



Centre for Market and  
Public Organisation

# Preference formation and the school choice process

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# Introduction

- Part 1 (research in progress)
  - Preferences for what?
  - Do preferences differ by socioeconomic group?
- Part 2 (complete)
  - Choice, school access and social mobility
  - Preferences or constraints?

# Choice, preferences and the market

- School choice has been argued to:
  - Raise standards (qualifications)
  - Improve equity
- Process and requirements:
  - Choosers care most about quality (qualifications)
  - Good information about quality
  - Choosers generally get their preferred schools
  - Schools gain by many applications, and can adjust

# Part 1: Studying Preferences

- We use Millennium Cohort Study, in the UK
- We have information on:
  - Up to 3 nominated schools on preference form
  - Other “truly preferred” school
  - Nearby non-nominated schools
  - Stated reasons for preferences (all; most important)
  - Rich set of controls for families
  - Rich set of data on all schools
  - Actual school attended

# Data

- Longitudinal dataset – currently 3 waves
- Sample
  - Born 1<sup>st</sup> September 2000 – 31<sup>st</sup> August 2001
  - Random sample of electoral wards
  - Over-sampled from deprived areas and areas with over 30% black or Asian families
- We look at England only
- Wave 3 – children are aged 5, primary school age
- Final sample is 9,468 children
- School characteristics merged from PLASC/NPD
- School relative locations derived using GIS

This research is still in progress  
All results are provisional!!

Table 1: Reasons given for application for 1st choice school

Reason	N
Proximity/ease of travel	6,334
Sibling Rule	4,320
Other family/friends	2,875
Academic standards	3,815
General good impression	5,492
School characteristics and facilities	4,523
Strategic	927
Religion	978
School composition	560
Pre-school & childcare	654

Note: Table gives unweighted observations

Table 2: Percentage of population giving each 'grouped' reason, by main respondent's education

Education	Proximity	Sibling	Academic	Good impression	School characteristics	Religion
None	83.53	54.42	20.43	35.33	29.72	5.41
GCSE, A*-C	73.73	49.95	45.29	64.89	54.11	10.23
Degree+	75.61	44.35	58.33	77.12	59.12	17

Note: Table gives weighted %, using non response weight 2.

Table 3: Percentage of population giving each 'grouped' reason, by main respondent's ethnicity

Ethnicity	Proximity	Sibling	Academic	Good impression	School characteristics	Religion
White	73.89	48.17	45.29	66.83	55.86	10.93
Indian	75.75	47.75	46.36	57.74	40.61	7.67
Pakistani	81.95	51.4	24.6	35.14	25.62	5.4
Bangladeshi	89.22	60.96	22.22	28.92	25.48	1.97
Black Caribbean	77.61	45.22	47.37	57.05	53.33	20.28
Black African	82.83	52.73	37.75	43.48	33.47	26.32
Other	76.98	42.06	48.06	57.85	44.37	21.06

Note: Table gives weighted %, using non response weight 2.

Table 4: Most important reasons (grouped) for application for 1<sup>st</sup> choice school

Reason	N	%
Proximity/ease of travel	2,567	27.5
Sibling Rule	2,350	25.1
Other family/friends	467	5.0
Academic standards	1,521	16.3
General good impression	1,439	15.4
School characteristics and facilities	485	5.2
Strategic	62	0.7
Religion	315	3.4
School composition	44	0.5
Pre-school & childcare	97	1.0
<b>Total</b>	<b>9,347</b>	<b>100</b>

Note: Table gives unweighted observations

Table 5: Percentage of population giving each 'grouped' most important reason, by main respondent's education

Education	Proximity	Sibling	Academic	Good impression	School characteristics	Religion
None	40.02	28.62	7.68	8.81	3.66	1.55
GCSE, A*-C	23.82	25.99	16.67	16.38	5.58	2.79
Degree+	20.3	20.94	20.15	22.65	4.61	4.3

Note: Table gives weighted %, using non response weight 2.

Table 6: Percentage of population giving each 'grouped' most important reason, by main respondent's ethnicity

Ethnicity	Proximity	Sibling	Academic	Good impression	School characteristics	Religion
White	24.45	24.9	16.25	17.53	5.28	2.85
Indian	27.03	24.27	20.31	13.95	3.01	2.98
Pakistani	40.81	28.69	9.91	8.95	3.28	0.7
Bangladeshi	41.14	36.33	11.09	3.2	3.39	0
Black Caribbean	21.2	17.9	34.36	6.99	4.19	8.55
Black African	30.05	21.18	17.24	6.81	6.66	11.92
Other	23.23	20.66	19.3	16.22	7.07	7.75

Note: Table gives weighted %, using non response weight 2.

Table 7: Logit regression: P(most important reason=j), dependent on main resp. characteristics

Variable		Proximity	Academic standards	General good impression	School characteristics	Religion
Education	'Other', or vocational	-0.259	0.421	0.41	0.299	0.525
	GCSE grades A-C	* -0.522	* 0.624	* 0.418	0.504	0.399
	Degree +	*** -0.551	*** 0.671	*** 0.679	* 0.443	0.458
Semi-routine		-0.0662	0.141	-0.119	0.0455	0.305
NSSEC	Intermediate	-0.381	0.584	0.181	-0.0543	0.581
	Higher prof	*** -0.457	*** 0.587	0.488	-0.463	0.694

Note: weighted logit regression, using non-response weight 2. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 8: Logit regression: P(most important reason=j), dependent on main resp. characteristics

Variable		Proximity, not academic	Proximity, not good imp.	Academic and religious	Sibling and proximity	Sibling and academic
Education	'Other', or vocational	-0.268 ***	-0.558 ***	0.584	-0.229	-0.0612
	GCSE grades A-C	-0.599 ***	-0.695 ***	0.683 *	-0.232 **	0.45 **
	Degree +	-0.772 ***	-1.125 ***	1.115 ***	-0.385 ***	0.425 ***
NSSEC	Semi-routine	-0.207	-0.259 *	-0.0252	-0.0687	0.334
	Intermediate	-0.755 ***	-0.723 ***	0.574	-0.185	0.813 ***
	Higher prof	-0.998 ***	-0.97 ***	0.894 ***	-0.302 *	0.961 *

Note: weighted logit regression, using non-response weight 2. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

Table 9: Multinomial Logit regression: P(most important reason==j), dependent on main resp. characteristics

Variable		Academic standards	General good impression	School characteristics	Religion
Education	'Other', or vocational	0.665	0.486	0.624	0.932
	GCSE grades A-C	*** 0.965	** 0.522	* 0.805	** 1.036
	Degree +	*** 1.058	*** 0.747	*** 0.799	*** 1.132
		***	***	***	***
NSSEC	Semi-routine	0.199	0.111	0.0665	0.485
	Intermediate	0.803	0.471	0.292	0.62
	Higher prof	*** 0.841	*** 0.793	0.175	0.762
	***	***		*	

Note: weighted multinomial logit regression, using non-response weight 2. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001. Base category is 'proximity'.

# Summary

- Provisional, interim, may-yet-change:
  - Most important reasons are: proximity, siblings, academic performance, “good impression”, ...
  - There appear to be differences in stated preferences by socioeconomic group
    - More educated place higher weight on academic performance and less on proximity.
- Interpretation of “proximity”, “siblings”, ..

# Issues and plans

- Use statistical techniques to estimate revealed preferences, and compare to stated preferences.
- Study strategic element to choice
- Study moving, to interpret “proximity”
- Who gets the school they nominated?

## Part 2: Preferences or constraints?

- Not all schools are good schools
- Which pupils go to the good schools?
- Questions:
  - What is the extent (if any) of a differential chance of going to a good school?
  - How does it happen? Comparing role of location (= proximity) and other factors
  - What would be the impact of increasing choice?

# Results

- Poor children half as likely to go to good schools.
- Much of that gap, but not all, comes through location. That is, accounting fully for location, the gap is much smaller, but not zero.
- Controlling for location, this gap doesn't vary much by degree of choice.
- Children from poor families tend not to go to a good school, even if it is their nearest.

# Data

- PLASC/NPD: Census of all children in state schools in England, taken each year in January.
- Indicator of family poverty is eligibility for Free School Meals (FSM).
- Quality of the secondary school that each child attends: use the publicly available measure of the proportion of a school's pupils which passes at least 5 GCSE exams at age 16.
- Define a “good school” as a school in the top third of the distribution.

# Question

- How much of the difference in probability of attending a good school is due to location?
- Need to control completely for location: examine next door neighbours.
- We analyse variation within postcodes: on average just 15 dwellings.
- Subsequent discussion: is this preferences or constraints?





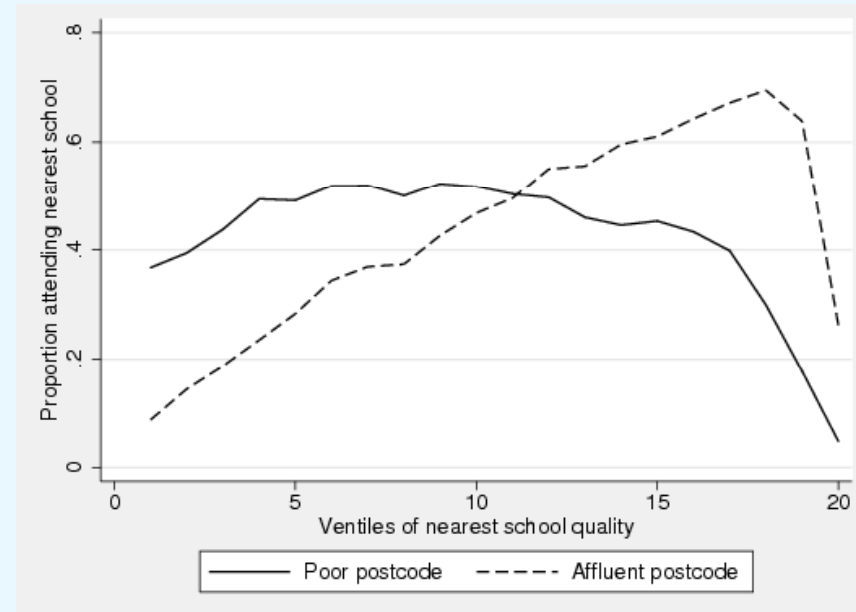
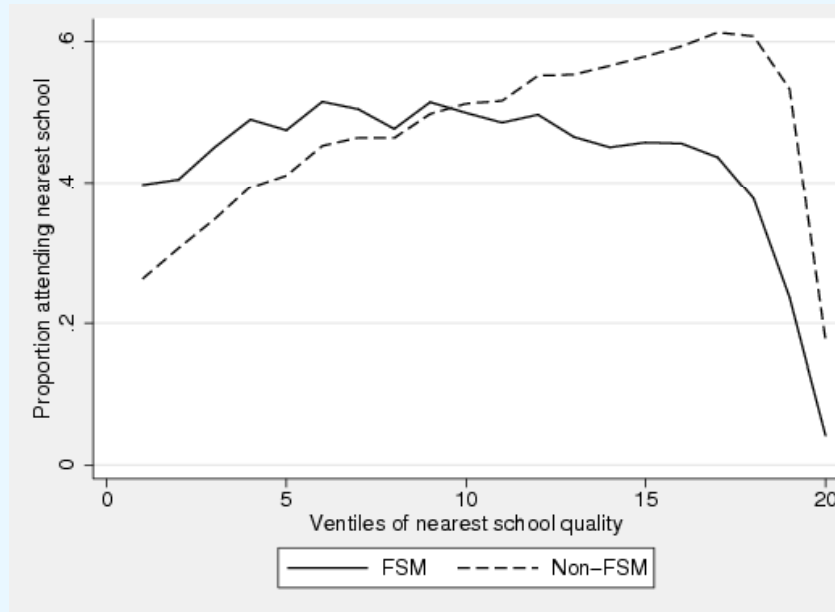
# Within-postcode results

	1.	2.
	<i>Full sample</i>	<i>Full sample</i>
<b>Pupil Free School Meal eligibility</b>	-0.019 (25.49)**	-0.015 (20.06)**
<b>Pupil KS2 Mean score</b>		0.003 (38.92)**
<b>Ethnicity dummies</b>		Yes
<b>Constant</b>	0.473 (3605.67)**	0.382 (130.88)**
<b>Observations</b>	1028899	1028899
<b>R-squared</b>	0.86	0.86

# Variations by degree of choice

Decile	Distance (Metres)	FSM Coefficient (unconditional) <sup>2</sup>	FSM Coefficient (conditional) <sup>3</sup>	Observations
1	1144.034	-0.032 (7.21)**	-0.023 (5.14)**	101,426
2	1539.576	-0.031 (6.58)**	-0.022 (4.59)**	101,426
3	1808.860	-0.032 (6.60)**	-0.024 (4.98)**	101,423
4	2063.148	-0.030 (6.58)**	-0.022 (4.79)**	101,414
5	2338.386	-0.028 (5.37)**	-0.021 (4.00)**	101,422
6	2687.280	-0.032 (6.12)**	-0.026 (4.84)**	101,423
7	3204.911	-0.025 (4.00)**	-0.017 (2.78)**	101,427
8	4182.528	-0.030 (4.65)**	-0.022 (3.47)**	101,418
9	6438.545	-0.021 (3.20)**	-0.017 (2.59)**	101,422
10	12,776.570	-0.023 (3.85)**	-0.018 (3.10)**	101,421

# Probability of pupils attending their nearest school



# Summary

- Poor children half as likely to go to good schools.
- Much of that gap, but not all, comes through location. That is, accounting fully for location, the gap is a lot smaller.
- Improving school choice may help.
- But are these differences due to differences in preferences or constraints?
- <http://www.bristol.ac.uk/cmpo/publications/papers/2006/wp157.html>

# Overall conclusions

- School assignment outcomes differ strongly between socio-economic groups.
- Different preferences or different constraints?
- Stated preferences do appear to differ.
- Answers to come (hopefully):
  - Revealed preferences? Proximity and moving?
- Harder policy question: what to do about different preferences? Accept? Nudge? Over-ride?