

Unpacking the Transfer Playbook: How Higher Education Institutions Can Improve Transfer Outcomes

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The research reported here was supported by the Inst through Grant R305C110011 to Teachers College, C authors and do not represent views of the Institute or Community College Research Center who helped us

For information about authors and CAPSEE, visit ca

Google

A Longitudinal Analysis of Community College Pathways to Computer Science Bachelor's Degrees

2016





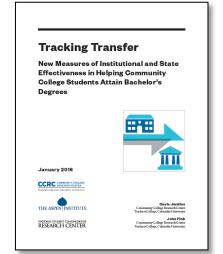
Tracking Transfer: Five New Measures



- 1. Transfer-Out Rate
- 2. Transfer-with-Award Rate
- 3. Transfer-Out Bachelor's Completion Rate



5. Community College Cohort Bachelor's Completion Rate



4. Transfer-In Bachelor's Completion Rate



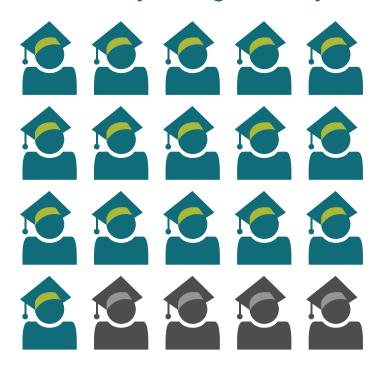
COLLEGE

The vast majority of students who enroll in a community college plan to one day earn a bachelor's degree.

Most never make it.

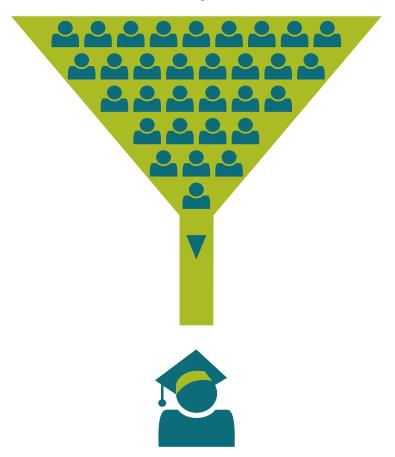
1.7 Million

new students enroll in a community college each year



80%
plan to get a
bachelor's degree
or higher

We tracked **720,000** community college students who started in the fall of 2007 in pursuit of a college credential



Only 100,000 earned a bachelor's after 6 years

Source: Jenkins & Fink (2016)

Too few students manage to make the leap







Just 33% of students who started community college in fall of 2007 transferred to a four-year school

Even when they transfer, we're still failing them

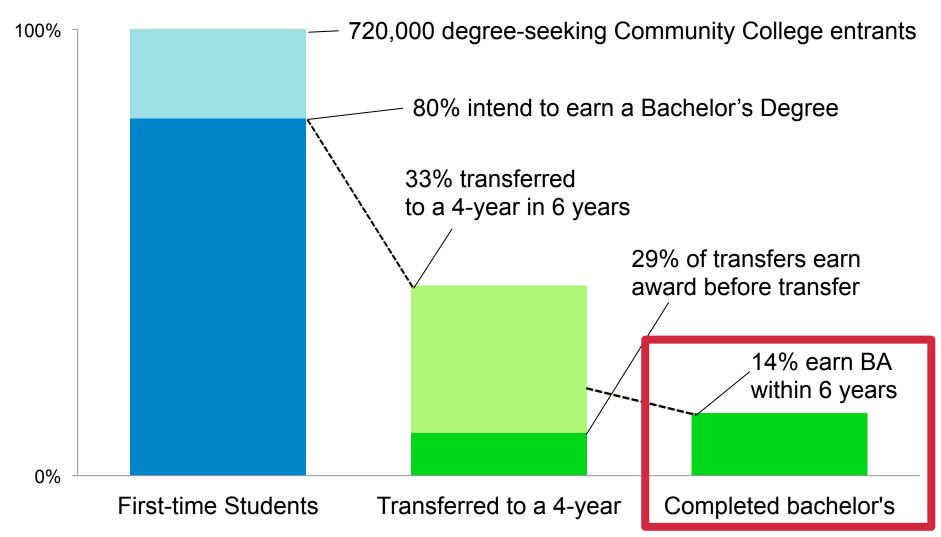




Of the students who successfully transferred, only 42% went on to get a bachelor's within 6 years of starting

Source: Jenkins & Fink (2016)

Few Transfer, Even Less Complete

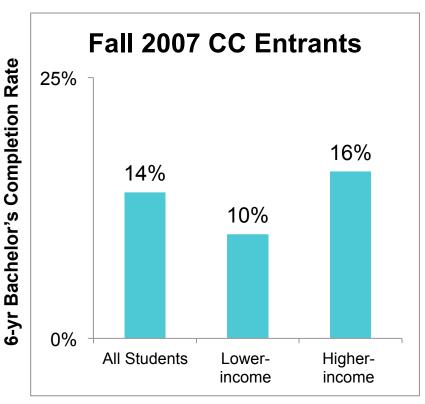


Source: Jenkins & Fink (2016)

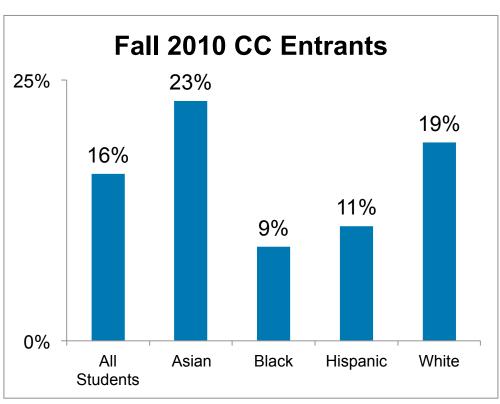




Achievement gaps, by Race & Income

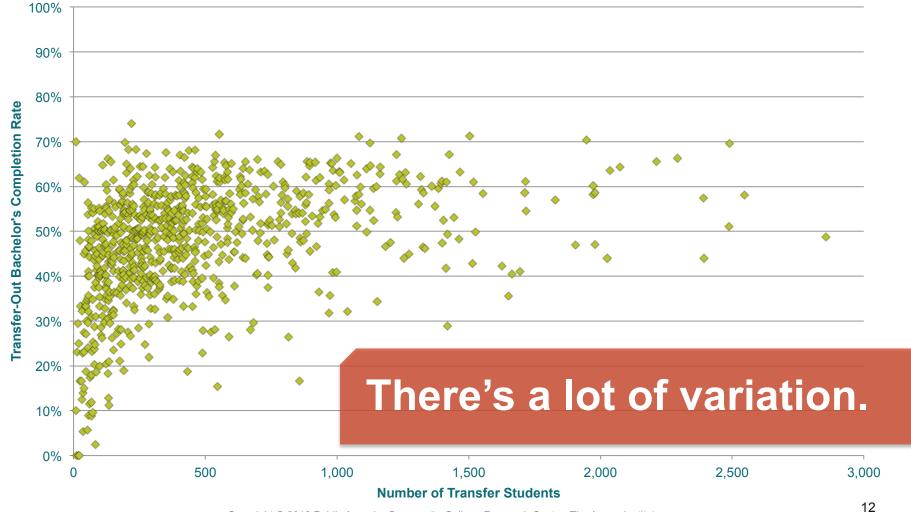


Jenkins & Fink, 2016

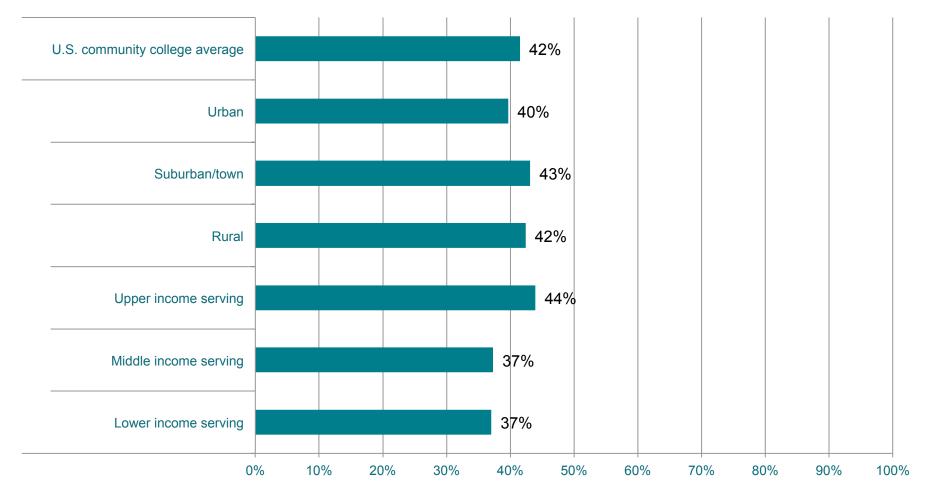


Shapiro et al., 2017

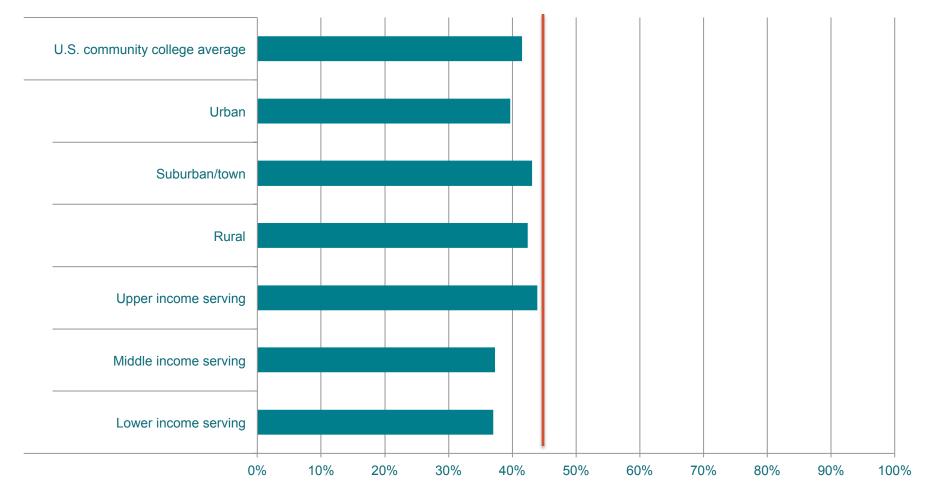
These are the bachelor's completion rates for transfer students, by individual community college.



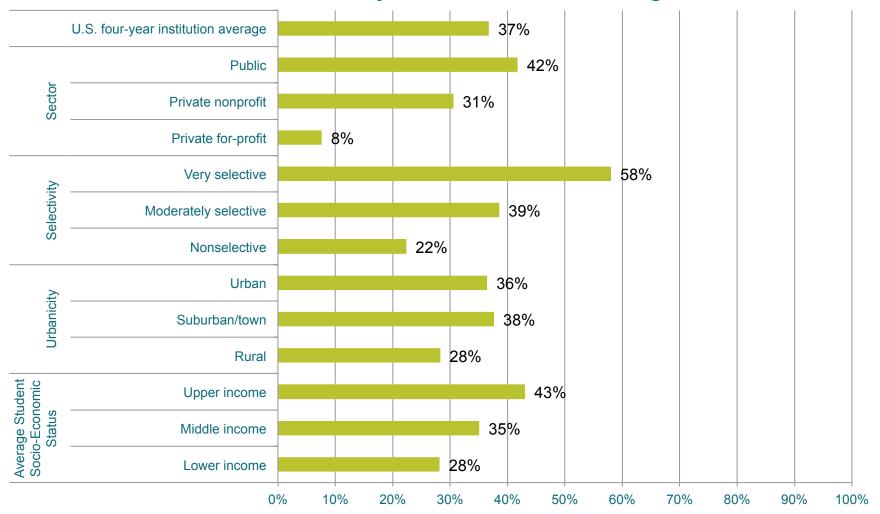
Average Transfer-Out Bachelor's Completion Rates by Institutional Characteristics

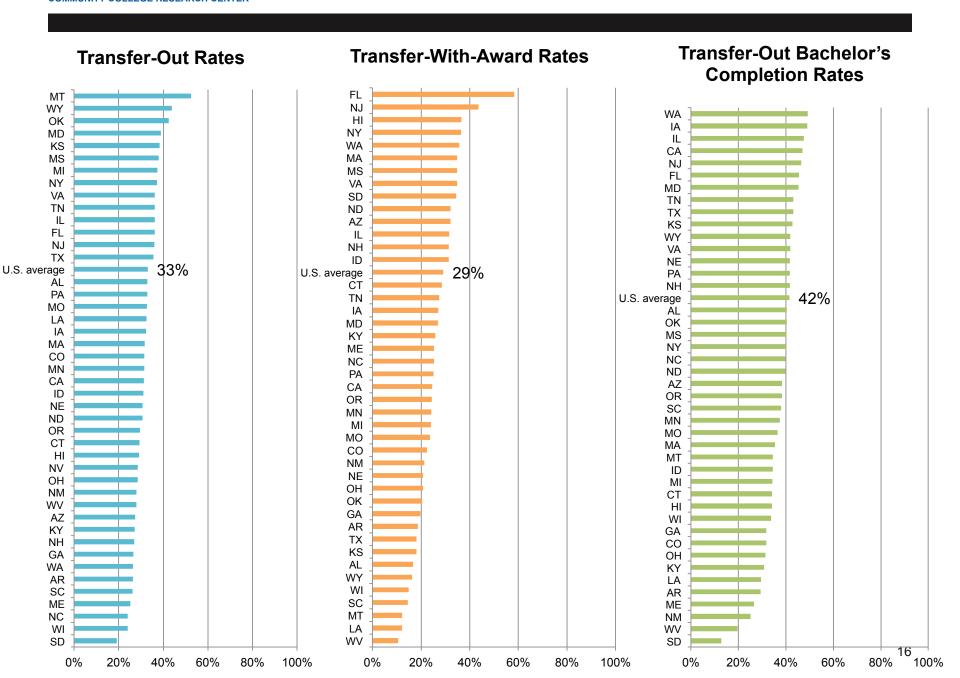


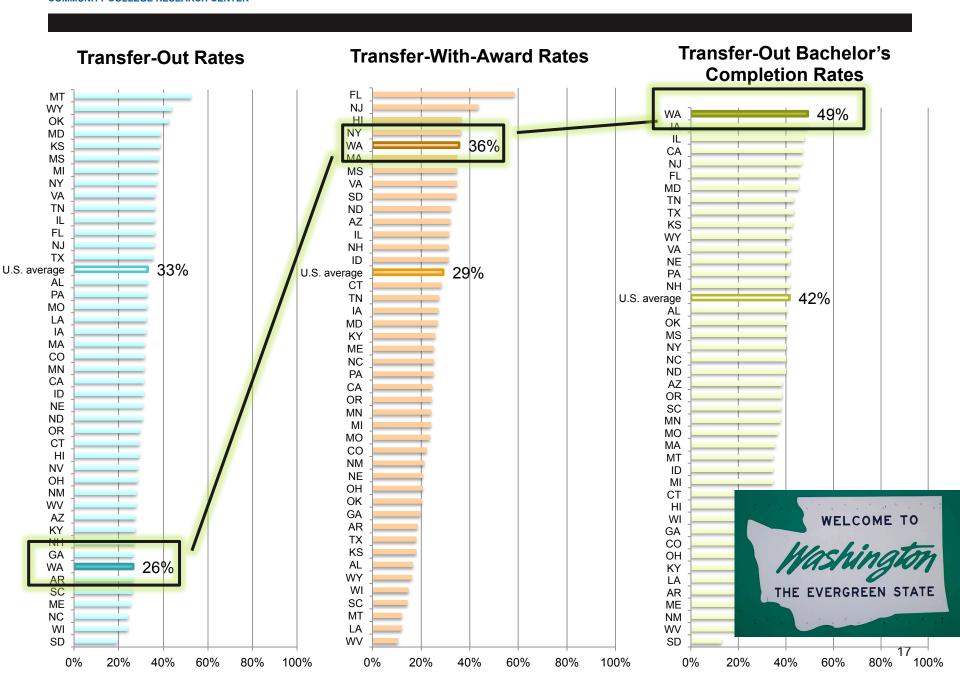
While outcomes at community colleges vary, what we might imagine would predict variation doesn't.

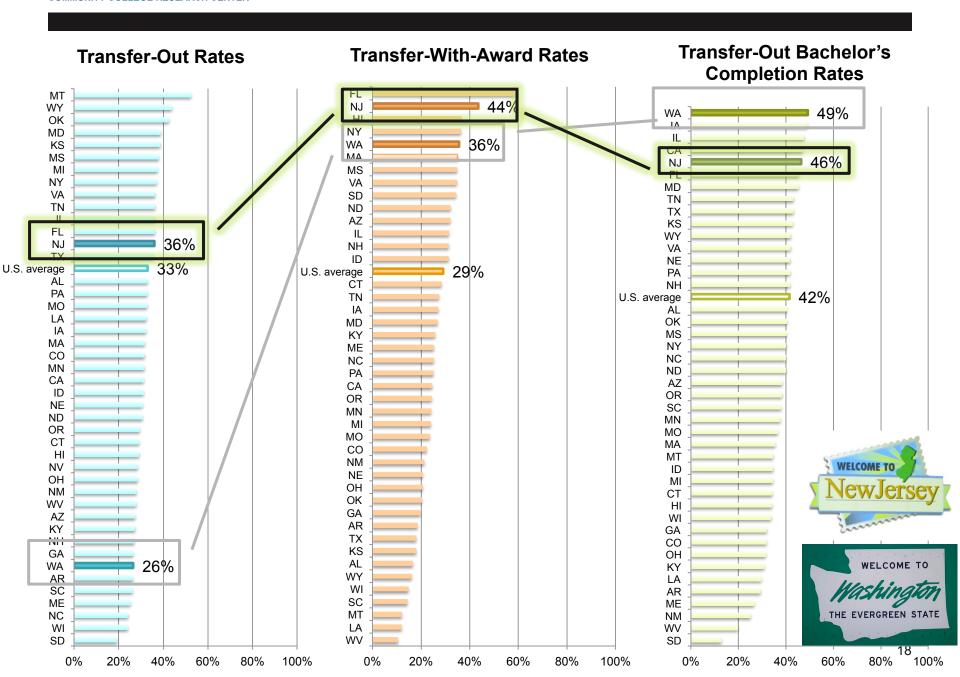


On the other hand, the characteristics of 4-year schools matter when it comes to how many transfer students get a bachelor's.



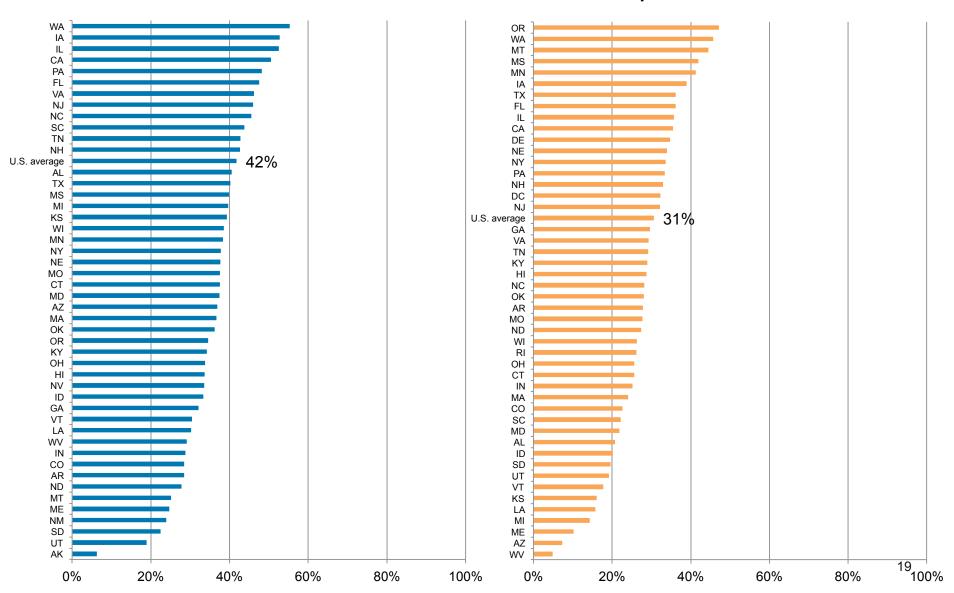


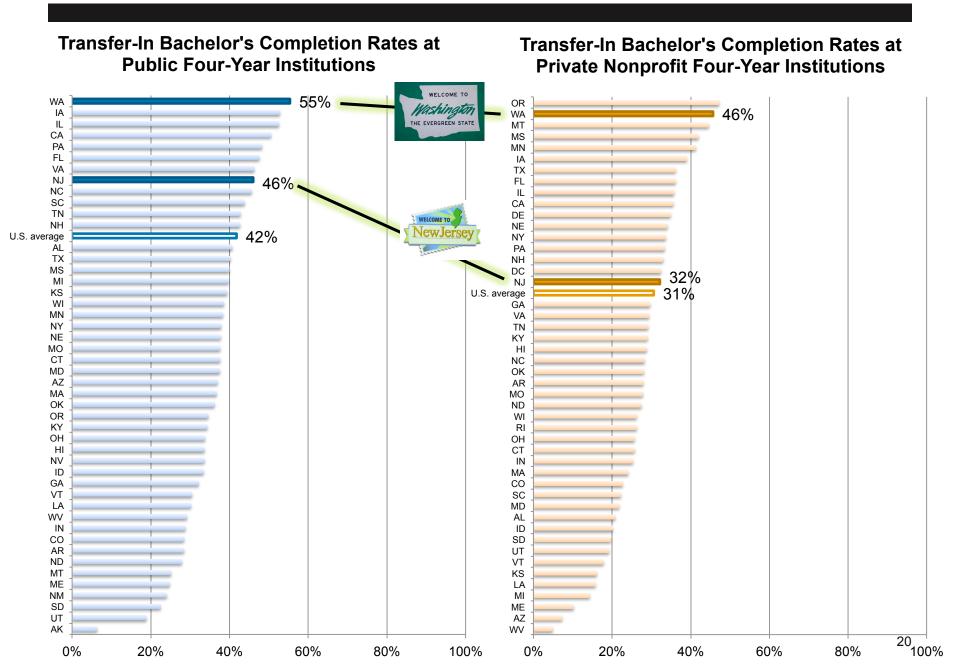


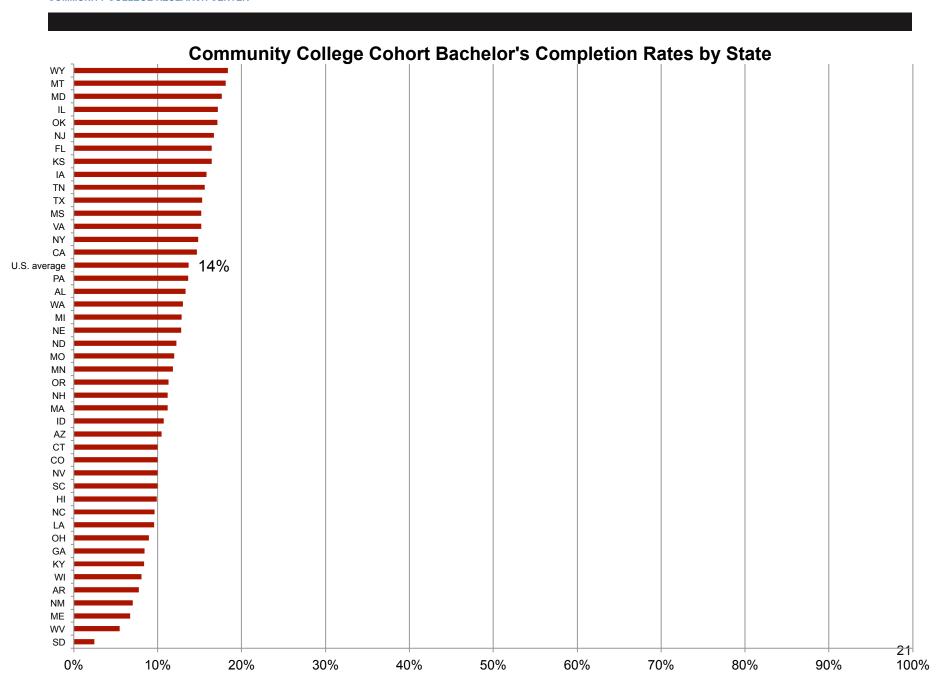


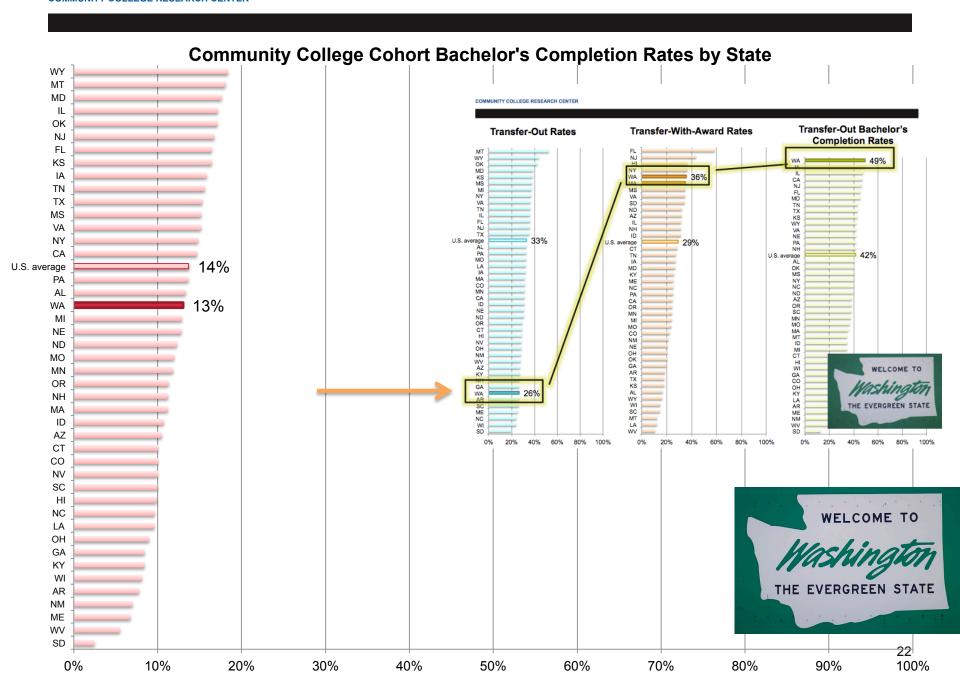
Transfer-In Bachelor's Completion Rates at Public Four-Year Institutions

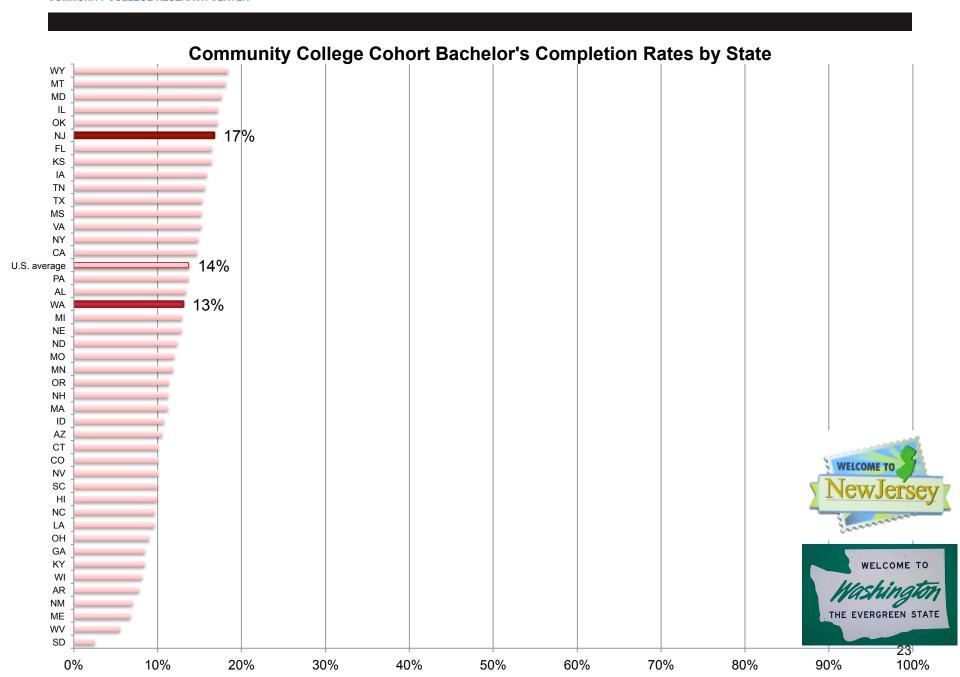
Transfer-In Bachelor's Completion Rates at Private Nonprofit Four-Year Institutions

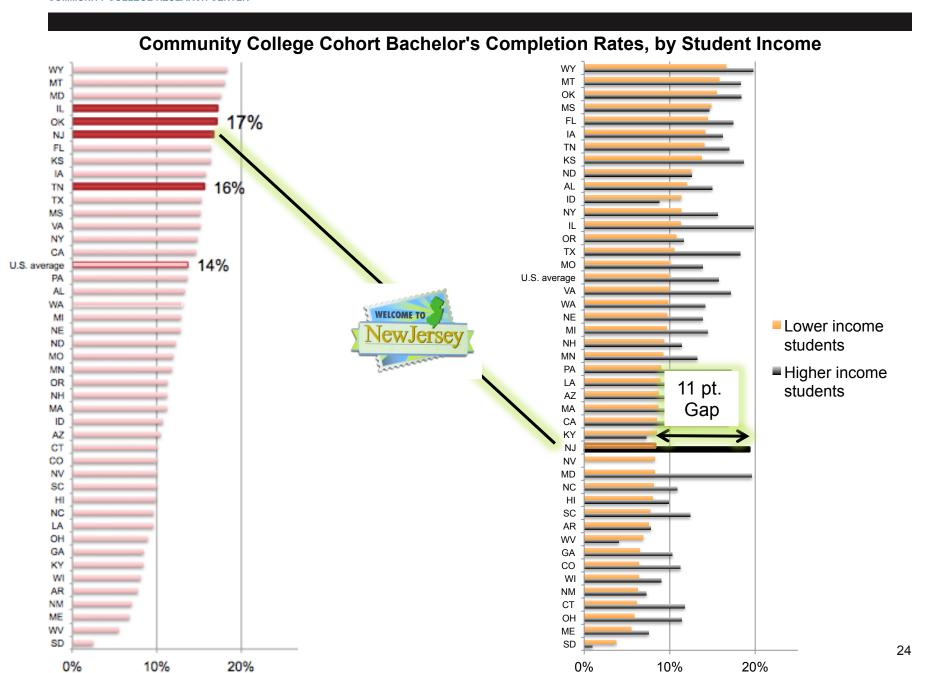














Understudied Barriers to Transfer Success

- 1) Lack of early momentum
- Students make progress, don't transfer
- 3) Transfer paths unclear
- 4) Transfer credit loss



How and Why Does Two-Year College Entry
Influence Baccalaureate Aspirants' Academic and
Labor Market Outcomes?

A CAPSEE Working Paper

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April 2016

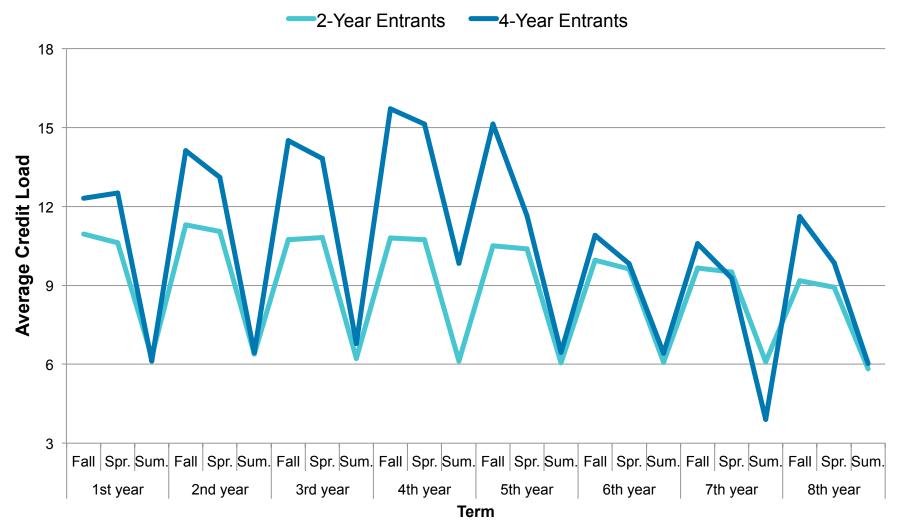
The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305C110011 to Teachers College, Columbia University. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education. We thank all those at the Community College Research Center who helped us think through and revise our work. Any errors are our own.

For information about authors and CAPSEE, visit capseecenter.org

Understudied Barrier #1Lack of Early Momentum

Understudied Barrier #1: Lack of Early Momentum

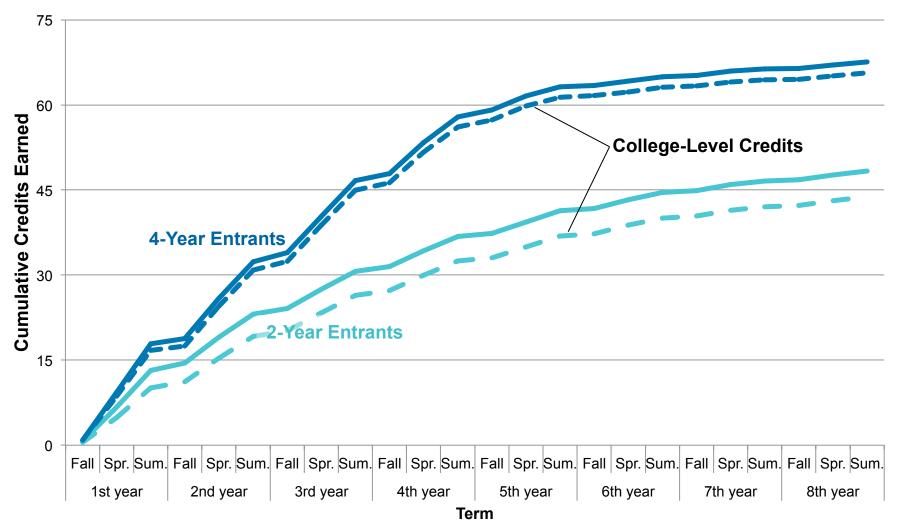
VA Fall 2004 Matched 2- and 4-Year Entrants, Average Credit Load by Term



Source: Xu, Jaggars, & Fletcher, 2016.

Understudied Barrier #1: Lack of Early Momentum

VA Fall 2004 Matched 2- and 4-Year Entrants, Cumulative Credits Earned by Term



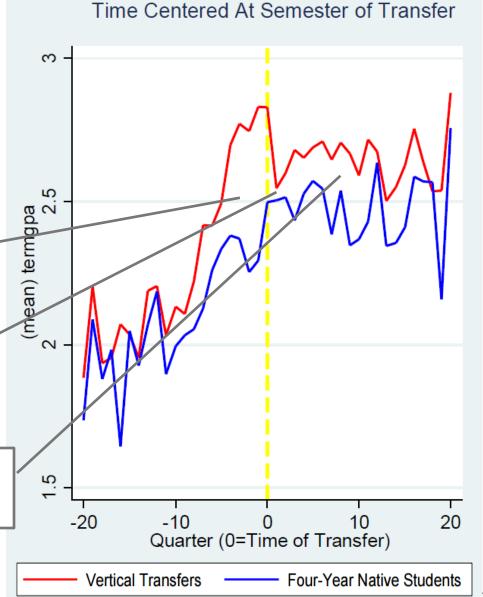
Source: Xu, Jaggars, & Fletcher, 2016.



Transfer student community college GPAs pre-transfer much higher than matched sample of 4-Year Entrants

"Transfer Shock" initial drop in GPA; still higher than matched sample of 4-Year Entrants

Transfer Student GPA consistently higher than matched sample of 4-Year Entrants

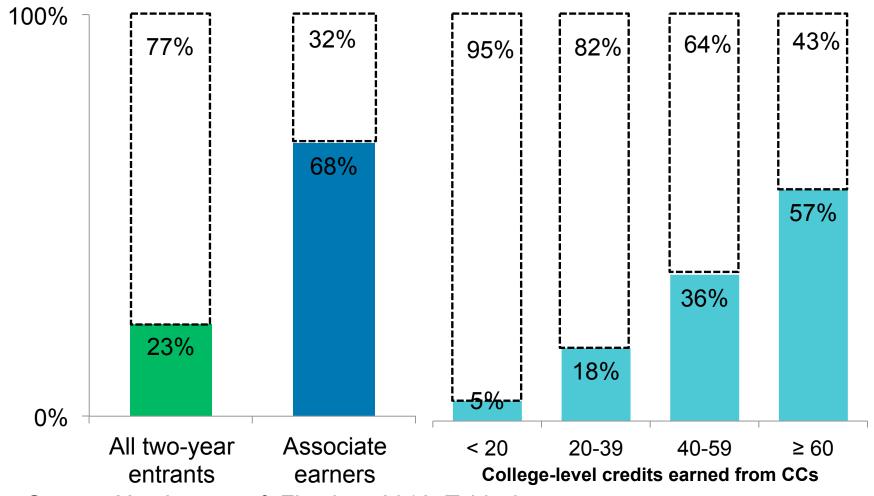


Source: Xu, Jaggars, & Fletcher, 2016, Figure 4.

Understudied Barrier #2 Students make progress, don't transfer

Understudied Barrier #2: Students make progress, don't transfer





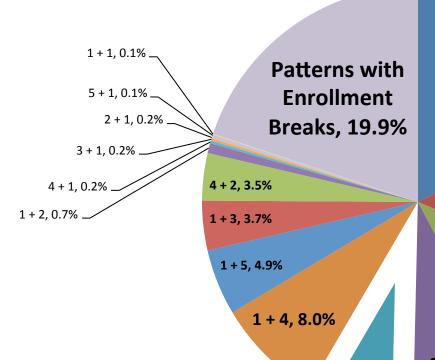
Source: Xu, Jaggars, & Fletcher, 2016, Table 9.

Understudied Barrier #3Transfer paths unclear

Understudied Barrier #3: Transfer paths unclear

Enrollment Patterns among ~100K Bachelor's Degree Completers who Started at a Community College

years at CC + years at 4yr



2 + 3, 17.7%

3 + 3, 13.6%

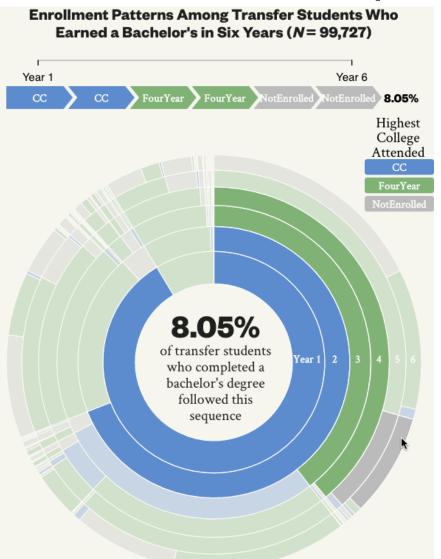
2 + 4, 10.9%

3 + 2, 8.1%

Few graduates follow 2+2 pattern

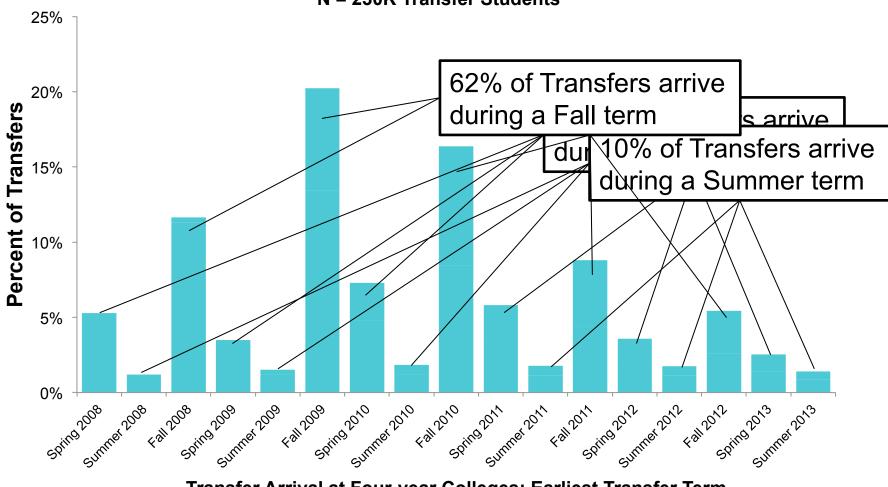
2 + 2, 8.1%

Understudied Barrier #3: Transfer paths unclear



Understudied Barrier #3: Transfer paths unclear

National Fall 2007 Degree-Seeking CC Entrants who Transferred within Six Years N = 230K Transfer Students



Transfer Arrival at Four-year Colleges: Earliest Transfer Term

Jenkins & Fink, 2016; Further disaggregation by authors

No "Well-Trodden" Transfer Pathway to Degrees in STEM and Computer Science



A Longitudinal Analysis of Community College Pathways to Computer Science Bachelor's Degrees

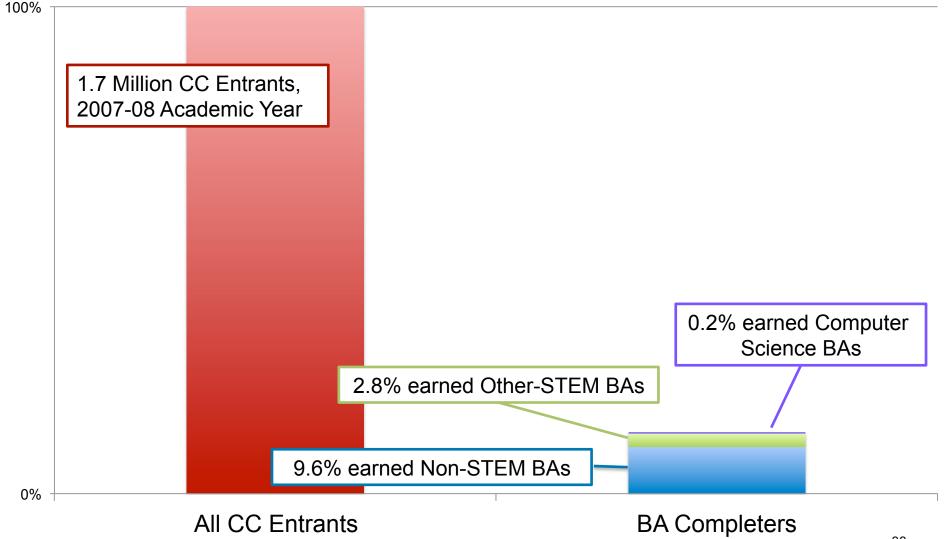
2016



CCRC COMMUNITY COLLEGE

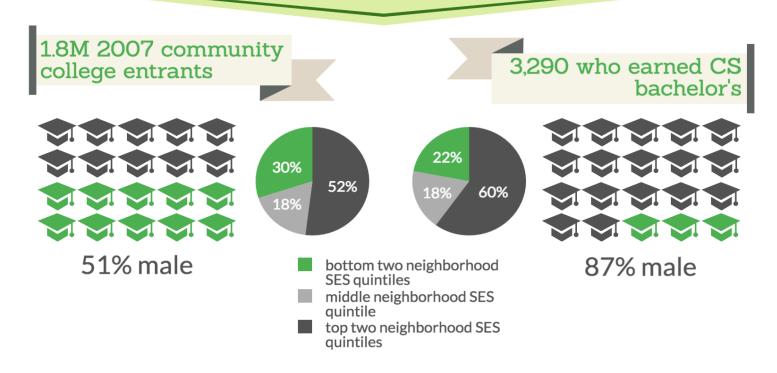
RESEARCH CENTER

Few students who started at a Community College earned a bachelor's degree in Computer Science within 7 years



Source: Jaggars et. al, 2016

Not representative of the greater community college population

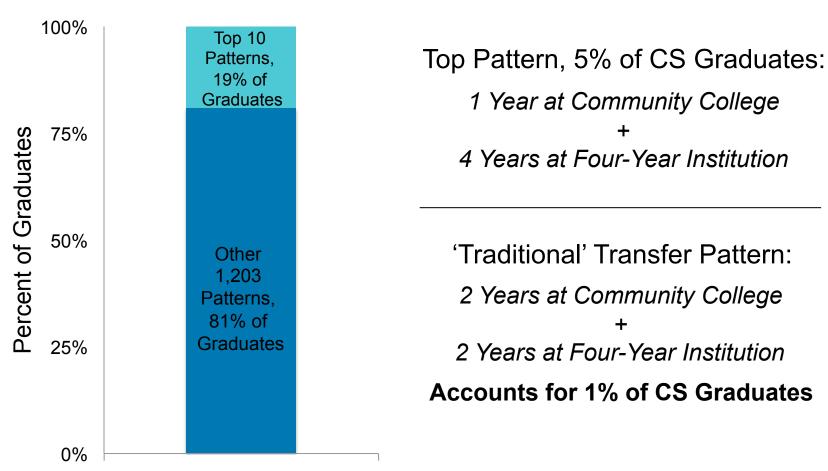




Source: Jaggars et. al, 2016

No "Well-Trodden" Transfer Pathway:

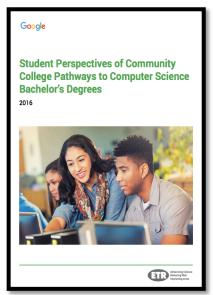
Unique, Term-by-Term Enrollment Patterns among 3,290 Computer Science Graduates



Source: Jaggars et. al, 2016

1,213 Unique Patterns

Companion report surveyed prospective CS students at two California Community Colleges



Key themes:

- Students are confused about transfer pathways in CS
- Students struggle to progress through complex chain of prerequisites in preparation for transfer into CS major
- Students have limited knowledge of CS profession

Barriers to students' development of interest and progression into CS:

- Necessary prerequisite classes are over-enrolled
- Math requirements are "daunting"
- Students lack confidence to succeed in needed courses
- Competing responsibilities interfere

Understudied Barrier #4Transfer credit loss

Understudied Barrier #4: Transfer Credit Loss



Just **58%** of students successfully transferred 90% of their credits.



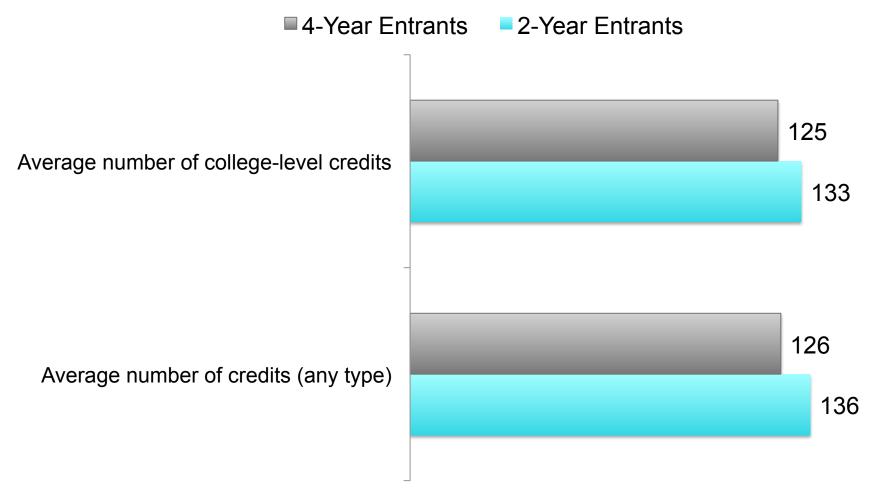


Students who can transfer 90% of their credits were 2.5x more likely to get their bachelor's degree, compared to those who transfer half or less.

Source: BPS data, Monaghan & Attewell, 2015.

Understudied Barrier #4: Transfer Credit Loss

VA Fall 2004 Matched 2- and 4-Year Entrants, Total Credits Earned at Graduation



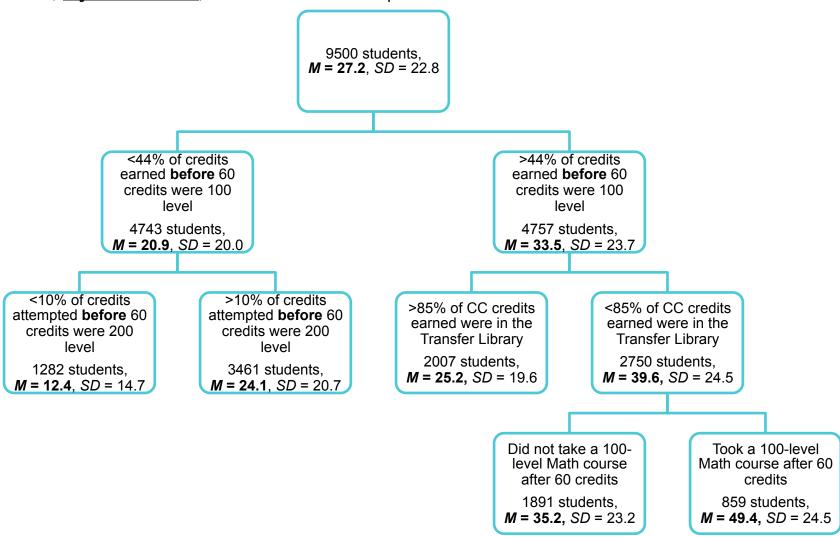
Source: Xu, Jaggars, & Fletcher, 2016, Table 10.

Credit Transfer Efficiency

- Important to understand: both a barrier to completion and source of extra cost
- Measures of credit transfer efficiency:
 - Transferability: Credits are accepted at receiving institution
 - Applicability: Credits are counted toward major/degree at receiving institution
 - Excess Credit: Students attempted/earned more credits than the total required for their degree
- APPAM 2016: Exploratory study of excess credits among BA completers who started a two- and four-year institutions in two states:
 - Created a rich set of variables to capture the curricular pathways students take in pursuing a bachelor's degree
 - Used data mining techniques to identify variables associated with efficient or inefficient bachelor's degree pathways
 - Dependent Variable: Excess Credits among BA completers

Simplified Partition Tree:

State B, **2-year Entrants**, Excess Credits Attempted



Source: Fink, Kopko, Ran, & Jenkins. "Course-level Indicators of Two- to Four-Year College Credit Transfer Efficiency," Paper presented at APPAM 2016, Washington, DC.

Understudied Barriers to Transfer Success

- 1) Lack of early momentum
- 2) Students make progress, don't transfer
- 3) Transfer paths unclear
- 4) Transfer credit loss

What can we do to address these barriers?

How Can Community College and Four-Year Partners Achieve Strong Transfer Outcomes?

THE TRANSFER PLAYBOOK:

ESSENTIAL PRACTICES FOR TWO- AND FOUR-YEAR COLLEGES









The Transfer Playbook: Essential Practices for Two- and Four-Year Colleges

State	Community College	Universities
Colorado	Front Range CC	Colorado State University
Connecticut	Manchester CC	Eastern Connecticut State U
Florida	Broward College	Florida International UFlorida Atlantic U
Louisiana	• LSU-Eunice	U of Louisiana - Lafayette
Mass.	Holyoke CC	U Mass Amherst
Washington	Everett CC	University of WashingtonWestern Washington U

The Transfer Playbook: Essential Practices for Two- and Four-Year Colleges

- ✓ STRATEGY 1: Prioritize Transfer
- ✓ STRATEGY 2: Create Clear Programmatic Pathways with Aligned High-Quality Instruction
- ✓ STRATEGY 3: Provide Tailored Transfer Student Advising
- + Build strong transfer partnerships

STRATEGY 1: Prioritize Transfer

- ✓ Communicate transfer as a key component of the institution's mission
- ✓ Share data to increase understanding of the need to improve transfer student outcomes – and the benefits of doing so
- ✓ Dedicate significant resources to support transfer students

"EVERYONE ASKS, "WHERE ARE YOU GOING NEXT?"

- STUDENT AT HOLYOKE COMMUNITY COLLEGE

STRATEGY 2: Create Clear Programmatic Pathways with Aligned High-Quality Instruction

- ✓ Work collaboratively with colleagues from partner institutions to create major-specific program maps
- ✓ Provide rigorous instruction and other high-quality academic experiences to prepare students for four-year programs
- ✓ Establish regular, reliable processes for updating and improving program maps
- ✓ Design unconventional pathways, as necessary

STRATEGY 2: Create Clear Programmatic Pathways with Aligned High-Quality Instruction

For this program of study...

- What learning outcomes are essential in the first two years so the student can transfer to a four-year college with junior standing?
- What essential elements of the "native" freshman and sophomore learning experience may be hard to replicate for community college transfer students?
- What alternatives to these hard-to-replicate learning experiences can be provided so that the students' junioryear standing is not compromised?

STRATEGY 2: Create Clear Programmatic Pathways with Aligned High-Quality Instruction

THREE IMPORTANT TOPICS FOR CONTINUOUS IMPROVEMENT CONVERSATIONS AMONG TRANSFER PARTNERS:

- CURRICULAR CHANGES: Community colleges and four-year colleges should review any current or anticipated changes in program design and requirements since the prior meeting.
- 2. ACCESS ISSUES FOR TRANSFER
 STUDENTS: Four-year colleges should identify any degree programs where transfer students may face significant barriers to entry as a result of limited slots, high demand, resource constraints, or changed admission standards.
- **3. STUDENT SUCCESS DATA:** Four-year colleges should present data on the following transfer student outcomes for each of their main community college "sending" partners:
 - Percentage of transfer credits accepted overall
 - Percentage of transfer credits that are accepted toward particular majors
 - Student grades in upper-level courses
 - Number of years it takes transfer students to graduate

Where possible, transfer student outcomes should be broken out by major or field and compared to those of native students.

Overview of program **ness Transfer DTA**

GENERAL INFORMATION

This degree satisfies general undergraduate requirements for a major in economics through a universit sciences or business. This degree meets statewide guidelines for transfer to the following Washington universities subject to exceptions and qualifications outlined in this guide: Central Washington Universi University, University of Washington, Washington State University, Western Washington University, Go Heritage University, Pacific Lutheran University, Saint Martin's University, Seattle Pacific University, Sei Walla University, and Whitworth University.

Information on	Seattle Pacific University (SPU) www.spu.edu/depts/sbe
common transfer destinations	University of Washington (US) www.foster.washington.edu/academ www.uwb.edu/business (Bothell); www.tacoma.uw.edu/milgard-sch
www.plu.edu/busa	Washington State University (WSU) www.business.wsu.edu
Seattle University (SU) www.seattleu.edu/albers	Western Washington University (WWU) www.cbe.wwu.edu

Students interested in earning a bachelor's degree in Hospitality Management (via WSU's program at E

accounting, business ad completing this degree.

GETTING STARTED AT EV

Enrollment Services prostudents: contact Enroll advising should contact

PROGRAM ADVISORS

Students are required to academic plan. Registra

Dongwa Hu, Olympus 21 425.388.9364; dhu@eve

Chad T. Lewis, Olympus

425.388.9559; ctlewis@everettcc.edu

Lynne Muñoz, Olympus 216 425.388.9175; lmunoz@everettcc.edu

If there is no answer, please call the Division Office at 425.388.92

Bill Reed, Monte Cristo 122

Program advisor information

425.388.9538; meppley@everettcc.edu

BUSINESS TRANSFER—DTA/MRP DEGREE REQUIREMENTS

BASIC COMMUNICATION SKILLS (10 credits)

MATH& 148 or &151 or higher

Must earn a C grade (2.0) or better in all required courses. Courses may be subject to prerequisites.

Course	Credits	Grade	Quarter	Year	
ENGL& 101 or ENGL& 101D	IGL& 101 or ENGL& 101D English Composition I				
ENGL& 102, ENGL& 102D or	5				
CMST& 220	(CMST& 220 required at EWU)				
BASIC QUANTITATIVE SKILLS (10) credits)				
Course	Course Title	Credits	Grade	Quarter	Year
MATH 138 or &141 or &144 or		5			
&148 or &151 (or higher)					

HUMANITIES (15 credits with no more than 10 credits from any one disciple on the AAS DTA Humanities distribution list. No more than 5 credits of foreign language and performance arts credits can be listed. Two quarters at EvCC or two years in high school of the same world language is required for admission to all UW campuses. Student business major should consult with the specific transfer institution recording feroism land

beamers major should consider with the specific transfer institution regarding foreign lang					ogram enecitic
	Course	Course Title	Credits	G II	ogram-specific
			5	"	legree-sheets"
			5		icgree-silects
			5		

SOCIAL SCIENCE (15 credits: 10 credits in economics: 5 credits other than economics from the AAS DTA Social Science distribution list, BUS &101 recommended as a social science distribution course.)

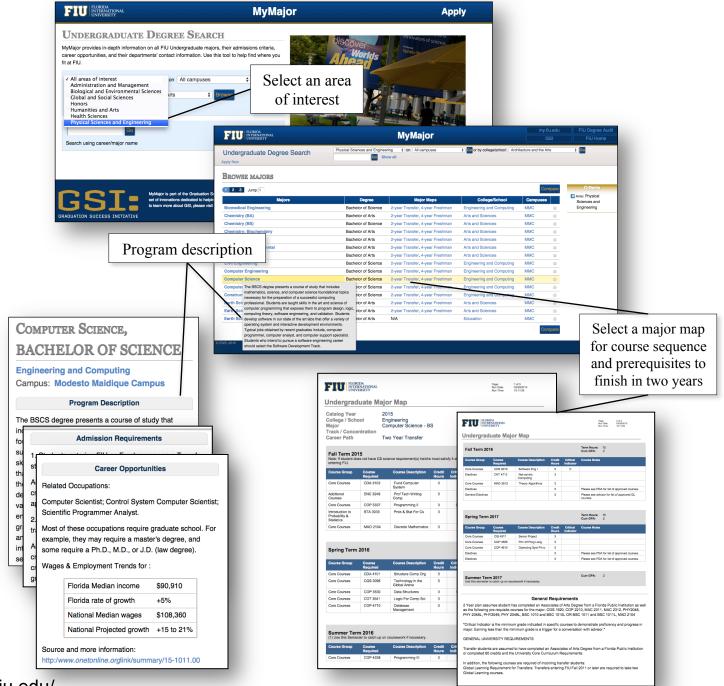
Course	Course Title	Credits	Grade	Quarter	Year
ECON& 201	Micro Economics	5			
ECON& 202	Macro Economics	5			
BUS& 101 (recommended)	Introduction to Business	5			

NATURAL SCIENCE (15 credits; 5 credits in statistics; 5 credits each from the AAS DTA Natural Science distribution lists Part

Notes:

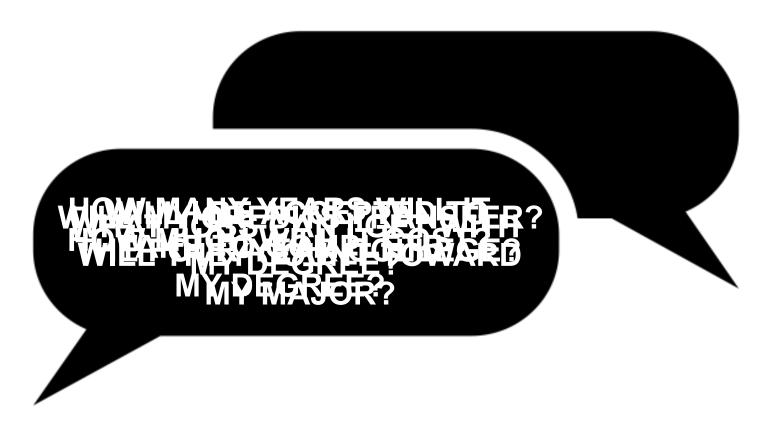
- To earn a certificate or degree, the courses must be completed with a cumulative GPA of 2.0 (C) or better.
- Gonzaga requires a course equivalent to its BMIS 235, Management Information Systems.
- PLU requires a course equivalent to its Computer Applications CSCE 120 or MOS certification; CL 101 may suffice to fulfill this requirement.
- SPU requires a course equivalent to its BUS 1700 or MOS certification (MOS 77-420); BT 242 may suffice to fulfill this requirement.
 - WWU requires a course equivalent to its MIS 220 Introduction to Computer Systems; CL 101 may suffice to fulfill this requirement. The WWU Manufacturing and Supply Chain Management program requires additional coursework, some of which may also be taken as elective credit at EvCC. Management program web site is www.wwu.edu/node/731/.

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https://mymajor.fiu.edu/

STRATEGY 3: Provide Tailored Transfer Student Advising



STRATEGY 3: Provide Tailored Transfer Student Advising



COMMUNITY COLLEGE ADVISING PRACTICES

- ✓ Clearly articulate students' transfer options and help them determine, as early as possible, their field of interest, major, and preferred transfer destination
- ✓ Continuously monitor student progress, provide frequent feedback and intervene quickly when students are off-track
- Help students access the financial resources necessary to achieve their goals

WEBSITE EXERCISE

Imagine you are a student about to register for classes at your community college.

You want to study marketing and transfer to a local four-year university. Go to **YOUR COLLEGE'S** website, and find the information that you need to select your courses and transfer successfully. Try to figure out what courses you will need to in order to transfer and enter the marketing program at the four-year institution.

Think about the following questions AS THE STUDENT:



Getting Off on the Right Start: What marketing programs are available at nearby universities? What career options are available to you after you transfer and complete the degree? What do salaries look like for these career options? Is this information available to you on either website?



Planning for Program Requirements: What are the requirements for admission to the university's marketing programs? What classes will the student need to take at **YOUR COLLEGE** if you want to transfer into a marketing program at the university? How easy or difficult was it to find this information? How many clicks did it take?



Locating In-Person Help: Who would you need to go at **YOUR COLLEGE** to get information on transfer in marketing? Where would you go to on your campus to find that person? How easy or difficult was it to find this information on your website?

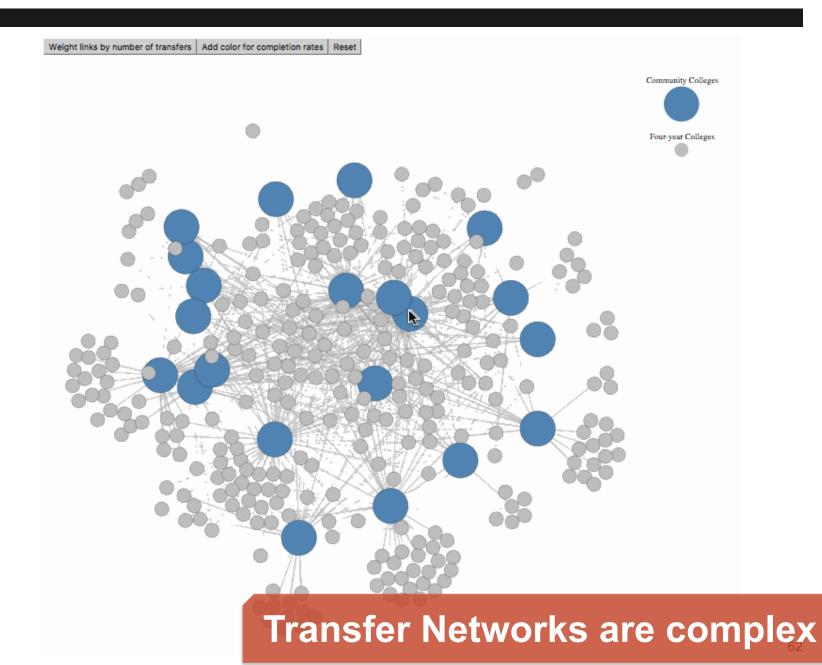
STRATEGY 3: Provide Tailored Transfer Student Advising

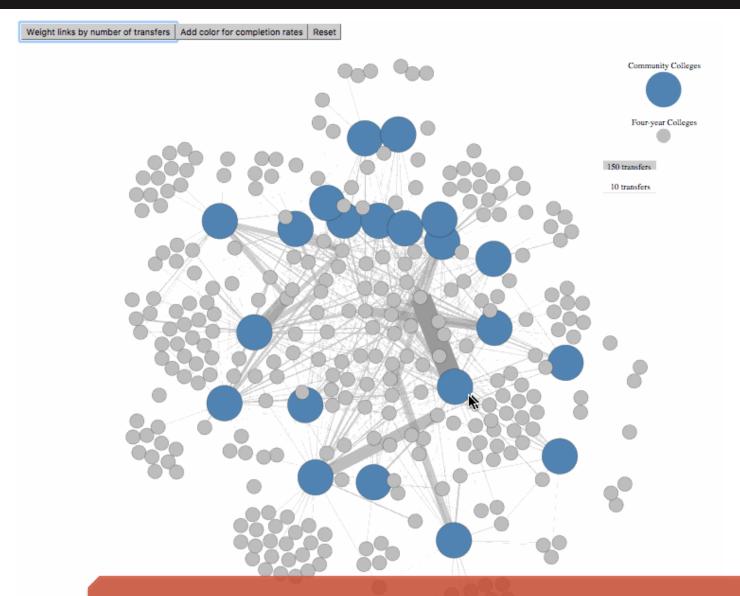


FOUR-YEAR COLLEGE ADVISING PRACTICES

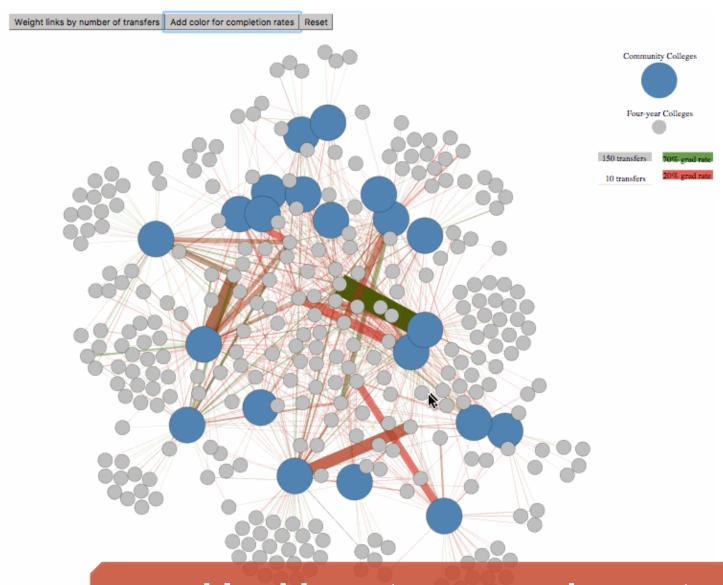
- Commit dedicated personnel, structures, and resources for transfer students
- Assign advisors and clearly communicate essential information to prospective transfer students
- Strongly encourage transfer students to choose a major prior to transfer
- Replicate elements of the first-year experience for transfer students
- ✓ Exercise fairness in financial aid allocation

Build Strong Transfer Partnerships





Colleges are prioritizing major partners



...and looking at success by partner

Build Strong Transfer Partnerships

- ✓ Build trusting relationships with partners and communicate frequently at all levels.
- Share data on transfer student experiences and outcomes.
- ✓ Jointly invest in shared support services and strategic initiatives to benefit transfer students.
- ✓ Collaborate on improving instruction and support services for transfer students.
- ✓ Designate "transfer champions" to serve as liaisons to transfer partners.



DRAFT FOR FIELD TESTING AND REVIEW COMMENTS WELCOME





DRAFT FOR FIELD TESTING AND REVIEW COMMENTS WELCOME



Instituti	ion N	lame:	

Overview: This tool is design Essential Practices for Two-Research Center at Columbia have achieved exceptional tr characteristics).

How to use this tool: The ass
3) provide tailored transfer a
systematically each sub-prac
and that it is part of the
space to identify possible ne

(1) Minima (2) Beginn (3) Buildin (4) System

We recommend that a core that serve transfer students. student services deans or dir should then engage others a of faculty and staff. Ideally the transfer students, and motive

For help using this tool: Cont

To share feedback or comments or

THE TRANSFER PLAYBOOK:
TOOL FOR ASSESSING PROGRESS TOWARD ADOPTION OF
ESSENTIAL TRANSFER PRACTICES FOR FOUR-YEAR COLLEGES

Institution Name:	Date:

Overview: This tool is designed to help your institution assess the alignment of your community college transfer student practices with those described in The Transfer Playbook: Essential Practices for Two- and Four-Year Colleges, published in May 2016 by the Aspen Institute's College Excellence Program and the Community College Research Center at Columbia University's Teachers College. These practices were identified based on research on two- and four-year institutional partnerships that have achieved exceptional transfer and baccalaureate completion rates for students who start at community colleges (controlling for student and institutional characteristics).

How to use this tool: The assessment is organized around four categories of essential practices: 1) prioritize transfer, 2) create clear, rigorous program pathways, 3) provide tailored transfer advising, and 4) build effective transfer partnerships. Within the four categories, please use the following scale to rate how systematically each sub-practice is implemented at your college. By "systemic," we mean that the practice is implemented routinely and at scale, and that it is part of the regular operation and culture of the college. The tool offers questions to consider as you conduct the assessment, and space to identify possible next steps.

Scale of Adoption	Definition
(1) Minimal	The college does not engage in this practice in a significant way (i.e., routinely and/or at scale)
(2) Beginning	The college is beginning to engage in this practice, but has not moved toward systematizing it
(3) Building	The college engages in this practice and is moving toward systemic implementation
(4) Systemic	The college engages in this practice systemically

We recommend that a core team be assembled to complete the assessment to ensure that those with relevant knowledge of transfer student practices and policies are included. Possible members of the team might include: deans from at least two colleges or academic divisions, department chairs from at least two academic divisions, a financial aid staff member, and advisors who work with transfer students. Once a diverse, inclusive core team has completed the assessment, members should then engage others at the institution in conversation about the results, beginning with the president and her/his cabinet and followed by a broader group of faculty and staff. Ideally these discussions should help refine the assessment, build shared understanding of the ways your institution does and does not support transfer students, and motivate college leaders to continue to engage the wider college community in planning and implementing improvements.

For help using this tool: Contact Josh Wyner of the Aspen Institute (josh.wyner@aspeninstitute.org) or Davis Jenkins at CCRC (davisjenkins@gmail.com).

To share feedback or comments on the report, please contact John Fink (john.fink@tc.columbia.edu).

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a. The instituti other senior that improv college tran	ESSENTIAL TRANSFER PRACTICE #2: CREATE CLEAR, RIGOROUS PROGRAM PATHWAYS	Stage of Adoption at Our Institution	Questions to Consider	Next Steps: Easy Wins and Opportunities for Long-Term Improvement
b. Transfer stu reflected as institution's (e.g., strate; self-study, s planning do plans, etc.).		☐ Minimal ☐ Beginning ☐ Building ☐ Systemic	Do the transfer maps clearly indicate: recommended lower-division courses, course sequences, and progress milestones by academic term for specific majors? glear information on special requirements and procedures for specific majors or colleges? notes to clarify particularly confusing articulation with major feeder colleges? information on career opportunities in each field? Are the maps easily accessible on the institution's website? Is there a mechanism for keeping transfer program requirements and maps up-to-date?	
c. The instituti and widely of transfer stu- the effective practices.	 Community college coursework and extra-curricular activities provide students with rigorous preparation aligned to expectations for their junior and senior years at your institution. 	☐ Minimal ☐ Beginning ☐ Building ☐ Systemic	What does your institution do to ensure that the lower division instruction offered by partner community colleges is aligned with the requirements for your major programs, both in content and level of rigor? Are your academic departments actively involved in reviewing the content and quality of partner community college offerings? Is there a process for your academic departments to communicate needed improvements to partner community colleges? If so, how well does this process work?	
	c. Alternatives to traditional 2+2 transfer pathways have been developed for circumstances where those are not the best routes to a bachelor's degree.	☐ Minimal ☐ Beginning ☐ Building ☐ Systemic	For which students or programs do 2+2 arrangements work best? For which does the 2+2 arrangement work least well? What new structures have been put in place to improve outcomes (e.g., 1+3; 3+1; reverse transfer)?	

To share feedback

For more information

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