College Choice in the Middle of a Pandemic: A Study of Summer Melt

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Presentation Overview

• Fall 2020 & Spring 2021 national enrollment trends
• Definition of, and reasons for, summer melt
• Methodology
• Deliverables
  • Interactive dashboard for descriptive analysis
  • Enrollment likelihood model
• Recommendations to address summer melt
• Q & A
Fall 2020 & Spring 2021 Enrollment: Findings from the National Student Clearinghouse (NSC)


Fall 2020 Overall Enrollment Down by 2.5% from Fall 2019

Percentage Change from Previous Fall

- All Sectors: -2.5%
- Public 4-year: 0.2%
- Private nonprof. 4-yr: 2.4%
- Private for-prof. 4-yr: 5.3%
- Public 2-year: -10.1%

Fall 2018 Fall 2019 Fall 2020
Fall 2020: 4-Year Institution Enrollment Change (%) from Fall 2019

One Year % Change by Gender**

-1.6% Public 4-year
-1.0% Private nonprof 4-yr
3.2% Private for-prof 4-yr

Male Female

One-Year % Change by Degree Level

4.6% Public 4-year
2.7% Private nonprof 4-yr
2.3% Private for-prof 4-yr

Bachelor's Degree-Seeking Graduate/Prof

*Note: Includes all enrolled students regardless of degree level.

*Note: Associate degree-seeking and non-degree seeking undergraduate students are excluded above.
Change in First-time Student Enrollment

Percentage Change from Previous Fall

-4.3% 0.6% 1.3% 0.9%

-1.4% -1.9% -3.6% -8.7%

-13.1% -8.1% -10.5%

-25.0% -20.0% -15.0% -10.0% -5.0% 0.0% 5.0%

All Sectors  Public 4-year  Private nonprofit 4-year  Public 2-year

Fall 2018  Fall 2019  Fall 2020
Spring Enrollment Changes by Sector (As of March 25, 2021)

Undergraduate

Figure 1. Undergraduate Enrollment Changes by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Spring 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public 4yr</td>
<td>-0.7%</td>
<td>-2.9%</td>
</tr>
<tr>
<td>Private nonprofit 4yr</td>
<td>-0.7%</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Private for-profit 4yr</td>
<td>-1.5%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Public 2yr</td>
<td>-1.1%</td>
<td>-11.3%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>-0.8%</td>
<td>-5.9%</td>
</tr>
</tbody>
</table>

Graduate

Figure 2. Graduate Enrollment Changes by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Spring 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public 4yr</td>
<td>1.5%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Private nonprofit 4yr</td>
<td>0.3%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Private for-profit 4yr</td>
<td>2.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1.0%</td>
<td>4.4%</td>
</tr>
</tbody>
</table>
SUMMER MELT

Students who have been accepted and indicated commitment to an institution (e.g., by paying an enrollment deposit) but are not enrolled on census day.
Reasons for Summer Melt

Financial burdens

- Calculating the costs of college and budgeting
- Understanding financial aid offers
- Interpreting award letters and tuition bills
- Complexity of federal financial aid applications and process of applying
Reasons for Summer Melt

✓ College transition challenges and lack of support
  • Difficulty navigating a new and complicated process
  • Difficulty completing paperwork
  • Signing up for and attending orientation
  • Problems with immunizations
  • Placement tests
  • Registering for classes
  • Transportation
  • Access to the internet during the matriculation process
  • Lack of and/or limited access to counseling/guidance
  • Not knowing whom to reach out to on campus
Reasons for Summer Melt

- Change in National Association for College Admission Counseling's Code of Ethics to permit "poaching."

- Covid-19 (maybe the primary reason for Fall 2020 melt, according to anecdotal evidence from students)
  - Stay-in-place orders and limit in size of gathering
  - Unemployment, underemployment or other financial difficulties
  - Virtual yield events (in lieu of campus visits)
  - Uncertainties around Fall 2020 re-opening
Methodology for Study of Summer Melt

Student Population

- **Accepted** first-time freshmen, Fall 2019 and Fall 2020

Data Sources

- ECU Admissions Data
- National Student Clearinghouse
  - Fall 2020 data as of Dec 1
  - Fall 2019 data as of Nov 1
- IPAR Dashboards

Comparisons

- High School GPA
- Orientation Attendance
- Pell Status and Family Income
- Geographic Location
- High Schools
- Destinations
- Majors, for those who enrolled elsewhere

Deliverables

- Interactive Dashboard
- Enrollment Likelihood Model
Summer Melt 2019: 471
Summer Melt 2020: 632
Change: +34%

Fall 2019 Freshman Class: 4,364
Fall 2020 Freshman Class: 4,142
Change: -5.1%

Summer Melt 2019: 471
Summer Melt 2020: 632
Change: +34%

Neither paid deposit nor enrolled
Fall 2019: 7,106
Fall 2020: 9,629
Change: +36%
Interactive Dashboard for ECU’s Undergraduate Admissions

Enrolled Student Academic Profile
- Weighted HS GPA: 3.65 (Compared with Fall 2019: ▲ 0.01)
- Avg. ACT: 21.3 (Compared with Fall 2019: ▲ 0.3)
- Avg. SAT: 1,088 (Compared with Fall 2019: ▲ 22)

Yield
- 23.2% (Compared with Fall 2019: ▼ 5.6%)

Top ECU Majors
- Nursing: 2,395
- Biology: 2,031
- Psychology: 859
- Engineering: 245

Top Destination® Majors
- Nursing: 1,313
- Biology: 974
- Undeclared: 764
- Psychology: 585

Demographic Table
- Enrolled (Fall 2019: 4,832, Fall 2020: 4,142)
- Summer Melt - Enrolled (Fall 2019: 248, Fall 2020: 273)
- Summer Melt - Did not Enroll (Fall 2019: 328, Fall 2020: 273)
- Neither paid deposit nor enrolled (Fall 2019: 10,293, Fall 2020: 18,084)

Student Destination
- UNC - Charlotte: 1,156
- Appalachian State University: 1,100
- NCState: 1,050
- UNC-Chapel Hill: 863
- UNC-Wilmington: 703
- UNC-Greensboro: 659
- North Carolina A&T State University: 299

Weighted GPA Distribution

Term
- Fall 2019
- Fall 2020

Residency
- (A/I)

Enrollment Outcome
- (A/I)
- Neither paid deposit
- Summer Melt: Did not enroll
- Summer Melt: Cancelled
- Enrolled

Application Type
- (A/I)
- Common App
- ECU Website
- CFNC
- Others/NA

Attend Orientation
- (A/I)
- Destination School Type
- HS Weighted GPA
- Medical GPA
Application Cycle
Maps with County Level Data
ECU Summer Melt Findings
Observations Regarding 2020 Summer Melt

Accepted students who paid a tuition deposit
- Fall 2019 (n=4,835): 9.7% did not enroll on Census Day
- Fall 2020 (n=4,774): 13.2% did not enroll on Census Day

Summer Melters
- The number of “Summer Melters” increased by 161 (34%) in 2020
- More than half of the “Summer Melters” informed ECU before the fall semester began (57% in 2020)

Orientation
- 26% of 2020 Summer Melters attended orientation, compared to 19% of 2019 Summer Melters.
2020 Summer Melters: Canceled vs. Not Canceled

Summer melters who informed ECU:

1. 35% minorities – comparable to enrolled students
2. Had comparable High School GPAs to enrolled students
3. Had significantly higher family income than enrolled students
4. Were less likely to be Pell eligible than enrolled students (11% vs 36%)
5. 18% attended orientation
6. Enrolled at another UNC institution (35%) or a NCCCS school (30%)

Summer melters who did not inform ECU:

1. 42% minorities – higher than enrolled students
2. Had lower High School GPA than enrolled students
3. Had significantly lower family income than enrolled students
4. Were less likely to be Pell eligible than enrolled students (30%)
5. 38% attended orientation
6. Did not enroll in a college (33%) or enrolled at a NCCCS school (30%)
# Top Destinations - Fall 2020

**Summer melt - canceled**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>45</td>
</tr>
<tr>
<td>UNC - Charlotte</td>
<td>28</td>
</tr>
<tr>
<td>UNC - Wilmington</td>
<td>27</td>
</tr>
<tr>
<td>Wake Technical Community College</td>
<td>26</td>
</tr>
<tr>
<td>NCSU</td>
<td>25</td>
</tr>
<tr>
<td>Appalachian State University</td>
<td>17</td>
</tr>
<tr>
<td>UNC - Chapel Hill</td>
<td>7</td>
</tr>
<tr>
<td>UNC - Greensboro</td>
<td>7</td>
</tr>
<tr>
<td>UNC - Wilmington</td>
<td>7</td>
</tr>
<tr>
<td>NCSU</td>
<td>6</td>
</tr>
<tr>
<td>Appalachian State University</td>
<td>4</td>
</tr>
<tr>
<td>North Carolina A&amp;T State University</td>
<td>2</td>
</tr>
<tr>
<td>UNC - Chapel Hill</td>
<td>2</td>
</tr>
</tbody>
</table>

**Summer melt – did not cancel**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>89</td>
</tr>
<tr>
<td>Wake Technical Community College</td>
<td>16</td>
</tr>
<tr>
<td>UNC - Charlotte</td>
<td>7</td>
</tr>
<tr>
<td>UNC - Greensboro</td>
<td>7</td>
</tr>
<tr>
<td>UNC - Wilmington</td>
<td>7</td>
</tr>
<tr>
<td>NCSU</td>
<td>6</td>
</tr>
<tr>
<td>Appalachian State University</td>
<td>4</td>
</tr>
<tr>
<td>North Carolina A&amp;T State University</td>
<td>2</td>
</tr>
<tr>
<td>UNC - Chapel Hill</td>
<td>2</td>
</tr>
</tbody>
</table>

**Other Non-enrolled**

<table>
<thead>
<tr>
<th>Institution</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNC - Charlotte</td>
<td>1,121</td>
</tr>
<tr>
<td>Appalachian State University</td>
<td>1,079</td>
</tr>
<tr>
<td>NCSU</td>
<td>1,019</td>
</tr>
<tr>
<td>Unknown</td>
<td>974</td>
</tr>
<tr>
<td>UNC - Chapel Hill</td>
<td>854</td>
</tr>
<tr>
<td>UNC - Wilmington</td>
<td>669</td>
</tr>
<tr>
<td>UNC - Greensboro</td>
<td>645</td>
</tr>
<tr>
<td>North Carolina A&amp;T State University</td>
<td>292</td>
</tr>
<tr>
<td>Wake Technical Community College</td>
<td>257</td>
</tr>
</tbody>
</table>
Enrollment Likelihood Model
Covering 32,751 Fall 2019 and 2020 first-time, first-year admitted students

Predictors: demographics, academics, financial, geographics, and application variables + transformation

Response: Enroll Y/N

90/10 Train/test split

11 Final predictors

82.3% Test set accuracy
We used transformations to capture non-linear relationships
We used transformations to capture non-linear relationships.
<table>
<thead>
<tr>
<th>Definition of Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Financial Aid (max $40k)</td>
</tr>
<tr>
<td>Weighted High School GPA</td>
</tr>
<tr>
<td>Distance from ECU (max 500 miles, log transformation)</td>
</tr>
<tr>
<td>Expected Family Contribution (max $50k, log transformation)</td>
</tr>
<tr>
<td>Concorded SAT Score</td>
</tr>
<tr>
<td>ZIP Code Population Density (max 5k per sq mile)</td>
</tr>
<tr>
<td>Application day (squared)</td>
</tr>
<tr>
<td>Application day</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
</tr>
<tr>
<td>In-state Residence</td>
</tr>
<tr>
<td>Gender</td>
</tr>
</tbody>
</table>
Total Financial Aid

After controlling for all other variables in the model

Each additional $1000 in ANY awards
(no matter accepted or declined, scholarship, grant, or loan)

+ 25%

Likely to be a Pirate
ECU is less attractive to academically high achievers

After controlling for all other variables in the model

Each additional point in weighted high school GPA

- 64%

Every additional 50 points in concorded SAT scores

- 13%

Likely to be a Pirate
Stopping Summer Melt

• Connect
• Communicate
• Simplify
• Support
Strategies – Connect & Communicate
(all of which are utilized by ECU UG Admissions & University Marketing)

- Engage with students early and continue to reach out to them proactively in the summer months.
- Utilize the power of technology, e.g., create digital messaging campaigns with reminders of important tasks and student resources; use social media to answer questions; etc.
- Be people-first in your digital communication strategies by personalizing both messages and processes.
- Use “nudges” (personalized and timely messages to urge students to complete tasks and navigate processes).
- Continue to communicate the value of your institution and of a college degree.
- Connect (and maintain connection) with parents.
Strategies – Simplify & Support

- Simplify enrollment instructions & process
  - Advising, registration, financial aid documents, payments

- Train departments to respond in real-time
  - Emphasize accessibility
    - Chatbots, texts, scheduling software

- Incorporate students' parents into prevention programs
  - Still recruiting the parents as well

- Increase inter-campus collaboration to provide support and reassurance.
  - ECU Inaugural Enrollment Summit, April 2021
Questions?

CONTACT INFORMATION
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Beverly King, kingb14@ecu.edu
Resources

- https://blog.campus.app/how-to-reduce-summer-melt
- https://www.raise.me/blog/universities/5-proven-strategies-to-prevent-summer-melt-improve-yield-and-hit-enrollment-goals-this-year/
- https://www.bostondigital.com/insights/4-ways-decrease-summer-melt-your-university
- https://www.brazen.com/resources/4-simple-ways-to-stop-summer-melt
- https://admissions.usf.edu/blog/top-tips-for-college-counselors-on-beating-summer-melt