

NISTS 2021

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Research Spotlight

Excess at the End: Investigating Degree Audits of Bachelor's-Earning Transfer Students

Curricular Alignment or Degree Pathways, Matriculation Trends and Issues

Millions of students graduate with bachelor's degrees, many with excess credit hours (ECH) that do not apply to their degree requirements. Research has identified that transfer students accrue unused credits at a higher rate than their non-transfer peers. However, it fails to consider credit requirements by specific majors, explore patterns for excess courses, or distinguish accrual amongst transfer students from various institution types. This study addresses these gaps by examining ECH among transfer students who received bachelor-degrees from a large public research university.

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Excess at the End:

Investigating Degree Audits of Bachelor's-Earning Transfer Students

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Research and Program Assessment



THE OHIO STATE UNIVERSITY

OFFICE OF STUDENT ACADEMIC SUCCESS

Roadmap



Research on Excess Credit Hrs. (ECH)



Calculating ECH



Our Study



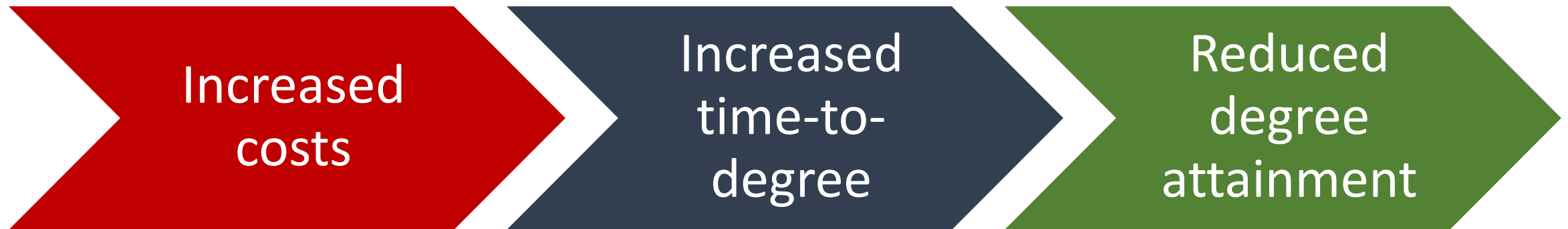
Results & Implications



Questions

Research on ECH

Students—particularly transfer students—often graduate with more credit than needed to meet degree requirements



Cost and Drivers

Research suggests ECHs can cost some states over \$1M

- Curb student behavior with surcharges
 - Example: Florida's 120% legislation

Suggested drivers of ECH:

- Taking courses outside of a major program
- Switching majors
- Taking personal/professional development courses
- Duplicating courses

Transfer and Articulation

Transfer students accrue more ECH than non-transfers

Students who take lower-level courses after transfer may accumulate more ECH than their other transfer peers

Credit articulation frameworks between community colleges and 4-year institutions do not guarantee applicability and may result in ECH

Misaligned or ill-defined pathways are theorized to generate ECH and extend time-to-degree

Defining and Calculating ECH

Much of the current literature may inflate or confuse estimation of ECH by:

Assuming graduation requirements based on state or institutional guidelines

Failing to differentiate “developmental” or “remedial” course credits

These basic methodological decisions have the potential to drastically alter the results and practical implications of a study

Distinct Categories of ECH

Excess Credit Hours (ECH)

Courses that did not fulfill any requirements

Inapplicable Excess Credits (IEC)

i.e., **Did not apply to graduation**

Developmental, duplicated, or otherwise
explicitly disallowed*

Potentially Applicable Excess Credits (PAEC)

i.e., ***Potentially* applied to graduation**

Do not fulfill any specific program requirements
(either GE or major specific requirements)*

Study Purpose

Examine the application of credit using degree audits

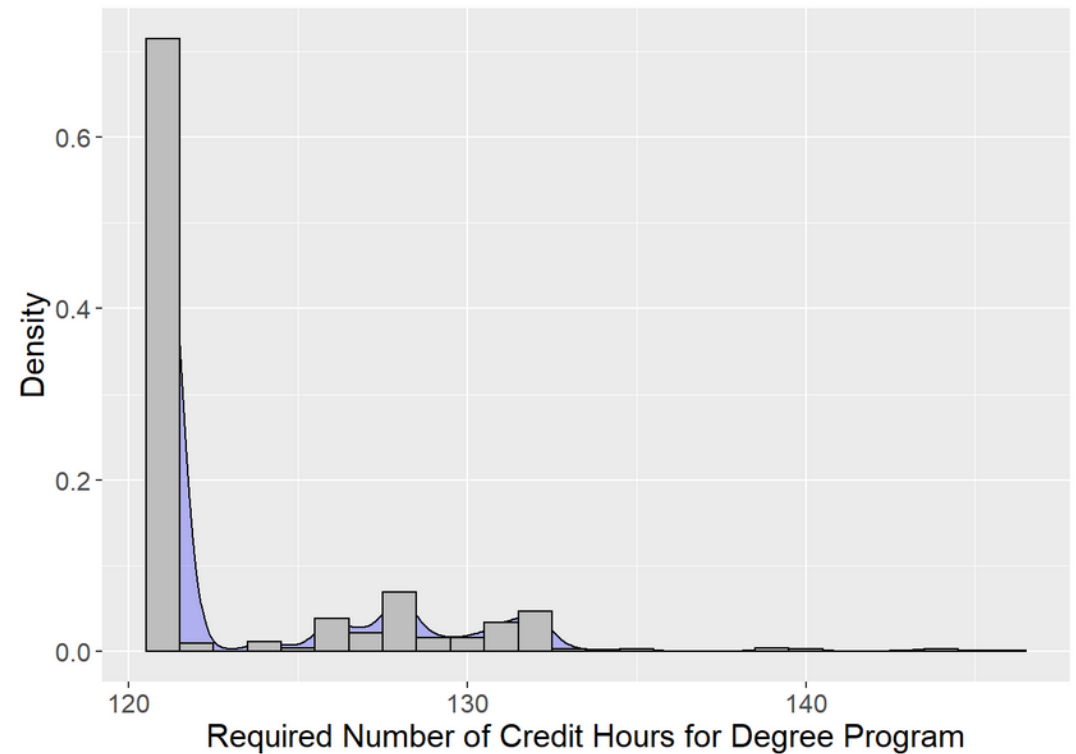
How does the application of credit vary across types of students

Investigate the average and potential sources of ECH for transfers

Identify which courses are often excess

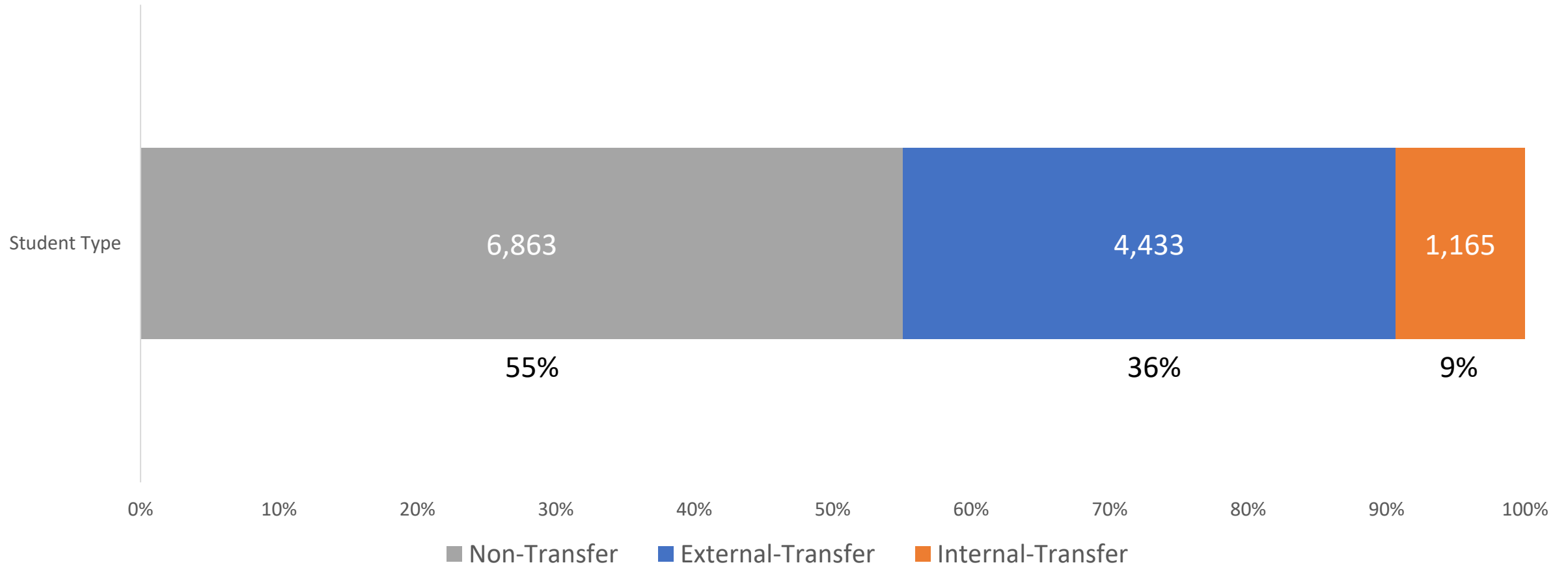
Sample

- MidU: large highly selective research university in the Midwest
- $N = 12,461$ unique students
 - Completers with a single bachelor's degree with a single major and no minor
- Students graduated from 297 different degree programs
 - 207 (69.7%) required 121 hours



Student Types

Student Types (N=12,461)

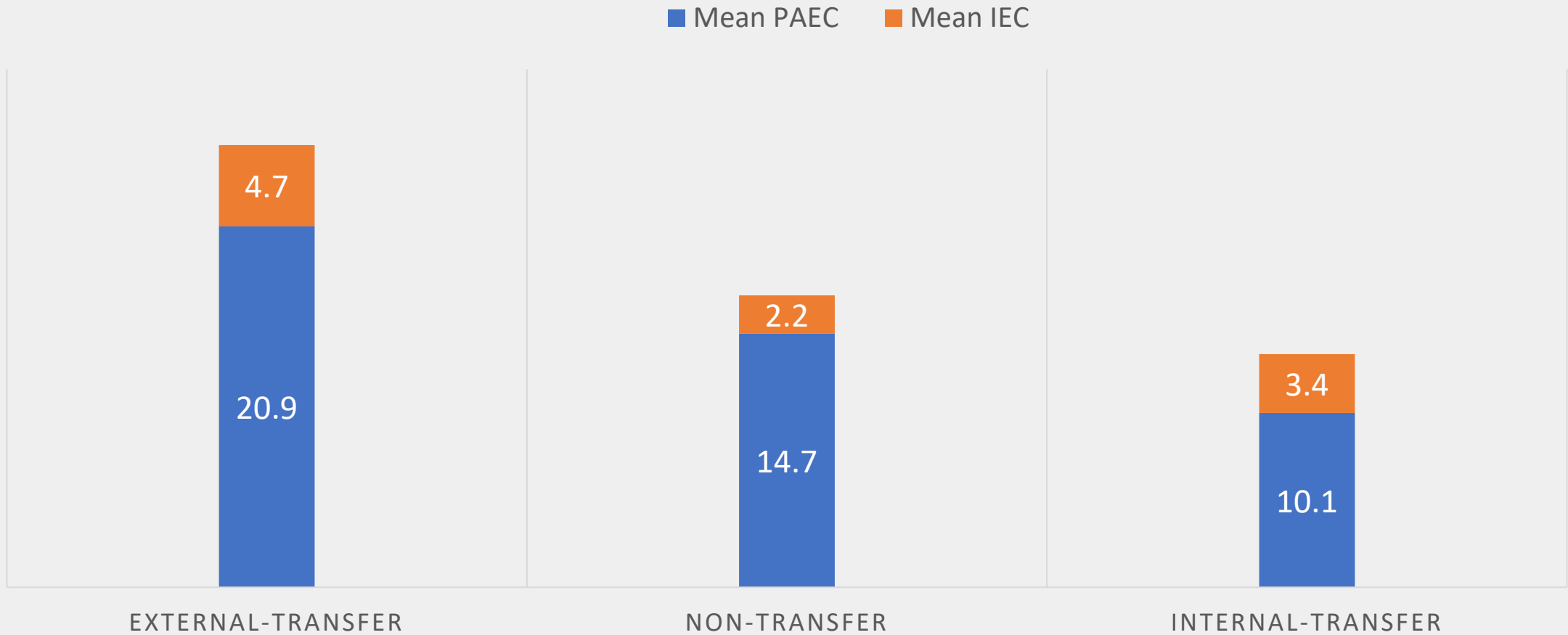


94% of students had some amount of ECH

85% of students obtained credit before enrollment

More major and college changes correlated with more ECH

Average ECH by Student Type



All pairwise comparisons significant $p < .01$

Credit Before Enrollment

% ENROLLING W/ CREDIT

EXTERNAL-TRANSFER

100
w/ credit

NON-TRANSFER

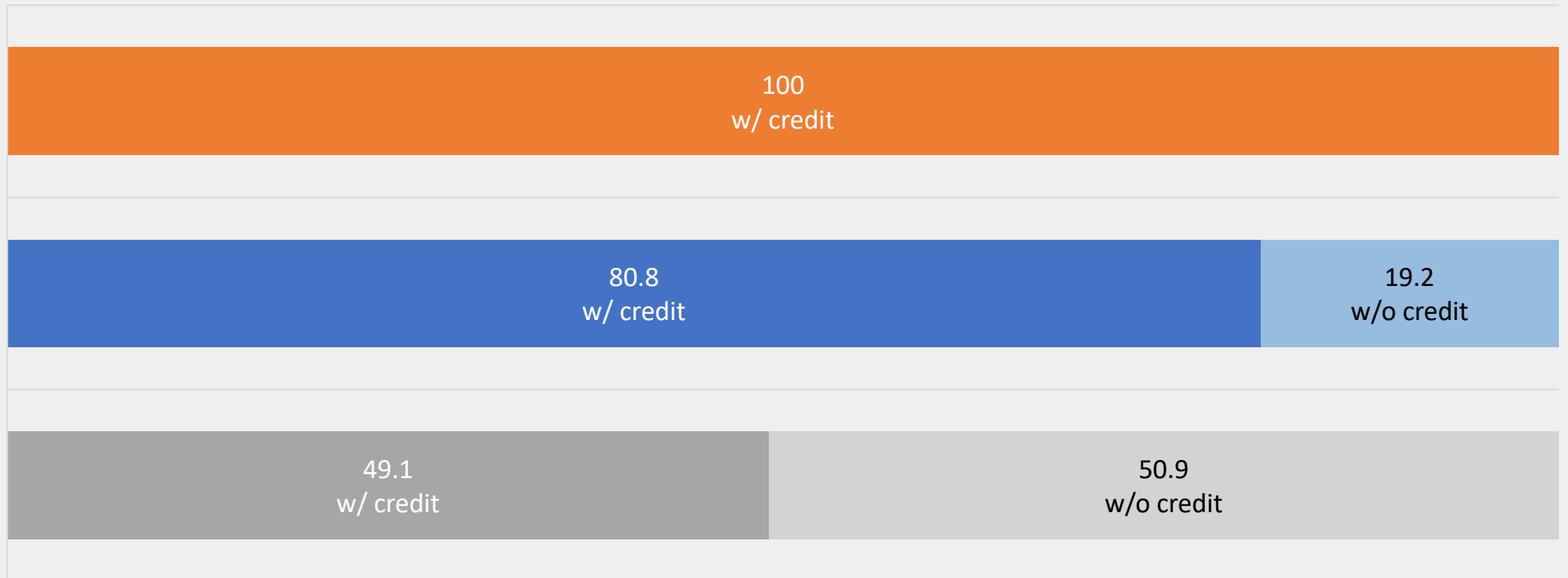
80.8
w/ credit

19.2
w/o credit

INTERNAL-TRANSFER

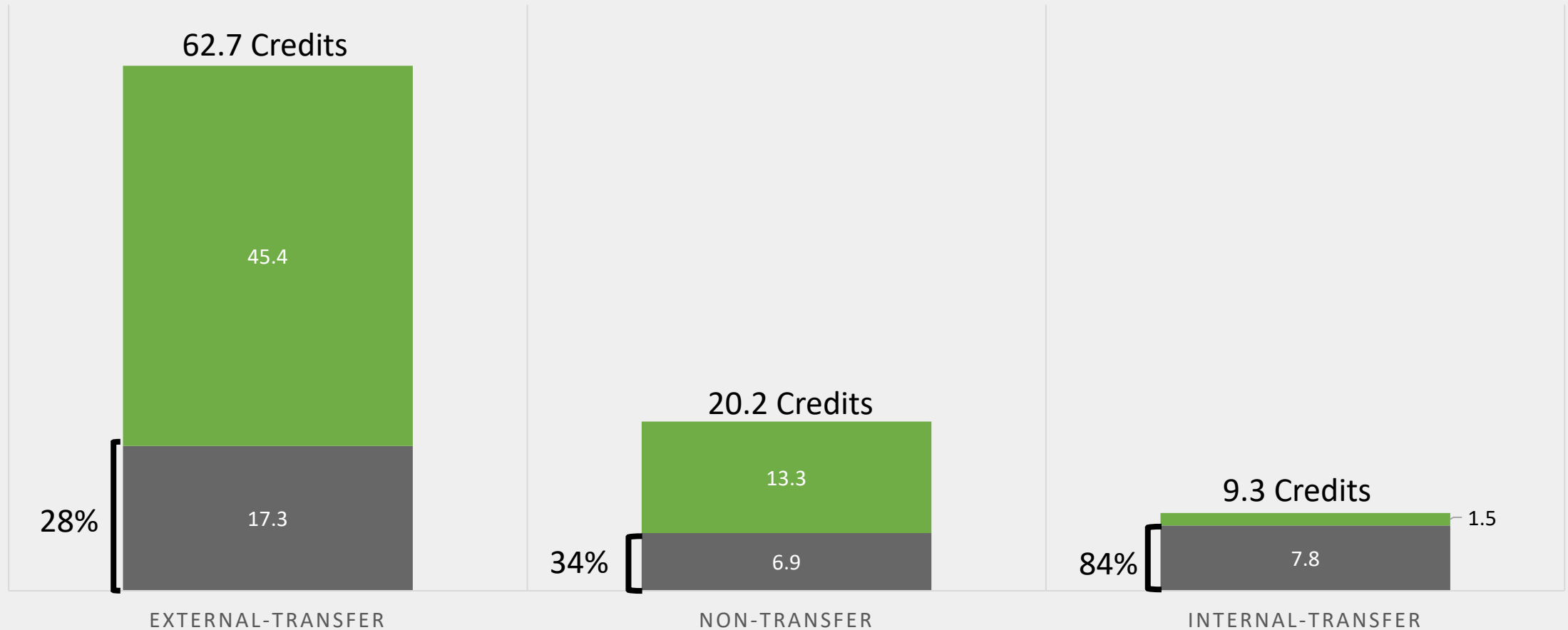
49.1
w/ credit

50.9
w/o credit

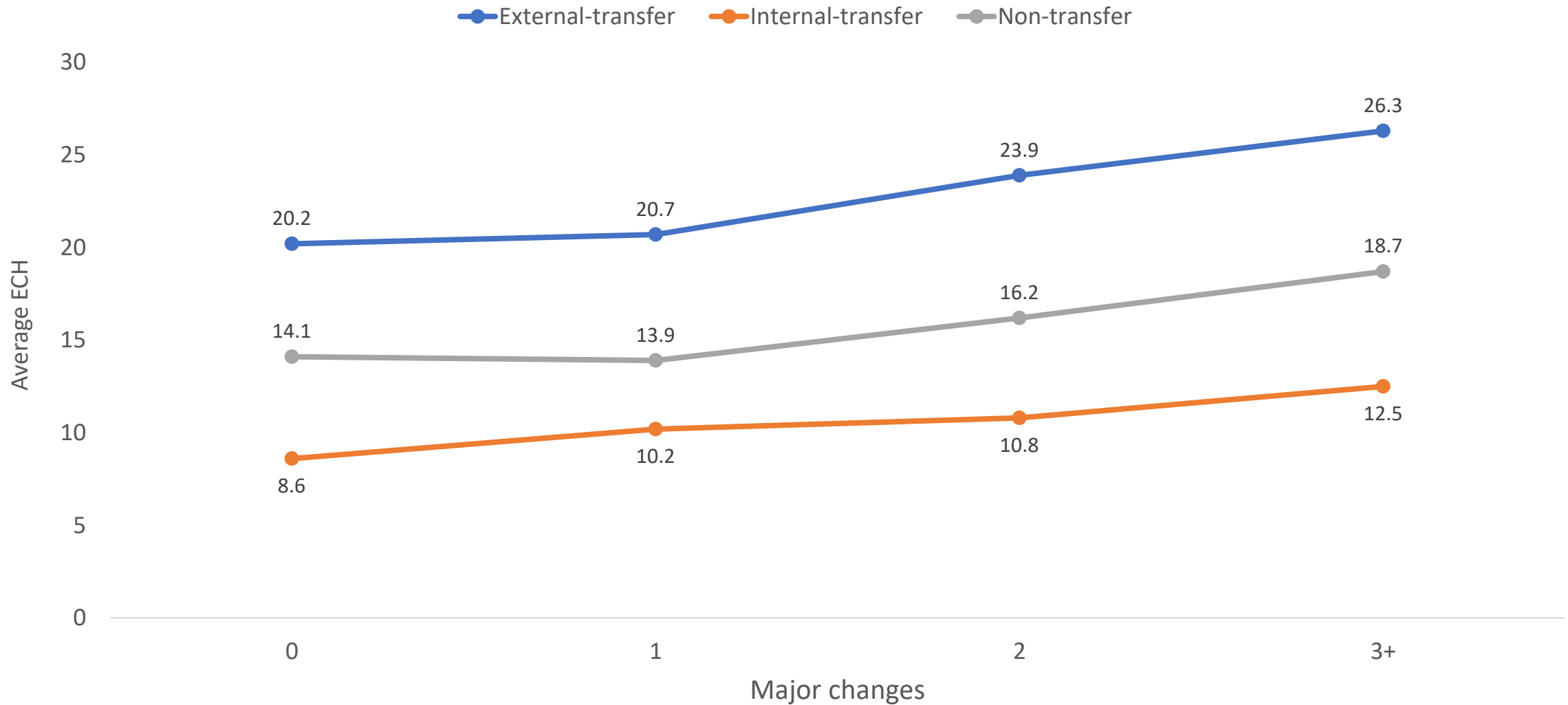


Average Credit at Enrollment

■ Excess Credit ■ Applicable Credit

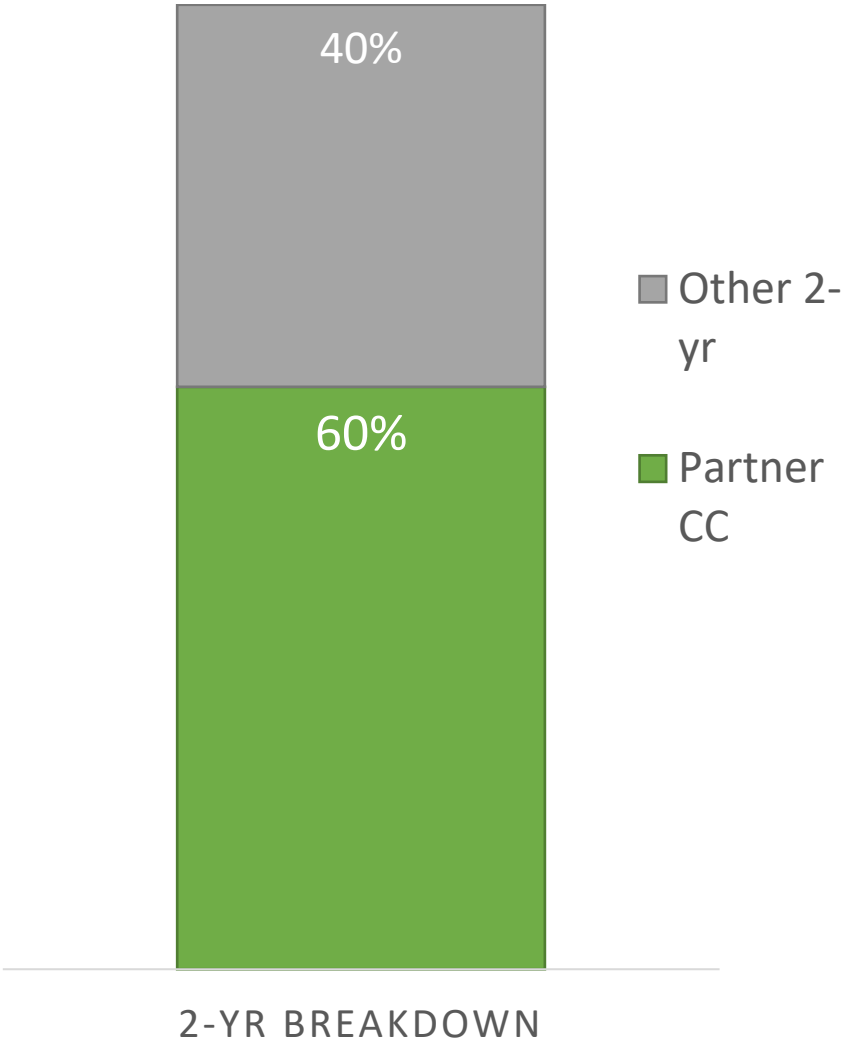
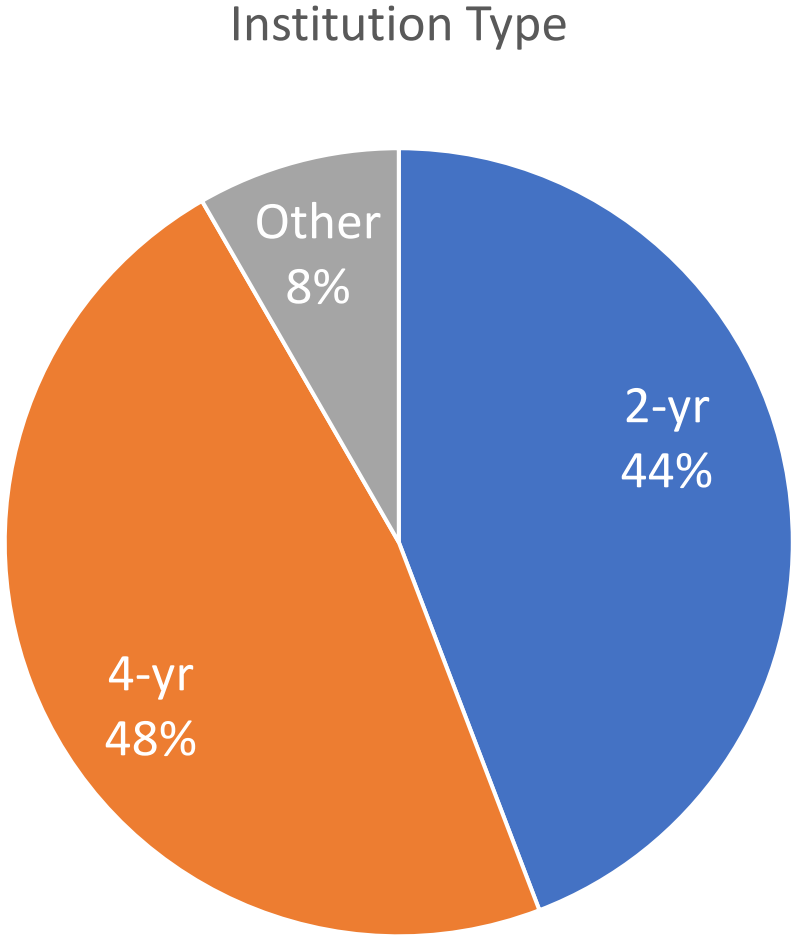


Excess Credits by Major Changes



*at receiving institution for External-Transfers

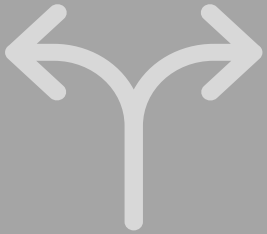
Transfer Institution Types



Initial Points of Consideration: External-Transfers



Most transfer students' ECH is obtained before MidU

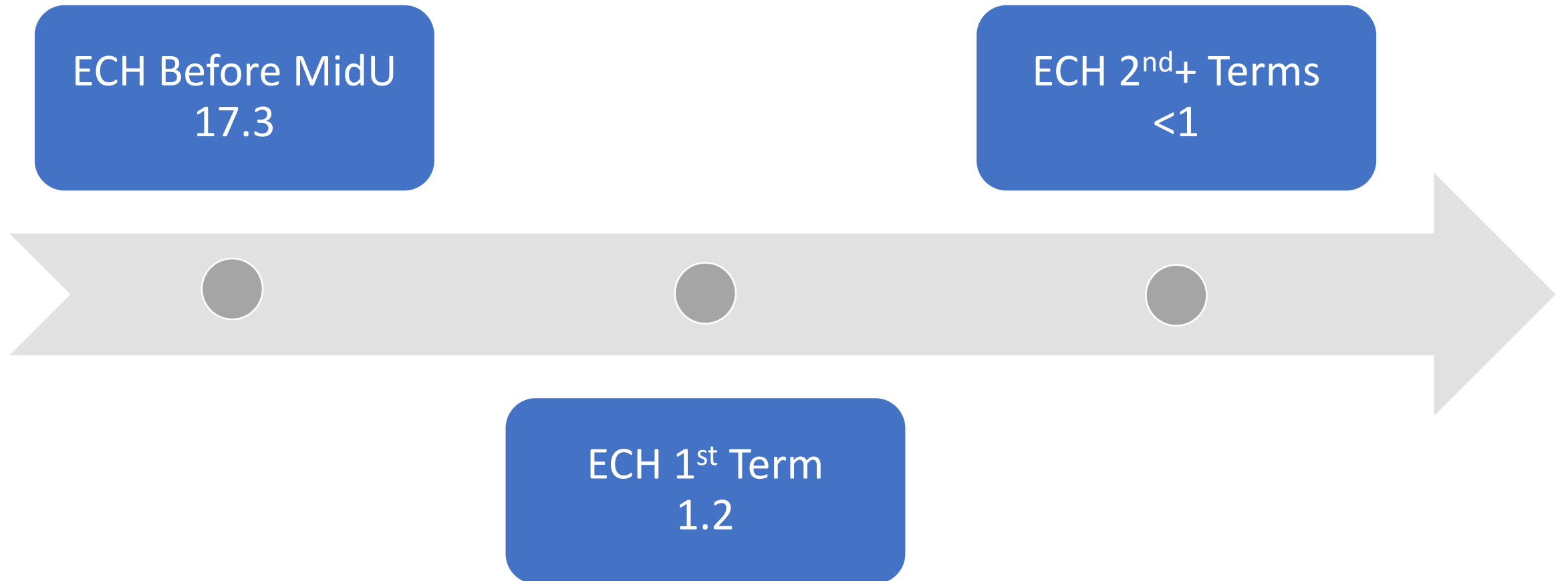


Sig. differences of ECH between students from 2-and 4-yrs

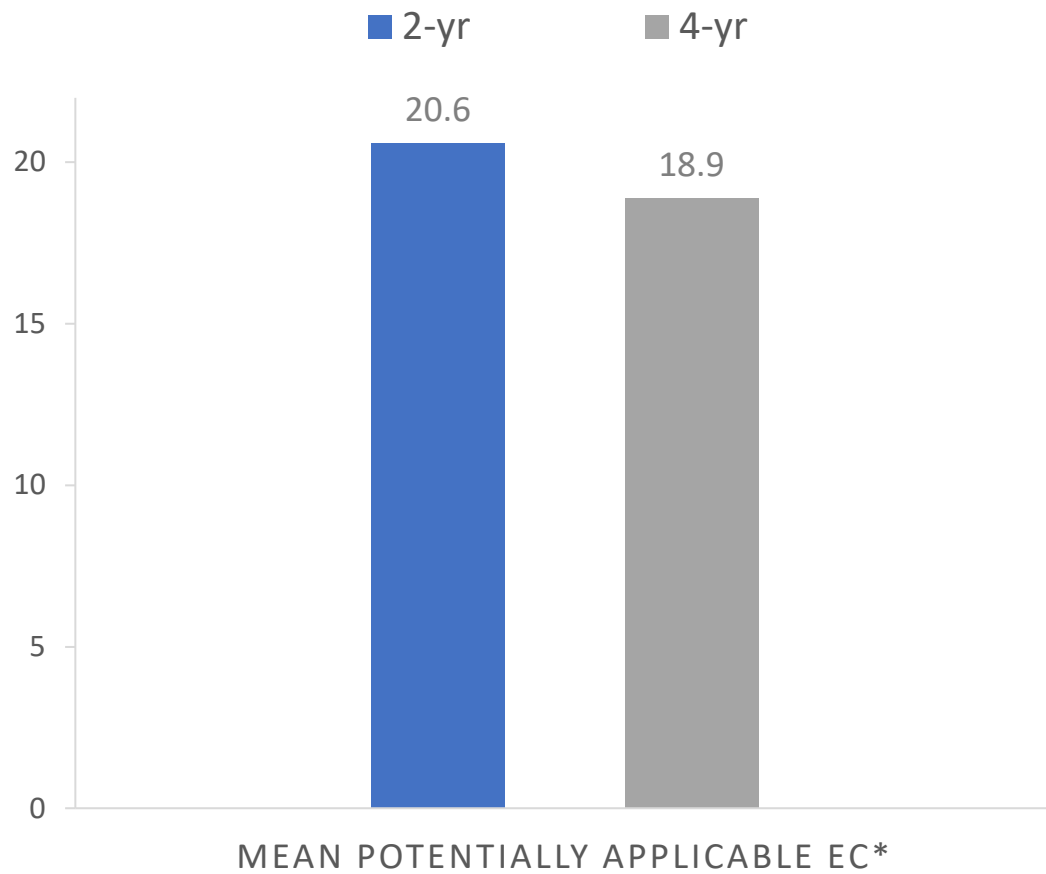


Courses which articulate as General, Special, or Technical credit are often excess

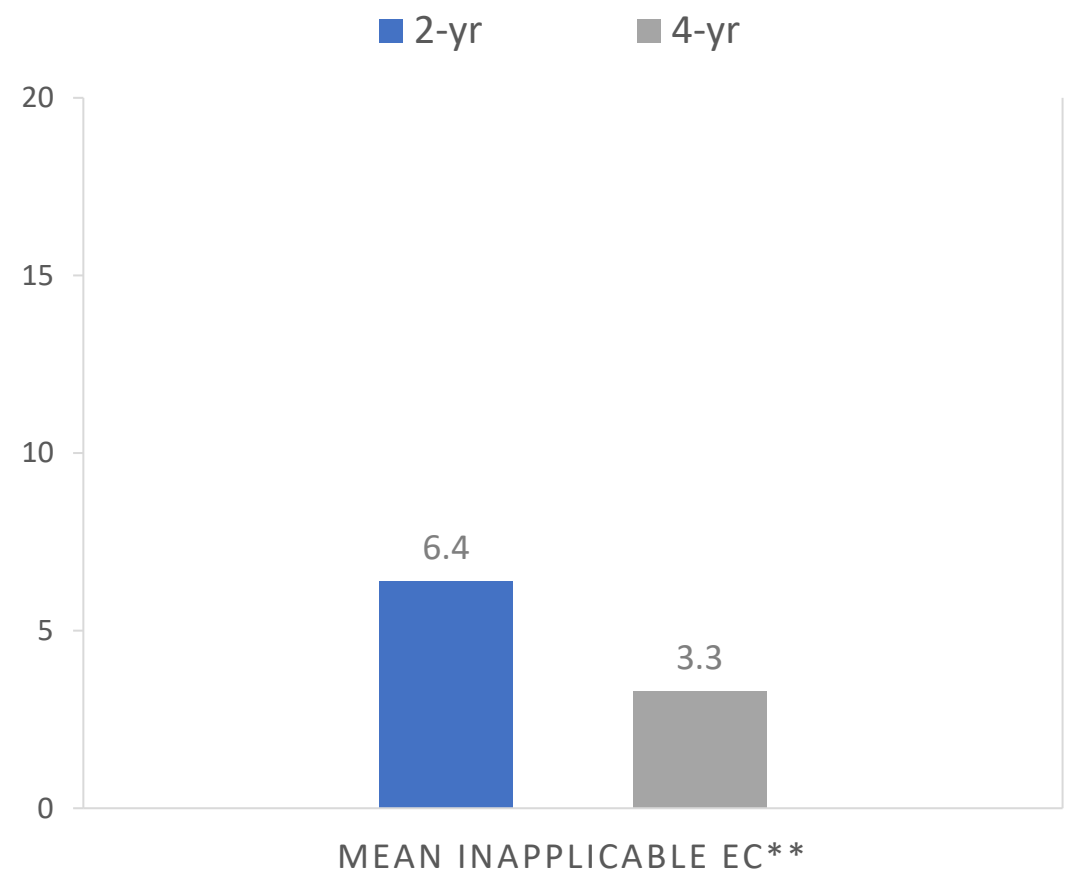
For transfer students, almost all ECH is accumulated before enrolling at MidU



Excess Credit by Transfer Institution Type

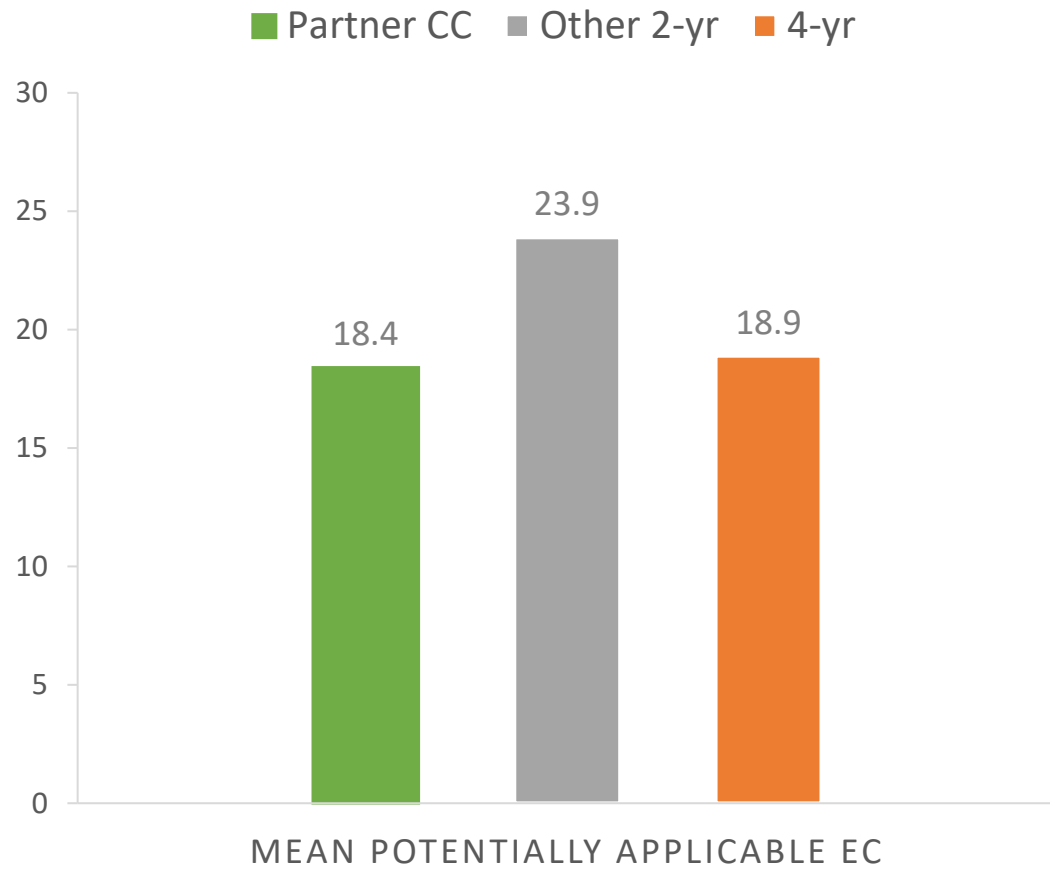


* $p < .05$

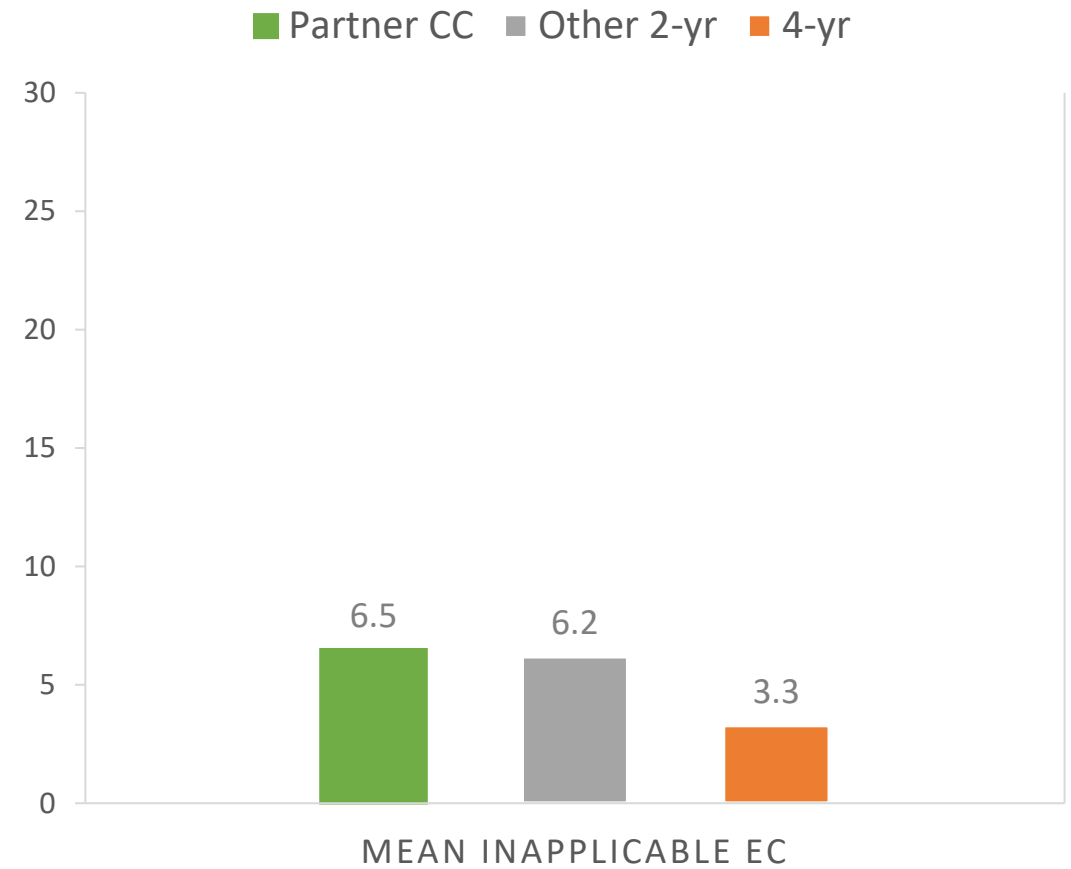


** $p < .01$

Excess Credit by Transfer Institution Type



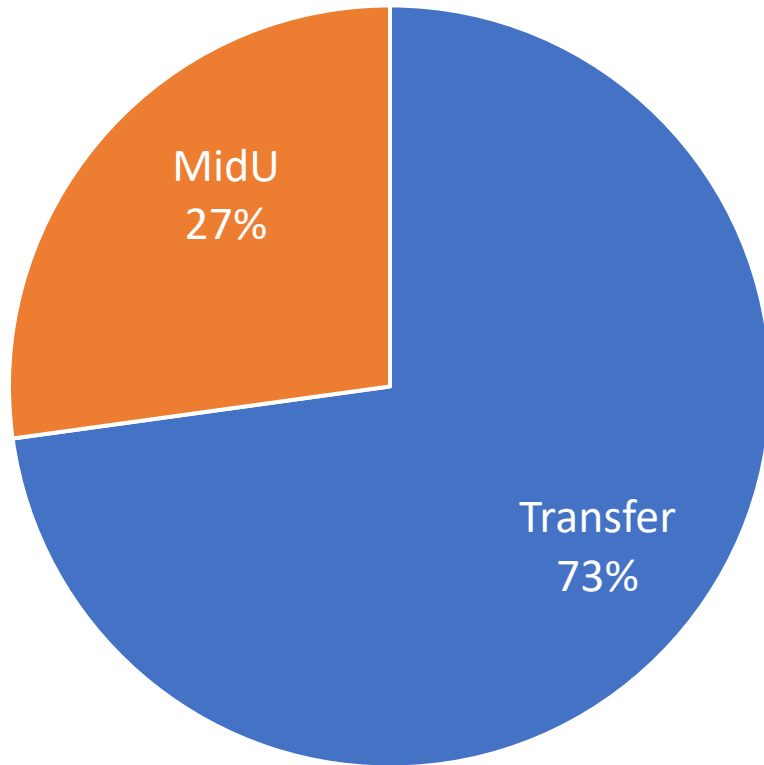
*Other 2-yr v. 4-yr *** $p < .001$*
*Partner CC v. 2-yr *** $p < .001$*



*Other 2-yr v. 4-yr *** $p < .001$*
*Partner CC v. 4-yr *** $p < .001$*

Excess Courses for Transfer Students (PAEC or IEC)

Excess Course Type



Top Excess Courses for Transfer Students

Top Excess Courses for Transfer Students		
Transferred G/S/T Courses	Articulated Transfer Courses	MidU Courses
Computer Science General	MATH 1040 Low-level Math	FDSCTE 1120 Wine & Beer
Kinesiology Special	COMM 2110 Public Speaking	MATH 1075 Precollege Math
FY Seminar Special	MATH 1075 Precollege Math	FDSCTE 1110 Chocolate Science
Nursing Technical	CSE 1110 Intro Comp Tech	EDUTL 1902 ESL Writing
Education General	MATH 1148 College Algebra	ESEPSY 1259 Learning Strategy

Top Excess Courses by Student Type (PAEC & IEC)

External-transfer

Computer Science General

Kinesiology Special

FY Seminar Special

Nursing Technical

Precollege Math

Education General

Social Science General

Communications General

Public Speaking

Chemistry General

Internal-transfer

Precollege Math

Wine & Beer

Trigonometry

College Algebra

Chocolate Science

Individual Studies

Change Seminar

Algebra for Business

Intro Sociology

First Aid and CPR

Non-transfer

Wine & Beer

Scholar Survey Course

Chocolate Science

American Civilization

Calculus I

Spanish I

Intro Physics I

Intro Physics II

Yoga

Organic Chemistry

General Credit Application

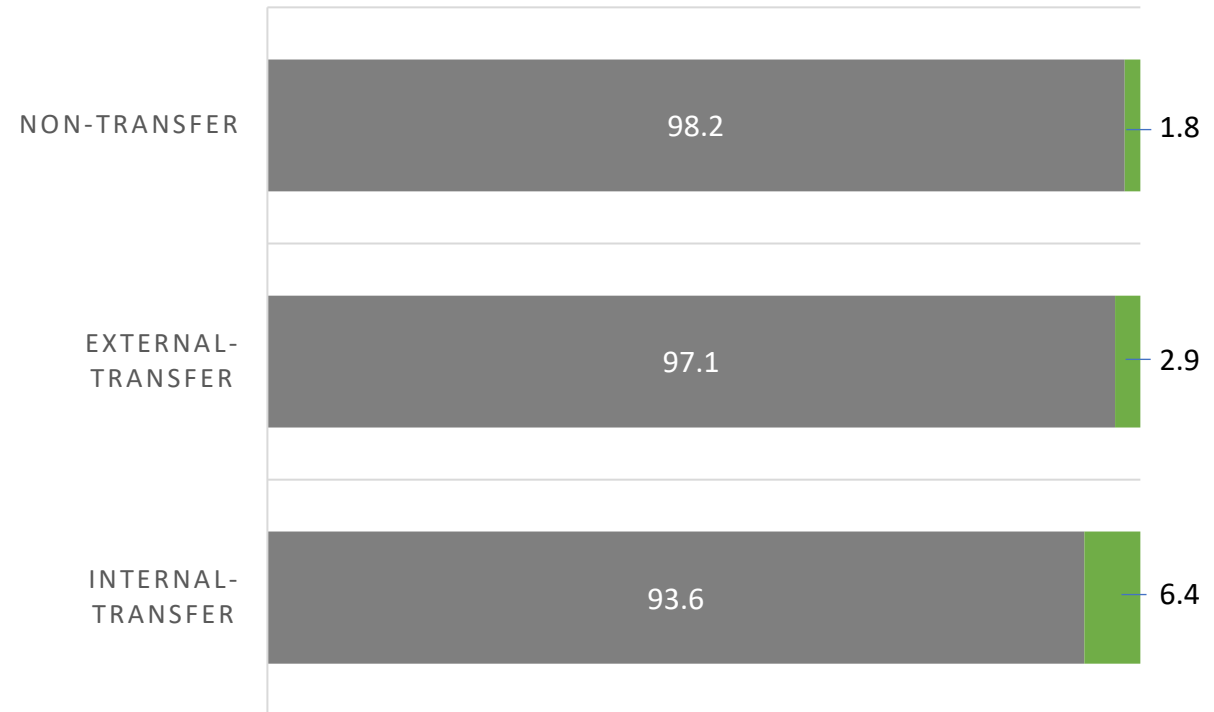
% COURSES FULFILLING REQUIREMENTS

Potentially Applicable Fulfill Requirements



% COURSE APPLICABILITY

Excess Applicable



Implications

Accumulation of ECH is common among our entire sample with significant differences between student- and institution-types

- Suggesting that addressing ECH requires additional investigation and will likely require a multipronged approach to address accumulation from various sources

Transfer students accumulate the majority of ECH before arriving to MidU

- Suggesting potential misalignment in program maps and degree planning before and after transfer; strengthening sending and receiving partnerships may support efficient course-taking

Transfer courses that articulate to general credit are unlikely to fulfill specific major requirements or contribute to degree credit minimums

- Suggesting 4-yrs need to work with partners to clarify the 4-yr degree options that are available, and to help students explore and identify their path early on (and in the meantime, to take credits which will be broadly applicable).

Questions? Comments?

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