



Do Intermarried Individuals Perform Better in the Labour Market?

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Presentation Outline



1. Introduction



2. Data & Methodology

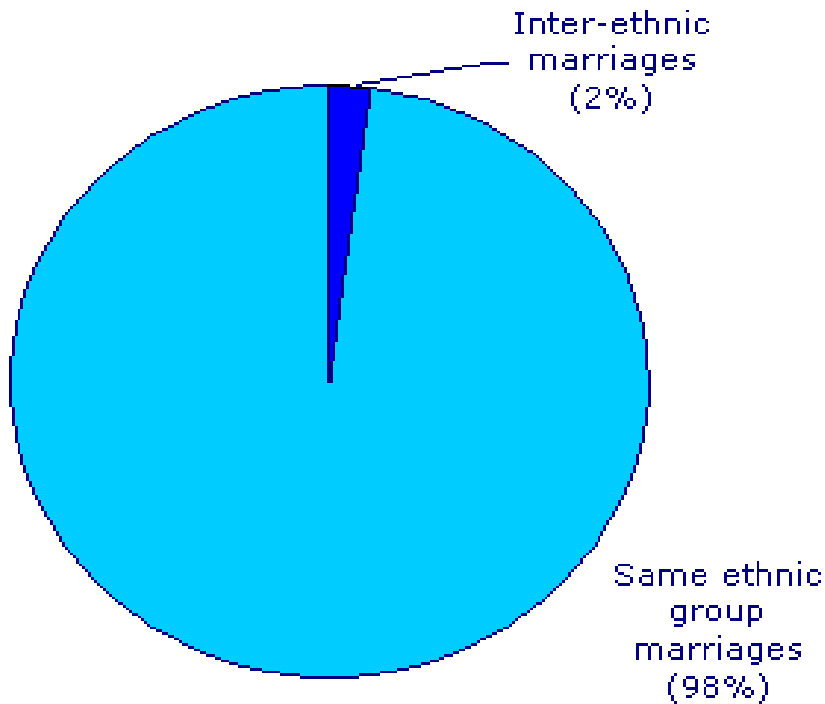


3. Empirical Results



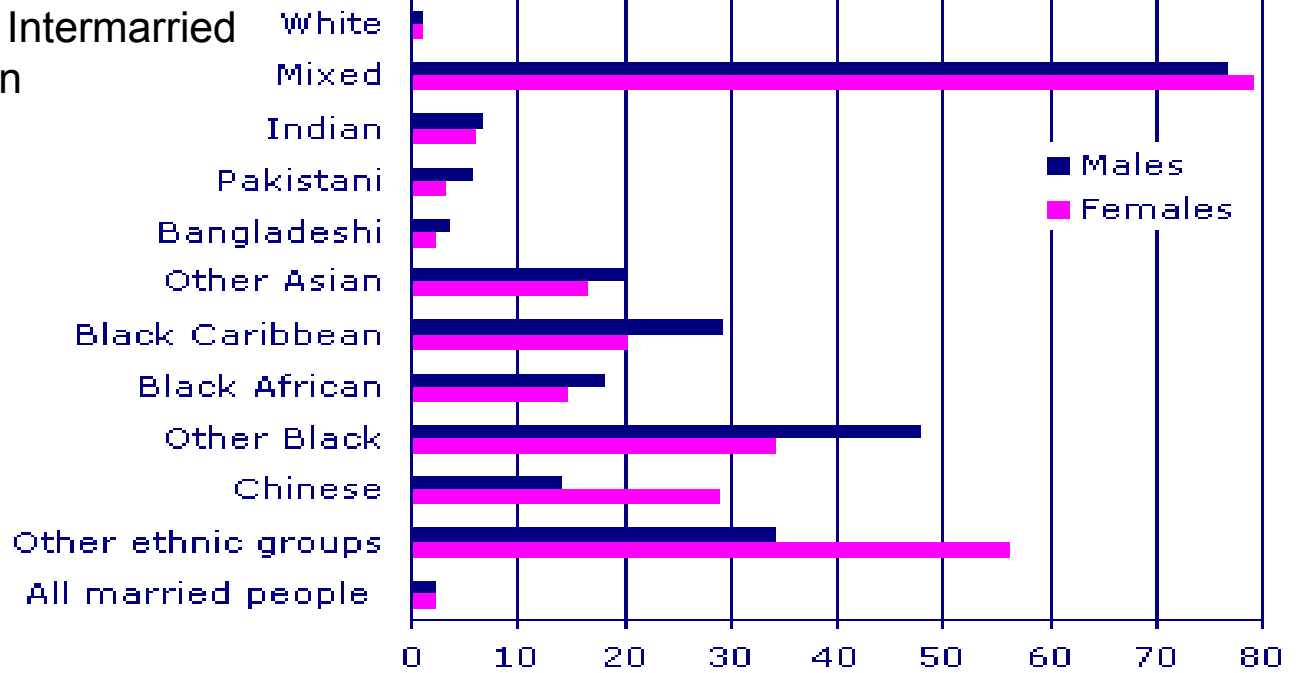
4. Summary

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



Source: Census 2001, England & Wales

Figure 2: Percentage of Intermarried Men & Women



Source: Census 2001, England & Wales



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

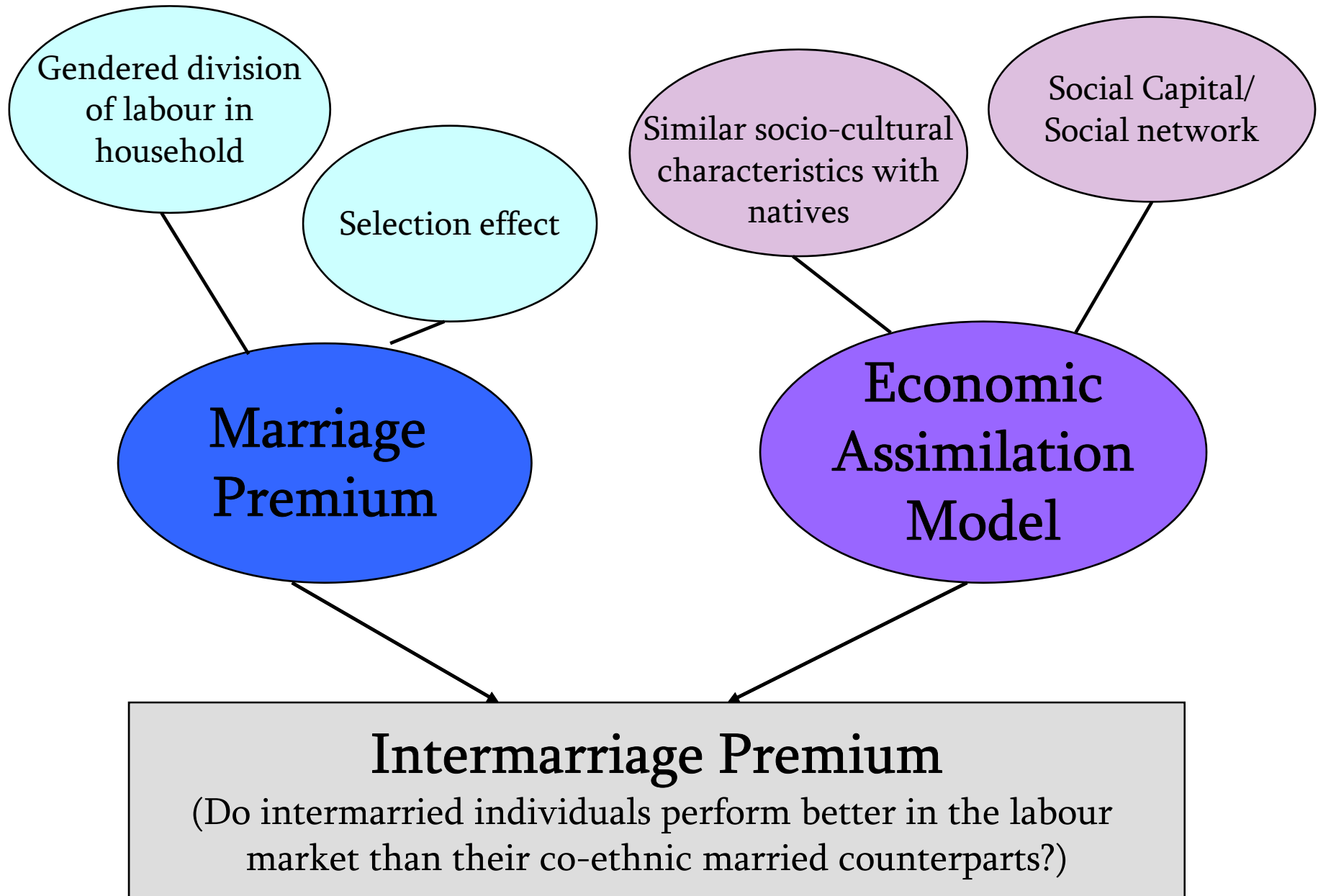
- 1) Who intermarries and why?
- 2) Consequences on Intermarried Couples
 - Economic outcomes
- 3) Consequences on multiethnic children
 - Socioeconomic outcomes
 - Ethnic Identity

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

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

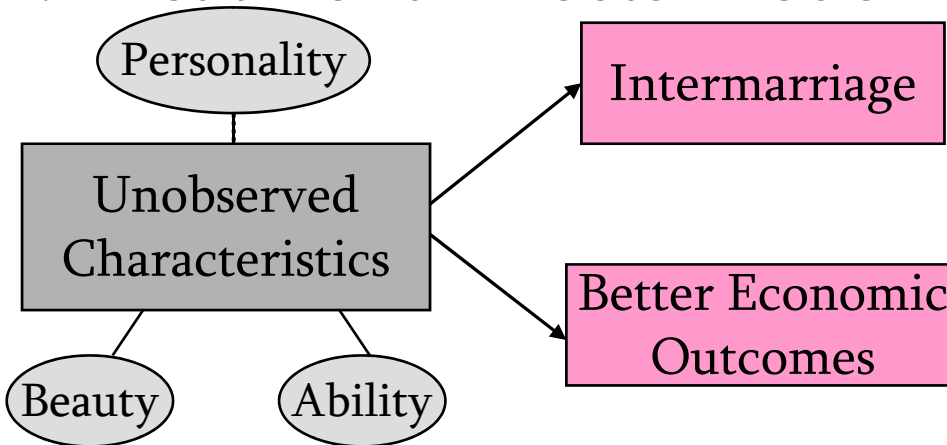
X_i = Demographic & Human Capital Characteristics

- agecentred
- agecentred²
- generation
- Degree qualification in 1991
- Service class in 1991
- Working Full-Time

F_i = Family Characteristics

- Partner has degree in 1991
- Dependent children
- Intermarried

2. Treatment Effects Model



Endogeneity Problem

→ Estimate 2 regressions simultaneously

1) Probit analysis predicting the probability of intermarriage

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

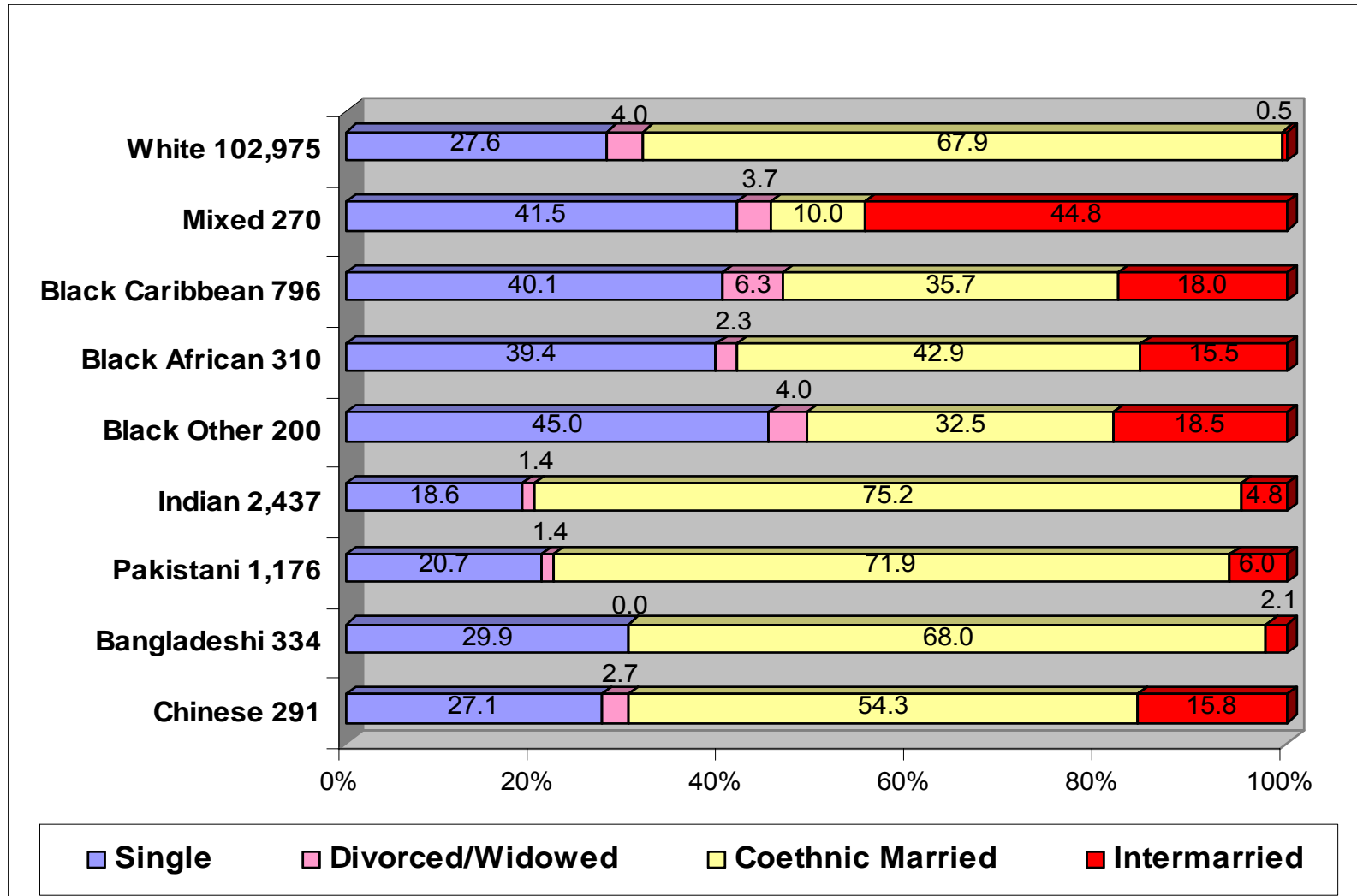
Binary treatment is

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

2) Probability of being in service class

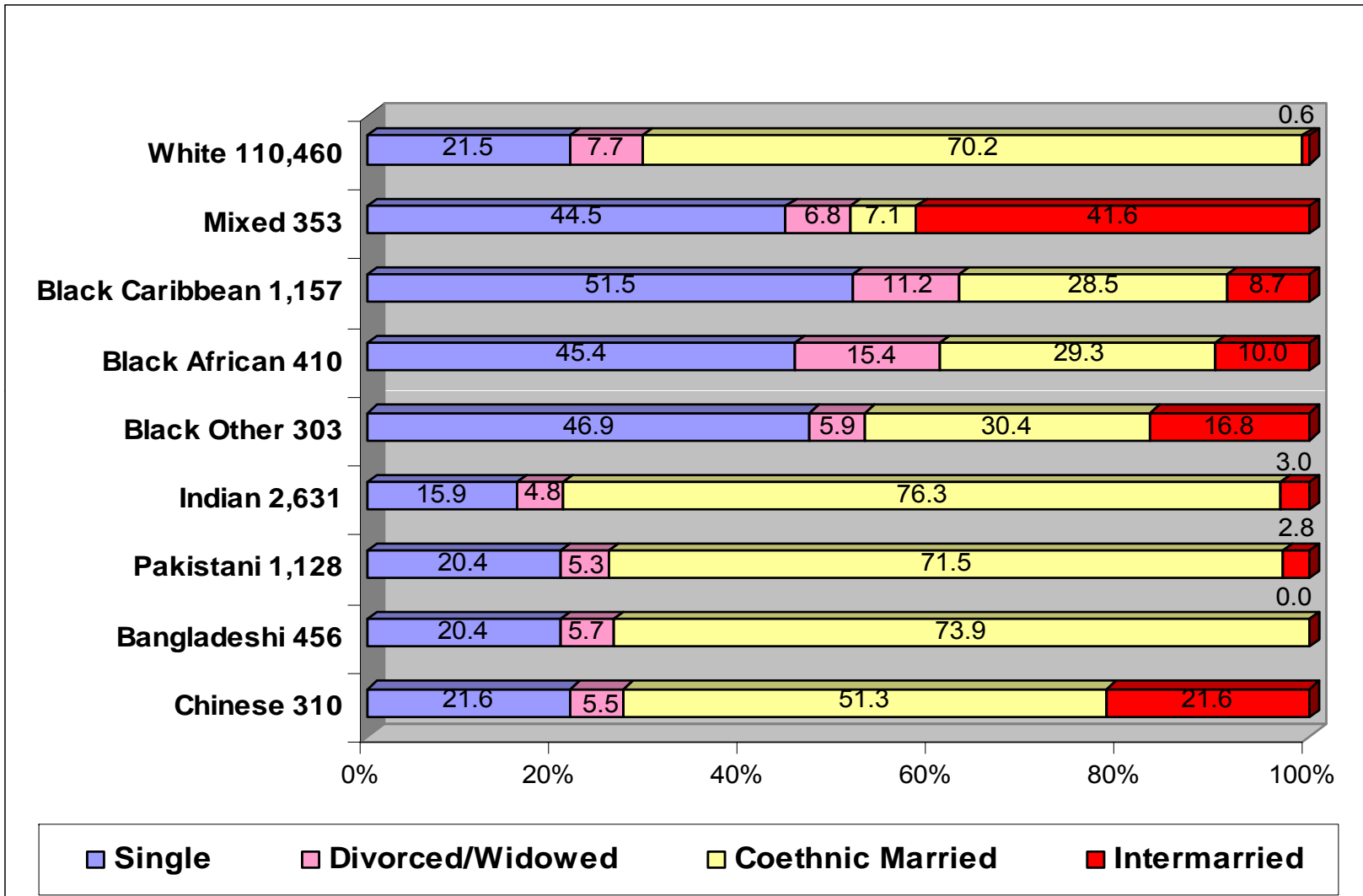
$$\ln\left(\frac{P(\text{Service class})}{1 - P(\text{Service class})}\right) = \alpha + X_i\beta_{10} + F_i\beta_{11} + \delta intermarried_i + \varepsilon_{1i}$$

Figure 2.1: Male Marital Status in 1991



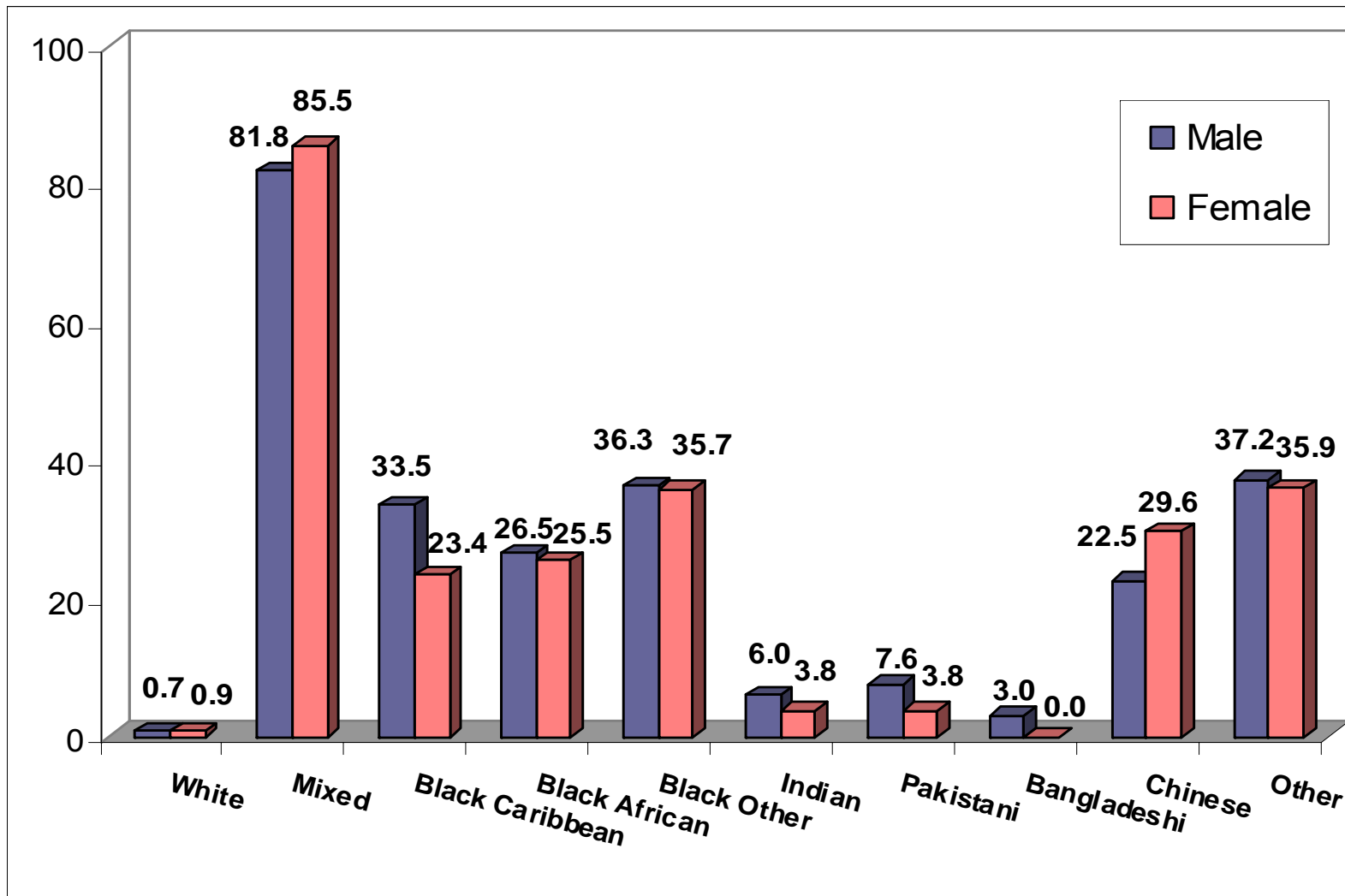
Source: ONS Longitudinal Study

Figure 2.2: Female Marital Status in 1991



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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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
<i>Coethnic married</i>				
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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
Agecentred ² 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
<i>Christian</i>				
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
<i>Constant</i>	-1.34	0.11	-1.76	0.13
<i>N</i>	3,738		2,507	
<u>Source:ONS Longitudinal Study</u>				

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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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
<i>Coethnic married</i>				
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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
<i>Coethnic married</i>				
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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.
<i>Socio-economic characteristics</i>						
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
<i>Family characteristics</i>						
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
<i>Coethnic married</i>						
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.
<i>Socio-economic characteristics</i>				
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
<i>Family characteristics</i>				
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