

School Choice and Educational Mobility:
Lessons from Secondary School Applications in Ghana

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Online Appendix

A Background Information

Box 1: Timeline for School Selection and Placement in Ghana (2005-2008)

1. **October: Students Submit Choices.**

West Africa Exam Council (WAEC) registers students for Basic Education Certification Exam (BECE)

- Collects students' lists of program choices
- Provides CSSPS Secretariat with data on student backgrounds and choices

2. **January: Schools Declare Vacancies.**

Ministry of Education supplies CSSPS Secretariat with

- register of all JHSs
- register of all SHSs (with numbers of program vacancies)

3. **April: Student Take the BECE Exams.**

4. **August-September: Students Admitted to Schools.**

WAEC sends scores to CSSPS Secretariat which then

- Assigns each student an aggregate score based on four core and two next best subjects
- Places qualified students in schools according to ranked choices and deferred acceptance algorithm, with priority determined by aggregate BECE scores

CSSPS Secretariat releases placement results within a few weeks, displaying them in junior and senior high schools and replying to text message requests based on candidate IDs

Box 2: Definitions and Sources of School Characteristics

Variable	Definition and Source
Selectivity	The mean BECE score of students admitted to a given secondary school in the period of study. The 5th percentile score is also used, as a robustness check. <i>Source: Author's construction using CSSPS administrative data</i>
SSCE performance	The average percentage of students from a given secondary school who passed English and mathematics on the Secondary School Certification Exam during the period of study. Variable is standardized to have mean 0 and standard deviation 1. <i>Source: West African Examinations Council</i>
Colonial	An indicator variable for the 34 secondary schools that were constructed before Ghana gained independence in 1957. <i>Source: Ghana Education Statistics (GES)</i>
Public	An indicator variable for public schools. <i>Source: CSSPS register of schools</i>
Single sex	An indicator variable for single sex schools. <i>Source: CSSPS register of schools</i>
Boarding facilities	An indicator variable for schools with boarding facilities. <i>Source: CSSPS register of schools</i>
Miles from JHS	Distance in miles (as the crow flies) between the centroids of the district where a student attended junior high school and district location of a given secondary school. <i>Source: Author's construction using Ghana shapefiles from http://www.gadm.org</i>
Number of vacancies	The number of vacancies declared by a school in a given year. <i>Source: CSSPS administrative data</i>

A.1 Student Optimal Stable Matching Mechanism

Note that academic performance is the ultimate determinant of school assignment in the CSSPS and no preferential treatment is given to students for listing a school as a first choice. Thus, there is no penalty for ranking schools in true preference order within the set of listed choices. This contrasts with the *Boston mechanism* (formerly used by Boston public schools and several other school districts in the United States) which assigns students based on their first choices in the same way but then keeps these initial assignments for all subsequent rounds and does not allow higher priority students to displace students already assigned to a school in a preceding round. There are clear incentives for making a strategic first choice under the *Boston mechanism* which do not apply under the *deferred-acceptance algorithm*. The CSSPS technical working committee produced a handbook outlining a set of “Guidelines for Selection and Admission into Senior Secondary Schools and Technical/Vocational Institutes” (MOES (2005)). The publication highlights the issue of “Displacement of 1st choice candidates and 2nd choice candidates as a matter of merit or better performance” and emphasizes the notion that placement priority is based on “merit not choice”. (p.4)

The *deferred-acceptance algorithm* has several desirable properties when students are allowed to rank all schools - it is student optimal, strategy proof and eliminates “justified envy”¹ (Gale and Shapley (1962); and Abdulkadiroğlu and Sönmez (2003)). The attractiveness of this mechanism decreases when students are forced to make a constrained choice with an opportunity to rank only a limited number of schools (Haeringer and Klijn (2009)). Moreover, the CSSPS’s merit-based priority may create incentives for strategic behavior because students are encouraged to select schools according to their anticipated BECE scores and expected admission chances. The mechanism is not Pareto efficient, however, it is Pareto optimal relative to all other stable matching algorithms (Haeringer and Klijn (2009)).

¹This requires that there should be no unmatched student-school pair (i, s) where student i prefers school s to her final assignment and has higher priority than another student who is assigned to school s .

A.2 Equilibrium Solutions to School Choice Problem

This section demonstrates the implications that constrained choice and imperfect information have for the complexity of the school choice problem. Denote the optimal application set for a student with beliefs $\tilde{P}(\tilde{p}_1, \dots, \tilde{p}_M)$ by $A^*(\tilde{P})$. We can then consider three cases: 1) perfect information, 2) unconstrained choice, and 3) imperfect information with constrained choice. Examining all three cases in turn illustrates how institutional features alter the school choice problem.

Case 1: Perfect Information In the case of perfect information, there is no uncertainty about admission prospects so students know that they are either guaranteed admission to a school or certain to be rejected. We can summarize the information set as follows: $\tilde{p}_{is} = p_{is} \in \{0, 1\}$. In this case, the student solves:

$$A^*(\tilde{P}) = \max_{A \subseteq S} f(A) = \max(U_{is} \mid p_{is} = 1, U_{is} > 0) \quad (1)$$

The optimal solution is to apply to the most preferred choice in the set of schools to which admission is guaranteed. Thus, the application set consists of only one school - that which gives the student the highest payoff for attending.

Case 2: Unconstrained Choice In the absence of constraints on the number of applications one can submit, the maximum application set is equivalent to the full set of available choices, $n = M$. Thus, the student chooses:

$$A^*(\tilde{P}) = (1, 2, \dots, N^*), \text{ where } (U_{i1} > \dots > U_{iN^*} > 0) \quad (2)$$

The solution is to apply to all schools in the choice set which yield positive utility, ranked in order of preference. In practice, this case is evident in school choice programs which have no limit on the number of schools that students can list. Even with uncertainty about admission

prospects, students can avoid the complex optimization problem because there is no cost to listing the full set of schools.

Case 3: Imperfect information with constrained choice In this case, there is uncertainty about admission prospects so that $\tilde{p}_s \in [0, 1)$. Additionally, there are some constraints on the number of schools to which students can apply, which means that $n < M$. Under these conditions, there is no simplification so the student must solve the full optimization problem outlined in Section ??:

$$A^* \left(\tilde{P} \right) = \max_{A \subseteq S} f(A) - c(|A|) \quad (3)$$

A.3 CSSPS Guidelines

Students applying to secondary schools in Ghana do not receive much guidance. The CSSPS issues a handbook which provides limited advice to students about their selection of schools MOES (2005). First, the guidelines specifically instruct students to be truthful about their *ordering* of choices, urging that “choices must be listed in order of preference” (p.5). However, the handbook also emphasizes that applicants should make a calculated application decision because they are only allowed to list a limited number of choices and are not guaranteed admission to any particular default school: “Parents should take the registration exercise seriously and select schools where their wards chances of admission are brightest. Over-estimation and under-estimation of candidates’ academic capabilities should be avoided. (p.9)” In outlining the Roles and Responsibilities of Candidates, the document states that “[c]andidates must assess their chances of gaining admission into very competitive Senior Secondary schools” and concludes that “[it] is therefore important to make realistic choices in order to make the new system effective” (p.10-11). The CSSPS handbook therefore emphasizes that certain students could benefit from choosing their *set* of listed schools carefully. Thus, students receive two primary instructions: to carefully consider

their admission prospects when selecting schools and to rank selected choices truthfully.

The complexity of the choice problem and features of the optimal portfolio naturally suggest the use of a rule of thumb as an alternative to explicitly solving the optimization problem. Although this may not always be optimal, a rule of thumb provides an easy means to approximate the optimal portfolio choice when agents are hampered by decision-making costs or limitations. In particular, suppose that schools lie on a continuum of desirability and selectivity. On one end of this spectrum, a *reach* school represents a highly preferred school which is highly selective. The *safety* school is at the other end of the spectrum and reflects a less preferred option but one which has lower admission standards and so ensures a successful application. In the middle lie a set of *match* schools where admission chances are favorable and there is strong appeal. Students can approximate the best portfolio by applying to at least one reach, one match, and one safety school.² Additionally, it is optimal to rank schools based on payoffs.

²This rule of thumb is a commonly accepted guideline for college choice in the US. The website www.go4ivy.com defines the following thresholds for school types: Reach/Stretch: 1 to 49 percent admission chance, Match/Likely: 50 to 85 percent, Safety: 86 to 99 percent. “We recommend that you choose at least two colleges in each category (stretch, likely, safety) to help maximize your chances of getting in. Try to minimize the number of schools in the outer ranges. For example, consider applying to no more than one single-digit stretch school (i.e. 7%) because such schools do not match your background well. You can probably find an equally prestigious school where you have a better chance of getting in.” (Go4ivy (2010))

Table A.1: Summary Statistics by Year

	2005	2006	2007	2008	2009
<i>Panel A: Student Characteristics</i>					
Age	17.014	17.100	17.168	17.133	17.251
Male	0.554	0.548	0.546	0.549	0.543
Attended a public JHS	0.837	0.822	0.838	0.847	0.798
Number of classmates	77.431	63.857	63.443	62.879	66.738
Application Choices					
Number of choices permitted	3	3	4	6	6
Listed maximum number of choices	0.983	0.981	0.993	0.938	1.000
Admission Outcomes					
Qualified for admission	0.555		0.520	0.472	0.462
Number of qualified students	162,077		167,279	160,936	183,484
Admitted to first choice	0.270		0.254	0.282	0.287
Admitted to school in JHS district	0.412		0.393	0.390	0.334
Admitted to school in JHS region	0.761		0.765	0.756	0.747
Distance to admitted school (miles)	28.346		31.209	32.099	33.463
Admitted to boarding school	0.563		0.672	0.657	0.617
Observations	292,070	309,911	321,891	340,823	379,279
<i>Panel B: School Characteristics</i>					
Public	0.939	0.817	0.813	0.786	0.806
Mixed	0.917	0.916	0.915	0.916	0.905
Males only	0.037	0.037	0.037	0.035	0.037
Females only	0.046	0.047	0.048	0.049	0.057
Technical or vocational institute	0.123	0.123	0.123	0.123	0.121
Has boarding facilities	0.442	0.504	0.513	0.514	0.538
Programs per school (mean)	2.624	3.624	4.040	4.012	4.306
Vacancies Reported					
Vacancies per program (mean)	66.481	63.859	75.572	65.012	88.068
Vacancies per school (mean)	246.682	242.248	313.886	260.807	366.225
Total number of vacancies	160,590	159,157	204,340	176,566	235,849
Academic Performance					
SSCE pass rate in core subjects	53.395	63.369	68.917	71.119	70.609
SSCE pass rate in mathematics	45.171	66.806	54.027	60.477	50.898
Observations	651	657	649	677	644

Notes: Data on admission outcomes for 2006 are incomplete.

Table A.2: BECE scores, JHS background, and SHS performance

	School Retention			Exam Performance	
	Take SSCE (1)	Take SSCE on Time (2)	Take SSCE in Assigned School (3)	SSCE passes (4)	SSCE score (5)
Student's BECE	0.081 (0.003)***	0.131 (0.004)***	0.114 (0.004)***	0.465 (0.011)***	0.637 (0.017)***
JHS mean BECE	-0.031 (0.003)***	-0.048 (0.004)***	-0.078 (0.005)***	-0.251 (0.011)***	-0.355 (0.012)***
SHS mean BECE	0.021 (0.004)***	0.042 (0.006)***	0.121 (0.009)***	0.002 (0.013)	0.169 (0.020)***
Male	-0.026 (0.004)***	-0.062 (0.005)***	-0.054 (0.006)***	0.148 (0.012)***	0.145 (0.018)***
Age	-0.028 (0.001)***	-0.012 (0.001)***	-0.010 (0.002)***	-0.074 (0.004)***	-0.089 (0.003)***
JHS public	-0.005 (0.003)	-0.010 (0.005)**	0.008 (0.005)	-0.015 (0.010)	0.009 (0.010)
R^2	0.057	0.087	0.121	0.126	0.405
N	139073	139073	139073	100842	100842
Mean Outcome	0.725	0.549	0.441	2.869	0.032

Notes: Sample comprises BECE candidates in 2005 and SSCE candidates in 2008 and 2009 (see Ajayi, 2014, for details). Table displays results from a set of OLS regressions with the following dependent variables: (1) an indicator for taking the SSCE exam; (2) an indicator for taking the SSCE in three years; (3) an indicator for taking the SSCE in the initially assigned school; (4) the sum of indicators for passing each of the four core SSCE subjects (English, Maths, Social Science and Integrated Science); and (5) aggregate performance on the core SSCE subjects. Robust standard errors are clustered at the senior high school level and reported in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A.3: Differences in Application Choices and Admission Outcomes (Alternative Measure of School Selectivity)

	Application Portfolio		Admission Outcomes		
	Avg. SSCE Performance (1)	Average Selectivity (2)	SSCE Perf. of SHS (3)	Selectivity of SHS (4)	Peer Quality in SHS (5)
Student's BECE	0.230*** (0.002)	0.216*** (0.001)	0.614*** (0.007)	0.623*** (0.005)	0.630*** (0.005)
JHS mean BECE	0.084*** (0.006)	0.090*** (0.005)	0.141*** (0.008)	0.125*** (0.005)	0.129*** (0.005)
JHS public	-0.147*** (0.009)	-0.156*** (0.007)	-0.033*** (0.009)	-0.040*** (0.006)	-0.039*** (0.006)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.470	0.557	0.563	0.660	0.706
N	487562	487562	472542	487562	487562

Notes: Table reports coefficients from a set of linear regressions. Outcome of interest is indicated at the top of each column. School selectivity measures the 5th percentile exam score of students admitted in the previous year. Peer quality measures the 5th percentile exam score of students admitted in the current year. Standard errors are clustered at the junior high school level and reported in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A.4: Differences in Ordinal Ranking of Selective Schools (Alternative Measure of School Selectivity)

	Full sample (1)	Qualified students (2)	Qualified, low-perf. public JHS (3)	Qualified, high-perf. public JHS (4)	Qualified, private JHS (5)
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.066	0.095	0.054	0.100	0.144
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.092	0.126	0.081	0.133	0.180
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.221	0.289	0.191	0.300	0.408
$q_{i1} \geq q_{iN}$	0.819	0.876	0.817	0.894	0.934
Std. deviation of school selectivity	0.638	0.725	0.595	0.750	0.868
N	978760	487562	178991	178035	130536

Notes: Table indicates the share of students whose ranking of application choices satisfies a given measure, for example: choices are strictly ranked in order of selectivity (row 1) or choices are weakly ranked in order of selectivity (row 2). School selectivity is measured by the 5th percentile exam score of students admitted in the previous year.

Table A.5: Discrete Choice Model Estimates (Alternative Measure of School Selectivity)

Choice characteristic	All Qualified Students				Public JHS
	(1)	(2)	(3)	(4)	(5)
choice					
SSCE performance	0.666*** (0.010)	0.694*** (0.010)	0.701*** (0.010)	0.758*** (0.017)	0.682*** (0.013)
Colonial	0.470*** (0.013)	0.480*** (0.012)	0.481*** (0.012)	0.547*** (0.020)	0.461*** (0.015)
Public	1.699*** (0.222)	1.445*** (0.266)	1.445*** (0.282)	1.856*** (0.555)	1.327*** (0.313)
Single sex	0.799*** (0.018)	0.506*** (0.017)	0.487*** (0.017)	0.746*** (0.024)	0.344*** (0.021)
Boarding facilities	1.045*** (0.015)	1.178*** (0.018)	1.182*** (0.018)	1.365*** (0.041)	1.140*** (0.022)
Distance	-0.042*** (0.000)	-0.046*** (0.000)	-0.047*** (0.000)	-0.040*** (0.001)	-0.050*** (0.000)
Student's BECE score × SSCE performance		0.349*** (0.010)	0.362*** (0.010)	0.370*** (0.010)	0.299*** (0.011)
× Colonial		0.059*** (0.011)	0.004 (0.012)	0.012 (0.012)	-0.003 (0.014)
× Public		-0.409 (0.314)	-0.012 (0.407)	0.073 (0.423)	-0.035 (0.551)
× Single sex		0.424*** (0.013)	0.282*** (0.015)	0.292*** (0.015)	0.270*** (0.019)
× Boarding facilities		0.180*** (0.016)	0.069*** (0.016)	0.077*** (0.016)	0.089*** (0.018)
× Distance		0.012*** (0.000)	0.007*** (0.000)	0.007*** (0.000)	0.006*** (0.000)
JHS mean BECE score × SSCE performance			-0.014 (0.014)	-0.037** (0.016)	-0.042** (0.020)
× Colonial			0.101*** (0.018)	0.079*** (0.020)	0.116*** (0.026)
× Public			-0.741 (0.529)	-0.836 (0.563)	-0.865 (0.727)
× Single sex			0.213*** (0.023)	0.125*** (0.024)	0.157*** (0.031)
× Boarding facilities			0.221*** (0.030)	0.168*** (0.032)	0.161*** (0.037)
× Distance			0.009*** (0.000)	0.006*** (0.000)	0.007*** (0.000)
JHS public × SSCE performance				-0.068*** (0.022)	
× Colonial				-0.092*** (0.027)	
× Public				-0.468 (0.619)	
× Single sex				-0.410*** (0.033)	
× Boarding facilities				-0.229*** (0.046)	
× Distance				-0.011*** (0.001)	
Students	484642	484642	484642	484642	355136

Notes: Dependent variable is an indicator for the student's first choice school. Alternatives consist of five next most selective schools relative to the student's first choice (measured by 5th percentile exam score of students admitted to school in previous year). Regressions also include distance squared, number of programs offered, and number of vacancies. Standard errors are clustered at the junior high school level, *p<0.1, **p<0.05, ***p<0.01.

B Discrete Choice Analysis: Specification Checks

I estimate several alternative discrete choice models to check the sensitivity of my results. First, I vary the number of schools in students' choice sets. My preferred specification restricts each student's choice set to their first choice school and five next most selective schools, implying that students have a consideration set of six schools. Six is the minimum number of schools most students would reasonably consider, given the maximum number of schools students were allowed to list during this period (4 in 2007; 6 in 2008 and 2009). I present results from robustness checks using choice sets with 1 alternative and 10 alternative schools in Appendix Table B.1. Estimated heterogeneity in preferences for school quality by educational background becomes insignificant with the smaller choice set, while coefficients from the larger choice set are generally unchanged. Nonetheless, the estimates consistently indicate that students from disadvantaged backgrounds are significantly less likely to apply to schools that are farther away.

I estimate a model with SHS fixed effects in Appendix Table B.2. I focus here on estimating differences in preferences for proximity to schools, since this is the only observable school-specific characteristic that differs across students (all other observable characteristics are subsumed within the school fixed effects). Once again, the estimates imply that students from disadvantaged backgrounds have a stronger preference for schools within close proximity.

To control for ability more flexibly, I separately estimate the discrete choice model by BECE decile (results reported in Appendix Table B.3). Each column presents estimates from a regression that compares students within the same BECE decile, to more narrowly condition on ability differences. I find that preferences for school proximity still significantly differ by JHS mean scores and public school attendance, across the whole BECE score distribution, indicating that JHS background still predicts preferences for school attributes for students with similar individual BECE scores. Students from disadvantaged backgrounds are more likely to value schools that are close by and less likely to value schools with boarding facil-

ities. Differences in preferences for SSCE performance are significant in the top two BECE deciles but there are no significant differences for lower performing students, suggesting that the aggregate heterogeneity in preferences for academic performance may largely be driven by higher performing students.

Table B.1: Discrete Choice - Alternative Choice Sets

Choice characteristic	choice set = 6 schools		choice set = 2 schools		choice set = 11 schools	
	All (1)	Public JHS (2)	All (3)	Public JHS (4)	All (5)	Public JHS (6)
SSCE performance	0.924*** (0.021)	0.698*** (0.015)	0.551*** (0.027)	0.572*** (0.020)	1.185*** (0.019)	0.874*** (0.014)
Colonial	0.690*** (0.019)	0.607*** (0.014)	0.480*** (0.025)	0.488*** (0.020)	0.682*** (0.019)	0.608*** (0.015)
Public	3.350*** (0.554)	2.125*** (0.243)	2.077** (1.026)	1.383*** (0.511)	3.366*** (0.546)	2.100*** (0.242)
Single sex	0.592*** (0.021)	0.397*** (0.019)	0.641*** (0.038)	0.391*** (0.032)	0.576*** (0.020)	0.448*** (0.017)
Boarding facilities	1.349*** (0.038)	1.107*** (0.021)	0.926*** (0.055)	0.926*** (0.031)	1.531*** (0.034)	1.227*** (0.019)
Distance	-0.042*** (0.000)	-0.051*** (0.000)	-0.040*** (0.001)	-0.049*** (0.000)	-0.043*** (0.000)	-0.053*** (0.000)
Student's BECE score × SSCE performance	0.368*** (0.010)	0.301*** (0.012)	0.206*** (0.016)	0.136*** (0.020)	0.444*** (0.008)	0.382*** (0.010)
× Colonial	0.063*** (0.012)	0.030** (0.015)	-0.084*** (0.017)	-0.105*** (0.022)	0.100*** (0.011)	0.077*** (0.013)
× Public	0.418* (0.214)	0.221 (0.213)	-0.256 (0.672)	-0.504 (0.777)	0.432* (0.229)	0.242 (0.229)
× Single sex	0.106*** (0.014)	0.086*** (0.017)	0.336*** (0.024)	0.243*** (0.031)	0.026** (0.013)	0.022 (0.015)
× Boarding facilities	0.130*** (0.016)	0.118*** (0.018)	0.082*** (0.026)	0.087*** (0.028)	0.152*** (0.013)	0.143*** (0.015)
× Distance	0.006*** (0.000)	0.006*** (0.000)	0.005*** (0.000)	0.006*** (0.000)	0.007*** (0.000)	0.006*** (0.000)
JHS mean BECE score × SSCE performance	0.086*** (0.019)	0.079*** (0.024)	-0.023 (0.024)	-0.028 (0.030)	0.061*** (0.018)	0.063*** (0.022)
× Colonial	0.022 (0.019)	0.039 (0.025)	0.004 (0.024)	0.003 (0.033)	0.028 (0.019)	0.050** (0.025)
× Public	-0.882* (0.469)	-0.992* (0.534)	-2.145*** (0.766)	-2.210*** (0.815)	-0.911* (0.478)	-1.025* (0.559)
× Single sex	0.089*** (0.020)	0.118*** (0.027)	0.061 (0.037)	0.123** (0.049)	0.123*** (0.019)	0.134*** (0.026)
× Boarding facilities	0.184*** (0.030)	0.171*** (0.035)	0.060 (0.044)	0.058 (0.053)	0.206*** (0.026)	0.196*** (0.031)
× Distance	0.006*** (0.000)	0.007*** (0.000)	0.006*** (0.000)	0.006*** (0.001)	0.006*** (0.000)	0.007*** (0.000)
JHS public × SSCE performance	-0.216*** (0.027)		0.026 (0.034)		-0.303*** (0.025)	
× Colonial	-0.087*** (0.025)		-0.009 (0.032)		-0.074*** (0.026)	
× Public	-1.168* (0.666)		-0.754 (1.103)		-1.206* (0.657)	
× Single sex	-0.213*** (0.028)		-0.259*** (0.052)		-0.147*** (0.027)	
× Boarding facilities	-0.237*** (0.043)		0.004 (0.064)		-0.303*** (0.039)	
× Distance	-0.009*** (0.001)		-0.008*** (0.001)		-0.010*** (0.001)	
Students	484827	354033	484827	354033	484827	354033

Notes: Same as Table ???. Columns 1 and 2: alternatives are the five next most selective schools relative to the student's first choice; Columns 3 and 4: alternative is the next most selective school; Columns 5 and 6: alternatives are the ten next most selective schools.

Table B.2: Discrete Choice - School Fixed Effects

Choice characteristic	All Qualified Students (1)	(2)	Public JHS (3)
Distance	-0.038*** (0.001)	-0.050*** (0.001)	-0.060*** (0.000)
Student's BECE score × Distance	0.006*** (0.000)	0.006*** (0.000)	0.007*** (0.000)
JHS mean BECE score × Distance	0.007*** (0.000)	0.006*** (0.000)	0.008*** (0.001)
JHS public × Distance	-0.011*** (0.001)	-0.010*** (0.001)	
School FE Students	No 484827	Yes 484827	Yes 354033

Notes: Dependent variable is an indicator for the student's first choice school. Alternatives consist of five next most selective schools relative to the student's first choice (measured by mean exam score of students admitted to school in previous year). Regressions in columns 2 and 3 also include fixed effects for each of the senior high schools. Standard errors are clustered at the junior high school level, *p<0.1, **p<0.05, ***p<0.01.

Table B.3: Discrete Choice - BECE Score Deciles

Choice characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
choice										
SSCE performance	0.253 (0.214)	0.969*** (0.258)	0.736*** (0.204)	0.461*** (0.149)	0.449*** (0.068)	0.572*** (0.026)	0.682*** (0.058)	0.554*** (0.111)	0.266* (0.145)	-0.853*** (0.191)
Colonial	0.813** (0.333)	-0.081 (0.420)	0.764*** (0.290)	0.992*** (0.196)	0.708*** (0.089)	0.609*** (0.027)	0.495*** (0.068)	0.432*** (0.118)	0.759*** (0.151)	-0.083 (0.142)
Public	-3.596 (4.297)	7.144*** (2.442)	3.812 (5.472)	2.134 (4.777)	2.710 (2.157)	6.864** (2.885)	15.509*** (2.062)	6.566*** (2.062)	-7.668 (5.841)	4.306 (5.778)
Single sex	0.534 (0.419)	0.769 (0.496)	0.630* (0.372)	-0.390 (0.247)	0.059 (0.115)	0.367*** (0.037)	0.656*** (0.084)	0.399*** (0.149)	0.359** (0.177)	-0.547*** (0.174)
Boarding facilities	0.111 (0.266)	0.741** (0.334)	1.122*** (0.263)	1.554*** (0.196)	1.248*** (0.097)	1.056*** (0.036)	0.907*** (0.090)	1.052*** (0.184)	1.339*** (0.295)	-0.340 (0.571)
Distance	-0.072*** (0.005)	-0.051*** (0.006)	-0.056*** (0.004)	-0.052*** (0.003)	-0.049*** (0.002)	-0.051*** (0.001)	-0.052*** (0.001)	-0.052*** (0.002)	-0.055*** (0.003)	-0.046*** (0.003)
Student's BECE score										
× SSCE performance	-0.161 (0.156)	0.573** (0.245)	0.383 (0.254)	-0.082 (0.266)	-0.164 (0.216)	-0.283 (0.213)	-0.062 (0.185)	0.410** (0.167)	0.687*** (0.129)	1.334*** (0.104)
× Colonial	0.158 (0.242)	-0.618 (0.401)	0.207 (0.362)	0.636* (0.353)	0.257 (0.289)	0.114 (0.257)	0.310 (0.221)	0.193 (0.178)	-0.129 (0.134)	0.430*** (0.080)
× Public	-3.844 (3.326)	0.460 (2.770)	2.391 (6.998)	0.830 (9.009)	2.657 (5.476)	-58.371** (26.644)	0.293 (1.091)	-3.757* (2.027)	9.272 (5.645)	-0.336 (3.069)
× Single sex	0.061 (0.301)	0.420 (0.474)	0.363 (0.464)	-1.326*** (0.444)	-1.038*** (0.367)	-0.382 (0.342)	-0.964*** (0.271)	0.070 (0.221)	0.141 (0.157)	0.555*** (0.091)
× Boarding facilities	-0.741*** (0.192)	-0.261 (0.315)	0.223 (0.330)	1.016*** (0.350)	0.783*** (0.303)	0.386 (0.320)	0.585* (0.300)	0.225 (0.284)	0.002 (0.267)	1.060*** (0.342)
× Distance	-0.015*** (0.004)	0.001 (0.006)	-0.003 (0.006)	0.003 (0.006)	0.011** (0.005)	0.003 (0.004)	0.005 (0.004)	0.007** (0.003)	0.012*** (0.002)	0.007*** (0.002)
JHS mean BECE score										
× SSCE performance	0.027 (0.073)	-0.062 (0.066)	0.020 (0.060)	0.080 (0.061)	-0.010 (0.053)	0.025 (0.053)	0.031 (0.050)	-0.029 (0.045)	0.034 (0.043)	0.131** (0.064)
× Colonial	-0.003 (0.097)	0.050 (0.090)	0.109 (0.078)	-0.035 (0.069)	0.010 (0.059)	0.013 (0.054)	0.031 (0.048)	0.019 (0.044)	-0.006 (0.047)	0.083 (0.056)
× Public	-0.490 (1.239)	4.294*** (1.257)	0.085 (0.773)	-0.725 (0.642)	0.346 (1.076)	-4.122*** (1.216)	-0.103 (0.259)	-3.389** (1.455)	-0.755 (0.857)	-1.643 (1.288)
× Single sex	0.138 (0.126)	0.054 (0.121)	0.023 (0.100)	0.150* (0.088)	0.135* (0.079)	0.015 (0.079)	0.082 (0.065)	0.157*** (0.056)	0.159*** (0.051)	0.126** (0.054)
× Boarding facilities	0.343*** (0.088)	0.178** (0.084)	0.103 (0.078)	0.146* (0.077)	0.137* (0.072)	0.023 (0.074)	0.019 (0.071)	-0.005 (0.077)	0.191** (0.081)	0.227 (0.139)
× Distance	0.017*** (0.002)	0.017*** (0.001)	0.013*** (0.001)	0.012*** (0.001)	0.009*** (0.001)	0.008*** (0.001)	0.007*** (0.001)	0.006*** (0.001)	0.004*** (0.001)	0.003*** (0.001)
Students	40138	41051	42339	39901	40146	36508	34910	31292	26412	21336

Notes: Same as Table ???. Each column reports estimates from a separate regression for students in a given BECE score decile.

C Local Applicants

Table C.1: Differences in Application Choices and Admission Outcomes (Local Applicants)

	Application Portfolio		Admission Outcomes		
	Avg. SSCE Performance (1)	Average Selectivity (2)	SSCE Perf. in SHS (3)	Selectivity of SHS (4)	Peer Quality in SHS (5)
<i>A. Full Sample</i>					
Student's BECE	0.230*** (0.002)	0.205*** (0.001)	0.614*** (0.007)	0.615*** (0.004)	0.633*** (0.003)
JHS mean BECE	0.084*** (0.006)	0.085*** (0.005)	0.141*** (0.008)	0.107*** (0.004)	0.111*** (0.004)
JHS public	-0.147*** (0.009)	-0.148*** (0.007)	-0.033*** (0.009)	-0.041*** (0.005)	-0.045*** (0.005)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.470	0.580	0.563	0.702	0.749
N	487562	487562	472542	487562	487562
<i>B. Applied to schools in JHS region only</i>					
Student's BECE	0.198*** (0.002)	0.180*** (0.002)	0.559*** (0.007)	0.574*** (0.004)	0.595*** (0.004)
JHS mean BECE	0.073*** (0.007)	0.082*** (0.005)	0.107*** (0.010)	0.090*** (0.005)	0.091*** (0.005)
JHS public	-0.152*** (0.010)	-0.142*** (0.008)	-0.062*** (0.011)	-0.048*** (0.006)	-0.047*** (0.006)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.513	0.616	0.508	0.666	0.721
N	269130	269130	260041	269130	269130
<i>C. Applied to schools in JHS district only</i>					
Student's BECE	0.172*** (0.006)	0.159*** (0.005)	0.547*** (0.015)	0.541*** (0.009)	0.572*** (0.008)
JHS mean BECE	0.115*** (0.012)	0.101*** (0.010)	0.128*** (0.017)	0.088*** (0.012)	0.106*** (0.010)
JHS public	-0.068*** (0.019)	-0.075*** (0.016)	-0.043*** (0.021)	-0.042*** (0.015)	-0.027*** (0.013)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.699	0.714	0.576	0.662	0.721
N	25818	25818	24808	25818	25818

Notes: Same as Table ??.

Table C.2: Differences in Ordinal Ranking of Selected Schools (Local Applicants)

	Full sample	Qualified students	Qualified, low-perf. public JHS	Qualified, high-perf. public JHS	Qualified, private JHS
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Rank Ordering by School Selectivity</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.079	0.114	0.065	0.120	0.174
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.100	0.140	0.085	0.148	0.206
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.262	0.338	0.235	0.349	0.463
$q_{i1} \geq q_{iN}$	0.825	0.886	0.824	0.905	0.944
Std. deviation of school selectivity	0.621	0.687	0.601	0.696	0.792
Selectivity of first choice school	0.482	0.852	0.306	0.980	1.413
N	978760	487562	178991	178035	130536
<i>Panel B: Rank Ordering by School Selectivity; Applied to Local Region</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.070	0.105	0.065	0.115	0.173
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.092	0.133	0.087	0.146	0.209
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.243	0.316	0.235	0.341	0.442
$q_{i1} \geq q_{iN}$	0.813	0.875	0.823	0.902	0.936
Std. deviation of school selectivity	0.578	0.637	0.576	0.660	0.723
Selectivity of first choice school	0.309	0.654	0.225	0.852	1.203
N	601706	269130	115361	99272	54497
<i>Panel C: Rank Ordering by School Selectivity; Applied to Local District</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.102	0.158	0.113	0.178	0.221
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.182	0.253	0.194	0.279	0.338
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.316	0.408	0.344	0.436	0.495
$q_{i1} \geq q_{iN}$	0.829	0.898	0.871	0.915	0.927
Std. deviation of school selectivity	0.519	0.565	0.534	0.584	0.599
Selectivity of first choice school	0.248	0.618	0.242	0.795	1.125
N	55409	23797	10427	8657	4713

Notes: Same as Table ???. Panel A includes all students. Panel B includes students who exclusively applied within their JHS region. Panel C includes students who exclusively applied within their JHS district.

Table C.3: Discrete Choice - Local Applicants

Choice characteristic	All Qualified Students		Applied to Local Region		Applied to Local District	
	All (1)	Public JHS (2)	All (3)	Public JHS (4)	All (5)	Public JHS (6)
SSCE performance	0.924*** (0.021)	0.698*** (0.015)	0.561*** (0.040)	0.425*** (0.025)	0.404 (0.290)	0.379* (0.229)
Colonial	0.690*** (0.019)	0.607*** (0.014)	1.355*** (0.049)	1.076*** (0.036)	1.531*** (0.221)	0.923*** (0.139)
Public	3.350*** (0.554)	2.125*** (0.243)	1.021 (0.774)	1.187*** (0.328)	-91.887*** (3.985)	-32.399*** (1.345)
Single sex	0.592*** (0.021)	0.397*** (0.019)	0.707*** (0.050)	0.302*** (0.037)	0.901** (0.382)	0.712*** (0.264)
Boarding facilities	1.349*** (0.038)	1.107*** (0.021)	0.787*** (0.072)	0.689*** (0.039)	1.815*** (0.519)	1.066*** (0.288)
Distance	-0.042*** (0.000)	-0.051*** (0.000)	-0.075*** (0.002)	-0.077*** (0.002)	-2.366*** (0.069)	-2.283*** (0.040)
Student's BECE score × SSCE performance	0.368*** (0.010)	0.301*** (0.012)	0.355*** (0.019)	0.293*** (0.022)	0.536*** (0.206)	0.323 (0.225)
× Colonial	0.063*** (0.012)	0.030** (0.015)	0.227*** (0.025)	0.174*** (0.029)	0.374*** (0.130)	0.340** (0.148)
× Public	0.418* (0.214)	0.221 (0.213)	1.181*** (0.424)	0.654* (0.347)	3.087** (1.230)	1.957 (1.450)
× Single sex	0.106*** (0.014)	0.086*** (0.017)	-0.008 (0.027)	-0.005 (0.033)	-1.112*** (0.196)	-0.875*** (0.207)
× Boarding facilities	0.130*** (0.016)	0.118*** (0.018)	0.182*** (0.028)	0.135*** (0.030)	-0.289 (0.261)	-0.165 (0.274)
× Distance	0.006*** (0.000)	0.006*** (0.000)	0.000 (0.001)	0.000 (0.001)	0.040 (0.033)	0.088** (0.035)
JHS mean BECE score × SSCE performance	0.086*** (0.019)	0.079*** (0.024)	-0.029 (0.034)	0.010 (0.042)	0.315 (0.225)	0.648** (0.293)
× Colonial	0.022 (0.019)	0.039 (0.025)	0.076 (0.051)	0.112* (0.066)	0.218 (0.215)	0.259 (0.258)
× Public	-0.882* (0.469)	-0.992* (0.534)	-0.804 (0.533)	-0.408 (0.512)	2.572 (1.930)	2.759 (2.170)
× Single sex	0.089*** (0.020)	0.118*** (0.027)	0.156*** (0.046)	0.106* (0.060)	0.474 (0.317)	0.138 (0.387)
× Boarding facilities	0.184*** (0.030)	0.171*** (0.035)	0.007 (0.054)	0.049 (0.063)	0.669 (0.425)	0.838 (0.517)
× Distance	0.006*** (0.000)	0.007*** (0.000)	0.014*** (0.002)	0.017*** (0.002)	0.050 (0.062)	0.050 (0.067)
JHS public × SSCE performance	-0.216*** (0.027)		-0.130*** (0.049)		-0.042 (0.362)	
× Colonial	-0.087*** (0.025)		-0.266*** (0.064)		-0.635** (0.258)	
× Public	-1.168* (0.666)		0.277 (0.870)		60.484*** (4.286)	
× Single sex	-0.213*** (0.028)		-0.418*** (0.063)		-0.146 (0.471)	
× Boarding facilities	-0.237*** (0.043)		-0.094 (0.082)		-0.809 (0.603)	
× Distance	-0.009*** (0.001)		-0.001 (0.003)		0.062 (0.085)	
Students	484827	354033	264873	210969	26027	21065

Notes: Same as Table ??.

D Areas with Stable School Selectivity over Time

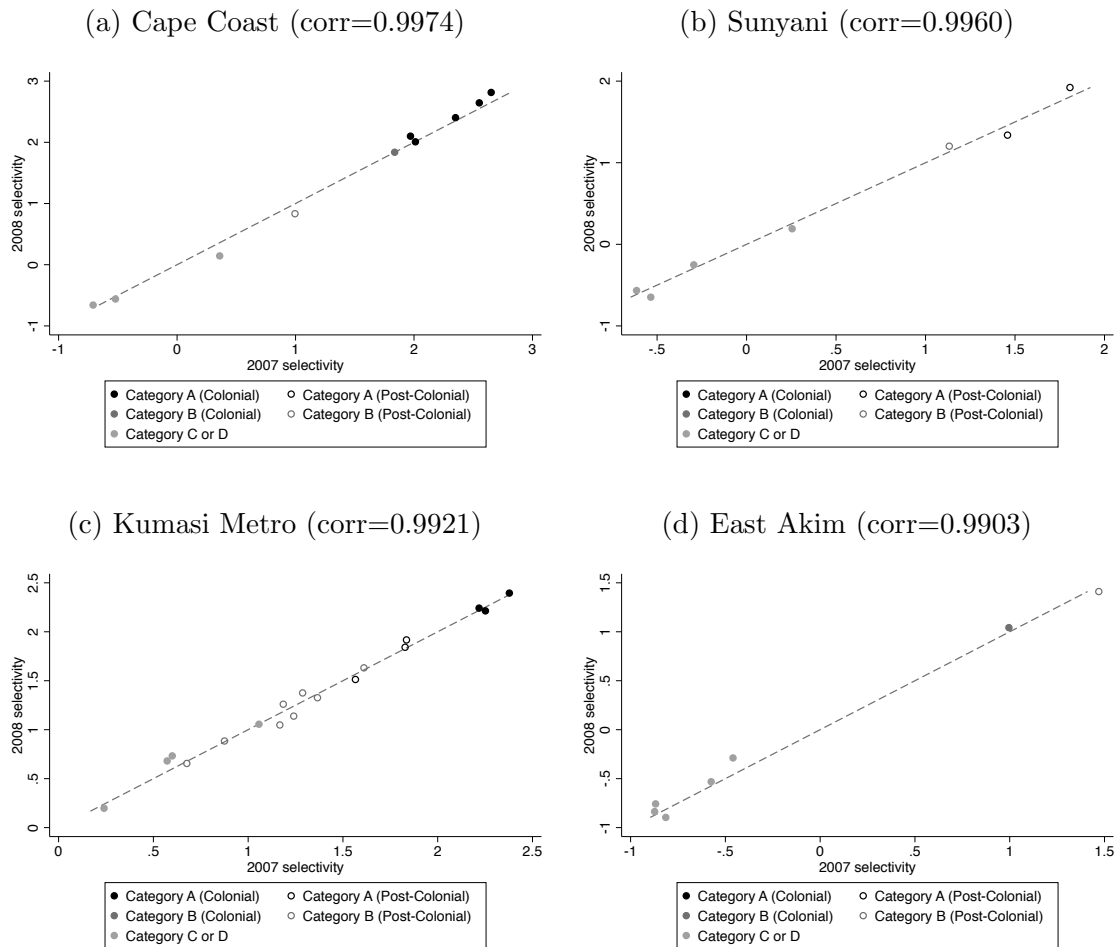


Figure D.1: Correlation in Secondary School Selectivity over Time

Notes: Figure illustrates school selectivity in 2007 and 2008 for districts with stable school performance over time.

Table D.1: Application Choices and Admission Outcomes (Stable Areas, by District)

	Application Portfolio		Admission Outcomes		
	Avg. SSCE Performance (1)	Average Selectivity (2)	SSCE Perf. of SHS (3)	Selectivity of SHS (4)	Peer Quality in SHS (5)
<i>A. Sunyani Local Applicants (2% of Qualified Sunyani JHS students)</i>					
Student's BECE	0.343*** (0.070)	0.258*** (0.042)	0.654*** (0.144)	0.691*** (0.076)	0.649*** (0.073)
JHS mean BECE	-0.106 (0.104)	-0.006 (0.080)	-0.099 (0.143)	0.017 (0.108)	-0.019 (0.104)
JHS public	-0.560* (0.287)	-0.506** (0.244)	0.082 (0.145)	-0.151 (0.124)	-0.139 (0.107)
R^2	0.337	0.359	0.386	0.627	0.626
N	206	206	203	206	206
<i>B. Kumasi Metro Local Applicants (5% of Qualified Kumasi Metro JHS students)</i>					
Student's BECE	0.172*** (0.013)	0.165*** (0.010)	0.987*** (0.035)	0.752*** (0.020)	0.808*** (0.016)
JHS mean BECE	0.043** (0.019)	0.050*** (0.016)	-0.024 (0.041)	0.027 (0.022)	0.028 (0.019)
JHS public	-0.019 (0.023)	-0.068*** (0.023)	0.013 (0.040)	-0.009 (0.025)	-0.005 (0.020)
R^2	0.263	0.373	0.644	0.758	0.795
N	2027	2027	1922	2027	2027
<i>C. East Akim Local Applicants (4% of Qualified East Akim JHS students)</i>					
Student's BECE	0.084** (0.038)	0.157*** (0.038)	0.212** (0.102)	0.317** (0.118)	0.280** (0.116)
JHS mean BECE	0.062 (0.073)	0.118 (0.110)	-0.073 (0.063)	0.004 (0.078)	-0.022 (0.071)
JHS public	-0.011 (0.130)	0.099 (0.173)	-0.097 (0.077)	0.073 (0.058)	0.092 (0.066)
R^2	0.077	0.191	0.184	0.326	0.289
N	118	118	117	118	118

Notes: Same as Table ??.

Table D.2: Application Choices and Admission Outcomes (Stable Areas)

	Application Portfolio		Admission Outcomes		
	Avg. SSCE Performance (1)	Average Selectivity (2)	SSCE Perf. of SHS (3)	Selectivity of SHS (4)	Peer Quality in SHS (5)
<i>A. All Students</i>					
Student's BECE	0.230*** (0.002)	0.205*** (0.001)	0.614*** (0.007)	0.615*** (0.004)	0.633*** (0.003)
JHS mean BECE	0.084*** (0.006)	0.085*** (0.005)	0.141*** (0.008)	0.107*** (0.004)	0.111*** (0.004)
JHS public	-0.147*** (0.009)	-0.148*** (0.007)	-0.033*** (0.009)	-0.041*** (0.005)	-0.045*** (0.005)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.470	0.580	0.563	0.702	0.749
N	487562	487562	472542	487562	487562
<i>A. Students in Stable Areas</i>					
Student's BECE	0.264*** (0.004)	0.221*** (0.003)	0.780*** (0.020)	0.699*** (0.010)	0.716*** (0.009)
JHS mean BECE	0.073*** (0.020)	0.078*** (0.014)	0.137*** (0.019)	0.106*** (0.009)	0.093*** (0.008)
JHS public	-0.118*** (0.030)	-0.103*** (0.021)	0.014 (0.023)	0.001 (0.011)	-0.012 (0.010)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.358	0.448	0.600	0.726	0.767
N	57988	57988	55678	57988	57988
<i>C. Local Applicants in Stable Areas</i>					
Student's BECE	0.224*** (0.023)	0.200*** (0.014)	0.909*** (0.033)	0.731*** (0.019)	0.772*** (0.017)
JHS mean BECE	0.061*** (0.022)	0.070*** (0.018)	0.035 (0.038)	0.053** (0.021)	0.060*** (0.020)
JHS public	-0.053 (0.045)	-0.083** (0.038)	0.018 (0.036)	-0.011 (0.025)	-0.005 (0.022)
District FEs	Yes	Yes	Yes	Yes	Yes
R^2	0.563	0.575	0.670	0.771	0.799
N	2810	2810	2688	2810	2810

Notes: Same as Table ??.

Table D.3: Ordinal Ranking of Selected Schools (Stable Areas, by District)

	Full sample	Qualified students	Qualified, low-perf. public JHS	Qualified, high-perf. public JHS	Qualified, private JHS
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Rank Ordering by School Selectivity; Cape Coast Local Applicants</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.231	0.305	0.338	0.284	0.331
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.577	0.686	0.718	0.659	0.726
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.669	0.769	0.803	0.742	0.806
$q_{i1} \geq q_{iN}$	0.935	0.959	0.972	0.947	0.976
Std. deviation of school selectivity	0.678	0.740	0.750	0.738	0.737
Selectivity of first choice school	0.949	1.335	1.020	1.294	1.604
N	797	459	71	264	124
<i>Panel B: Rank Ordering by School Selectivity; Sunyani Local Applicants</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.055	0.068	0.047	0.053	0.120
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.322	0.398	0.233	0.372	0.600
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.408	0.466	0.256	0.460	0.660
$q_{i1} \geq q_{iN}$	0.830	0.874	0.628	0.929	0.960
Std. deviation of school selectivity	0.747	0.780	0.831	0.826	0.632
Selectivity of first choice school	0.630	0.927	0.453	0.885	1.429
N	348	206	43	113	50
<i>Panel C: Rank Ordering by School Selectivity; Kumasi Metro Local Applicants</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.295	0.304	0.234	0.278	0.341
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.361	0.370	0.281	0.345	0.408
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.481	0.491	0.406	0.463	0.531
$q_{i1} \geq q_{iN}$	0.911	0.922	0.828	0.902	0.953
Std. deviation of school selectivity	0.515	0.520	0.503	0.516	0.526
Selectivity of first choice school	1.528	1.582	1.227	1.481	1.728
N	2244	2027	64	1068	895
<i>Panel D: Rank Ordering by School Selectivity; East Akim Local Applicants</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.032	0.017	0.024	0.000	0.000
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.195	0.314	0.301	0.357	0.286
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.318	0.483	0.422	0.643	0.571
$q_{i1} \geq q_{iN}$	0.803	0.915	0.928	0.893	0.857
Std. deviation of school selectivity	0.727	0.848	0.824	0.946	0.737
Selectivity of first choice school	0.063	0.638	0.606	0.814	0.320
N	437	118	83	28	7

Notes: Same as Table ??.

Table D.4: Ordinal Ranking of Selected Schools (Stable Areas)

	Full sample	Qualified students	Qualified, low-perf. public JHS	Qualified, high-perf. public JHS	Qualified, private JHS
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Rank Ordering by School Selectivity; All Students</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.079	0.114	0.065	0.120	0.174
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.100	0.140	0.085	0.148	0.206
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.262	0.338	0.235	0.349	0.463
$q_{i1} \geq q_{iN}$	0.825	0.886	0.824	0.905	0.944
Std. deviation of school selectivity	0.621	0.687	0.601	0.696	0.792
N	978760	487562	178991	178035	130536
<i>Panel C: Rank Ordering by School Selectivity; Students in Stable Areas</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.133	0.172	0.091	0.155	0.221
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.157	0.200	0.119	0.181	0.251
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.370	0.436	0.289	0.404	0.525
$q_{i1} \geq q_{iN}$	0.915	0.944	0.877	0.942	0.966
Std. deviation of school selectivity	0.707	0.742	0.688	0.719	0.791
Selectivity of first choice school	1.063	1.305	0.711	1.229	1.588
N	94261	57988	6479	29911	21598
<i>Panel B: Rank Ordering by School Selectivity; Local Applicants in Stable Areas</i>					
$q_{i1} > q_{i2} > \dots > q_{iN}$	0.230	0.275	0.165	0.257	0.327
$q_{i1} \geq q_{i2} \geq \dots \geq q_{iN}$	0.383	0.422	0.398	0.403	0.453
$q_{i1} = \max(q_i)$ and $q_{iN} = \min(q_i)$	0.495	0.535	0.494	0.517	0.569
$q_{i1} \geq q_{iN}$	0.896	0.924	0.866	0.912	0.955
Std. deviation of school selectivity	0.594	0.589	0.726	0.588	0.557
Selectivity of first choice school	1.158	1.454	0.845	1.389	1.691
N	3826	2810	261	1473	1076

Notes: Same as Table ??.

Table D.5: Application Choices by JHS Type

	All Qualified students (1)	All Qualified students (2)	Qualified, low-perf. public JHS (3)	Qualified, high-perf. public JHS (4)	Qualified, private JHS (5)
<i>Panel A: Average SSCE Performance of Selected Schools</i>					
Student's BECE	0.230*** (0.002)	0.261*** (0.003)	0.180*** (0.002)	0.242*** (0.003)	0.269*** (0.003)
JHS mean BECE	0.084*** (0.006)		-0.103*** (0.009)	0.062*** (0.012)	0.075*** (0.009)
Low performing public JHS		-0.081*** (0.006)			
JHS public	-0.147*** (0.009)	-0.153*** (0.009)			
R^2	0.470	0.469	0.288	0.348	0.412
N	487562	487562	178991	178035	130536
<i>Panel B: Average SSCE Performance of Selected Schools; Cape Coast Local Applicants</i>					
Student's BECE	0.380*** (0.051)	0.496*** (0.052)	0.465*** (0.098)	0.390*** (0.068)	0.308*** (0.078)
JHS mean BECE	0.246*** (0.058)		0.661 (0.470)	0.272** (0.119)	0.372*** (0.071)
Low performing public JHS		-0.041 (0.131)			
JHS public	-0.024 (0.118)	-0.115 (0.132)			
R^2	0.485	0.462	0.271	0.414	0.556
N	459	459	71	264	124

Notes: Same as Table ??

Table D.6: Admission Outcomes by JHS Type

	All Qualified students (1)	All Qualified students (2)	Qualified, low-perf. public JHS (3)	Qualified, high-perf. public JHS (4)	Qualified, private JHS (5)
<i>Panel A: SSCE Performance of Admitted School</i>					
Student's BECE	0.614*** (0.007)	0.702*** (0.008)	0.379*** (0.005)	0.666*** (0.010)	0.792*** (0.011)
JHS mean BECE	0.141*** (0.008)		-0.064*** (0.009)	0.132*** (0.012)	0.095*** (0.012)
Low performing public JHS		0.088*** (0.007)			
JHS public	-0.033*** (0.009)	-0.085*** (0.010)			
R^2	0.563	0.560	0.285	0.528	0.601
N	472542	472542	172623	172470	127449
<i>Panel B: SSCE Performance of Admitted School; Cape Coast Local Applicants</i>					
Student's BECE	0.784*** (0.101)	0.955*** (0.057)	0.700** (0.251)	0.775*** (0.144)	0.841*** (0.135)
JHS mean BECE	0.267* (0.134)		-0.046 (0.394)	0.320** (0.152)	0.394** (0.159)
Low performing public JHS		0.202* (0.119)			
JHS public	0.045 (0.096)	-0.015 (0.135)			
R^2	0.674	0.666	0.305	0.653	0.755
N	446	446	67	259	120

Notes: Same as Table ??

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