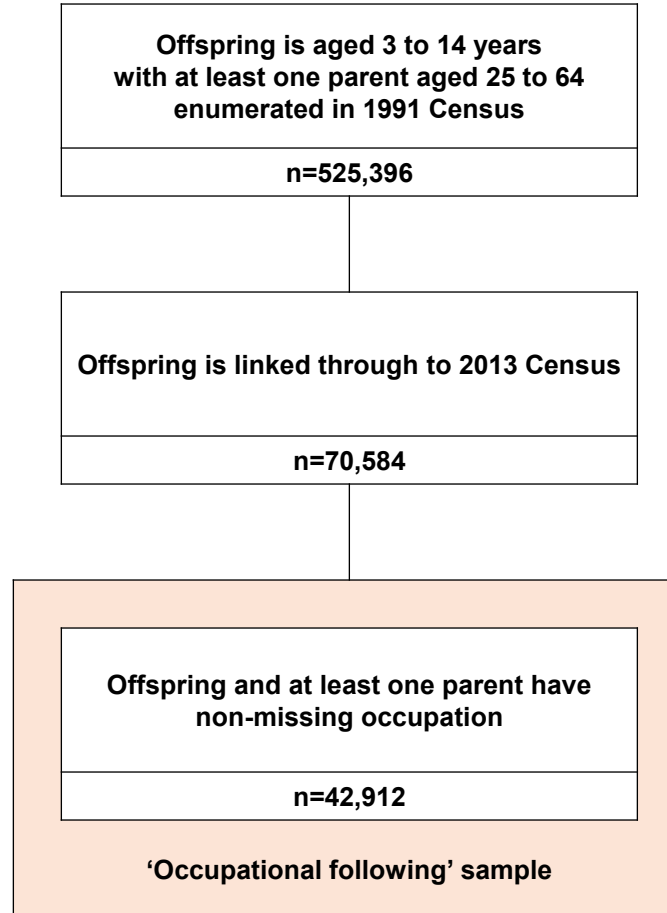
NZSCO99

Major group (1-digit)	Sub-major group (2-digit)	Occupation (5-digit) - examples of common occupations in 2013 Census
Legislators, Administrators and Managers	Legislators and Administrators	Chief Executive, Managing Director, Administrator
	Corporate Managers	General Manager, Administration Manager, Retail Manager
Professionals	Physical, Mathematical and Engineering Science Professionals	Computer Applications Engineer, Systems Analyst, Systems Manager
	Life Science and Health Professionals	Registered Nurse, General Practitioner, Resident Medical Officer, Midwife
	Teaching Professionals	Primary School Teacher, Early Childhood Teacher, Secondary School Teacher
	Other Professionals	Accountant, Financial Adviser, Barrister or Solicitor, Librarian, Policy Analyst
Technicians and Associate Professionals	Physical Science and Engineering Associate Professionals	Engineering Technician, Draughting Technician, Safety Inspector
	Life Science and Health Associate Professionals	Physiotherapist, Medical Laboratory Technician, Occupational Therapist
	Other Associate Professionals	Technical Representative, Social Worker, Administration Officer, Teacher Aide
Clerks	Office Clerks	General Clerk, Secretary, Accounts Clerk, Stock Clerk
	Customer Services Clerks	Information Clerk, Checkout Operator, Bank Officer, Cashier
Service and Sales Workers	Personal and Protective Services Workers	Caregiver, Catering Counter Assistant, Chef, Waiter, Police Officer, Hairdresser
	Salespersons, Demonstrators and Models	Sales Assistant, Demonstrator, Forecourt Attendant
Agriculture and Fishery Workers	Market Oriented Agricultural and Fishery Workers	Crop and Livestock Farmer/Worker, Dairy Farmer, Fruit Grower/Worker
Trades Workers	Building Trades Workers	Builder, Carpenter or Joiner, Electrician, Painter, Plumber
	Metal and Machinery Trades Workers	Motor Mechanic, Machinery Mechanic, Fitter and Welder, Sheet-Metal Worker
	Precision Trades Workers	Printing Machinist, Bookbinder, Jeweller, Screen Printer
	Other Craft and Related Trades Workers	Baker, Butcher, Cabinetmaker, Carpet Layer
Plant and Machine Operators and Assemblers	Industrial Plant Operators	Welder and Flame-Cutter, Timber Processing Machine Operator, Quarry/Mine Worker
	Stationary Machine Operators and Assemblers	Slaughterer, Machine Tool Operator, Sewing Machinist, Launderer
	Drivers and Mobile Machinery Operators	Heavy Truck Driver, Passenger Coach Driver, Taxi Driver, Forklift Operator
	Building and Related Workers	Roofer, Drainlayer, Scaffolder, Pipe Fitter
Elementary Occupations	Labourers and Related Elementary Service Workers	General Labourer, Cleaner, Loader and Checker, Courier, Packer
9 major occupational groups	23 submajor occupational groups	565 occupations

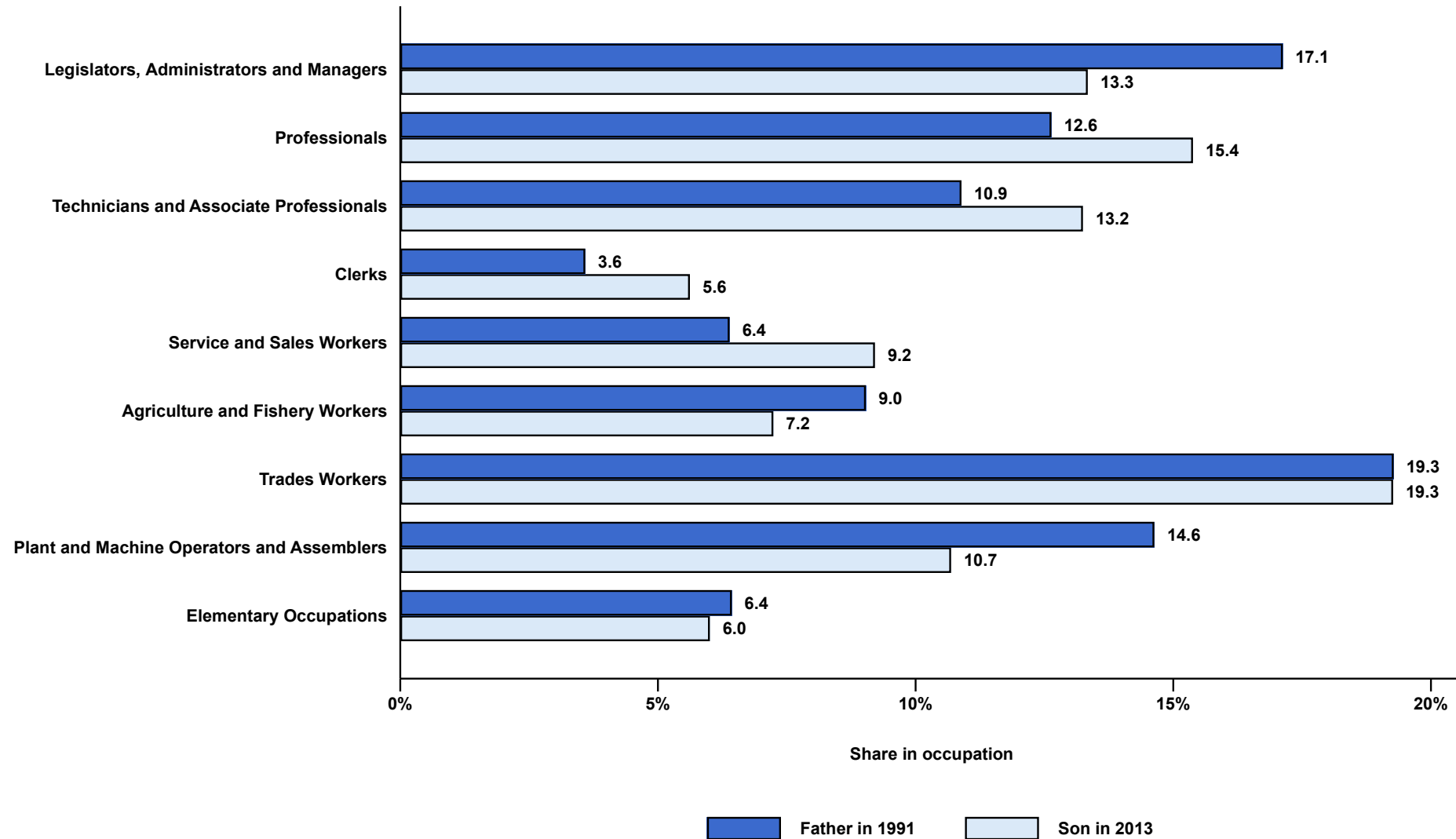
Sample selection



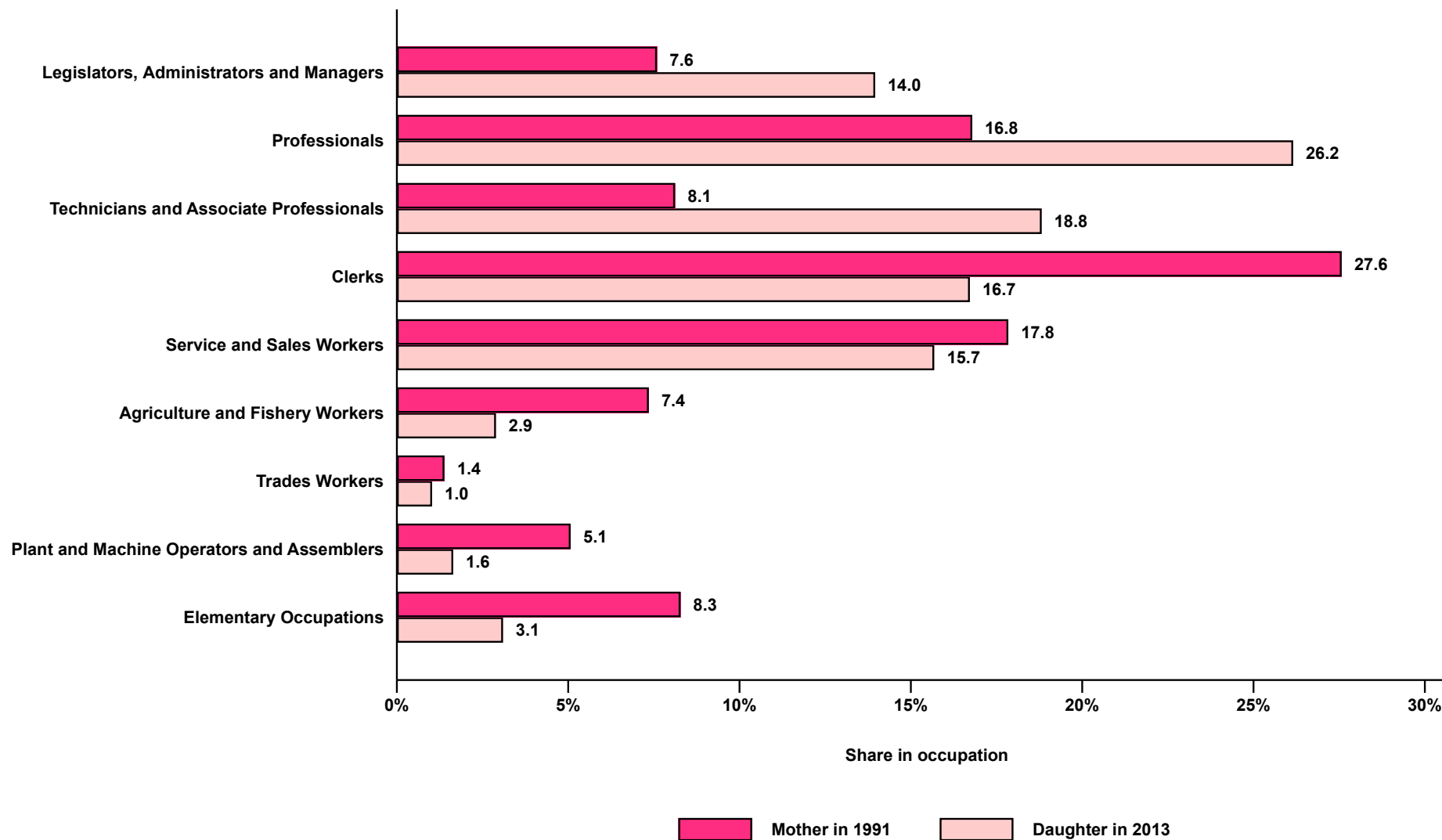
Sample selection



Occupational distribution across generations



Occupational distribution across generations



Measurement of intergenerational occupational persistence

- ‘*Occupational following*’ measures whether children are more likely to choose a given occupation if their parents held that specific occupation or a similar one (Haeck & Laliberté, 2025), estimated here with a linear probability model with results collapsed to the occupation level:

$$Occupation_{io} = \alpha^o + \beta_1^o(\text{Same occupation}) + \beta_2^o(\text{Related occupation}) + C_i^o + \varepsilon_{io}^o$$

$Occupation_{io}$ = Indicator for whether offspring i works in 2-digit occupation o

Same occupation = Indicator for whether either parent of offspring i works in 2-digit occupation o

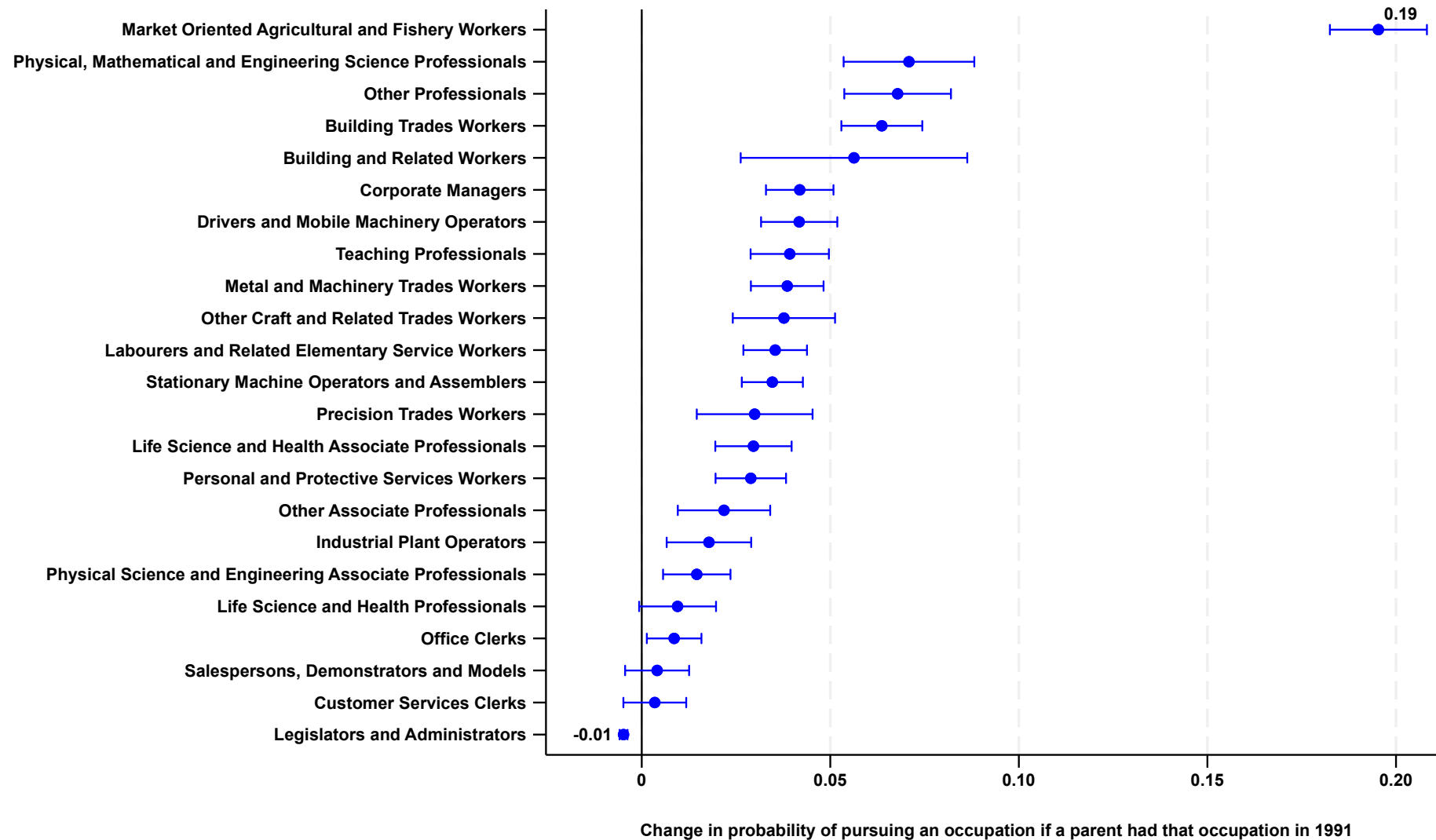
$\text{Related occupation}$ = Indicator for whether either parent of offspring i works in an occupation (other than o) in same 1-digit major group as occupation o

C_i^o = Birth cohort fixed effects

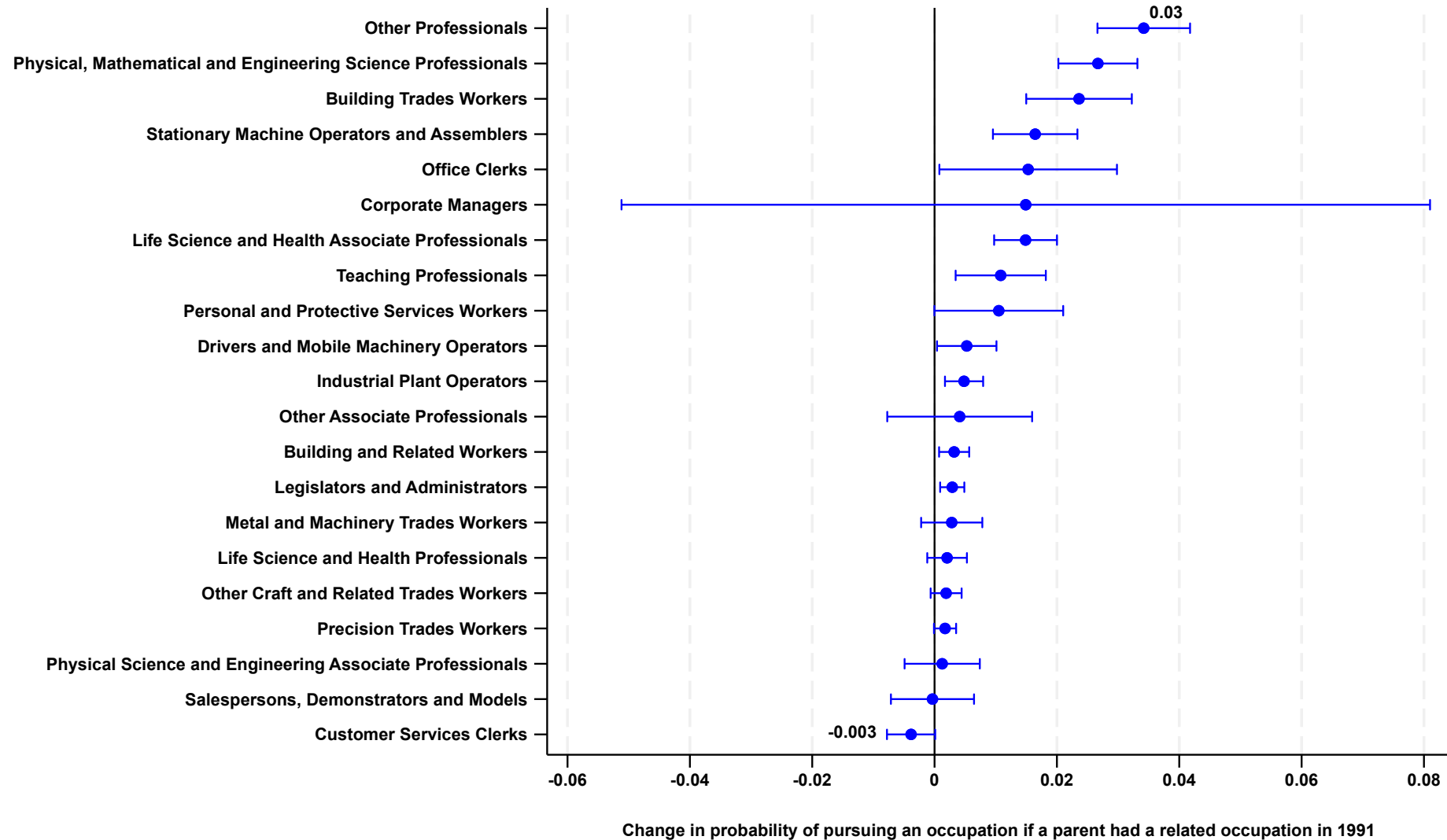
β_1^o = Change in probability of pursuing occupation o if offspring had a parent in that occupation

β_2^o = Change in probability of pursuing occupation o if offspring had a parent in a similar occupation

Results – Same occupation β_1^o coefficients



Results – *Related occupation* β_2^o coefficients



Measurement of intergenerational occupational fluidity

- But occupations differ in size (share of the workforce) which affects entry probabilities, so Haeck and Laliberté (2025) use linear probability model to construct an ‘*Occupational fluidity index*’:

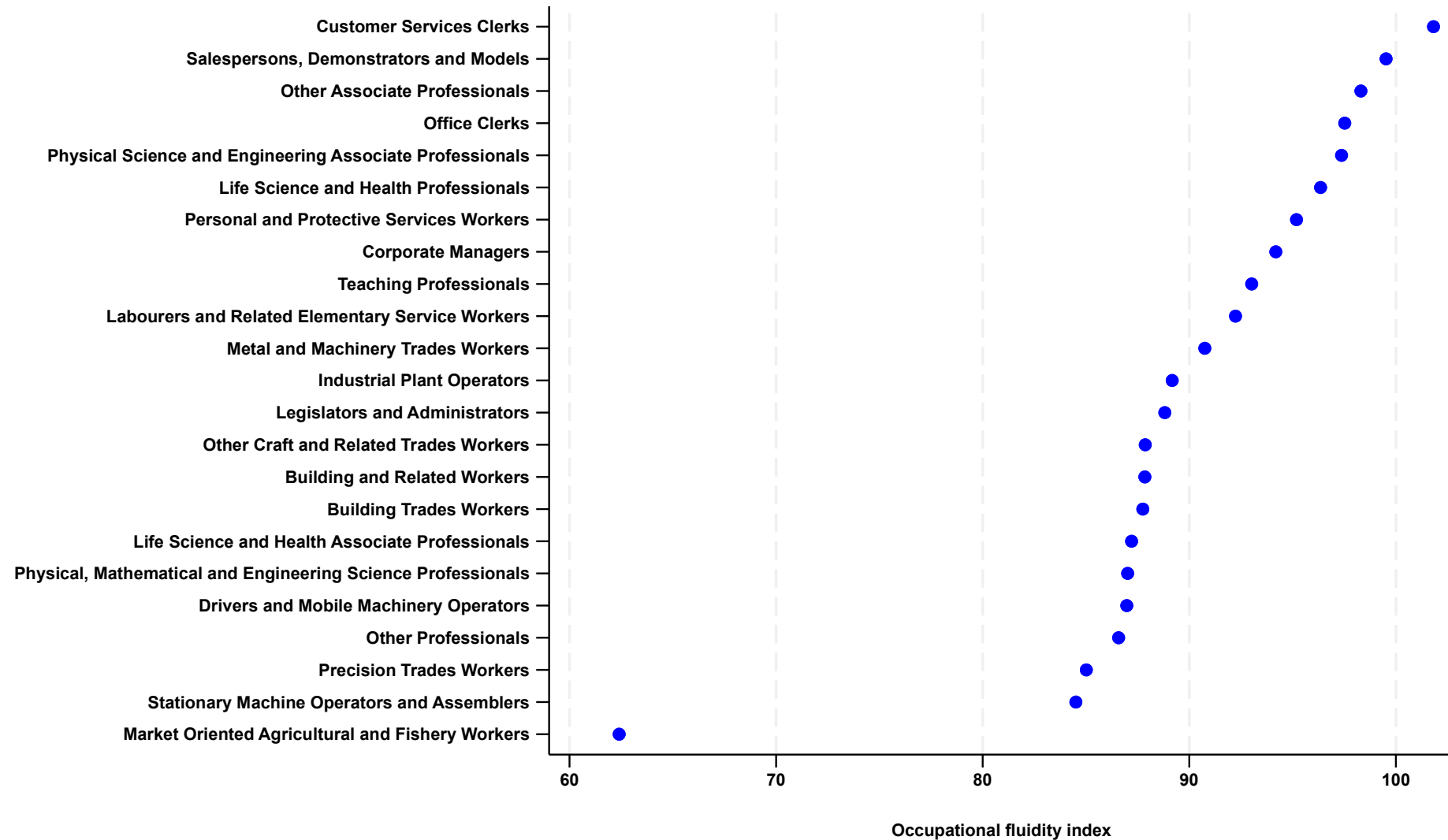
$$Fluidity_o = \frac{Baseline\ probability_o}{Actual\ probability_o} \times 100$$

Baseline probability_o = Predicted probability of choosing occupation *o* if no parent in that or a similar occupation (‘outsider’)

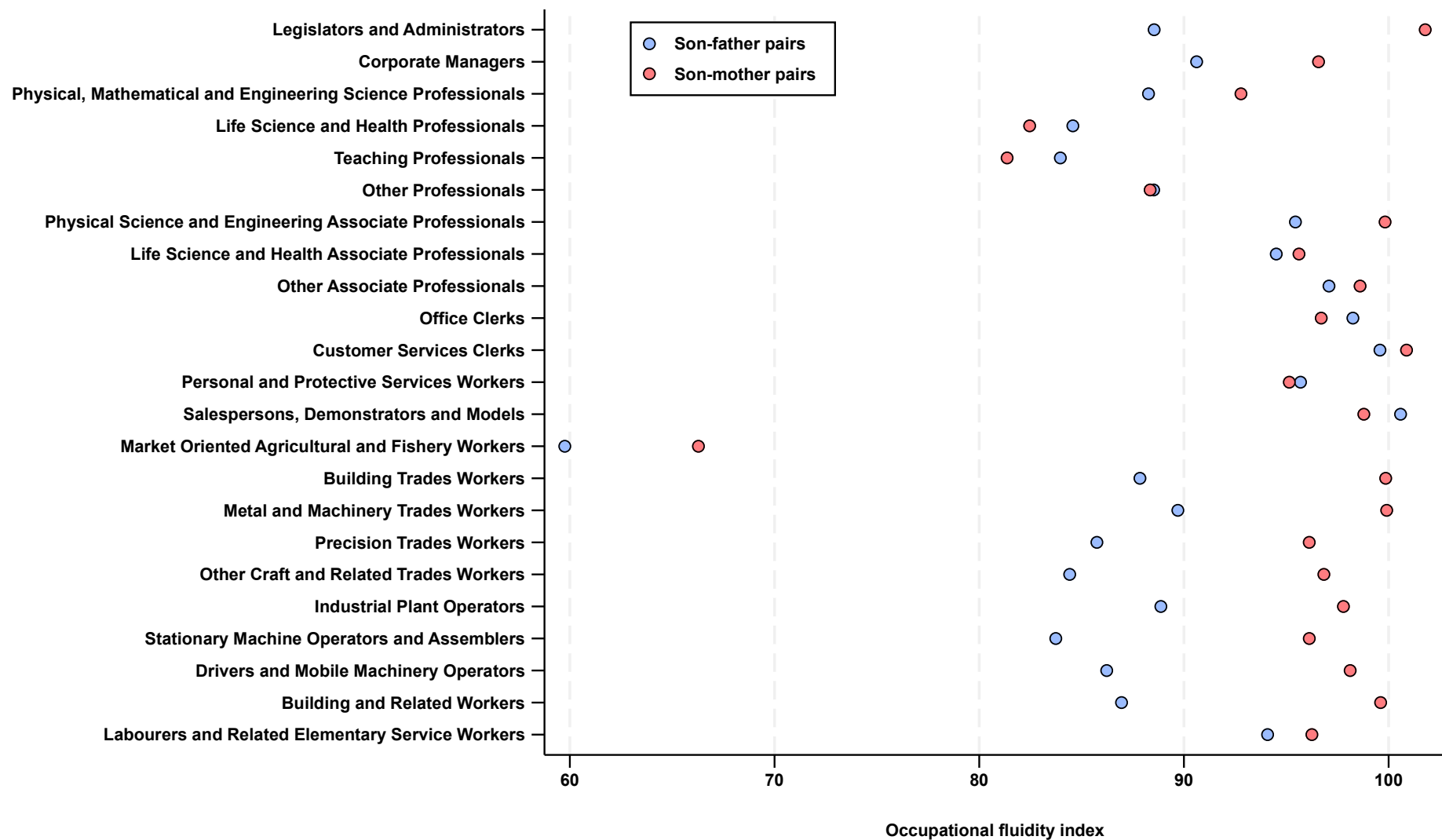
Actual probability_o = Unconditional probability of choosing occupation *o*

- *Fluidity_o* = 100 : ‘outsiders’ are just as likely to pick the occupation as ‘insiders’, low intergenerational persistence
- *Fluidity_o* = 0 : occupation is only ever chosen by ‘insiders’, completely closed to ‘outsiders’, high intergenerational persistence

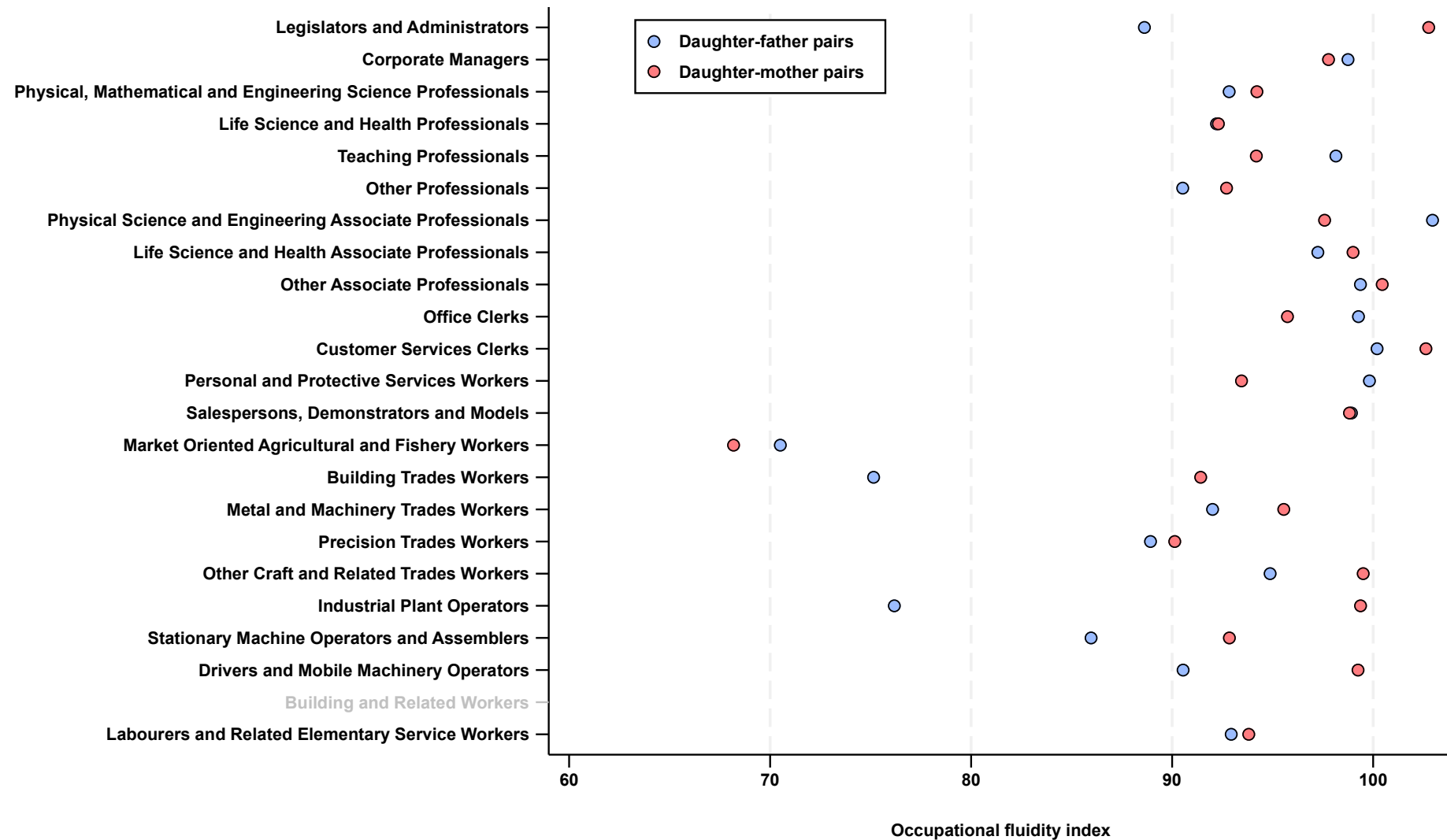
Results – Occupational Fluidity Index



Results – Occupational Fluidity Index for sons



Results – Occupational Fluidity Index for daughters



Conclusions

- Generally, offspring are more likely to choose occupations held by a parent
- Occupational persistence doesn't systematically occur in clerical and sales occupations, and is low in the associate professions
- Occupational persistence is high in agricultural/farming occupations and in certain professions
- Sons more likely to follow their fathers (cf. mothers) into occupations, especially among 'blue collar' occupations
- Daughters more likely to follow their fathers (cf. mothers) into most 'blue collar' occupations, but mother and father transmission is more mixed among 'white collar' occupations
- In general, occupations are transmitted more strongly to sons than daughters