



# Supporting College Enrollees Who Test at the Lowest Levels of Readiness

Lessons from Texas Community Colleges—  
Technical Appendix

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## Preface

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The report *Supporting College Enrollees Who Test at the Lowest Levels of Readiness: Lessons from Texas Community Colleges* provides perspectives on the efforts of Texas policymakers to encourage colleges across the state to provide improved support to students who enroll in college and are assessed at the lowest levels of readiness. Those perspectives were based on four years of research and technical assistance work conducted in Texas by the RAND Corporation, the Texas Higher Education Coordinating Board, and the American Institutes for Research. In this technical appendix, we describe the study and the various data sources that were used to provide the descriptive analysis underlying the report. This appendix also features some more-detailed tables supporting the findings cited in the report.

The research was undertaken by RAND Education and Labor, a division of the RAND Corporation that conducts research on early childhood through postsecondary education programs, workforce development, and programs and policies affecting workers, entrepreneurship, and financial literacy and decisionmaking. The research reported here was supported, in whole or in part, by the Institute of Education Sciences, U.S. Department of Education, through grant R305H150069 to the RAND Corporation. The opinions expressed are those of the authors and do not represent the views of the Institute or the U.S. Department of Education.

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## Abbreviations

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ABE	adult basic education
CTE	career and technical education
DE	developmental education
DEPS	Developmental Education Practices Survey
ESOL	English as Speakers of Other Languages
NCBO	non-course competency-based option
THECB	Texas Higher Education Coordinating Board
TSIA	Texas Success Initiative Assessment

# 1. Study Description

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Between 2015 and 2019, our team of RAND Corporation researchers worked with the Texas Higher Education Coordinating Board (THECB) and the American Institutes for Research on two separate studies of developmental education reform in Texas:

1. a continuous improvement study that focused on two types of developmental education reforms: holistic advising and supports for students testing at the lowest levels
2. a randomized control trial evaluating reading and writing corequisite models.

The report focuses on findings from the first study, the aims of which were to provide continuous improvement support to THECB and colleges as they rolled out several new developmental education reforms and to provide evidence on the implementation of these statewide reforms for Texas stakeholders and for others across the nation implementing similar reforms.

As noted, this study examined two different types of developmental education reforms being rolled out in the state of Texas: holistic advising (the requirement that colleges consider multiple measures beyond placement test scores when assigning students to developmental education) and enhanced assessment and academic support for students who score at the lowest levels. The work was conducted in partnership with six community colleges divided into two working groups, with three colleges working on each of the two reforms. These colleges were selected for the study on a voluntary basis according to their willingness to engage in deep-dive continuous improvement and evaluation work; we provide additional details on the colleges in the “lowest scoring student” working group later in this appendix. A team of researchers engaged practitioners at each of the colleges in three annual continuous-improvement (i.e., Plan-Do-Study-Act) cycles to (1) make improvements to programs and initiatives that serve students testing at the lowest levels and (2) provide evaluation and technical assistance support. This close work allowed us to develop a deep understanding of the approach these three colleges took to implementing the state’s recommendations and the barriers they encountered on the way.

Our analysis of statewide data provided us with a broader view at what was happening across the state in response to the recommendations of state policymakers. We conducted descriptive analysis of statewide data, used data from an annual survey fielded by THECB, and conducted interviews with other colleges. We also engaged regularly with THECB staff through weekly and monthly meetings and interacted informally with college administrators and staff through participation in regional developmental education conferences. These state data sources and discussions helped to provide valuable insights into how colleges were responding to state reforms and the barriers they were facing.

To inform the field about how policy and institutional practices might be used to better serve students who score at the lowest levels (adult basic education [ABE] level scores of 1–4), our efforts focused on three research questions:

1. What were the characteristics of the student population that tested at the lowest levels on the state placement exam and was targeted by the reforms?
2. What were some of the biggest implementation barriers that colleges faced, and how did colleges overcome these barriers?
3. What were some of the biggest implementation challenges that colleges faced, and how did they overcome these challenges?

The descriptive findings in the report draw from several different sources of quantitative and qualitative data. We provide a description of these data sources below, followed by a discussion of study limitations.

## Data Sources

As described above, we drew our findings on students testing at the lowest levels in Texas community colleges from four sources of data: statewide administrative data, responses to a statewide survey, case studies of the three colleges in a working group, and interviews with nine other colleges across the state. An overview of these data sources is provided in Table 1.1, and we provide a brief description of each below. All data sources were restricted to community colleges.

**Table 1.1. Data Sources Used to Support the Continuous Improvement Study**

<b>Data Source</b>	<b>Sample</b>	<b>Time Span</b>
State administrative data	All fall 2015 first-time college students who enrolled at community colleges in Texas and took the Texas Success Initiative Assessment (TSIA)	Fall 2015 cohort, followed through spring 2018
State survey	All community colleges in Texas	Fall 2016
Case studies	Three working group colleges	Fall 2015 through spring 2018
Interviews	2016: 14 colleges sampled according to state survey responses, 5 interviewed 2018: 12 colleges sampled according to outcomes for students with ABE level scores of 1–4, 4 interviewed	Summer 2016, Spring 2018

### *State Administrative Data*

The population of lower-scoring students affected by the state policy consists of students who took the TSIA, tested at levels 1–4 on the ABE diagnostic, and were planning to enroll in postsecondary education programs that required demonstration of college readiness. To examine

the characteristics and success rates of these students, we drew from semester files collected by THECB and test score files provided by the College Board to THECB.

THECB files include a variety of administrative data on students enrolled in public Texas colleges, such as data on student characteristics, test scores, course performance, enrollment, and completion. These files are submitted by institutions to THECB each semester for the purposes of funding and accountability. Colleges are responsible for reporting on students who are enrolled in all postsecondary programs funded by THECB, including those students' credit-bearing college coursework in academic and career and technical education (CTE) pathways and continuing education. The Texas Workforce Commission (TWC) oversees adult education programs, so colleges and other entities overseeing adult education programs are required to report on those students to TWC. We did not have access to TWC data for the purposes of analysis, meaning that we could not track students who had ABE level scores of 1–4 on the TSIA and directly entered adult education programs without also enrolling in postsecondary coursework.

Although the reporting of administrative data in Texas is robust and systematic, there were several limitations to the institution-reported assessment data. First, scores were reported for students only when they were placed according to the scores, so these data might not represent all enrollees who took the assessment. Second, we found that ABE diagnostic scores were not consistently reported by colleges in administrative files. To ensure we were fully identifying students who were assessed with ABE level scores of 1–4 on the TSIA, we supplemented the state administrative data files from institutions with comprehensive TSIA testing data from the College Board. By merging College Board data with state administrative data that used names and birthdates, we were able to fill in several missing records, but approximately 10 percent of students were missing test score data.

We conducted descriptive analysis of the data to better understand what types of students entered college with test scores at the lowest levels and to determine whether these students face lower rates of postsecondary achievement. Our analysis focused on first-time-in-college students enrolling at community colleges in the fall of 2015, the time at which community colleges were supposed to begin implementing the new state guidance. We classified students as testing at the lowest levels in a subject if their highest test scores available prior to enrollment indicated a score on the ABE diagnostic that fell between 1 and 4. We assessed three-year persistence and completion outcomes for these students by following them in the state administrative data through the spring of 2018 to examine three-year persistence and completion outcomes.

The score ranges used to distinguish between college ready scores, developmental education scores, and ABE level scores are listed in Table 1.2.

**Table 1.2. Cut Score Ranges on the Texas Success Initiative Assessment**

<b>Subject</b>	<b>College Ready</b>	<b>Developmental Education</b>	<b>ABE Level Score of 1-4</b>
Reading	351–390	333–350	310–332 and ABE 1–4
Writing	350–390 and Essay 5–9; 363–390 and Essay 4–9; 310–390 and ABE 5–6 and Essay 5–9	310–349, ABE 5–6 and Essay 1–4; 350–362 and Essay 1–4; 363–390 and Essay 1–3	310–349 and ABE 1–4
Mathematics	350–390	336–349	310–335 and ABE 1–4

NOTES: These cut scores were valid through the summer of 2017, at which time the state mandated a change in college-ready cut scores for writing. Starting in the fall of 2017, the writing cut score for college readiness was lowered.

THECB offered a table with information on each ABE level score to facilitate a clear understanding of the skills associated with each score level on the ABE diagnostic (Table 1.3). These descriptors were based on the National Reporting System Educational Functioning Level Descriptors used for federal Adult Education and Literacy programs.

**Table 1.3. Texas Success Initiative ABE Diagnostic Level Descriptors**

<b>Literacy Level</b>	<b>Basic Reading and Writing</b>	<b>Numeracy</b>
Level 1 (grade equivalency 0–1.9)	Individual has no or minimal reading and writing skills. May have little or no comprehension of how print corresponds to spoken language and may have difficulty using a writing instrument. At the upper range of this level, individual can recognize, read, and write letters and numbers but has a limited understanding of connected prose and may need frequent rereading. Can write a limited number of basic sight words and familiar words and phrases; may also be able to write simple sentences or phrases, including very simple messages. Can write basic personal information. Narrative writing is disorganized and unclear, inconsistently uses simple punctuation (e.g., periods, commas, question marks), and contains frequent errors in spelling.	Individual has little or no recognition of numbers or simple counting skills or may have only minimal skills, such as the ability to add or subtract single-digit numbers.
Level 2 (grade equivalency 2–3.9)	Individual can read simple material on familiar subjects and comprehend simple and compound sentences in single or linked paragraphs containing a familiar vocabulary; can write simple notes and messages on familiar situations but lacks clarity and focus. Sentence structure lacks variety, but individual shows some control of basic grammar (e.g., present and past tense) and consistent use of punctuation (e.g., periods, capitalization).	Individual can count, add, and subtract three-digit numbers, can perform multiplication through 12, can identify simple fractions, and perform other simple arithmetic operations.

<b>Literacy Level</b>	<b>Basic Reading and Writing</b>	<b>Numeracy</b>
Level 3 (grade equivalency 4–5.9)	Individual can read text on familiar subjects that have a simple and clear underlying structure (e.g., clear main idea, chronological order); can use context to determine meaning; can interpret actions required in specific written directions; can write simple paragraphs with a main idea and supporting details on familiar topics (e.g., daily activities, personal issues) by recombining learned vocabulary and structures; and can self and peer edit for spelling and punctuation errors.	Individual can perform with high accuracy all four basic math operations using whole numbers up to three digits and can identify and use all basic mathematical symbols.
Level 4 (grade equivalency 6–8.9)	Individual is able to read simple descriptions and narratives on familiar subjects or from which new vocabulary can be determined by context and can make some minimal inferences about familiar texts and compare and contrast information from such texts but not consistently. The individual can write simple narrative descriptions and short essays on familiar topics and has consistent use of basic punctuation but makes grammatical errors with complex structures.	Individual can perform all four basic math operations with whole numbers and fractions; can determine correct math operations for solving narrative math problems and can convert fractions to decimals and decimals to fractions; and can perform basic operations on fractions.
Level 5 (grade equivalency 9–10.9)	Individual can comprehend expository writing and identify spelling, punctuation, and grammatical errors; can comprehend a variety of materials such as periodicals and nontechnical journals on common topics; can comprehend library reference materials and compose multiparagraph essays; can listen to oral instructions and write an accurate synthesis of them; and can identify the main idea in reading selections and use a variety of context issues to determine meaning. Writing is organized and cohesive with few mechanical errors; can write using a complex sentence structure; and can write personal notes and letters that accurately reflect thoughts.	Individual can perform all basic math functions with whole numbers, decimals, and fractions; can interpret and solve simple algebraic equations, tables, and graphs and can develop own tables and graphs; and can use math in business transactions.
Level 6 (grade equivalency 11–12)	Individual can comprehend, explain, and analyze information from a variety of [literary] works, including primary source materials and professional journals, and can use context cues and higher-order processes to interpret meaning of written material. Writing is cohesive with clearly expressed ideas supported by relevant detail, and individual can use varied and complex sentence structures with few mechanical errors.	Individual can make mathematical estimates of time and space and can apply principles of geometry to measure angles, lines, and surfaces and can also apply trigonometric functions.

SOURCE: National Reporting System Educational Functioning Level Descriptors used for federal Adult Education and Literacy programs.

NOTES: Level 5 and 6 descriptors are shaded in gray to indicate that students with these score levels were not considered among the lowest-scoring population of students and were not targeted by the specific reforms that were focused on for the study.

## State Survey Data

To understand more about the efforts made by institutions to implement the state-recommended supports for students testing at the lowest levels, we drew from the state’s annual Developmental Education Practices Survey (DEPS). The survey asks colleges to report on their developmental education programs and other high-priority initiatives to support student success. Colleges choose one representative to provide responses on behalf of the college.

Although survey items vary from year to year according to the priorities of THECB, the instrument has approximately 25–35 questions. The 2015 and 2016 waves both featured questions on student supports for those with ABE level scores of 1–4, but inconsistent wording of questions across years limited our ability to examine trends across survey waves. As a result, we focus on results from the fall of 2016, when colleges were asked whether they could access ABE diagnostic scores for the purposes of placement, whether they used different advising practices for students with ABE level scores of 1–4, and which types of academic supports colleges offered.

The specific items used from the DEPS were:

- Item A2. For each of the following groups of students, indicate whether advising practices, rubrics, or guidelines are differentiated:
  - Students testing at the BASE/ABE-levels
  - Students identified as ESL/ESOL (English as Speakers of Other Languages)
  - Students with learning disabilities/special needs
  - By student major or program of study
  - Students in workforce (CTE) programs.
  
- Item A7. Rank the following options based on how students who score at the BASE level on the TSIA are most often placed in or referred to at your institution? (Use “1” for the placement/referral utilized most students.) Do not rank options that are not available at your institution. If your institution does not place or refer BASE level students, enter “1” for “Not applicable/Not available.” If your institution does not provide a BASE NCBO [non-course competency-based option], but does enroll students into DE [developmental education] or CTE courses with other types of supports (such as intrusive advising or tutoring), select DE or CTE course without BASE NCBO.
  - DE courses without BASE NCBO
  - DE courses with BASE NCBO
  - Career and technical education (CTE) courses without BASE NCBO
  - Career and technical education (CTE) courses with BASE NCBO
  - Continuing Education (CE)
  - Adult education and literacy (AEL) programs
  - Accelerate Texas
  - TSIA test and re-test preparation programs
  - Not applicable/Not available.

Item A2 was used to determine whether colleges were systematically using ABE diagnostic scores to differentiate advising practices for students testing at the lowest levels. Item A7 was used to determine whether colleges offered concurrent academic supports (BASE NCBO) and adult education programs, and which of their various offerings was the primary referral option for students with ABE level scores of 1–4.

The survey is fielded to all public colleges in the state on an annual basis. The timing of the survey varies from year to year; the survey asking colleges about practices in the fall of 2016 was fielded in the spring of 2017. The data consisted of 69 responses, each accounting for a different community college.<sup>1</sup> This represents a completion rate of 100 percent because completion of the DEPS is mandatory for public colleges. We conducted descriptive analysis of these data to describe how community colleges across the state served their students with ABE level scores of 1–4.

### *Case Study Data from Working Group Institutions*

The close work between the study team and the three working group colleges (referred to as “case study colleges” in the main report) featured many different approaches to data collection and analysis between the fall of 2015 and the fall of 2018, consisting of focus groups with students and faculty, interviews with administrators and other colleges staff, and descriptive and quasiexperimental analysis of institutional data. We analyzed these data to describe the specific efforts of each of the three colleges to implement the state’s guidance for students with ABE level scores of 1–4, to assess the use of various programs and services within the college, to assess relationships between various programs and student outcomes, and to identify themes that emerged across colleges.

The three case study colleges volunteered to participate in the study and were not intended to serve as a representative sample of the state. The colleges were among the largest in the state, collectively accounting for 15 percent of the state’s first-time community college enrollees in the fall of 2015. Relative to other community colleges in the state, these colleges served diverse populations of students, such as large populations of nonwhite, economically disadvantaged, and Limited English Proficient students (Table 1.4). At these case study colleges, a greater proportion of tested students than the state average were found to have an ABE level score of 1–4 in one or more subject areas.

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<sup>1</sup> Some college systems report as single colleges; others report as separate colleges.

**Table 1.4. Characteristics of Case Study Institutions, First-Time Enrollees in Fall of 2015**

	<b>College A</b>	<b>College B</b>	<b>College C</b>	<b>All Other Community Colleges</b>
Assessed with TSIA	73.9%	84.9%	72.4%	78.5%
Assessed at ABE level scores of 1–4 on TSIA	12.1%	19.3%	19.9%	10.3%
Economically disadvantaged	97.5%	76.0%	82.8%	29.8%
25 years or older	19.4%	9.4%	8.8%	10.5%
Black	22.0%	1.9%	0%	12.3%
Hispanic	44.7%	88.1%	96.3%	43.6%
White	11.6%	6.5%	2.5%	34.5%
Male	47.2%	46.7%	49.5%	49.0%
Limited English proficiency	11.1%	9.2%	—	3.6%
Disability	—	5.1%	2.5%	1.7%
<i>N</i>	4786	4224	4072	84119

NOTES: Statistics are for first-time-in-college enrollees in the fall of 2015 at case study colleges and all other community colleges who were assessed on the TSIA and enrolled in postsecondary coursework. Limited English proficiency data for College C and disability data for College A are not reported because the data appears to have been incorrectly reported.

### *Interviews with Texas Community Colleges*

To supplement the statewide DEPS data and the case study data, we conducted interviews with small samples of administrators at institutions in 2016 and 2018 to find out more about the practices of institutions outside the working group. Interviews in both years were conducted according to standard interview protocols and were designed to last one hour, with topics covering placement policies, advising practices, the design of academic supports, and challenges with implementation. Notes taken during the interviews were analyzed to describe the variety of practices and key themes that emerged across colleges.

Table 1.5 details the characteristics of students in the interview institutions. In 2016, we sampled 14 institutions using their responses to the 2015 DEPS survey, choosing seven institutions whose responses suggested high alignment with state recommendations and seven institutions whose responses suggested low alignment with state recommendations. We ultimately ended up interviewing five of these institutions, including three that fell in the high alignment category and two that fell in the low alignment group. In 2018, we used two-year outcome data for the fall 2015 cohort of students with ABE level scores of 1–4 to sample the 12 institutions with the highest outcomes in terms of persistence and gateway course completion for students testing at these lowest levels. Of the 12 institutions in the sample, we completed interviews with four institutions.

The sample of institutions in each year were not chosen to be representative, and Table 1.5 indicates that although the interview colleges were similar to the noninterview colleges across a variety of characteristics, there were some differences. The interview colleges had larger

Hispanic populations than other colleges in the state, fewer Black and White students, and fewer students designated as Limited English Proficient. We did not find large differences between the students who participated in the interviews and those who were contacted but did not participate in an interview.

**Table 1.5. Characteristics of Interview Institutions, Fall 2015 First-Time Enrollees**

	Interview Colleges	Other Community Colleges
Assessed with TSIA	81%	78%
Assessed at ABE level scores of 1–4 TSIA	10%	11%
Economically disadvantaged	38%	37%
25 years or older	10%	11%
Black	7%	12%
Hispanic	59%	46%
White	28%	31%
Male	49%	49%
Limited English Proficient	1%	4%
Disability	1%	2%
<i>N</i>	10,838	86,383

NOTES: Statistics are based on first-time-in-college enrollees in the fall of 2015 at interview colleges and all other noninterview community colleges who were assessed on the TSIA and enrolled in postsecondary coursework.

\*\*\* Represents differences relative to non-interview colleges that are statistically significant at the  $p < 0.001$  level,

\*\* $p < 0.01$  level, \*  $p < 0.05$  level.

## Study Limitations

The primary goal of this study was to support continuous improvement at the state and institutional levels within Texas. Although we made efforts to collect statewide implementation data wherever possible, our qualitative findings on challenges with implementation were disproportionately drawn from the experiences of our case study colleges. As a result, our qualitative findings on the types of programs that colleges developed and the challenges they encountered with implementation should not be interpreted as representative of colleges across the state.

With a 100-percent response rate, the statewide survey serves as a strong source of representative data regarding implementation statewide. However, the survey featured a limited number of questions on students with ABE level scores of 1–4, and these questions and response options changed from year to year, so we were unable to track patterns in implementation over time. As a result, our analysis of statewide implementation is limited and focuses on a single point in time, fall of 2016.

Finally, the study’s focus on implementation means we cannot speak to the impacts or effectiveness of reforms. We did not conduct analysis to identify effective models of support, so

we are limited in our ability to make recommendations on whether states should adopt similar policies, and whether there are best practices that institutions could replicate. We do provide some data on variation in success rates with students who had ABE level scores of 1–4 across colleges and how success is associated with the take-up of the state, but this should not be interpreted as evidence on the effectiveness of the state’s policy and institutional programs.

## 2. Details on Findings Described in the Report

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The report cites statistics on the students with ABE level scores of 1–4 and the approaches that colleges took to support these students. Here we provide some additional detail on the analyses and the full data tables and figures supporting the report content.

### Students Test Scores on the State Placement Exam

The students targeted by the state’s new resources and guidance are those who were assessed on the TSIA and received ABE level scores of 1–4. The report notes that 72 percent of first-time college students entering in 2015 were assessed with the TSIA. Table 2.1 provides the data supporting these findings, and also details the proportion of students qualifying for various waivers and exemptions. It is important to note that a student could have taken the TSIA and received an exemption or waiver. For example, students who end up enrolling in short-certificate programs that are exempt from TSIA assessment might have taken the TSIA because of uncertainty about which programs they wanted to enroll in, or because of institutional testing policies requiring all students to take the TSIA, even though that data cannot be used to require academic support for all students.

**Table 2.1 Percentage of Students Assessed with the TSIA and Receiving Waivers or Exemptions**

	<b>Math</b>	<b>Reading</b>	<b>Writing</b>
Assessed on the TSIA	72.6%	72.4%	72.0%
Waived from testing			
Short certificate enrollment, or non-degree seeking	4.1%	4.1%	4.1%
Military/veteran	1.0%	1.0%	1.0%
Exempted from testing			
Other test scores indicating readiness	0.5%	0.5%	0.5%
Prior enrollment or course-taking	14.0%	15.5%	15.7%
Other Exemption or Reason Not Indicated	7.7%	7.7%	6.5%
<i>N</i>	97,201	97,201	97,201

NOTES: Statistics are based on fall 2015 first-time in college enrollees at all community colleges in Texas who were assessed on the TSIA and enrolled in postsecondary coursework.

The report notes that 7 percent of students assessed on the TSIA had ABE level scores of 1–4 in at least one subject, and that it was more common for students to be assessed with ABE level scores of 1–4 in math than in reading or writing. Table 2.2 presents the data on the percentage of students with ABE level scores of 1–4 in each subject.

**Table 2.2. Test Score Distribution by Subject**

	Reading	Writing	Mathematics	At Least One Subject
College-ready levels	31.8%	28.8%	15.4%	--
Developmental education levels	21.5%	21.6%	32.9%	--
ABE level score of 1–4	1.5%	2.1%	6.0%	7.3%
No score data	45.1%	47.5%	45.7%	--
<i>N</i>	97,201	97,201	97,201	97,201

NOTES: Statistics are based on first-time-in-college enrollees at Texas community colleges in the fall of 2015 who were assessed on the TSIA and enrolled in postsecondary coursework. Students with no score data include those who had a waiver or exemption and did not take the TSIA, and those for who scores were not fully reported in the data.

Among students with ABE level scores of 1–4, the vast majority had a level 4 as their lowest ABE level score (Table 2.3). Only a couple hundred students across the state scored at levels 1 and 2.

**Table 2.3. Lowest ABE Diagnostic Level for Students with ABE Level Scores of 1–4**

ABE Level	Percentage	<i>N</i>
1	1.6%	111
2	4.0%	286
3	15.2%	1077
4	79.2%	5609

## Characteristics of Students With ABE Level Scores of 1–4

Figure 1 in the report provides descriptive statistics on students with ABE level scores of 1–4, and these results are presented in Table 2.4. As documented in the table notes, these data focus on students enrolled in postsecondary coursework and do not include students who enrolled exclusively in adult education. Students with ABE level scores of 1–4 are compared with other college enrollees who took the state’s placement exam and scored at higher levels.

**Table 2.4. Student Characteristics by Test Scores**

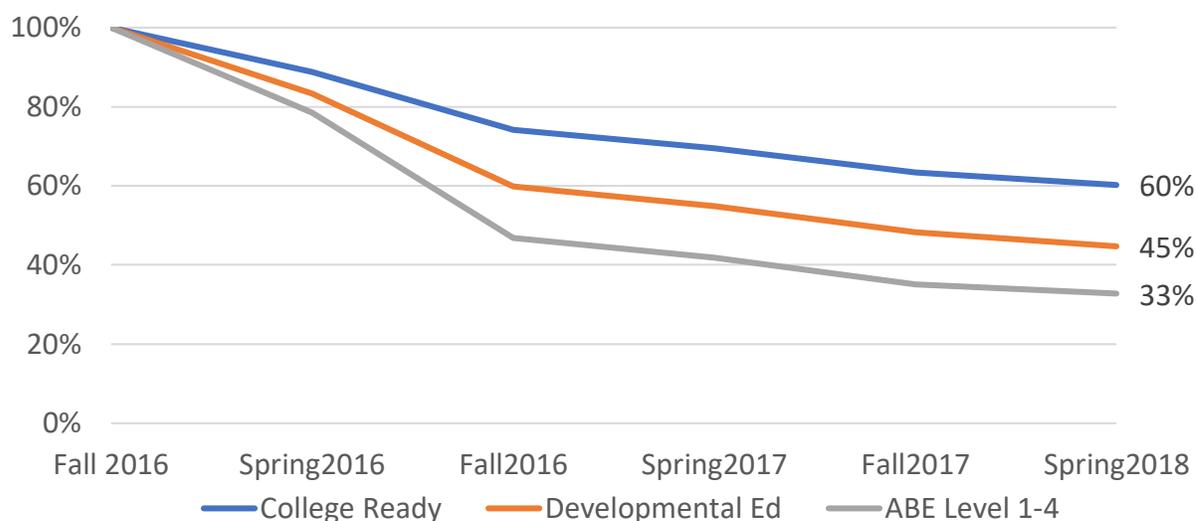
	ABE Level 1–4	Developmental Education and College Ready
Economically disadvantaged	65.4%	50.9%
25 years or older	16.2%	8.8%
Black	22.4%	12.1%
White	16.6%	30.3%
Hispanic	52.1%	48.7%
Male	43.8%	47.1%
Limited English proficiency	9.2%	3.7%
Disability	6.6%	2.0%

NOTES: Statistics represent the percentage of first-time-in-college students with various characteristics by test score, comparing students with ABE level scores of 1–4 on the TSIA with students testing at higher levels.

## Persistence and Completion Rates by Test Score

We document the low persistence rates of students testing at the lowest levels as evidence that additional support for these students might be needed. THECB data allowed us to track persistence, transfer, and completion outcomes for all colleges in Texas—both public and private institutions—from the fall of 2015 through the spring of 2018. Figure 2.1 depicts students who remained enrolled in a Texas college and/or completed a degree or certificate. The data indicate that students testing at developmental education levels are 12 percentage points less likely to drop out within three years than are students with ABE level scores of 1–4; students testing at college-ready levels are 27 percentage points less likely to drop out.

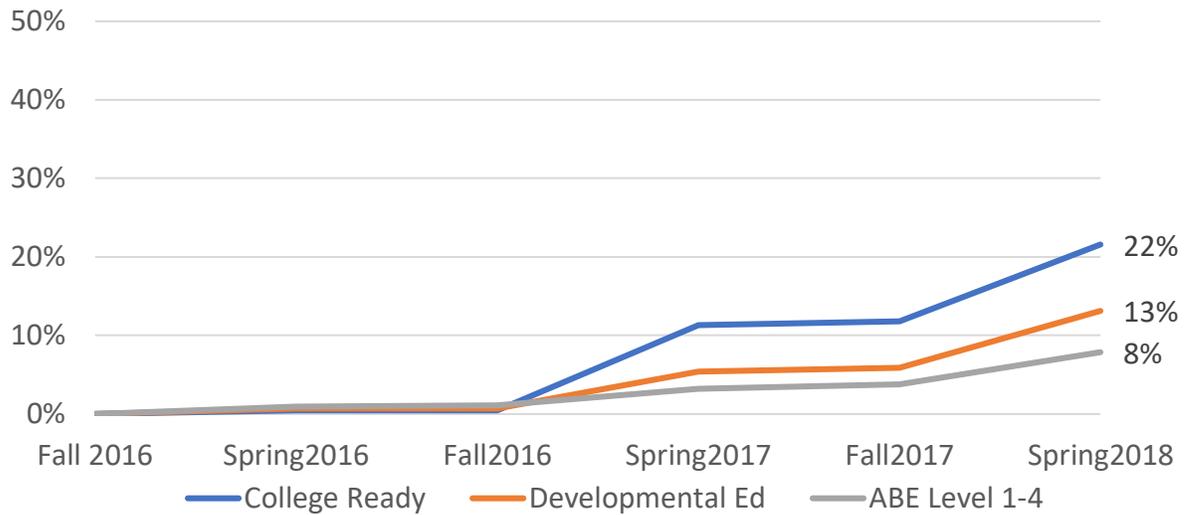
**Figure 2.1. Enrollees Still Enrolled or Completing a Degree or Certificate by Test Score**



NOTES: Statistics are based on first-time-in-college enrollees at Texas community colleges in the fall of 2015 who were assessed on the TSIA and enrolled in postsecondary coursework. Students who were enrolled in a Texas college during the semester and/or had completed a degree or certificate at a Texas college by that semester in a were counted.

Figure 2.2 looks only at completion rates, and shows that 22 percent of students testing at college-ready levels and enrolling at community colleges in Texas had completed a degree or certificate within three years, compared with just 13 percent of students testing at developmental education levels, and 8 percent with ABE level scores of 1–4.

**Figure 2.2. Enrollees Completing a Degree or Certificate by Test Score**



NOTES: Statistics are based on first-time-in-college enrollees at Texas community colleges in the fall of 2015 who were assessed on the TSIA and enrolled in postsecondary coursework, and represent all students who completed a degree or certificate at a Texas college.

Students with ABE level scores of 1–4 were also less likely to succeed in their first developmental education course than students who scored at higher levels. Only 45 percent of students with ABE level scores of 1–4 in math passed their first developmental education course; pass rates for reading and writing were 56 percent and 61 percent, respectively. In all cases, these success rates were lower than for other developmental education students.

**Table 2.5. Pass Rates for Initial Developmental Education Course by Test Score**

	Developmental Education	ABE Level 1–4
First math course	56%	45%
First reading course	70%	56%
First writing course	68%	61%

NOTES: Statistics are based on fall 2015 first-time in college enrollees at Texas community colleges who were assessed on the TSIA and enrolled in a developmental education course in the first semester (*Ns* = 22,973 and 3,153 for math; *Ns* = 12,153 and 777 for reading; *Ns* = 9,623 and 1,110 for writing). Percentages represent the proportion of enrollees who passed the course with a C or higher.

## Placement Rates into Concurrent Academic Support for One Community College

The report notes that of our working group colleges, only one developed a robust concurrent academic support that was paired with the lowest level developmental education course and listed clearly on the placement chart as the required placement option. The college required

students to enroll first in the four-week “concurrent” NCBO, followed by a 12-week version of the lowest level developmental education course, and the aim was for all students with ABE level scores of 3 or 4 to enroll in and successfully complete both portions. However, the college struggled to enroll students consistently in both the concurrent academic support and the developmental education course. There were concerns about students who enrolled in the NCBO but did not move on to the developmental education course, and there were concerns about students who were able to enroll in the developmental education course with no support.

Drawing from state administrative data for students entering in the fall of 2015 and the fall of 2016, we examined the first-semester enrollment patterns of students with ABE level scores of 3 or 4 in the developmental education course and NCBO. Table 2.6 presents the findings from that analysis. One-third of students enrolling in college and testing at qualifying levels did not enroll in either the developmental education course or the NCBO. These students might have been delaying their enrollment in math courses for various reasons, such as scheduling issues, retesting, or enrollment in a certificate program that did not require math developmental education. For students who did enroll in the required NCBO, more than two-thirds did not go on to take the developmental education course. The data also indicate that some students were able to circumvent the requirement to take the NCBO and were able to enroll in only the developmental education course. Nearly one-half of those enrolled in the developmental education course in that semester did not enroll in the concurrent academic support.

The specific statistic provided in the report is the percentage of developmental education course enrollees with ABE level scores of 3 or 4 who had also enrolled in the NCBO. Of the 291 students with ABE level scores of 3 or 4 who enrolled in the developmental education course in fall 2015 and fall 2016, we found that only 51 percent also enrolled in the required NCBO.

**Table 2.6. Course Enrollment for Students with ABE Level Scores of 3 or 4 Enrolled at One College**

	<b>Percentage</b>	<b>N</b>
Enrolled in NCBO and developmental education course	15.3%	149
Enrolled only in NCBO	37.6%	367
Enrolled only in developmental education course	14.6%	142
Enrolled in neither	32.5%	317

Notes: Statistics are based on fall 2015 and fall 2016 first-time in college enrollees at one Texas community college who were assessed on the TSIA with ABE level scores of 3 or 4 and enrolled in postsecondary coursework.