



DUAL CREDIT AND SUCCESS IN COLLEGE

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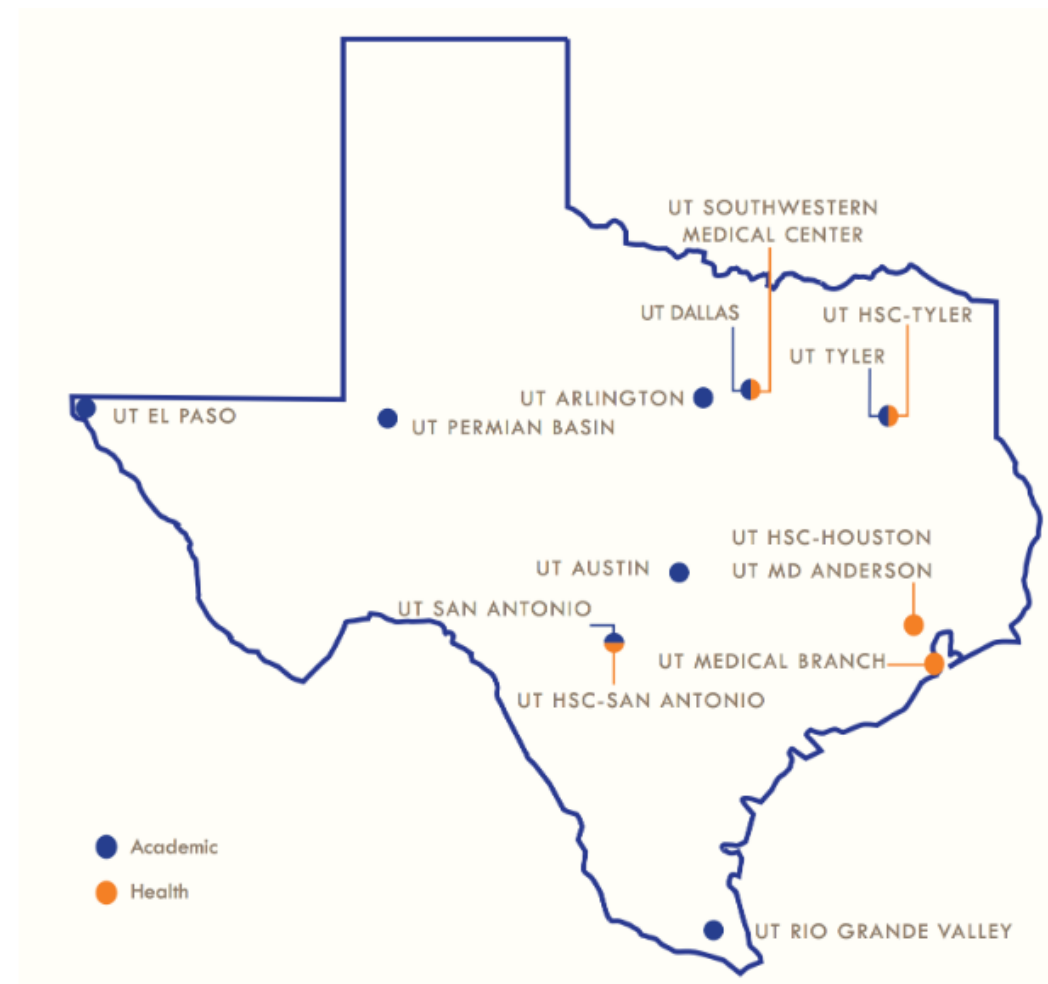


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About the University of Texas System

- Eight academic institutions and six health institutions
- 235,000 students, including over 171,000 undergraduates
- UT System enrolls one-third of all the students in public academic institutions in Texas higher education systems.



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DUALCREDIT
STUDY

Background

- UT System Faculty Advisory Council concerns
- Texas House Bill 505 (2015): no limit, Ninth and Tenth Graders
- Rapid growth in dual credit participation in Texas
- Texas dual credit enrollment by year:

2000: 17,784

2008: 79,074

2018:185,255



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Study Purpose

- To obtain a better understanding of the relationship between students' dual credit participation during high school, and their outcomes once they matriculate to UT System academic institutions.
- Mixed Methods Study
 - Data Discovery
 - Quantitative Analysis
 - Qualitative Analysis
 - Policy and Program Review



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Overview: Research Questions

- Participation
- Success outcomes
- Stakeholder perspectives
- Current policies and practices



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Data and Participants

- Data for students from 2010-2015 (119,661)
- Student online surveys (4,064)
- Interviews/focus groups-- with students (180), faculty (90), advisors (92), and enrollment management (45)
- Data from all eight academic UT System institutions



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UT System Students (2010-2015)

| | DC Only | | AP Only | | Both | | Neither | |
|------|---------|----|---------|----|--------|----|---------|----|
| | N | % | N | % | N | % | N | % |
| 2010 | 5,004 | 27 | 3,510 | 19 | 2,480 | 14 | 7,234 | 40 |
| 2011 | 5,131 | 27 | 3,846 | 20 | 2,818 | 15 | 6,983 | 37 |
| 2012 | 5,501 | 29 | 4,237 | 22 | 2,928 | 15 | 6,460 | 34 |
| 2013 | 4,863 | 26 | 4,267 | 23 | 2,731 | 15 | 6,523 | 35 |
| 2014 | 5,357 | 27 | 4,878 | 24 | 2,833 | 14 | 7,147 | 35 |
| 2015 | 6,780 | 27 | 5,638 | 23 | 2,845 | 11 | 9,695 | 39 |
| All | 32,636 | 27 | 26,376 | 22 | 16,635 | 14 | 44,042 | 37 |



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Participation: Depth of Dual Credit Experience

Exposure

- Exposure to aspects of college through 1-2 courses

Involvement

- 15 – 18 hours, head start on college and typically at a high school

Immersion

- Up to 60 + hours, typically taking place at Early College High Schools



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Dual Credit Earned by SAT Level

| | Dual Credit Earned | | | |
|------------------|-----------------------------|--------|-----------------------------|-----------------------------|
| | 25 TH Percentile | Median | 75 TH Percentile | 90 TH Percentile |
| 1300 and Above | 6 | 12 | 21 | 35 |
| 1100-1300 | 6 | 12 | 22 | 34 |
| Less than 1100 | 6 | 12 | 23 | 39 |
| SAT Not Reported | 11 | 22 | 62 | 68 |
| All | 6 | 12 | 22 | 36 |



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Participation by Race/Ethnicity

| | DC Only | | AP Only | | Both | | Neither | |
|--------------------------------------|---------|----|---------|----|--------|------|---------|----|
| | N | % | N | % | N | % | N | % |
| American Indian/ Alaskan Native | 89 | 29 | 42 | 14 | 27 | 9 | 144 | 48 |
| Asian | 3,618 | 20 | 6,547 | 37 | 3,687 | 21.0 | 3,850 | 22 |
| Black/ African-American | 2,234 | 29 | 805 | 10 | 444 | 6.0 | 4,273 | 55 |
| Hispanic | 15,634 | 31 | 6,612 | 13 | 5,272 | 11.0 | 22,348 | 45 |
| International | 60 | 15 | 72 | 18 | 50 | 12.0 | 229 | 56 |
| Native Hawaiian/ Pacific Islander | 62 | 30 | 42 | 20 | 13 | 6.0 | 90 | 43 |
| Two or more races | 852 | 24 | 988 | 28 | 586 | 16.0 | 1,163 | 32 |
| Unknown | 479 | 24 | 346 | 17 | 165 | 8.0 | 1,004 | 50 |
| White | 9,608 | 25 | 10,922 | 29 | 6,391 | 17.0 | 10,941 | 29 |
| All | 32,636 | 27 | 26,376 | 22 | 16,635 | 14.0 | 44,042 | 37 |



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DUALCREDIT STUDY

Dual Credit Earned by Race/Ethnicity

| | Dual Credit Earned | | | |
|----------------------------------|--------------------------------|--------|--------------------------------|--------------------------------|
| | 25 TH Percentile | Median | 75 TH Percentile | 90 TH Percentile |
| American Indian/Alaskan Native | 6 | 12 | 18 | 25 |
| Asian | 6 | 12 | 21 | 36 |
| Black/African-American | 6 | 12 | 18 | 30 |
| Hispanic | 8 | 15 | 25 | 52 |
| International | 6 | 11.5 | 18 | 28.5 |
| Native Hawaiian/Pacific Islander | 6 | 12 | 20 | 30 |
| Two or more races | 6 | 12 | 21 | 34 |
| Unknown | 6 | 12 | 18 | 31 |
| White | 6 | 12 | 20 | 29 |
| All | 6 | 12 | 22 | 36 |



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Participation: First Generation Status by Student Type and Number of Credits

| Status | DC Only | | AP Only | | Both | | Neither | |
|---------|---------|----|---------|----|--------|----|---------|----|
| | N | % | N | % | N | % | N | % |
| Yes | 11,120 | 33 | 5,245 | 15 | 3,960 | 12 | 13,605 | 40 |
| No | 13,436 | 24 | 17,052 | 31 | 10,063 | 18 | 15,231 | 27 |
| Unknown | 8,080 | 27 | 4,079 | 14 | 2,612 | 9 | 15,206 | 51 |
| All | 32,636 | 27 | 26,376 | 22 | 16,635 | 14 | 44,042 | 37 |

| Status | Dual Credit Earned | | | |
|---------|--------------------|--------|--------|--------|
| | 25.00% | Median | 75.00% | 90.00% |
| Yes | 7 | 13 | 23 | 36 |
| No | 6 | 12 | 21 | 31 |
| Unknown | 7 | 14 | 25 | 61 |
| All | 6 | 12 | 22 | 36 |



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Participation: Pell Status by Student Type and Number of Credits

| Status | DC Only | | AP Only | | Both | | Neither | |
|----------|---------|----|---------|----|--------|----|---------|----|
| | N | % | N | % | N | % | N | % |
| Pell | 12,460 | 30 | 5,898 | 14 | 4,554 | 11 | 18,491 | 45 |
| Non Pell | 13,387 | 25 | 14,834 | 28 | 9,221 | 17 | 15,983 | 30 |
| All | 25,847 | 27 | 20,732 | 22 | 13,775 | 15 | 34,474 | 36 |

| Status | Dual Credit Earned | | | |
|----------|--------------------|--------|--------|--------|
| | 25.00% | Median | 75.00% | 90.00% |
| Non Pell | 6 | 12 | 21 | 31 |
| Pell | 6 | 12 | 23 | 38 |
| All | 6 | 12 | 21 | 33 |



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SAT Score by Student Type

| | SAT/ACT | | |
|---------|-----------------------------|--------|-----------------------------|
| | 25 TH Percentile | Median | 75 TH Percentile |
| DC Only | 970 | 1070 | 1190 |
| AP Only | 1190 | 1300 | 1420 |
| Both | 1150 | 1260 | 1370 |
| Neither | 910 | 1020 | 1140 |
| All | 990 | 1120 | 1270 |



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Average GPA by Student Type



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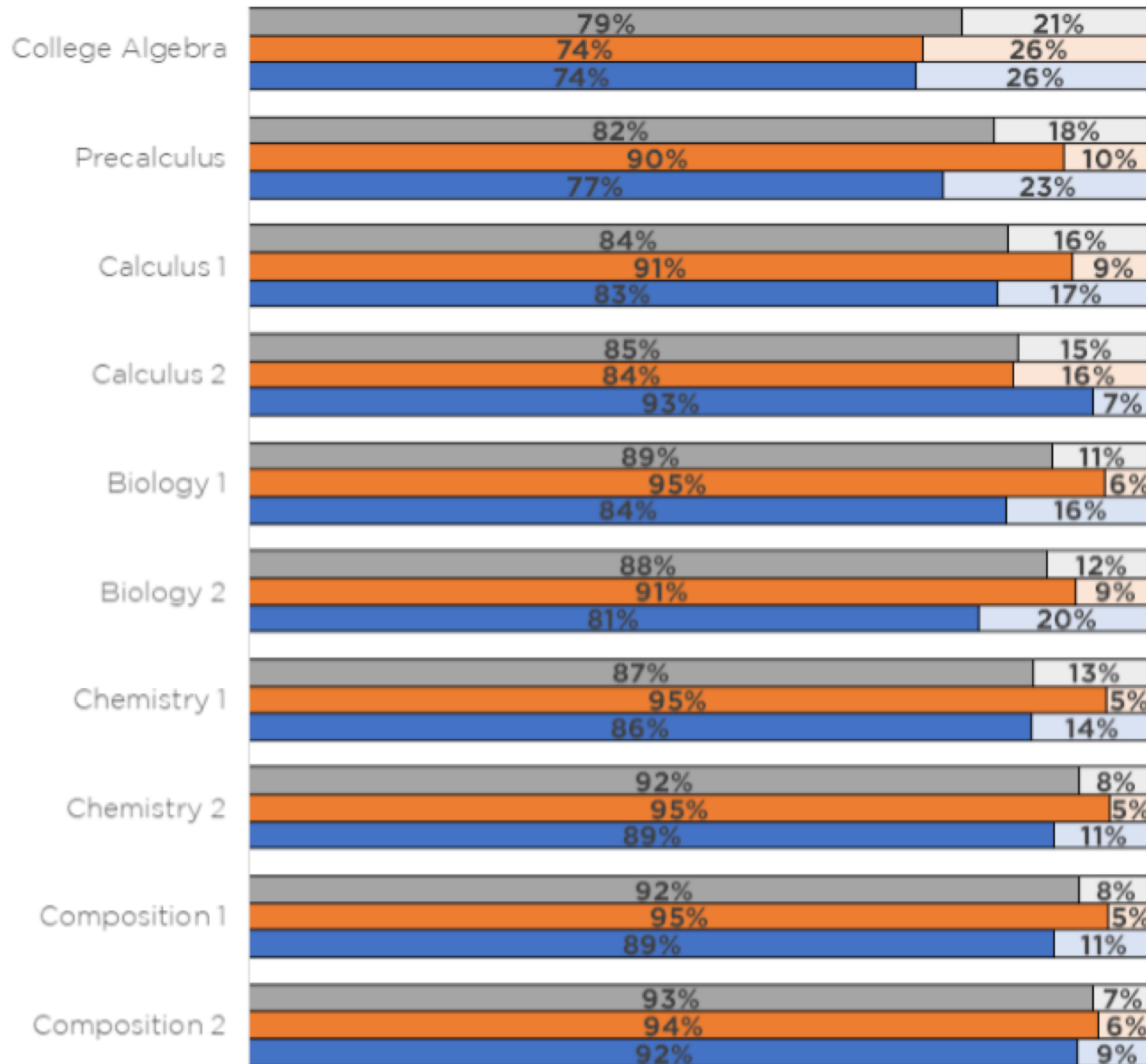
Success Outcomes -- Follow up courses

In general, students are successful (grade: A/B/C) in the follow up courses that required a prerequisite

Gray: no early college credit student

Orange: AP student

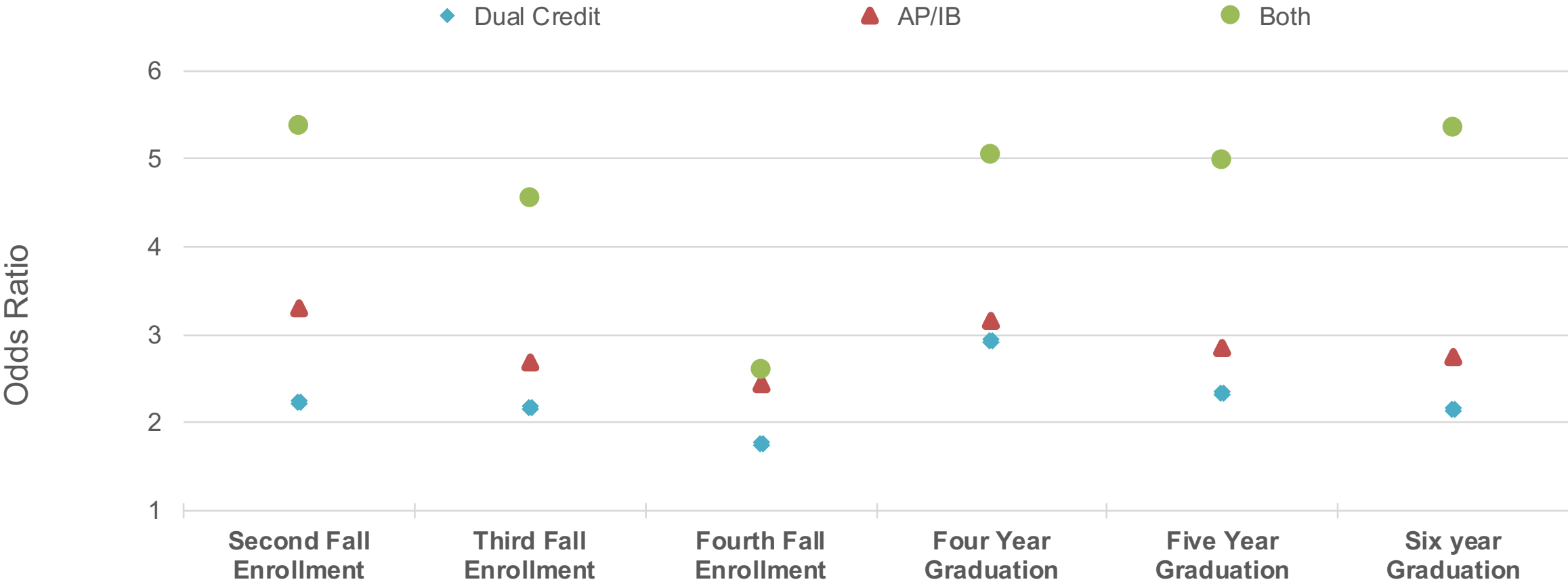
Blue: DC student



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Likelihood of Retention and Graduation



Success Outcomes: Time-to-degree

Taking more than 15 hours does shorten students' time-to-degree...

...but it's not $2+2=$ four-year degree.

On average DC graduate 1 semester earlier, than non-DC (four year grad rates)

- 1-15 hours (no time savings)
- 16-30 (save one semester)
- 31-59 (2 semesters)
- 60+ (3 semesters)

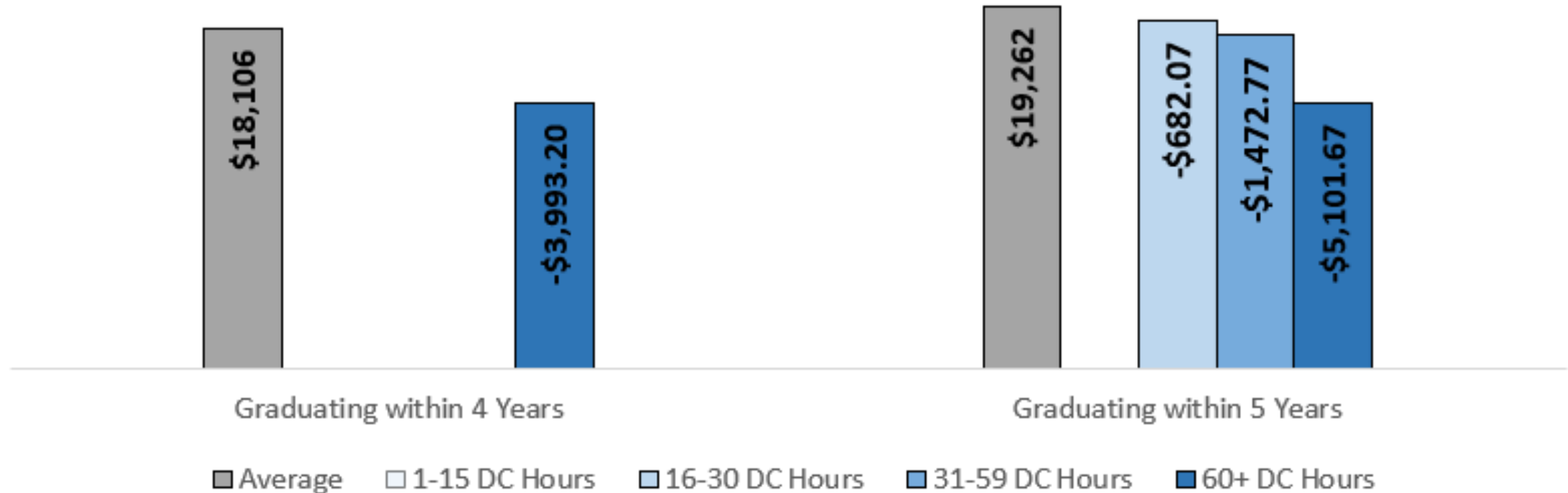


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Student Debt at Time of Graduation



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Students' Perspectives



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Students' Motivations

From the online survey and interviews with students:

- Saving time/money (mentioned most often)
- “Knocking out” courses due to disinterest or perceived irrelevance
- Seeking challenge, exploring courses, enjoyment of learning
- Strategic reasons (advantage in the college application process, improving class rank, satisfying diploma requirements)

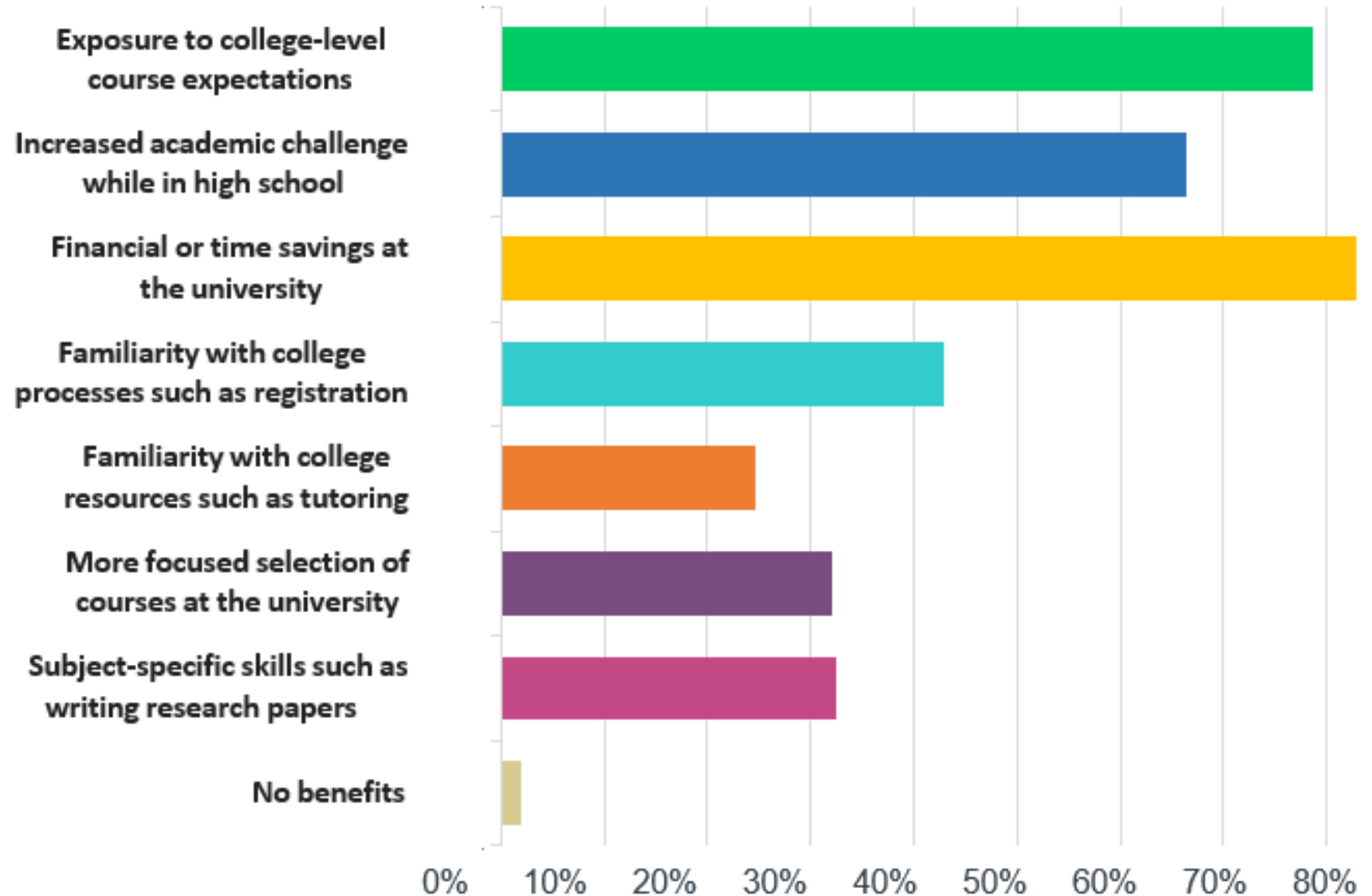


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Students' Perceived Benefits



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A Major Academic Benefit

Multi-faceted college readiness:

Understanding the norms, values, and expectations of postsecondary institutions

Developing key academic behaviors

Acquiring disciplinary knowledge and skills



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Understanding the norms, values, and expectations of college

Structures, processes, practices:

- Majors
- Application + registration
- Resources like tutoring or office hours

Expectations associated with courses

- Course workload
- Communication norms
- Deadlines
- Syllabi
- Quality expectations
- Collaborating vs independence
- Experience with pedagogies like lecture

“For me, the transition from high school to college was like a huge, huge thing for me because... Well, the dual credit classes helped me a lot because I knew what to expect, and how the classes were going to be, and how the professors talk to us, how they organize the course and teach us. It was pretty interesting. Dual credit helped a lot with that college experience.”



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Academic Behaviors

Cultivating or refining:

- Time management and study skills
- Independence and responsibility for learning
- Methods for seeking help/collaboration
- Confidence and identity as a college student
- Self-awareness

“Okay well it helped me improve my time management skills. The classes let me know that it's not just going to be given to me. My education has to be earned. I felt like it was more like I learned time management, I learned how to transition from the high school setting into the college setting because of [dual credit courses].”

“I was really scared because it was this college class starting. I started and it wasn't too terrible but... they're a lot more hands off. You have to take care of everything. You have to pretty much grow up right now. To get your work done, you've got to get your groups together. Nobody's going to remind you and I kind of like that because it definitely prepared me for college. That's exactly how the year starts out.”



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Disciplinary Knowledge and Skills

Students acquire knowledge and skills for use in specific follow-up courses and as a foundation for their postsecondary learning.

Commonly mentioned:

Math and science knowledge

Writing skills, particularly specific genres and conventions like citation.

“My writing class was awesome, I was writing different types of essays all the time. When I came into college and I was writing more like STEM type lab reports, and then project reports. I was really good at those because I had done so many different types of essays in dual credit.”

“I’m a computer science major so it’s a lot of math background. Thankfully my math classes in dual credit were all very good, so I was well prepared there.”

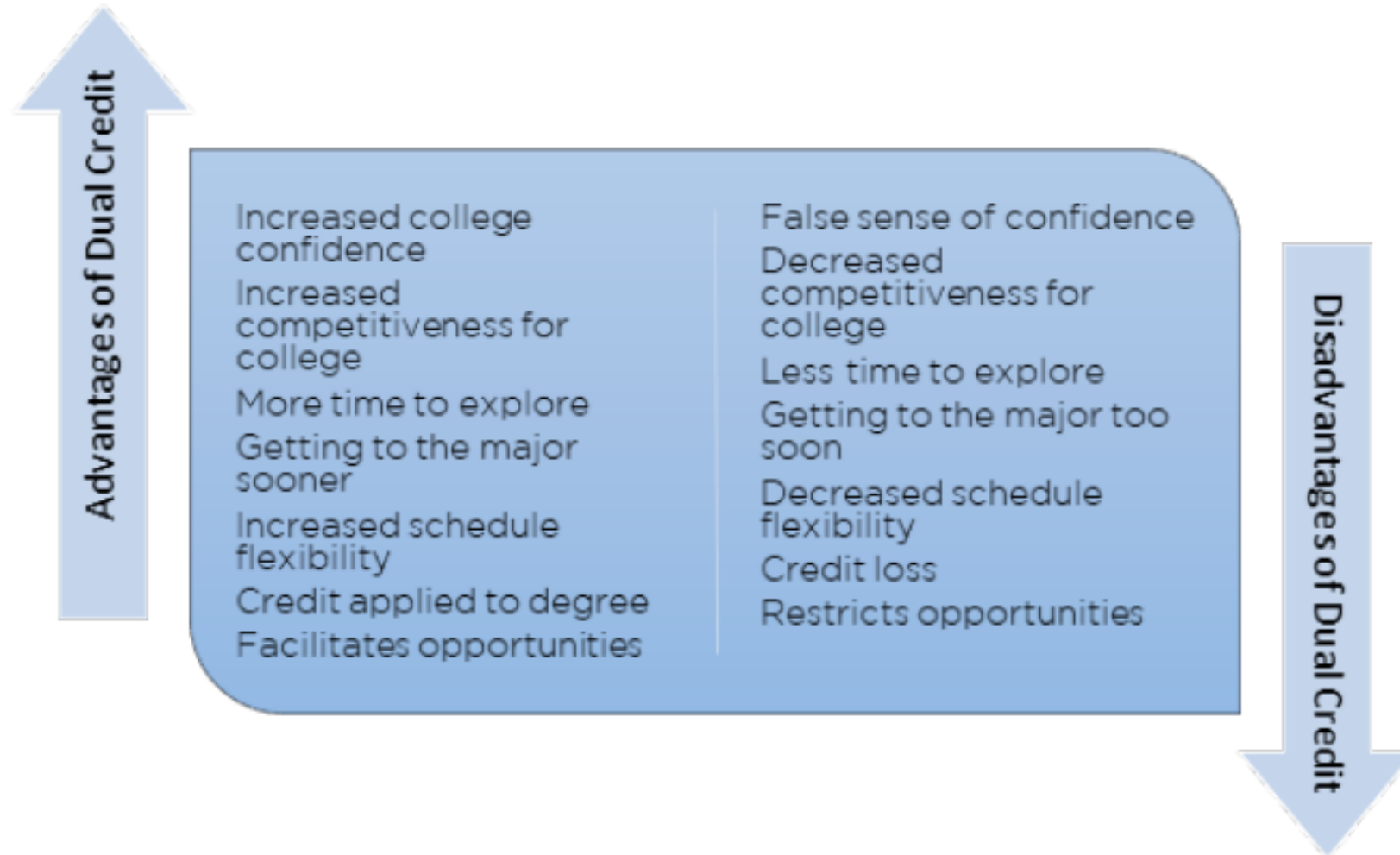


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Students' Perceived Advantages and Disadvantages



Faculty and Academic Advisors' Perspectives



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Faculty Perspective of DC Students

- Faculty from seven of the eight campus had negative perspectives on dual credit
 - DC students not ready for 4-year college
 - Are not prepared for subsequent courses
 - Should receive a “UT experience”
 - Students not mature enough to take college courses
- Anecdotal information supporting conclusions



College Readiness

- Analytical Writing Skills
 - “After teaching lower division courses, I would say that the ability to write analytically, at least in history is of utmost importance”
- Academic Ability
 - “Think, if the students could have a more rigorous high school curriculum that will prepare them for college, then I don't think we have to worry, right?”
- Maturity
 - “I had taught composition over there before and I went in and they told me, teach just like how you teach it to the 18-19-20- year olds. No way. They couldn't write at that ... They just didn't have the life experience or the maturity to handle it”



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Faculty: Disadvantages of Dual Credit

- Not Prepared for Junior-Level Classes
 - “those who had come presenting credit from elsewhere were less secure in their knowledge than those who had taken the courses with us or from another four-year institution”
- High School Students Not Ready for College and Not Succeeding in Dual Credit Classes
 - “They put them in there and they don't last a full week or two, if that”
 - “Well, I think part of that too is a paradigm shift. I mean we're taking teenagers to college students. I think that's a huge leap and what they're used to doing and now what's expected of them, I mean we're talking comparing apples to oranges here”



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Faculty: Disadvantages of Dual Credit

- Credits Don't Transfer/Unnecessary Courses
 - “they end up with 60 credit hours, how many of them actually end up counting and how many of them end up being sort of dead credits off here on the side?”
- Not Learning Life Skills/Not Developing
 - “there's a danger or a threat with that in that students are gaining all of these courses, the hours but that's only one part of their development. That it's not a holistic approach to becoming a college student or becoming a young adult”



Advisors' Perspectives: Challenges Introduced

- Late or Missing Dual Credit Transcripts
- Keeping Students at Full-Time Status for Scholarship or Financial Aid Reasons
 - Sequencing Issues
 - Availability of Upper Division Classes
 - Need for Minor or Off Plan Courses
- Managing Student and Parent Expectations
 - Amount of Dual Credit That Will Apply to Degree
 - Time to Degree
 - Technical vs Academic Credit



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Advisors' Perspectives: Potential Impacts to Students

- Can Speed Up Time to Degree for Those Pursuing a Liberal Arts Degree
- Repeat, Excess or Lost Hours, Especially in STEM fields
- No Ramp Up Time to Acquire Needed Skills
- Can Impact Social Networks
- Difficulty Getting Into Desired Major
 - Internal Transfer Policy Implications
 - Dual Credit GPA impacts
 - Dual Credit Repeat Class Impacts
- Can Limit Ability to Explore Majors / Find Passion



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Recommendations

- Improve student record-level data collection for students participating in Texas dual credit programs
- Encourage UT System academic institutions' dual credit programs to conduct program evaluation
- Continue to monitor and research the relationship between dual credit and student success



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Recommendations

- Enhance dual credit communication with students and families to enable informed decisions
- Establish a list of dual credit-related policies, empirical dual credit research findings, and dual credit practices that can be communicated to staff at the UT System institutions
- Improve dual credit program alignment among high schools, two-year and four-year institutions



Going Forward

- Qualitative studies are needed to better understand the benefits of dual credit by Race/Ethnicity and Pell status
- Further quantitative analyses focusing on course taking behaviors, monies saved, and post collegiate outcomes
- Untangling the benefits by program type (Dual credit, Early College High Schools, Math and Science Academies, P-Tech, School within a School, Online, etc...)
- Working with university faculty on dual credit perspectives



Takeaways

- Exposure to even one dual credit course has a positive impact on student success outcomes
- Mixed messages communicated to students and parents, 4-year faculty, advisors, and admissions
 - Information sharing
- One size does not fit all
- More time and research are needed to understand better how dual credit programs can personalize the dual credit experience (number of hours and type of courses)



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Contact Information

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