

Maximizing English Language Learners' Completion of Transferable English Composition in Community College

A Focus on US High School Graduates

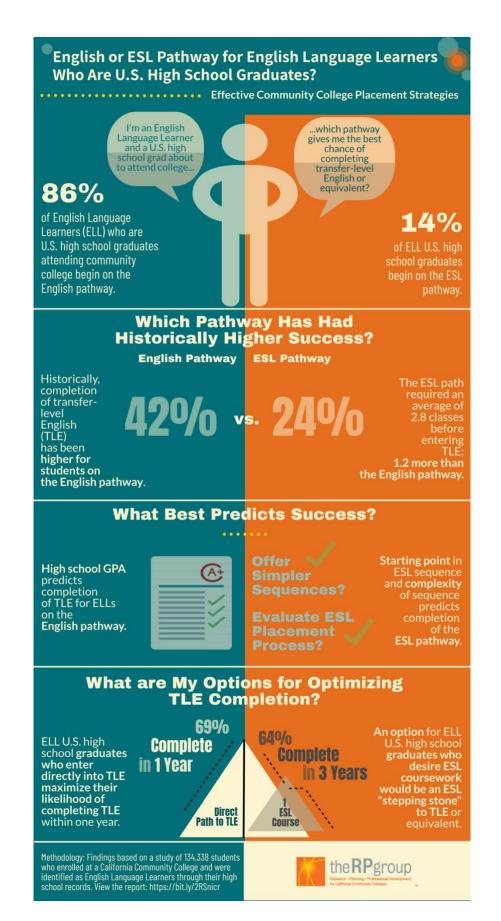


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Executive Summary

In community colleges, English Language Learners (ELL) comprise several subgroups of students, each of which has a distinct background and data profile. Among these subgroups, three clearly emerge, each of which interact with placement systems and curriculum in distinct ways based on their prior educational experiences and contexts. These three subgroups are:

- 1. United States (US) high school graduates
- 2. International students
- 3. Other degree-seeking ELL/ESL students

This paper is the first in a series looking at the experience of these three ELL subgroups and analyzing how to maximize their completion of transferable English composition in the California community college setting. This first paper focuses on students who are US high school graduates identified as ELL by their administrative high school data. When these students enter the community college system, they may or may not identify as ELL, and may or may not enter coursework that is explicitly designated as English as a Second Language (ESL). The large majority of these students (approximately 86%) enroll in English classes at the community college (i.e., the "English pathway"), while about 14% enroll in ESL classes (i.e., the "ESL pathway").

Therefore, to understand which course pathway creates an optimal opportunity for completion of transferable English composition, this paper examines ELLs who enter English coursework and compares their outcomes to those of students who enter ESL coursework.

We are specifically interested in those ELL students who have a goal of achieving an associate and/or bachelor's degree, as these students will need to fulfill a transferable (or "gateway") English composition course requirement in order to complete their program of study. We recognize that ELLs may seek ESL or English instruction for purposes other than degree completion (e.g., studying for the citizenship exam, improved workplace opportunities, social interaction opportunities, ability to converse more fluently in English), and therefore include in our analysis a consideration of students' educational goals and for whom we can infer that completion of transfer-level English composition is important to their academic objectives.

Key Findings

In this analysis, our key outcome of interest is completion of transfer-level English (TLE), which includes transfer-level English ESL equivalents (TLEE). We refer to the rate at which ELL students complete transfer-level English composition or ESL equivalent within a specific timeframe (typically either within a one-year or a three-year timeframe) as the "throughput rate." The throughput rate is the primary dependent variable in our analyses. We provide the highlights of our analyses below.

Maximizing Throughput

- There is a large difference in historical three-year throughput rates between US high school graduates who enroll in English coursework and those who enroll in ESL coursework (42% vs. 24%, respectively).
- Even when considering a streamlined scenario for ESL students (i.e., when the ESL pathway is restricted to a two-course sequence), the three-year throughput rates of students on the ESL pathway would still be lower than the one-year throughput rates of ELL students on the English pathway who, given the requirements of AB 705, would all be starting directly in transfer-level English (64% vs. 69%, respectively).

Educational Goals and Throughput

- Whether they entered the English pathway or the ESL pathway, most ELL US high school graduates indicated that they wished to complete an associate degree and/or a bachelor's degree (89% and 83%, respectively).
- Only one relatively rare educational goal stood out as being associated with much lower throughput rates than average: improving basic skills in English and math. ELL students who entered the ESL pathway were nearly seven times more likely to have this educational goal than were ELL students who entered the English pathway (0.7% vs 4.8%).

Number of Years of High School Data Needed to Place Students

- ELL US high school graduates from high schools with consistent CalPASS Plus data submissions who enrolled directly in transfer-level English at a community college had throughput rates of over 80%, regardless of whether they had one, two, three, or four years of high school records.
- Regardless of how many years of high school a student completed in California, students who were ELL in high school achieved the highest throughput rates via the English pathway versus the ESL pathway. For students who enrolled directly in transfer-level English, the one-year throughput rate was 82% for those with four years of US high school, 81% for three years, 83% for two years, and 81% for one year. For students who entered the ESL pathway, the three-year throughput rate was 26% for those with four years of US high school records, 25% for those with three years, 30% for those with two years, and 30% for those with one year.

Use of a High-Stakes Assessment Question as a "Track Switch"

 Although background questions about incoming students' comfort level with the English language often are used to direct students to ESL testing and thence to the ESL pathway, the question evaluated in this paper (i.e., "Are you comfortable

- reading and writing English?") had no predictive value in determining which students would be better served by the ESL pathway.
- US high school graduates who indicated they were not comfortable reading and writing English and then pursued the ESL pathway had lower throughput rates (13%) than students who answered the question in the same way, but then pursued the English pathway (33%).
- ELL US high school graduates who indicated that they were not comfortable reading and writing English were more than twice as likely (2.5x) to successfully complete transfer-level English as students who began on the ESL pathway.

Institutional Characteristics Associated with Higher ESL Path Throughput Rates

- Community colleges vary in the average throughput rates that their ELL US high school graduates achieve. These variations were associated with some differences in cohort composition across colleges (e.g., average age of the ELL student body), but not with others (e.g., proportion of ELL population from Hispanic language group).
 For example, as the average age of the ELL student body increased, the average institutional throughput rate tended to decrease, even when controlling for other significant factors.
- After controlling for demographic factors, such as average age of the ELL student body, two factors emerged as significant drivers of differences among college's overall institutional throughput rates of ELL students on the ESL pathway: (1) the average institutional placement level; and (2) the average institutional complexity of the ESL sequence.
- All other things being equal, colleges that tended to place ELL US high school graduates into higher ESL levels had higher average throughput rates.
- Colleges that had curricular structures that were highly complex and that
 encouraged ESL students to enroll in multiple ESL courses across more than one ESL
 TOP code (e.g., reading, speaking, writing) in their first term also tended to have
 lower overall institutional throughput rates than colleges that had more streamlined
 and integrated ESL course sequences.
- Colleges that had transfer-level English-equivalent ESL courses tended to have higher throughput rates, all other things being equal.

Conclusion

Overall, English Language Learners who graduated from a US high school are more likely to complete transfer-level English coursework at the community college if they enter the English pathway rather than the ESL pathway. This was true historically, when many students would enter developmental English coursework, and it is projected to remain the case under AB 705, when most or all students will begin the English pathway at transfer-level. The English pathway maximizes ELL US high school graduates likelihood of completing transfer-level English regardless of the number of years of US high school attended and even outperforms the projected three-year throughput of a hypothetical, streamlined ESL pathway that begins at one level below and feeds directly into transfer-level English.

Key Recommendations

Based on the findings in this study, we offer the following recommendations:

- Colleges should work on improving the clarity and reliability of educational goal and program of study data.
- Consider ELL US high school graduates to be degree-seeking by default.
- Start ELL students with a US high school diploma in transfer-level English or a transfer-level ESL equivalent class unless they choose to start in the ESL pathway.
- Unvalidated questions about students' linguistic backgrounds should not be used to "track switch" US high school graduates away from the English pathway.
- Ensure students are made aware of their option to enroll in ESL coursework.
- Streamline ESL sequences, focusing on a core of integrated curriculum.
- Be mindful that when the term "ESL students" is used to describe students in a specific curricular pathway, it is not a synonym for "ELL students."

Further Research

As colleges experiment with providing corequisite support that is specifically designed to support ELL students, future research should **evaluate whether and how such corequisite support improves success and throughput rates**.

More research is required to **better understand the role of English Language Development** (ELD) classes in high school and collegiate transfer-level English-equivalent (TLEE) ESL courses in promoting institutional throughput.

Further research is needed to address the additional populations of ELL students who access the community college system, including adult ELL students who have not attended or graduated from US high schools, as well as international students.

It is important to note that future research that explores how to optimize ELL students' TLE completion, must whenever possible include an analysis and comparison of the TLE completion rates of ELL students on the English pathway with the performance of similar students who begin on the ESL pathway.

Introduction

When English Language Learners (ELLs) enter the community college system they typically fit one of three distinct data profiles, each described by different data elements. Each of these groups interacts with placement systems and curriculum in distinct ways based on their prior educational experiences, data availability, and context. These three groups are:

- 1. United States (US) high school graduates
- 2. International students
- 3. Other degree-seeking ELL/ESL students

While there is of course variation among students within each of these subgroups, students within each subgroup enter the community college system via processes that are similar within each subgroup, but different across subgroups. This paper marks the first in a series looking at the experience of these three ELL subgroups, analyzing how to maximize their completion of transferrable English composition. This paper focuses on students who are US high school graduates and are identified as ELL by their high school records, based on an administrative classification as ELL and/or enrollment in at least one English Language Development (ELD) class during high school.

In this paper, we evaluate how to best meet the requirements laid out in AB 705 (Irwin). In particular, we seek to understand how to maximize the probability that degree-seeking ELL US high school graduates who enter the credit ESL pathway will complete transfer-level English composition within three years (as required by the law). We also seek to understand how to maximize the probability that degree-seeking ELL US high school graduates who enter the English pathway complete transfer-level English within one year (again, as required by the law). We refer to the rate at which ELL students complete transfer-level English composition or ESL equivalent within a specific timeframe as the "throughput rate."

Specifically, we investigate the following six research questions (RQ):

• RQ 1: Which pathway—ESL or English—maximizes the probability that ELL US high school graduates complete TLE?

¹ US high school graduates have US high school transcript information available; international students have certain requirements, such as English fluency testing and being degree-seeking; and the third group of other degree-seeking ELL students are only identifiable as ELL if they actually enroll in ESL, as they do not have the same requirements as international students nor do they typically have US high school transcripts.

² For full-text of the law visit http://bit.ly/AB705-Irwin

- RQ 2: Is the type of informed educational goal³ declared by ELL US high school graduates associated with completion of transfer-level English (TLE)?
- RQ 3: How does the number of years of enrollment in a US high school relate to TLE completion?
- RQ 4: Could a typical assessment question about English language usage improve TLE completion by appropriately directing some ELL students to the ESL pathway and others to the English pathway?
- RQ 5: Do ELL high school graduates who were enrolled in ELD classes in their senior year of high school have higher TLE completion on the ESL or English pathway?
- RQ 6: Are there particular curricular and placement practices that are associated with higher TLE completion among ELL US high school graduates?

Reader's Guide

The choice of an ESL or English pathway should be made based on each individual student's goals and with an awareness of the implications that choice has for attaining those goals. This paper offers the ELL community—including ESL instructors, counselors, deans, and students—an assessment of how that choice has impacted the probability of transfer-level English completion for the ELL US high school graduates who previously trod those pathways.

We begin this report by providing context and highlight the importance of understanding ELL US high school graduates' educational goal to their treatment under AB 705. We then describe our method for addressing the six research questions outlined above, and then share the findings for each research question, followed by the limitations to this research. Finally, we offer a series of concluding recommendations resulting from this analysis.

Background

English Language Learners and AB 705

In California, ESL placement practices and curriculum⁴ have been challenged by the passage of AB 705. Signed into law in October 2017 and nominally in effect since January 2018, community colleges were allowed until fall 2019 to update English and math placement practices, and until fall 2020 to update ESL placement practices.⁵ The law requires that colleges use high school performance information such as grade point average (GPA)—including self-reported

³ An informed educational goal is recorded when a student meets with a counselor or educational advisor, typically at some point during the onboarding process (vs. the initial educational goal which is collected on the application).

⁴ As well as math and English placement practices and curriculum.

⁵ Recently extended to fall 2021.

coursework and GPA—to place students into an English or ESL course that will maximize the probability of completing transfer-level English composition. Only students whose educational goal requires that they complete transferable college-level English (e.g., degree-seeking students⁶) are affected by the requirement that they receive a placement that maximizes their probability of completing transferable college-level English. Students whose goals do not require completion of that course are not affected. The interpretation of AB 705 by the educational community has resulted in several key changes to Education Code, including Section 78213(d)(1)(B):

Colleges shall use evidence-based multiple measures for placing students into English-as-a-second-language (ESL) coursework. For those students placed into credit ESL coursework, their placement should maximize the probability that they will complete degree and transfer requirements in English within three years.

AB 705 also resulted in amendments to Section 78213(d)(1)(E) of the Education Code, requiring colleges to:

Demonstrate that they guide English and mathematics placements to achieve the goal of maximizing the probability that a student will enter and complete transfer-level coursework in English and mathematics within a one-year timeframe and credit ESL students will complete transfer-level coursework in English within a timeframe of three years.

However, students who enter the community college are not inherently nor automatically designated as "ESL students" simply because they are ELL. The selection of the ESL or English pathway is an example of a high-stakes decision that may be made based on factors that have little bearing on students' ability to succeed in a transfer-level English class. Given that transfer-level English is a key gateway class for degree-seeking students and the current process of choosing a path to completion may result in a pathway selection that is less than optimal, we must establish to what extent students' likelihood of success in transfer-level English is enhanced by an ESL placement relative to an English placement. This knowledge will allow us to understand how best to support degree-seeking students in completing the gateway transfer-level English composition course that is required for an associate degree and to transfer to a California State University (CSU) or University of California (UC).

When English language learners enter community college, they are generally free to select to enter an ESL or an English course sequence. Hodara (2015) found that placement into the longer ESL sequence compared with English writing placement decelerated ELL students' progression through college. It is therefore **imperative that we study not just those students who entered the ESL path, but also those ELL students who instead entered the English path.** In this way, the options for student progress can be contextualized and properly evaluated.

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⁶ For purposes of this paper, degree-seeking includes transfer-seeking students.

The Importance of Educational Goal

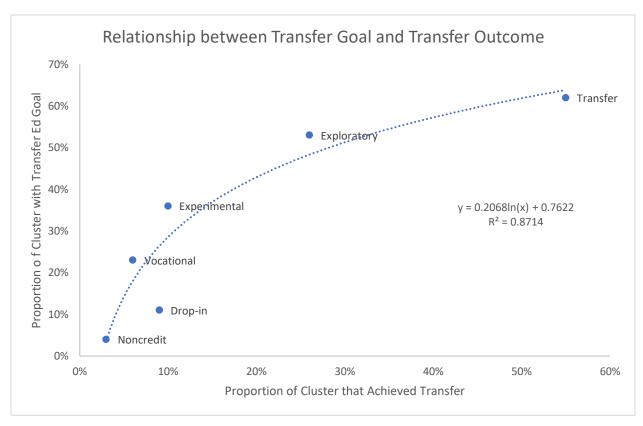
Prior research examining how self-reported educational goal is associated with or predictive of congruent student outcomes suggests that students with specific educational goals tend to attain those goals or outcomes with greater frequency than those who do not hold specific goals (e.g., Bailey, Jenkins, & Leinbach, 2007; US Department of Education, 2003). Student transfer intentions is an area where empirical work supports the predictive validity and usefulness of self-reported education goal. Existing evidence indicates that students who self-report a transfer goal are more likely to transfer. For example, Hayward (2011) reported that first-time California community college students who declared a goal of transfer were more likely to actually achieve transfer than were students with other self-reported goals.

Bailey, Jenkins, and Leinbach (2007) likewise found that students with transfer goals were more likely to transfer than students who did not have self-reported transfer goals. Rosenbaum, Deil-Amen, & Person (2006) studied the consistency of student goals and found that 70% of students maintained their educational goals over five years, while Nielsen (2015) found that educational goals represent important psychological constructs for community college students for both pragmatic, career-centric reasons, as well as for staying true to a self-image of "moral self-improvement." Student educational goals are important though somewhat malleable, indicating that a more inclusive rather than exclusive approach to directing students to complete transfer-level English composition would be a way of future-proofing students against changes or "upgrades" in their educational goals.

Bahr (2010) developed a typology of students based on observed enrollment behaviors, and then correlated those clusters with student transfer outcomes and with self-reported educational goals. An analysis of the data in that paper indicates a strong correlation between the proportion of students in each of the six derived clusters⁷ who had a self-reported goal of transfer and subsequent actual transfer behavior (see Figure 1 for secondary analysis).

⁷ The six student enrollment clusters were: Transfer, Exploratory, Experimental, Vocational, Drop-in, and Noncredit.

Figure 1. Actual Transfer Increases in Relation to Proportion of Students in Cluster with Self-Reported Transfer Goal: Secondary Analysis of Table 4 Data from Bahr (2010)



Recently, with the release of the Student Success Metrics Dashboard, the CCCCO has reconsidered the use of self-reported education goal by releasing data for subgroups of distinct student journey types that represent groups of students clustered by similar education goals (e.g., degree/transfer, short-term career education, and adult education/ESL).⁸ Adan et al (2018, p. 5) explicitly address how self-reported education goal has been reconsidered and is now a key indicator of student intent, useful for identifying distinct subpopulations of students:

While some considered goal data to be unreliable in the past, mandatory reporting for the Student Success and Support Program (SSSP) has resulted in these data elements being entered for most students. Furthermore, the reliability of these data will continue to improve over time, as these data points will be critical for local Guided Pathways implementation, and CCCApply is being revamped to make the application easier for students to navigate. ⁹

⁸ See, for example, the Student Success Metrics White Paper 2: https://digitalfutures.ccco.edu/Portals/0/Documents/Simplifying%20Metrics/Metrics%20Simplification%20Working%20Group%20White%20Paper%202-FINAL.pdf

⁹ Additional review of how using course enrollment to infer student intent differs from relying on students' self-reported intent is presented in Appendix A.

California's AB 705 applies specifically to credit ESL students who are degree/transfer-seeking. Other Multiple Measures Assessment Project (MMAP) research has shown that throughput is much higher for degree/transfer seeking students, confirming that recorded educational goals are aligned with students' behavior and intended outcomes. Colleges can use educational goal (or similar) to identify which ESL students AB 705 applies to (i.e., those who are degree-and/or transfer-seeking). This element of the law is particularly germane here as students in ESL coursework in the community college system may have an array of educational goals aside from degree completion.

Methods

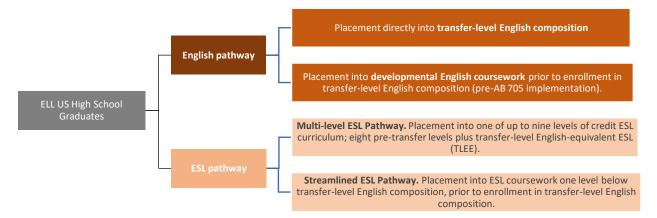
To understand how to maximize the probability that ELL US high school graduates who are degree-seeking students will complete transfer-level English composition, the MMAP research team secured data on all community college English language arts enrollments from summer 2004 through summer 2018 from the Educational Results Partnership, which utilized the CalPASS Plus intersegmental longitudinal data system. The key outcome for all analyses was the rate at which ELL students complete transfer-level English (TLE) or transfer-level Englishequivalent ESL (TLEE) within a specific timeframe, otherwise known as the "throughput rate." The throughput rate is the primary dependent variable in our analyses.

The data file delivered by Educational Results Partnership included 134,338 ELL students with both high school and community college records. ELL status was determined based on enrollment in an English Language Development (ELD) course in high school and/or by designation on their STAR test that they were "English Learners." To derive throughput for these students, we developed 92 cohorts of ELL US high school graduates who subsequently enrolled in at least one ESL or English course. We then evaluated throughput for a one-year timeframe and/or a three-year timeframe depending on whether students started in English or ESL, respectively. Please note limitations to these analyses in the "Limitations" section.

We analyze throughput for two possible curricular pathways, the English pathway and the ESL pathway. Each of these pathways has two variants. The English pathway includes both a developmental path and a direct transfer-level path; the ESL pathway contains the traditional multi-level ESL path, as well as a streamlined path that begins in an ESL course from which students directly transition to transfer-level English. We describe these four options in Figure 2.

¹⁰ See last slide of Hayward, Morris, Newell & Willett (2019). ESL Pathways: Mapping the Whole Student accessed at https://bit.ly/ESL-Mapping-RP-CAIR

Figure 2. Possible Pathways to Transfer-Level English



Sample Description

As indicated by the sample's descriptive statistics (see Table 1a), most students in the sample were identified as ELL in high school via a designation in the administrative data associated with STAR testing (80%); 15% of students in the sample had both an English Language Development (ELD) class enrollment in high school and an ELL designation on the STAR test; and just 5% were identified only via their enrollment in an ELD class in high school.

Students who entered the ESL pathway were more likely to have ELD enrollments in high school, with 13% being identified as ELL via their ELD enrollment only, 35% being identified as ELL by both ELD enrollment and via STAR test designation, and 48% being identified as ELL by their STAR test designation only. Conversely, ELL students who entered the English pathway were more likely to have been identified as ELL via their STAR test designation only (85%), with 4% identified only via ELD enrollment in high school and the remaining 11% identified by both. This difference may be because the presence of ELD coursework on a student's record presents a signal to community colleges that the student should be placed into ESL coursework. It may also be that ELL students who have had the opportunity to participate in ELD coursework while in high school are more comfortable transitioning to ESL coursework at the community college and tend to seek out or accept ESL placements at a higher rate than ELL students who have not participated in ELD coursework while in high school.

ELL US high school graduates in our sample tended to come from either Spanish (74%) or Asian (15%) language backgrounds. Students from Asian language backgrounds constitute a higher proportion of the ESL language pathway group (27%) than the English language pathway group

¹¹ This interpretation is supported by one community college's description of their ESL placement process: "New students who do not have high school transcripts and identify another language besides English as their first language *and students with high school transcripts with EL coursework* are directed to the ESL GSP [guided self-placement]" (AB 705 and ESL webinar, April 2020, emphasis added).

(13%). Spanish language background students comprise just 62% of students on the ESL pathway, relative to 76% of the English language pathway group.

While 71% of ELL US high school graduates who matriculate into the California Community Colleges are US citizens, fewer of those who enter the ESL pathway are citizens (47%) relative to those on the English pathway (75%). Students who enter the ESL pathway have high school GPAs greater than those of students who enter the English pathway, on average (2.54 vs. 2.41).

Since 2003, the application for California community colleges has included an optional question in the "Needs and Interests" section of the application: "Are you comfortable reading and writing English?" The intent of this question is to identify students who might need language assistance. A Yes/No response to the question is optional and 28% of the sample provided an answer. It was more common for students directed to the ESL pathway to respond that they were not comfortable (8%) than among those on the English pathway (2%). Inclusion of data from this question allows for the evaluation of the effectiveness of a single language background question for directing ELL students to either the ESL or the English pathway.

ELL US high school graduates who enter the ESL pathway start at lower levels in the course sequence compared to their peers who enter the English pathway (2.84 vs. 1.57 levels below transfer, respectively). The number of levels a student must progress through is relevant because attrition increases over the longer time frame necessary to complete the required sequence. Per AB 705, students placed in English coursework have one year to maximize their completion of TLE while students placed in ESL coursework have three years. Additional details on the descriptive statistics of the sample are presented in Tables 1a - 1c.

Table 1a. Sample Descriptive Statistics – All Students

Student Characteristic	N	Missing	Mean	Std. Deviation
ELL Status Source				
ELD course enrollment only	134,338	0	5%	0.2173
STAR designation only	134,338	0	80%	0.3967
Both ELD course enrollment and STAR	134,338	0	15%	0.3530
designation				
Language Group				
Asian	134,338	0	15%	0.3606
Spanish	134,338	0	74%	0.4406
Euro/Middle Eastern	134,338	0	5%	0.2182
Other	134,338	0	6%	0.2372
Pathway				
ESL	18,745	0	14%	0.3465
English	115,593	0	86%	0.3465
Demographics				
US citizen	134,338	0	71%	0.4545
Comfortable reading/writing English	29,614	104,724	98%	0.154
Age at college entry in years	134,331	7	18.12	1.213
Average starting level	133,702	636	-1.75	1.1931
High school GPA	111,217	23,121	2.43	0.7794

Table 1b. Sample Descriptive Statistics – Students Entering the <u>ESL Pathway</u>

Student Characteristic	N	Missing	Mean	Std. Deviation
ELL Status Source				
ELD course enrollment only	18,745	0	13%	0.3356
STAR designation only	18,745	0	52%	0.4996
Both ELD course enrollment and STAR	18,745	0	35%	0.477
designation				
Language Group				
Asian	18,745	0	27%	0.4462
Spanish	18,745	0	62%	0.4865
Euro/Middle Eastern	18,745	0	5%	0.2206
Other language group	18,745	0	6%	0.2353
Demographics				
US citizen	18,745	0	47%	0.4991
Comfortable reading/writing English	3,086	15,659	92%	0.272
Age at college entry in years	18,742	3	18.35	1.328
Average starting level	18,109	636	-2.84	1.4865
High school GPA	15,712	3,033	2.54	0.8027

Table 1c. Sample Descriptive Statistics – Students Entering the English Pathway

Student Characteristic	N	Missing	Mean	Std. Deviation
ELL Status Source				
ELL status from ELD course enrollment only	115,593	0	4%	0.1882
ELL status from STAR designation only	115,593	0	85%	0.3567
Both ELD course enrollment and STAR	115,593	0	11%	0.3164
designation				
Language Group				
Asian	115,593	0	13%	0.3407
Spanish	115,593	0	76%	0.4295
Euro/Middle Eastern	115,593	0	5%	0.2178
Other language group	115,593	0	6%	0.2375
Demographics				
US citizen	115,593	0	75%	0.4347
Comfortable reading/writing English	26,528	89,065	98%	0.132
Age at college entry in years	115,589	4	18.08	1.189
Average starting level	115,593	0	-1.57	1.040
High school GPA	95,505	20,088	2.41	0.7738

Findings

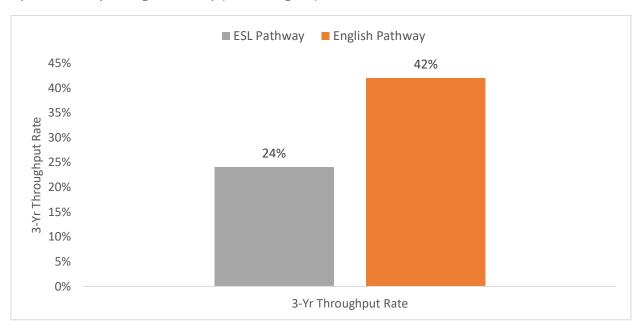
We detail the key findings for the six research questions below.

RQ 1: Which pathway—ESL or English—maximizes the probability that ELL US high school graduates complete TLE?

In the sample of ELL US high school graduates analyzed in the study, the large majority (86%) enrolled directly in English TOP-coded coursework when they matriculated at a California community college rather than in ESL coursework.¹² This difference is critically important given that there is a **large difference in TLE completion between ELL US high school graduates who enroll in the ESL pathway (24%) and those who enroll in the English pathway (42%)¹³, as shown in Figure 3 below.**

Replication of a finding from prior MMAP research with a prior sample:
 http://rpgroup.org/Portals/0/Documents/Projects/MultipleMeasures/Publications/MMAP_ESLBrief2017Final.pdf
 The overall English pathway throughput rate includes developmental English placements.

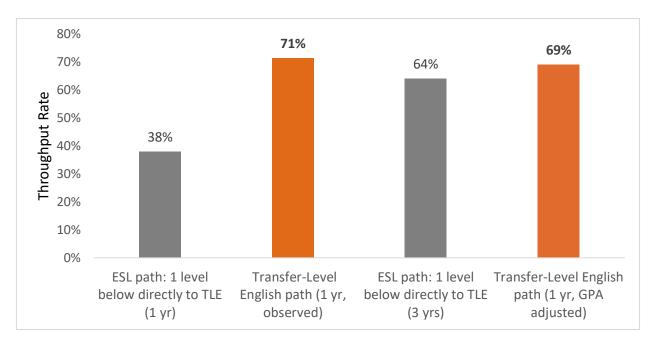
Figure 3. Three-Year Transfer-Level English Throughput Rates for ELL US High School Graduates by Community College Pathway (ESL or English)



Historically, ELL students who embarked on the English pathway could start either in developmental English or in transfer-level English (TLE). However, with the advent of AB 705, nearly all US high school graduates will receive a placement into transfer-level English either with or without corequisite support, according to their high school GPA. Therefore, it is important to separate the English pathway into the developmental English pathway (which is mostly historical) and the transfer-level English pathway, and analyze the outcomes of students on those paths separately. When looking at historical differences in throughput rates that include developmental sequences both ESL and English throughput rates will use the same three-year timeframe since both sequences involve multi-course sequences. However, when looking only at throughput of ELL students beginning on the English pathway in transfer-level English, the timeframe will be one-year, which corresponds with the timeframe specified in AB 705 for students on the English pathway. With the passage and implementation of AB 705, all US high school students are now, in theory, able to enroll directly in transfer-level English composition. Given that ELL students who historically entered directly into transfer-level English had about a quarter point higher average high school GPA than those who entered developmental English, AB 705 will result in more students with lower high school GPAs enrolling in TLE than in the past. Therefore, it is important to account for differences in high school GPA among students to arrive at a more accurate estimate of future throughput for this wider group of ELL US high school graduates who will be enrolling directly in transfer-level English. 14 Accounting for differences in high school GPA results in a net downward adjustment of about 2% to the expected one-year throughput rate relative to the throughput of just the group that historically had access.

¹⁴ 2.63 for transfer-level English students vs. 2.37 for developmental English students t(95,503) = -41.2, p < .001.

Figure 4. Historical and Adjusted TLE Completion of ELL US High School Graduates on the ESL and English Pathways



ELL high school graduates who enter the ESL pathway at the community college have historically started at a variety of different levels. In this analysis we focus on a streamlined scenario where all ESL pathway students would begin at just one level below transfer-level English. This approach allows us to derive expected throughput rates for the subset of students who start in one-level below in ESL and then transition directly to transfer-level English composition. While this model does not represent the current reality of ESL pathways across the system, it can provide an estimate for the throughput that we could expect for an optimized ESL pathway. We also adjust the expected throughput rate for ELL students on the ESL pathway by weighting the projected throughput rate according to observed historical throughput rates achieved by students with various levels of high school GPA. A weighted average based on both the historical throughput rates and prevalence of students with specific high school GPA levels is calculated to estimate the projected future throughput rates (38% for one year and 64% for three years) shown in Figure 4. For students on the ESL pathway, the adjustment greatly increases projected ESL pathway throughput rates.

Historically, ELL US high school graduates who enroll directly into transfer-level English achieve high levels of throughput within one year. Projections indicate that as more students gain access to transfer-level English, their throughput rate—even without any additional corequisite support—is still expected to be higher in one year than the three-year throughput rate of ELL US high school graduates on an optimized ESL pathway (69% vs 64%). Although these throughput rates are not that far apart, one pathway (English) represents a current scenario that is likely to be improved upon given the current scaling of corequisite support innovations, while the other pathway (ESL) represents an optimized, hypothetical scenario that

is not current practice and is not necessarily certain to be implemented given the current structure of ESL curriculum and placement practices.

RQ 2: Is the type of <u>informed</u> educational goal declared by ELL US high school graduates associated with completion of transfer-level English?

An examination of the educational goals of the students in the sample revealed that two-thirds of the students had an informed educational goal that was either uncollected (31.2%), unreported (27.9%), or undecided (8.4%). The rate of uncollected goals peaked at 75.3% in fall 2011. Since then, the rate of uncollected educational goals has steadily declined. In fall 2015, it dropped to 52.8%. Informed educational goals are established with guidance from the college (e.g., during meetings with a counselor or educational advisor). Students with uncollected, unreported, and undecided educational goals are often treated as distinct educational goal types, however, data show (see Figure 6) that they display throughput rates that are quite similar to the overall average for those students who do have a reported educational goal.

The diverse set of educational goals was re-categorized as follows:

- Students whose goals indicate they were clearly seeking a degree, including an associate and/or bachelor's (i.e., associate then bachelor's; bachelor's without associate; associate only)
- Students whose goals indicate that were likely degree-seeking (i.e., four-year student acquiring courses; discover career interests; intellectual/cultural development)
- Students whose goals indicate that they were less likely to be degree-seeking (prepare for new job; certificate only; improve English or math skills; maintain license/certificate; advance in current job; and noncredit to credit).

When recoded in this fashion, 87.9% of ELL US high school graduates with an informed educational goal were clearly degree-seeking, 5.5% were likely degree-seeing, and 6.6% were less likely to be degree-seeking. Figure 5 below shows the overall distribution of ELL high school graduates' informed goals during the time period of the study.

¹⁵ Among ELL US high school graduates whose first course in English or ESL was in a fall term.

¹⁶ A subsequent analysis of a larger dataset (n = 360,158) that includes both initial and informed educational goals was able to assign many students whose informed educational goals were unreported or uncollected goals on the basis of their *initial* educational goals revealing the following distribution: 68.8% degree-focused; 14.1% undecided; 9.5% uncollected; 2.7% job skills; 1.1% intellectual development; 1% certificate-seeking; 1% credits for diploma; 0.9% improve basic skills; and 0.9% all other. Thus, in the more recent and more complete data set with only 23.6% of educational goals missing or undecided, roughly 90% of non-missing, non-undecided educational goals were explicitly degree-seeking—comparable to the 88% in the current report's data set.

Figure 5. Distribution of Goals among ELL US High School Graduates with an Informed Educational Goal (n = 43,589)

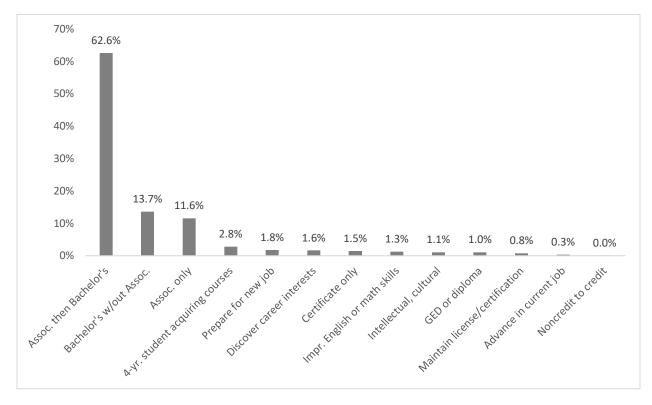


Table 2 below splits the subgroup of students who have an informed educational goal (n = 42,589) into those who enrolled in English coursework at the community college (n = 37,255) and those who enrolled in ESL at the community college (n = 6,334). **In both groups, students were primarily focused on degree completion**: 88.7% of students who entered the English pathway indicated an explicit goal of completing an associate and/or bachelor's degree, while 82.9% of students who entered the ESL pathway indicated an explicit goal of completing an associate and/or bachelor's degree.

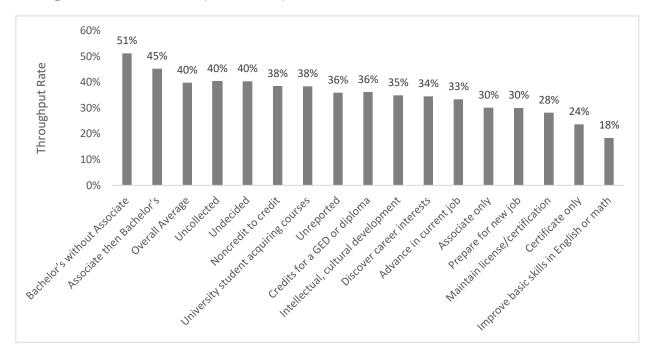
However, relative to their peers who entered the English pathway, students who enrolled in ESL coursework at the community college indicated a higher proportion of educational goals that are less likely to entail completing a degree (12.0% vs 6.6%). In particular, ELL students who entered ESL coursework were about seven times more likely to indicate that their goal was to "improve basic skills in English or math" than were students who enrolled directly in English (4.8% vs 0.7%). Given that informed educational goals are developed after initial placement, it is likely that the process of being assigned to the ESL pathway causes some students to adopt an educational goal that does not explicitly include or imply degree completion.

Table 2. Distribution of Informed Educational Goals of ELL US High School Graduates, Disaggregated by Pathway at the Community College (n = 43,589)

Educational Goals	ESL Pathway (n = 6,334)	English Pathway (n = 37,255)
Associate then bachelor's	54.5%	64.0%
Bachelor's without associate	14.3%	13.5%
Associate only	14.1%	11.2%
4-year student acquiring courses	2.0%	2.9%
Prepare for new job	2.1%	1.7%
Discover career interests	1.5%	1.6%
Certificate only	1.9%	1.4%
Intellectual, cultural development	1.7%	1.0%
Maintain license/certification	0.9%	0.9%
Credits for a GED or diploma	1.6%	0.8%
Improve basic skills in English or math	4.8%	0.7%
Advance in current job	0.5%	0.3%
Noncredit to credit	0.1%	0.0%

Students' three-year transfer-level English (TLE) completion rates are disaggregated by informed educational goal in Figure 6. While throughput rates are highest for students with goals that include transfer and completion of a bachelor's degree, most other goals are also associated with substantial levels of transfer-level English completion. Just two educational goal groups had throughput rates between 20% and 30% ("maintain license/certification" and "certificate only") and the only group below 20% was the relatively small group of students who indicated that they primarily wished to "improve basic skills in English or math."

Figure 6. Three-Year Throughput to Transfer-level English by Informed Educational Goal, All ELL US High School Graduates (n = 43,589)



As shown in Figure 6, there are a number of goals that would not at first appear to be goals for students who are seeking degree completion—such as "noncredit to credit" and "credits for a GED or diploma"—which nonetheless have considerable TLE completion rates. **One goal does stand out as being associated with much lower throughput rates than average: "improve basic skills in English or math."** However, as students with this goal overwhelmingly begin on the ESL pathway, the low throughput rate that appears to be associated with this goal may in fact be due to differences in throughput by pathway since the throughput rate on the ESL pathway is 24% on average versus 37% for students starting on the developmental level of the English pathway, and 71% for those starting in transfer-level English (see Table 3, below).

Table 3. Transfer-level English Throughput Rates by Pathway and Educational Goal in Descending Order

Educational Goal	ESL Pathway (3 yrs)	Overall English Pathway (3 yrs)	Developmental English Pathway (3 yrs)	Transfer-level English Pathway (1 yr)
Overall average	24%	42%	37%	71%
Bachelor's without associate	41%	53%	47%	78%
Associate then bachelor's	29%	48%	42%	75%
Uncollected	26%	42%	36%	72%
Undecided	24%	43%	37%	69%
Noncredit to credit	40%	38%	50%	0%
Unreported	21%	39%	33%	67%
4-year student	23%	40%	32%	81%
GED or diploma	19%	41%	36%	67%
Intellectual, cultural	20%	39%	34%	66%
Discover career interests	27%	36%	31%	65%
Advance in current job	9%	41%	29%	95%
Associate only	18%	33%	29%	67%
Prepare for new job	17%	33%	28%	63%
Maintain license/certification	9%	32%	30%	52%
Certificate only	9%	27%	24%	55%
Improve basic skills in English or math	7%	32%	25%	65%

Importantly, students with undecided, uncollected, and unreported educational goals have throughput rates that are close to the overall average, indicating that the students with informed goals on record are likely representative of those without informed educational goals on record. This finding further suggests that ELL US high school graduates—even those without declared goals—should be considered by default to be degree-seeking. While the completion of transfer-level English among ELL US high school graduates does vary by educational goal, completion of transfer-level English is still relatively high even among those students with educational goals that do not strongly imply the need to complete transfer-level English (e.g., "discover career interests," "prepare for new job," "intellectual, cultural development").

Perhaps a clearer barometer of whether a given student's educational goal requires completion of transfer-level English would be an evaluation of the specific program of study that a student is pursuing. If it is clear that students are pursuing a career technical education (CTE) certificate of achievement, then they would not need to complete transfer-level English (though if certificate-oriented ELL students were given access to TLE, they could simply choose not to

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¹⁷ See Appendix B for a detailed a comparison of the demographics of students with educational goals that are recorded, uncollected, missing, and undecided.

enroll). However, there are currently three issues with a student's declared program of study to identify whether they would require transfer-level English or not.

First, while a student's program of study is specific enough to identify whether a given student would need transfer-level English (e.g., an Associate Degree for Transfer would require transferlevel English, a certificate in welding, HVAC, or automobile repair would not), they are not reported in a uniform manner by institutions in the California community college system at this time. Some colleges report a unique program control number that is specific to a given program and award, while others report only a general area of study based on a general taxonomy of discipline areas that does not include information on the actual degree or certificate associated with completion of the program. 18 A second issue concerns the accuracy of program of study selection and whether that data element is regularly and dutifully updated in a college's data systems. Although this data element has received renewed attention given the recent statewide work on the Guided Pathways framework, it has historically suffered from a lack of attention and use. Given this lack of focus, historical records of program of study may not be accurate or updated frequently enough to be useful. Finally, as students experience college, they may change their educational goals and program of study without officially notifying the college (e.g., deciding to seek an associate or bachelor's degree) which could cause a disconnect between the program of study recorded in the college's data system and a student's true intention.

Given the relatively high rates of transfer-level English completion even among students with educational goals that do not clearly demonstrate the need for transfer-level English (e.g., "obtaining a certificate," "improving basic skills in English or math"), it is likely that failing to maximize the probability that <u>all</u> ELL high school graduates will complete transfer-level English would undermine the educational trajectory of many students, while not providing a clear benefit to that very small group of students who may truly not require transfer-level English. Given the limitations inherent in accurately knowing and tracking incoming students' specific educational goals and programs of study, adopting an institutional posture that provides all US high school graduates access to TLE—regardless of ELL status and declared educational goal (or lack thereof)—will eliminate issues related to underplacement and help colleges to maximize students' probability of completing transfer-level English.

RQ 3: How does the number of years of enrollment in a US high school relate to TLE completion?

For methodological reasons, prior MMAP research (e.g., Bahr et al., 2019) and guidance from the California Community Colleges Chancellor's Office has focused on students with complete high school records. This decision was made in order to ensure that all relevant math

¹⁸ See Taxonomy of Programs Manual (https://bit.ly/TOP-Manual)

coursework was accounted for in the building of the decision tree models. ¹⁹ However, the use of a data set that only included students with four years of high school data may have unintentionally given rise to the incorrect impression that four years of high school attendance is necessary for multiple measures placement rules to apply, when in fact, the idea that four years of high school is necessary in order for placement rules based on high school GPA to apply represents an untested hypothesis.

To put this hypothesis to the test, we compare throughput of ELL US high school graduates with varying degrees of completeness. First, we identified four groups of students with US high school records that began in different years and represented different degrees of exposure to the US high school system (e.g., one year = only 12th grade; two years = 11th and 12th grades; three years = 10th, 11th, and 12th grades). Then we compared the throughput of ELL high school graduates who started at one-level below in ESL in college to those who started in the English pathway, for each different year of starting in a US high school.

In order to control for the possible incompleteness of the high school records themselves, we identified high schools that had been continuously submitting data to CalPASS Plus so that when a student was missing data, it could be interpreted as the student not being present in that year, rather than the institution not submitting data in that year. Once the continuous data submission flag was developed, it showed that a given school was contributing data consistently, and by implication, that if a student was missing one or more years, that "missingness" would likely be due to the student's absence from that high school.

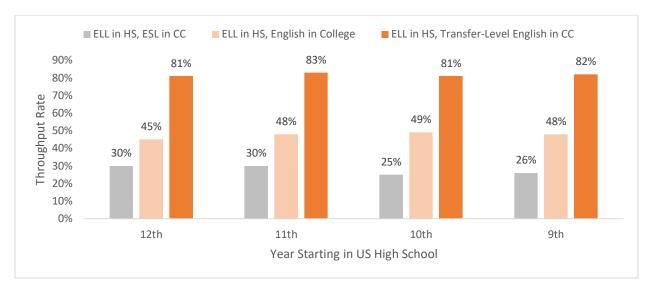
Approximately 35% of the high schools in the CalPASS Plus sample (506 out of 1460) had continuously submitted data. These high schools covered nearly a third of all the students in the sample (n = 68,738). While this approach to identifying students who begin their US high school coursework in 10th, 11th, or 12th grade is not perfect (e.g., students could have been attending a different California high school that is not covered by CalPASS Plus or a high school in another state prior to enrollment at the designated high schools with continuous submitted data), it does control for some of the most obvious problems with inferring that a student began their enrollment in a California high school subsequent to freshman year.²⁰

Figure 7 below focuses on students who enrolled in a California high school for one year (12th grade), two years (11th and 12th grade), three years (10th, 11th, and 12th grades), or all four years, showing transfer-level English throughput rates disaggregated by the grade at which they began high school in the United States.

¹⁹

²⁰ Without comprehensive high school enrollment data, it is not possible to definitively know whether missing high school records are due to lack of access to archival records or due to a student's absence from the state educational system.

Figure 7. ELL US High School Graduates Transfer-Level English Throughput by Years in US High School, and Community College Pathway



These data suggest there is a trend for ELL US high school graduates to have higher transferlevel English throughput rates within three years if they enroll directly in English (including developmental English enrollments) rather than in ESL coursework at the community college, regardless of how many years of high school they completed in the US.

The gap between ELL students who follow the English pathway versus the ESL pathway is consistently large, suggesting that ELL US high school graduates will maximize their TLE throughput by pursuing the English path, even if they have fewer than four years of attendance in a US high school. Although the gap does narrow somewhat for students with fewer years of US high school (e.g., 15 percentage point difference for those with one year of US high school before graduating compared to 22 percentage point difference for those with four years of US high school), the English pathway nonetheless clearly maximizes the probability of completing transfer-level English for ELL US high school graduates.

Additionally, students from this population who have had direct access to transfer-level English coursework in the past have experienced very high levels of throughput. Based on these high levels of historical success, projections of the three-year throughput rates of ELL US high school graduates indicate that this group of students should by default have immediate access to transfer-level English coursework in order to maximize their likelihood of completing transfer-level English.

Based on this analysis, there is not an empirical basis for requiring ELL students to have a specific number of years of enrollment in a US high school prior to their graduation in order to be eligible to enroll in transfer-level English (or ESL equivalent) upon matriculation at college. Rather than focusing on the number of years of US high school incoming ELL students have attended, colleges should simply ascertain whether incoming ELL students have a US high school diploma, as possession of this credential (or the timely expectation of one before

matriculation at the community college) is sufficient to indicate that their probability of completing transfer-level English is maximized by a entering the English pathway.

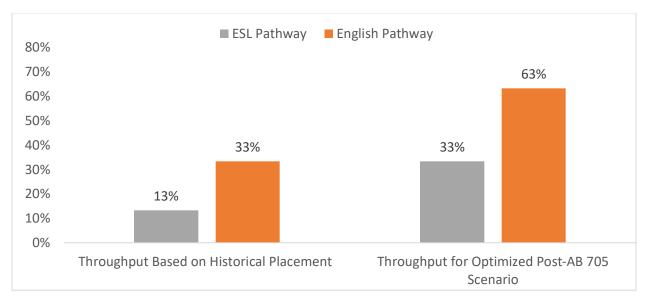
Assuming that ELL students with fewer years of exposure to the US high school system would be less capable of success than those with more years is clearly based on a seemingly mistaken assessment of these students' true capabilities. While it is not evident from the data why such a trend exists, possible reasons may include (1) the differential college preparatory effects of years of ESL instruction in the US versus years of education in English as a foreign language in high schools outside the US, and (2) possible differences in the quality, intent, and rigor of ESL instruction in the US versus instruction in English as a foreign language in non-domestic high schools.

RQ 4: Could a typical assessment question about English language usage improve TLE completion by appropriately directing some ELL students to the ESL pathway and others to the English pathway?

Students who applied to a community college using the standard Open CCCApply application had the opportunity to respond to the following question: "Are you comfortable reading and writing English?" with response options of "Yes" or "No." Not all ELL US high school graduates responded to this question, and among those who did, only 2.4% responded in the negative. Nonetheless, there was a sufficient sample size with "No" responses (n = 718) to evaluate the throughput rates of students who responded that they were not comfortable reading and writing English when they followed the ESL pathway versus the English pathway.

As shown in Figure 8 below, even when students indicated that they were not comfortable reading or writing English, they fared better when they enrolled in the English pathway than when they enrolled in the ESL pathway. The comparisons on the left side of the graph are based on observed historical data and include ESL and English placements at all levels. With these historically valid placement options, students who entered the English pathway achieved a 33% one-year throughput rate versus a 13% three-year throughput rate for students on the ESL pathway. The second set of comparisons on the right side of the graph test a likely post-AB 705 scenario where students are either on a streamlined ESL pathway or are enrolling directly in transfer-level English. The ESL pathway group was restricted to students who enrolled in an ESL course that was one-level below transfer (n = 42). The three-year throughput rate of these students was then compared to the one-year throughput rate of those students who had indicated that they were not comfortable reading and writing English but enrolled in the English pathway anyway (n = 76). The students on the English pathway achieved a 63% one-year throughput rate, relative to a 33% three-year throughput rate for ESL pathway students.

Figure 8. Transfer-Level English or ESL Equivalent (TLEE) Completion Rates of ELL US High School Graduates Who Indicated They Were Not Comfortable Reading and Writing English, Disaggregated by Pathway

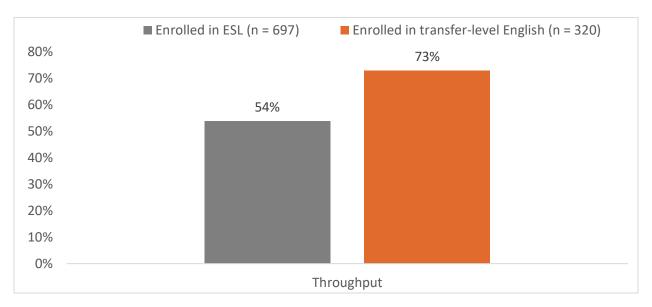


Although the sample sizes for this analysis were relatively small, the differences were statistically significant (t=3.214, df=116, p = .002), indicating that **the question**, "Are you comfortable reading and writing English?" is not a good predictor of which ELL US high school graduates will perform well in transfer-level English coursework and which should be directed to the ESL pathway.

RQ 5: Do ELL high school graduates who were enrolled in ELD classes in their senior year have higher throughput rates on the ESL pathway or the English pathway?

There is a large and statistically significant difference in one-year throughput rates for students who enrolled in an English Language Development (ELD) course in their senior year in high school and then pursued the English pathway at community college (73%) versus those who were enrolled in an ELD course in their senior year and pursued the ESL pathway at college (54%) (t (1,015) = 6.080, p < .001). As shown in Figure 9 below, students who were enrolled in an ELD course in their final year of high school had higher throughput rates if they enrolled directly in transfer-level English than if they enrolled in ESL at one level below transfer or TLEE (73% one-year throughput rate vs. 54% three-year throughput rate). This finding suggests that even if students are still taking ELD courses in high school during their senior year, the English pathway still maximizes their likelihood of completing transfer-level English.

Figure 9. One-Year Throughput Rates for ELL US High School Graduates Who Enrolled in ELD in Their Senior Year in High School, by Pathway



RQ 6: Are there particular curricular and placement practices that are associated with higher TLE completion?

ELL students who move into the ESL pathway can experience a variety of curricular environments depending on the specific community college in which they enroll. When considering the factors that influenced individual students' likelihood of completing TLE, previous research has clearly shown that average placement level and high school GPA are strong predictors of English and math coursework completion at college (Bahr et al, 2019; Hodara & Lewis, 2017; Scott, Crosta & Belfield, 2014). When we shift our perspective and try to explain differences among colleges, rather than differences among students, we are no longer evaluating the impact of an individual student's high school GPA on that student's odds of passing college coursework, rather, we are evaluating how differences in the average high school GPA of cohorts of students predicts average levels of institutional throughput across colleges. While we may expect that differences across institutions in average placement level and average high school GPA of incoming students will predict differences in institutional throughput, this question has not been directly examined in prior research. These factors will therefore be included in a multivariate model that we develop in an attempt to discover which institutional factors predict and explain differences in the average throughput rates of students across different colleges.

The multivariate model evaluated here considers how college-level factors are associated with differences in average throughput rates of ELL students across colleges. In addition to the average high school GPA and average placement level of ELL students, the model includes data

points for the average age of students, the proportion of ELL students with no record of taking ELD courses in high school, the proportion of student body with Spanish or Asian language background, and the complexity of the ESL sequence.²¹ Model fit statistics are presented in Appendix C.

Importantly, the average high school GPA of each college's cohort of students on the ESL pathway is not a significant predictor of throughput, suggesting that the effect of high school GPA is diluted or overridden by the impact of the curricular structure into which students are placed. However, institutional throughput rates were associated with the average age of ELL students. As the average age of the ELL student body increased, the average institutional throughput rate tended to decrease.

The major factors influencing institutional throughput rates of ELL students on the ESL pathway that are under the control of colleges were the average institutional placement level and the average institutional curricular complexity. **Colleges that had assessment and placement structures that tended to place ELL US high school graduates into higher ESL levels had higher average throughput rates.**

Lower institutional throughput was associated with colleges that had complex curricular structures in which ELL students enrolled in multiple ESL courses across more than one ESL TOP code (e.g., reading, speaking, writing, integrated) during their first term on the ESL pathway. The predictors in these college-level models were all college averages. For example, if the average placement level of students on the ESL pathway at one college was one level higher than at another college, the model predicts that the college with the higher average placement level would also have a 5% higher throughput rate (per the value of 0.05 in the "Unstandardized B" column in Table 4 below). The association of average placement level with average college throughput rates was one of the clearest and strongest effects in the model.

The other significant predictors in the model were age, ELL status being indicated only by student's STAR test (i.e., no ELD), the complexity of the ESL curriculum, and the proportion of students on the ESL pathway who were not US citizens.²² All of these factors, except for non-citizen status, were negatively associated with average college throughput rates. Average institutional throughput rate tended to be lower to the extent that the average age of students on the ESL pathway was greater and the proportion of students who had ELD classes in high school was lower. Also, as the complexity of ESL curriculum increased, the average institutional throughput rate decreased. Overall, the model explained 39.3% of the variability in transfer-level English throughput rates among the community colleges in the study (n = 114).

²¹ Complexity is operationalized as the average number of ESL classes students enroll in across different TOP codes (reading, writing, speaking, listening) during their first term on the ESL path.

²² Non-citizen status includes students who were permanent residents, temporary residents, refugees/asylees, or "other" non-citizen status. It did not include international students as they represent an ESL subgroup that is distinct from US high school graduates.

Table 4. Evaluated Predictors of Differences among Colleges in Three-Year Transfer-Level English Throughput for Students on the <u>ESL</u> Pathway

Predictor	Unstandardized Coefficient (B)	Std. Error	Standardized Coefficient (Beta)	t	Sig.
(Constant)	1.671	0.462		3.614	0
Placement level	0.050	0.010	0.404	4.963	0.000****
Age	-0.067	0.022	-0.252	-2.974	0.004***
No ELD in High School	-0.178	0.061	-0.270	-2.917	0.004***
Complex ESL Curriculum	-0.074	0.035	-0.197	-2.139	0.035**
Non-Citizen	0.103	0.056	0.165	1.832	0.070*
Comfort with English	0.123	0.084	0.119	1.456	0.149
TLEE Present	-0.040	0.043	-0.078	-0.934	0.353
Asian Language ELL	0.074	0.084	0.137	0.883	0.380
Spanish Language ELL	-0.059	0.077	-0.127	-0.764	0.447
High School GPA	-0.004	0.050	-0.006	-0.072	0.943

^{*} p<.10

For ELL students who enter the English pathway rather than the ESL pathway at the community college (cf. Tables 5 & 6), predictors of average three-year throughput rates are quite different. While differences in the average high school GPA of incoming ELL students did not explain differences in college's transfer-level English throughput rates for students on the ESL pathway, the average level of high school GPA was the most important factor in explaining the differences among colleges' average transfer-level English throughput rates of ELLs who enter the English pathway. One of the reasons for the difference in the models has to do with the simplicity of the curricular pathway when students begin in transfer-level English. Because of the direct access to transfer-level English, indicators of placement level and curriculum complexity no longer vary across colleges (and therefore cannot be predictors in this model).

In the absence of variability in placement level and curricular complexity, differences among colleges in the average high school GPA of their ELL students becomes the predominant factor predicting successful completion of transfer-level English for student who enter the English pathway directly. Additionally, Asian language background was a marginally significant predictor (p < .10) of lower college throughput rates, as was an ELL population in which a lower proportion experienced ELD coursework in high school. These findings suggest that when ELLs have access to ELD coursework in high school, it may help them to be better prepared to succeed in collegiate ESL and English coursework. The reason Asian language background students are associated with lower levels of throughput is unclear. One hypothesis is that this population of students may include more recent immigrants who may have fewer opportunities to practice English skills outside of classroom settings or prior to arriving in the US.

^{**} p<.05

^{***} p<01

^{****} p<.001

Table 5. Evaluated Predictors of Differences among Colleges in <u>Three-Year</u> Transfer-Level English Throughput for Students on the <u>English</u> Pathway

Predictor	Unstandardized Coefficient (B)	Std. Error	Standardized Coefficient (Beta)	t	Sig.
(Constant)	1.671	0.462		3.614	0
High School GPA	0.177	0.044	0.363	3.997	0.000****
Asian Language ELL	-0.173	0.100	-0.188	-1.724	0.088*
No ELD in High School	-0.126	0.075	-0.152	-1.669	0.098*
TLEE Present	0.177	0.113	0.137	1.563	0.121
Spanish Language ELL	-0.098	0.065	-0.173	-1.499	0.137
Non-Citizen	0.134	0.092	0.126	1.457	0.148
Age	0.019	0.027	0.064	0.72	0.473

^{*} p<.10

The other factors that predict throughput in just one year, which is the standard for students on the English pathway, are largely the same as those that predict throughput in three years. However, the presence of a TLEE option at the college is significant in predicting higher institutional throughput in one year, but not for three years, suggesting that having TLEE courses available can shorten the time it takes students to complete transfer-level English.

Table 6. Evaluated Predictors of Differences among Colleges in <u>One-Year</u> Transfer-Level English Throughput for Students on the <u>English</u> Pathway

Predictor	Unstandardized Coefficient (B)	Std. Error	Standardized Coefficient (Beta)	t	Sig.
(Constant)	1.671	0.462		3.614	0.000
High School GPA	0.177	0.044	0.362	4.009	0.000****
TLEE Present	0.239	0.113	0.185	2.114	0.037**
Asian Language ELL	-0.174	0.100	-0.189	-1.739	0.085*
No ELD in High School	-0.127	0.075	-0.153	-1.687	0.094*
Spanish Language ELL	-0.097	0.065	-0.171	-1.494	0.138
Non-Citizen	0.134	0.092	0.126	1.461	0.147
Age	0.019	0.027	0.063	0.715	0.476

^{*} p<.10

During the time covered by the data file provided, there were six colleges that had implemented TLEE ESL curriculum. Throughput rates for these classes were extremely high.

^{**} p<.05

^{***} p<01

^{****} p<.001

^{**} p<.05

^{***} p<01

^{****} p<.001

However, since most of these classes only satisfied transfer requirements for the CSU and not for the UC, many students enroll first in a TLEE class and then also enroll in a transfer-level English gateway class. Essentially, a similar course is being completed twice and it is not clear if this repetition is benefitting students or if it simply adds additional coursework demands to their academic journey. There is some indication that colleges that have TLEE courses tend to have higher one-year throughput rates for ELL US high school graduates on the English pathway, though not for those on the ESL pathway. This counterintuitive finding may be due to additional institutional factors that co-vary with the presence of a TLEE course, such as generally above average levels of support for ELL students, and it may be these ancillary factors that are leading ELL students on the English pathway to achieve throughput more quickly than their peers at colleges without TLEE.

An analysis of the complexity of the ESL sequences found that more complex ESL sequences, particularly those that result in students taking many ESL courses simultaneously across a number of different TOP codes, are associated with lower throughput rates for individual students, as well as lower overall institutional throughput rates when throughput is compared across colleges. Importantly, this "complexity penalty" is still significant even after controlling for other important cross-institutional factors that influence institutional throughput rates. In summary, average throughput rates of students on the ESL pathway were higher at colleges that tended to place students higher in the ESL sequence and served a higher proportion of non-citizens in their ESL program. Throughput tended to be lower among colleges that had complex ESL sequences, served students who had not taken an ELD course in high school, and had an older ELL student population.

Average throughput rates of ELL US high school graduates on the English pathway tended to be higher at colleges where students' average high school GPA was higher, and lower at colleges with higher proportions of Asian language ELL students and students who had not taken an ELD class in high school.²⁴ The model for one-year throughput rates of ELL US high school graduates on the English pathway also found that students at institutions that offered TLEE had significantly higher one-year throughput rates (though not three-year throughput rates) than students at colleges that did not offer a TLEE course, even when controlling for other differences across colleges.

Limitations

There are several important limitations to this study. During the timeframe covered by the data in this study, colleges have been making changes to curriculum as well as to assessment and placement practices, often in response to AB 705, but also in response to other initiatives such as the Basic Skills Initiative and Guided Pathways, and approaches such as acceleration. More

²³ In this sample of ELL US high school graduates, 65% of students who enrolled in a TLEE class also enrolled in transfer-level English composition.

 $^{^{24}}$ The associations of the Asian language variable and ELD variable with institutional throughput were only marginally significant in these models (p < 0.10).

specifically, this study relies on historical data in which students were placed into developmental English courses, most of which no longer represent valid placement options across the California Community Colleges (Hern, Henson, Arce, Reddy, & Ryan, 2019).

In addition to the redistribution of English and math courses in class schedules to primarily emphasize transfer-level courses, another change fomented by AB 705 has been the development and scaling of corequisite curricular support classes. Unfortunately, there was little to no corequisite innovation available for study in community college ESL curriculum in the timeframe of this analysis, perhaps due to the later deadline that ESL departments have for AB 705 compliance. The evaluation of the impact of corequisite strategies and coursework will need to be addressed in future research.

While the focus of this paper is on the completion of transfer-level English composition, there is not a data element in the CCCCO MIS data that reliably identifies this specific gateway course. As such, our data file captured students first recorded transfer-level English course at the community college. A post-hoc validation analysis was able to conclusively categorize 93% of these transfer-level English courses as either: (a) English composition; (b) English critical thinking with a prerequisite of English composition; or (c) an English course that fulfilled other general education requirements. Among the 93% of courses that were classified, 96.6% were classified as transfer-level English composition, 1.6% were classified as critical thinking English courses with a prerequisite of transfer-level English composition, and 1.8% were classified as satisfying transfer-level general education requirements. So, while there is a small amount of "noise" in the specification of the transfer-level composition variable, it is largely on-target. With the advent of new MIS codes in 2019-2020, the ability to specify transfer-level English composition more precisely should improve.

The data set used in the analyses for this paper included students' informed educational goals, which resulted in a higher proportion of students in the sample having educational goals that were either unreported or unknown. By treating unknown and unreported educational goals as distinct goals, we were able to see that these groupings of students tended to behave quite similarly to the overall average behavior of students with known goals implying that most ELL US high school graduates are either explicitly or implicitly degree-seeking. In future research, it would be desirable to also include students' initial educational goals (i.e., those collected on the application), which would allow for a better overall understanding of how students' goals and intentions relate to their enrollment behavior and educational outcomes and how (or if) goals change when they move from being uninformed to informed.

Better data systems would allow for improved inferences and stronger conclusions in this work. While CalPASS Plus is currently the most comprehensive data system in California for accessing longitudinally linked high school and community college records, high school participation in CalPASS Plus is voluntary and not all Chancellor's Office data system elements are represented in CalPASS Plus. As a result, there is no database that includes all California high school students and all community college students. A recent estimate indicated that 83% of California

community college students have matching high school records in the CalPASS data system.²⁵ CalPASS Plus also does not include data on K-12 or postsecondary enrollments outside of California, which despite our best efforts, limits our ability to know definitively that students who do not have data for specific high school grade levels were not enrolled in another state at that time.

Conclusions

The overall conclusion from the set of analyses described in this paper is that ELL US high school graduates who enter directly in an English pathway are maximizing the likelihood that they will complete transfer-level English relative to similar students who enter the ESL pathway. This finding was robust across several scenarios and for various subgroups of students. While AB 705 specifically targeted students whose educational goals require transfer-level English, most ELL US high school graduates either have explicit goals that require completion of transfer-level English or they are performing in ways that parallel the behavior and outcomes of those who do. Moreover, for the small group of students who have an educational goal of improving basic skills in English, there is a chicken and egg question about whether their informed educational goals and lower throughput rates precede their assignment to the ESL pathway or are a result of being assigned to that pathway.

Common markers of whether an incoming student should be directed to ESL also failed to prove effective in terms of placing students. The research presented in this paper found no empirical basis for requiring ELL students to have a specific number of years of enrollment in a US high school prior to their graduation in order to be eligible to enroll in transfer-level English (or ESL equivalent) upon matriculation at college. Additionally, the evaluation of a single language background question typical of the sort used in many placement processes (i.e., "Are you comfortable reading and writing English?") found that regardless of how ELL US high school graduates responded to this question, they had higher throughput when placed directly into transfer-level English coursework as opposed to ESL coursework. Similarly, students who were enrolled in an English Language Development (ELD) course in their senior year of high school and who followed the English pathway at college had higher completion of transfer-level English coursework than did similar students who followed the ESL pathway.

When comparing transfer-level English throughput rates of ELL US high school graduates across colleges, several features stood out as impacting students' probability of completing transfer-level English. These factors are within the local control of the college, and the variability across the system allows their impact to be evaluated net the effect of other influential factors that are not under the control of colleges. Two major college-level factors influencing the institutional throughput rates of ELL US high school graduates on the ESL pathway were the average ESL placement level and the average complexity of the ESL sequence. **Colleges that**

²⁵ Access, Enrollment, and Success in Transfer-Level English and Math in the California Community College System, September 2019

tended to place ELL US high school graduates into higher ESL levels had higher average throughput rates. Similarly, colleges that had curricular structures that were highly complex and that encouraged students to enroll in ESL courses in more than one ESL TOP code area (e.g., reading, speaking, writing, integrated) also tended to have lower overall institutional throughput rates than colleges that had more streamlined and integrated ESL course sequences.

Throughput for ELL students who enrolled directly in transfer-level English was most clearly associated with the average high school GPA of incoming students. Colleges whose ELL US high school graduates had higher average high school GPA tended to have correspondingly higher one-year throughput rates. Students who enter the English pathway will also experience low-complexity and a high average placement level. The initial positioning and eventual outcomes of ELL students on the English pathway contrast strongly with the positioning and outcomes of students on a typical, non-streamlined ESL pathway (see Figure D1, Appendix D).

Recommendations

Based on the findings from this research, the RP Group offers recommendations to colleges as they implement AB 705 in ESL.

- Understanding, clarifying, and leveraging students' educational goal and program of study is a core component of Guided Pathways, and in turn, Guided Pathways efforts should be supportive of improving the clarity and reliability of educational goal and program of study data during both the application and educational planning processes.
- 2. ELL US high school graduates be **considered by default to be degree-seeking** in order to maximize their completion of transfer-level English composition, even if their educational goal is undecided or unknown at the time of entering the college.
- Rather than focusing on the number of years of US high school incoming ELL students have experienced, simply ascertain whether incoming ELL students have a US high school diploma; if they do, their placement should be on the English pathway.
- 4. Questions about students' linguistic backgrounds should not be used for assessment, placement, or as an informal pre-assessment to channel US high school graduates away from the English pathway and onto the ESL pathway, unless their use has been rigorously validated and approved.
- 5. Ensure students are being **made aware of their option to enroll in ESL coursework.** ELL US high school graduates who are interested in pursuing ESL courses may be directed toward higher-level, academically oriented ESL courses, including transfer-level ESL English-equivalent (TLEE) or transfer-level English courses with an ESL corequisite.

- 6. Make every effort to **streamline ESL sequences**, focusing on a core, integrated curriculum that is required, with other content-specific coursework (e.g., listening, reading, writing) being available as elective support options.
- 7. Since labels are powerful, it may be beneficial for those working in assessment and related areas to **not refer to "ESL students"** as a synonym for ELL students. Most ELL students who graduate from US high schools are not ESL in the sense of enrolling in ESL coursework. Using terms such as English Language Learners (ELLs) avoids a potentially problematic elision.

Future Research

Further research is required to better understand the role of English Language Development (ELD) classes in high school and collegiate transfer-level English-equivalent (TLEE) ESL courses in promoting institutional throughput. In the analysis of institutional-level effects, there were indications that TLEE courses may be beneficial and provide an important option and element of institutional support for ELL US high school graduates. Additionally, colleges where more ELL students had access to ELD classes in high school tended to have higher institutional throughput rates. This finding may indicate that additional ELD coursework in high school could better prepare ELL students for success in college or it may simply be a marker of a higher level of institutional resources and overall institutional quality relative to high schools with lower levels of or no ELD classes.

Taken as a whole, the findings in this paper strongly indicate that ELL US high school graduates will maximize their probability of completing transfer-level English composition by entering the English pathway rather than the ESL pathway. Such a placement is neither a silver bullet nor a guarantee of success, however. In keeping with current guidance and best practices, enhanced concurrent support can help students with lower academic performance in high school achieve better results in college-level work. While many ELL students are high academic performers, they may benefit from corequisite support that is tailored to English language learners. As colleges experiment with providing corequisite support that is specifically designed to support ELL students, evaluation of the success and throughput rates of students is essential.

ELL US high school graduates represent a relatively small subset of all ELL students who enroll in ESL. Further research should **address the additional populations of ELL students who access the community college system**, including adult ELL students who have not attended or graduated from US high schools as well as international students.

Finally, it is important to note that any future research that explores how to optimize ELL students' TLE completion must whenever possible compare the TLE completion rates of students on the ESL path with the performance of similar students who begin on the English path. Only when both pathways are considered can we determine the best way forward.

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Appendix A: The Importance of Student Intent

AB 705 establishes the importance of understanding whether a student intends to attain a degree (either associate or bachelor's). However, in 2005 Bahr, Hom, and Perry asserted that self-reported educational goal was "unreliable:"

The simplest available method of measuring student intent was a nominal measure of self-reported academic goal collected at initial enrollment. However, the malleability of student academic intent within the postsecondary environment, combined with an anticipated response bias associated with the measurement process itself, made this measure too unreliable for this purpose (Bahr, Hom, & Perry, p. 75).

Although no data analysis was presented in the paper regarding the anticipated response bias, an alternative "behavioral intent" approach was proposed:

Consequently, we determined that the most reliable method of identifying students who have the goal of transfer would be found in actual student behavior, as indicated by course enrollment decisions (Bahr, Hom, & Perry, 2005, p. 75).

Since that time, the behavioral intent methodology has been the dominant approach to understanding student outcomes in the California Community Colleges. In the intervening years, the state's official accountability systems have utilized this approach, focusing on cohorts of students who attain certain course and unit benchmarks (Scott & Perry, 2012; California Community Colleges Chancellor's Office (CCCCO), 2012). This approach is congruent with a common and long-standing tendency of educational researchers to make inferences about student goals and aspirations based on logic and assumptions rather than empirical measurement (Nielsen, 2015). The seminal "cooling-out" hypothesis of Clark (1960), for instance, relied on assumptions, inferring changes in student aspirations and goals based on behavior rather than upon empirical measurement.

There are two major issues with the behavioral intent approach to understanding student education goals. First, it devalues student voice, often substituting an inferred goal in place of the goal explicitly stated by the student as if to say, "We know better than you what you intend to do." Second, it is only available retrospectively, as it is based on enrollment and course success data, whereas self-reported student education goal is collected on the application, is available before students enroll in any class, and may be updated throughout the student journey via meetings with counselors to generate an "informed" educational goal. This second issue, the issue of timeliness, is particularly important for use in placement systems, as placement needs to occur very early in the student's engagement with college.

Appendix B: Comparison among Students by Recorded Educational Goals Status

Table B1. Descriptive Characteristics of ELL US High School Graduates Disaggregated by Informed Educational Goal Status

	Ed Goal Recorded	Ed Goal Uncollected	Ed Goal Missing	Ed Goal Undecided
ELL Status Source				
ELD course enrollment only	6%	4%	4%	6%
STAR designation only	79%	82%	81%	79%
Both ELD course enrollment and STAR	15%	14%	15%	15%
designation				
Language Group				
Asian	14%	10%	11%	16%
Spanish	72%	75%	75%	72%
Euro/Middle Eastern	6%	5%	5%	4%
Other language group	14%	15%	14%	12%
Pathway				
ESL	15%	13%	15%	13%
English	85%	87%	85%	87%
Demographics				
US citizen	68%	74%	72%	65%
Comfortable reading/writing English	98%	98%	98%	97%
Age at college entry in years	18.19	18.04	18.12	18.15
Average starting level below transfer	-1.78	-1.65	-1.83	-1.66
High school GPA	2.44	2.44	2.39	2.44
Throughput	26%	25%	21%	26%

Table B2. Sample Size of ELL US High School Graduates by Informed Educational Goal Status

	Ed Goal Recorded	Ed Goal Uncollected	Ed Goal Missing	Ed Goal Undecided
ELL Status Source	Recorded	Officonected	iviissiiig	Ondecided
ELD course enrollment only	45,248	41,951	35,813	11,326
STAR designation only	45,248	41,951	35,813	11,326
Both ELD course enrollment and STAR	45,248	41,951	35,813	11,326
designation		·	·	·
Language Group				
Asian	45,248	41,951	35,813	11,326
Spanish	45,248	41,951	35,813	11,326
Euro/Middle Eastern	45,248	41,951	35,813	11,326
Other language group	45,248	41,951	35,813	11,326
Pathway				
ESL	6,334	5,463	5,524	1,424
English	37,255	36,488	31,948	9,902
Demographics				
US citizen	45,248	41,951	35,813	11,326
Comfortable reading/writing English	9,828	9,053	7,864	2,869
Age at college entry in years	45,243	41,950	35,812	11,326
Average starting level	44,990	41,839	35,607	11,266
High school GPA	36,813	35,276	29,492	9,636
Throughput	45,248	41,951	35,813	11,326

Table B3. ELL US High School Graduates by Informed Educational Goal Status: Differences among Uncollected, Missing, and Undecided versus Recorded Goal Students

	Recorded minus Uncollected	Recorded minus Missing	Recorded minus Undecided
ELL Status Source			
ELD course enrollment only	2%	2%	0%
STAR designation only	-2%	-2%	0%
Both ELD course enrollment and STAR designation	0%	0%	0%
Language Group			
Asian	4%	3%	-2%
Spanish	-3%	-3%	0%
Euro/Middle Eastern	1%	1%	1%
Other language group	-1%	0%	2%
Pathway			
ESL	2%	0%	2%
English	-2%	0%	-2%
Demographics			
US citizen	-6%	-3%	3%
Comfortable reading/writing English	0%	0%	1%
Age at college entry in years	0.15	0.07	0.04
Average starting level	-0.13	0.05	-0.12
High school GPA	0.00	0.05	0.01
Throughput	1%	5%	0%

In Table B3, positive numbers indicate that the value for students with recorded educational goals are higher than for the comparison group. While most differences among ELL students based on their educational goal status are relatively small, on the order of zero to two percentage points different, there are a few areas where some larger differences occur. ELL students with recorded informed educational goals are <u>less</u> likely to be US citizens than those with uncollected goals (6 percentage points) and missing goals (3 percentage points). However, they are more likely to be US citizens than those with an undecided goal (3 percentage points). Students with recorded goals are more likely to be Asian than those with uncollected goals (4 percentage points) or missing goals (3 percentage points). Finally, while the throughput rate of students with recorded educational goals is on par with that of those with uncollected (1 percentage point) or undecided goals (0 percentage points), it is notably higher than the throughput rate of those with missing goals (5 percentage points).

Appendix C: Regression Model Fit Statistics

Table C1. Fit Statistics for Multivariate Model Explaining Differences Among Colleges in Three-Year Transfer-Level English Throughput for Students on the ESL Pathway

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672a	.451	.393	.09406

Predictors: (Constant), CCAge_mean, ESL_FL_complexity_mean, APComfortableEnglish_mean, Asian_language_mean, Real_Level_mean, non_citizen_mean, TLEE_Present, HSGPA_mean, STAR_only_mean, Hispanic_language_mean

Table C2. Fit Statistics for Multivariate Model Explaining Differences Among Colleges in Three-Year Transfer-Level English Throughput for Students on the English Pathway

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505a	.255	.205	.10754

a. Predictors: (Constant), TLEE_present_mean, Hispanic_language_mean, CCAge_mean, non_citizen_mean, STAR_only_mean, HSGPA_mean, Asian_language_mean

Table C3. Fit Statistics for Multivariate Model Explaining Differences Among Colleges in One-Year Transfer-Level English Throughput for Students on the English Pathway

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.513a	.263	.214	.10728

a. Predictors: (Constant), TLE_present_mean, Hispanic_language_mean, CCAge_mean, non_citizen_mean, STAR_only_mean, HSGPA_mean, Asian_language_mean

Appendix D: ESL Curricular Complexity

For students placed below the top ESL level ("Advanced"), the high complexity ESL sequence shown in Figure D1 requires enrollment across two distinct ESL TOP codes (Writing and Reading) in order to progress up the ladder and enter transfer-level English or ESL equivalent. Students also need to enroll in two other ESL classes with distinct TOP codes (Pronunciation and Listening & Speaking) in order to complete the general education Communication requirement. Therefore, for students placed at the Intermediate level (i.e., three levels below, a typical initial placement) they could potentially be enrolled in up to five ESL classes simultaneously in order to progress up the ladder in a synchronized manner (i.e., Writing, Reading, Pronunciation, Listening & Speaking, along with the optional ESL Grammar class).

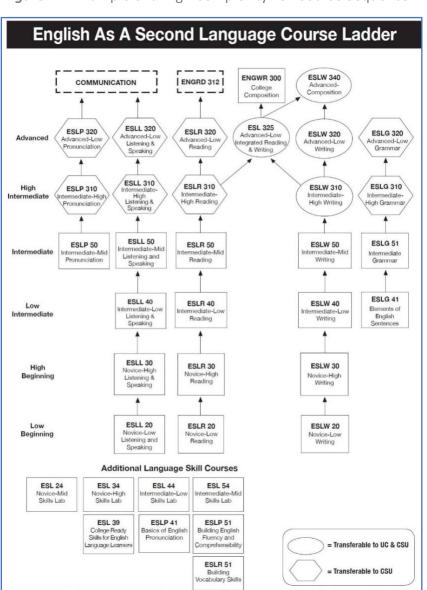
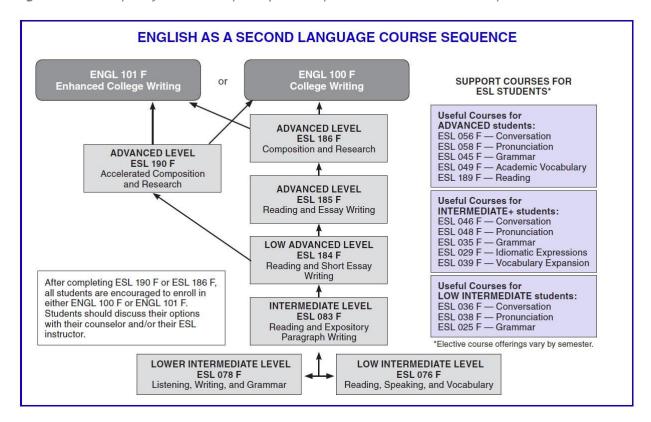


Figure D1. Example of a High Complexity ESL Course Sequence

In contrast to the high complexity sequence example shown in Figure D1, Figure D2 shows a more streamlined core sequence that only requires enrollment in more than one distinct ESL TOP code at the very lowest level of ESL placement (i.e., five levels below "Low Intermediate Level"). This sequence additionally includes an option to accelerate or skip a level and additional ESL support courses in distinct TOP code areas labeled as "Useful," are optional.

Figure D2. Example of a Low Complexity ESL Sequence with Acceleration Option



While the ESL sequences shown in Figures D1 and D2 both illustrate a direct connection to transfer-level English composition or ESL equivalent, the sequence with greater complexity affords many more opportunities for delay and attrition than does the less complex sequence. It is likely that the complexity of sequences varies across colleges in part as a function of the demographics of the students being served. For instance, colleges that serve a large population of older English language learners who have not completed high school in the US may tend to have deeper and more complex sequences in response to a large number of students having more fundamental learning needs.

Research and Planning Group for California Community Colleges

The RP Group strengthens the ability of California community colleges to discover and undertake high-quality research, planning, and assessments that improve evidence-based decision-making, institutional effectiveness, and success for all students.

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