Long-term English learners:
How is timing of reclassification associated with middle and high school outcomes?

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Research Brief
for the Houston Independent School District

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Research Brief

Long-term English learners:
How is timing of reclassification associated with middle and high school outcomes?

The number of English learners (ELs) who do not reclassify as English proficient after the first five years of schooling has increased in the Houston area and the state of Texas. ELs are a diverse population of students with varying levels of English proficiency. Many students who begin school as an EL reclassify as English proficient in a timely manner and go on to achieve academic success. Students who remain EL after five years in school are considered "long-term English learners" (LTELs). Previous research has found that LTELs are at risk for negative academic outcomes. **The purpose of this brief is to examine middle and high school outcomes of LTELs in the Houston region**, with a specific focus on how the timing of reclassification—when an EL student is reclassified as English proficient—was associated with academic achievement and school engagement. The results of this study support previous research showing that EL students who become LTELs are at risk for negative educational outcomes. However, these outcomes can vary based on the number of years a student remains in LTEL status. This brief is part of a larger research project examining characteristics of LTELs, patterns of reclassification, predictors of LTEL status, and outcomes of LTELs in Houston, with particular attention to 10 Houston-area public school districts.

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Key Findings

Compared to LTELs, ELs who reclassified in elementary school experienced:

- higher middle school math and reading achievement and likelihood of taking advanced coursework in middle school

- higher likelihood of graduating high school on time and lower likelihood of dropping out

- lower rates of absenteeism and fewer exclusionary disciplinary actions in middle and high school

LTELs, or ELs who did not reclassify before middle school, experienced:

- lower middle school math and reading achievement and lower likelihood of taking advanced coursework in middle school than ELs who reclassified in elementary school

- lower likelihood of graduating high school on time

LTELs who did not reclassify before high school were at additional risk by also experiencing:

- higher likelihood of dropping out of high school than ELs who reclassified in elementary school

- higher rates of absenteeism and more exclusionary disciplinary actions in middle and high school

Implications

- ELs who reclassify in elementary school go on to experience academic achievement on par with or exceeding students who were never ELs.

- However, the majority of ELs who begin school in Houston and Texas become LTELs and are placed at risk for lower academic achievement and decreased school engagement from middle to high school.

- Intervening with LTELs is critical, both in terms of providing linguistic support early and ensuring that LTELs have access to the academic support and coursework they need to set them up for success in high school and beyond.

Background

<div class="key-terms">

Key Terms

English learner (EL): A student who is in the process of acquiring English and has another language as their primary language, also known as Emergent Bilingual

Long-term English learner (LTEL): An EL student who remains EL after completing five years in school

Reclassification: The process by which an EL student is identified as English proficient and no longer classified as EL

Timing of reclassification: The grade level when an EL student reclassified as English proficient (elementary school middle school, high school, or never reclassified)

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Background

For English learner (EL) students, reclassification as English proficient is an important educational marker because upon getting reclassified, ELs gain access to the full range of educational and instructional programs available in schools (Umansky, 2016). Many ELs reclassify in a timely manner and achieve academic success. However, an increasing proportion of ELs remain EL for several years despite involvement in programs aimed at improving their English-language skills (Cashiola & Potter, 2021). These students are referred to as long-term English learners (LTELs). In this study, an LTEL is identified as a student who remains EL after completing 5 years in school (Cashiola & Potter, 2020). In the past 10 years, the percentage of ELs who begin first grade in Texas and Houston-area public schools and who go on to become LTEL has significantly increased. Most recently, almost 60% of ELs who began first grade as ELs became LTELs, and 38% of these ELs remained LTELs into high school (Cashiola & Potter, 2021).

According to previous research, LTELs often receive lower course grades and lower passing rates on state standardized tests in high school and are less likely to meet high school graduation requirements (Gwynne et al., 2012; Olsen 2014). This study extends this research by focusing on ELs in the Houston region and examining their middle school and high school academic outcomes as well as outcomes related to school engagement. To better understand how timing of reclassification matters for these outcomes, we further examined these outcomes based on when an EL student reclassified by comparing ELs who reclassified in elementary school (and did not become LTELs), ELs who became LTELs but reclassified in middle school, and ELs who became LTELs and continued onto high school as LTEL (i.e., reclassified in high school or never reclassified). We also included students who were never ELs.

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Research Questions

This study examined the association between timing of reclassification and middle and high school outcomes. Specifically, the study asked the following questions:

Was timing of reclassification associated with:

1. Growth in math and reading achievement from fifth through eighth grade?

2. The likelihood of taking advanced coursework in middle school?

3. On-time high school graduation and high school dropout rates?

4. Absenteeism rates in middle and early high school?

5. Receiving exclusionary disciplinary actions in middle and high school?

This study leveraged data from the Public Education Information Management System (PEIMS) through the Texas Education Agency (TEA) to follow cohorts of EL students who began first grade in Texas public schools. Details about the students included in each analysis and the methods used can be found in the appendix.

Findings

1 While all students made gains in math and reading achievement between fifth and eighth grade, LTELs remained behind.
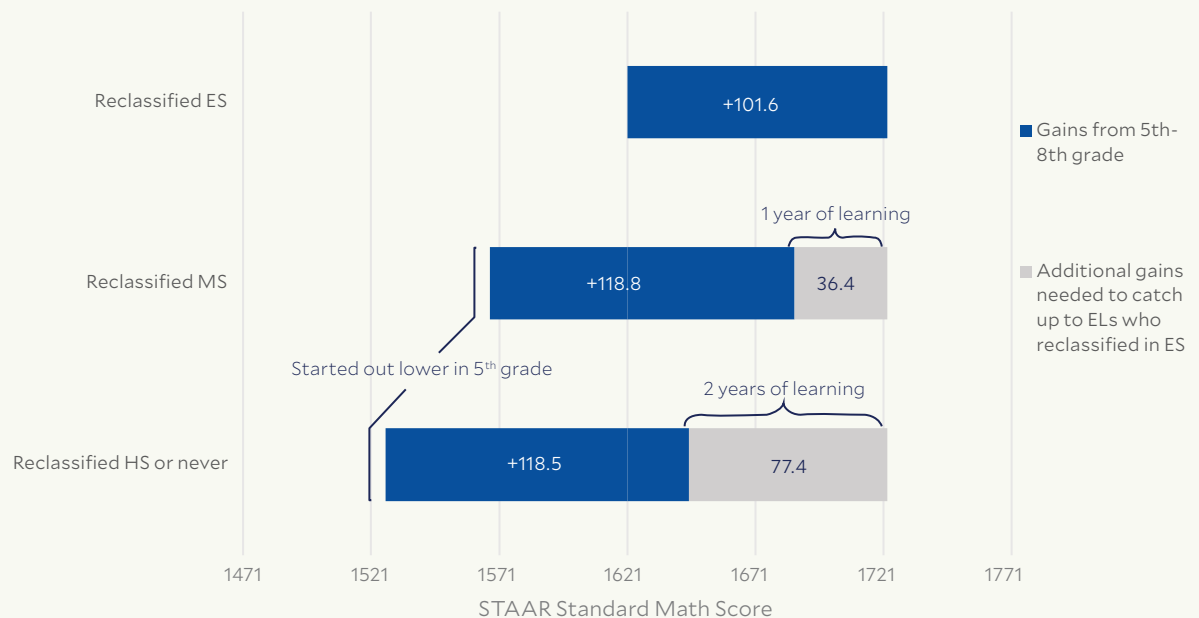
Our findings showed that while all EL students made significant gains in math and reading achievement between fifth and eighth grade, LTELs still remained one to two years behind in achievement for both subjects at the end of middle school, indicating disparities in achievement continuing onto high school. Figure 1 shows the number of points (based on STAAR standard scores) that all students gained in their STAAR math scores from fifth and eighth grade, with EL students categorized into three groups: ELs who reclassified in elementary school (reclassified ES), ELs who became LTELs and reclassified in middle school

(reclassified MS), and LTELs who reclassified in high school or never reclassified (reclassified HS or never).

LTELs gained more points (118.8 and 118.5 points) in math than ELs who reclassified in elementary school (101.6 points). Despite these larger gains, LTELs' math scores started out lower and did not catch up to the math scores of ELs who reclassified in elementary. LTELs who reclassified in middle school would have had to gain an additional 36 points to catch up to ELs who reclassified in elementary school, and LTELs who reclassified in high school or never reclassified would

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FIGURE 1 **LTEL math scores started out lower and did not catch up to the scores of ELs who reclassified in elementary.**

Reclassified ES	+101.6	
Reclassified MS	+118.8	36.4 (1 year of learning)
Reclassified HS or never	+118.5	77.4 (2 years of learning)

Started out lower in 5th grade

Legend:
■ Gains from 5th-8th grade
■ Additional gains needed to catch up to ELs who reclassified in ES

X-axis: 1471 1521 1571 1621 1671 1721 1771
STAAR Standard Math Score

have had to gain an additional 77 points. These gaps in eighth grade translate to LTELs being about 1-2 school years behind in their math learning than ELs who reclassified in elementary school. Specifically, LTELs who reclassified in middle school were 1 year behind in their math learning than ELs who reclassified in elementary school, and LTELs who reclassified in high school or never reclassified were 2 years behind.
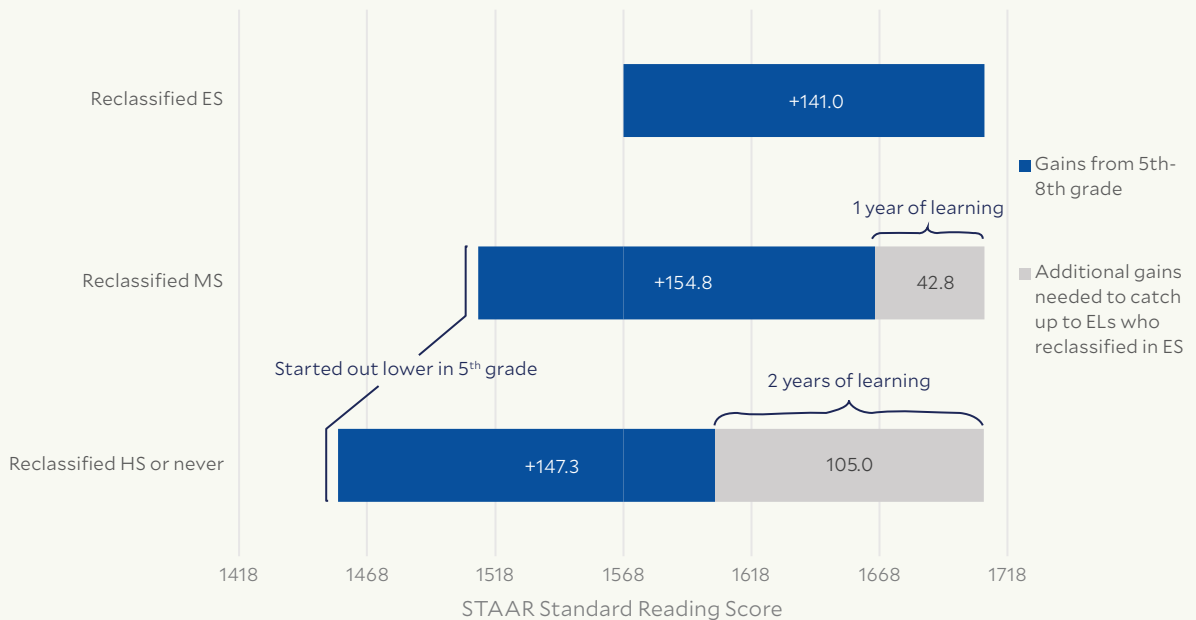
Similar results were found for STAAR reading scores between LTELs and ELs who reclassified in elementary school (see Figure 2). LTELs gained more points in reading (154.8 and 147.3 points) than ELs who reclassified in elementary school (141 points), but also started with lower scores. By the end of middle school, LTELs who reclassified in middle school would have had to gain an additional 43 points to catch up to ELs who reclassified in elementary school, and LTELs who reclassified in high school or never reclassified would have had to gain an additional 105 points. These gaps in eighth grade similarly translate to LTELs being about 1-2 school years behind in their reading than ELs who reclassified in elementary school.

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FIGURE 2 **LTEL reading scores started out lower and did not catch up to the scores of ELs who reclassified in elementary.**

Reclassified ES +141.0

1 year of learning

Reclassified MS +154.8 | 42.8

Started out lower in 5th grade

2 years of learning

Reclassified HS or never +147.3 | 105.0

Gains from 5th-8th grade

Additional gains needed to catch up to ELs who reclassified in ES

1418 1468 1518 1568 1618 1668 1718

STAAR Standard Reading Score

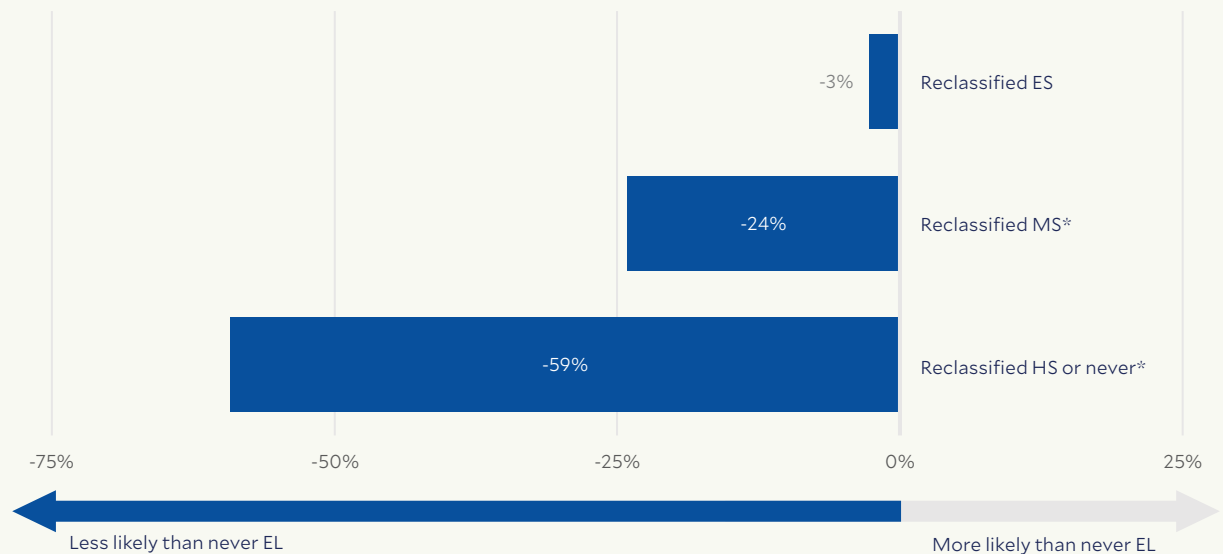## 2 LTELs were less likely to take advanced coursework in middle school.

The timing of reclassification was associated with the likelihood of taking advanced coursework in middle school, defined as the taking and passing of Algebra 1 by the end of eighth grade. Taking advanced coursework in middle school places students on a trajectory for advanced coursework in high school, significantly improving their likelihood of enrolling in and completing college (Holzman et al., 2020). ELs who reclassified in elementary school were just as likely to take advanced coursework in middle school as their peers who were never ELs. However, LTELs were much less likely to take advanced coursework in middle school compared to ELs who reclassified in elementary school or those who were never ELs, placing them on a trajectory toward taking no or fewer advanced courses in high school (Figure 3). Specifically, LTELs who reclassified in middle school were 24% less likely to take advanced coursework in middle school. LTELs who reclassified in high school or never reclassified were almost 60% less likely to have taken advanced coursework in middle school. Notably, these results accounted for important factors, including students' fifth-grade math achievement.

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FIGURE 3 **LTELs were significantly less likely to have enrolled in Algebra 1 in middle school.**

-3%	Reclassified ES
-24%	Reclassified MS*
-59%	Reclassified HS or never*

-75% -50% -25% 0% 25%

⟵ Less likely than never EL   More likely than never EL ⟶

Notes: This figure shows the relative odds of taking Algebra 1 in middle school compared to never-EL students.
*Significantly different than never-ELs

3   The more years spent being an LTEL, the higher the likelihood of not graduating high school on time and of dropping out.

LTELs who reclassified in middle school or high school or who never reclassified were less likely to graduate high school on time when compared to ELs who reclassified in elementary school. Figure 4 shows that LTELs who reclassified in high school or who never reclassified had the lowest likelihood of graduating high school on time compared to ELs who reclassified in elementary school (57%-63% less likely), followed by LTELs who reclassified in middle school (45% less likely). This means that the more years a student spent being an LTEL, the more likely they would not graduate high school on time. These differences remained after accounting for important student, campus, and district factors that are directly related to graduation, such as grade retention, eighth-grade reading achievement, and high school campus environment.
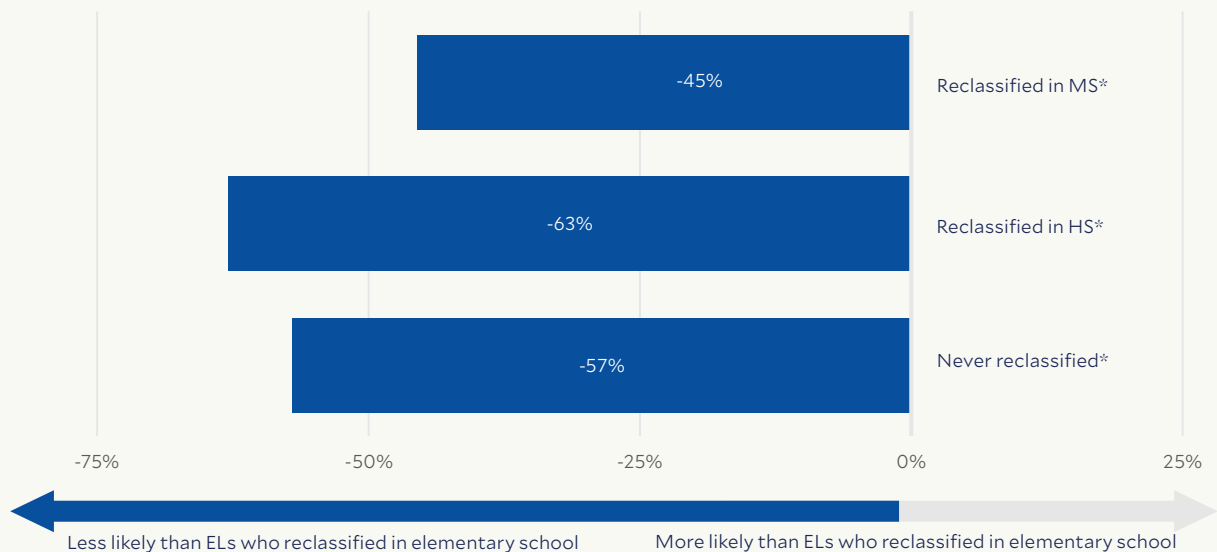
Additionally, timing of reclassification was found to be associated with high school dropout rates for LTELs who reclassified in high school or who never reclassified. While the chances of dropping out between LTELs who reclassified in middle school and ELs who reclassified in elementary school were not significantly different, LTELs who reclassified in high school or who never reclassified were 20% and 40% more likely to drop out

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than ELs who reclassified in elementary school (Figure 5). These results indicate that the more years that a student remained an LTEL, the more likely that they would drop out of high school.

FIGURE 4   LTELs were significantly less likely to graduate high school on time.

-45%	Reclassified in MS*
-63%	Reclassified in HS*
-57%	Never reclassified*

-75%   -50%   -25%   0%   25%

← Less likely than ELs who reclassified in elementary school

More likely than ELs who reclassified in elementary school →

Notes: This figure shows the relative odds of on-time high school graduation compared to EL students who reclassified in elementary school.
*Significantly different than ELs who reclassified in elementary school.

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FIGURE 5 **LTELs who do not reclassify were significantly more likely to drop out of high school.**

Reclassified in MS — 2%

Reclassified in HS* — 20%

Never reclassified* — 40%

-25%   0%   25%   50%   75%

Less likely than ELs who reclassified in elementary school ← | → More likely than ELs who reclassified in elementary school
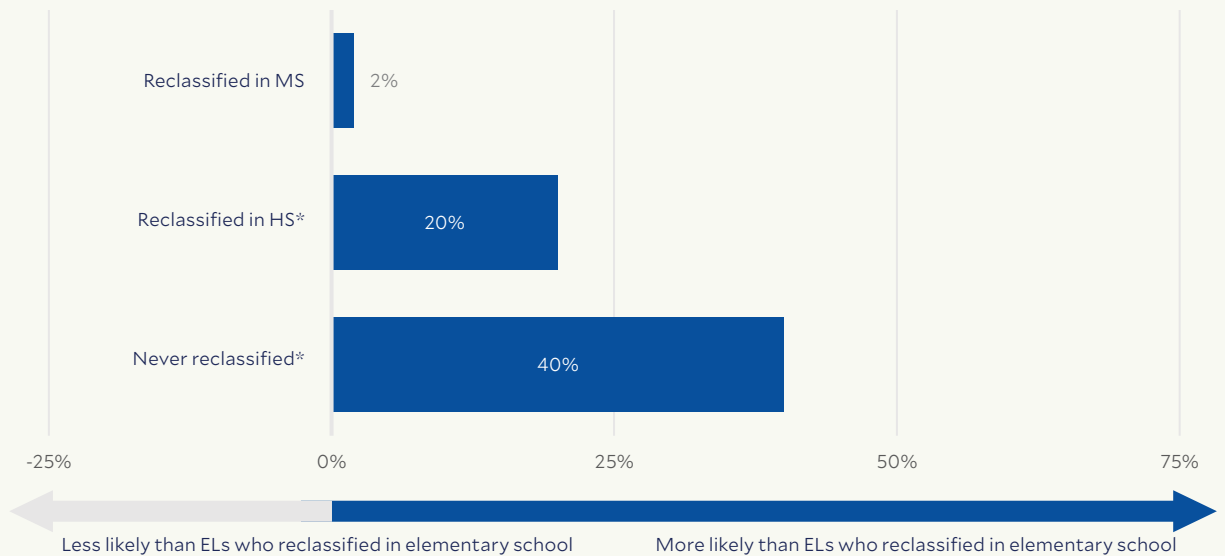
Notes: This figure shows the relative odds of on-time high school graduation compared to EL students who reclassified in elementary school.
*Significantly different than ELs who reclassified in elementary school.

4 After middle school, absenteeism rates increased more for LTELs who did not reclassify before high school.
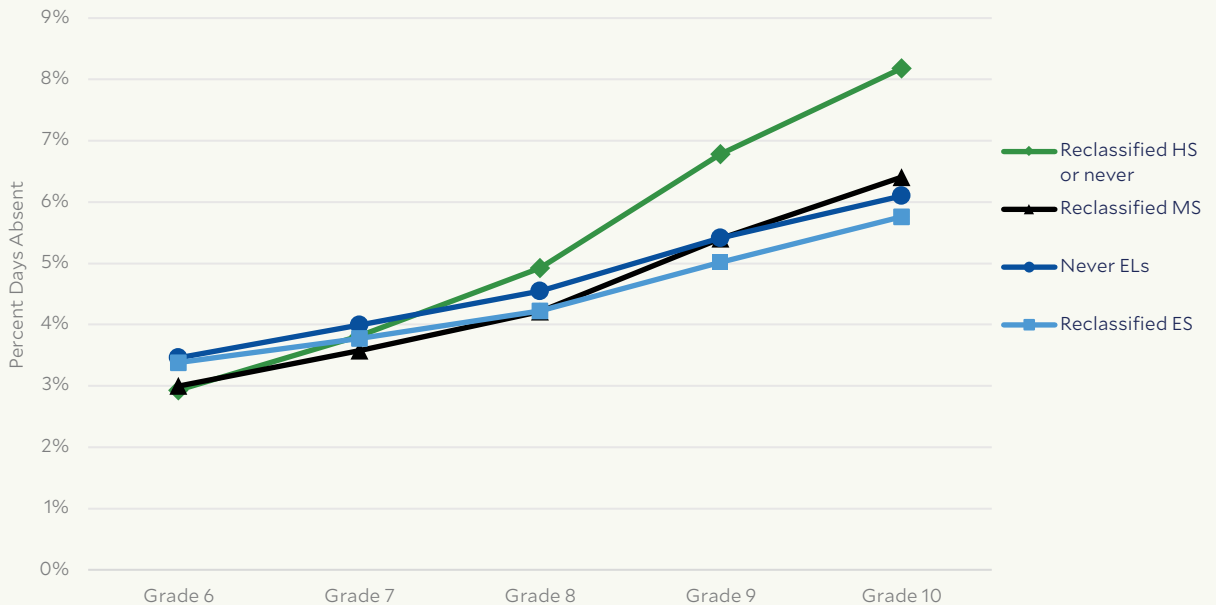
For all students, absenteeism rates increased in middle and early high school. However, after middle school, absenteeism increased more for LTELs who did not reclassify before high school compared to never ELs, ELs who reclassified in elementary school, and LTELs who reclassified in middle school. Figure 6 presents the change in absenteeism rates—measured as the percentage of school days absent for each school year—over time for each reclassification group and never ELs. All students experienced a similar increase in absenteeism from sixth through eighth grade, at which point LTELs who reclassified in high school or never reclassified started to show more of an increase in the percentage of days absent through 10th grade. By the end of 10th grade, LTELs who reclassified in high school or never reclassified were averaging 8% of days absent, which translates to missing an additional week of school, on average, compared to their peers. Given this trajectory, it is likely that these disparities increased through the remainder of high school.

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FIGURE 6 **Absenteeism rates increased more after eighth grade for LTELs who reclassified in high school or never reclassified.**

5 After middle school, exclusionary disciplinary actions increased more for LTELs who did not reclassify before high school.
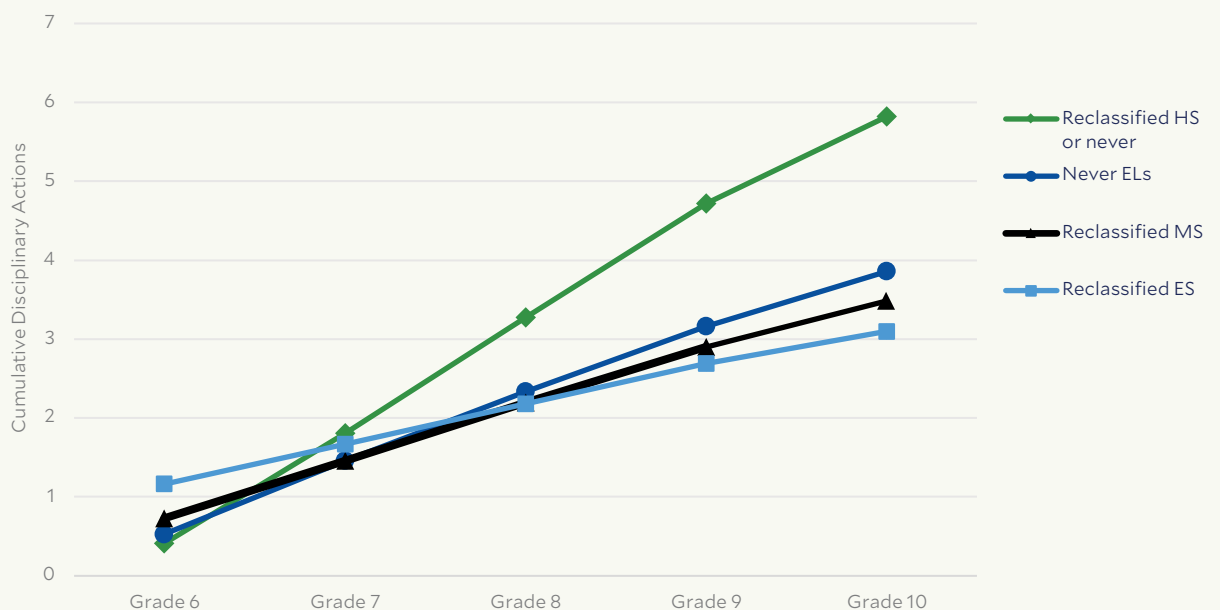
Similar to the trajectories of absenteeism rates, all students showed an increase in exclusionary disciplinary actions over time. Exclusionary disciplinary actions include suspension, expulsion, or placement in a disciplinary alternative education program (DAEP) or juvenile justice alternative education program (JJAEP). Between sixth through 10th grade, LTELs who reclassified in high school or never reclassified were more likely to receive any exclusionary disciplinary action compared to their peers. In addition, the average number of exclusionary disciplinary actions increased more sharply after seventh grade for LTELs who reclassified in high school or never reclassified (see Figure 7). By 10th grade, LTELs who reclassified in high school or never reclassified had accumulated an average of six exclusionary disciplinary actions, while ELs who reclassified in elementary school, LTELs who reclassified in middle school, and non-ELs had accumulated an average of three to four exclusionary disciplinary actions.

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FIGURE 7

Exclusionary discipline actions increased more after seventh grade for LTELs who reclassified in high school or who never reclassified.

Cumulative Disciplinary Actions

- Reclassified HS or never
- Never ELs
- Reclassified MS
- Reclassified ES

Grade 6   Grade 7   Grade 8   Grade 9   Grade 10

Conclusion

Summary and Discussion

The findings in this report focused on how the timing of reclassification for ELs in the Houston region was associated with middle and high school academic outcomes and school engagement. In general, results indicated that the further along an EL student progressed in grade level without reclassifying as English proficient, the more likely they were to experience lower academic performance and an increase in adverse school engagement. ELs who reclassified in elementary school went on to experience academic achievement and school engagement on par with or exceeding students who were never ELs. However, LTELs, or EL students who remained ELs after 5 years in school, had lower math and reading achievement throughout middle school and were less likely to take advanced coursework in middle school, setting the stage for disparities in achievement in high school. Further, LTELs were less likely to graduate high school on time. LTELs who did not reclassify before high school were at additional risk of dropping out and experienced higher rates of absenteeism and exclusionary disciplinary actions between the end of middle school and early high school compared to their peers. In other words, while becoming an LTEL beginning in middle school places EL students at risk, reclassifying before high school is still a critical milestone.

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Implications for Policy & Practice

The percentage of ELs who begin first grade in Houston-area public schools and become LTEL has significantly increased in the past 10 years. In the most recent trends, almost 60% of ELs who began first grade as ELs in 2014-2015 became LTELs, and 38% of these ELs remained LTELs into high school. These trends are in alignment with the trends found across the state of Texas (Cashiola & Potter, 2021).

The results from this study indicate that, in addition to the percentage of ELs becoming LTELs increasing, the risks associated with becoming LTEL have remained. **A majority of ELs who begin school in Houston-area public schools are at risk for lower academic achievement in middle school and into high school (even if they reclassify in middle school), placing them at risk for not graduating on time.** Before high school, LTELs are placed on an academic trajectory that makes them less likely to be college, career, and military ready after high school. LTELs who continue onto high school as ELs are at additional risk for lower school engagement and dropping out.

There are likely many factors contributing to increased rates of ELs becoming LTEL. These include changes in assessment practices and requirements for reclassification as English proficient, budget cuts that began with the Great Recession, and a significant shortage of bilingual teachers (Cashiola & Potter, 2021). Many of these obstacles exist outside of the school districts' control. However, there are ways that districts can help mitigate the risks associated with becoming LTEL:

1. Based on previous research from HERC (Cashiola et al., 2022), **providing continuity of instruction and supporting a student's home language** in elementary school can help prevent ELs from becoming LTEL.

2. Intervening with LTELs in middle school is critical, both in terms of providing linguistic support aimed at reclassification and **ensuring that being identified as an EL does not prevent students from accessing the academic support and coursework they need to set them up for success in high school**.

3. Districts should pay particular attention to the school engagement of LTELs and **intervene before absenteeism rates and disciplinary exclusionary actions increase.**

In summary, immediate action is needed to support this important and diverse population of students in Texas public schools.

Appendix

Data and Methods

Data for these analyses came from the Texas Public Education Information Management System (PEIMS) enrollment data. Campus factors came from the Texas Academic Performance Reports (TAPR). Students from 10 Houston-area public school districts were included in the analyses. Since Texas requires students to be enrolled in school starting in first grade, first-grade cohorts were created and followed for 6-10 years (depending on the outcome of interest). EL status was determined by their limited English proficiency (LEP) status. Student data were linked across multiple years to determine if and when EL students reclassified.

For the analyses of middle school academic outcomes and middle and high school engagement outcomes,

three cohorts of students (n = 167,808) who began first grade in the school years 2007-08, 2008-09, 2009-10, and 2010-11 and attended sixth grade in Houston-area school districts were included in these analyses (see Table 1 for demographic information for each set of cohorts). These students were followed for 8-10 years to determine their middle school and early high school outcomes.

For the analyses of high school academic outcomes, two cohorts of students (n = 31,404) who began first grade *as English learners* in 2006-07 and 2007-08 and attended ninth grade in Houston area school districts were included in the analyses. These students were followed for 12 years, when most of these students would have been expected to graduate from high school.

TABLE 1 **Demographics of EL cohorts**

	Middle & early high school analytic sample	High school analytic sample
n	167,808 students	31,404 EL students
Hispanic	56%	90%
Black	20%	1%
White	17%	1%
Asian or other race/ethnicity	7%	8%
Economically Disadvantaged	67%	86%
Began 1st grade as ELs	42%	100%
Reclassified in ES	59%	64%
Reclassified in MS	18%	18%
Reclassified in HS or never	23%	19%

Analytic Method

For all research questions, the associations between timing of reclassification and middle and high school outcomes were examined. Timing of reclassification was defined as the grade level that an EL student reclassified as English proficient and no longer received linguistic support, specifically, in elementary school, middle school, high school, or never reclassified. For middle school and early high school outcomes, students who were never ELs were also included in the analyses. Several student, campus, and district factors were accounted for in each model and can be found in Table 2.

For research question 1, examining growth in middle school reading and math achievement, longitudinal

growth curve models were conducted estimating the change in math and reading STAAR scale scores from fifth through eighth grade. Separate models were conducted for math and reading. All student, campus, and district factors serving as control variables were included as predictors of the baseline score (i.e., intercept). Timing of reclassification was included as a categorical predictor of the baseline as well as the change over time (i.e., slope). Time (i.e., Grades 5 through 8) was included as a fixed effect, meaning that each model was estimated as a random intercepts only model. For each group at each timepoint, marginal effects were estimated to produce a predicted mean STAAR scale score accounting for all of the factors included in the model. These predicted means were used to estimate the

TABLE 2 — **Student, campus, and district factors accounted for in all models**

	MS academic growth	MS advanced coursework	Absenteeism & Discipline	HS graduation and dropout
Student factors				
Economic disadvantage	X	X	X	X
Sex	X	X	X	X
Race/ethnicity	X	X	X	X
Immigrant status	Upon school entry		Upon school entry	Upon school entry
Special education	X	X	X	X
School-year mobility	Grades 1-8	Grades 1-8	Grades 1-10	Grades 1-12
Grade retention	Grades 1-8	Grades 1-8	Grades 1-5	Grades 9-12
Exclusionary discipline	Grades 1-8	Grades 1-8	Grades 1-5	Grades 9-12
Absenteeism	Grades 6-8	Grades 6-8	Grades 1-5	Grades 9-12
Prior academic achievement		5th grade math	5th grade reading	8th grade reading
Cohort	X	X	X	X
Campus factors				
Percent economically disadvantaged students	Grades 6-8	Grades 6-8	Grades 6-10	Grades 9-12
Mobility rate	Grades 6-8	Grades 6-8	Grades 6-10	Grades 9-12
Index 1 score	Grades 6-8	Grades 6-8	Grades 6-10	Grades 9-12
Campus size				Grades 9-12
District				
School district attended	6th grade district	6th grade district	6th grade district	9th grade district

Note. X indicates that this factor was included in the model. Blank cells indicate that the factor was not included in the model. Otherwise, specific details of the factors in the models are indicated.

gains in STAAR scores from fifth through eighth grade for each timing of reclassification group displayed in Figures 1 and 2.

For Research Question 2, examining the likelihood of taking advanced coursework in middle school, a logistic regression was conducted to examine the association between timing of reclassification and the likelihood of taking and passing Algebra 1 by the end of 8th grade. Odds ratios for the timing of reclassification variable were examined to determine the relative odds of taking Algebra 1 by the end of 8th grade, comparing the odds of ELs who reclassified in elementary school, middle school, and high school or never reclassified to the odds of never ELs (as displayed in Figure 3).

For Research Question 3, examining on-time graduation and high-school dropout, a similar logistic regression was conducted to examine the association between timing of reclassification and the likelihood of graduating high school on-time and dropping out of high school. Separate models were conducted for on-time high school graduation and high school dropout. Odds ratios for the timing of reclassification variable were examined to determine the relative odds of graduating on time or dropping out, comparing the odds of LTELs (i.e., ELs who reclassified in middle school, high school,

or never reclassified) to the odds of ELs who reclassified in elementary schools (as displayed in Figures 4 and 5).

For Research Questions 4 and 5, examining change in absenteeism and disciplinary actions in middle and early high school, longitudinal growth curve models were conducted estimating the change absenteeism rates and the change in cumulative disciplinary actions from sixth through 10th grade. Separate models were conducted for absenteeism and discipline. All student, campus, and district factors serving as control variables were included as predictors of the baseline score (i.e., intercept). Timing of reclassification was included as a categorical predictor of the baseline as well as the change over time (i.e., slope). Time (i.e., Grades 6 through 10) was included as a fixed effect, meaning that each model was estimated as a random intercepts only model. For each group at each timepoint, marginal effects were estimated to produce a predicted mean absenteeism rate and cumulative number of exclusionary disciplinary actions accounting for all of the factors included in the model. These predicted means were used to display the change in absenteeism rates and cumulative exclusionary disciplinary actions for each timing of reclassification group displayed in Figures 5 and 6.

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