A background image showing a student's hands working with letter cards on a table. The image is overlaid with a dark blue and green gradient. The text is white and positioned over the image.

The characteristics of long-term English language learner students and struggling reclassified fluent English proficient students in Arizona

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This report, and the research on which it is based, were produced on behalf of REL West's English Learner Alliance, whose membership consists of the Arizona State Department of Education, the Nevada State Department of Education, the Utah State Office of Education, and the West Comprehensive Center.

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Summary

Across the United States, and in the states served by the Regional Educational Laboratory West (REL West) in particular, there is widespread concern about how to successfully educate the growing number of English language learner (ELL) students, especially those identified as long-term ELL students and those identified as reclassified fluent English proficient (RFEP) students who struggle to score at passing levels on state English language arts (ELA)/reading content tests (Horwitz et al., 2009; Olsen, 2010; Quality Counts, 2009).

This study, which focuses on ELL students in Arizona, is one of a series of three companion studies that seek to help Arizona, Nevada, and Utah identify the characteristics of long-term ELL students and Struggling RFEP students. For this study, we defined *long-term ELL students* as students who, during the six school years of the study, never scored at or above the levels required on Arizona’s English language proficiency (ELP) test to be reclassified as fluent English proficient. We compared these long-term ELL students to their ELL peers who did score at or above the levels required on Arizona’s ELP test to be reclassified as fluent English proficient, whom we refer to as *reclassified fluent English proficient (RFEP) students*. *Struggling RFEP students* were defined as ELL students who met the state’s ELP requirements for RFEP but did not pass the state ELA or reading content test by the end of year 6 of the study. We compared these Struggling RFEP students to their RFEP peers who did pass the state ELA or reading content test, whom we refer to as *Transitioned RFEP students*.

The study examined student data from 2006/07–2011/12 to address three research questions:

- » What proportion of ELL students fit the study’s definition of long-term ELL students by the end of the six years? What proportion of ELL students fit the study’s definition of Struggling RFEP students by the end of the six years?
- » What are the characteristics of long-term ELL students? How are these characteristics different from those of RFEP students?
- » What are the characteristics of Struggling RFEP students? How are these characteristics different from those of the RFEP students who passed their ELA content test at least once by the end of the six years?

The study followed three cohorts of ELL students in Arizona: a grade K cohort, who started kindergarten in 2006/07; a grade 3 cohort, who started grade 3 in 2006/07; and a grade 6 cohort, who started grade 6 in 2006/07. By examining these three cohorts in Arizona over six years (2006/07–2011/12), this study found the following:

Subgroup proportions

- » Over 90 percent of the ELL students in the sample scored at or above the required ELP level to meet RFEP criteria.

- 
- » Once reclassified as fluent English proficient (by scoring Proficient on the state’s ELP test), at least 63 percent of RFEP students also passed their ELA content test at least once (thereby becoming Transitioned RFEP students).
 - » The percentage of Struggling RFEP students was greater in each successively higher grade-level cohort.

Subgroup characteristics

- » Arizona’s long-term ELL students and Struggling RFEP students, when compared to their more successful peers—RFEP students and Transitioned RFEP students, respectively—had higher percentages of eligibility for free or reduced-price lunch (FRL), eligibility for individualized education program (IEP) services, and male students.
- » With the exception of the grade-6 cohort, compared to their more successful RFEP and Transitioned RFEP peers, long-term ELL students and Struggling RFEP students also had higher percentages of students with lower ELP levels during the first study year.

This report’s findings on Arizona ELL students suggest several additional questions worth further investigation. For example, why does this study see patterns that differ from other research regarding the achievement of reclassification as fluent English proficient by grade levels? Findings from the research literature generally show that it is harder for older students to progress to English proficiency than for younger students to do so. However, in Arizona, the percentages of students across grade-level cohorts who achieved RFEP status were close to constant. Another question is what can be done, or what has been found effective, in assisting the lower-achieving ELL student subgroups to close the achievement gaps in ELP and ELA. Further exploration of these questions would help identify which groups of ELL students take longer than expected to reach English language proficiency and how interventions could be targeted to assist them.



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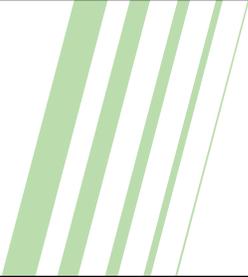
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Why this study?

Across the United States, and in the states served by the Regional Educational Laboratory West (REL West) in particular, there is widespread concern about how to successfully educate the growing number of English language learner (ELL) students, especially those identified as long-term ELL students and those identified as reclassified fluent English proficient (RFEP) students who struggle to score at passing levels on state English language arts (ELA)/reading content tests (Horwitz et al., 2009; Olsen, 2010; Quality Counts, 2009). The members of REL West’s English Learner Alliance—the state departments of education from Arizona, Nevada, and Utah—requested a study of the characteristics of long-term ELL students and Struggling RFEP students in each alliance state (resulting in a series of three companion state reports) in order to better understand how these two groups of low-performing ELL students may differ from the ELL student population as a whole in each state. In this study, *Struggling RFEP students* are defined as ELL students who met the state’s English language proficiency (ELP) requirements for RFEP, but who did not pass the state ELA or reading content test during the course of the study.

Currently, the English Learner Alliance states of Arizona, Nevada, and Utah have not analyzed the characteristics of their long-term ELL students and Struggling RFEP students, but they are eager to do so. Specific requests have come from staff in each of the three state departments of education, who, individually and as a group, developed this research agenda with REL West.

The English Learner Alliance members intend to use the study’s findings to inform early interventions targeted at ELL students whose characteristics fit patterns of ELL students who are more likely to become long-term ELL students or remain Struggling RFEP students. Further, they would like to develop a shared understanding of their long-term ELL students and Struggling RFEP students, in order to promote cross-state collaboration in developing effective interventions and programs. The English Learner Alliance would also like to use this project as an initial model for similar follow-up projects, including longitudinal analyses of ELL student progress in ELP tests and academic subject-matter tests.

While there is widespread concern about how to successfully educate the growing number of ELL students, especially those identified as long-term ELL students and/or Struggling RFEP students, there do not appear to be any studies of the characteristics of these two groups of students that might enable states to better target existing programs and interventions (see, e.g., Burr, Haas, & Geary, 2013) by basing them on the particular needs of those two groups. This Arizona study, and the two companion state reports, will provide this needed information, based on data from Arizona, Nevada, and Utah.

Box 1. Defining categories of English language learner students for this study

Long-term English language learner (LTELL) students

Students who never scored at or above the required levels on their state English language proficiency (ELP) test to be reclassified as fluent English proficient during the six years of the study.

Reclassified fluent English proficient (RFEP) students

Students who scored at or above the required levels on their state ELP test to be reclassified as fluent English proficient during the six years of the study.

Struggling RFEP students

RFEP students who met the ELP classification requirements as fluent English proficient, but did not pass their state's English language arts (ELA) content test during the six years of the study.

Transitioned RFEP students

RFEP students who passed their state's ELA or reading content test at least once during the six years of the study.

ELL achievement and student characteristics

ELL students, as a group, tend to lag behind native English speakers in their rates of academic achievement (Kindler, 2002; Massachusetts Department of Elementary and Secondary Education, 2012; Olsen, 2010; Ruiz-de-Velasco & Fix, 2000; Short & Fitzsimmons, 2007). This is due, in large part, to the need of ELL students to simultaneously learn English and content knowledge (Genesee, Lindholm-Leary, Saunders, & Christian, 2005). However, both ELL students and former ELL students (i.e., RFEP students) are diverse groups with different strengths and needs, depending on a number of characteristics (Kindler, 2002).

Most states and districts collect data on several characteristics that appear to be related to academic achievement for ELL students specifically and students generally. These characteristics include

- » poverty status (Goldenberg, 2008; Mulligan, Halle, & Kinukawa, 2012; Rathbun & West, 2004; Roberts & Bryant, 2011);
- » disability status (Liasidou, 2013; McCardle, McCarthy-Mele, Cutting, Leos, & D'Emilio, 2005; Nguyen, 2012);
- » gender (Perie, Moran, & Lutkus, 2005);
- » initial ELP when ELL students first enroll in school (Cook, Linqunti, Chinen, & Jung, 2012; Collier, 1989, 1992; Halle, Hair, Wandner, McNamara, & Chien, 2012); and
- » grade level (Genesee et al., 2005).

At present, the research literature describes the impact of each of these student characteristics in the following ways.

Poverty status

Research on ELL students generally shows that their socioeconomic status (SES) has an impact on academic achievement. For instance, ELL students from homes with lower SES generally score lower on academic content tests and are less likely to score proficient on ELP tests than their higher-SES peers. Two analyses of the Early Childhood Longitudinal Survey from the kindergarten class of 1998/99 support these conclusions about the impact of SES on ELL students' academic achievement. A greater percentage of kindergarten students whose primary language was not English than of students who entered kindergarten as English proficient came from families whose incomes were below the federal poverty threshold; in addition, ELL students who came from families with incomes below the federal poverty threshold scored lower on reading, mathematics, and science tests than ELL students whose families had incomes above the federal poverty threshold (Mulligan et al., 2012). A similar conclusion was reached by Roberts and Bryant (2011), who found that SES was more salient than primary language in explaining the mathematics achievement of ELL students; they found that ELL students with higher SES scored higher on mathematics assessments than ELL students with lower SES.

ELL students with disabilities

There do not appear to be any studies that address the impact of specific disabilities on an ELL student's academic progress in the United States. However, one meta-analysis review describes the likely impact in Canada (Lipka, Siegel, & Vukovic, 2005). The authors of this meta-analysis reviewed published studies of ELL students in Canada, with the goal of understanding the reading development of ELL students and characteristics of reading disabilities in this population. Phonological processing, syntactic awareness, and working memory of ELL students with and without reading disabilities were compared to those of native English-speaking students with and without reading disabilities. For each of the three ELL native language-specific (Portuguese, Italian, and Arabic) studies, students (ages 9–14) with and without reading disabilities were compared within their native-language groups and to their native English-speaking peers (AbuRabia & Siegel, 2002; Da Fontoura & Siegel, 1995; D'Angiulli, Siegel, & Serra, 2001). The findings were consistent across the three studies: Within each native-language group, ELL students with reading disabilities had much lower scores than ELL students without reading disabilities, while ELL students with reading disabilities had similar levels of performance to native English-speaking students with reading disabilities.

Gender

There do not appear to be any studies that examine the impact of gender on an ELL student's academic progress. However, there are studies that describe differences in academic achievement by gender among the K–12 general population. Over the past decade, results from the National Assessment of Educational Progress (NAEP) have shown small but persistent mathematics gender disparities favoring males at grades 4, 8, and 12, with gaps of roughly 0.1 standard deviations, or the equivalent of a few months of schooling (McGraw, Lubienski, & Strutchens, 2006; Perie, Moran, & Lutkus, 2005); in contrast, reading achievement data from the 2005 and 2007 NAEPs reveal that females outscored males by less than 0.2 standard deviations at grade 4 but more than 0.3 standard deviations at grades 8 and 12 (Perie et al., 2005). A more recent study (Robinson & Theule, 2011) found generally similar patterns. Using K–8 national longitudinal data, the authors investigated males' and females' achievement in mathematics and reading, including when gender



gaps first appeared, whether the appearance of gaps depended on the metric used, and where the achievement distribution gaps were most prevalent. The authors found no mathematics gender gap in kindergarten, except at the top of the distribution; however, females throughout the distribution lost ground in elementary school and regained some in middle school. In reading, gaps favoring females generally narrowed as the grade level increased, but widened among low-achieving students.

Initial English language proficiency and grade level

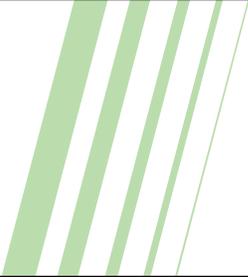
Research generally shows that ELL students tend to make greater year-to-year ELP and academic content improvement in the lower grades than they do in the higher grades, when both age groups start at the same ELP (Cook, Wilmes, Boals, & Santos, 2008; Grissom, 2004; Kieffer, 2008, 2010, 2011; Salazar, 2007). Thus, ELL students are more likely to take longer to progress from the Intermediate ELP level to the fully Proficient ELP level in higher grades, such as high school, than ELL students starting at the same ELP level in the elementary school grades. In addition, this difference in lower and higher grade levels' rate of progress in ELP tends to get larger as the level of ELP increases (Cook et al., 2008; Garcia, 2003; Halle et al., 2012). In other words, a student at a low grade level and a low ELP level (such as a kindergarten student at the Pre-emergent ELP level) would typically have a much higher rate of progress in achieving RFEP (that is, scoring Proficient on the ELP test) than a student at a high grade level and high ELP level (such as a grade 11 student at the Intermediate ELP level).

For progress on subject-matter content tests, there do not appear to be any research studies that specifically describe the characteristics of Struggling RFEP students. There are, however, related research studies that provide partial insights into the characteristics associated with the achievement of ELL students on academic content tests. For example, the length of time for initially designated ELL students to reach the 50th percentile on academic achievement tests ranged from four to ten years and depended on several factors: the level of the student's schooling in his or her first language; the student's initial level of English proficiency; the type of language program (for example, two-way bilingual, sheltered English immersion); and the subject being tested (for example, mathematics knowledge appeared to transfer into the English language assessments more readily than reading and writing skills) (Collier, 1989, 1992).

Characteristics examined in this study

This study describes several characteristics of Struggling RFEP students—initial level of ELP, as well as gender, eligibility for FRL, eligibility for IEP services, and grade level—as they relate to achievement on Arizona's ELA content test. State-level data were not available in Arizona (or in Nevada or Utah) on ELL students' proficiency in their first language, or on the types of language programs that ELL students are participating in.

This study addresses the gaps in the research literature by providing descriptions of the initial characteristics¹ of Arizona ELL students who became either long-term ELL students or Struggling RFEP students and of any differences in the initial characteristics between these groups and their more successful counterparts, RFEP students as a whole and Transitioned RFEP students.



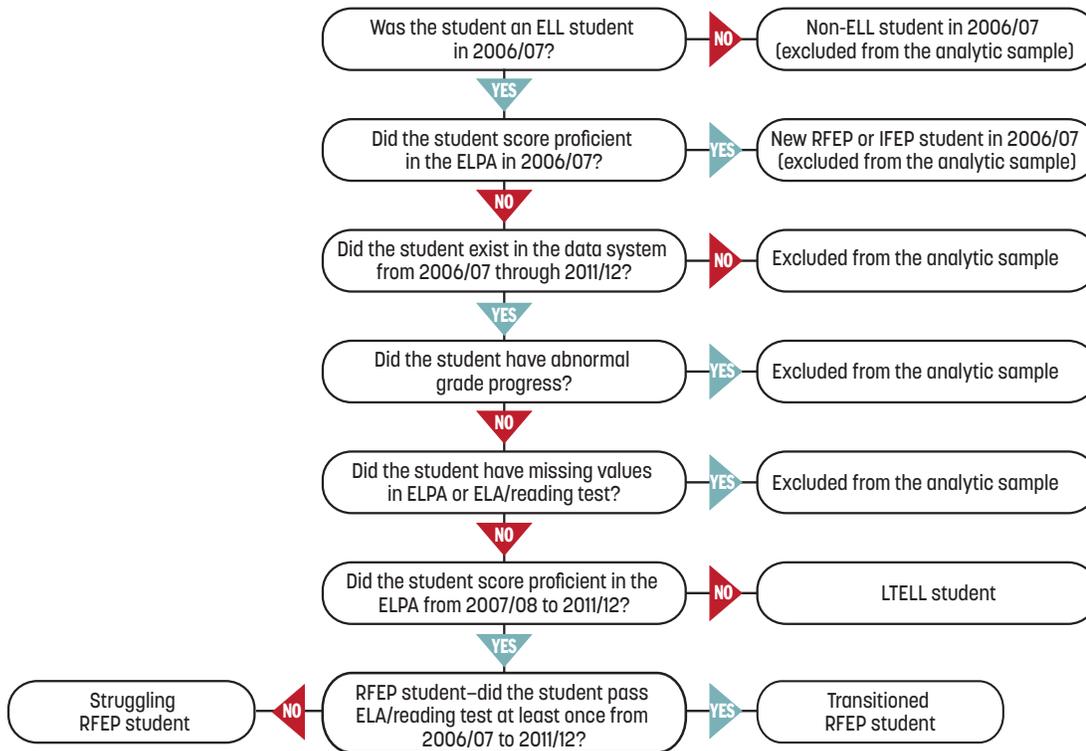
What the study examined

This study on ELL students in Arizona (as are its two companion reports on ELL students in Nevada² and Utah) is a descriptive analysis of the progress and characteristics of four categories of ELL students—*long-term ELL students*, *RFEP students*, *Struggling RFEP students*, and *Transitioned RFEP students*.

In this study, *long-term ELL students* were defined as ELL students who never scored at or above the required ELP level on their state ELP test to be reclassified as fluent English proficient (RFEP) during the six years of the study (see, e.g., Olsen, 2010). *RFEP students*, in contrast to long-term ELL students, were defined as those ELL students who did score at or above the required ELP level on their state ELP test to achieve RFEP status. *Struggling RFEP students* were defined as those ELL students who met the ELP requirements for RFEP but did not pass the state ELA or reading content test at least once by the end of the sixth year of the study. We used the descriptor “Struggling” because this group of ELL students had moved from full success in their ELL support programs (i.e., passing their ELP test to achieve RFEP status) but had not yet achieved one of the minimum expected levels of success for all students (i.e., passing the state ELA or reading content test) during the six years of the study. This study also examines *Transitioned RFEP students*, who, in contrast to the Struggling RFEP students, were defined as RFEP students who passed the state ELA or reading content test at least once during the study period.

The analytic sample for this study was purposefully limited to ELL students who had attended school for at least six years, in order to focus on the characteristics of ELL students who had participated in a state educational program for an extended period of time. The criteria for the analytic sample for each of the four ELL subgroups are described in figure 1. For each of the study’s four ELL student subgroups, we examined and compared the following characteristics: eligibility for free or reduced-price lunch (FRL), eligibility for receipt of individualized education program (IEP) services, gender, and ELP level during the first year of the study. We analyzed and compared the patterns of characteristics of students within and across the three grade-level cohorts: the grade K cohort, who started kindergarten in 2006/07; the grade 3 cohort, who started grade 3 in 2006/07; and the grade 6 cohort, who started grade 6 in 2006/07. Specifically, we compared long-term ELL students versus all RFEP students, and we compared Struggling RFEP students versus Transitioned RFEP students.

Figure 1. Criteria for analytic sample, Arizona, 2006/07–2011/12



ELPA is English language proficiency assessment.

Source: Authors' compilation.

What we learned

Arizona uses the Arizona English Language Learner Assessment (AZELLA) to assess English language proficiency (ELP) and uses Arizona's Instrument to Measure Standards (AIMS) assessment to measure ELA content knowledge. AZELLA was developed to meet the requirements of the No Child Left Behind Act of 2001, which mandates that states demonstrate that their ELL students will meet state ELP and academic content standards, based on an annual assessment. AZELLA was developed for five grades/grade spans (K, 1–2, 3–5, 6–8, and 9–12) and has five levels of proficiency: Pre-emergent, Emergent, Basic, Intermediate, and Proficient. Students must receive a composite score of Proficient across the four tested domains of listening, speaking, reading, and writing to be reclassified as fluent English proficient.

AIMS measures whether a student meets academic content standards that define end-of-year expectations, in order to ensure that all students are college- and career-ready. The ELA content portion of AIMS is composed of writing and reading assessments. Students take the AIMS test in grades 3–8 and high school. For the high school AIMS, students take the test until they pass each section, beginning in grade 10. There are four performance levels for the AIMS: Falls Far Below the Standard, Approaches the Standard, Meets the Standard, and Exceeds the Standard. Students must score at or above the Meets the Standard level to pass the ELA test.

The study's findings revealed key patterns across Arizona's three grade-level cohorts in relation to (1) the proportions of ELL students that met the study's definitions of long-term ELL students, RFEP students, Transitioned RFEP students, and Struggling RFEP students; and (2) the characteristics of each of these subgroups of ELL students.

Subgroup proportions

The study examined the following questions in relation to ELL student subgroup proportions:

- » What proportion of ELL students fit the study's definition of long-term ELL student by the end of the six years?
- » What proportion of ELL students fit the study's definition of Struggling RFEP student by the end of the six years?

LTELL students and RFEP students

By the end of the study period, the vast majority of Arizona's ELL students scored at or above the required ELP level to meet RFEP criteria in all three cohorts (table 1 and figure 2). For the kindergarten cohort, only 10 percent (1,550) of the ELL students were long-term ELL students, and 90 percent (14,755) were RFEP students, by the study's end. A similar pattern was seen for the grade 3 and grade 6 cohorts: over 90 percent of the ELL students achieved RFEP status, compared to a small percentage who were long-term ELL students (98 percent versus 2 percent and 94 percent versus 6 percent, respectively).

Additional test-score patterns were seen within each category of students (see figure 2). For the kindergarten cohort, of the 1,500 long-term ELL students, only 14 percent had ever passed the ELA content test in AIMS, and of the 14,755 RFEP students, 89 percent passed the ELA content test at least once. Similar patterns were also seen for grade 3 and grade 6 cohorts—that is, a higher proportion of RFEP students passed the ELA content test in AIMS, compared to long-term ELL students.

Table 1. More than 90 percent of ELL students were reclassified as fluent English proficient, Arizona, 2006/07–2011/12 (percent)

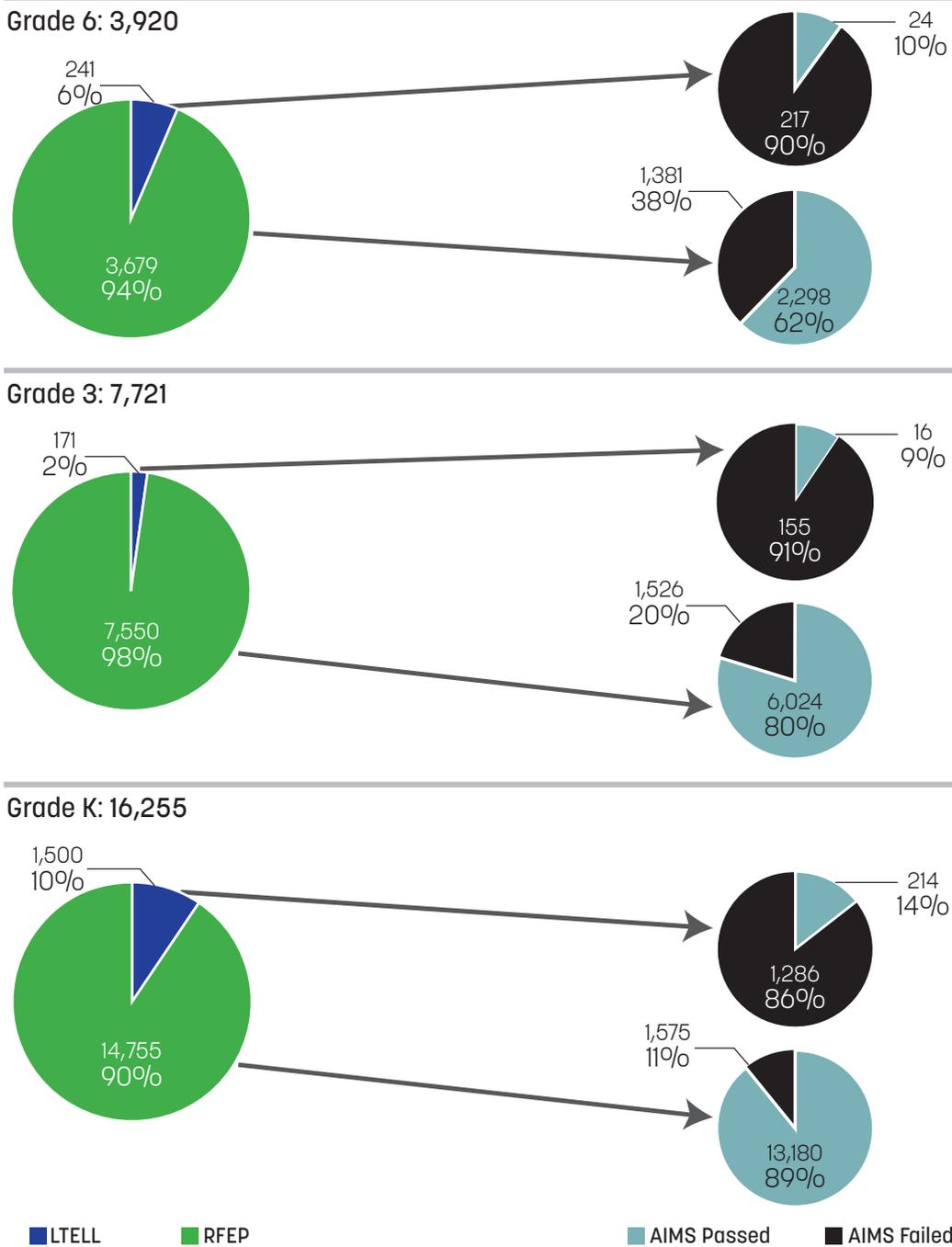
Category	Grade K cohort (N = 16,255)	Grade 3 cohort (N = 7,721)	Grade 6 cohort (N = 3,920)
Transitioned RFEP	81	78	59
Struggling RFEP	9	20	35
LTELL	10	2	6
Total	100	100	100

Note 1: ELL is English language learner. K is kindergarten. Transitioned RFEP is reclassified fluent English proficient and passed the ELA content test at least once. Struggling RFEP is reclassified fluent English proficient and never passed the English language arts (ELA) content test during the study period. LTELL is long-term English language learner.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Figure 2. Kindergarten cohort had the highest percentages of LTELL and RFEP students who passed the AIMS ELA content test, Arizona, 2006/07–2011/12



Note 1: LTELL is long-term English language learner. RFEP is reclassified as fluent English proficient. AIMS is English language arts content test in Arizona's Instrument to Measure Standards. ELA is English language arts. K is kindergarten.



Note 2: The lower right-side circle in each grade cohort's box represents the percentages of Struggling RFEP students (black wedge) and Transitioned RFEP students (real wedge).

Note 3: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Struggling RFEP students and Transitioned RFEP students

In each grade-level cohort, more RFEP students became Transitioned RFEP students (i.e., passed their AIMS ELA test at least once) than remained Struggling RFEP students (i.e., did not pass their AIMS ELA test). For example, of the RFEP students in the kindergarten cohort, 11 percent were Struggling RFEP students and 89 percent were Transitioned RFEP students (see figure 2).

In Arizona, the percentage of Struggling RFEP students was greater in the grade 6 cohort than in the grade 3 and kindergarten cohorts (35 percent vs. 20 percent vs. 10 percent, respectively; see table 1). Therefore, the grade 6 cohort had a lower percentage of Transitioned RFEP students than the grade 3 and kindergarten cohorts (59 percent vs. 78 percent vs. 81 percent, respectively; see table 1).

Subgroup characteristics

To understand the characteristics of each of the ELL student subgroups, the study examined the following questions:

- » What are the characteristics of long-term ELL students? How are these characteristics different from those of all RFEP students?
- » What are the characteristics of Struggling RFEP students? How are these characteristics different from those of the Transitioned RFEP students (that is, those who passed their ELA content test at least once by the end of the six years)?

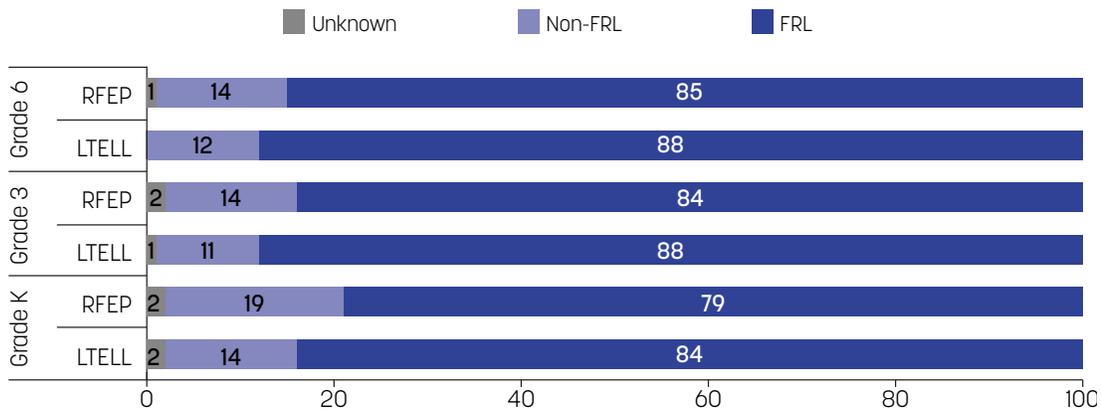
LTELL students and RFEP students

Overall, the majority of the LTELL students across all three grade-level cohorts were eligible for free or reduced-price lunch (FRL) (figure 3), were male (figure 4), and started the study at one of the two highest ELP levels below Proficient (i.e., Basic or Intermediate) on their initial ELP assessment (figure 5). Further, more than half of the LTELL students in the grade 3 and grade 6 cohorts were eligible to receive individualized education program (IEP) services (figure 6).

Eligibility for FRL

Across all grade-level cohorts, a greater percentage of LTELL students than RFEP students were eligible for FRL. For example, in the kindergarten cohort, 84 percent of LTELL students were eligible for FRL, compared to 79 percent of RFEP students (see figure 3).

Figure 3. At least 79 percent of LTELL and RFEP students across all cohorts were eligible for free or reduced-price lunch, Arizona, 2006/07 (percent)



Note 1: LTELL is long-term English language learner. RFEP is reclassified fluent English proficient. FRL is eligible to receive free or reduced-price lunch. K is kindergarten.

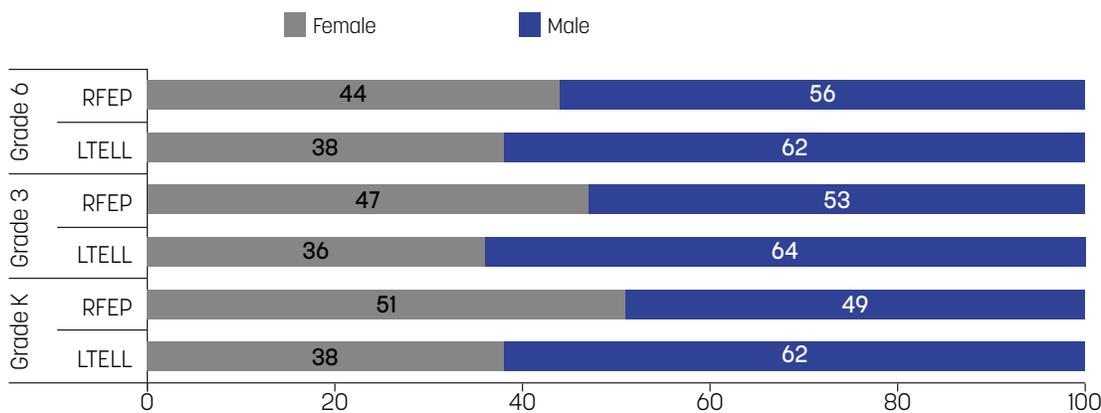
Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Gender

Across all grade-level cohorts, a greater percentage of LTELL students than RFEP students were male: between 62 and 64 percent of LTELLs were male, whereas between 49 and 56 percent of RFEP students were male, depending on the grade-level cohort (see figure 4).

Figure 4. Over 60 percent of long-term ELL students across all cohorts were male, Arizona, 2006/07 (percent)



Note 1: ELL is English language learner. RFEP is reclassified fluent English proficient. LTELL is long-term English language learner. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

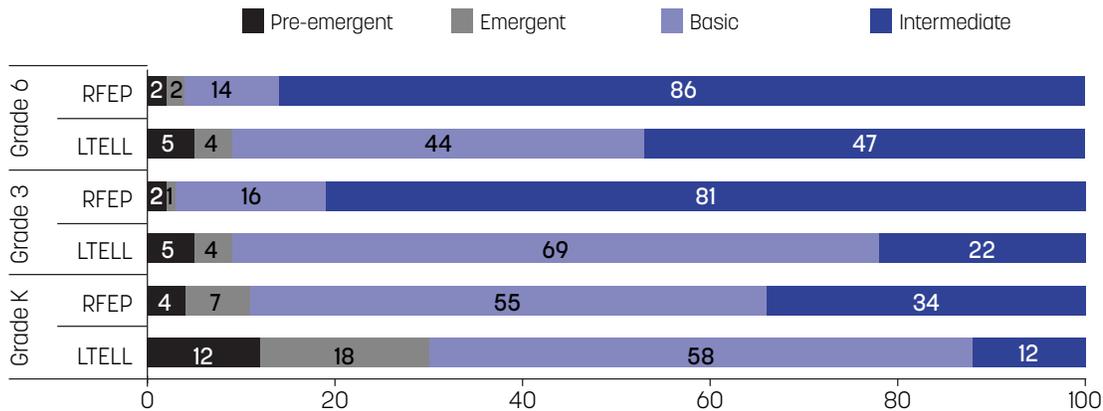
Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Initial ELP level

Across all grade-level cohorts, a greater percentage of RFEP students than of LTELL students had an initial ELP level at the highest level below Proficient (i.e., Intermediate). For example, in the grade 6 cohort, 86 percent of the RFEP students started the study at the Intermediate level, while only 47 percent of the LTELL students began at the Intermediate level (see figure 6). Across all cohorts, at least 70 percent of the LTELL students began the study period at one of the two highest levels below Proficient (i.e., Basic or Intermediate); thus, at least 70 percent of the LTELL students advanced one ELP level or less during the final five years of the study. For example, in the grade 6 cohort, 91 percent of the LTELL students began the study at the ELP level of Basic or Intermediate. By the end of the study, these students were still classified as ELL students and thus had not advanced beyond the Intermediate ELP level.

At the other end of the ELP spectrum, in each cohort, a greater percentage of LTELL students than of RFEP students began at the lowest ELP level (Pre-emergent). For example, in the grade 6 cohort, 5 percent of the LTELL students began at the Pre-emergent level, while 2 percent of the RFEP students began at the Pre-emergent level (see figure 5).

Figure 5. The vast majority of all ELL students had an initial ELP level at either Basic or Intermediate, Arizona, 2006/07 (percent)



Note 1: ELL is English language learner. ELP is English language proficiency. RFEP is reclassified as fluent English proficient. LTELL is long-term English language learner. K is kindergarten.

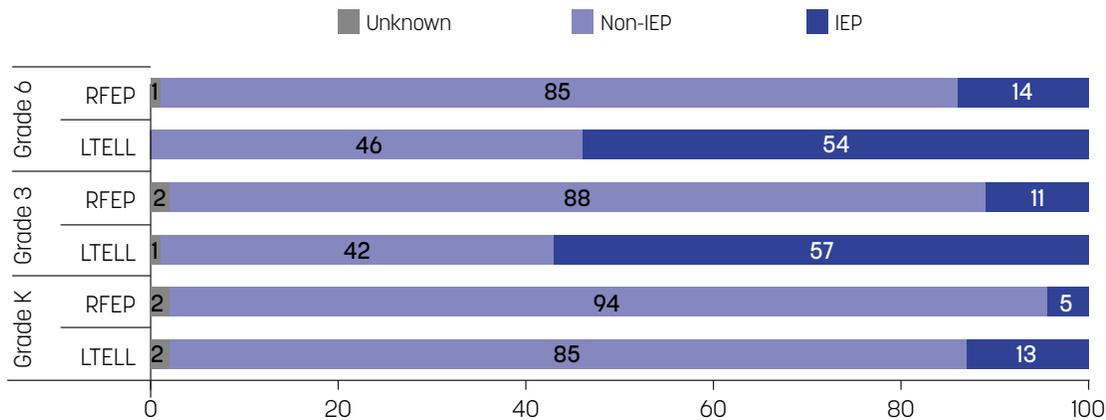
Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Eligibility to receive IEP services

During ELL students' initial cohort grade, a higher percentage of LTELL students than of RFEP students were eligible to receive IEP services (see figure 6). For example, approximately 13 percent of LTELL students in the kindergarten cohort were eligible to receive IEP services, compared to 5 percent of RFEP students in that cohort. Similar patterns for eligibility to receive IEP services were seen for the grade 3 and grade 6 cohorts. Further, more than 50 percent of the LTELL students in the grade 3 and grade 6 cohorts were eligible to receive IEP services, while less than 15 percent of their RFEP peers were eligible to receive IEP services.

Figure 6. More than half of the long-term ELL students in grade 3 and grade 6 cohorts were eligible to receive IEP services, Arizona, 2006/07 (percent)



Note 1: ELL is English language learner. IEP is individualized education program. RFEP is reclassified fluent English proficient. LTELL is long-term English language learner. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

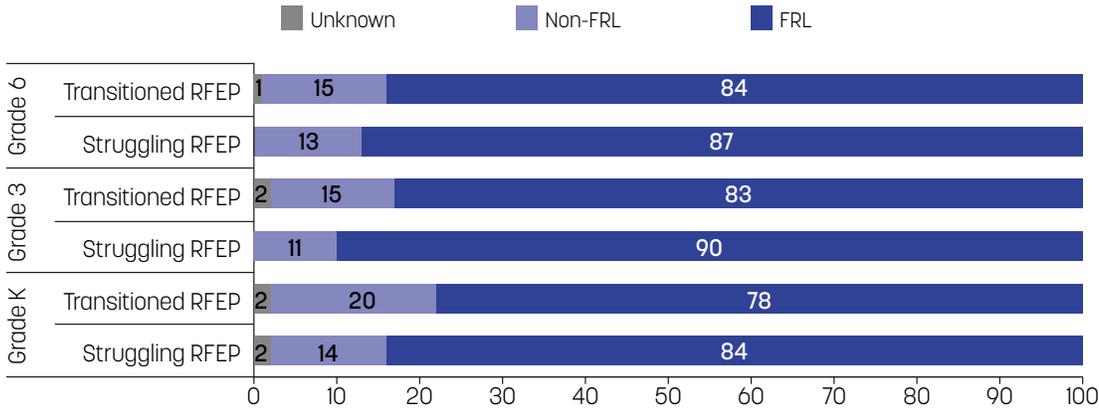
Struggling RFEP and Transitioned RFEP students

Overall, the majority of the Struggling RFEP students across all three grade-level cohorts were eligible for free or reduced-price lunch (FRL) (figure 7), were male (figure 8), and started the study at one of the two highest ELP levels below Proficient (i.e., Basic or Intermediate) on their initial ELP assessment (figure 9). Further, the vast majority of the Struggling RFEP students across all three grade-level cohorts were not eligible to receive IEP services (figure 10).

Eligibility for FRL

Across all three grade-level cohorts, the vast majority (between 78 and 90 percent) of all RFEP students, both Struggling and Transitioned RFEPs, were eligible for FRL, and Struggling RFEP students were more likely to be eligible for FRL than Transitioned RFEP students (see figure 7). For example, in the kindergarten cohort, 84 percent of Struggling RFEP students were eligible for FRL, compared to 78 percent of Transitioned RFEP students.

Figure 7. The vast majority of RFEP students were eligible for free or reduced-price lunch, Arizona, 2006/07 (percent)



Note 1: RFEP is reclassified as fluent English proficient. FRL is eligible to receive free or reduced-price lunch. K is kindergarten.

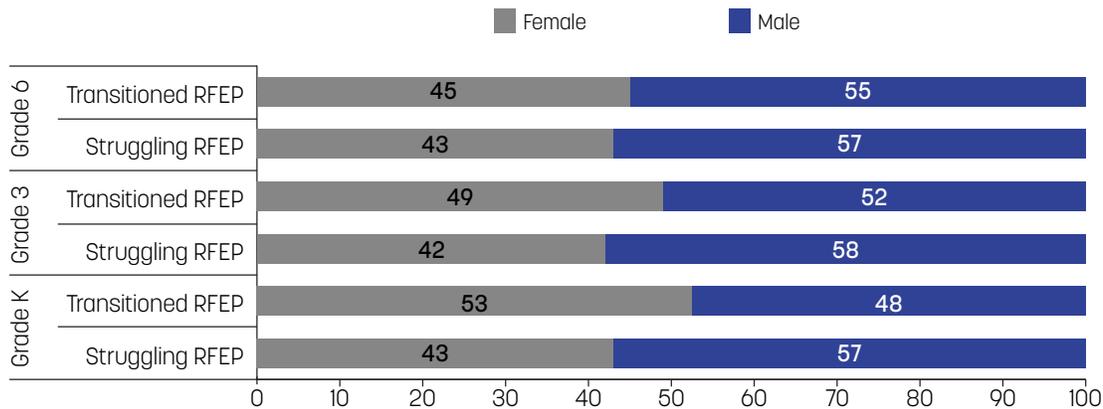
Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Gender

Across all grade-level cohorts, a greater percentage of students in the Struggling RFEP group than in the Transitioned RFEP group were male: more than half of the Struggling RFEP students (between 57 and 58 percent) were male, while between 48 and 55 percent of the Transitioned RFEP students were male (see figure 8).

Figure 8. More than half of the Struggling RFEP students across all cohorts were male, Arizona, 2006/07 (percent)



Note 1: RFEP is reclassified fluent English proficient. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

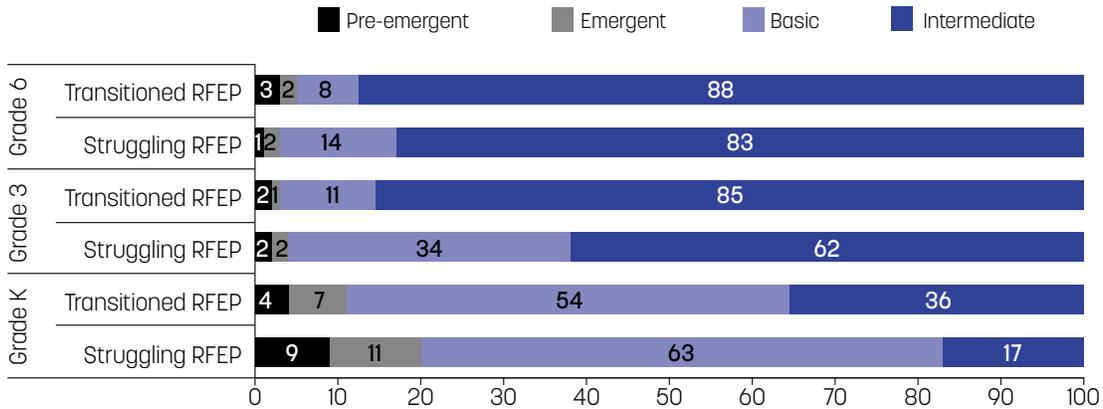
Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Initial ELP level

In the grade 3 and grade 6 cohorts, at least 62 percent of both the Struggling RFEP students and the Transitioned RFEP students started at the Intermediate ELP level (level 4, with level 5 being Proficient). In contrast, for the kindergarten cohort, 17 percent of the Struggling RFEP students and 36 percent of the Transitioned RFEP students were classified as Intermediate on Arizona's ELP assessment in 2006/07 (see figure 9).

For all three cohorts, the Struggling RFEP group had a lower percentage of students who started the study at the Intermediate ELP level than the Transitioned RFEP group did (see figure 9). For both the kindergarten cohort and the grade 3 cohort, the Struggling RFEP group had a higher percentage of students who started the study at the lowest two ELP levels (Pre-emergent and Emergent) than the Transitioned RFEP group; however, for the grade 6 cohort, the pattern was reversed. For the grade 6 cohort, 5 percent of the Transitioned RFEP students started the study at the ELP level of Pre-emergent or Emergent and 3 percent of the Struggling RFEP students started the study at one of these two ELP levels.

Figure 9. Most Struggling RFEP and Transitioned RFEP students had an initial ELP level of Basic or Intermediate, Arizona, 2006/07 (percent)



Note 1: RFEP is reclassified as fluent English proficient. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

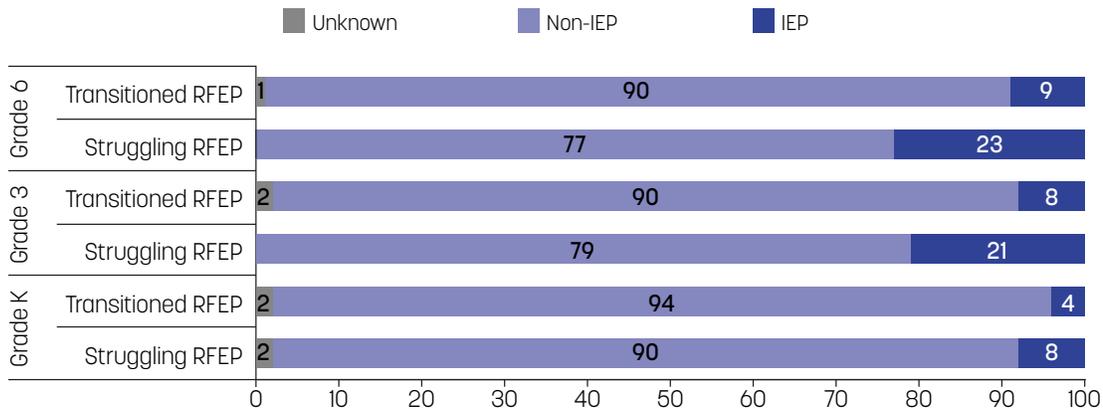
Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Eligibility to receive IEP services

The percentage of Struggling RFEP students who were eligible to receive IEP services in the first year of the study was greater in each successively higher grade-level cohort: 8 percent for the kindergarten cohort, 21 percent for the grade 3 cohort, and 23 percent for the grade 6 cohort (see figure 10).

Across all cohorts, higher percentages of Struggling RFEP students than of Transitioned RFEP students were eligible to receive IEP services (see figure 10). For example, in the grade 6 cohort, 23 percent of Struggling RFEP students were eligible to receive IEP services, compared to 9 percent of Transitioned RFEP students.

Figure 10. A higher percentage of Struggling RFEP students were eligible to receive IEP services, compared to Transitioned RFEP students, Arizona, 2006/07 (percent)



Note 1: RFEP is reclassified fluent English proficient. IEP is individualized education program services. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, for ELL students, 2006/07 through 2011/12.

Implications and next steps

This study describes the progress and characteristics of four groups of Arizona’s ELL students—long-term ELL students, RFEP students, Struggling RFEP students, and Transitioned RFEP students—across three grade-level cohorts. The findings suggest four areas for further research.

First, the percentages of ELL students who achieved the necessary ELP scores to be reclassified as fluent English proficient (RFEP) during the study period remained close to constant across the three cohorts in Arizona; at least 90 percent of the ELL students in each cohort achieved RFEP status. These results differ from the general findings of the research literature, which show that progressing in fluent English proficient status is generally more difficult for older ELL students than for younger ELL students (Cook, Wilmes, Boals, & Santos, 2008; Garcia, 2003). Conducting further research to examine possible reasons why this study’s results differ from the general findings of the research literature could provide more accurate or targeted understandings of (1) why, in contrast to the general research findings, this study’s higher-grade-level ELL students were as successful as the lower-grade-level ELL students and (2) why a minority of ELL students in this study still took longer than expected to reach English language proficiency.

Second, within each of the three grade-level cohorts, there were differences in the proportion of students who were Struggling RFEP students (i.e., RFEP students who did not pass the state ELA content test). The percentages of Struggling RFEP students were 11 percent in the kindergarten cohort, 20 percent in the grade 3 cohort, and 37 percent in the grade 6 cohort. These results from Arizona appear to be consistent with the research literature, which suggests that reclassified former ELL students generally have lower achievement in academic subjects in the higher grades, at least initially, than they do in the lower grades (Grissom, 2004; Kieffer, 2008, 2010, 2011; Salazar, 2007). Accordingly, conducting research on successful practices for supporting higher academic achievement among secondary ELL students, once they are reclassified and move to mainstream English-only classrooms, could be useful. In addition, research focusing on which practices are enabling younger reclassified ELL students in Arizona to be consistently successful in mainstream English-only classrooms (as determined by their ELA content test passing rates) could help maintain or even improve these students’ success rate.

Third, the relationships between the percentages of total RFEP students (i.e., Struggling RFEP students and Transitioned RFEP students) and the percentages of Struggling RFEP students differed among each of the grade-level cohorts. More than 90 percent of initial ELL students in all three grade-level cohorts became RFEP students during the study. At the same time, the percentage of Struggling RFEP students, out of all RFEP students, ranged from 11 percent in the kindergarten cohort to 38 percent in the grade 6 cohort (figure 2). These grade-level cohort patterns raise some interesting questions about the progress of Arizona’s ELL students during the study period. What might explain why the sample of Arizona ELL students had consistently high pass rates (over 90 percent) for their AZELLA ELP tests, but then did not always have high passing rates on their AIMS ELA content tests



once they were reclassified? Further research on the progress of RFEP students may provide important information about the relationship between student performances on the ELP tests and on the ELA content tests, and/or about the influence of different curricula and teaching practices on student test scores at each different grade level.

Finally, across all cohorts, more long-term ELL students and Struggling RFEP students were eligible for FRL, eligible to receive IEP services, and male, compared to their more successful peers in the RFEP and Transitioned RFEP groups, respectively. These findings are consistent with the research literature on the negative relationship between poverty/eligibility for FRL and academic achievement (Berliner, 2006; Gándara, Rumberger, Maxwell-Jolly, & Callahan, 2003; Parrish et al., 2006; Rumberger & Gándara, 2004) and between disabilities and academic achievement (Artiles, Rueda, Salazar, & Higuera, 2005; Samson & Lesaux, 2009; Sirin, 2005; Sullivan, 2011; Vellutino et al., 1996). These findings are also consistent with studies on gender and its relationship to academic achievement, which have shown that boys are more likely than girls to have lower academic achievement in reading (Entwisle, Alexander, & Olson, 2007; Perie et al., 2005; Robinson & Theule, 2011); however, no studies that specifically examined gender and academic achievement for ELL students have been located. Further research should continue exploring ways to assist these subgroups of ELL students (i.e., those who are eligible for FRL, those who are eligible to receive IEP services, and those who are male) to help them achieve greater academic success.

Limitations of the study

A major strength of this study is that Arizona provided six years of data on all students who were in kindergarten, grade 3, and grade 6 in 2006/07 who had ELP test results and available subject-matter content test results in ELA or reading.

There are three limitations of this study. The first limitation relates to the scope of the sample. The study addresses the characteristics of three cohorts of ELL students who were in Arizona's data system for each school year over the six-school-year period of the study (2006/07–2011/12) and who advanced a grade level each year. Thus, the sample excludes mobile students who left and/or entered Arizona during the study period. This stable ELL cohort was designed in response to the English Learner Alliance states' interest in the performance of ELL students who had been in their school systems for an extended period of time, which, for this study, was defined as six years. As a result, the study sample is a more geographically stable group of ELL students than is present in most schools, so the proficiency rates and passing rates could be higher for these students than for the ELL population as a whole. The sample also excludes students who repeated or skipped a grade, due to difficulties tracking students who did not progress with the rest of their grade-level cohort. As a result, this sample does not include some ELL students who would be present in Arizona's schools on a given day.

The percentages of students in the study samples, out of all of the ELL students in the cohort grade in the first year of each cohort, were 56 percent for the kindergarten cohort, 55 percent for the grade 3 cohort, and 45 percent for the grade 6 cohort (table B1 in appendix B).

The second limitation relates to comparisons among cohorts based on differences in sample characteristics and in content test-taking opportunities. For instance, there are likely to be differences in the characteristics of the students in the kindergarten, grade 3, and grade 6 cohorts, especially related to initial ELP levels. For ELL students in the kindergarten cohort samples, kindergarten was their initial enrollment year in the state and, thus, their ELP level was their initial ELP level when they started school (which was when the study began for the kindergarten cohort). For ELL students in the grade 3 and grade 6 cohorts, grade 3 and grade 6 were their current enrollment grades, respectively, at the start of the study, and their ELP level was their current one at the start of the study; we do not know when these ELL students started in the state and we do not know their initial ELP level when they started school. Furthermore, the composition of the kindergarten, grade 3, and grade 6 cohorts could differ across cohorts due to differences in student mobility and grade repetition.

The cohort samples could also be different from one another in that, compared to the kindergarten cohort, the grade 3 and grade 6 cohorts are likely composed of the students who have the most difficulty learning English, since faster learners will have already achieved RFEP; in kindergarten, these faster English language learners will have not yet been given a chance to achieve RFEP. Differences in ELL student achievement percentages across the three cohorts are also likely influenced by differences in the content of the tests because Arizona, like the other states in the English Learner Alliance, increases the



difficulty of its ELP and ELA content tests as the grade level increases. Further, students in the kindergarten cohort have fewer opportunities to take, and therefore have fewer opportunities to pass, Arizona's ELA/reading content test, as it is first administered in grade 3. However, while these factors are all limitations of the study, they also reflect the actual experience of ELL students, over time, in these state systems.

Appendix A. Methodology

This study is a descriptive analysis of the characteristics of four categories of English language learner (ELL) students in Arizona—*long-term English language learner (LTELL) students, reclassified fluent English proficient (RFEP) students, Struggling RFEP students,* and *Transitioned RFEP students*. In this study (and in the two companion reports on ELL students in Nevada and Utah), *LTELL students* were defined as students who never scored at or above the required English language proficiency (ELP) level on their state ELP test to be reclassified fluent English proficient (RFEP) during the six years of the study. In contrast to the LTELL students, *RFEP students* were defined as those ELL students who did score at or above the required ELP level on their state ELP test to achieve RFEP status. *Struggling RFEP students* (part of federal Title III accountability in annual measurable achievement objective 3) were defined as those ELL students who met the ELP requirements for reclassification as fluent English proficient but did not pass the state ELA or reading content test by the end of the six-year study period. In contrast to the Struggling RFEP students, *Transitioned RFEP students* were defined as RFEP students who passed the state ELA or reading content test at least once during the study period.

Data sources

The data source for this study was Arizona's statewide data system. All of the data files used in the study contained student-level information from school year 2006/07 through school year 2011/12. Each file had anonymous, unique student identification numbers, which allowed for matching of students across different files. The data were analyzed in three parallel grade-span cohorts: kindergarten through grade 5, grade 3 through grade 8, and grade 6 through grade 11.

Methods

The study used descriptive statistics to describe patterns of characteristics of LTELL students and RFEP students, with particular attention to those RFEP students who did not pass their ELA or reading content tests during the study period (referred to in this study as Struggling RFEP students).

The analysis resulted in tables and figures that compare the percentages of certain characteristics of long-term ELL students to those of RFEP students and compare the percentages of certain characteristics of Struggling RFEP students to those of Transitioned RFEP students. The study focused on the following ELL student characteristics: eligibility for free or reduced-price lunch (FRL), eligibility for receipt of individualized education program (IEP) services, gender, and initial ELP level. These characteristics were characteristics that students possessed during the first year of the study, 2006/07. The study focused on these particular characteristics because they were identified by research literature as being linked with long-term ELL status and low academic achievement in general, and because data on these characteristics were available in the state data system. Differing patterns of student achievement based on gender have also been described for ELL students, as well



as for students in general (Dunn, Griggs, & Price, 1993; Entwisle, Alexander, & Olson, 2007; Restak, 1979). Overall, eligibility for FRL and learning disabilities (such as a reading disability) that result in eligibility for IEP services have consistently been found to be highly associative with student achievement (Sirin, 2005; Vellutino et al., 1996).

Criteria for analytic sample

Students were included in the analytic sample based on meeting all of the following criteria (the same criteria were used across all three companion reports):

- » Had an initial ELP level lower than Proficient in school year 2006/07.
- » Were in the agency's data system for all six years of the study (i.e., in the data files of each school year, from 2006/07 to 2011/12).
- » Began in the cohort grade (K, 3, or 6) in school year 2006/07, with normal grade progress through school year 2011/12.³
- » Achieved the ELP level required for RFEP status during the study period or took the ELP test in the last school year, 2011/12.
- » Passed the state ELA or reading content test at least once, or had a state ELA or reading content test result in each year, when available, during the study period.⁴

Please note that the analytic samples in each grade-level cohort included all ELL students who met all of the above criteria, not just ELL students who were new to the state in 2006/07.

Appendix B. Details on analytic samples

Table B1. Steps to get analytic samples in Arizona

Steps	Sample category	Grade K cohort		Grade 3 cohort		Grade 6 cohort	
		Number	Percent	Number	Percent	Number	Percent
Start point	ELL students in 2007 (initial ELP level lower than Proficient)	28,952	100	14,068	100	8,659	100
Step 1	Students excluded because not present in all 6 years	9,701	34	4,568	32	2,511	29
Step 2	Students excluded because of abnormal grade progress	1,576	5	414	3	330	4
Step 3	Students excluded because of missing values	1,420	5	1,365	10	1,898	22
End point	Analytic sample	16,255	56	7,721	55	3,920	45

Note 1: ELL is English language learner. ELP is English language proficiency. K is kindergarten.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, 2006/07 through 2011/12.

Appendix C. Detailed tables on student characteristics

Table C1. Characteristics of long-term ELL students and RFEP students for kindergarten, grade 3, and grade 6 cohorts, Arizona

Characteristics	Grade K cohort						Grade 3 cohort						Grade 6 cohort					
	LTELL		RFEP		Overall		LTELL		RFEP		Overall		LTELL		RFEP		Overall	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Gender																		
Female	565	37.7	7,592	51.5	8,157	50.2	62	36.3	3,590	47.5	3,652	47.3	92	38.2	1,631	44.3	1,723	44.0
Male	935	62.3	7,163	48.5	8,098	49.8	109	63.7	3,960	52.5	4,069	52.7	149	61.8	2,048	55.7	2,197	56.0
IEP in 2007																		
Unknown	23	1.5	255	1.7	278	1.7	1	0.6	112	1.5	113	1.5	0	0.0	23	0.6	23	0.6
Non-IEP	1,281	85.4	13,807	93.6	15,088	92.8	72	42.1	6,620	87.7	6,692	86.7	111	46.1	3,125	84.9	3,236	82.6
IEP	196	13.1	693	4.7	889	5.5	98	57.3	818	10.8	916	11.9	130	53.9	531	14.4	661	16.9
FRL in 2007																		
Unknown	23	1.5	255	1.7	278	1.7	1	0.6	112	1.5	113	1.5	0	0.0	23	0.6	23	0.6
Non-FRL	215	14.3	2,858	19.4	3,073	18.9	19	11.1	1,054	14.0	1,073	13.9	30	12.4	518	14.1	548	14.0
FRL	1,262	84.1	11,642	78.9	12,904	79.4	151	88.3	6,384	84.6	6,535	84.6	211	87.6	3,138	85.3	3,349	85.4
Initial ELP level in 2007																		
Pre-emergent	178	11.9	663	4.5	841	5.2	9	5.3	153	2.0	162	2.1	12	5.0	80	2.2	92	2.3
Emergent	267	17.8	1,036	7.0	1,303	8.0	6	3.5	112	1.5	118	1.5	10	4.1	62	1.7	72	1.8
Basic	868	57.9	8,062	54.6	8,930	54.9	118	69.0	1,202	15.9	1,320	17.1	106	44.0	381	10.4	487	12.4
Intermediate	187	12.5	4,994	33.8	5,181	31.9	38	22.2	6,083	80.6	6,121	79.3	113	46.9	3,156	85.8	3,269	83.4
Total	1,500	100.0	14,755	100.0	16,255	100.0	171	100.0	7,550	100.0	7,721	100.0	241	100.0	3,679	100.0	3,920	100.0

Note 1: ELL is English language learner. LTELL is long-term English language learner. ELP is English language proficiency. FRL is free or reduced-price lunch. IEP is individualized education program. K is kindergarten. RFEP is reclassified fluent English proficient.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, 2006/07 through 2011/12.

Table C2. Characteristics of Struggling RFEP students and Transitioned RFEP students who passed their ELA content test for kindergarten, grade 3, and grade 6 cohorts, Arizona

Characteristics	RFEP in grade K cohort				RFEP in grade 3 cohort				RFEP in grade 6 cohort			
	Struggling		Transitioned		Struggling		Transitioned		Struggling		Transitioned	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Gender												
Female	676	42.9	6,916	52.5	641	42.0	2,949	49.0	600	43.4	1,031	44.9
Male	899	57.1	6,264	47.5	885	58.0	3,075	51.0	781	56.6	1,267	55.1
IEP in 2007												
Unknown	33	2.1	222	1.7	0	0.0	112	1.9	0	0.0	23	1.0
Non-IEP	1,421	90.2	12,386	94.0	1,199	78.6	5,421	90.0	1,065	77.1	2,060	89.6
IEP	121	7.7	572	4.3	327	21.4	491	8.2	316	22.9	215	9.4
FRL in 2007												
Unknown	33	2.1	222	1.7	0	0.0	112	1.9	0	0.0	23	1.0
Non-FRL	224	14.2	2,634	20.0	151	9.9	903	15.0	179	13.0	339	14.8
FRL	1,318	83.7	10,324	78.3	1,375	90.1	5,009	83.2	1,202	87.0	1,936	84.2
Initial ELP level in 2007												
Pre-emergent	139	8.8	524	4.0	34	2.2	119	2.0	18	1.3	62	2.7
Emergent	179	11.4	857	6.5	34	2.2	78	1.3	27	2.0	35	1.5
Basic	988	62.7	7,074	53.7	514	33.7	688	11.4	193	14.0	188	8.2
Intermediate	269	17.1	4,725	35.8	944	61.9	5,139	85.3	1,143	82.8	2,013	87.6
Total	1,575	100.0	13,180	100.0	1,526	100.0	6,024	100.0	1,381	100.0	2,298	100.0

Note 1: ELP is English language proficiency. FRL is free or reduced-price lunch. IEP is individualized education program. K is kindergarten. RFEP is reclassified fluent English proficient. Struggling RFEP students are those RFEP students who did not pass the ELA content test during the course of the study. Transitioned RFEP students are those RFEP students who passed the ELA content test at least once during the course of the study.

Note 2: Percentages may not add up to 100 percent due to rounding.

Source: Authors' analysis of student-level data from Arizona Department of Education, 2006/07 through 2011/12.

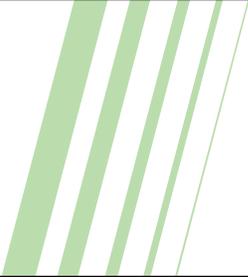
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Notes

- 1 The ELL student characteristics reported in this study—eligibility for free or reduced-price lunch, eligibility for receipt of individualized education program services, and English language proficiency level—are characteristics that students possessed during the first year of the study, 2006/07.
- 2 For Nevada, the analysis was done using data on ELL students from the state’s two largest school districts: Washoe County and Clark County.
- 3 Students who repeated or skipped a grade, and thus no longer progressed with the vast majority of peers in their grade-level cohort, were excluded due to difficulties in tracking these students once they were out of step with their cohort.
- 4 All ELL students in these states were required to take their ELA/reading content tests each year the tests were administered. ELL students were not exempted from this testing requirement.