2021

HITTING THEIR STRIDE:

EQUITY, OUTCOMES, AND THE IMPACT OF COVID

Tyton
PARTNERS

Bay View Analytics

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The decline in Fall 2020 higher education enrollments—especially at community colleges—has been well reported.[1] However, the impact of higher drop, fail, and withdrawal (DFW) rates among enrolled students and the increased need for learning recovery are just now becoming apparent. Results from the 2021 *Hitting Their Stride* (HTS) survey add to the understanding of COVID's impact by indicating that early progress at institutions serving more racially diverse student bodies was slightly more likely to have slowed due to the pandemic. Moreover, faculty at these institutions were also more likely to report an increase in DFW rates in their Fall 2020 classes, indicating that the impact on the reform movement and student outcomes was more severely felt at institutions serving more racially diverse student bodies.

Respondents who reported less disruption to their developmental education reforms due to the pandemic were more likely to report significant investment in improvements to developmental education driven by a commitment to systematic, policy-driven change. These respondents were also less likely to report an increase in DFW rates, indicating that institutional progress on implementation of key developmental education reforms inoculated students against some loss of momentum.

While progress did not slow among institutions that were already further along in the course of reform, there was little evidence of forward progress from 2019. The one bright spot was that, when disaggregating institutional student population by race, we found that institutions that serve a majority of students of color were more likely to report adoption of reform practices such as elimination and reduction and were less likely to report using high-stakes assessment. However, while many institutions changed their assessment strategies in response to the pandemic, these changes will not be permanent, and institutions will not abandon high-stakes testing and placement tests: market indicators show institutions returning to pre-pandemic levels of usage of these instruments. Lastly, while overall adoption of corequisite models is high, the use of prerequisite course models persists, even at institutions where faculty and administrators report that their reform movements are at scale.

As faculty and administrators consider how to address the long-term impact of enrollment declines and increased DFW rates caused by the pandemic, the developmental education reform movement must address three issues:

- **Move more aggressively to eliminate prerequisite models.** Institutions need to identify and address the barriers to eliminating these sequences.

- **Eliminate standardized testing for all students.** As with prerequisite requirements, institutions need to identify and address the barriers to abandoning testing and move to more predictive indicators, such as high school GPA.

- **Support those institutions that need it most.** Policies, relevant funding, and professional development must be created to identify students who left due to the challenges of the pandemic; remove unnecessary hurdles to their re-enrollment; and provide academic, mental health, and wrap-around services to get them back on track.

---

1. National Student Clearinghouse Research Center. (2020, December 17). *Current Term Enrollment Estimates: Fall 2020*. National Student Clearinghouse, Herndon, VA. ***https://nscresearchcenter.org/current-term-enrollment-estimates***

SURVEY APPROACH

The 2021 HTS survey elicited responses from administrators and faculty at public 2-year institutions and public and private 4-year institutions. A single survey instrument was issued to both administrators and faculty; however, the selection of questions displayed was determined based on the respondent's role. The survey was administered from February 16, 2021, to March 11, 2021, and fielded a total of 1,652 respondents. Compared to the 2020 *Hitting Their Stride* survey, this year's total administrator responses decreased by 55%, and total faculty responses decreased by 25%. These decreases are attributable to the COVID-19 pandemic and the strain it created on administrator and faculty time. The average margin of error across both faculty and admin responses in last year's (2020) iteration was about 2.5% at a 99% confidence level. This year (2021), the margin of error increased to 3% at the same 99% confidence level, which still falls in an appropriate range for statistically significant data.[2]

FIGURE 1

OVERVIEW OF SURVEY RESPONDENTS*

INSTITUTION DEMOGRAPHICS | RESPONDENT DEMOGRAPHICS
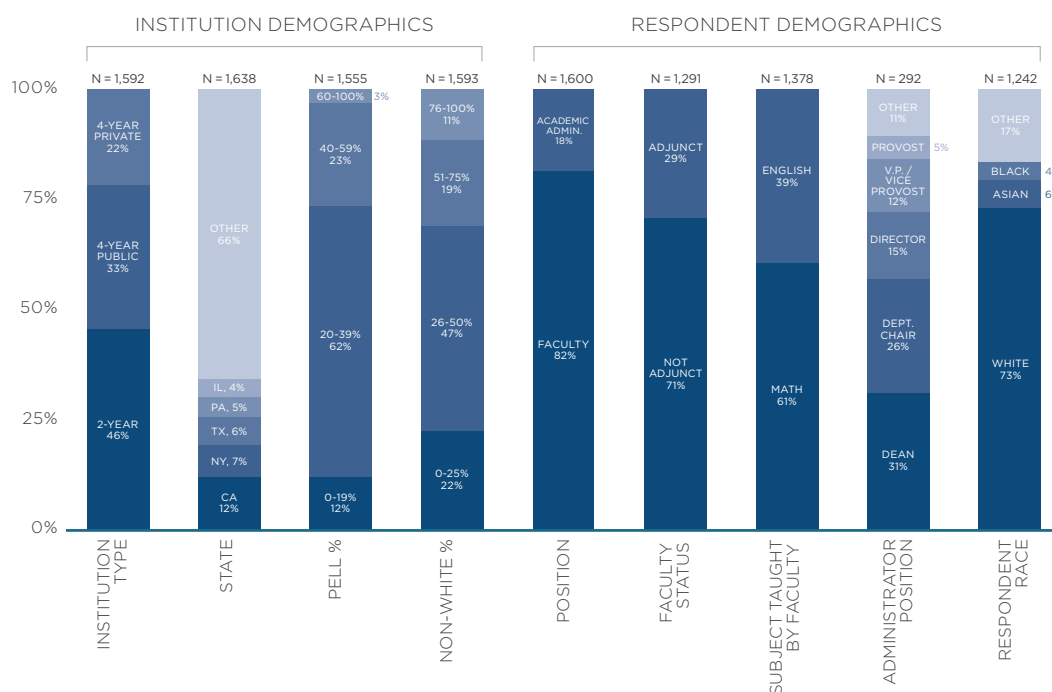
* All chart notes are listed in the Appendix.

Nearly 1/2 of respondents worked at 2-year institutions (46%), approximately 1/3 at 4-year public institutions (33%), and just over 1/5 at 4-year private institutions (22%). Approximately 82% of all respondents were faculty, and 18% were administrators. Administrator titles included deans, associate deans, department chairs of math and English, and vice presidents and provosts, all of whom had direct involvement in developmental education. Viable faculty member responses were distributed across the areas of developmental English (39%) and developmental math (61%). The majority of faculty surveyed were non-adjunct (71%) compared to adjunct at 29%, which represents a split similar to last year's faculty cohort.

---

2. A margin of error of less than 4% at a 99% confidence interval is generally accepted as being statistically significant data.

IMPACT OF COVID

The COVID-19 pandemic has been a traumatic and transformative event for all of higher education, including the developmental education movement. Close to 40% of institutions reported that the COVID-19 pandemic slowed the pace of reform implementation. These institutions are slightly more likely to be serving more racially diverse student bodies: 74% of those serving a majority of students of color reported a "slowed pace" due to the pandemic vs. 67% reporting "no change." The starkest difference between those who slowed their pace and those who reported less impact on the reform movement was the perceived level of scale the reform movement had achieved. Those who reported little impact on the pace of change were far more likely to report being at scale in their reform efforts, indicating institutions had already completed their implementation or the level of momentum was high enough to not be deterred by the pandemic.

FIGURE 2

COVID'S IMPACT ON PACE OF DEVELOPMENTAL EDUCATION REFORM IMPLEMENTATION
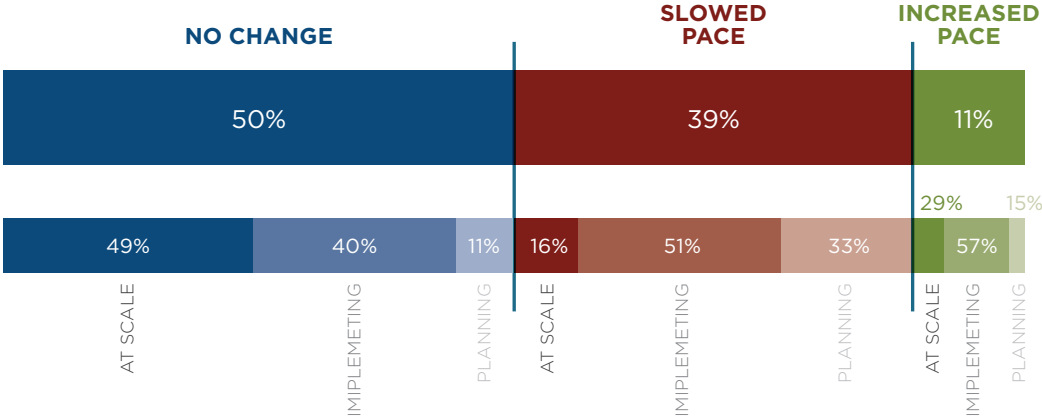
* All chart notes are listed in Appendix E

Those who reported their institution slowed the pace of implementation indicated that pre-occupation with the transition to online learning was the biggest driver of the change in pace. The shift to online learning also created challenges in collecting reliable data to measure existing program implementations. One respondent commented, "The validity of data related to reforms is difficult to measure due to the interruptions of curriculum and courses. It slowed our assessment of our programs." Other reasons for a slowed pace include an increase in misplaced students due to the disruption in standardized testing and the lack of access to technology that disproportionately impacted developmental education student populations. Another respondent stated, "On Zoom it is difficult to give low-income students, particularly those experiencing homelessness, access to resources we are trying to put into place."

FACULTY AT INSTITUTIONS THAT SLOWED THE PACE OF REFORMS WERE MORE LIKELY TO REPORT INCREASES IN DFW RATES

Even more problematic is that faculty who reported that the COVID crisis slowed the pace of reform implementation were more likely to report increases in DFW rates. We asked respondents how DFW rates for their Fall 2020 classes had changed relative to rates for the same courses in prior years. Among faculty who reported that their institutions had slowed the pace of reform, 41% reported an increase in drop and withdrawal rates compared to 31% of instructors reporting no change in the pace of reform, and 29% reported an increase in fail rates compared to 21% of the "no change" group.

FIGURE 3

FACULTY SATISFACTION AND REPORTED CHANGE IN D/F/W RATES FOR FALL 2020 SEMESTER

SATISFACTION WITH LEARNING OUTCOMES — SATISFIED 81% (NO CHANGE), 65% (SLOWED PACE), -16%

REPORTED CHANGE IN DROP / WITHDRAW RATE — INCREASED 31% (NO CHANGE), 41% (SLOWED PACE), 10%

REPORTED CHANGE IN FAIL RATE — INCREASED 21% (NO CHANGE), 29% (SLOWED PACE), 8%
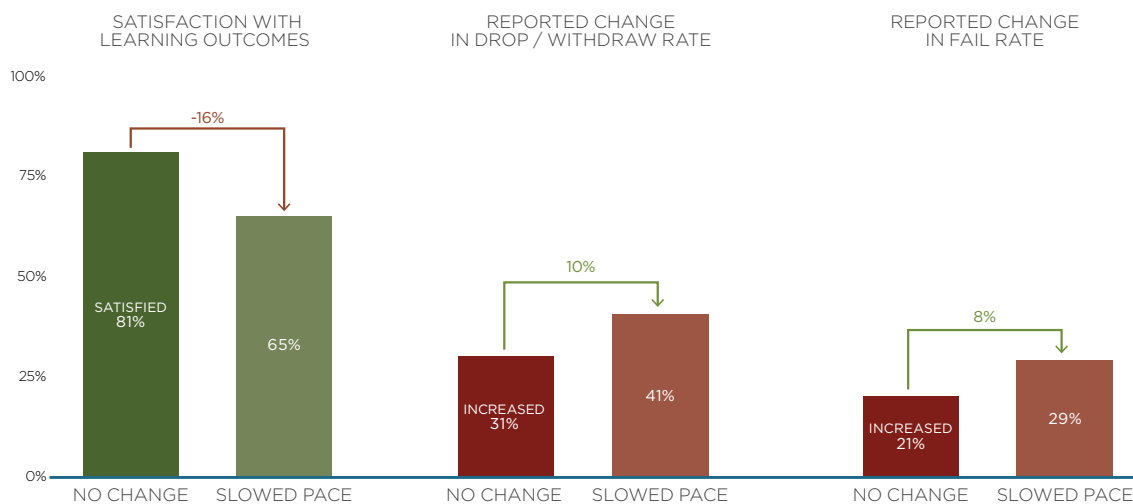
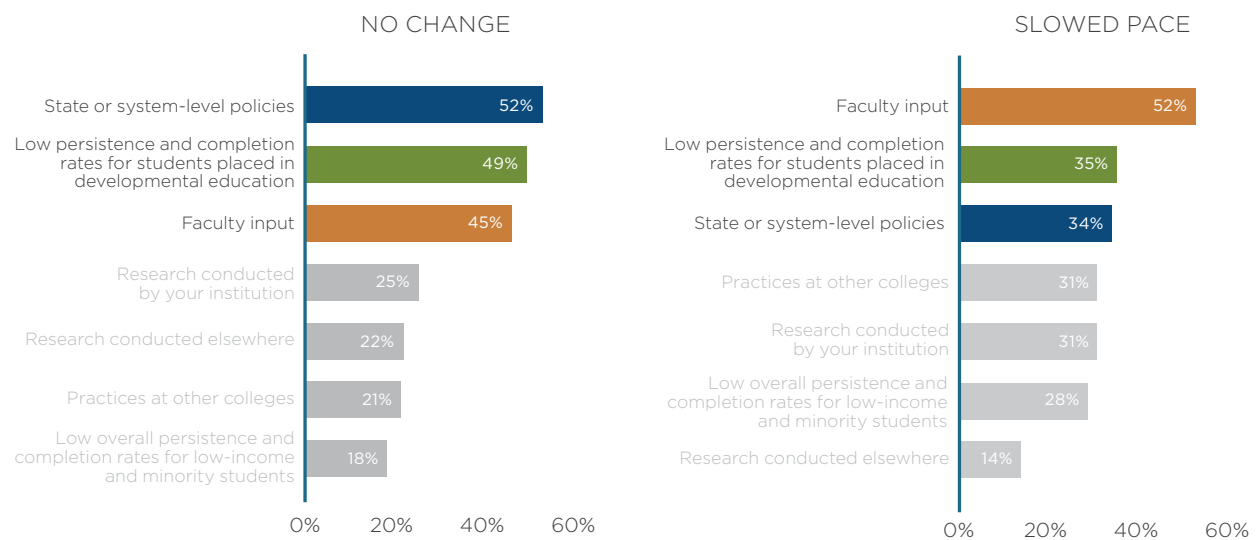** All chart notes are listed in Appendix E*

The potential long-term implications for these institutions and their students cannot be overstated. As the dust begins to settle from the pandemic, institutions serving high-risk students will require additional support to renew their reform efforts and will need to proactively get students back on track.

INSTITUTIONS THAT HAD FOCUSED, SYSTEMIC, TOP-DOWN–DRIVEN CHANGE EFFORTS WERE LESS LIKELY TO REPORT COVID DERAILING REFORM EFFORTS

As stated earlier, those who reported that COVID-19 had no impact on their reform implementation were much more likely to report being at scale, but this was not the only factor that accounts for differences in reform momentum. Related data on the drivers and overall approaches to change and responses to the pandemic indicate that those who were more likely to report that the pandemic did not impact the pace of reform were more likely to have a systematic and focused approach guided by a policy-driven commitment to change.

FIGURE 4

TOP 3 DRIVERS FOR IMPLEMENTING REFORMS

NO CHANGE

State or system-level policies	52%
Low persistence and completion rates for students placed in developmental education	49%
Faculty input	45%
Research conducted by your institution	25%
Research conducted elsewhere	22%
Practices at other colleges	21%
Low overall persistence and completion rates for low-income and minority students	18%

SLOWED PACE

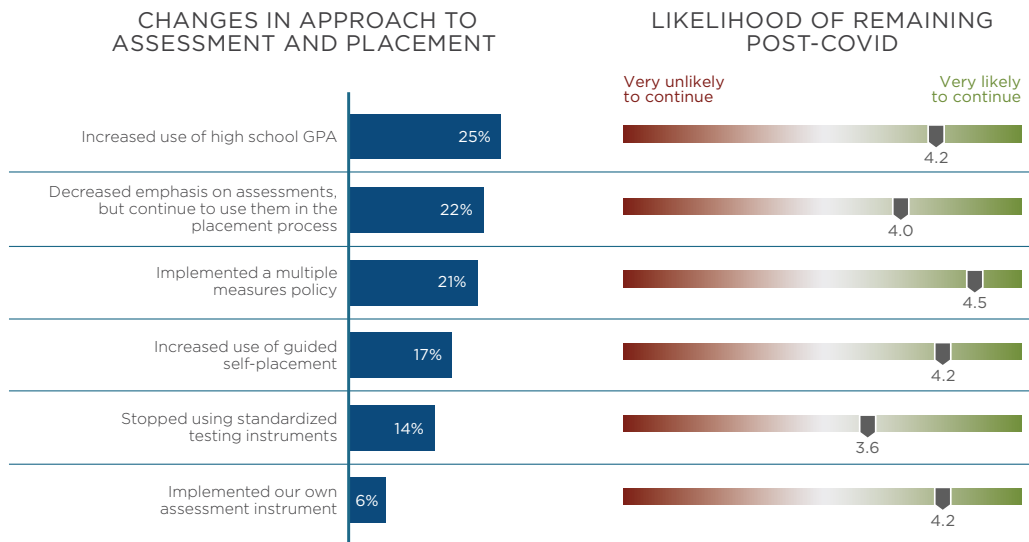|	
Faculty input	52%
Low persistence and completion rates for students placed in developmental education	35%
State or system-level policies	34%
Practices at other colleges	31%
Research conducted by your institution	31%
Low overall persistence and completion rates for low-income and minority students	28%
Research conducted elsewhere	14%

* All chart notes are listed in Appendix E

Faculty and administrators in the "no change" group were also more likely to cite top-down factors as catalyzing their reform efforts, whereas those in the "slowed pace" group were more likely to indicate changes driven by bottom-up factors. Although both groups identified the same top three primary drivers of reform, 52% of the "no change" respondents selected state or system-level policies as the top driver while only 34% of the "slowed pace" group did so. The "slowed pace" group placed much greater emphasis on faculty input as a top driver of change (52%). As the reform movement looks to gain traction and scale, these responses offer critical lessons on how focused directives from leadership can make an impact on the durability of reform.

THE LARGEST AREA OF CHANGE WAS IN PLACEMENT STRATEGIES, BUT HIGH-STAKES ASSESSMENT WILL NOT GO AWAY ENTIRELY

The COVID-19 pandemic drove significant change in assessment and placement strategies; roughly 70% of institutions reported some modification in their approach to assessment and placement strategy for developmental education. However, only about 14% said that they stopped using standardized testing instruments altogether.

FIGURE 5

COVID'S IMPACT ON ASSESSMENT AND PLACEMENT

CHANGES IN APPROACH TO ASSESSMENT AND PLACEMENT

LIKELIHOOD OF REMAINING POST-COVID

Very unlikely to continue — Very likely to continue

Change	%	Rating
Increased use of high school GPA	25%	4.2
Decreased emphasis on assessments, but continue to use them in the placement process	22%	4.0
Implemented a multiple measures policy	21%	4.5
Increased use of guided self-placement	17%	4.2
Stopped using standardized testing instruments	14%	3.6
Implemented our own assessment instrument	6%	4.2

* All chart notes are listed in Appendix E

The demand for assessment instruments also appears to be rebounding as institutions and assessment providers have figured out how to implement virtual testing strategies. When asked about the likelihood of continuing their pandemic-related changes, respondents were most likely to continue with an implementation of multiple measures and least likely to stop using standardized testing permanently. These responses are aligned with other evidence from the market. A discussion with Aaron Lemon-Strauss, a vice president at College Board, revealed that purchases of testing credits rebounded once ACCUPLACER established a virtual proctoring solution. "Purchase of testing credits provides a forward view on assessment usage, and generally, this forward-looking credit buying continues to hold pace," says Lemon-Strauss.

PROGRESS ON REFORM

Benchmarking longitudinal progress on the developmental education reform movement is the core mission of the *Hitting Their Stride* research project. This year we see little change in progress on implementation from the prior year, which is likely due to the dual impact of the pandemic and the slower nature of the transition from early implementation to operating at scale. Despite little difference in progress in the aggregate, we do see an increase in the perception of an ideal state and greater adoption of reformed practices at institutions that serve a majority of students of color. However, all groups of institutions still place roughly 1/3 to 1/2 of all students into traditional prerequisite courses. Until institutions work to systematically reduce the availability of prerequisite courses, students will continue to be inadequately supported.

**PROGRESS ON IMPLEMENTATION AT A STANDSTILL FROM PRIOR YEAR,
BUT PERCEPTION OF INSTITUTIONS ACHIEVING AN IDEAL STATE INCREASED**

When asked to select the phrase that best describes their institution's approach to changing its developmental education policies and practices, respondent perceptions in 2021 are nearly identical to those in 2020, with 26% of respondents reporting being at scale, 38% in progress, 15% planning, and 20% not pursuing or not systematic.

FIGURE 6

## INSTITUTIONAL APPROACH TO DEVELOPMENTAL EDUCATION REFORM
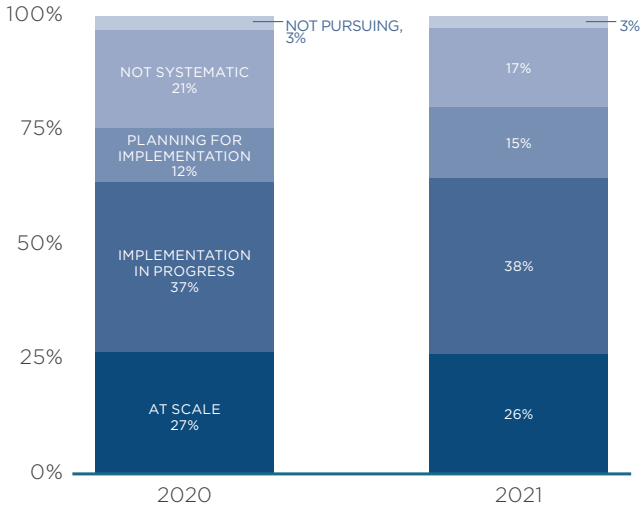
* All chart notes are listed in Appendix E

While seeing no change—especially for those reporting being in progress or at scale—is disappointing, it is not surprising when the impact of the pandemic is considered. Additionally, a year-over-year comparison may not surface differences because going from planning to implementing to reaching scale takes place over several years, if not longer. The slight decrease in those reporting that their approach is not systematic and an increase in those reporting planning for implementation may provide a better window into progress, showing that a slightly higher number of institutions have organized a reform effort and are gearing up to roll out in the coming years.

Though actual progress on reforms did not change much from the prior year, we did see a significant shift in faculty and administrator beliefs that their institutions were achieving an ideal state for developmental education student outcomes. In a year in which concerns over student outcomes for all students—let alone developmental education students—dominated discussion within and about higher education, this finding was surprising. However, we have seen in past survey work that engagement in meaningful professional development (PD) is highly correlated with the perception of an ideal state. In Fall 2020, 73% of respondents indicated that they engaged in some form of PD before teaching. In 2019, only about 45% of respondents indicated that they had participated in PD within the past year.

FIGURE 7

AGREEMENT WITH STATEMENT THAT INSTITUTION IS ACHIEVING AN IDEAL STATE FOR DEVELOPMENTAL EDUCATION OUTCOMES
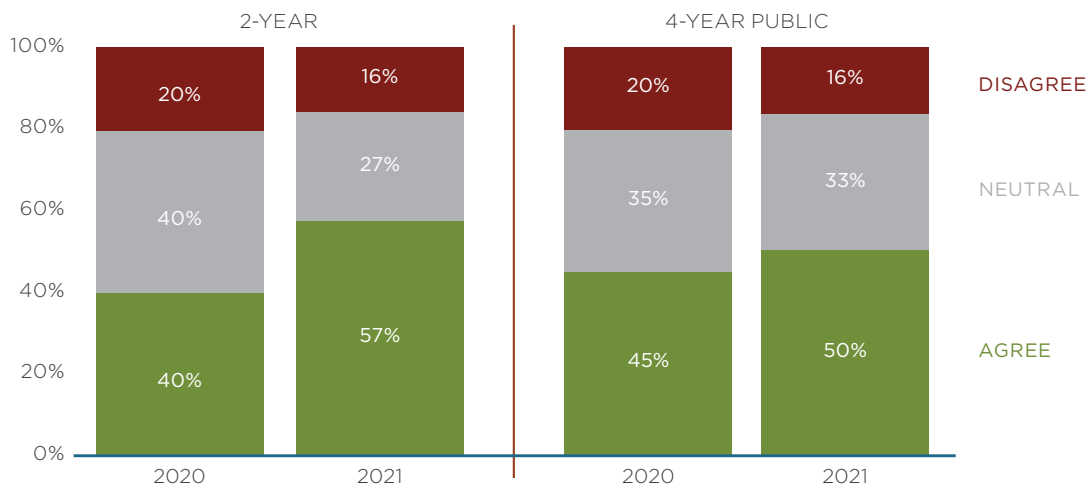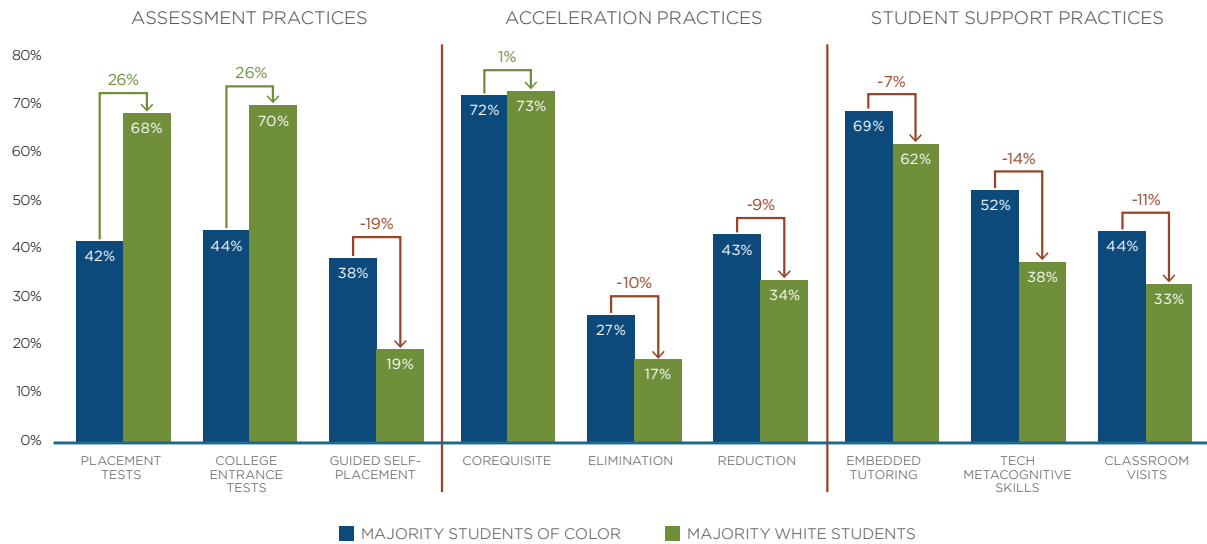

* All chart notes are listed in Appendix E

INSTITUTIONS SERVING MAJORITY STUDENTS OF COLOR REPORT HIGHER ADOPTION RATES AND DIFFERENCES IN PRACTICES

To better understand how the reform movement is reaching students who historically have been marginalized by developmental education practices, we divided survey results into two categories: responses from institutions that serve mostly students of color, and responses from institutions that serve mostly white students. We found that not only are institutions that serve mostly students of color more advanced in their overall adoption of reform practices but that there were differences in the types of practices being implemented.

Institutions serving mostly students of color were more likely to report adopting multiple measures, with a 51% adoption rate vs. 42% from majority-white schools. However, the specific practices institutions were using to measure student readiness varied greatly between the two categories. Institutions serving a majority of white students were much more likely to use standardized tests as part of their placement process. In lieu of testing, schools serving a majority of students of color seem to be using guided student placement, with 38% reporting using this approach as part of their placement strategy vs. only 19% of schools serving a majority of white students.

FIGURE 8

ADOPTION OF DEVELOPMENTAL EDUCATION REFORM PRACTICES

ASSESSMENT PRACTICES | ACCELERATION PRACTICES | STUDENT SUPPORT PRACTICES

■ MAJORITY STUDENTS OF COLOR ■ MAJORITY WHITE STUDENTS

* All chart notes are listed in Appendix E

Responses on the adoption of acceleration practices reveal a similar picture, with 68% of respondents from schools serving mostly students of color having adopted acceleration practices vs. 55% of schools serving mostly white students. While the adoption of corequisites is about the same across both populations, the schools serving more students of color were more likely to report eliminating developmental education altogether and/or significantly reducing the number of courses.

This trend continues in the adoption of all other areas of developmental education reform. Notable differences in practices include the teaching of metacognitive skills (52% majority students of color vs. 38% majority-white students), classroom visits from advisors and counselors (44% majority students of color vs. 33% majority-white students), and the use of metamajors (51% majority students of color vs. 32% majority-white students).

This data is encouraging for the reform movement which, at its core, has been about addressing persistent achievement gaps that have disproportionately impacted racially minoritized students. Although it is exciting to see institutions serving these populations leading the way, schools categorized as serving mostly white students still serve a high number of students of color, and reforms such as elimination, reduction, and the abandonment of standardized testing that benefit students of color should work to benefit all students. If we are to achieve a more equitable system of higher education overall, that means all institutions must make equity not just a priority but an imperative.

DESPITE HIGH ADOPTION OF THE COREQUISITE MODEL, ADMINISTRATORS REPORT PERSISTENT USE OF MULTI-SEMESTER PREREQUISITE COURSES

Despite high adoption of the corequisite model and strong evidence of positive experiences among faculty teaching within this model, the field still struggles with reducing and eliminating the number of students enrolled in prerequisite courses across all student demographics. When asked to estimate the percentage of students who were enrolled in different types of learning experiences, administrators—representing mostly department heads and deans—estimated that approximately 1/2 of math students and 1/4 to 1/3 of English students are still enrolled in coursework for which they earn no credits[3].

FIGURE 9

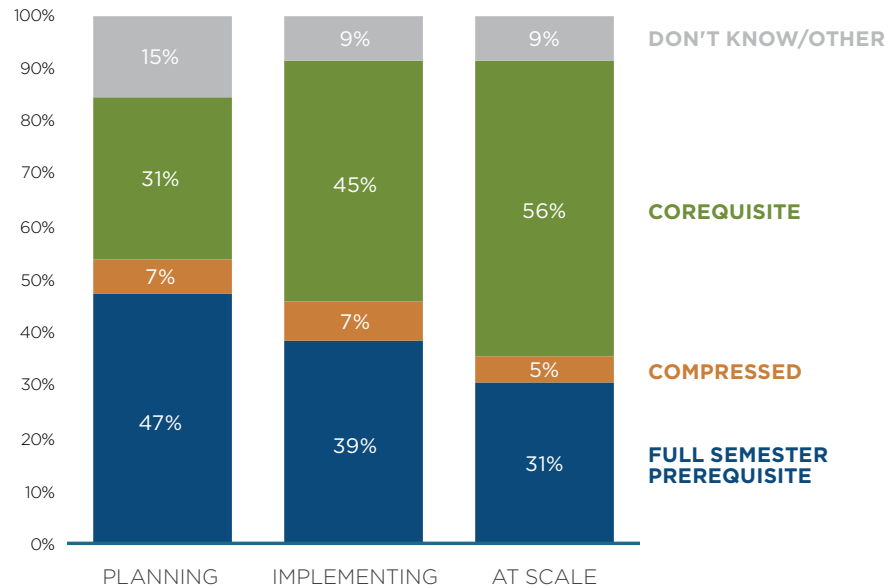### PERCENTAGE OF STUDENTS ENROLLED IN CURRICULAR MODELS
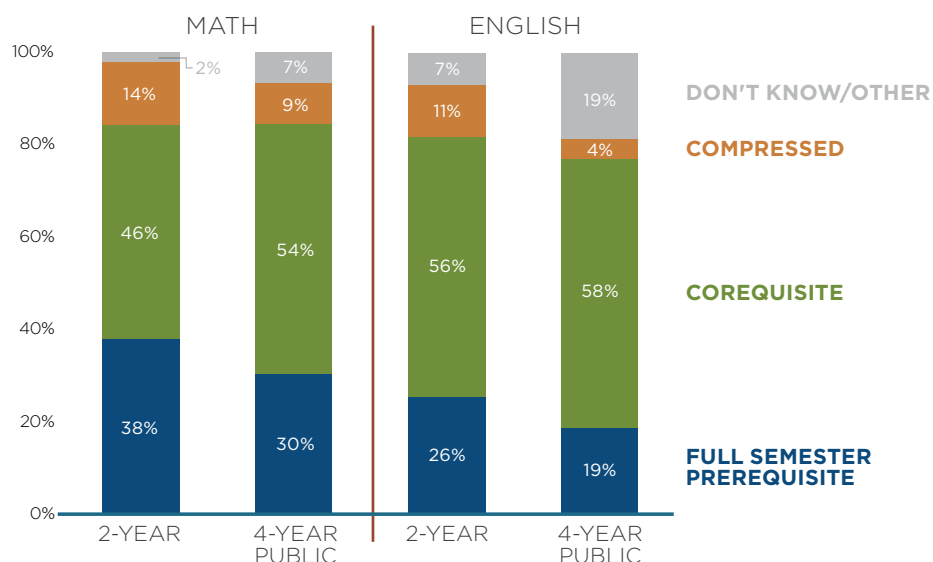
* All chart notes are listed in Appendix E

These estimates represent all institutions, not just those at scale. Unfortunately, our administrator population was too small this year to analyze this question further. However, we did ask faculty who taught in Fall 2020 to indicate what type of course model they taught during that semester, which provides a good estimate of the student experience. When analyzed by responses on reform status, we do see greater progress from those who report being at scale. While it is encouraging to recognize this positive trend of more faculty teaching corequisite courses as implementation scales, it is also disheartening to see those "at scale" still have close to 1/3 of their faculty teaching multi-semester prerequisite courses.

---

3. Non-credit-bearing course models include prerequisite and compressed.

FIGURE 10

LEVEL OF PROGRESS AND CURRICULAR MODELS TAUGHT IN FALL 2020

Stacked bar chart data:

	PLANNING	IMPLEMENTING	AT SCALE
DON'T KNOW/OTHER	15%	9%	9%
COREQUISITE	31%	45%	56%
COMPRESSED	7%	7%	5%
FULL SEMESTER PREREQUISITE	47%	39%	31%

* All chart notes are listed in Appendix E

Lastly, it is important to note that, when looking at this same question about curricular models used in Fall 2020 within the two categories previously delineated—institutions serving a majority of students of color vs. institutions serving mostly white students— the data reveal greater use of corequisites at institutions serving a majority of students of color (49% vs. 36%). However, approximately 1/3 of faculty in both categories taught full-semester prerequisite courses in Fall 2020. Even in states such as California that require all students to be enrolled in a corequisite course, we still see a persistent adherence to the prerequisite model. Only about half of faculty who taught in California schools in Fall 2020 indicated that they taught a corequisite course model. While we are encouraged by the higher adoption rates at schools that serve larger populations of students of color, the reluctance to let go of prerequisite coursework entirely appears to be a challenge for the entire field.

Complete College America recently published the report No Room for Doubt: Moving Corequisite Support from Idea to Imperative, which states "Every student enrolled in a developmental education program that is not built with the intention of removing barriers to success is one student too many....the corequisite model needs to become the rule, not the exception."[4] The data from our survey clearly indicate that there is still work to be done in realizing this vision, not just at institutions that are in the early stages of implementation, but those that have made significant progress but still—despite faculty and administrator perceptions—are not truly at scale.

---

4. Complete College America. (2021). *No Room for Doubt: Moving Corequisite Support from Idea to Imperative*, p. 4. Complete College America, Indianapolis, IN. ***https://completecollege.org/wp-content/uploads/2021/04/CCA_NoRoomForDoubt_CorequisiteSupport.pdf***

NOW IS THE TIME TO DOUBLE DOWN ON SYSTEMATIC CHANGE THAT SUPPORT STUDENT-READY INSTITUTIONS

As we write this report in the spring of 2021, the end of the pandemic is on the horizon. Early lessons from the field have shown that policy-driven, systematic changes to developmental education were more durable to the upheaval of the pandemic. The pandemic has also shown that, while much work has been done to make students college ready, not enough work has been done to make colleges "student ready." To make developmental education more student ready, policymakers and institutional leaders alike need to:

- **Move more aggressively to eliminate prerequisite models.** Evidence has shown consistently better student outcomes in a corequisite approach. Institutions need to account for how many students are still being served by prerequisite courses and identify and address the barriers to eliminating these sequences.

- **Eliminate standardized testing for all students.** While it is encouraging to see progress in the move away from testing in institutions serving a majority of students of color, more needs to be done. High school GPA has a far better predictive value in determining college success than standardized test results. As with prerequisite requirements, institutions need to identify and address the barriers to abandoning testing.

- **Support those institutions that need it most.** Finally, policymakers and institutional leaders must support institutions whose developmental education reforms slowed because of the pandemic. Policies, relevant funding, and professional development must be created to identify students who left due to the challenges of the pandemic; remove unnecessary hurdles to their re-enrollment; and enable student-ready institutions to provide the academic, mental health, and wrap-around services to get them back on track.

ABOUT TYTON

Tyton Partners is the leading provider of investment banking and strategy consulting services to the education sector and leverages its deep transactional and advisory experience to support a range of clients, including companies, foundations, institutions, and investors.

In higher education, Tyton Partners' consulting practice offers a unique spectrum of services to support institutions, foundations, nonprofit organizations, and companies in developing and implementing strategies for revenue diversification and growth, student persistence and success, and innovations in teaching and learning.

In September 2020, Tyton Partners launched the Center for Higher Education Transformation. Building on 10+ years of experience, scores of engagements in higher education, and hands-on executive experience, the Center offers advisory services for institutions seeking transformational impact. Tyton's advisory offerings enable mergers and affiliations, revenue growth and diversification, transformative partnerships and creative capital access for all types and sizes of institutions.

For more information about Tyton Partners, visit **tytonpartners.com** or follow us at **@TytonPartners**.

ACKNOWLEDGMENTS

AUTHORS

Gates Bryant, Partner, *Tyton Partners*

Gates is a general manager and strategy consultant with a successful track record of bridging the gap between innovative strategy and practical execution while serving in various strategy, product management, and operational roles in the education market. He joined Tyton Partners as a partner in 2011.

Dr. Jeff Seaman, Director, *Bay View Analytics (formerly Babson Survey Research Group)*

Jeff has been conducting research on the impact of technology on higher education and K–12 for over a decade. His most recent work includes annual survey reports on the state of online learning across US higher education, reports on open educational resource awareness and adoption in both US K–12 and higher education, and international surveys on online and distance education.

Lindsay Whitman, *Consultant, Tyton Partners*

Lindsay is a senior consultant and project manager with over 15 years of experience leading teams in strategy, marketing, and operations in the K–12, higher education, and corporate learning markets. She has a BA in English from Colgate University and earned an MBA from Cornell University.

Salil Kelkar, *Senior Associate, Tyton Partners*

Salil is an associate in the strategy consulting practice at Tyton Partners. He joined the firm in May 2018. Prior to joining Tyton Partners, Salil worked on capital planning and process reengineering for investment banks and hedge funds. Salil earned his BS in finance with honors from Boston College.

Christopher Ostwald, *Associate, Tyton Partners*

Chris is an associate in the strategy consulting practice at Tyton Partners. He joined the firm in August 2019. Prior to joining Tyton Partners, Chris worked for Vantage Partners, a boutique management consultancy specializing in strategic partnerships and alliances. Chris earned his BA in economics and statistics from the University of Rochester.

TO ACCESS OUR OTHER PUBLICATIONS, PLEASE VISIT:
tytonpartners.com/library

APPENDIX A

DEFINITIONS FROM SURVEY QUESTION ON LEVEL OF SCALE

Response options for the following survey question: "Please choose the phrase which best describes your campus's approach to developmental education reform."

RESPONSE OPTION	DESCRIPTION
Not pursuing	My institution is not pursuing any changes to policies and practices around developmental education
Not systematic	At my institution, changes to the policies and practices of developmental education are not a priority, meaning they are not happening or changes that are happening are optional or limited to selected courses
Planning for implementation	My institution is planning to implement changes to the policies and practices of developmental education with the goal of achieving widespread adoption
Implementation in progress	My institution is in the process of implementing changes to the policies and practices of developmental education with a goal of achieving widespread adoption
At scale	My institution has implemented changes to the policies and practices of developmental education and has achieved widespread adoption

APPENDIX B

DEFINITIONS FROM SURVEY QUESTION ON ACCELERATION PRACTICES

Response options for the following survey question: "Please select the Acceleration Practices which your school has adopted or is planning to adopt. Select all that apply." (Acceleration practices are defined as processes and policies that maximize the probability of expediting students' progress through developmental education to college-level courses.)

PRACTICE	DEFINITION
Compressed	Redesigning course sequences to be more intensive and delivered in a shortened timeframe
Compressed – selective content	Redesigning course sequences to be delivered in a shortened timeframe through selective content
Integrated reading and writing	Redesigning course sequences to combine developmental reading and writing courses into a single course
Note: Only shown to respondents who indicated familiarity with English programs	My institution is in the process of implementing changes to the policies and practices of developmental education with a goal of achieving widespread adoption
Corequisite	Enrollment in a credit-bearing, college-level course with additional coursework and/or supports designed to address gaps in student knowledge
Modular	Full-semester courses are broken into discrete modules; students only need to pass the required modules as determined by formative assessment
Structured cohorts	Placing developmental education students into a cohort of similar students to increase peer-to-peer support
Elimination	Phase out developmental education
Reduction	Substantially reduce the number of developmental education courses
Prematriculation workshops	Replace developmental education courses with intensive prematriculation courses or workshops
Block scheduling	Scheduling developmental and other courses into blocks (e.g., morning or afternoon) that better align with student schedules

APPENDIX C

DEFINITIONS FROM SURVEY QUESTION ON EMBEDDED STUDENT SUPPORTS

Response options for the following survey question: "Please select the Embedded Student Supports which your school has adopted or is planning to adopt. Select all that apply." (Embedded student supports are defined as the ways an institution embeds students' academic and nonacademic supports—for example, academic tutoring or metacognitive skill development—into developmental education instruction.)

SUPPORT	DEFINITION
Self-paced	Students complete additional practice at their own pace on skills deemed deficient; instruction is often computerized
Embedded tutoring / supplemental instruction	Tutors are embedded in classrooms to help the instructor and may meet students outside classrooms as well
Optional additional class help	Extended instructional time after class
Teach student success skills	Instruction focused on nonacademic skills for college success such as study skills, time management, and note-taking
Teach metacognitive skills	Instruction focused on developing student awareness of their thinking and learning strategies
Classroom visits from advisors or counselors	Short information sessions or workshops delivered to students in their classes

APPENDIX D

SUMMARY STATISTICS FOR SURVEY QUESTION ON COVID'S IMPACT ON IMPLEMENTATION

Respondents were asked if the COVID-19 pandemic impacted their campus's implementation of developmental education reform. The response options for the question were as follows:

- Yes, the pandemic has caused us to slow the pace of implementation (listed below as "Slowed Pace")

- Yes, the pandemic has caused us to increase the pace of implementation (listed below as "Increased Pace")

- No, there has been no change to our pace of implementation (listed below as "No Change")

- Don't know

COVID'S IMPACT ON IMPLEMENTATION	NO CHANGE	SLOWED PACE	INCREASED PACE
Share of total population	50.1%	38.9%	11.1%
% at scale	48.9%	15.8%	27.8%
2-year	57.5%	53.1%	45.3%
4-year public	26.7%	29.0%	30.5%
4-year private	15.9%	17.9%	24.2%
% high Pell (>40%)	25.8%	25.7%	33.7%
% high retention (>71%, 2-year)	24.6%	14.3%	18.9%
% high retention (>91%, 4-year)	9.5%	11.7%	9.4%
% majority white students (>50% white)	33%	26%	28%
% majority students of color (<50% white)	67%	74%	72%
Respondent race (White)	80%	70%	68%
Respondent race (Black)	3%	5%	4%
Respondent race (Asian)	5%	7%	13%
Respondent race (Other)	12%	18%	15%

APPENDIX E

NOTES ON FIGURES

FIGURE 1

No additional notes

FIGURE 2

Question: "Has the COVID-19 pandemic impacted your campus's pace of implementing developmental education practice and/or policy changes? Please select the choice that represents the overall impact."; n = 866. Question: "Over the past decade many colleges and universities have begun to critically evaluate their developmental education programs and implement changes to the policies and/or practices that shape developmental education. Please choose the phrase which best describes your institution's approach to changing the policies and practices of developmental education."; n = 869.

FIGURE 3

Question: "How satisfied are you with student learning outcomes in this course?"; No change n = 200, Slowed pace n = 169. Question: "Compared to when you have taught this course in the past, how did the percentage of students who dropped or withdrew from the class change during Fall 2020?"; No change n = 199, Slowed pace n = 168. Question: "Compared to when you have taught this course in the past, how did the percentage of students who failed the class change during Fall 2020?"; No change n = 200, Slowed pace n = 168.

FIGURE 4

Question: "What have been the biggest drivers for implementing changes to the policies and practices of developmental education at your institution? Please choose up to three."; No change n = 432, Slowed pace n = 331.

FIGURE 5

Question: "Since the COVID-19 pandemic, how has your college changed its approach to assessment and placement into developmental education programs? Select all that apply."; n = 754. Question: "What is the likelihood that you will continue the changes you have implemented during COVID-19 once the pandemic has subsided and in-person learning has resumed to normal pre-COVID-19 levels?"; n = 41.

FIGURE 6

Question: "Over the past decade, many colleges and universities have begun to critically evaluate their developmental education programs and implement changes to the policies and/or practices that shape developmental education. Please choose the phrase which best describes your institution's approach to changing the policies and practices of developmental education."; 2020 n = 2,372, 2021 n = 1,347.

FIGURE 7

Statement: "My institution is achieving an ideal state for student outcomes in developmental education." Respondents asked to indicate level of agreement on a scale from 1 to 100: 0–33 = Disagree, 34–66 = Neutral, 67–100 = Agree; 2-year 2020 n = 1,009, 2-year 2021 n = 572, 4-year public 2020 n = 808, 4-year public 2021 n = 347.

FIGURE 8

Question: "At the start of Fall 2019, prior to the COVID-19 pandemic, which measures was your school using or planning to use to identify whether or not a student was ready for college-level English/math?"; Majority students of color n = 295, Majority white students n = 372. Question: "Please select the acceleration practices which your school has adopted or is planning to adopt."; Majority students of color n = 351, Majority white students n = 469. Question: "Please select the embedded student supports which your school has adopted or is planning to adopt."; Majority students of color n = 127, Majority white students n = 168.

FIGURE 9

Question: "Please estimate what percentage of developmental math/English students on your campus are enrolled in the following curricular experiences."; 2-year math n = 54, 4-year public math n = 44, 2-year English n = 47, 4-year public English n = 20.

FIGURE 10

Question: "Which of the following best describes the course model you taught in Fall 2020?"; Planning n = 91, Implementing n = 228, At scale n = 162.