Do Intermarried Individuals Perform Better in the Labour Market?

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Presentation Outline
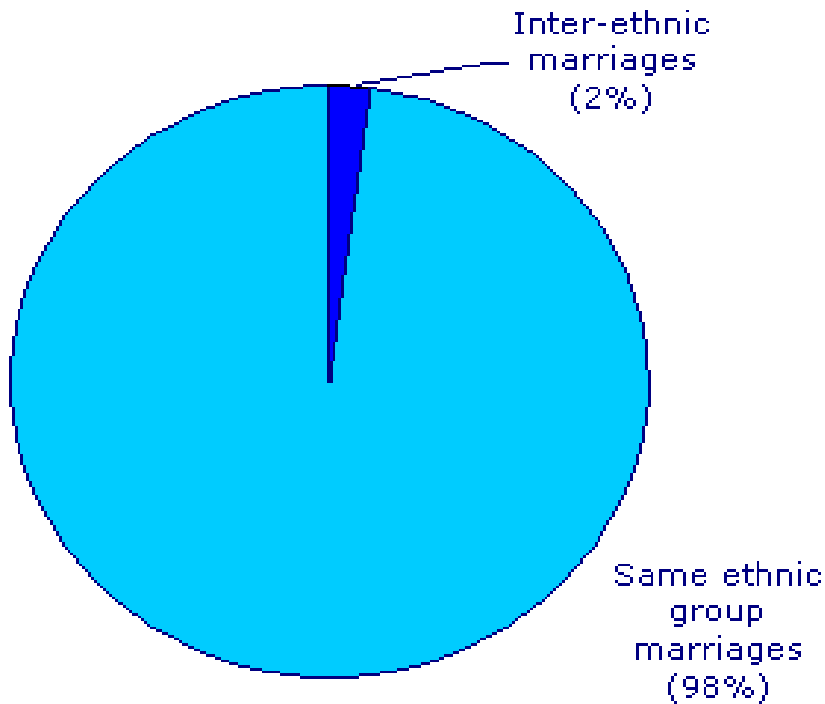
1. Introduction

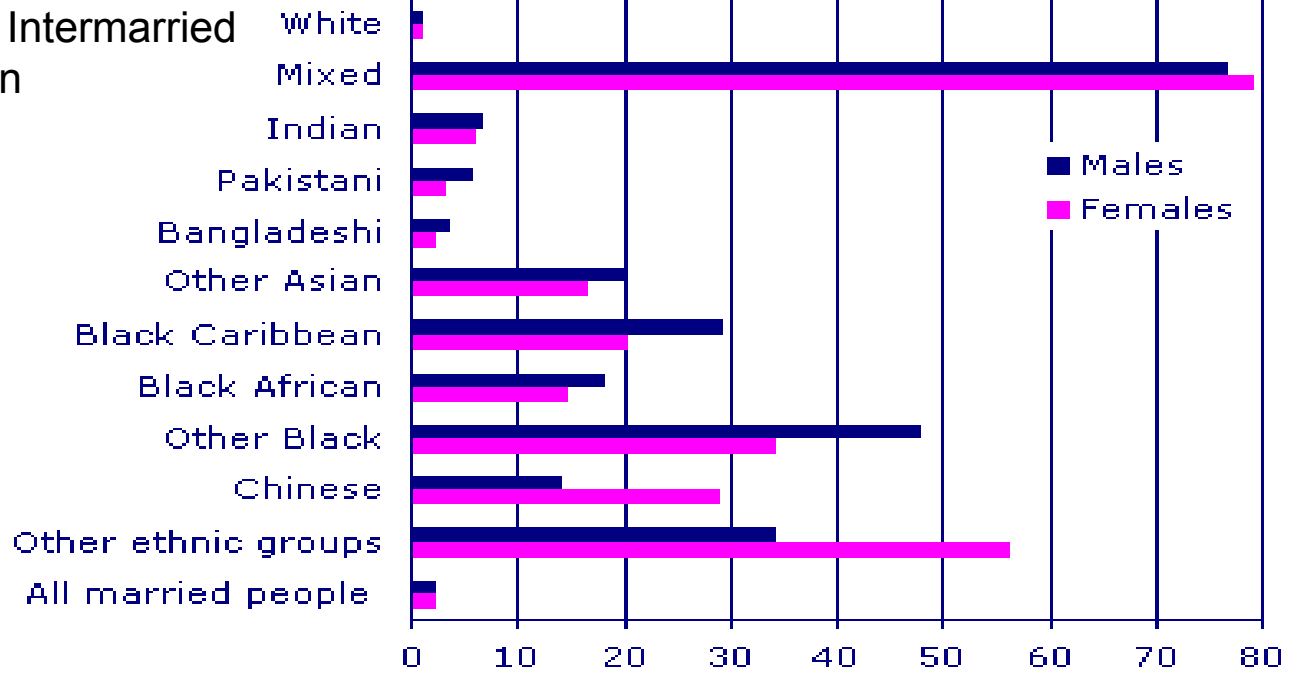2. Data & Methodology

3. Empirical Results

4. Summary

Figure 1: Married couples: by whether or not they are in an inter-ethnic marriage

Inter-ethnic marriages (2%)

Same ethnic group marriages (98%)

Figure 2: Percentage of Intermarried Men & Women

Background

- Abundant research done in US

- Extant studies in UK are mainly qualitative ones

- Most recent quantitative study about trends of intermarriage is Berrington (1996) using Census 1991

Research Questions

1) Who intermarries and why?

2) Consequences on Intermarried Couples
   - Economic outcomes

3) Consequences on multiethnic children
   - Socioeconomic outcomes
   - Ethnic Identity

Data
ONS Longitudinal Study

- LS members enumerated at both the 1991 & 2001 Censuses

- LS members aged 18 – 55 years old in 1991

- 109,459 men and 117,956 women

Economic Outcomes
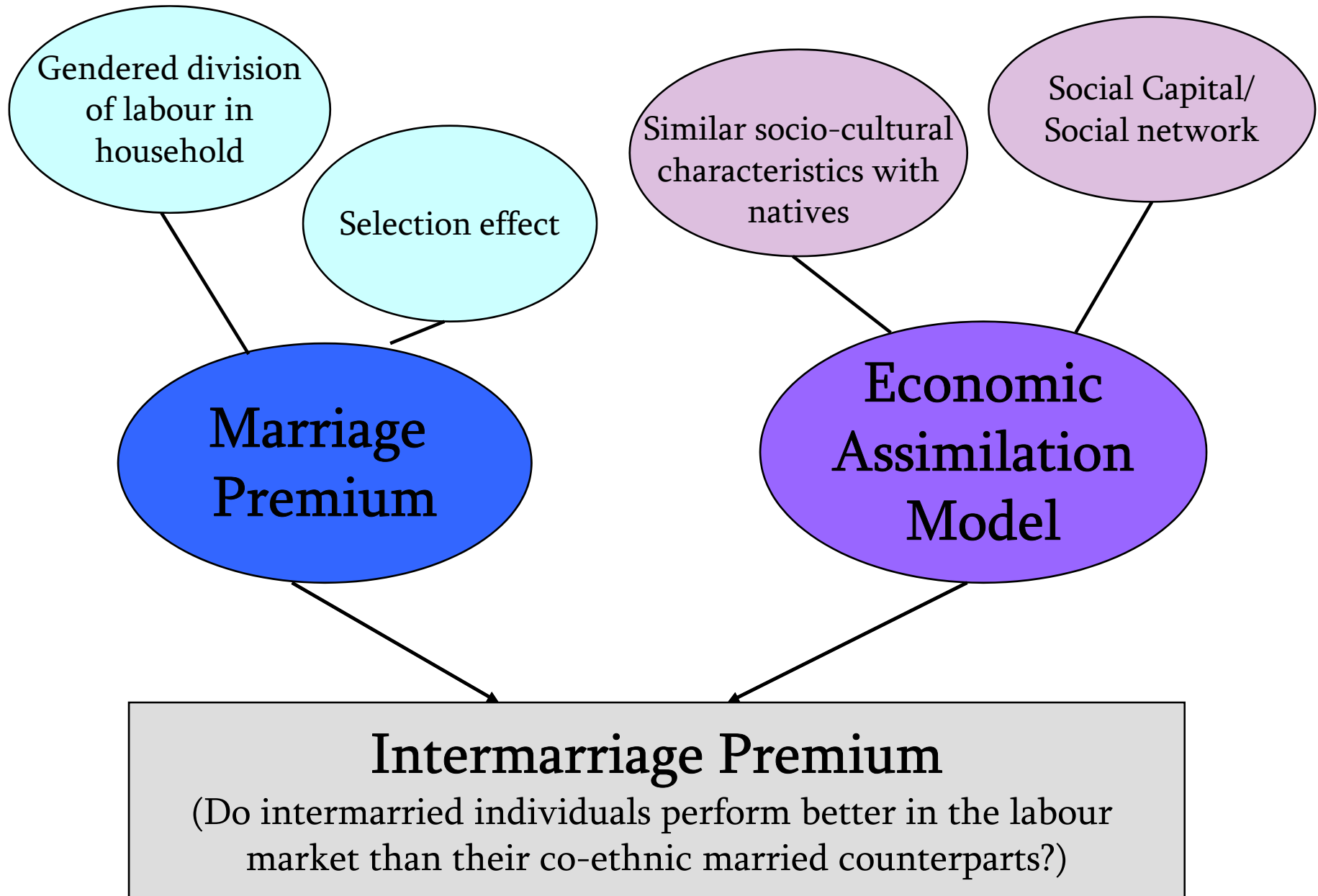
Methodology

1. Logistic Regression

$$\ln\left(\frac{P(Service\ class)}{1-P(Service\ class)}\right) = \alpha + X_i\beta_{10} + F_i\beta_{11} + \varepsilon_i$$

$X_i =$ Demographic & Human Capital Characteristics

- agecentred
- agecentred^2
- generation

- Degree qualification in 1991
- Service class in 1991
- Working Full-Time

$F_i =$ Family Characteristics

- Partner has degree in 1991
- Intermarried

- Dependent children

2. Treatment Effects Model

Personality

Unobserved Characteristics

Beauty

Ability

Intermarriage

Better Economic Outcomes
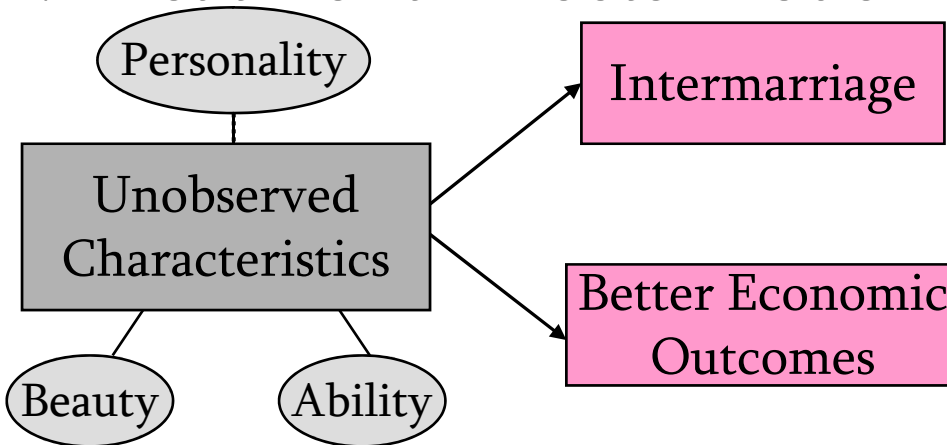
Endogeneity Problem

→ Estimate 2 regressions simultaneously

1) Probit analysis predicting the probability of intermarriage

$$Intermarried^*_i = K_i\gamma + \varepsilon_{2i}$$

Binary treatment is

$$Intermarried_i = \begin{cases} 1, \text{ if intermarried}^*_i > 0 \\ 0, \text{ otherwise} \end{cases}$$

2) Probability of being in service class

$$\ln\left(\frac{P(Service \cdot class)}{1 - P(Service \cdot class)}\right) = \alpha + X_i\beta_{10} + F_i\beta_{11} + \delta \text{intermarried}_i + \varepsilon_{1i}$$

Figure 2.1: Male Marital Status in 1991
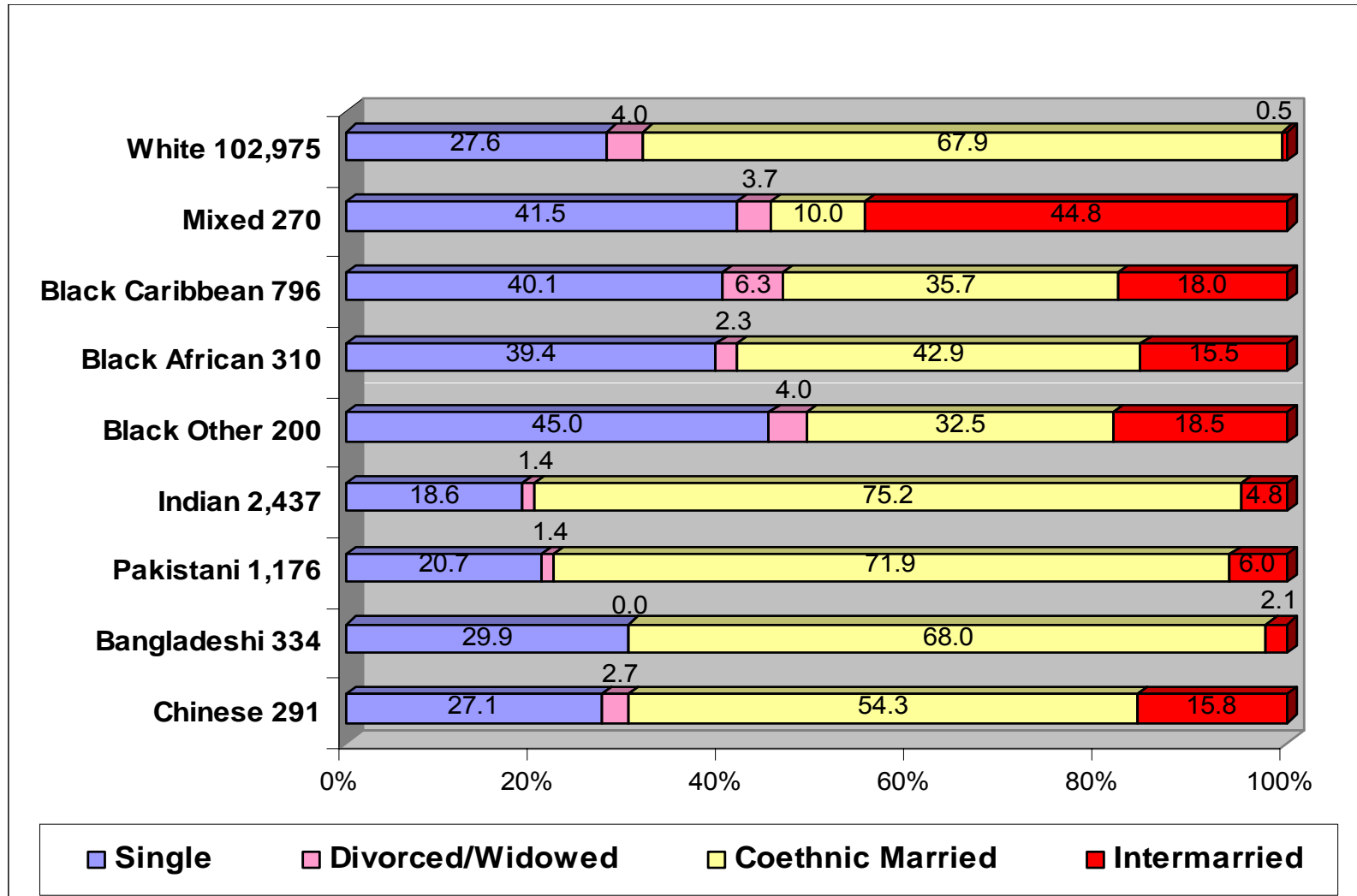
Source: ONS Longitudinal Study

Figure 2.2: Female Marital Status in 1991

Ethnic group	Single	Divorced/Widowed	Coethnic Married	Intermarried
White 110,460	21.5	7.7	70.2	0.6
Mixed 353	44.5	6.8	7.1	41.6
Black Caribbean 1,157	51.5	11.2	28.5	8.7
Black African 410	45.4	15.4	29.3	10.0
Black Other 303	46.9	5.9	30.4	16.8
Indian 2,631	15.9	4.8	76.3	3.0
Pakistani 1,128	20.4	5.3	71.5	2.8
Bangladeshi 456	20.4	5.7	73.9	0.0
Chinese 310	21.6	5.5	51.3	21.6
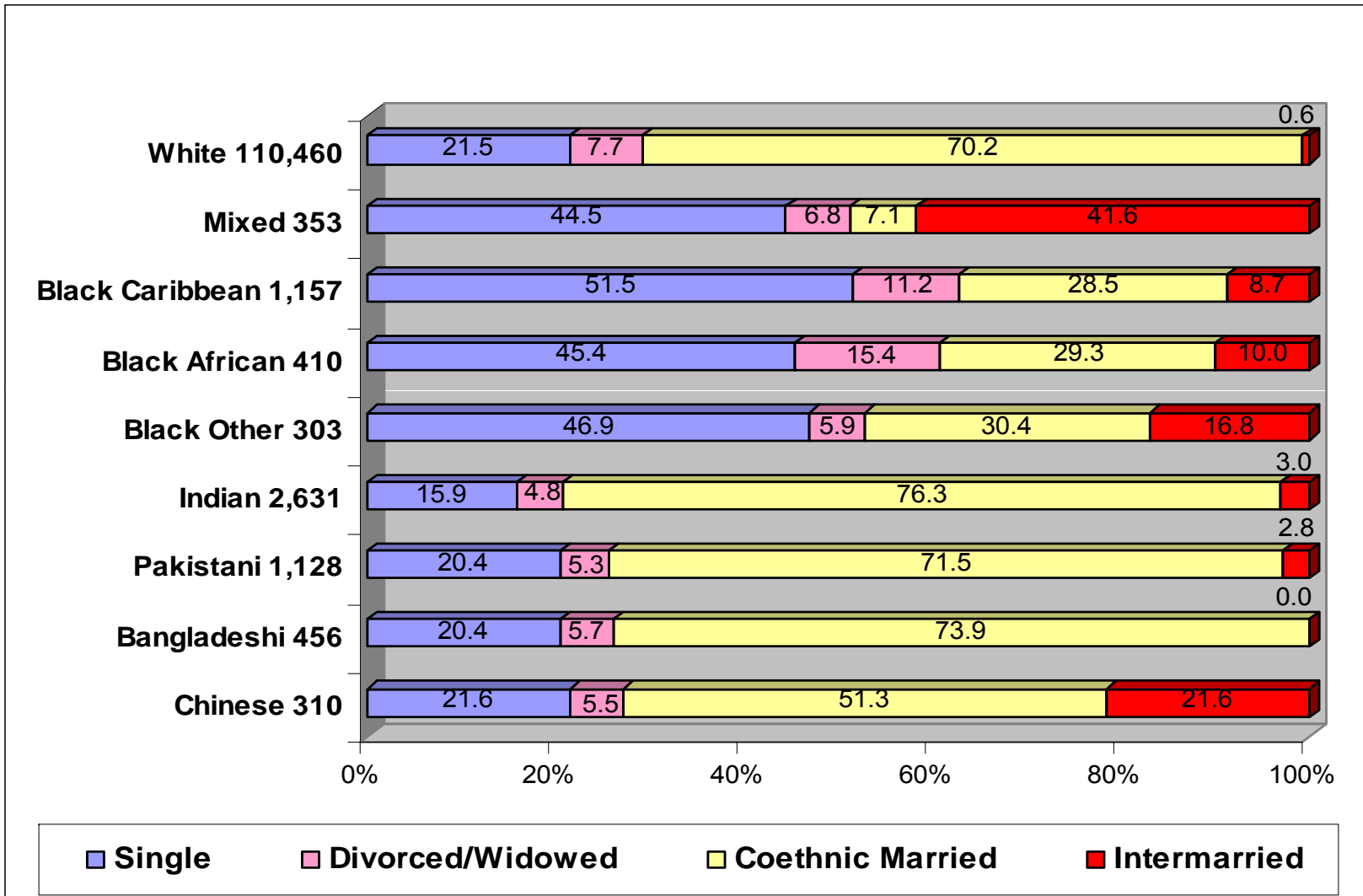
Source: ONS Longitudinal Study

Figure 3: Percentage Distribution of Intermarried Men & Women in 1991
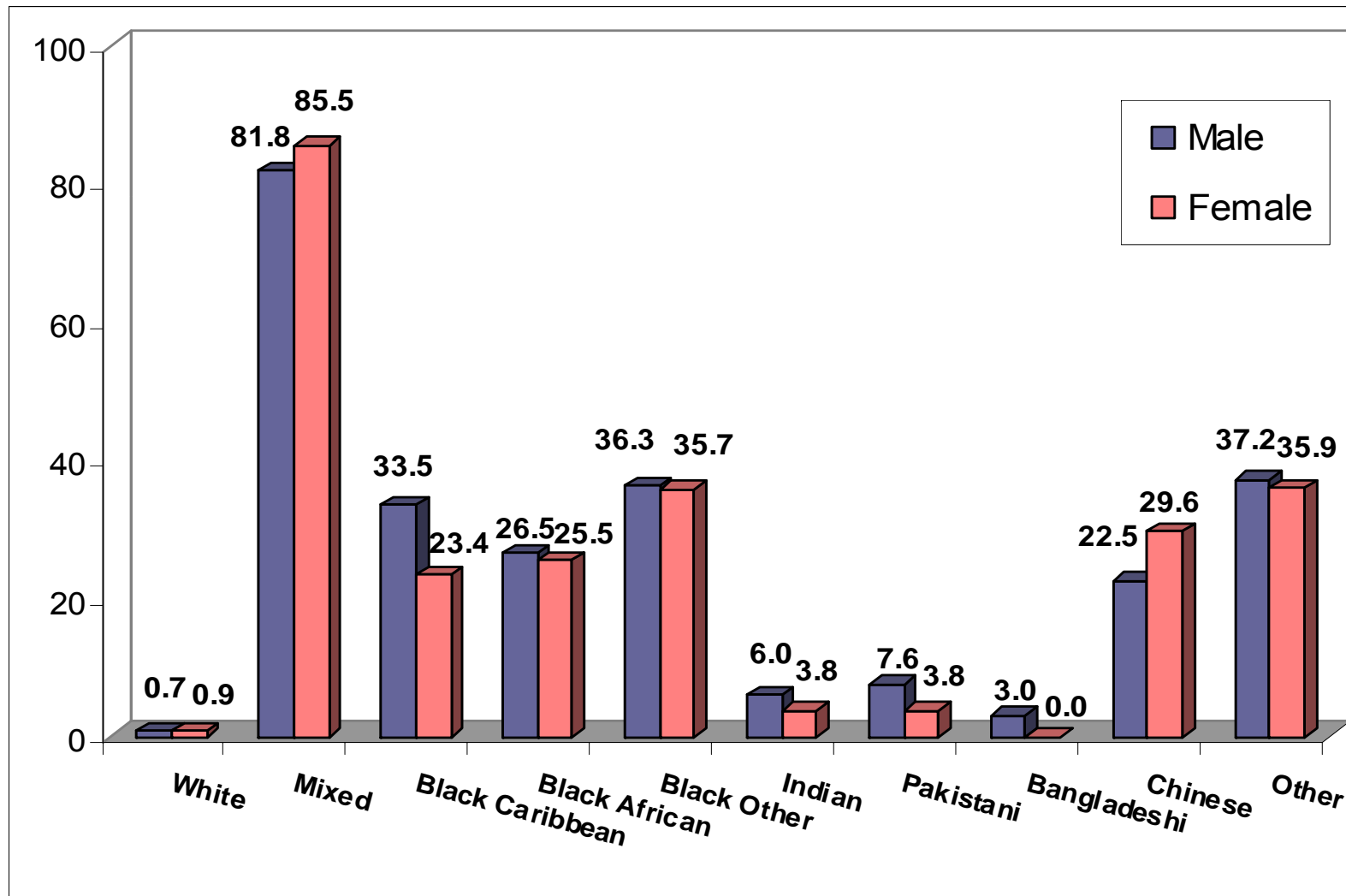
Source: ONS Longitudinal Study

Table 1: White Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	**-1.92**	0.16	**-0.31**	0.03
Agecentred^2 01	0.01	0.01	0.002	0.002
Degree qualification 91	**1.45**	0.04	**0.20**	0.01
Be in Professional/Managerial in 91	**2.45**	0.02	**0.53**	0.004
Working full-time	**0.18**	0.03	**0.03**	0.004
Family characteristics				
Spouse has degree 91	**0.46**	0.05	**0.05**	0.01
One dependent children	**0.09**	0.03	**0.02**	0.005
Two or more children	**0.14**	0.03	**0.02**	0.005
Coethnic married				
Intermarried	0.07	0.12	0.05	0.13
Constant	-1.58	0.03	0.17	0.01
λ			-0.01	0.05
N	63,761		63,540	

Source: ONS Longitudinal Study

Table 2: Non-White Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	-0.66	0.79	-0.10	0.11
Agecentred^2 01	0.07	0.06	0.01	0.01
Born in UK	**0.42**	0.17	0.03	0.03
Degree qualification 91	**1.72**	0.15	**0.28**	0.02
Be in Professional/Managerial in 91	**2.23**	0.10	**0.45**	0.02
Working full-time	**0.49**	0.11	**0.06**	0.01
Family characteristics				
Spouse has degree 91	0.27	0.22	0.03	0.03
One dependent children	0.03	0.13	0.003	0.02
Two or more children	-0.03	0.13	-0.01	0.02
Coethnic married				
Intermarried	**0.46**	0.12	**0.19**	0.05
Constant	-2.27	0.15	0.07	0.02
λ			**-0.08**	0.03
N	3,771		3,738	

Source: ONS Longitudinal Study

Table 2-A: Probit Analysis of Probability of Intermarriage for Non- White

	Men		Women	
	B	S.E.	B	S.E.
Agecentred 91	-0.01	0.004	**-0.02**	0.005
Agecentred² 91	0.0005	0.0004	**-0.001**	0.0005
Born in UK	**0.44**	0.10	0.09	0.10
Degree qualification 91	**0.24**	0.08	**0.44**	0.11
Christian				
Buddhist	**-0.42**	0.21	0.08	0.19
Hindu	**-0.98**	0.09	**-1.20**	0.12
Jewish	0.10	0.33	-	
Muslim	**-0.66**	0.07	**-0.79**	0.12
Sikh	**-1.48**	0.13	**-1.33**	0.13
Other religion	**-0.64**	0.27	-0.35	0.30
No religion	-0.06	0.11	-0.22	0.13
Log white/own ethnic ratio	**0.19**	0.02	**0.32**	0.03
Constant	-1.34	0.11	-1.76	0.13
N	3,738		2,507	

Table 3: Black Caribbean Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	-1.50	2.96	-0.38	0.53
Agecentred^2 01	-0.02	0.21	0.01	0.03
Born in UK	0.70	0.45	0.12	0.07
Degree qualification 91	1.62	0.89	**0.29**	0.12
Be in Professional/Managerial in 91	**2.28**	0.38	**0.46**	0.07
Working full-time	0.38	0.38	0.06	0.05
Family characteristics				
Spouse has degree 91	-0.30	0.83	-0.02	0.12
One dependent children	-0.21	0.42	-0.03	0.06
Two or more children	-0.30	0.39	-0.06	0.06
Coethnic married				
Intermarried	0.39	0.31	0.01	0.16
Constant	-2.06	0.54	0.11	0.09
λ			0.03	0.10
N		341		323

Source: ONS Longitudinal Study

Table 4: Black African & Black Other Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	-0.23	2.60	0.12	0.53
Agecentred^2 01	-0.07	0.21	-0.001	0.04
Born in UK	0.36	0.45	-0.03	0.14
Degree qualification 91	0.48	0.44	0.13	0.10
Be in Professional/Managerial in 91	**1.86**	0.34	**0.40**	0.07
Working full-time	0.36	0.39	0.08	0.07
Family characteristics				
Spouse has degree 91	0.30	0.56	0.06	0.11
One dependent children	-0.65	0.45	-0.12	0.08
Two or more children	0.28	0.42	0.05	0.08
Coethnic married				
Intermarried	0.09	0.36	0.30	0.28
Constant	-1.32	0.54	0.12	0.14
λ			-0.17	0.17
N	229		226	

Source: ONS Longitudinal Study

Table 5: Indian Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	-1.18	1.34	-0.13	0.18
Agecentred^2 01	0.05	0.10	0.001	0.01
Born in UK	0.15	0.34	-0.01	0.05
Degree qualification 91	**1.76**	0.22	**0.28**	0.03
Be in Professional/Managerial in 91	**2.30**	0.15	**0.46**	0.02
Working full-time	0.32	0.17	0.04	0.02
Family characteristics				
Spouse has degree 91	**0.78**	0.35	**0.09**	0.04
One dependent children	0.21	0.20	0.03	0.03
Two or more children	0.03	0.20	0.01	0.03
Coethnic married				
Intermarried	**0.67**	0.27	**0.39**	0.09
Constant	-2.25	0.23	0.08	0.03
λ			**-0.17**	0.05
N		1,733		1,732

Source: ONS Longitudinal Study

Table 6: Pakistani Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	1.07	1.70	0.11	0.21
Agecentred^2 01	0.20	0.12	0.02	0.02
Born in UK	0.68	0.52	0.09	0.07
Degree qualification 91	**2.33**	0.40	**0.40**	0.07
Be in Professional/Managerial in 91	**1.98**	0.27	**0.38**	0.04
Working full-time	**0.82**	0.25	**0.09**	0.03
Family characteristics				
Spouse has degree 91	1.00	0.83	0.13	0.11
One dependent children	-0.19	0.35	-0.02	0.04
Two or more children	-0.16	0.31	-0.02	0.04
Coethnic married				
Intermarried	0.31	0.37	0.05	0.27
Constant	-2.56	0.35	0.06	0.04
λ			-0.004	0.14
N		727		727

Source: ONS Longitudinal Study

Table 7: Chinese Male: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	7.39	5.39	0.68	0.53
Agecentred^2 01	-0.43	0.44	-0.04	0.04
Born in UK	**2.86**	1.23	**0.39**	0.15
Degree qualification 91	**3.43**	0.86	**0.45**	0.08
Be in Professional/Managerial in 91	**2.75**	0.56	**0.45**	0.07
Working full-time	0.48	0.72	0.05	0.07
Family characteristics				
Spouse has degree 91	**-2.40**	1.06	**-0.31**	0.11
One dependent children	-0.30	0.71	-0.03	0.07
Two or more children	-0.29	0.71	-0.03	0.07
Coethnic married				
Intermarried	**1.33**	0.59	0.16	0.29
Constant	-2.99	0.95	0.05	0.11
λ			-0.01	0.17
N		166		166

Source: ONS Longitudinal Study

Table 8: White Female: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model 1		Logit Model 2		Treatment Effect	
	B	S.E.	B	S.E.	B	S.E.
Socio-economic characteristics						
Agecentred 01	**-0.83**	0.11	**-0.82**	0.16	**-0.12**	0.02
Agecentred^2 01	0.02	0.01	**0.04**	0.01	**0.01**	0.002
Degree qualification 91	**1.39**	0.05	**1.05**	0.05	**0.16**	0.01
Be in Professional/Managerial in 91	**2.28**	0.02	**2.22**	0.02	**0.46**	0.004
Working full-time	**1.09**	0.02	**1.12**	0.02	**0.19**	0.004
Family characteristics						
Spouse has degree 91			**0.72**	0.03	**0.12**	0.01
One dependent children			**0.13**	0.03	**0.02**	0.01
Two or more children			-0.01	0.03	-0.003	0.01
Coethnic married						
Intermarried	0.20	0.11	0.12	0.11	0.13	0.11
Constant	-1.91	0.02	-2.01	0.03	0.11	0.004
λ					-0.04	0.04
N	65,741		62,082		61,855	

Source: ONS Longitudinal Study

Table 9: Non-White Female: Determinants of Probability of Being in Professional/Managerial Class in 2001

	Logit Model		Treatment Effect Model	
	B	S.E.	B	S.E.
Socio-economic characteristics				
Agecentred 01	-1.49	0.92	-0.19	0.13
Agecentred^2 01	0.08	0.07	0.01	0.01
Born in UK	**0.49**	0.16	**0.07**	0.03
Degree qualification 91	**1.11**	0.23	**0.17**	0.03
Be in Professional/Managerial in 91	**2.55**	0.13	**0.52**	0.02
Working full-time	**0.54**	0.11	**0.07**	0.02
Family characteristics				
Spouse has degree 91	**0.37**	0.15	**0.05**	0.02
One dependent children	0.03	0.16	0.005	0.02
Two or more children	-0.02	0.16	-0.01	0.02
Coethnic married				
Intermarried	**0.43**	0.14	**0.16**	0.04
Constant	-2.23	0.14	0.08	0.02
λ			**-0.07**	0.03
N	2,538		2,507	

Source: ONS Longitudinal Study

Summary of Findings

- Evidence in favour of intermarriage premium

- Marital choice is endogenous

- White do not benefit from intermarriage

- For ethnic minorities intermarriage has positive effect on labour market outcomes

  - Particularly for Indians and Chinese

  - Not strong statistical power for Blacks and Pakistanis

❈ THANK YOU ❈

Special thanks to

Julian Buxton