

A First Examination of Refugee and Asylee Students' Long-term Educational Outcomes:

Evidence from Texas Public Schools

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Abstract: The educational experiences of refugee and asylee students are influenced by forced migration, interrupted schooling, and resettlement challenges. Although research on newcomer education has expanded, fewer studies use large-scale longitudinal data to compare educational outcomes between refugee and asylee students and similar newcomer peers. This study used statewide longitudinal administrative data from Texas to examine differences in high school graduation and higher education enrollment between refugee and asylee students and matched newcomer students. Propensity score matching created comparable groups based on demographic, socioeconomic, language, and educational characteristics, yielding a matched sample of 18,482 students. Logistic and multinomial logistic regression models assessed high school graduation and postsecondary enrollment while controlling for individual and campus-level factors. Results showed that refugee and asylee students had lower odds of graduating from high school and enrolling in higher education than matched peers. At the campus level, higher economic disadvantage and higher proportions of refugee and asylee students were linked to lower educational outcomes. Findings highlight the importance of individual and school contexts and the need for targeted academic and linguistic supports for recently arrived students.

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Introduction

The increasing diversity of U.S. public schools has brought renewed attention to how educational systems support students who enter with varied linguistic, socioeconomic, and migratory backgrounds. Among these, newcomer students are those who have recently arrived in the United States and are in the early stages of educational and social integration and they present a particularly important population for understanding patterns of educational access and progression. These students often experience rapid transitions into new academic environments that differ substantially from prior schooling systems, requiring adjustment to new instructional expectations, language demands, and institutional structures.

Within this broader group, refugee and asylee students represent a distinct subset of immigrant-origin youth whose educational experiences are shaped by forced displacement and subsequent resettlement pathways. Refugee students are individuals who are admitted to the United States through formal resettlement processes after being granted protection status abroad, while asylee students are those who obtain protection after arriving in the United States and successfully applying for asylum (U.S. Citizenship and Immigration Services [USCIS], 2024). Both groups are legally protected under U.S. immigration policy and are entitled to access public education upon arrival (Plyler v. Doe, 1982; USCIS, 2024).

This paper explores the key education outcomes of high school graduation and higher education enrollment among refugee and asylee students in Texas and other newcomer students who have similar characteristics. The experiences of refugee and asylee students are diverse and nuanced, and their experiences are present in the context of other factors that are also known to affect educational outcomes. Refugee and asylee students share recent entry into U.S. schools but

differ in migration pathways and pre-migration experiences (Dryden-Peterson, 2016; McBrien, 2005). The primary goal of this study is to determine how the unique circumstances of refugee/asylee status affects educational outcomes beyond the known effects of newcomer status.

Random assignment of students to refugee/asylee status is neither possible nor desirable, so this research used a carefully constructed comparison group to allow a strong quasi-experimental approach. We constructed a paired dataset that matched known refugee/asylee students with their nearest neighbor among other newcomers. The matching process produced a comparison group of non-refugee/asylee newcomers that very closely matched refugee/asyles on characteristics known to be strongly associated with educational outcomes. The resulting dataset allowed high confidence that outcome differences between groups were attributable specifically to refugee/asylee status.

A growing body of research highlights that refugee and asylee youth often encounter significant educational disruption prior to and during resettlement, including interrupted schooling, extended periods in transitional settings, and adjustment to unfamiliar academic systems (Dryden-Peterson, 2016a; McBrien, 2005). Upon entry into U.S. schools, many are placed in educational contexts that vary widely in their capacity to support linguistic development, academic integration, and socio-emotional needs (McWilliams & Bonet, 2016). Teachers and school personnel, while central to student adjustment, frequently report limited preparation for addressing the specific needs of these students, which may further shape their educational trajectories (Akay & Jaffe-Walter, 2021; Strekalova & Hoot, 2008).

Although prior studies suggest that both individual and school-related factors are important in shaping educational outcomes for refugee and asylee students, much of the existing

evidence is based on small-scale or cross-sectional data, limiting understanding of long-term educational progression. In particular, there remains limited large-scale evidence on two critical milestones in educational attainment: high school graduation and subsequent enrollment in postsecondary education.

Texas provides a unique context for examining these questions due to its sustained role as one of the largest refugee resettlement destinations in the United States and its availability of statewide longitudinal administrative data. The Texas Education Agency's inclusion of a refugee and asylee identifier in student records enables the systematic tracking of educational outcomes across cohorts and educational stages, offering an opportunity to examine long-term academic trajectories at scale. Although the identifier was originally introduced for accountability purposes, it remains one of the few available resources for identifying refugee and asylee students in statewide educational datasets. At the same time, prior research has shown that refugee and asylee labels are applied inconsistently across administrative and assessment systems and are often tied to accountability and testing requirements rather than systematic student identification (Mairaj & Templeton, 2025). Such inconsistencies may contribute to undercounting and misclassification, reflecting broader challenges in the availability and quality of longitudinal data on refugee and asylee students (Evans & Fitzgerald, 2017; Wiseman & Bell, 2022). Despite these limitations, the Texas data provide a valuable opportunity to examine educational outcomes among refugee and asylee students using large-scale longitudinal records.

Building on this context, the present study examines differences between refugee and asylee students and other newcomer students in two educational outcomes: high school graduation and enrollment in higher education institutions, including both two-year and four-year

colleges. The analysis accounts for a comprehensive set of individual-level characteristics, including demographic background, language status, socioeconomic status, and educational exposure in U.S. schools.

In addition, this study incorporates two campus-level contextual measures: the proportion of refugee and asylee students and the proportion of economically disadvantaged students enrolled at each campus. These measures capture the broader demographic and socioeconomic composition of school environments and allow for an examination of how institutional context shapes educational outcomes beyond individual student characteristics.

Despite growing attention to immigrant education, limited evidence exists on how refugee and asylee students progress through important educational milestones relative to other newcomer peers within large-scale longitudinal systems. This study addresses this gap by leveraging statewide administrative data from Texas to examine educational trajectories across multiple cohorts. In doing so, it provides new evidence on how both individual characteristics and campus-level composition are associated with educational outcomes for refugee and asylee youth in U.S. public schools.

Literature Review

High school graduation and higher education enrollment are important educational milestones because they are associated with greater employment opportunities, higher earnings, and improved socioeconomic mobility (Araki, 2020; Hanushek & Woessmann, 2020). For students who recently arrived in the U.S., successful progression through secondary and postsecondary education can support adjustment to new educational and social environments.

Refugee and asylee students may face unique challenges in achieving educational milestones. Many arrive in the U.S. after experiencing disrupted schooling, displacement, or limited access to formal education (Dryden-Peterson, 2016; McBrien, 2005). Following resettlement, students often encounter barriers related to language development, academic adjustment, and access to educational resources and support services (Akay & Jaffe-Walter, 2021; McWilliams & Bonet, 2016). Although studies have documented resilience and educational success among refugee and asylee youth (Bartlett et al., 2017; Mendenhall et al., 2017), educational outcomes vary considerably across students, schools, and communities.

Similar challenges have been documented among newcomer students. Students who enter U.S. schools after recent migration must often adapt to unfamiliar educational systems, language demands, and cultural expectations (Suárez-Orozco et al., 2010). Educational outcomes among newcomer students are influenced by a combination of individual characteristics, prior educational experiences, socioeconomic conditions, and school environments (Dryden-Peterson, 2016; Suárez-Orozco et al., 2010). Together, these findings suggest that both individual and school-level factors contribute to students' educational trajectories.

Despite growing attention to immigrant and newcomer education, large-scale longitudinal evidence on refugee and asylee students remains limited (Evans & Fitzgerald, 2017; Wiseman & Bell, 2022). In particular, little is known about how refugee and asylee students progress through important educational transitions, such as high school graduation and higher education enrollment, relative to other newcomer students. Furthermore, relatively little is known about how school-level characteristics may contribute to these outcomes (Dryden-Peterson, 2016; McWilliams & Bonet, 2016). The present study addresses these gaps by examining educational

outcomes among refugee and asylee students and comparable newcomer peers using statewide longitudinal data from Texas.

Theoretical Framework

This study is guided by Human Capital Theory (Becker, 1964), which views education as an investment through which individuals acquire knowledge, skills, and competencies that contribute to future opportunities and success. Human capital accumulated through educational experiences has been linked to a range of positive outcomes, including educational attainment, workforce participation, and socioeconomic mobility (Araki, 2020; Hanushek & Woessmann, 2020). Extant literature grounded in Human Capital Theory has documented persistent disparities in educational outcomes across student populations, with advantages often observed among White, non-low-income, and English-speaking students relative to their peers (Bleakley & Chin, 2004; Carnevale & Strohl, 2013; Chetty et al., 2020).

These findings suggest that poor education outcomes decrease accumulation of human capital and subsequent life trajectories. For refugee and asylee students, educational opportunities may be particularly important because schooling often serves as one of the first institutional settings through which they adapt to new social, cultural, and academic environments following displacement and resettlement. Within this framework, high school graduation and higher education enrollment represent important indicators of human capital accumulation and educational progression.

Data and Methods

Data

Data for this study were drawn from a secure, statewide longitudinal education data repository that houses data from the Texas Education Agency and the Texas Higher Education Coordinating Board. Data from both agencies have a consistent unique identifier to allow researchers to follow individuals from their entry into public PK-12 schools, through enrollment in public and private higher education institutions in Texas. To construct the analytic sample, we used several student demographic variables in administrative enrollment and program participation records and state standardized testing data.

Sample

Considering the education outcome variables of interest to this study, including high school graduation rate, higher education enrollment, and higher education degree attainment, the sample construction began by isolating students who first enrolled in Grade 9 between the 2010-2011 school year and the 2021-2022 school year ($N=2,135,793$ students).¹ This temporal restriction included students able to at least graduate high school by the 2024-2025 school year, the latest year of data available.

To identify refugee and asylee students, we employed three different demographic variables described in detail in an earlier publication (Mairaj & Templeton, 2025), which included an unschooled asylee and refugee code for students in grades 7-12 in administrative data, and refugee and asylee indicator in each of the two state standardized tests (one for

¹ Students who first entered Texas public schools in Grade 10 or higher beginning in the 2010-2011 school through the 2021-2022 school year were also included.

language proficiency and one for academic achievement)¹. By combining administrative and testing data across all available years, we constructed a longitudinal dataset of students ever identified as refugees or asylees between the 2010-2011 school year (the first instance of any of the refugee or asylee variables) and the 2022-2023 school year. We then combined this variable with the high school student dataset and found 9,241 students who began 9th grade for the first time between the 2010-2011 and 2023-2024 school year and were ever identified as a refugee or asylee student.

Since refugee and asylee students are not randomly distributed across schools or regions, we employed analytic strategies designed to minimize selection bias arising from resettlement patterns (McWilliams & Bonet, 2016). Following the focal local control framework (Shadish & Cook, 2009), the comparison group was constructed from students who attended the same 206 districts as refugee and asylee students, ensuring that matched peers experienced similar geographic, demographic, and educational contexts (N=2,135,793). The initial sample consisted of 2,135,793 students enrolled in grades 9–12 within these districts during the study period, including 2,126,552 non-asylee students and 9,241 refugee/asylee students.

Propensity score matching

Propensity score matching (PSM; Austin, 2011; Glynn & Quinn, 2010; Rosenbaum & Rubin, 1983; Tan, 2010; Xie et al., 2012) identified students most comparable to refugee and asylee students based on observable individual- and school-level covariates to reduce selection bias and improves comparability between refugee and asylee and non-asylee students. Propensity

¹ The Texas English Language Proficiency Assessment System (TELPAS) supplies annual measures of English proficiency for students whose home language is not English, and the State of Texas Assessments of Academic Readiness (STAAR) offers standardized academic performance data.

scores are defined as the conditional probability of treatment assignment (i.e., being classified as a refugee or asylee student) given a vector of observed covariates, estimated using a logistic regression model (Rosenbaum & Rubin, 1983). Using these estimated probabilities, we implemented nearest-neighbor matching to construct a comparison set of other newcomer students who closely resembled refugee and asylee students in terms of observed characteristics. This procedure was implemented using the *matchit* function in the R package *MatchIt*, producing a matched sample in which covariate distributions were closely aligned across groups. Matching was conducted using one-to-one nearest-neighbor matching with a caliper of 0.01 on the propensity score to reduce poor matches and improve covariate balance (Austin, 2011; Xie et al., 2012). To further strengthen internal validity, students were stratified by first year in 9th grade, and propensity score matching was conducted separately within each cohort. The resulting matched samples were then combined to form the final analytic dataset.

Measures

Outcome Variables

This study examined two educational outcomes among refugee and asylee students and their peers. First, for each student in the analytic sample, we constructed a binary variable indicating high school graduation (0 = no, 1 = yes) from a high school diploma by a Texas public school as of the 2024-2025 school year. Second, we constructed a multinomial variable to indicate higher education enrollment in a public or private Texas higher education institution (0 = no higher education enrollment, 1 = enrollment in a two-year institution, 2 = higher education

enrollment in a four-year institution) as of the 2024-2025 school year for each student in the analytic sample.

The analysis of high school graduation as an education outcome included all students in the matched analytic sample who began 9th grade between 2010-2011 and 2021-2022 ($n = 18,482$). For the analysis of higher education enrollment, the matched sample was restricted to students who graduated high school ($n = 11,894$). This number also included 399 students who were recorded as enrolling in higher education without a prior high school graduation. Because high school completion is a prerequisite for postsecondary enrollment and our dataset does not include diplomas awarded by private institutions or General Education Development tests (GEDs), we treated these cases as high school graduates who subsequently transitioned to higher education, to account for possible misclassification in the data.

Independent variables

The primary independent variable was students' refugee and asylee status (0 = non-refugee or asylee; 1 = refugee or asylee). Consistent with prior research documenting educational advantages among White, non-low income, and English-speaking students (e.g., Bleakley & Chin, 2004; Carnevale & Strohl, 2013), we included a comprehensive set of individual-level covariates to account for demographic and academic differences. Sex was included as demographic variable given established evidence of gender differences in educational and workforce outcomes (Hu & Wolniak, 2013; Mandel & Semyonov, 2014). Race and ethnicity were included to capture structural inequities and differential educational experiences across racial and ethnic groups, as consistently shown in educational stratification research (e.g., Carnevale & Strohl, 2013, Kilbourne et al., 1994). Home language was included as a key

demographic characteristic, reflecting linguistic background and its documented relationship with English proficiency and academic integration among immigrant and refugee populations (Bleakley & Chin, 2004; Lau v. Nichols, 1974; Dryden-Peterson, 2016b). Economically disadvantaged status was defined by eligibility for the National School Free and Reduced-Price Lunch Program and was included as a measure of household socioeconomic status, which has been consistently shown to shape educational opportunity and outcomes (Chetty et al., 2014; Carnevale & Strohl, 2013).

Limited English Proficiency (LEP) status indicates students in need of support to develop academic English proficiency, a factor widely documented as shaping academic outcomes and educational integration for immigrant-origin students (Bleakley & Chin, 2004; Lau v. Nichols, 1974; Dryden-Peterson, 2016b). In this analysis, LEP status was treated as an ordinal measure reflecting students' progression in English proficiency and monitoring status, coded from lower proficiency levels (1-4) to monitored statuses (F and S), and finally non-LEP students. The first year a student enrolled in 9th grade was included to account for the time-variant differences across the panel and the number of years a student enrolled in U.S. schools was included to measure exposure to the U.S. education system, which is an important factor in educational integration and attainment among refugee and asylee youth (Dryden-Peterson, 2016a; McBrien, 2005). In addition, two campus-level independent variables were included in all models: the proportion of refugee and asylee students on each campus, and the proportion of economically disadvantaged students on each campus, to capture the broader institutional composition and contextual conditions shaping student outcomes.

Matching Variables

The selection of matching variables was guided by prior empirical literature demonstrating that socioeconomic background, English language proficiency, and schooling experience which were found to be strongly associated with both educational trajectories and later academic and labor market outcomes (Bleakley & Chin, 2004; Chetty et al., 2014; Carnevale & Strohl, 2013; Dryden-Peterson, 2016b). Accordingly, matching included individual-level demographic characteristics (sex, home language, economically disadvantaged status) and academic attributes (grade level, number of years studied in the U.S., and LEP status). Once matched on these variables, there were no significant differences between the refugee and asylee and matched samples on the variables used as matching criteria.

Analytic Strategy

Table 1 presents the demographic characteristics of the refugee and asylee students along with their other newcomer peers. In the initial dataset used for matching, there were 9,241 refugee and asylee students and 2,126,552 other students attending the same public schools. After matching, the final dataset for analysis included all of the 9,241 refugee and asylee students, as well as 9,241 matched other newcomer students and no significant differences were observed among means.

Table 1*Demographic characteristics of the unmatched and matched study sample*

Variable	Unmatched students attending same public schools n (%)	Matched other newcomer students n (%)	Refugee and asylee n (%)	Standardized Mean Differences	
				Unmatched	Matched
High School Students	2,126,552	9,241	9,241	-	-
<i>Individual characteristics</i>					
Sex					
Female	1,036,297(48.73)	4169(45.11)	4262(46.12)	-0.05	0.01
Male	1,090,255(51.27)	5072(54.89)	4979(53.88)	0.05	-0.01
Home language					
Arabic	8,501(0.4)	1133(12.26)	1048(11.34)	0.48	-0.03
Chinese	8,538(0.4)	80(0.87)	72(0.78)	0.05	-0.01
English	1,407,365(66.18)	263(2.85)	271(2.93)	-1.79	0.01
Farsi	1,878(0.09)	178(1.93)	190(2.06)	0.2	0.01
French	2,649(0.12)	160(1.73)	145(1.57)	0.16	-0.02
Nepali	1,722(0.08)	626(6.77)	614(6.66)	0.38	-0.01
Somali	746(0.04)	269(2.91)	350(3.79)	0.28	0.05
Spanish	620,398(29.17)	1681(18.19)	1675(18.13)	-0.27	-0.01
Swahili	1,463(0.07)	596(6.45)	788(8.53)	0.43	0.08
Tigrinya	590(0.03)	82(0.89)	112(1.21)	0.16	0.04
Turkish	604(0.03)	9(0.1)	10(0.11)	0.04	0.01
Urdu	6,837(0.32)	22(0.24)	19(0.21)	-0.03	-0.01
Other	65,261(3.07)	4142(44.82)	3947(42.71)	1.08	-0.05
Economically disadvantaged					
Yes	1,177,497(55.37)	8145(88.14)	8127(87.95)	-0.78	0
No	949,055(44.63)	1096(11.86)	1114(12.05)	0.78	0
<i>Academic characteristics</i>					
Numbers of years in U.S. schools (Mean, SD)	11.45 (3.74)	4.89 (3.19)	5.00 (3.16)	-1.7	0.03
Limited English Proficiency (LEP)					
Non-LEP	1,775,193(83.48)	514(5.56)	539(5.83)	-2.5	0.01
1	249,360(11.73)	8,258(89.36)	8,218(88.93)	2.43	-0.01
3	11,722(0.55)	69(0.75)	76(0.82)	0.03	0.009
4	13,946(0.66)	52(0.56)	58(0.63)	-0.004	0.008
5	13,946(0.66)	18(0.19)	19(0.21)	-0.05	0.002
F	33,472(1.57)	204(2.21)	207(2.24)	0.05	0.002

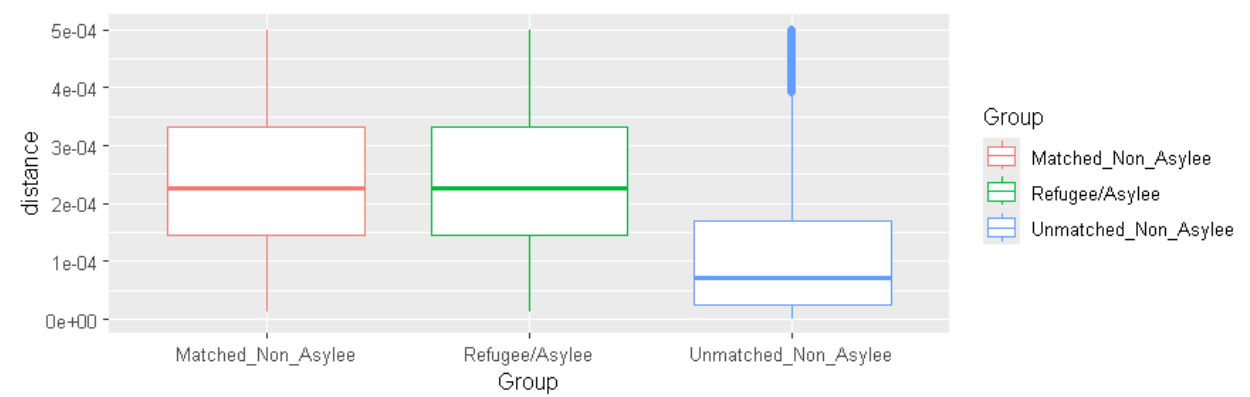
S	32,615(1.53)	126(1.36)	124(1.34)	-0.02	-0.002
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Note: The “Other” category includes German, Japanese, Korean, Portuguese etc. languages not listed individually in the table. While there are many languages in this “Other” category, all of them had relatively small numbers of speakers in the dataset

Match quality

The validity of propensity score matching relies on achieving baseline equivalence between treatment and comparison groups, which we assessed using two approaches. First, Table 1 reports standardized mean differences for refugee and asylee and other newcomer students before and after matching, which confirm that all variables in the matched sample fall within the acceptable balance threshold (standardized mean difference ≤ 0.05) (What Works Clearinghouse, 2015). Second, we examined the distribution of propensity scores for both refugee and asylee and other newcomer groups students before and after matching using box plots. As shown in Figure 1, the post-matching propensity distributions demonstrate strong similarity between the two groups, indicating improved comparability in the matched sample. Taken together, these diagnostic checks provide evidence that the matching procedure achieved strong covariate balance and effectively reduced pre-existing differences between refugee and asylee and other newcomer students.

Figure 1
Distribution of propensity scores for refugee and asylee and other newcomer student groups



Regression Analyses

Model specification followed a stepwise selection procedure based on Akaike Information Criterion (AIC), starting from an intercept-only model and sequentially adding covariates. At each step, variables were retained if they improved model fit, as indicated by reductions in AIC. Model fit was further evaluated using AIC comparisons, deviance reductions, and likelihood ratio tests. Chi-square analyses were also conducted to examine associations between study variables and graduation outcomes, based on the overall graduation rate. All variables were significantly associated with graduation status ($p < 0.00$).

Using the matched sample, we estimated logistic regression models to examine the likelihood of high school graduation for refugee and asylee and other newcomer students. Based on stepwise selection procedure, the final model, which included refugee and asylee status, sex, race/ethnicity, home language, economically disadvantaged status, grade level, year of Grade 9 enrollment, number of years studied in the U.S., LEP status, campus-level refugee/asylee percentage, campus-level economically disadvantaged percentage, demonstrated a substantially lower AIC value (from 24984 in the null model to 20749 in the final model), indicating improved model fit with added covariates. Model adequacy was supported by significant reductions in deviance at each step ($p < .05$), confirming that the included covariates meaningfully improved model performance.

Findings

Descriptive analyses

Table 2 demonstrates the differences in rates of educational outcomes among refugee and asylee students and other newcomer students in the matched dataset. Refugee and asylee students

had significantly lower high school graduation rates than matched other newcomer students (56% vs. 63%, $p < .001$). Among those who graduated from high school, other newcomer students were significantly more likely to enroll in higher education than refugee and asylee students (46% vs. 42%, $p < .001$).

Table 2

Differences in educational outcomes among refugee and asylee students and matched other newcomer students.

	Refugee and Asylee Students		Other Newcomer Students		T-Test
	n	%	n	%	<i>p</i> -value
High School Students	9,241	100 %	9,241	100%	
High School Graduation	5,144	56%	5,811	63%	99.72 ($<.001$)
Higher Education Enrollment	2,141	42%	2,693	46%	24.68 ($<.001$)
Higher Education Enrollment (2-Year)	1889		2621		
Higher Education Enrollment (4-Year)	252		424		

High School Graduation

Logistic regression results support lower graduation rates for refugee and asylee students compared to their other newcomer comparison group, with refugees and asylees only 68% as likely to graduate high school. Table 3 below shows other characteristics of newcomers (both refugee/asylees and other newcomers) that are associated with graduation likelihood.

Table 3

Logistic regression results for graduation rates from year 2011 through 2020

Predictor	OR	SE	Z	P	95% CI
Refugee and asylee status (Ref: No)					
Yes	0.68	0.03	-11.49	<.001	[0.63, 0.72]
Sex (Ref: Female)					
Male	0.75	0.03	-8.48	<.001	[0.7, 0.8]
Race/Ethnicity (Ref: White)					
Black	1.09	0.1	0.98	0.329	[0.91, 1.28]
Hispanic	0.7	0.09	-2.99	0.003	[0.53, 0.87]
Asian	0.79	0.07	-3.07	0.002	[0.67, 0.91]
American Native or Alaska Native	0.83	0.22	-0.72	0.474	[0.4, 1.26]
Native Hawaiian or Pacific Islander	0.44	0.1	-3.64	<.001	[0.24, 0.63]
Two or More Races	0.65	0.11	-2.58	0.010	[0.44, 0.87]
Home Language (Ref: English)					
Chinese	2.04	0.48	3.04	0.002	[1.11, 2.97]
Arabic	1.47	0.22	2.66	0.008	[1.06, 1.89]
Farsi	1.85	0.34	3.34	<.001	[1.19, 2.51]
French	2.22	0.44	4.07	<.001	[1.37, 3.07]
Nepali	1.14	0.17	0.87	0.385	[0.81, 1.47]
Somali	0.46	0.08	-4.77	<.001	[0.32, 0.61]
Spanish	0.79	0.12	-1.61	0.108	[0.57, 1.02]
Swahili	1.35	0.2	2.01	0.045	[0.96, 1.74]
Tigrinya	1.62	0.35	2.21	0.028	[0.93, 2.3]
Turkish	1.59	0.85	0.87	0.385	[-0.07, 3.24]
Urdu	4.85	2.31	3.32	<.001	[0.33, 9.37]
Other	1.17	0.16	1.14	0.255	[0.86, 1.47]
Economically disadvantaged status (Ref: No)					
Yes	1.22	0.07	3.66	<.001	[1.09, 1.36]
First year in 9 th grade (Ref: 2011)					
2012	0.89	0.07	-1.59	0.113	[0.76, 1.02]
2013	1.11	0.09	1.32	0.189	[0.95, 1.27]
2014	1.26	0.1	3.08	<.001	[1.08, 1.43]
2015	1.46	0.1	5.44	<.001	[1.26, 1.65]
2016	1.56	0.11	6.57	<.001	[1.35, 1.76]
2017	1.41	0.09	5.37	<.001	[1.23, 1.58]
2018	1.57	0.11	6.58	<.001	[1.36, 1.78]
2019	1.03	0.08	0.3	0.767	[0.88, 1.18]
2020	1.22	0.1	2.56	0.010	[1.04, 1.4]
Numbers of years studied in U.S.	1.4	0.02	42.23	<.001	[1.38, 1.42]
Limited English Proficiency (LEP)	1.01	0.02	0.44	0.663	[0.98, 1.04]

Campus level refugee/asylee percentage	0.32	0.11	-3.32	<.001	[0.1, 0.53]
Campus level economically disadvantaged percentage	0.38	0.04	-10.64	<.001	[0.31, 0.45]
Intercept	0.66	0.12	-2.47	0.014	[0.44, 0.88]

Model Fit Statistics

	Model I (Null)	Model II (Full)
N	18,482	18,482
df	34	34
Log Likelihood	-12491	-10339.5
AIC	24984	20749

Note: OR = Odds Ratio, SE = Standard error, Z = z score, P = p-value, CI = Confidence intervals, N = Number of observations, df = Degrees of freedom. Model 1 includes only the intercept. Model 2 includes all covariates shown above.

Table 3 presents the logistic regression estimates predicting high school graduation among newcomer students. Using the matched sample that accounted for similarities in individual and academic characteristics, refugee and asylee students were 68% as likely to graduate from high school than other newcomer students (OR = 0.68, $p < .001$).

In the combined dataset including refugee/asylee students and their matched peers, several groups had significantly lower likelihoods of graduating high school. These groups included:

- Males
- Asians and Hispanics
- Somali speakers
- Non-economically disadvantaged students
- Students in the US for less time
- Students attending campuses with high percentages of economically disadvantaged students
- Students attending campuses with high percentages of refugee and asylee students

Enrollment cohort was also a significant predictor of graduation rate. Relative to students who enrolled in 2011, students enrolling in each subsequent year from 2014 through 2020 were significantly (except 2019) more likely to graduate from high school.

Higher Education Enrollment

Table 4 presents the multinomial logistic regression estimates predicting higher education enrollment in 2-year and 4-year institutions relative to no postsecondary enrollment.

Table 4
Multinomial Logistic regression results predicting higher education enrollment rates from year 2011 through 2020

Predictor	2-Year institution OR (95% CI)	4-Year institution OR (95% CI)
Refugee and asylee status (Ref: No)		
Yes	0.88*** [0.8,0.95]	0.63*** [0.52,0.74]
Sex (Ref: Female)		
Male	0.76* [0.7,0.82]	0.76*** [0.64,0.89]
Race/Ethnicity (Ref: White)		
Black	0.92 [0.75,1.09]	2.1*** [1.26,2.94]
Hispanic	0.61** [0.42,0.8]	0.99 [0.37,1.61]
Asian	0.96 [0.8,1.13]	1.49 [0.9,2.07]
American Native or Alaska Native	0.36* [0.07,0.64]	0.43 [-0.45,1.3]
Native Hawaiian or Pacific Islander	0.94 [0.41,1.46]	0.35 [-0.36,1.05]
Two or More Races	1.27 [0.73,1.81]	2.33* [0.48,4.18]
Home Language (Ref: English)		
Chinese	0.59* [0.29,0.89]	1.43 [0.29,2.56]
Arabic	1.39* [0.96,1.82]	1.26 [0.57,1.94]
Farsi	1.03 [0.64,1.42]	0.81 [0.14,1.49]
French	1.02 [0.63,1.42]	1.25 [0.44,2.07]
Nepali	0.7* [0.47,0.93]	1.04 [0.43,1.65]
Somali	1.4 [0.88,1.92]	0.88 [0.27,1.48]
Spanish	0.4*** [0.27,0.54]	0.42** [0.15,0.69]
Swahili	0.69* [0.47,0.91]	1.04 [0.51,1.57]
Tigrinya	0.7 [0.37,1.02]	1.33 [0.38,2.28]
Turkish	0.52 [-0.12,1.15]	0.01 [0.01,0.01]
Urdu	0.82 [0.22,1.43]	0.01 [0.01,0.01]
Other	0.82 [0.59,1.05]	1.06 [0.58,1.55]
Economically disadvantaged status (Ref: No)		
Yes	1.32*** [1.14,1.51]	1.15 [0.84,1.47]

First year in 9th grade (Ref: 2011)

2012	0.86 [0.68,1.03]	1.61* [0.96,2.26]
2013	1.09 [.88,1.29]	1.01 [0.57,1.45]
2014	0.95 [0.77,1.13]	1.36 [0.81,1.92]
2015	0.86 [0.7,1.01]	1.13 [0.67,1.58]
2016	0.73*** [0.6,0.85]	1.16 [0.74,1.58]
2017	0.73*** [0.62,0.85]	1.3 [0.86,1.74]
2018	0.69*** [0.57,0.8]	1.19 [0.77,1.6]
2019	0.7*** [0.58,0.82]	1.3 [0.83,1.77]
2020	0.67*** [0.55,0.79]	1.35 [0.86,1.83]
Numbers of years studied in U.S.	1.05*** [1.04,1.07]	1.05** [1.02,1.08]
Limited English Proficiency (LEP)	1.05** [1.02,1.08]	1.2*** [1.15,1.26]
Campus level refugee/asylee percentage	0.08*** [-0.02,0.18]	0.01*** [-0.01,0.02]
Campus level economically disadvantaged percentage	0.73** [0.57,0.89]	0.8 [0.45,1.14]
Intercept	1.05 [0.66,1.44]	0.06*** [.02,.1]

Note. OR = odds ratio, CI = Confidence intervals; Reference category = No enrollment.

* $p < .05$. ** $p < .01$. *** $p < .001$

Results indicated that refugee and asylee students had significantly lower odds of enrolling in both 2-year (OR = 0.88, $p < .001$) and 4-year institutions (OR = 0.63, $p < .001$) compared with other newcomer students, relative to no enrollment. These findings suggest that, even among students who successfully complete high school and after controlling for individual and academic characteristics, refugee and asylee students face substantial barriers to participation across all sectors of higher education.

Several factors from the model were significant predictors of lower higher education enrollment.

- Males
- Hispanics and American Indian/Alaskan Native students (for 2-year college enrollment)
- Spanish speakers
- Chinese, Swahili and Nepali speakers (for 2-year college enrollment)

- Non-economically disadvantaged students
- Students in the US for less time
- Students attending campuses with high percentages of economically disadvantaged students
- Students attending campuses with high percentages of refugee and asylee students
- Students with higher LEP (lower English proficiency)

For annual cohorts, graduation likelihood remained statistically the same from 2011 through 2015. Starting in 2016, refugees and asylees and other newcomer students with similar characteristics were significantly less likely to enroll in 2-year colleges (but remained equally likely to enroll in a 4-year higher education institution).

Discussion and Implications

Overall, the findings reveal persistent disparities across important educational milestones. Refugee and asylee students were significantly less likely to graduate from high school and, among graduates, were less likely to enroll in both 2-year and 4-year institutions than their matched newcomer peers. These findings are consistent with prior research suggesting that the educational consequences of forced migration and interrupted schooling extend beyond initial school adjustment (Dryden-Peterson, 2016a; McBrien, 2005). Many refugee and asylee students enter U.S. schools after experiencing disruptions in formal education and transitions across multiple educational systems, which may create academic challenges that persist over time and affect their ability to successfully navigate secondary and postsecondary educational pathways.

A notable strength of this study is the use of propensity score matching (PSM) to construct a comparison group of newcomer students with characteristics similar to those of

refugee and asylee students. Because randomized assignment is not feasible in this context, PSM provides a rigorous quasi-experimental approach for reducing observable selection bias and improving group comparability. By accounting for demographic, language-related, socioeconomic, and educational characteristics, this approach strengthens the interpretation that disparities in graduation and postsecondary enrollment are associated with refugee and asylee status rather than measured background differences. Furthermore, the use of statewide longitudinal data provides a unique opportunity to examine educational outcomes among refugee and asylee students across multiple cohorts and educational stages.

The findings also highlight the importance of both individual and institutional factors in shaping educational outcomes. Differences across gender, race/ethnicity, home language, and years studied in the United States suggest that newcomer students are a diverse population whose educational experiences vary considerably. In particular, the positive association between years spent in U.S. schools and both graduation and college enrollment underscores the importance of time for academic adjustment, language development, and familiarity with educational expectations.

Consistent with prior research emphasizing the role of school context in supporting refugee and asylee students (Akay & Jaffe-Walter, 2021; McWilliams & Bonet, 2016). Students attending campuses with higher concentrations of refugee and asylee students and economically disadvantaged students experienced lower educational outcomes. These patterns suggest that schools serving large numbers of students with elevated academic and social support needs may face challenges in providing sufficient resources and support services. These findings suggest that educational outcomes are influenced not only by students' individual experiences as

newcomers but also by the institutional environments in which they are educated. Refugee or asylee status impedes achievement of the educational milestones, and attending schools with high concentrations of refugees and asylees and/or economically disadvantaged students exacerbates this impediment.

While many newcomers (including refugees and asylees) are designated as having Limited English Proficiency, LEP status was not a significant predictor of high school graduation and was a significant positive predictor of higher education enrollment at both 2-year and 4-year institutions when controlling for other variables in the model. This finding suggests that the challenges these students face stem from aspects of their experience other than language barriers.

In general, variables significantly predicting high school graduation also predicted higher education enrollment. However, there are some interesting exceptions. Speaking Spanish at home was not a significant predictor of high school graduation, but was a very strong negative predictor of higher education enrollment. In contrast, Asian newcomers were significantly less likely to graduate high school but if they graduated, they were equally likely to enroll in higher education.

Overall, the results indicate that both individual and contextual factors play important roles in shaping educational opportunities for refugee and asylee youth. The findings underscore the need for policies and interventions that support refugee and asylee students while also strengthening the capacity of schools serving high concentrations of refugee, asylee, and economically disadvantaged students.

This study highlights important implications for policy and practice by showing that disparities in educational outcomes for refugee and asylee students are shaped by both individual

and school-level factors. In particular, campuses with higher concentrations of refugee and asylee students and economically disadvantaged students were associated with lower rates of high school graduation and higher education enrollment. These findings suggest that schools serving higher-need populations may require additional structural supports, including targeted academic programming and college readiness efforts to address compounded educational challenges.

Limitations

Several limitations should be considered when interpreting the findings of this study. First, inconsistencies were identified in records related to high school graduation, and higher education enrollment. Specifically, 399 students were recorded as not having graduated from high school despite enrolling in a higher education institution. To address these discrepancies, logical imputations were applied. Students observed to have enrolled in a postsecondary institution but recorded as not having graduated from high school were imputed as high school graduates.

Another limitation involves the labeling of refugee and asylee status in Texas. As discussed in Mairaj and Templeton (2025), analyses of PEIMS, TELPAS, and STAAR data revealed substantial misclassification of refugee and asylee designation, along with concerns regarding the accuracy of racial identification for these students.

In addition, although propensity score matching was used to improve comparability between refugee and asylee and non-asylee students, this approach adjusts only for observed and measured covariates. The analyses therefore remain susceptible to residual confounding from unmeasured or unknown factors. Consequently, causal conclusions regarding the effect of

refugee and asylee status on educational outcomes should be interpreted with caution, as unobserved variables (e.g., home environment or prior educational experiences in the country of origin) may still influence the results.

Finally, the findings are not generalizable beyond Texas, as the data are drawn solely from the Texas public education system. Educational policies and practices vary substantially across states and may meaningfully influence the outcomes of refugee and asylee students elsewhere. Future research using data from multiple states would help determine the extent to which these findings generalize to other educational contexts.

Conclusion

In conclusion, refugee and asylee students experience lower rates of high school graduation and higher education enrollment compared with matched newcomer peers, even after accounting for individual and contextual factors. At the same time, campus-level socioeconomic and demographic composition plays a significant role in shaping these outcomes. Addressing these disparities requires policies that move beyond individual-level interventions and incorporate school-level supports to improve educational equity for refugee and asylee students.

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