One-Size-Doesn't-Fit-All: Differentiated Engagement Pathways for Transfer Student Success

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The purpose of the study is …
Understand the role of out-of-the-classroom engagements in transfer student success in comparison to first-time freshmen …

In order to …
… develop a deeper understanding of the factors that contribute to transfer student retention and success …

So that …
libraries and universities can structure support systems and services to help this important population succeed and graduate.
UNC CHARLOTTE

- Urban, Research Institution
- Doctoral University, Higher Research Activity
- 2nd largest undergraduate enrollment in UNC System
- 30,448 Students
  - 24,116 undergraduates
- 79% Acceptance & 84% Persistence Rates
- 62% FTIC freshmen (4,256)
- 38% Transfers (2,605)

Fall 2021: https://www.northcarolina.edu/impact/stats-data-reports/interactive-data-dashboards/
## PROJECT PARTNERS

<table>
<thead>
<tr>
<th>Co-Curricular Partners</th>
<th>Other Departments &amp; Programs</th>
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<tbody>
<tr>
<td>● Library</td>
<td>● Undergraduate Learning Communities</td>
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<tr>
<td>● Career Center</td>
<td>● 1st Year Writing Program</td>
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<tr>
<td>● UCAE (Tutoring)</td>
<td>● Center for Teaching &amp; Learning</td>
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<td>● Writing Center</td>
<td>● Registrar</td>
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<td>● Speaking Center</td>
<td>● Niner Central (Student Services Help Desk)</td>
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<tr>
<td>● Education Abroad</td>
<td>● ITS (Technology) Help Desk</td>
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<td>● Undergraduate Research</td>
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<thead>
<tr>
<th>Student Affairs</th>
<th>Institutional Research</th>
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<tbody>
<tr>
<td>● Greek Life</td>
<td>● Demographics</td>
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<tr>
<td>● University Recreation Center</td>
<td>● Pre-College</td>
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<tr>
<td>● Venture Outdoor Education &amp; Leadership</td>
<td>● Success Measures</td>
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STUDENT ENGAGEMENT DATA SET

Longitudinal dataset at the individual student level of all undergraduate students who matriculated into the university from 2012-2013 to the present.

Data include:
1. Yearly student engagements with each co-curricular and extracurricular partner, at the "type of activity" level of specificity.
2. Pre-College data
3. Demographic data
4. Measures of Success (2nd Year Retention, GPA, and Graduation Rates)
Tinto's Model of Student Integration

All of these factors play a role in a student's decision to stay or withdraw.

Spheres of influence at the university are Social Integration & Academic Integration.

Tinto, 1975, 1993
The models of "Transfer Shock" and “Student Attrition” explain decisions to stay or withdraw by affecting any of the four spheres in Tinto's Model. Engagement with key co-curricular & extracurricular activities can help minimize transfer shock.

Hills, 1965; Tinto, 1975, 1993; Bean & Metzner, 1985
IN THIS STUDY, WE...

STEP 1
Disaggregated the Data to Better Understand Transfer Student Engagement & Success Patterns

STEP 2
Explored Group Differences related to Measures of Success AND Co-Curricular and Extracurricular Engagements

STEP 3
Controlled for Confounding Variables

STEP 4
Created Engagement Pathways for Population Subgroups
To better understand transfer student engagement & success, we disaggregated the dataset by …
2. GROUP DIFFERENCES

We learned that our disaggregated groups differed significantly based on measures of success ... and ... co-curricular and extracurricular engagement patterns.

* A few examples ... *
MEASURES OF SUCCESS
First Generation Students …

2nd Year Retention
Drop out more often before their 2nd year than other students.
- 1st Gen: 79%
- Non-1st Gen: 83%

4 Year Cum GPA
Earn higher grades than non-1st Gen students.
- 1st Gen: 2.92
- Non-1st Gen: 2.81

6 Year Graduation
Graduate less often in 6 years than other students.
- 1st Gen: 62%
- Non-1st Gen: 68%
MEASURES OF SUCCESS
(Admission Status: FTIC vs. Transfer)

2nd Year Retention
FTIC students are retained at higher rates than transfer students.
- FTIC: 83%
- Transfer: 77%

4 Year Cum GPA
FTIC students have better grades than transfer students.
- FTIC: 2.92
- Transfer: 2.85

6 Year Graduation
Not significant
- FTIC: 63%
- Transfer: 63%
1 or More Library Engagements in Year 1
(Admission Status, # Transfer Credits, & 1st Gen Status)

Percentage of Students with 1 or more Library Engagements in Year 1

% of Undergraduate Students

91% FTIC 1st Gen 92% FTIC Non-1st Gen 81% Trans (24-39) 1st Gen 82% Trans (24-39) Non-1st Gen 79% Trans (40-59) 1st Gen 80% Trans (40-59) Non-1st Gen 73% Trans (60+) 1st Gen 76% Trans (60+) Non-1st Gen
Library Instruction Participation in Year 1
(Admission Status, # Transfer Credits, & 1st Gen Status)

Library Instruction Sessions Attended in Year 1
(Average Number of Sessions)

- FTIC 1st Gen: 0.94
- FTIC Non-1st Gen: 1.00
- Trans (24-39) 1st Gen: 0.35
- Trans (24-39) Non-1st Gen: 0.36
- Trans (40-59) 1st Gen: 0.27
- Trans (40-59) Non-1st Gen: 0.32
- Trans (60+) 1st Gen: 0.27
- Trans (60+) Non-1st Gen: 0.27
Writing Center Consultations in Year 1
(Admission Status, # Transfer Credits, & 1st Gen Status)

Writing Center Consultations Attended in Year 1
(Average Number of Consultations)

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTIC 1st Gen</td>
<td>0.10</td>
</tr>
<tr>
<td>FTIC Non-1st Gen</td>
<td>0.10</td>
</tr>
<tr>
<td>Trans (24-39) 1st Gen</td>
<td>0.06</td>
</tr>
<tr>
<td>Trans (24-39) Non-1st Gen</td>
<td>0.06</td>
</tr>
<tr>
<td>Trans (40-59) 1st Gen</td>
<td>0.08</td>
</tr>
<tr>
<td>Trans (40-59) Non-1st Gen</td>
<td>0.10</td>
</tr>
<tr>
<td>Trans (60+) 1st Gen</td>
<td>0.14</td>
</tr>
<tr>
<td>Trans (60+) Non-1st Gen</td>
<td>0.12</td>
</tr>
</tbody>
</table>
Greek Life Membership in Year 1
(Admit Status, Incoming Credits, & Transfer Institution Type)

Percentage of Students Who Participated in a Greek Organization in Year 1

<table>
<thead>
<tr>
<th>Category</th>
<th>% of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>8%</td>
</tr>
<tr>
<td>Trans (24-39) Bachelor's</td>
<td>7%</td>
</tr>
<tr>
<td>Trans (24-39) Community College</td>
<td>5%</td>
</tr>
<tr>
<td>Trans (40-59) Bachelor's</td>
<td>3%</td>
</tr>
<tr>
<td>Trans (40-59) Community College</td>
<td>2%</td>
</tr>
<tr>
<td>Trans (60+) Bachelor's</td>
<td>2%</td>
</tr>
<tr>
<td>Trans (60+) Community College</td>
<td>1%</td>
</tr>
</tbody>
</table>
3. CONTROLLING FOR CONFOUNDING VARIABLES

... with Propensity Score Matching

- Pre-Entry Academic Readiness (ACT/SAT)
- Socioeconomic Status (Pell Grant Status)
- Under-represented Minority Status (URM- not white, not Asian)
- College (ART/ARCH, BUSN, CCI, EDUC, ENGR, CLAS, CHHS, UCOL)
- High Impact Practices (Experiential Educ., Education Abroad, Learning Community, Undergrad Research, Fresh. Writing Course)
## 4. ENGAGEMENT PATHWAYS

... Engagement Types Considered

<table>
<thead>
<tr>
<th>Library</th>
<th>Career Center</th>
<th>University Center for Academic Excellence</th>
<th>Writing Resources Center</th>
<th>Student Affairs Extracurricular Memberships</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Instruction</td>
<td>● Advising</td>
<td>● Supplemental Instruction</td>
<td>● Consultations</td>
<td>● Greek Life</td>
</tr>
<tr>
<td>● Laptop &amp; Desktop Usage</td>
<td>● Career Fairs</td>
<td>● Consultations</td>
<td>● Classroom Presentations</td>
<td>● Sports Clubs</td>
</tr>
<tr>
<td>● Authentications</td>
<td>● Classroom Presentations</td>
<td>● Tutoring</td>
<td>● Workshops</td>
<td>● Intramural Teams</td>
</tr>
<tr>
<td>● Book Checkouts</td>
<td>● Workshops</td>
<td>● Workshops</td>
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<tr>
<td>● Study Room Reservations</td>
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</tbody>
</table>
YEAR 1 TO YEAR 2 RETENTION PATHWAY
(1st Gen Transfer Students With 60+ Incoming Credits)

Library Instruction: 1.56
Study Room Reservations: 1.07
UCAE Supplemental Instruction: 2.79
Library Book Checkouts: 1.16
Career Center Class Presentations: 1.74
UCAE Workshops: 1.56

Figures represent odds ratios (ε^β)
4 YEAR CUMULATIVE GPA
(1st Gen Transfer Students Transferring from a Community College)

Library Instruction: 1.23
Library Book Checkouts: 1.03
Career Center Advising: 2.79
Career Center Workshops: 1.84
UCAE Supplemental Instruction: 1.06
Greek Life: 1.70
Library Computer Use: 1.00
Library Study Room Reservations: 1.10
Career Center Career Fairs: 3.25
UCAE Consultations: 0.27
Writing Center Consultations: 1.68
Intramural Teams: 1.68

Figures represent odds ratios ($e^\theta$)
6 YEAR GRADUATION PATHWAY
(1st Gen Transfer Students With 29 Incoming Credits)

Library Instruction 1.74
Library Authentications 1.13
Library Study Rm. Reservations 1.06
Career Center Advising 2.79
Career Center Class Presentations 2.85
Library Computer Use 1.02
Library Book Checkouts 1.10
Career Center Career Fairs 3.25
Career Center Workshops 3.25

Figures represent odds ratios ($\theta$)
Findings Support …

- Tinto's theory that engagement in specific co-curricular and extracurricular activities significantly increases the odds for success.

- Hill’s and Bean & Metzner’s theories and indicate that Transfer students coming in with less than junior status (<60 credits):
  - are less likely to persist than FTIC freshmen and
  - have lower GPAs and 6-year graduation rates than FTIC freshmen and transfer students with 60+ incoming credits.

In this study, we further learned that …

...the engagement pathways for success differ significantly depending on admission status, 1st generation status, number of incoming credits, and type of transfer institution.

*Universities can help transfer students overcome their "first year" shock and succeed by structuring support systems and services to help them engage academically.*
WHAT'S NEXT

We will continue investigating the precursor characteristics and co-curricular and extracurricular activities that relate to transfer student success hopefully uncovering further pathways libraries and universities can emphasize to help transfers succeed.
REFERENCES

THANKS!

Any questions?

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Special thanks to all the people who made and released these awesome resources for free:

- Presentation template by SlidesCarnival
- Photographs by Unsplash