

## *What Does Arizona's ELL Population Look Like, and How Are They Doing?*

---

### *Executive Summary*

*The debate about how to best support a school district's efforts to educate English language learners (ELL) has consumed the current legislative session – and for good reason. The decisions the state makes about ELL education will have a profound effect on a large and growing student population.*

*In an effort to inform the ELL debate, ThinkAZ worked with six school districts around the state to compile a dataset of students that could be used to make meaningful observations about the ELL population and found that:*

- *As a group, ELL students are nearly the poorest performing, second only to Arizona's special education population.*
- *ELL student performance on AIMS improves each of the first three years they participate in ELL programs, but performance begins to decline or stagnate for those who remain in an ELL program for more than three years.*
- *Children who are proficient in English have higher AIMS achievement scores. In fact, performance on the Stanford English Language Proficiency Test (SELP) is strongly related to performance on AIMS: the higher the SELP score, the higher the AIMS score.*
- *On average, ELL students in grades 3-8 attend more schools and are enrolled in school for a shorter period of time when compared to Fluent English Proficient (FEP) and non-ELL students.*
- *Students who attend more than one school in a given school year do not perform as well as students who remain in one school throughout the year.*

*As we learn more about the factors that influence the academic success of ELL students, community leaders and policymakers will be able to craft public policies that address the specific needs of this student group. Initial observations suggest that learning English is extremely important for ELL students if they are to succeed in Arizona's public education system. In the first three years in an ELL program, there is a corresponding increase in performance on the AIMS test.*

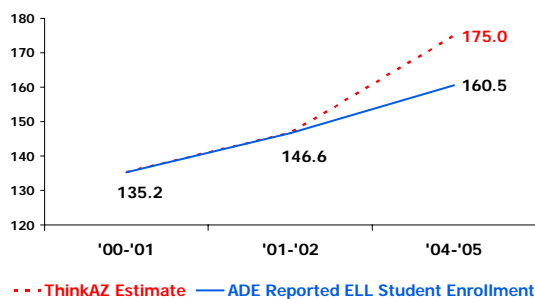
---

## Introduction

The debate about how best to educate English Language Learners (ELL) in the state’s public school system has consumed the current legislative session – and for good reason. The decisions that the state makes about ELL education will have a profound affect on a large and growing student population.

Estimates developed by ThinkAZ show that the number of ELL students enrolled in our schools reached almost 175,000 in 2005, about 15,000 students more than the figure previously reported by the Arizona Department of Education (ADE) (see Figure 1). This means that the ELL student population has grown by nearly 20% since the 2000-2001 school year.

Figure 1. ELL Enrollment Trend (thousands)



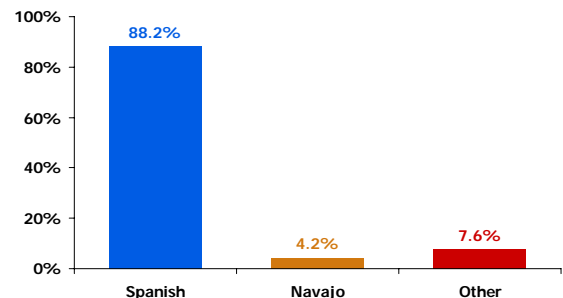
The disparity between the reported numbers of ELL students reflects the difficulties that school districts contend with in order to track students and keep up with changes in the state’s central reporting system while at the same time dealing with issues of data accuracy and reporting. Ultimately, these reporting issues make it difficult to compile and analyze data about the state’s ELL population.

But the information we have tells us that:

- About 25% of kindergarten and 1<sup>st</sup> grade students are labeled ELL, the highest percentage of any grade

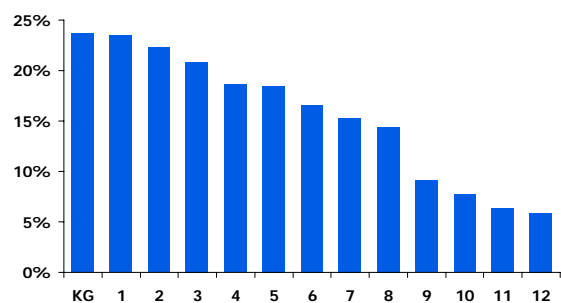
- Approximately 80% of all ELL students are enrolled in grades K-7
- Nearly 90% of ELL students in grades 3-8 reported a primary language of Spanish (see Figure 2)
- About 35% of all Hispanic students in Arizona are ELL

Figure 2. Primary Language Spoken by ELL Students



There is a steady decline in the proportion of ELL students as grade level increases. The majority of ELL students who come into Arizona’s K-12 public education system enter in the early grades. Not surprisingly, older ELL students are slightly less likely to be Spanish speaking. As shown in Figure 3, there is also a significant decline in the proportion of ELL students between 8<sup>th</sup> and 9<sup>th</sup> grades. This decline could be due to, among other things, ELL students dropping out of school in migrant agricultural communities, or due to the social stigma of being enrolled in an ELL program as a student matures.

Figure 3. Percent ELL by Grade Level in 2005



## Methodology

ThinkAZ worked with six school districts in Arizona to compile a dataset of students that could be used to make meaningful observations about the ELL population. In this study, data were gathered on approximately 60,000 students; 8,800 were classified as ELL, 3,500 were FEP, and 45,000 had no record of ever having been classified as an ELL student.

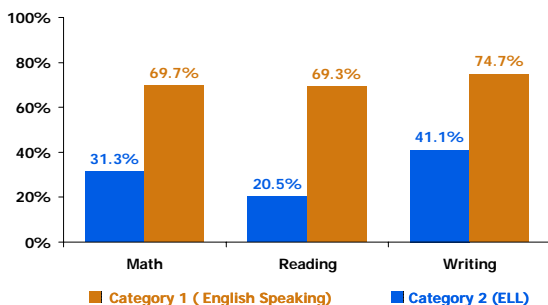
Several different types of data were collected for these students during the 2004-2005 school year, including performance information on the 2005 Stanford English Language Proficiency exam (SELP); Spring 2005 AIMS test results; and membership, absence, and mobility information. The data tell pieces of an intricate story about ELL academic performance, mobility and how well these students are progressing towards English and academic proficiency.

Analyses were conducted for the 2004-2005 school year in grades 3-8 on students enrolled in both elementary and unified school districts across Arizona.

## AIMS Performance

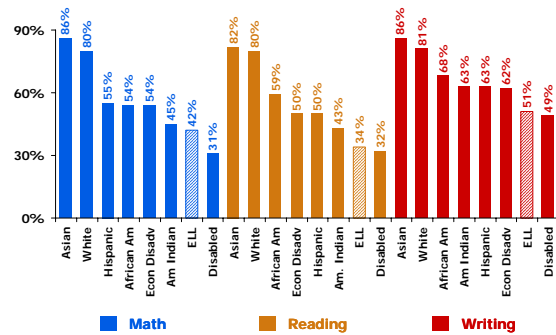
In 2005, Arizona students enrolled in grades 3-8 took the state's standardized test (AIMS). The AIMS test assesses proficiency in Arizona's academic standards in math, reading, and writing (see Figure 4).

Figure 4. State-Reported AIMS Results in Grades 3-8



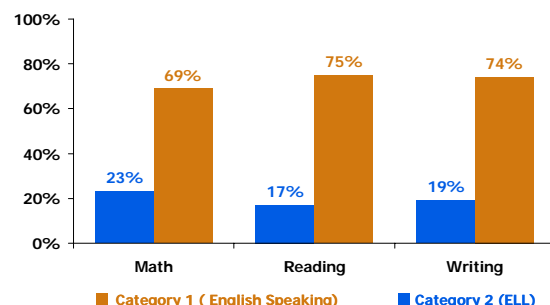
Publicly reported AIMS results reveal that ELL students are being out-performed in every subject and grade by non-ELL students. In fact, ELL students are nearly the poorest performing student group, second only to Arizona's special education population (see Figure 5).

Figure 5. Comparison of Student Group Performance on AIMS



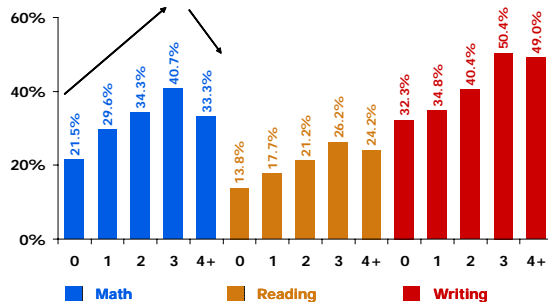
As seen in Figure 6, the performance gap increases from the elementary grades to high school. This gap increase could be due to ELL students falling further behind as instructional material becomes increasingly difficult in later grades. In other words, these students tend to enter school in the early grades behind and continue to fall further behind as they get older. Or, the gap could be the result of a reporting difference between the populations of ELL students in elementary and high school. This is because enrollment in an ELL program in high school can be a social stigma that students tend to avoid.

Figure 6. State-Reported ELL & Non-ELL AIMS Results in Grade 10



A closer examination of the data reveals that ELL student performance on AIMS improves each of the first three years they participate in an ELL program, but performance declines for those who remain in an ELL program for more than three years (see Figure 7). This suggests that students who continue to be enrolled in an ELL program after three years either receive a reduced benefit from the program or the benefits of the program are no longer measurable.

Figure 7. Average AIMS Performance by Years in ELL Programs



## SELP Performance and Reclassification

The SELP is Arizona’s English proficiency test and is the sole criterion used to determine whether a student is considered fluent or should be provided English language assistance.

If a student indicates during enrollment that the primary language spoken at home is something other than English, the school district has 30 days to administer the SELP test in order to assess the student’s level of English proficiency. If he does not score high enough to be considered English proficient, the student is provided with ELL assistance and is then annually re-assessed for English proficiency until he scores high enough to be reclassified as FEP. The SELP test is administered by grade level in five ranges: KG, Primary, Elementary, Middle, and High School.

There are five performance levels on the SELP: Pre-emergent, Emergent, Basic, Intermediate, and Proficient. Each level provides information about how much knowledge a student has of different aspects of the English language, such as listening, speaking, reading, and writing, and can assist educators in isolating the areas in which a student is struggling. A student whose score falls into the highest category, Proficient, is considered to have achieved a passing score on that section of the SELP.

### SELP Performance Student Categories

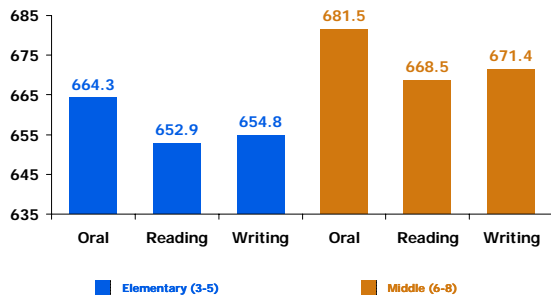
The way in which Arizona school districts administer the SELP test each year results in several different categories of students taking the SELP test. The different categories are as follows:

- Initial Fluent English Proficient: first time incoming student assessed in a district and is considered proficient
- New ELL: first time ELL in a district
- Continuing ELL: previously tested as ELL and is beginning a new school year as ELL
- Reclassified Fluent English Proficient: previously tested as ELL but reassessed and is now considered proficient
- Continuing FEP: previously considered proficient and continues to be proficient in a new school year
- ELL After Reclassification: previously reclassified as proficient and is reassessed but does not pass; student is readmitted into an ELL program

ThinkAZ’s examination of how Arizona’s ELL students in grades 3-8 performed on each of the three subject areas of the SELP test in 2005 reveals that the oral portion of the exam

(speaking and listening) is the strongest subject and reading is the weakest (see Figure 8).

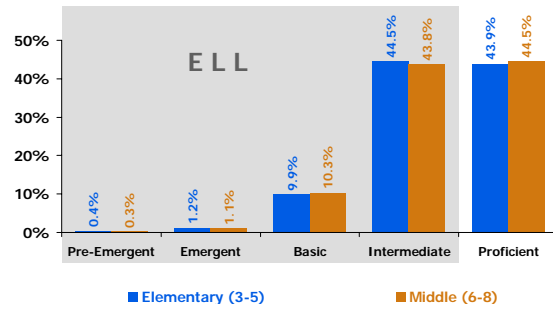
Figure 8. Mean Scaled Score by Subject & Grade Band



While each section of the SELP test has its own proficiency scale, the determination of whether a student is considered English proficient is based on a composite score made up of scores from all three sections. The overall proficiency rating is compensatory in nature; that is, a student may perform well on one or two sections and score high enough to be considered proficient, even though he did not pass one of the sections. This approach has caused some to question the test's validity and whether it is a useful tool for determining English proficiency.

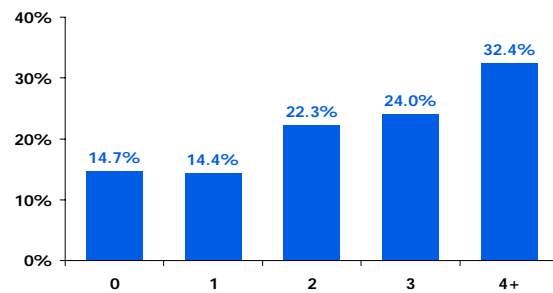
ThinkAZ's analysis of how elementary and middle school students performed on the SELP test in 2005 shows that of the students sampled, about 45% scored high enough to be considered English proficient (see Figure 9). It is important to note that this chart represents all students who took the SELP test and how they performed; it does not break out performance and reclassification rates among the different categories of students. Consequently, some of these students are initially fluent, meaning they may already be fluent in English before taking the SELP test. In fact, some of these students, due to being reassessed after a change of school, may have already passed an English proficiency test; they are being reassessed because they have entered a new district and have indicated a primary language other than English.

Figure 9. Overall Proficiency Rates 2005 SELP



In a separate analysis, it is possible to examine reclassification rates among ELL students who have spent varying amounts of time in an ELL program. As seen in Figure 10, this analysis reveals that the longer students are in an ELL program, the more likely they are to score Proficient on the SELP test. Students in their first year of an ELL program experience the lowest reclassification rates, at below 15%, while students in an ELL program for more than three years have the highest rates of reclassification, at more than 30%.<sup>1</sup>

Figure 10. Reclassification Rates by Number of Years in ELL Program



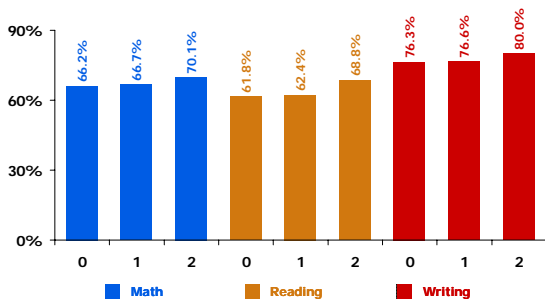
## SELP and AIMS

An analysis of students who pass the SELP test reveals that those who are proficient in English have higher AIMS achievement scores. In fact, performance on the SELP is strongly related to performance on AIMS: the higher the SELP score, the higher the AIMS score. For example, ELL students in grades 3-8 tend to perform the best on the oral portion of the SELP test and the

most poorly on the reading portion. Not surprisingly, reading is also the lowest achieving subject on AIMS for this group. This suggests that being proficient in English, as currently measured by the SELP, is a good indicator of academic success on AIMS. This is important because these students will have to pass AIMS in order to graduate from high school.

An analysis of how former ELL students are performing on AIMS since passing the SELP test reveals that those students who have passed within the last year are not performing quite as well as ELL students who reclassified two years ago. These results show a slight difference in performance on AIMS; in other words, it appears that the longer these students are deemed English proficient, the better they perform academically (see Figure 11).

Figure 11. Performance of Former ELL Students on AIMS

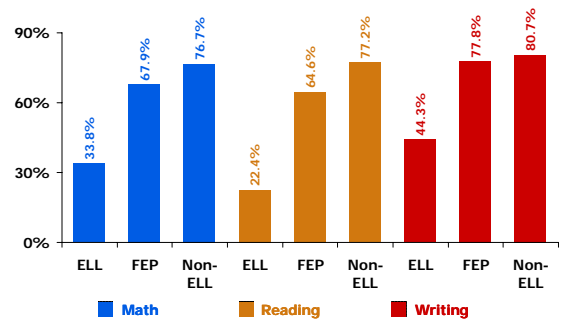


There can be two possible explanations for this finding. Slightly higher average proficiency rates could be attributed to spending an additional year in the classroom to learn academic content as an English-proficient student. Secondly, the measures of reclassification from one year to the next may be very different because students took one of four English proficiency tests in the '03-'04 school year and took the statewide SELP test in the '04-'05 school year. However, before any conclusion can be drawn about why FEP students in the '03-'04 school year are

performing slightly better on AIMS, more research is needed.

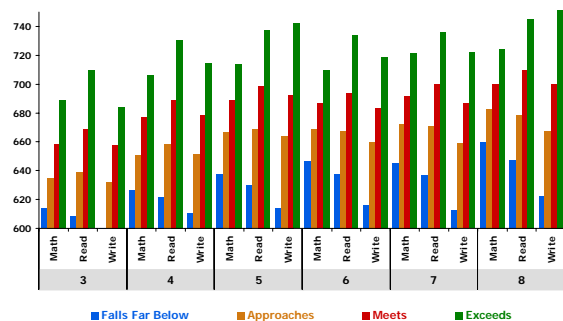
When comparing the recently reclassified students with ELL and non-ELL students, it is clear that those who have passed the English proficiency exam significantly outperform ELL students across all three subjects on AIMS, and perform much more closely to their non-ELL counterparts (see Figure 12). From these results, it appears there is something very different about students who pass the English proficiency test, no matter which test they passed.

Figure 12. Comparison of ELL, FEP, & Non-ELL AIMS Performance



When students' performance on the SELP test is compared to their performance on the AIMS test, there is a strong relationship between their overall composite score on the SELP and their AIMS performance category in every subject and grade, further enforcing the role that knowledge of the English language plays in how well students perform academically (see Figure 13).

Figure 13. Comparison Between SELP Mean Scaled Score & AIMS Performance Category



This analysis, however, compares the mean scaled score on the SELP to a general performance category on a different test in each subject and grade. Scaled scores are derived from a scaling of the number of test items correctly answered and can have a high degree of error associated with them at the highest and lowest performance levels. For example, on the elementary school version of the SELP, answering 43 out of 102 questions correctly will yield a scaled score of 545; answering 44 questions correctly translates into a scaled score of 546, a difference of one scaled score point. However, at the upper and lower extremes, one question could mean a much larger difference in scaled score: the difference between 101 and 102 questions answered correctly yields a scaled score difference of 49 points.

A general performance category, on the other hand, is comprised of a range of scaled scores; hence, a comparison of a scaled score to a general performance category may be problematic, given the high degree of error associated with using scaled scores to measure small differences in performance.

The following analyses provide an alternate way to examine the relationship between students' performance on the SELP and AIMS tests. This series of graphs breaks down the comparisons on a category-by-category basis. For example, in the Falls Far Below category on the writing portion of the AIMS test, Figure 14a shows that approximately 45% of the students who fell far below the state standard also scored in the Basic category of the SELP. In Figure 14b, about 40% of those who fell far below scored an Intermediate on the SELP, and, finally, in Figure 14c, only 7% of those who fell far below in writing achieved English proficiency on SELP.

Another illustration of this pattern emerges in reading: notice that about 90% of those who

scored in the Falls Far Below category on the AIMS test also scored in the two lowest levels of the SELP, while more than 80% of those who exceeded the standard on the AIMS reading test scored Proficient on the SELP.

Thus far, this Brief has examined several aspects of Arizona's ELL population such as demographics, English proficiency, and academic performance. Research indicates there are other important factors that may influence the quality of a student's education, such as absenteeism and mobility.

Figure 14a. Basic

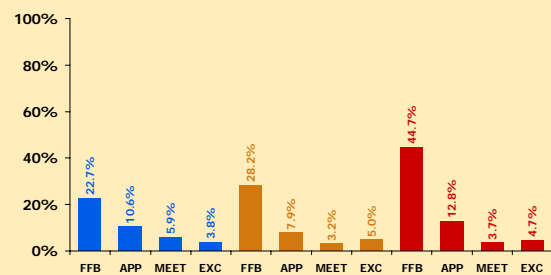


Figure 14b. Intermediate

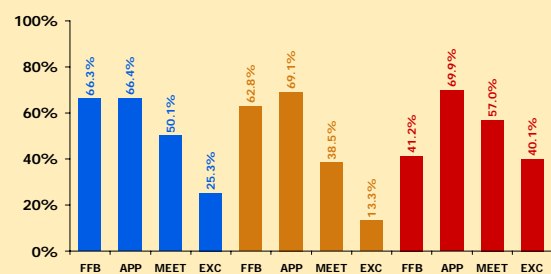
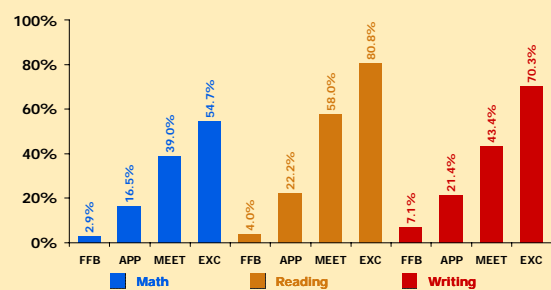


Figure 14c. Proficient



## Impacts of Student Mobility on Academic Performance

A significant body of education research suggests that student mobility, or any interruption in a student's continuous enrollment other than that prompted by educational design, tends to negatively affect the academic performance of a student. It is further suggested that minority students, those attending urban schools, and students from low-income families tend to be the most mobile. Moreover, some research indicates that highly mobile students acquire basic skills at a slower pace, which ultimately increases their chances of school failure and dropping out.

According to ADE records, Arizona's ELL student population is mostly minority, many are concentrated in urban school settings and research by ThinkAZ shows that approximately 80% of all ELL students in the state's elementary grades are Title 1 eligible, a general indicator of financial need.

Behavioral and interpersonal problems may also arise as students struggle to integrate with new peers. Even the youngest of students are affected by mobility; in fact, many researchers point to a more significant relationship between achievement and mobility in kindergarten through third grade than in later grades. One national study of third grade students found that frequent school changes were associated with a host of problems, including nutrition and health problems, below grade level reading scores, and retention in grade.<sup>2</sup>

But the relationship between mobility and academic achievement isn't always so clear: just as many researchers believe that mobility and academic performance are directly related, others see it as a confounding factor that, at most, affects achievement indirectly (White & Thomas, 1991). This latter group believes that

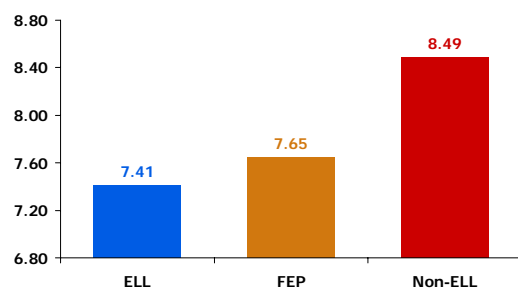
students who tend to be more mobile also tend to have personal and family issues that contribute to their mobility, complicating any conclusion that mobility is the cause of decreased achievement. One study of elementary students in Baltimore found that although mobility during elementary school had a negative association with test scores, grades, retention, and referral to special education in fifth grade, the association was largely insignificant once controls were introduced for the family and academic performance in first grade (Alexander, Entwisle, & Dauber, 1996). In other words, mobile students came from poorer families and had lower academic performance before they were mobile, a finding supported by other studies (Nelson et al., 1996).

## Mobility of English Language Learners in Arizona

Arizona currently defines mobility using three measures: transfers within a district, transfers into from outside a district, and transfers out of a district. For the purposes of this report, different types of mobility will be analyzed: absence days, enrollment days and the number of schools attended in a given school year.

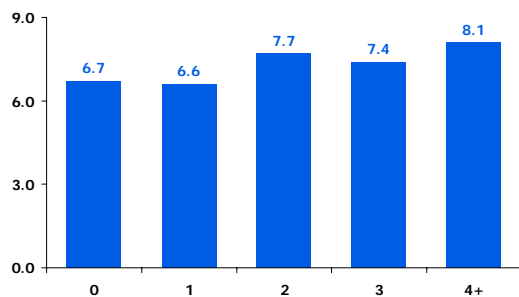
An analysis of the number of student absences in grades 3-8 reveals that ELL students had the lowest average number of absence days at less than 7½, while former ELL students were absent slightly more, and non-ELL students were absent 8½ days, the highest average number of absences (see Figure 15).

Figure 15. Average Number of Days Absent by Student Group



A closer look at which ELL students were absent shows that those who had been in an ELL program for four or more years were absent more than eight days per year, on average, more than any other group of ELL students. Recall that academic performance begins to decline for this group of students, i.e. those who remain in an ELL program for four or more years have lower AIMS scores than those in their third year, on average (see Figure 16).

Figure 16. Number of Days Absent by Years in ELL Program



Other factors, however, may contribute to increased absences and decreased performance, including a lack of interest or motivation on the student's part. Additional research is required before we can begin to isolate the critical issues that ELL students face in their fourth year of an ELL program.

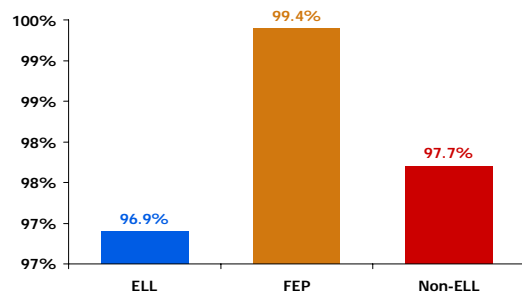
## Membership Days

An analysis of membership days provides a measure of how long a student is enrolled in a school year. In Arizona, the school year is about 180 days in length, but varies between 178 and 181 days in this study. If a student is enrolled in a school, that student is considered to be in membership, regardless of his attendance. While a student must be in membership in order to be considered absent, a student's membership is not dependent on his presence in the classroom on a given day.

From this analysis, it is clear that FEP students, both reclassified and initially fluent, are enrolled

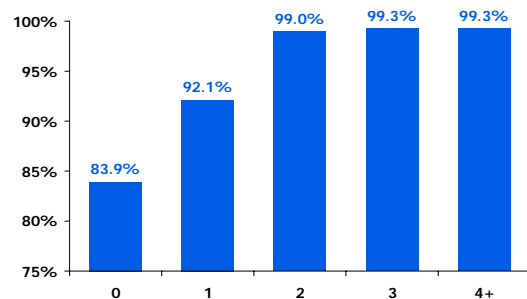
in school more than 99% of the school year, a significantly higher percentage than ELL and non-ELL students (see Figure 17). ELL students in this study were enrolled less than 97% of the year, but a closer examination of these students reveals that only new, incoming ELL students in this sample are missing a significant portion of the school year (see Figure 18).

Figure 17. Percent of Days in Membership by Student Group



One possible explanation may be that this particular group includes a higher percentage of recent immigrants and is more likely to enter school after the school year has begun. As these data show, after students have been in school for more than a year, they stabilize and, like FEP students, are enrolled in school about 99% of the year (see Figure 18).

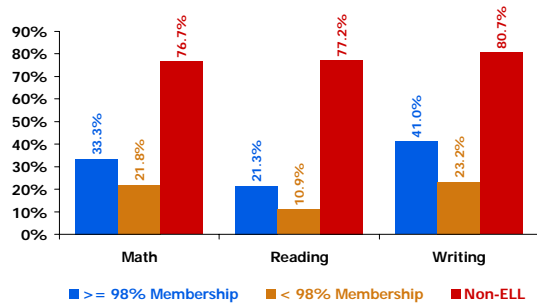
Figure 18. Percent of Days in Membership by Years in ELL Program



An examination of the new ELL students in this study suggests that membership in school makes a difference in academic performance. New ELL students in membership at least 98% of the school year significantly outperform new ELL students who spent less than 98% of the

year enrolled in school. But, even students who are enrolled for at least 98% of the school year are performing well below their non-ELL counterparts as shown below (see Figure 19).

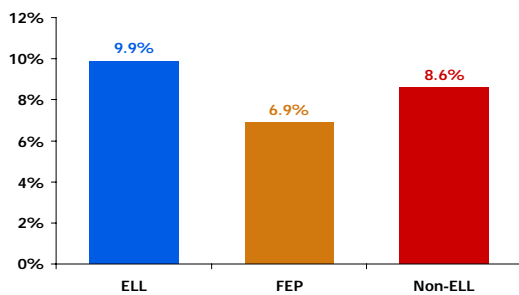
Figure 19. Comparison of Performance Among First Year ELL & Non-ELL Students



### Mid-Year School Changes

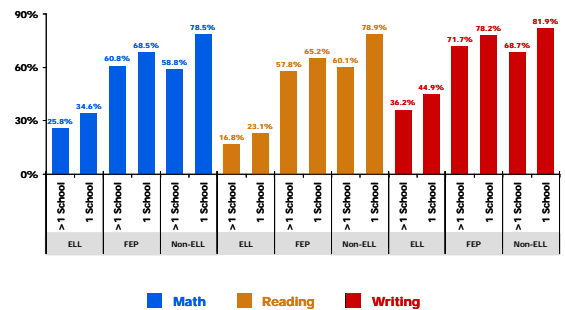
To explore whether students who attend more than one school in Arizona are performing below their more stable peers as suggested by the literature, analyses were conducted on students who made mid-year school changes. ThinkAZ first analyzed the percentage of students who have attended more than one school during the 2004-2005 school year. As a purer indicator of mobility than absences or days in membership, this measure shows that ELL students are, indeed, attending more schools than both former ELL and non-ELL Students (see Figure 20).

Figure 20. Percent Attending More Than One School



And, when compiling performances on the AIMS test, it is clear that students who attended more than one school during the year do not perform as well as those who attended just one school (see Figure 21). Interestingly, non-ELL students in this sample show the most dramatic difference in performance: those who attended more than one school showed almost a 20% difference in proficiency rates in both math and reading.

Figure 21. Number of Schools Attended & AIMS Proficiency – Grades 3-8




Mobility appears to play different roles in ELL performance: on average, ELL students in grades 3-8 attend more schools and are enrolled in school for a shorter period of time when compared to FEP and non-ELL students. The length of time enrolled in school and the number of schools attended seem to be two component of ELL academic success, as measured by AIMS. But, even the least mobile ELL students perform well below their English speaking classmates.

### Conclusion

As we learn more about the factors that influence academic success among ELL students, we will be able to craft public policies that can address the specific needs of this population. Initial observations suggest that acquiring English is a must if ELL students are to succeed in Arizona’s public education system.

School participation factors, such as being enrolled in school and remaining in the same school during a single year, may also influence student success. The results of this study suggest that remaining enrolled in an ELL program has its limits and that students do not continue to benefit after three years; a finding

that could provide helpful insight when determining funding levels for ELL programming in the schools. As more detailed data become available from the state and from school districts, it can be examined and used to provide a clearer picture about the best practices that help ensure student success at all levels.

 *thinkAZ is an objective, nonpartisan research institute dedicated to providing thorough and accurate information concerning key public issues in Arizona. ThinkAZ is a non-profit, Section 501(c)(3) corporation.*

---

#### Endnotes:

- <sup>1</sup> Because the data collected in this sample do not provide enough information to analyze the reclassification rates separately from the initially fluent students, information about how long it takes students to reclassify cannot be determined.
- <sup>2</sup> U.S. General Accounting Office. (1994). *Elementary school children: Many change schools frequently, harming their education*. Washington, DC: Author.

#### References:

- Alexander, K. L., Entwisle, D. R., & Dauber, S. L. (1996). Children in motion: School transfers and elementary school performance. *Journal of Educational Research, 90*(1), 3-12.
- Nelson, P. S., Simoni, J. M., & Adelman, H. S. (1996). Mobility and school functioning in the early grades. *Journal of Educational Research, 89*(6), 365-369.
- White, S. B., & Thomas, M. (1991). *Busing for stability and student achievement in p-5 program Milwaukee Public Schools* (Unpublished manuscript). Milwaukee: University of Wisconsin Urban Research Center.