

# Characteristics and Performance of High School Equivalency Exam Takers in New Jersey

Appendix A. Data and methods

Appendix B. Supporting analyses

See <https://go.usa.gov/xFRy5> for the full report.

## Appendix A. Data and methods

### *Data*

This study used data from NJ SMART (the New Jersey Department of Education’s [NJDOE’s] statewide longitudinal education data system and data that the three high school equivalency (HSE) exam vendors provided NJDOE. The NJ SMART data contained students’ school enrollment, grade, race/ethnicity, gender, eligibility for the national school lunch program, special education status, English learner status, and grade 8 standardized test scores (scale scores on the New Jersey Assessment of Skills and Knowledge [NJ ASK]). The data from the three HSE exam vendors contained the number of exam attempts, exam dates, scale scores, and pass indicators for each subject test of the GED, the High School Equivalency Test (HiSET), and the Test Assessing Secondary Completion (TASC). Public Consulting Group, a third-party vendor, linked the NJ SMART and HSE exam vendor data and removed personally identifiable information before the data were provided to the study team.

The main sample consisted of exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 (based on NJ SMART data) and attempted at least one HSE exam in New Jersey between March 2014 and December 2018. Individuals who attempted an HSE exam between March 2014 and December 2018 but were not matched to students in the NJ SMART data were not included in the main sample. Of the 33,701 HSE exam takers who attempted an HSE exam in New Jersey between March 2014 and December 2018, 8,533 (about one-quarter) had been enrolled in a public school in the state between 2008/09 and 2013/14. Many of the analyses presented in the report could not be performed for all exam takers in New Jersey because most of the characteristics in the analysis came from the NJ SMART data and were thus missing for exam takers who did not have records from that source. However, the study did calculate the number of exam takers who attempted an HSE exam each year (see figure B1 and table B1 in appendix B). These exam takers could not all be matched or compared with students in the same grade 8 cohorts. Many of them were likely older (and might have been in grade 8 before 2008/09), left school before grade 8, or attended grade 8 outside New Jersey.

### *Methods*

The study team calculated descriptive statistics on HSE exam takers (research question 1) and used those descriptive statistics to examine passing rates, both overall and by demographic and academic characteristics, under NJDOE’s original passing thresholds (in effect between 2014 to early 2020; research question 2). Developers’ suggested passing thresholds (which are the same as NJDOE’s new passing thresholds) and suggested

college and career passing thresholds were used to analyze how passing rates would change under different passing thresholds (research question 2a).

Two main assumptions were needed to determine whether exam takers passed each HSE exam on the first attempt and ever. First, the data from the HiSET and TASC vendors did not include the essay score, even though exam takers must pass the essay in order to pass the exam. The HiSET data included an indicator for whether exam takers passed the writing subject test (which included the writing multiple choice section as well as the essay section), and that indicator was used to determine whether exam takers passed the writing subject test overall. The TASC data did not include a reliable passing indicator. Therefore, the study team assumed that exam takers who retook the writing test did so because they failed the essay on the first attempt (and therefore had to retake the entire writing subject test, including the essay, to pass). The patterns in the data confirm that TASC takers likely retake the writing subject test because they failed the essay: 3 percent retake the writing subject test after passing the multiple-choice section compared with 0 percent for the other subject tests. Assuming that exam takers who do not retake the writing subject test pass the subject test likely slightly overcounts the number of TASC takers who pass on the first attempt, given that some exam takers who fail choose to not retake the test. Given that about two-thirds of exam takers who fail only the writing subject test retake the test, the study may be overcounting the TASC writing passing rate by about 1.3 percentage points. About half of TASC takers who failed the essay failed the exam because of that, so the study might be overcounting the overall TASC passing rate by about 0.7 percentage point. Because the report discusses only differences that are at least 5 percentage points, reducing the TASC passing rate by about 0.7 percentage point would have a minimal impact on the findings presented.

Second, the results for many of the analyses are presented separately by whether HSE exam takers passed on the first attempt and ever passed. Because the HSE exams are fairly long (7–9 hours), exam takers typically take them over multiple days. Once exam takers have taken all the subject tests for a particular exam, they are considered to have completed their first attempt. The order in which exam takers take the subject tests is determined by the earliest exam dates in the data (for the HiSET and TASC) or by the earliest registration ID (for the GED). Registration IDs, which are given out chronologically, are used for the GED because those data did not include a reliable exam date variable. Taking some subject tests for a particular exam but never completing all of them was considered a failed attempt. To determine whether exam takers ever passed an exam, their maximum score was used for each subject test across all exam dates and registration IDs. This process was used to determine whether an exam taker passed under NJDOE’s original passing threshold and under the new passing threshold.

To investigate passing rates for exam takers with similar grade 8 standardized test scores (research question 3), the study used two primary analyses. First, it calculated passing rates for each HSE exam by grade 8 standardized test score percentile (in deciles). Passing rates were calculated under NJDOE’s original passing threshold and the new passing threshold. Figures B6 and B7 in appendix B show graphically how the relationship between grade 8 standardized test score percentile and passing rates differ by demographic group.

Second, the study used linear probability models and logistic regressions to estimate the probability of passing each exam, after grade 8 standardized test scores, demographic characteristics, and the school district in which the exam taker was enrolled in grade 8 (using district fixed effects) were controlled for. The base model for both the linear probability model and the logistic regression was:

$$(A1) \text{ PassHSE}_i = \alpha_0 + \alpha_1 \text{HiSET}_i + \alpha_2 \text{TASC}_i + \alpha_3 \mathbf{X}_i + \epsilon_i$$

where  $\text{PassHSE}_i$  indicates whether HSE exam taker  $i$  passed the exam,  $\text{HiSET}$  indicates whether the exam was HiSET,  $\text{TASC}$  indicates whether the exam was TASC, and  $\mathbf{X}_i$  is a vector of covariates that vary by model. The covariates in the full model included grade 8 standardized test score, race/ethnicity, gender, eligibility for the national school lunch program in grade 8, English learner status in grade 8, highest grade completed, and district

fixed effects. The coefficients of interest were  $\alpha_1$  and  $\alpha_2$ , which indicate whether exam takers with similar characteristics were differentially likely to pass the HiSET and TASC relative to the GED. The results from this model are shown in the main report and in appendix B.

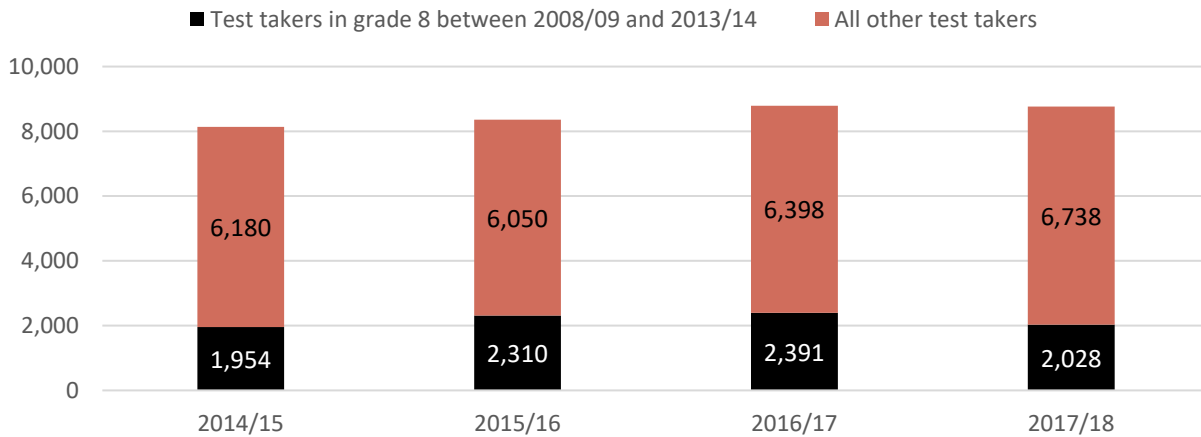
The study also included a version of these models in which the probabilities were allowed to differ by demographic group, to estimate whether exam takers with some characteristics were more likely than exam takers with other characteristics to pass a given HSE exam, using both linear probability models and logistic regressions:

$$(A2) \text{ PassHSE}_i = \alpha_0 + \alpha_1 \text{HiSET}_i + \alpha_2 \text{TASC}_i + \alpha_3 \text{G8Score}_i + \beta_1 (\text{HiSET}_i * \text{Black}_i) + \beta_2 (\text{GED}_i * \text{Black}_i) \\ + \beta_3 (\text{TASC}_i * \text{Black}_i) + \beta_4 (\text{HiSET}_i * \text{Hispanic}_i) + \beta_5 (\text{GED}_i * \text{Hispanic}_i) \\ + \beta_6 (\text{TASC}_i * \text{Hispanic}_i) + \beta_7 (\text{HiSET}_i * \text{NSLP}_i) + \beta_8 (\text{GED}_i * \text{NSLP}_i) + \beta_9 (\text{TASC}_i * \text{NSLP}_i) \\ + \beta_{10} (\text{HiSET}_i * \text{EL}_i) + \beta_{11} (\text{GED}_i * \text{EL}_i) + \beta_{12} (\text{TASC}_i * \text{EL}_i) + \epsilon_i$$

where *G8Score* indicates grade 8 standardized test scores, *Black* indicates that the exam taker identified as Black in grade 8, *Hispanic* indicates that the exam taker identified as Hispanic in grade 8, *NSLP* indicates that the student was eligible for the national school lunch program in grade 8, and *EL* indicates that the student was an English learner student in grade 8. The coefficients of interest were  $\beta_1, \beta_2, \dots, \beta_{12}$ , which indicate the difference between the likelihood of exam takers with a certain characteristic (for example, having been an English learner student in grade 8) passing the exam relative to exam takers who were not English learner students in grade 8, were not eligible for the national school lunch program in grade 8, and did not identify as Black or Hispanic in grade 8 (after grade 8 standardized test scores were controlled for). The results from this model are shown in appendix B.

## Appendix B. Supporting analyses

**Figure B1. The number of high school equivalency exam takers in New Jersey increased somewhat from 2014/15 to 2017/18**



Note: This figure includes all exam takers who attempted at least one high school equivalency exam in New Jersey between March 2014 and June 2018. Results for 2013/14 are excluded because data were available for only part of the school year (March–June 2014). All other exam takers include exam takers who were not matched to grade 8 students enrolled in a New Jersey public school between 2008/09 and 2013/14.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B1. Number of high school equivalency exam takers who were not matched to students in the NJ SMART data, and mean number of times exams were taken, 2013/14–2018/19**

Group of exam takers	Total	2013/14 <sup>a</sup>	2014/15	2015/16	2016/17	2017/18	2018/19 <sup>b</sup>
Number of exam takers who attempted any exam	25,168	1,454	6,180	6,050	6,398	6,738	3,709
<b>Number of exam takers who attempted only one type of exam only once</b>	14,769	915	3,489	2,869	2,888	3,084	1,891
GED only	1,990	13	297	415	523	524	227
HiSET only	2,786	169	496	490	639	702	447
TASC only	9,993	733	2,696	1,964	1,726	1,858	1,217
<b>Number of exam takers who attempted only one type of exam multiple times</b>	10,129	516	2,597	3,067	3,399	3,529	1,747
GED more than once (GED only)	1,140	<sup>c</sup>	119	183	341	416	144
HiSET more than once (HiSET only)	2,203	<sup>c</sup>	494	674	823	881	454
TASC more than one (TASC only)	6,786	<sup>c</sup>	1,984	2,210	2,235	2,232	1,149
<b>Number of exam takers who attempted multiple types of exams</b>	270	23	94	114	111	125	71
<b>Mean number of times exam taken</b>	1.76	1.34	1.56	1.77	1.93	1.94	1.72
GED (among GED takers)	1.63	1.07	1.43	1.46	1.69	1.81	1.58
HiSET (among HiSET takers)	1.78	1.44	1.72	1.93	1.89	1.87	1.66
TASC (among TASC takers)	1.78	1.32	1.55	1.78	2.01	2.01	1.76

HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This table includes exam takers who were not matched to students in the NJ SMART data. This includes exam takers who were too old to have been in grade 8 after 2008/09, exam takers who left school before grade 8, and exam takers whose grade 8 enrollment was outside New Jersey. The total column includes the total number of unique exam takers across years. Exam takers who took exams across multiple years are included only once in the total column.

a. Data were available for only part of the school year (March–June 2014), so the number of takers is lower than in other years.

b. Includes data through December 31, 2018.

c. Data are suppressed because the cell refers to 10 or fewer individuals or because the value could be used to calculate the value for a cell that refers to 10 or fewer individuals.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B2. Proportion of high school equivalency exam takers in New Jersey who attempted each exam, by school year (percent)**

Exam attempted	2014/15	2015/16	2016/17	2017/18	2018/19 <sup>a</sup>
GED	13	13	15	18	17
HiSET	18	20	25	25	27
TASC	72	69	61	59	58
Two or more types of exams	3	2	2	2	2

HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This table includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and June 2018. Results for 2013/14 are excluded because data were available for only part of the school year (March–June 2014).

a. Includes data through December 31, 2018.

Source: Authors' analysis of data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B3. Average demographic and academic characteristics of grade 8 students in New Jersey public schools between 2008/09 and 2013/14 across counties that offered each high school equivalency exam**

Characteristic	GED (n = 79,481)	HiSET (n = 125,046)	TASC (n = 461,501)
Female (percent)	48.4	48.8	48.4
Asian (percent)	6.3	4.5	9.2
Black (percent)	9.4	35.4	11.4
Hispanic (percent)	11.1	19.2	19.1
White (percent)	74.6	43.0	62.6
Eligible for the national school lunch program (percent)	19.3	43.3	27.7
In special education (percent)	16.1	16.4	16.5
English learner student (percent)	1.3	3.1	2.6
Highest grade completed	10.7	10.5	10.7
<i>Grade 8 NJ ASK scale scores</i>			
Language arts literacy	224.8	215.7	221.4
Math	229.1	212.3	224.4

HiSET is High School Equivalency Test. NJ ASK is New Jersey Assessment of Skills and Knowledge. TASC is Test Assessing Secondary Completion.

Note: This table shows characteristics of students enrolled in public schools across counties that offered the GED, the HiSET, and the TASC. Students might be included in multiple columns if their county offered multiple exams. The table includes grade 8 students in a New Jersey public school between 2008/09 and 2013/14. Values for race/ethnicity categories do not sum to 100 because students could be identified by more than race/ethnicity in the data.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system).

**Table B4. Number of high school equivalency exam takers who were matched to students in the NJ SMART data, and mean number of times exams were taken, 2013/14–2018/19**

Group of exam takers	Total	2013/14 <sup>a</sup>	2014/15	2015/16	2016/17	2017/18	2018/19 <sup>b</sup>
Number of exam takers who attempted any exam	8,553	394	1,954	2,310	2,391	2,028	747
<b>Number of exam takers who attempted only one type of exam only once</b>	5,652	268	1,240	1,327	1,368	1,145	440
GED only	872	<sup>c</sup>	171	201	224	211	71
HiSET only	1,169	<sup>c</sup>	188	252	331	286	119
TASC only	3,611	<sup>c</sup>	881	874	813	648	250
<b>Number of exam takers who attempted only one type of exam multiple times</b>	2,767	<sup>c</sup>	654	941	978	839	290
GED more than once (GED only)	389	<sup>c</sup>	53	84	112	125	41
HiSET more than once (HiSET only)	604	<sup>c</sup>	130	179	251	197	77
TASC more than one (TASC only)	1,774	<sup>c</sup>	471	678	615	517	172
<b>Number of exam takers who attempted multiple types of exams</b>	114	<sup>c</sup>	60	42	45	44	17
<b>Mean number of times exam taken</b>	1.53	1.26	1.41	1.54	1.63	1.60	1.50
GED (among GED takers)	1.47	1.00	1.30	1.39	1.48	1.63	1.58
HiSET (among HiSET takers)	1.52	1.29	1.51	1.54	1.58	1.49	1.53
TASC (among TASC takers)	1.55	1.26	1.42	1.58	1.70	1.64	1.47

HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This table includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and June 2018. The total column includes the total number of unique exam takers across years. Exam takers who took exams across multiple years are included only once in the total column.

a. Data were available for only part of the school year (March–June 2014), so the number of takers is lower than in other years.

b. Includes data through December 31, 2018.

c. Data are suppressed because the cell refers to 10 or fewer individuals or because the value could be used to calculate the value for a cell that refers to 10 or fewer individuals.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B5. Number of high school equivalency exam takers and passing rates in Newark Public School District and Camden City School District, by year and exam, 2013/14–2018/19**

Year and exam	Newark Public School District	Camden City School District
<b>Number of exam takers</b>		
<i>Exam year</i>		
2013/14 <sup>a</sup>	b	b
2014/15	71	33
2015/16	117	67
2016/17	126	51
2017/18	107	28
2018/19 <sup>c</sup>	56	b
<i>Exam</i>		
GED	53	b
HiSET	13	79
TASC	333	94
<b>First-attempt passing rate (percent)</b>		
<i>Exam</i>		
GED	26.4	b
HiSET	53.9	27.9
TASC	34.2	34.0
<b>Ever-passing rate (percent)</b>		
<i>Exam</i>		
GED	43.4	b
HiSET	61.5	44.3
TASC	64.0	61.7
<b>Number of unique exam takers</b>	398	168

HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This table does not include students enrolled in charter schools in Newark and Camden.

a. Data were available for only part of the year (March–June), so the number of takers is lower than in other years.

b. Data are suppressed because the cell includes 10 or fewer individuals.

c. Includes data through December 31, 2018.

Source: Authors' analysis of data on student characteristics from the NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system, and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B6. Exam takers who retook and ever passed each exam as a proportion of exam takers who failed the exam on their first attempt (percent)**

Exam	Retook	Ever passed
GED ( <i>n</i> = 712)	55.8	38.9
HiSET ( <i>n</i> = 947)	66.8	38.1
TASC ( <i>n</i> = 2,522)	71.9	51.0

HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This table includes only students who failed each exam on their first attempt.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B7. Proportion of GED and HiSET takers whose subject test scores ever met college and career readiness thresholds, 2014–18 (percent)**

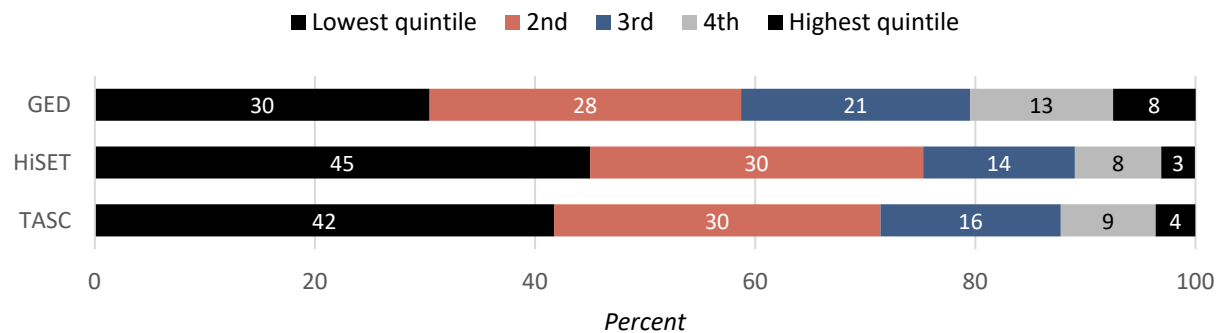
Subject test	GED (n = 1,388)	HiSET (n = 1,831)
Math	15.6	29.6
Language arts	20.8	na
Reading	na	24.7
Writing	na	12.6
Science	20.8	35.6
Social studies	21.3	34.1

HiSET is High School Equivalency Test. HSE is high school equivalency. na is not applicable.

Note: This table includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one subject test on a high school equivalency exam in New Jersey between March 2014 and December 2018. The TASC does not suggest a college and career ready passing threshold and thus is not included. The GED has a single language arts subject test that covers reading and writing, and the HiSET has separate subject tests for reading and writing.

Source: Authors' analysis of data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Figure B2. The majority of high school equivalency exam takers in the study sample had performed in the bottom two quintiles on the New Jersey Assessment of Skills and Knowledge in grade 8, for high school equivalency exams taken between 2014 and 2018**



HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This figure includes high school equivalency exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. The study team combined students' grade 8 math and reading scores to calculate students' grade 8 quintiles.

Source: Authors' analysis of grade 8 reading and math scores on the New Jersey Assessment of Skills and Knowledge from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.



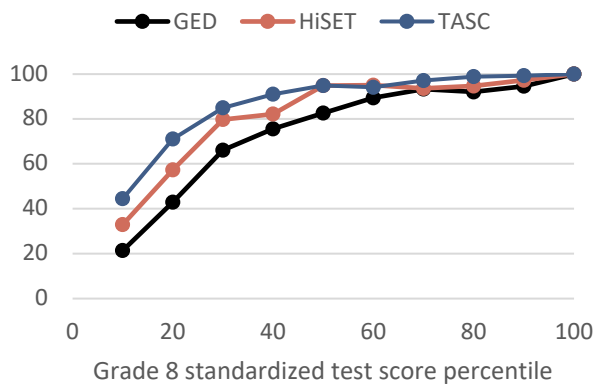
**Table B8. First-attempt passing rate under NJDOE’s original and new passing thresholds, by high school equivalency exam and grade 8 standardized test score percentile, for high school equivalency exams taken between 2014 and 2018 (percent)**

Grade 8 standardized test score percentile	NJDOE’s original passing thresholds			NJDOE’s new passing thresholds		
	GED	HiSET	TASC	GED	HiSET	TASC
0–9	6.3	12.0	14.9	22.0	17.4	14.9
10–19	17.0	27.3	35.2	34.4	38.3	35.2
20–29	29.8	56.2	58.0	57.7	65.1	58.0
30–39	52.1	66.0	69.1	75.0	71.9	69.1
40–49	55.0	81.5	81.7	75.2	85.9	81.7
50–59	71.7	82.0	84.5	90.3	86.0	84.5
60–69	85.4	91.0	89.4	93.3	91.0	89.4
70–79	85.3	91.1	95.8	90.7	92.9	95.8
80–89	90.9	97.2	97.7	94.5	97.2	97.7
90–100	100.0	100.0	98.1	100.0	100.0	98.1

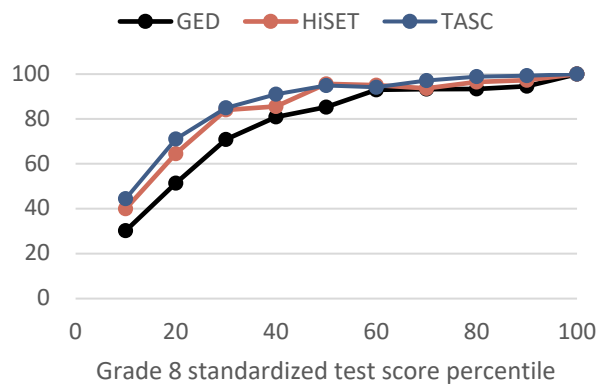
HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion. Note: This table includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. Grade 8 standardized test score percentile refers to performance on the New Jersey Assessment of Skills and Knowledge. Source: Authors’ analysis of grade 8 reading and math scores on the New Jersey Assessment of Skills and Knowledge from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Figure B3. Differences in ever-passing rates between high school equivalency exams for exam takers with similar grade 8 standardized test scores were smaller under NJDOE’s new passing thresholds than under the original passing thresholds, for high school equivalency exams taken between 2014 and 2018**

**NJDOE’s original passing thresholds**  
Ever-passing rate (percent)



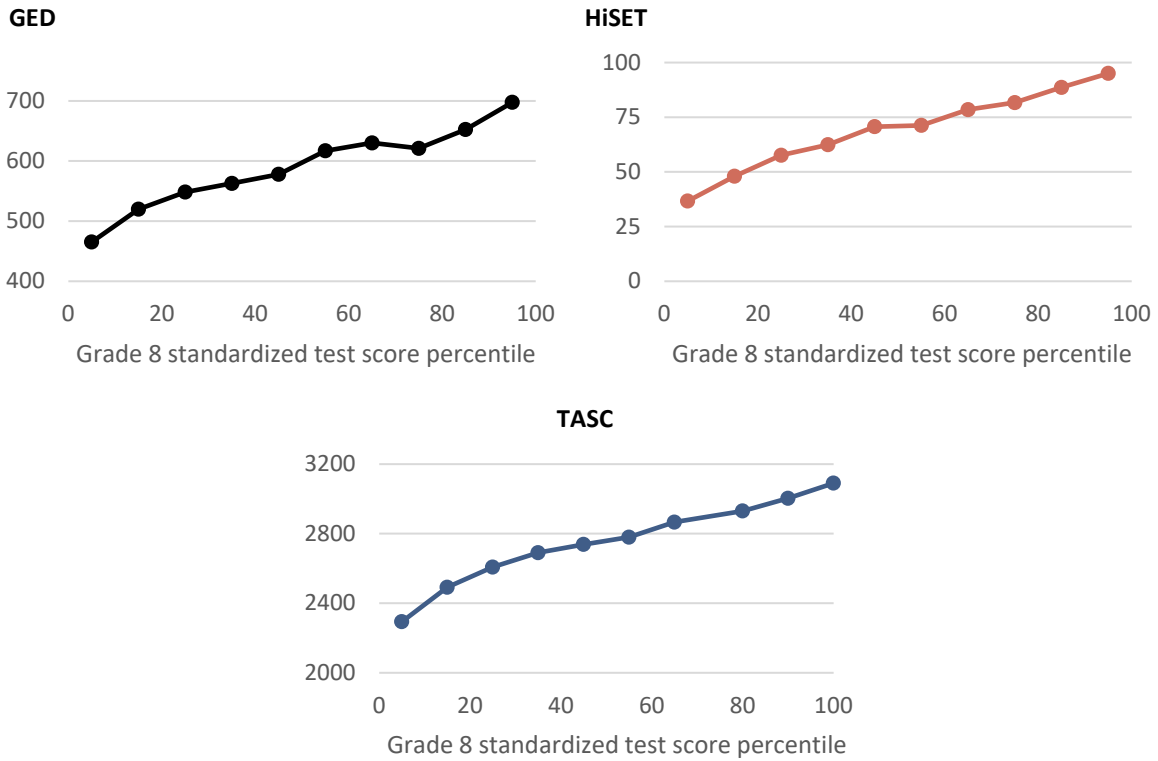
**NJDOE’s new passing thresholds**  
Ever-passing rate (percent)



HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion. Note: This figure includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. Grade 8 standardized test score percentile refers to performance on the New Jersey Assessment of Skills and Knowledge. Source: Authors’ analysis of grade 8 reading and math scores on the New Jersey Assessment of Skills and Knowledge from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Figure B4. High school equivalency exam takers with higher grade 8 standardized test scores had higher mean GED, HiSET, and TASC scores on their first attempt, for high school equivalency exams taken between 2014 and 2018**

*Mean score on first attempt*



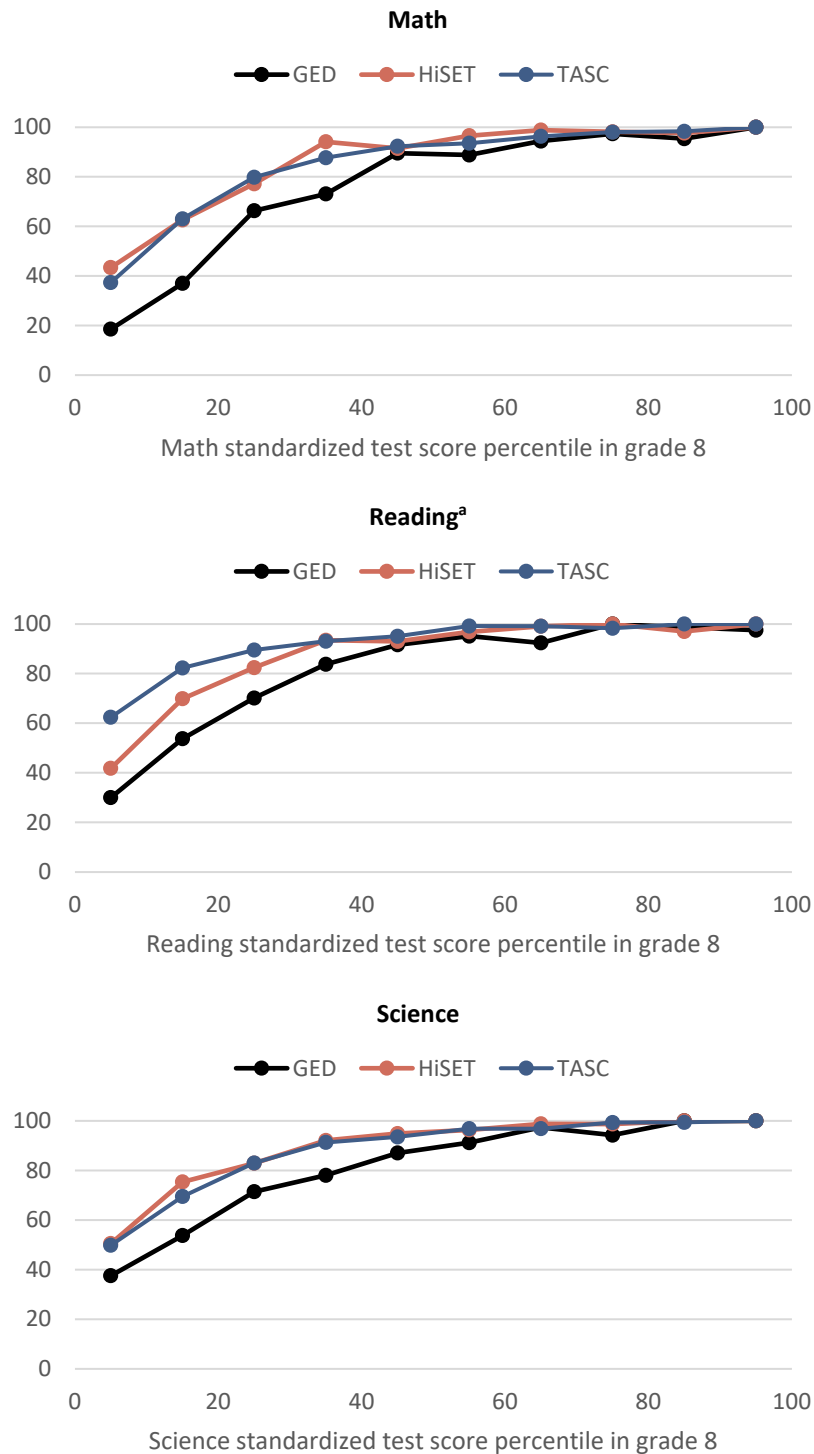
HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: This figure includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. Grade 8 standardized test score percentile refers to performance on the New Jersey Assessment of Skills and Knowledge.

Source: Authors' analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education's statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Figure B5. High school equivalency exam takers with higher math, reading, and science standardized test scores in grade 8 were more likely to pass the corresponding subject tests on the GED, the HiSET, and the TASC, for high school equivalency exams taken between 2014 and 2018**

*First-attempt passing rate (percent)*



HiSET is High School Equivalency Test. TASC is Test Assessing Secondary Completion.

Note: Passing rates are based on the New Jersey Department of Education’s original passing thresholds. Standardized test score percentile in grade 8 refers to performance on the New Jersey Assessment of Skills and Knowledge.

a. Includes both reading and writing for the GED and reading only for the HiSET and the TASC.

Source: Authors’ analysis of data on student characteristics from NJ SMART (the New Jersey Department of Education’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by the New Jersey Department of Education from exam vendors.

**Table B9. Differences in probability of passing the GED, the HiSET, and the TASC under NJDOE’s original passing threshold (linear probability model), for high school equivalency exams taken between 2014 and 2018**

Variable	Pass on the first attempt				Ever pass			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
HiSET	0.02 (0.02)	0.10* (0.02)	0.12* (0.02)	0.12* (0.02)	0.01 (0.02)	0.07* (0.01)	0.08* (0.01)	0.09* (0.02)
TASC	0.08* (0.02)	0.14* (0.01)	0.16* (0.01)	0.17* (0.02)	0.10* (0.01)	0.15* (0.01)	0.17* (0.01)	0.17* (0.01)
Reference (mean GED passing rate)	0.47	0.47	0.47	0.47	0.67	0.67	0.67	0.67
<i>p</i> -value (HiSET = TASC) <sup>a</sup>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<i>Controlling for:</i>								
Grade 8 standardized test scores		Yes	Yes	Yes		Yes	Yes	Yes
Demographic characteristics			Yes	Yes			Yes	Yes
District fixed effects				Yes				Yes

\* Difference is statistically significant at the 0.05 level, two-tailed test.

HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on exam taken (GED, HiSET, or TASC) and different sets of control variables (grade 8 standardized test scores, demographic characteristics, and district fixed effects; see equation A1 in appendix A). Each column represents a separate regression. See table B10 for the results of logistic regressions using the same dependent variables and covariates. Numbers in parentheses are standard errors. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018.

a. Indicates the *p*-value from the test of whether the coefficients on the HiSET and the TASC are equal.

Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Table B10. Differences in probability of passing the GED, the HiSET, and the TASC under NJDOE’s original passing threshold (logistic regression), for high school equivalency exams taken between 2014 and 2018**

Variable	Pass on the first attempt				Ever pass			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
HiSET	0.02	0.12* (0.02)	0.13* (0.02)	0.12* (0.02)	0.01	0.08* (0.01)	0.10* (0.01)	0.09* (0.02)
TASC	0.08* (0.02)	0.16* (0.01)	0.17* (0.01)	0.15* (0.02)	0.10* (0.01)	0.16* (0.01)	0.18* (0.01)	0.19* (0.01)
Reference (mean GED passing rate)	0.47	0.47	0.47	0.47	0.67	0.67	0.67	0.67
<i>p</i> -value (HiSET = TASC) <sup>a</sup>	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<i>Controlling for:</i>								
Grade 8 standardized test scores		Yes	Yes	Yes		Yes	Yes	Yes
Demographic characteristics			Yes	Yes			Yes	Yes
District fixed effects				Yes				Yes

\* Difference is statistically significant at the 0.05 level, two-tailed test.

HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on exam taken (GED, HiSET, TASC) and different sets of control variables (grade 8 standardized test scores, demographic characteristics, and district fixed effects; see equation A1 in appendix A). Each column represents a separate regression. The coefficients have been converted into marginal probabilities from log odds compared with the reference group (GED). See table B9 for the results of linear probability models using the same dependent variables and covariates. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018.

a. Indicates the *p*-value from the test of whether the coefficients on the HiSET and the TASC are equal.

Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Table B11. Differences in probability of passing the GED, the HiSET, and the TASC under NJDOE’s new passing threshold (linear probability model), for high school equivalency exams taken between 2014 and 2018**

Variable	Pass on the first attempt				Ever pass			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
HiSET	−0.09* (0.02)	−0.01 (0.02)	0.01 (0.02)	0.01 (0.02)	0.00 (0.02)	0.06* (0.01)	0.08* (0.01)	0.07* (0.012)
TASC	−0.10* (0.02)	−0.03* (0.01)	−0.01 (0.01)	−0.01 (0.02)	0.05* (0.01)	0.10* (0.01)	0.12* (0.01)	0.12* (0.01)
Reference (mean GED passing rate)	0.64	0.64	0.64	0.64	0.72	0.72	0.72	0.72
<i>p</i> -value (HiSET = TASC) <sup>a</sup>	0.41	0.14	0.10	0.14	<0.01	<0.01	<0.01	<0.01
<i>Controlling for:</i>								
Grade 8 standardized test scores		Yes	Yes	Yes		Yes	Yes	Yes
Demographic characteristics			Yes	Yes			Yes	Yes
District fixed effects				Yes				Yes

\* Difference is statistically significant at the 0.05 level, two-tailed test.

HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on exam taken (GED, HiSET, or TASC) and different sets of control variables (grade 8 standardized test scores, demographic characteristics, and district fixed effects; see equation A1 in appendix A). Each column represents a separate regression. See table B12 for the results of logistic regressions using the same dependent variables and covariates. Numbers in parentheses are standard errors. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018.

a. Indicates the *p*-value from the test of whether the coefficients on the HiSET and the TASC are equal.

Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Table B12. Differences in probability of passing the GED, the HiSET, and the TASC under NJDOE’s new passing threshold (logistic regression), for high school equivalency exams taken between 2014 and 2018**

Variable	Pass on the first attempt				Ever pass			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
HiSET	−0.09* (0.02)	0.01 (0.02)	0.02 (0.02)	0.02 (0.02)	0.00 (0.02)	0.07* (0.01)	0.09* (0.01)	0.07* (0.01)
TASC	−0.10* (0.02)	−0.02 (0.01)	−0.01 (0.01)	−0.01 (0.02)	0.05* (0.01)	0.11* (0.01)	0.13* (0.01)	0.12* (0.01)
Reference (mean GED passing rate)	0.64	0.64	0.64	0.64	0.72	0.72	0.72	0.72
<i>p</i> -value (HiSET = TASC)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<i>Controlling for:</i>								
Grade 8 standardized test scores		Yes	Yes	Yes		Yes	Yes	Yes
Demographic characteristics			Yes	Yes			Yes	Yes
District fixed effects				Yes				Yes

\* Difference is statistically significant at the 0.05 level, two-tailed test.

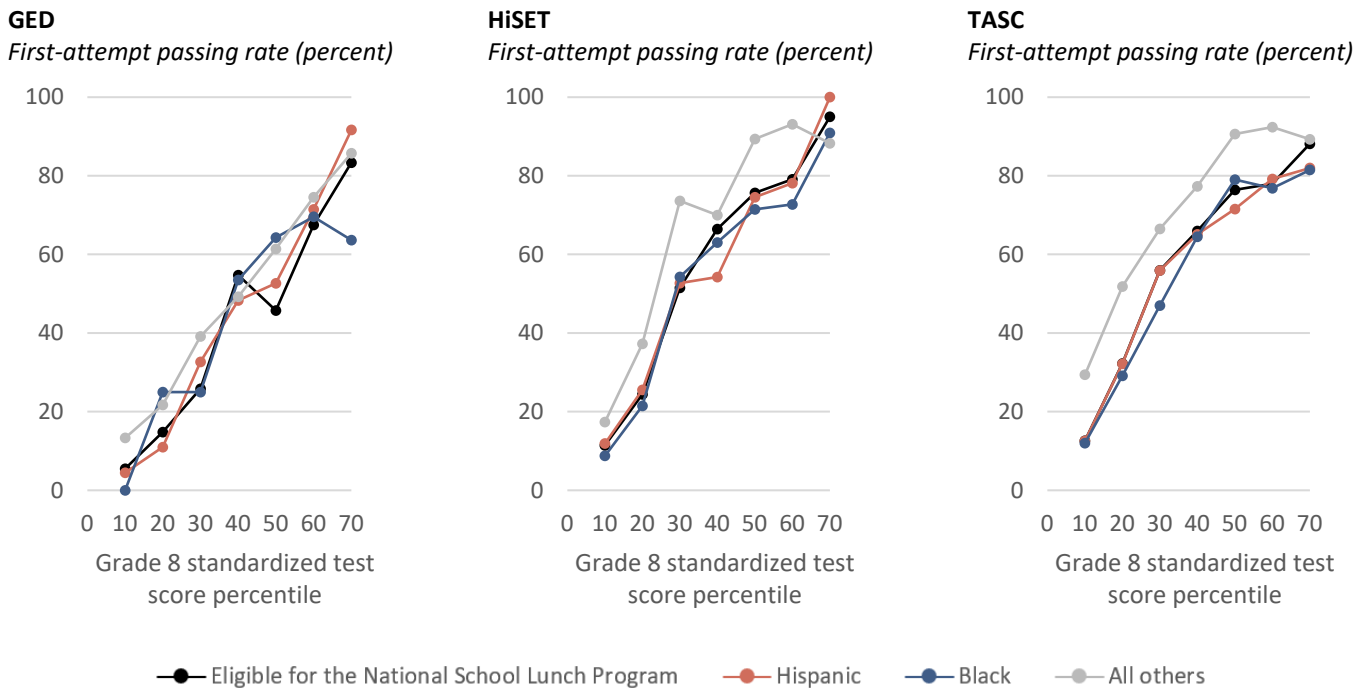
HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on exam taken (GED, HiSET, or TASC) and different sets of control variables (grade 8 standardized test scores, demographic characteristics, and district fixed effects; see equation A1 in appendix A). Each column represents a separate regression. The coefficients have been converted into marginal probabilities from log odds compared with the reference group (GED). See table B11 for the results of linear probability models using the same dependent variables and covariates. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018.

a. Indicates the *p*-value from the test of whether the coefficients on the HiSET and the TASC are equal.

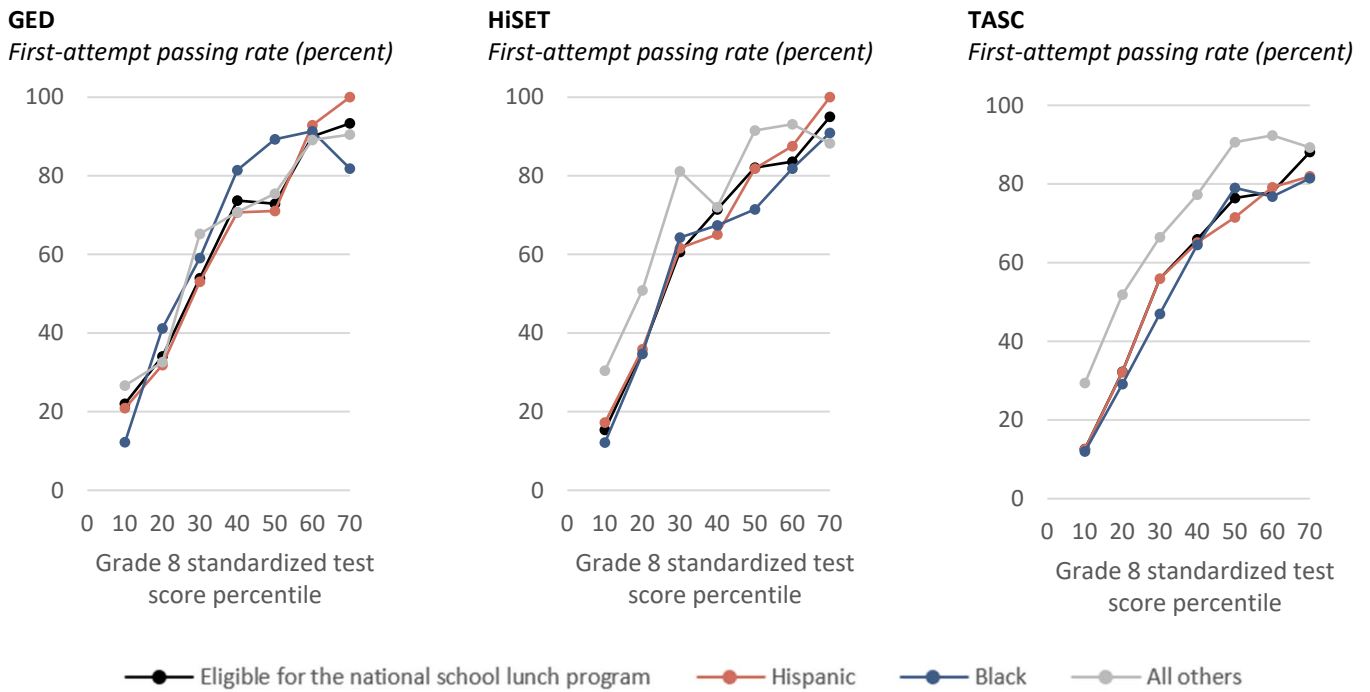
Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Figure B6. TASC and HiSET takers who identified as Black or Hispanic or were eligible for the national school lunch program in grade 8 were less likely than other exam takers to pass on the first attempt under NJDOE’s original passing threshold, for high school equivalency exams taken between 2014 and 2018**



HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.  
 Note: This figure includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. Grade 8 standardized test score percentile refers to performance on the New Jersey Assessment of Skills and Knowledge. Data are not shown for students who are above the 70th percentile because of low counts.  
 Source: Authors’ analysis of grade 8 reading and math scores on the New Jersey Assessment of Skills and Knowledge from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Figure B7. TASC and HiSET takers who identified as Black or Hispanic or were eligible for the national school lunch program in grade 8 were less likely than other exam takers to pass on the first attempt under NJDOE’s new passing threshold, for high school equivalency exams taken between 2014 and 2018**



HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.  
 Note: This figure includes exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. Grade 8 standardized test score percentile refers to performance on the New Jersey Assessment of Skills and Knowledge. Data are not shown for students who are above the 70th percentile because of low counts.  
 Source: Authors’ analysis of reading and math scores on the New Jersey Assessment of Skills and Knowledge scores in grade 8 from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Table B13. Differences in probability of passing the GED, HiSET, and TASC under NJDOE’s original passing threshold, by demographic characteristics and after grade 8 standardized test scores were controlled for, for high school equivalency exams taken between 2014 and 2018 (linear probability model)**

Variable	Pass on the first attempt			Ever pass		
	HiSET	GED	TASC	HiSET	GED	TASC
Black	-0.19* (0.03)	-0.05 (0.03)	-0.18* (0.02)	-0.12* (0.03)	-0.06 (0.03)	-0.12* (0.01)
Hispanic	-0.13* (0.03)	-0.06* (0.03)	-0.14* (0.02)	-0.06* (0.02)	-0.08* (0.03)	-0.05 (0.01)
Eligible for the national school lunch program	-0.05* (0.03)	-0.10* (0.03)	-0.07* (0.01)	-0.06* (0.02)	-0.08* (0.03)	-0.03* (0.01)
English learner student	-0.18* (0.07)	0.02 (0.13)	-0.13* (0.05)	-0.27* (0.06)	-0.05 (0.12)	-0.15* (0.04)
Mean for all exam takers	0.48	0.47	0.54	0.68	0.67	0.77

\* Difference is statistically significant at the 0.05 level, two-tailed test.

HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on interactions between demographic characteristics (Black, Hispanic, eligible for the national school lunch program, and English learner student status) and exam taken (GED, HiSET, or TASC), after grade 8 standardized test scores and other demographic characteristics were controlled for (see equation A2 in appendix A). The first three columns (pass on the first attempt) are from a single linear probability model that included all covariates and interaction terms, and the second three columns (ever pass) are from a second linear probability model. See table B14 for the results of a logistic regression using the same covariates and interaction terms. Numbers in parentheses are standard errors. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. The mean for all exam takers represents the average passing rate for the given outcome (GED, HiSET, or TASC).

Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.

**Table B14. Differences in probability of passing the GED, the HiSET, and the TASC under NJDOE’s original passing threshold, by demographic characteristics and after grade 8 standardized test scores were controlled for, for high school equivalency exams taken between 2014 and 2018 (logistic regression)**

Variable	Pass on the first attempt			Ever pass		
	HiSET	GED	TASC	HiSET	GED	TASC
Black	-0.13*	-0.01	-0.14*	-0.10*	-0.04	-0.13*
Hispanic	-0.09*	-0.03	-0.11*	-0.05*	-0.06*	-0.08*
Eligible for the national school lunch program	-0.04	-0.07*	-0.06*	-0.06*	-0.07*	-0.04*
English learner student	-0.17*	0.04	-0.09	-0.20*	-0.01	-0.10*
Mean for all exam takers	0.48	0.47	0.54	0.68	0.67	0.77

\* Difference is statistically significant at the 0.05 level, two-tailed test.

HiSET is High School Equivalency Test. NJDOE is New Jersey Department of Education. TASC is Test Assessing Secondary Completion.

Note: This table shows the results from a regression of passing a high school equivalency exam on interactions between demographic characteristics (Black, Hispanic, eligible for the national school lunch program, and English learner student status) and exam taken (GED, HiSET, or TASC), after grade 8 standardized test scores and other demographic characteristics were controlled for (see equation A2 in appendix A). The first three columns (pass on the first attempt) are from a single logistic regression that included all covariates and interaction terms, and the second three columns (ever pass) are from a second logistic regression. The coefficients have been converted into marginal probabilities from log odds compared with the reference group. See table B13 for the results of a linear probability model using the same covariates and interaction terms. Numbers in parentheses are standard errors. The sample included 8,111 exam takers who were grade 8 students in a New Jersey public school between 2008/09 and 2013/14 and attempted at least one high school equivalency exam in New Jersey between March 2014 and December 2018. The mean for all exam takers represents the average passing rate for the given outcome (GED, HiSET, or TASC).

Source: Authors’ analysis of data on student characteristics from NJ SMART (NJDOE’s statewide longitudinal education data system) and data on high school equivalency exam performance collected by NJDOE from exam vendors.