

Estimating the probability of self-employment amongst ethnic and immigrant groups in the UK

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INTRODUCTION

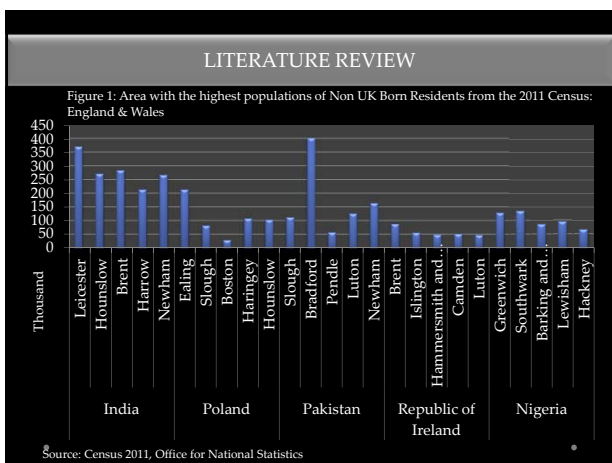
- UK's ethnic minorities are diverse groups that come from different cultures, religions and nationalities.
- Ethnic groups have different self-employment rates & each ethnic group has their own motivating factors that persuade them to be self-employed.
- Ethnic & immigrant involvement in self-employment has raised interest among scholars and policy maker.

RESEARCH OBJECTIVES

- To investigate the contribution of socio-economic and demographic factors using regression models to estimate the probability of an individual being self-employed.
 - With a particular focus on ethnicity.
- To examine the probability of self-employment for UK born and immigrant groups.

LITERATURE REVIEW

- Relates to several relevant theoretical perspectives, especially from sociology and economics:
 - Ethnic enclaves
 - Middleman minorities
 - Push & pull theory
 - Reactive cultural theory



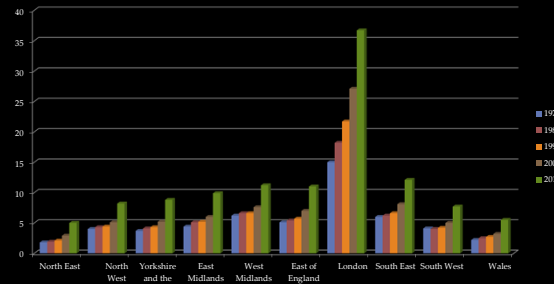
LITERATURE REVIEW

Ethnic Group	Total employment(000's)	Self-employed (000's)	Rate of Self Employment
White	23,533	3,574	15.2
Indian	731	107	14.6
Pakistani	352	84	23.9
Bangladeshi	134	20	14.9
Chinese	172	32	18.6
Other Asian	386	53	13.7
Black/African	395	42	10.6
Black/Caribbean	281	30	10.7
Other Black	94	11	11.7
Arab	67	12	17.9
Other ethnic group	148	27	18.1
Total	26,293	3,992	15.2

Source: Census 2011, ONS.

LITERATURE REVIEW

Figure 2: Percentage of the usual resident population who were born outside the UK by English region and Wales; 1971-2011.



Source: Census 2011, Office for National Statistics

DATA & DESCRIPTIVE

- The data used in this empirical analysis comes from the Labour Force Survey, which is a nationally representative sample of households.
- Five quarterly datasets have been pooled to estimate the probability & determinants of self-employment.
- Data were taken from 2008-Q1, 2009-Q2, 2010-Q3, 2011-Q4 & 2013-Q1.
- Restricted to individuals of working age, those aged 16-59/64.

DATA & DESCRIPTIVE

Table 2: Self-employment rates by grouped ethnic categories for UK and foreign born

Ethnic Group	Male		Female	
	Self-employed (%)	N	Self-employed (%)	N
White British	18.8	119,308	8.9	112,636
Other White	20.3	7,615	11.7	7,370
White & Caribbean	14.7	252	6.1	344
White & Black African	15.3	118	8.7	127
White & Asian	13.3	241	8.4	251
Other Mixed	15.3	307	10.7	319
Indian	16.1	3,434	7.1	2,667
Pakistani	31.5	1,952	12.5	840
Bangladeshi	17.5	680	4.4	272
Other Asian	16.8	1,242	6.3	1,167
Black Caribbean	14.5	951	4.8	1,322
Black African	12.0	1,468	6.0	1,530
Other Black	20.0	120	6.8	133
Chinese	19.8	490	13.8	600
Other	19.9	1,912	11.6	1,504
Total	14.1	140,090	8.9	131,082

Source: Labour Force Survey, 2008-2013

DATA & DESCRIPTIVE

Table 3: Self-employment rates by detailed ethnic group

Ethnic Group	UK born				Foreign born			
	Male		Female		Male		Female	
	Rate	N	Rate	N	Rate	N	Rate	N
White British	18.8	116,094	8.7	109,424	17.6	3,214	12.8	3,212
Other White	19.5	1,837	8.2	1,533	20.6	5,778	12.6	5,837
Mixed	14.3	657	8.0	738	15.3	261	9.2	303
Indian	14.9	1,071	6.2	941	16.7	2,363	7.5	1,726
Pakistani	24.1	673	9.5	485	35.3	1,279	16.6	355
Bangladeshi	10.6	141	1.8	114	19.3	539	6.3	158
Chinese	12.8	109	9.2	109	21.8	381	14.9	491
Other Asian	12.9	132	5.6	125	17.2	1,100	6.4	1,042
Black	13.1	870	5.3	1,120	13.4	1,669	5.7	1,865
Other	20.8	241	12.2	255	19.8	1,671	11.5	1,249
Total	18.8	121,825	8.7	114,844	19.56	18,255	10.9	16,238

Source: Labour Force Survey, 2008-2013

EMPIRICAL FRAMEWORK

- General reduced-form equation model of self-employment choice (SE_i):

$$SE_i = X_i\beta_i + \mu_i$$
- SE_i is the dependent variable, it takes a value of 1 if the individual is self-employed.
- X_i contains conventional explanatory variables, such as ethnic group, age, marital status, religion, education, location and immigrant status.
- β is the vector of associated coefficients to be estimated. The error term is represented by μ_i .
- Can be estimated using either a Logit or Probit model, given that the dependent variable being considered is binary.

EMPIRICAL FRAMEWORK

Self-employment statistic model

Equation 1

$$SE_i = \beta_0 + \beta_1 UKborn_i + \beta_2 Age_i + \beta_3 Age_i^2 + \sum_{j=1}^4 \sigma_j Marital\ Status_i + \sum_{k=1}^5 \theta_k Qualifications_i + \sum_{l=1}^9 \Omega_l Ethnicity_i + \mu_i$$

EMPIRICAL FRAMEWORK

- β_1 is the coefficient associated with the probability of self-employment for UK-born people.
- β_2 is the coefficient associated with age.
- β_3 is the coefficient associated with age squared.
- σ is the vector of coefficients associated with marital status.
- θ is the vector of coefficients associated with qualifications.
- Ω is the vector of coefficients associated with ethnic groups.

EMPIRICAL FRAMEWORK

Equation 2

$$SE_i = \beta_0 + \beta_1 UKborn_i + \beta_2 Age_i + \beta_3 Age_i^2 + \sum_{j=1}^4 \sigma_j Marital\ Status_i + \sum_{k=1}^5 \theta_k Qualifications_i + \sum_{l=1}^9 \Omega_l Ethnicity_i + \sum_{m=1}^8 \mu_m Religion_i + \sum_{n=1}^{19} \delta_n Region_i + \mu_i$$

- μ is the vector of coefficients associated with religion
- δ is the vector of coefficients associated with regions

RESULTS

- **Reported as Marginal Effects:**
which are the change in the probability of self-employment caused by a one-unit change in the explanatory variable, evaluated at the sample means
- Associated p-values also reported.

RESULTS: SPECIFICATION 1

Impact of socio-economic factors largely as expected

- **Age:** Self-employment increases with age but at a decreasing rate since the coefficient on age squared is negative
- **Marital status:** Small and generally insignificant effects.
- **Education:** Males holding a degree are less likely to be self-employed but the opposite is the case for females.

RESULTS: SPECIFICATION 1

- **UK-born:** UK-born has a small negative effect on the probability of self-employment for both males and females.
- **Ethnicity:** Pakistanis, Other Whites, Chinese & Bangladeshis have the highest probability of self-employment for males.
- Lowest amongst Black males
- Smaller differences amongst females but fairly similar patterns

RESULTS: SPECIFICATION 2

- **Religion:** Sikhs, Jewish and Muslims have the highest probability of self-employment for males. Meanwhile Jewish, Other Religions and Buddhists have the highest probability for females.
- **Regions:** Inner London has the highest rates of self-employment compared to other regions for both males and females.

RESULTS: SPECIFICATION 2 (Foreign Born)

- **Ethnicity:** Other Whites, Pakistanis, Chinese, and Other Groups have the highest probability of self-employment for males. Similar patterns again for females but the size of the effects is smaller.
- **Religion:** Generally positive effects for all religions compared to Christians, with large effects for Sikhs, Muslims and Other religions for males.
- **Year of arrival:** Earlier cohorts more likely to be self-employed, especially for males.

RESULTS: SPECIFICATION 2 (UK-Born)

- **Ethnicity:** Only Other White and Pakistani males significantly more likely to be self-employed than White British males.
- Positive and significant effect at the 5% level for Pakistani females as well and Black females significantly less likely to be self-employed than White British.
- **Religion:** Jewish, Muslim and Hindu males significantly more likely to be self-employed than Christians.

CONCLUSIONS

- Males are far more likely to be self-employed.
- Ethnic minority groups have different probabilities of being self-employed.
- Pakistanis and Other Whites have the highest rates.
- Black have the lowest rates.

CONCLUSIONS

- UK born are slightly less likely to choose self-employment.
- For foreign born males, Pakistanis, Chinese & Other Whites had relatively high incidence of self-employment.
- Some cohort effects for immigrant males => changes to rules likely to have affected the self-employment rate.