



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

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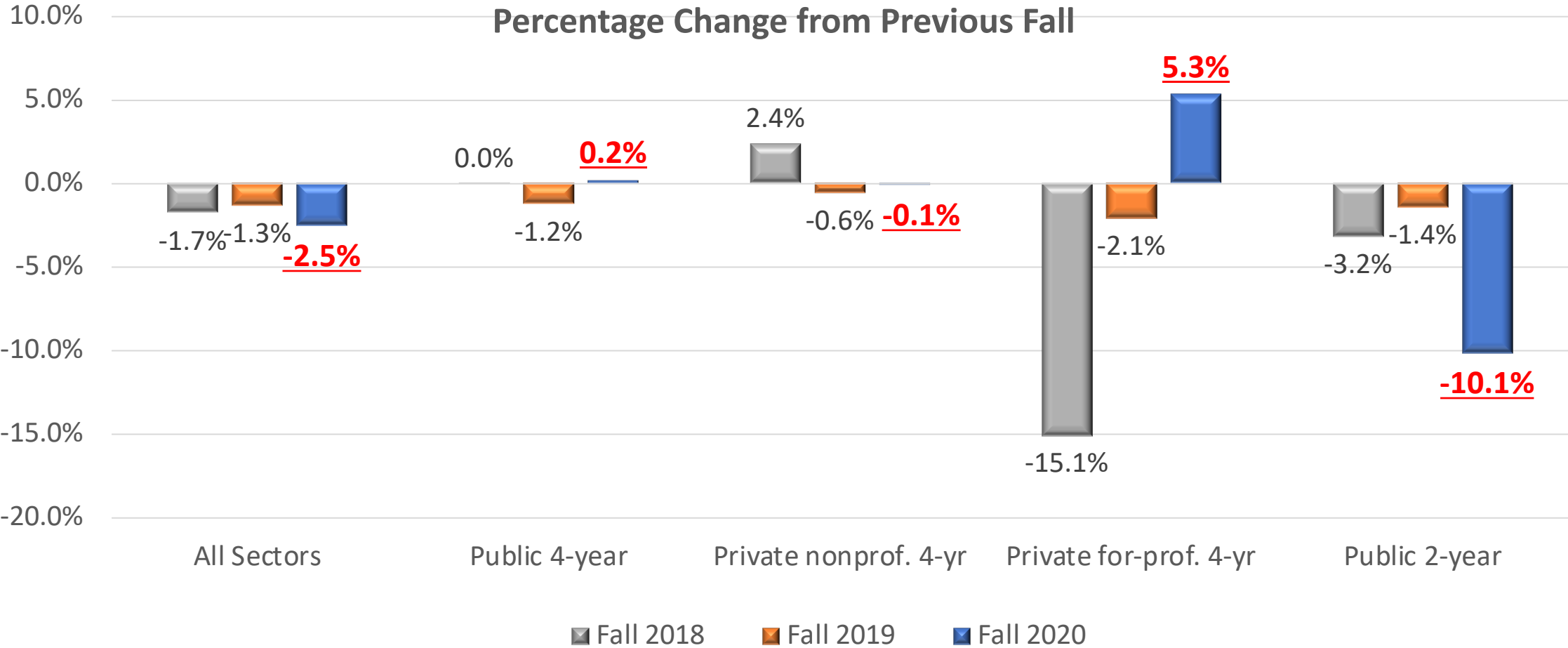
Presentation Overview

- 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)

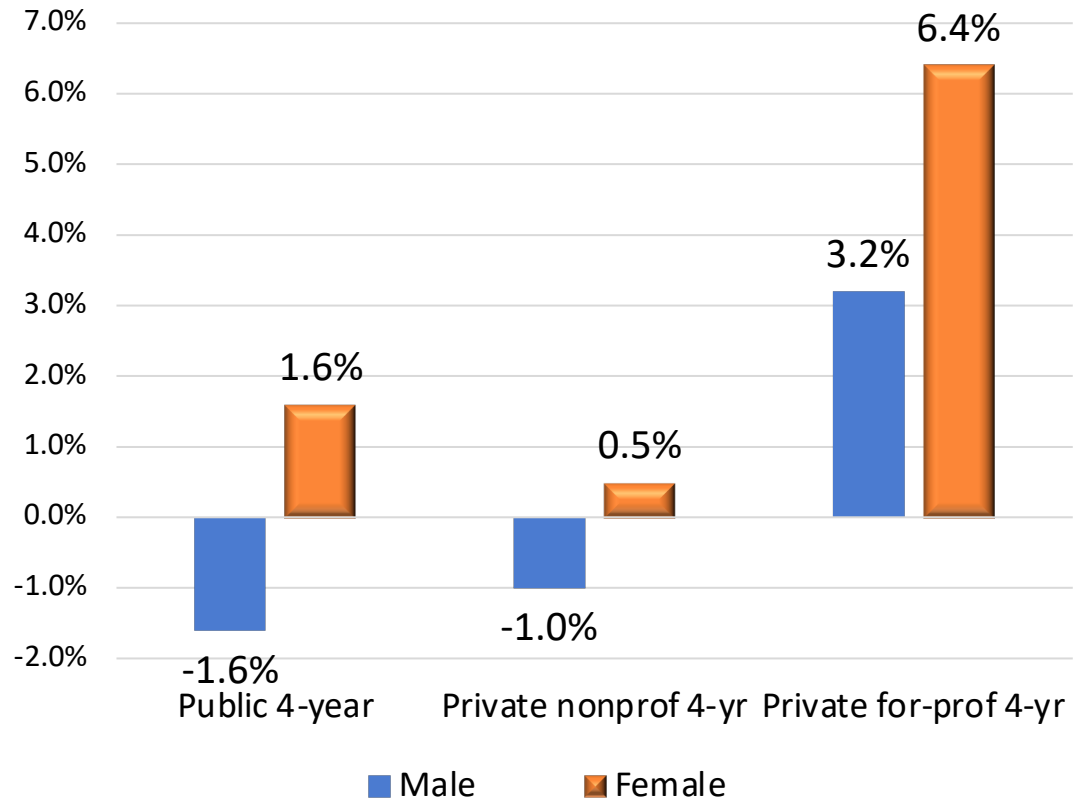
- Current Term Enrollment Estimates: Fall 2020 (December 17, 2020). https://nscresearchcenter.org/wp-content/uploads/CTEE_Report_Fall_2020.pdf
- Covid-19: Stay Informed with the Latest Enrollment Information (March 11, 2021). <https://nscresearchcenter.org/high-school-benchmarks/>

Fall 2020 Overall Enrollment Down by 2.5% from Fall 2019



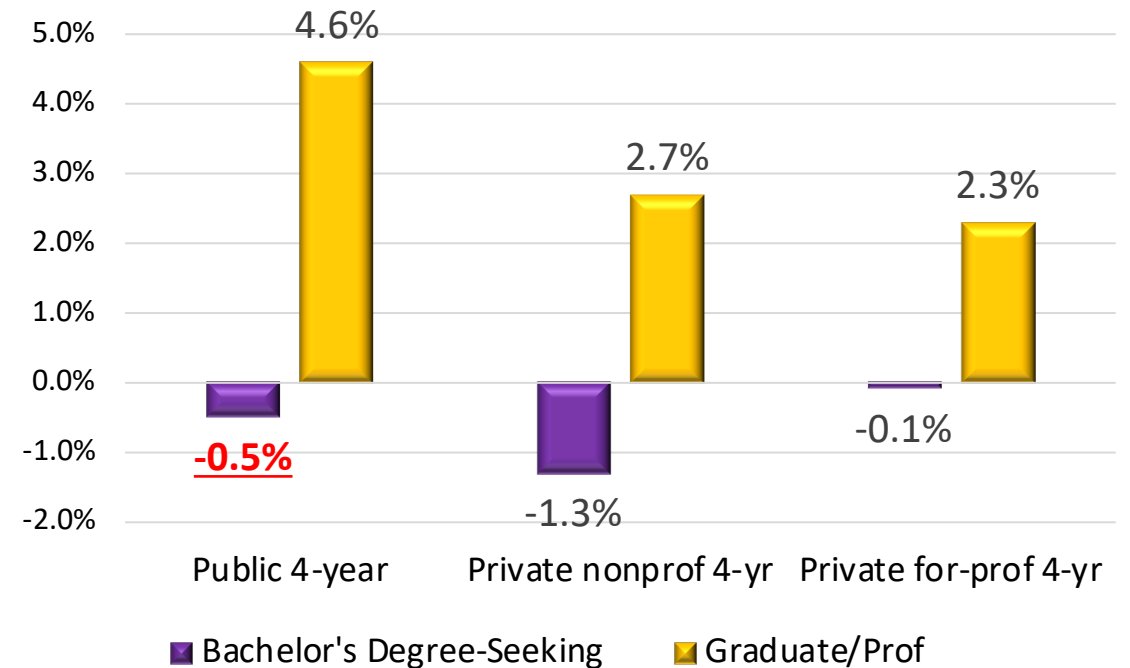
Fall 2020: 4-Year Institution Enrollment Change (%) from Fall 2019

One Year % Change by Gender**



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

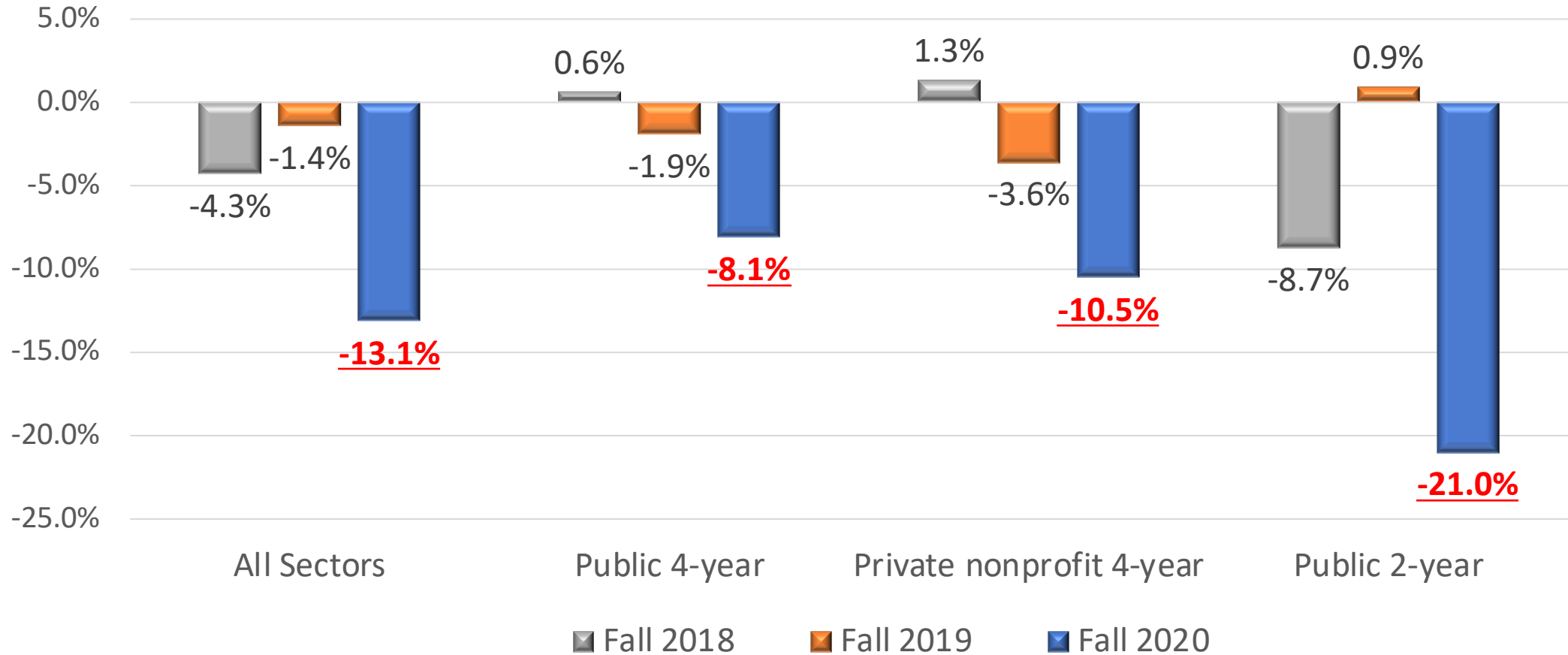
One-Year % Change by Degree Level



*Note: Associate degree-seeking and non-degree seeking undergraduate students are excluded above.

Change in First-time Student Enrollment

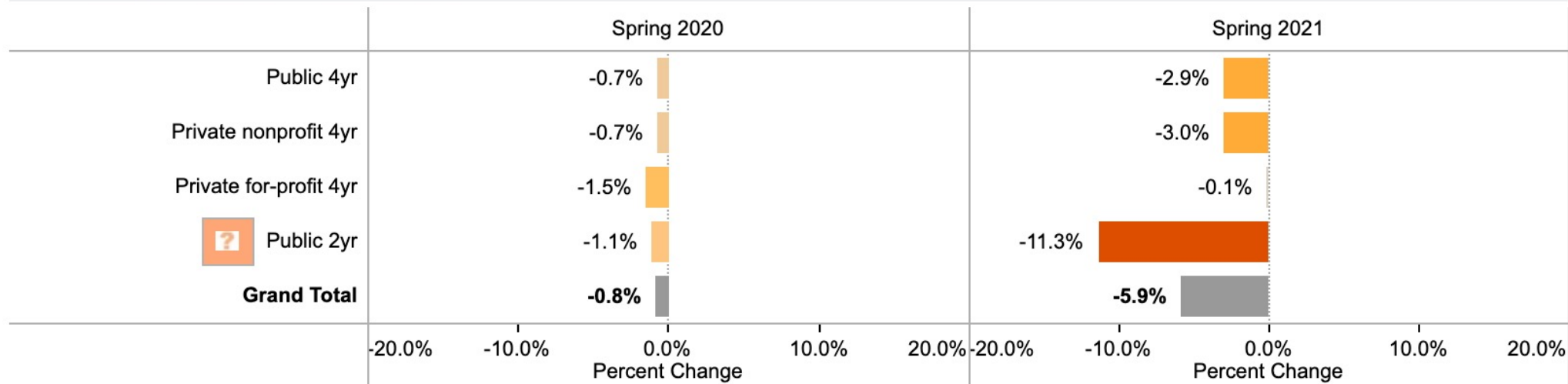
Percentage Change from Previous Fall



Spring Enrollment Changes by Sector (As of March 25, 2021)

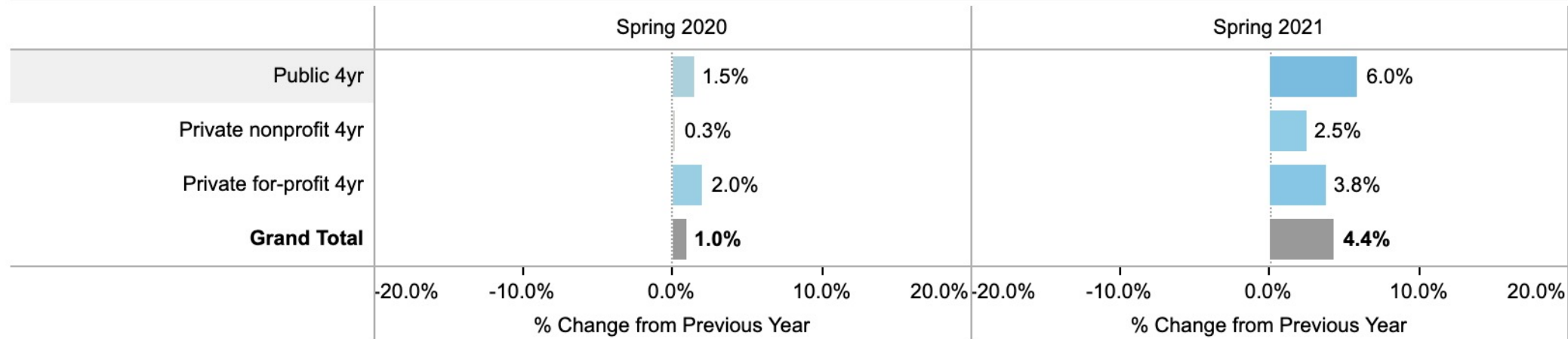
Undergraduate

Figure 1. Undergraduate Enrollment Changes by Sector



Graduate

Figure 2. Graduate Enrollment Changes by Sector





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

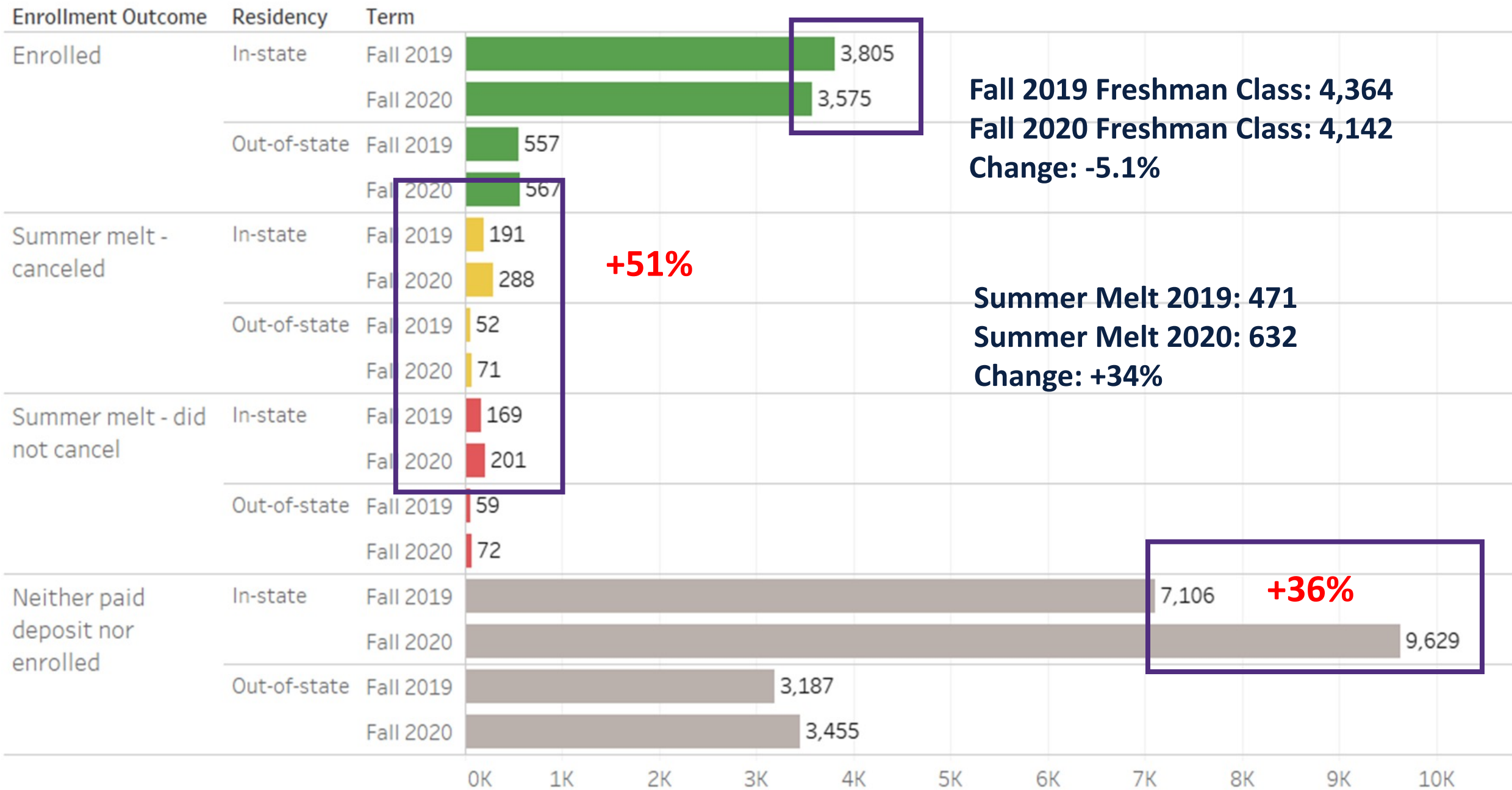
- ECU Admissions Data
- National Student Clearinghouse
 - Fall 2020 data as of Dec 1
 - Fall 2019 data as of Nov 1
- IPAR Dashboards

Comparisons

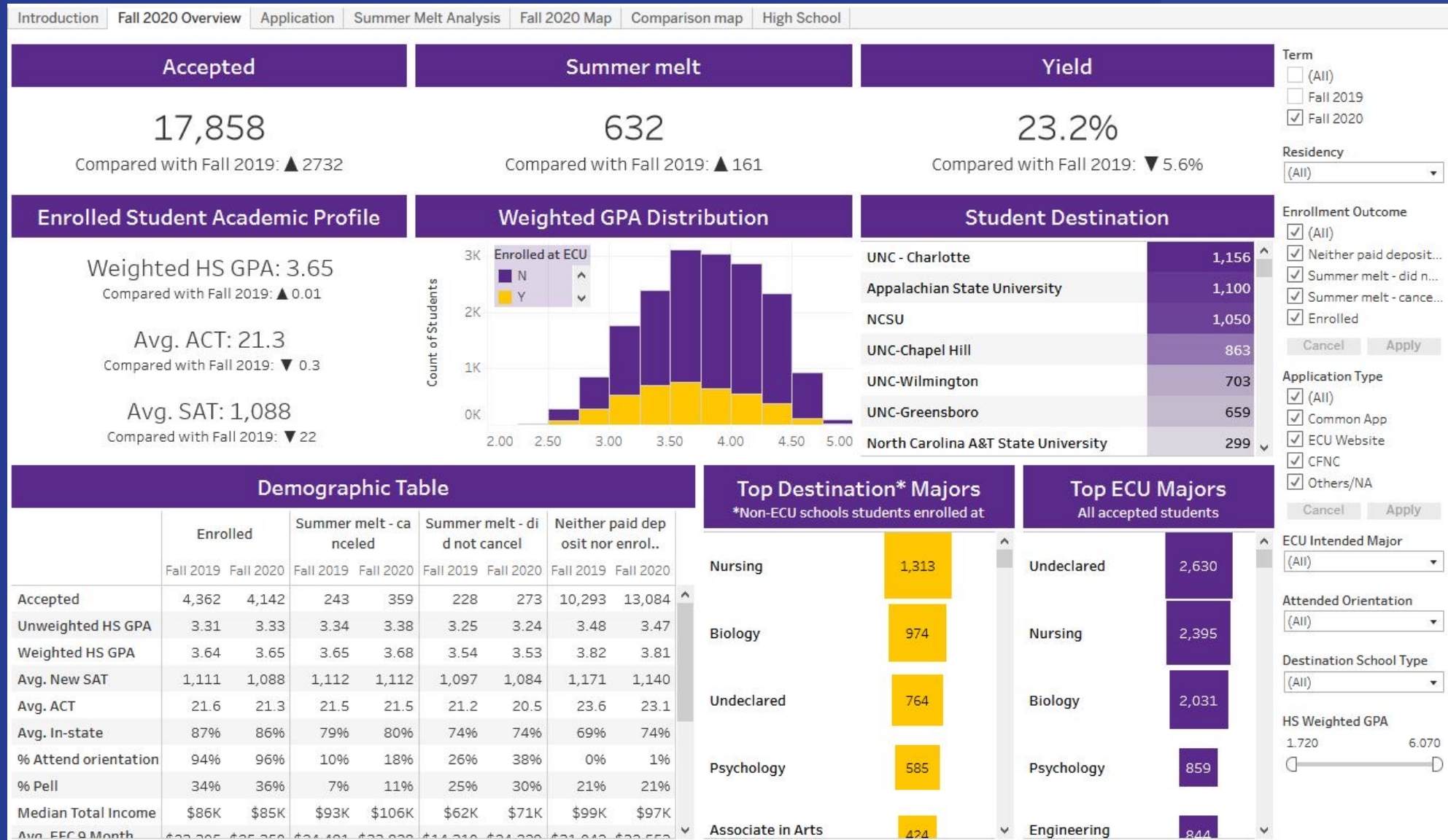
- High School GPA
- Orientation Attendance
- Pell Status and Family Income
- Geographic Location
- High Schools
- Destinations
- Majors, for those who enrolled elsewhere

Deliverables

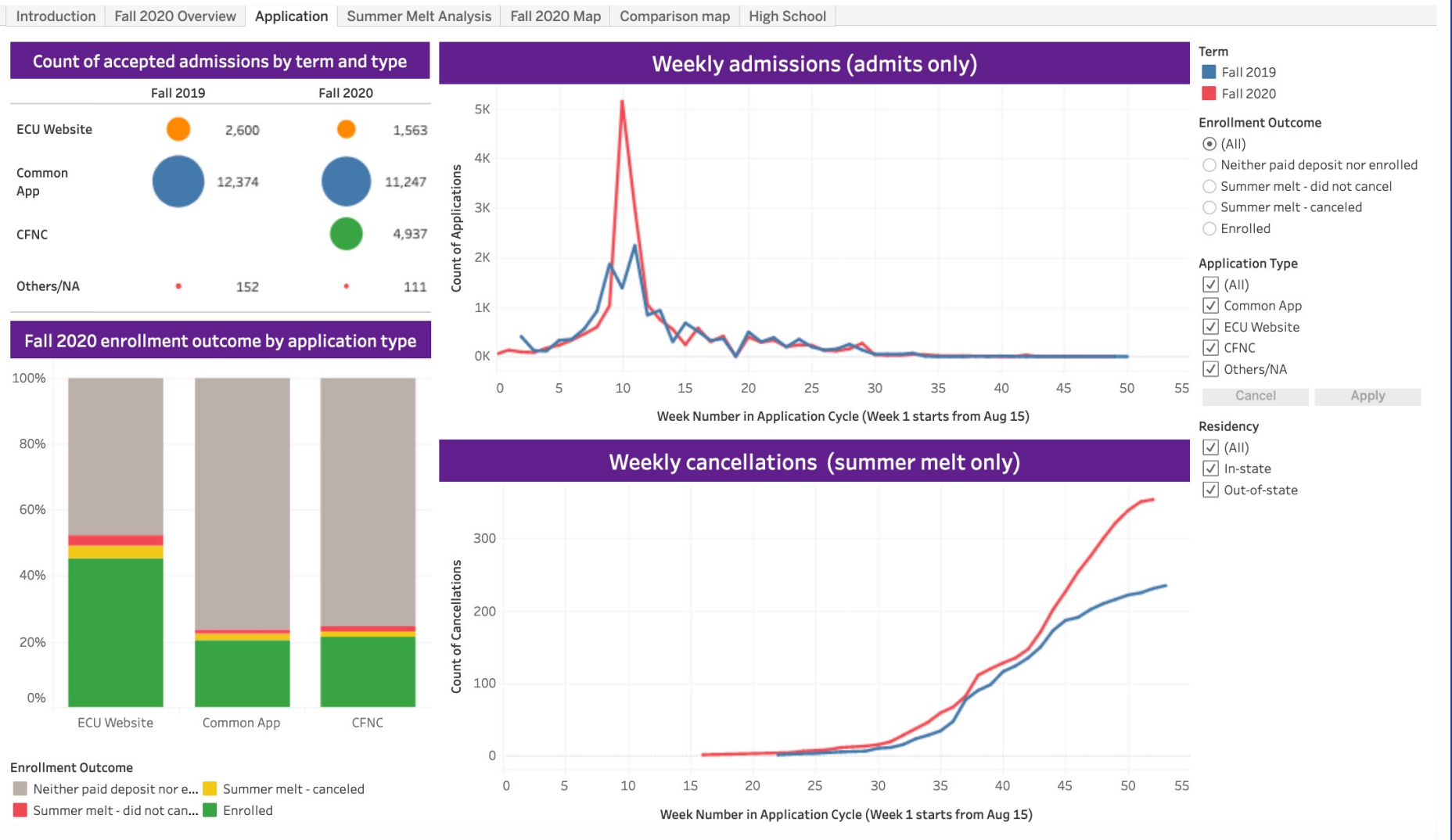
- Interactive Dashboard
- Enrollment Likelihood Model



Interactive Dashboard for ECU's Undergraduate Admissions



Application Cycle



Maps with County Level Data

Introduction | Fall 2020 Overview | Application | Summer Melt Analysis | **Fall 2020 Map** | Comparison map | High School

Accept, Enroll, and Summer Melt

© 2021 Mapbox © OpenStreetMap

Yield

© 2021 Mapbox © OpenStreetMap

Summer Melt Rate

© 2021 Mapbox © OpenStreetMap

County-level Table

County	Term	Accepted	Enrolled	Yield	Summer melt rate
Alamance	Fall 2019	144	38	26%	3%
	Fall 2020	156	30	19%	3%
Alexander	Fall 2019	13	4	31%	0%
	Fall 2020	22	8	36%	5%

Destination Table

Destination	Fall 2019	Fall 2020
East Carolina University	3,775	3,543
University of North Carolina - Charlotte	803	1,091
North Carolina State University	825	1,009
Appalachian State University	719	1,070
University of North Carolina-Chapel Hill	---	---

Map Term:

Residency:

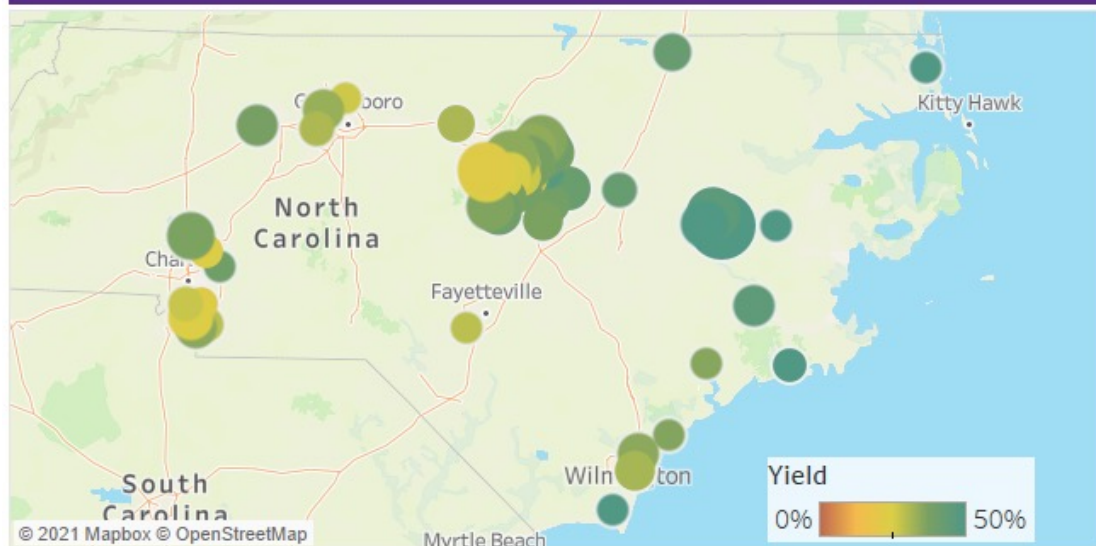
State:

County:

Note: Adjust both **State** and **Residency** to show out-of-state counties. Due to missing values and filter interactions, numbers on this tab may slightly differ from the official record.

High School

Accepted Student and Yield by High School



High School Table

High School	Accep..	Enroll..	Summe r melt	Yield	Summe r melt ..
William G Enloe High Sc..	278	49	3	18%	1%
Panther Creek High Scho..	435	96	12	22%	3%
Providence High School	158	35	6	22%	4%
Athens Drive Senior Hig..	162	37	8	23%	5%
Ardrey Kell High School	279	65	7	23%	3%
Cox Mill High School	145	34	2	23%	1%
Green Hope Hs	396	95	7	24%	2%
Apex High School	177	43	8	24%	5%
Cary High School	174	44	10	25%	6%
Cardinal Gibbons Meml ..	217	55	11	25%	5%
Northern Guilford High ..	121	32	5	26%	4%
Needham B Broughton H..	186	50	3	27%	2%
South Mecklenburg High..	146	40	4	27%	3%
Jack Britt Hs	107	31	7	29%	7%

Term
(All)

Bubble size
(student headcount ..
Enrolled

Student headcount ..
30 485

Yield
0% 100%

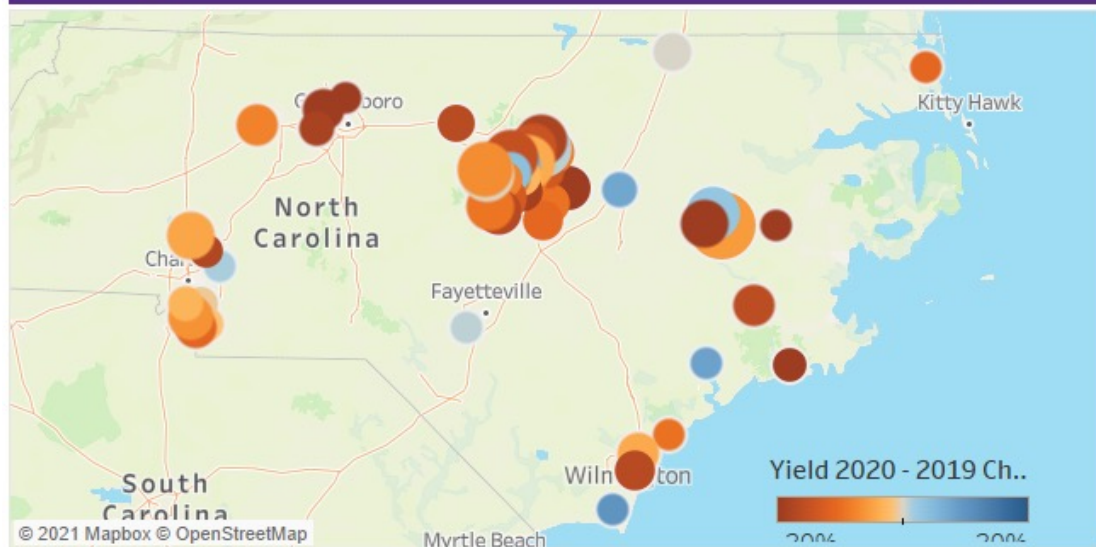
Residency
 (All)
 In-state
 Out-of-state

State
NC

Intended Major
(All)

Accepted students
30 40 60 80 100 120 147

High School Fall 2020 - Fall 2019 Yield Change



Destination Table

Destination	Fall 2019	Fall 2020
East Carolina University	3,713	3,440
University of North Carolina - Char..	781	1,058
Appalachian State University	704	1,050
North Carolina State University	793	959
University of North Carolina-Chap..	557	778
Unknown	484	754
University of North Carolina-Wilmi..	671	638
University of North Carolina-Green..	507	609

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

Unknown	45
UNC - Charlotte	28
UNC-Wilmington	27
Wake Technical Community College	26
NCSU	25
Appalachian State University	17
UNC-Chapel Hill	7
UNC-Greensboro	7
North Carolina A&T State University	5

Summer melt – did not cancel

Unknown	89
Wake Technical Community College	16
UNC - Charlotte	7
UNC-Greensboro	7
UNC-Wilmington	7
NCSU	6
Appalachian State University	4
North Carolina A&T State University	2
UNC-Chapel Hill	2

Other Non-enrolled

UNC - Charlotte	1,121
Appalachian State University	1,079
NCSU	1,019
Unknown	974
UNC-Chapel Hill	854
UNC-Wilmington	669
UNC-Greensboro	645
North Carolina A&T State University	292
Wake Technical Community College	257

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

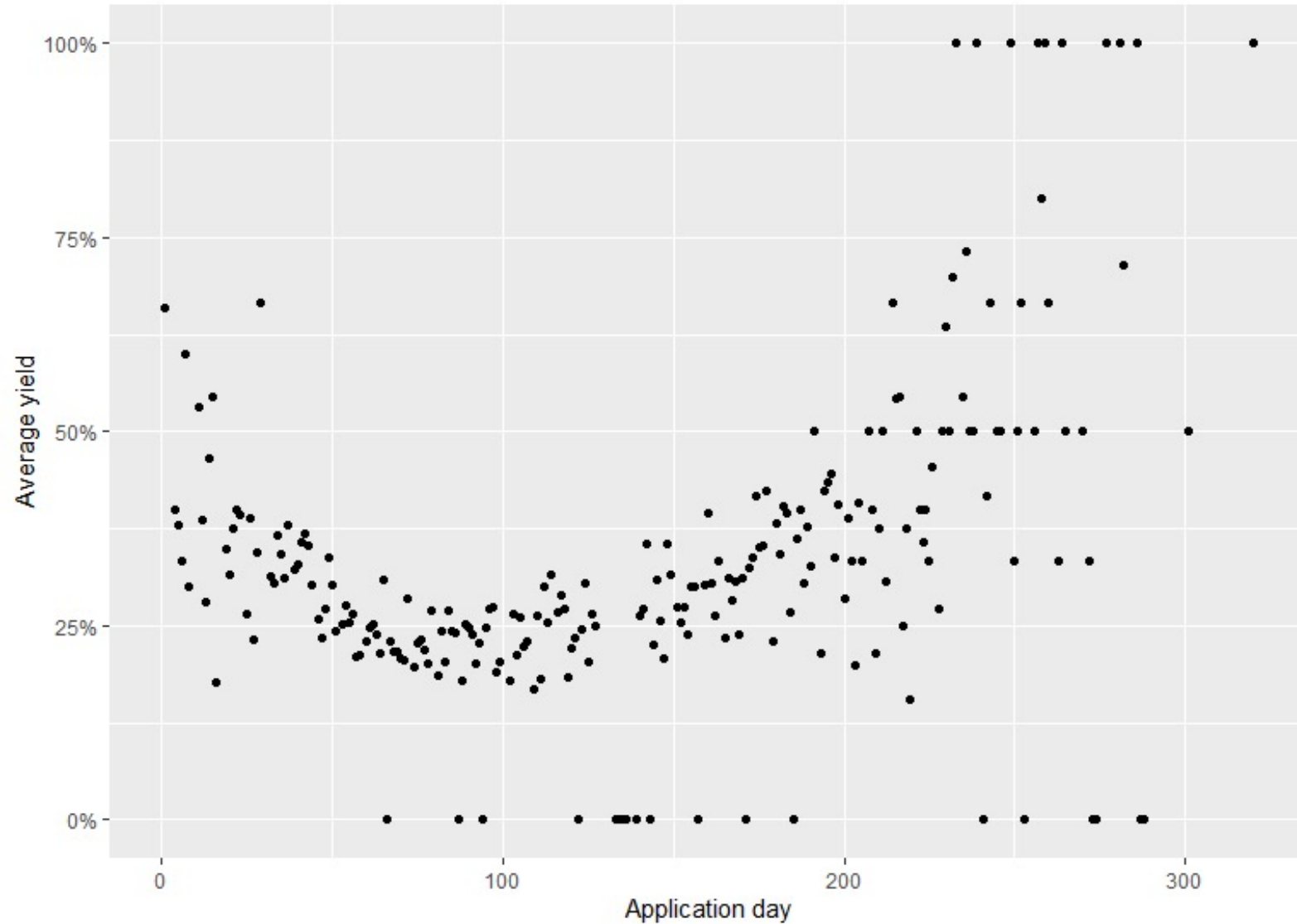
11

Final predictors

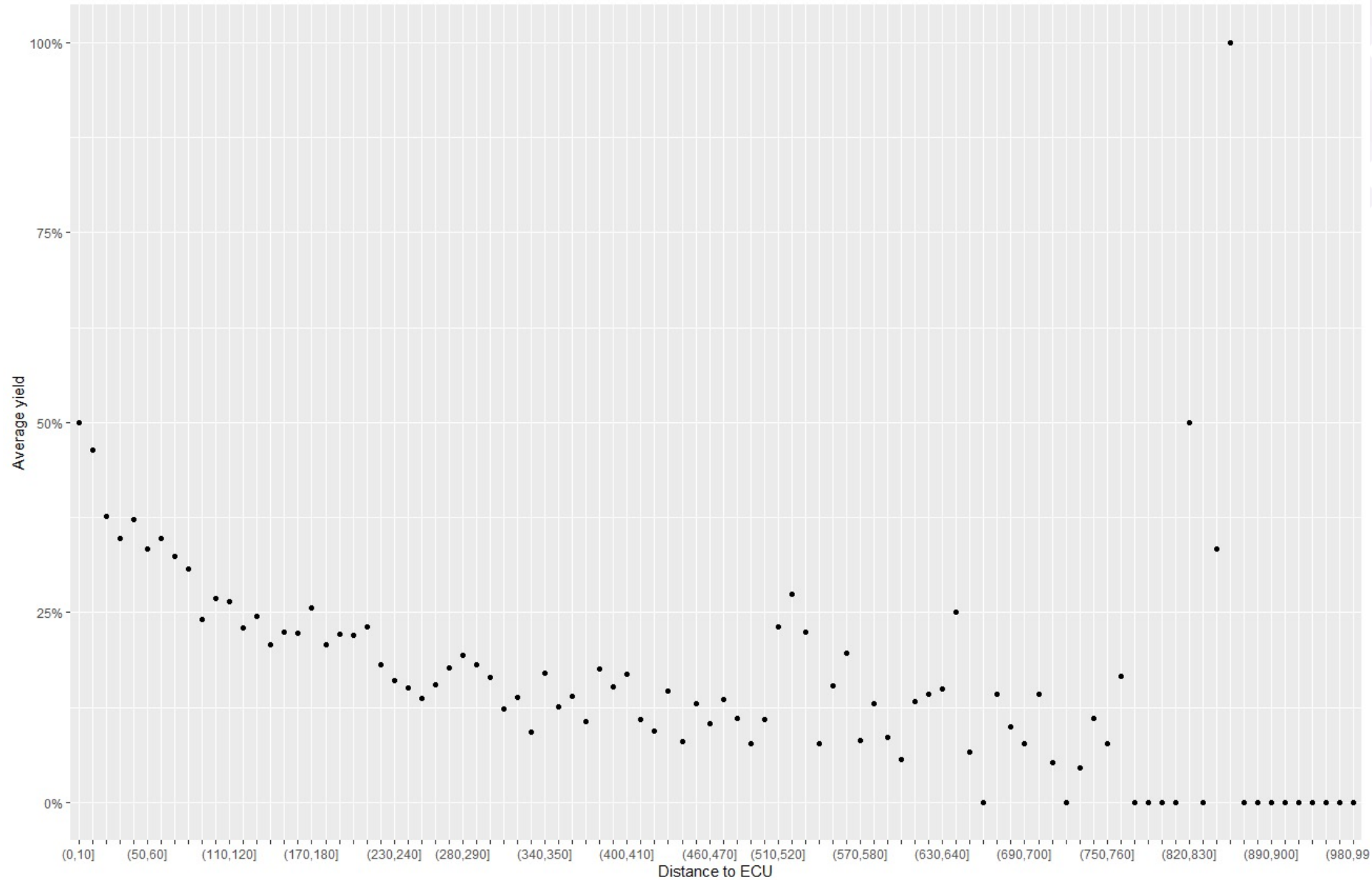
82.3%

Test set accuracy

We used transformations to capture non-linear relationships



We used transformations to capture non-linear relationships



Definition of Variables

Total Financial Aid (max \$40k)

Weighted High School GPA

Distance from ECU (max 500 miles, log transformation)

Expected Family Contribution (max \$50k, log transformation)

Concorded SAT Score

ZIP Code Population Density (max 5k per sq mile)

Application day (squared)

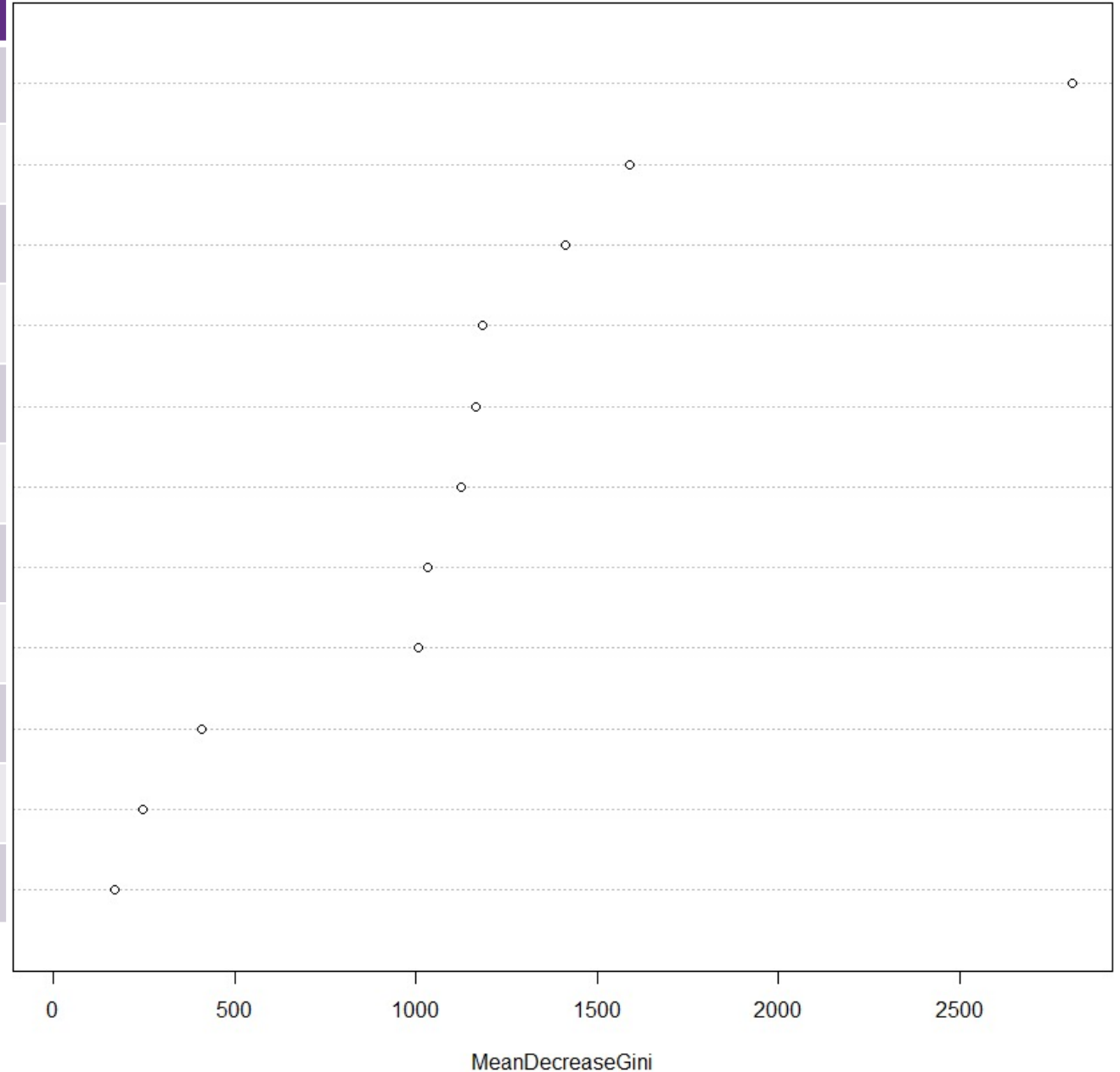
Application day

Race/Ethnicity

In-state Residence

Gender

Variable Importance



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://www.insidehighered.com/blogs/call-action-marketing-and-communications-higher-education/warding-summer-melt>
- https://www.nacacnet.org/globalassets/documents/professional-development/guiding-the-way-to-inclusion/2018-presentations/b4_freezing-summer-melt.pdf
- <https://admissions.usf.edu/blog/top-tips-for-college-counselors-on-beating-summer-melt>
- <https://uplandsoftware.com/mobile-messaging/resources/blog/what-you-can-do-to-kick-off-your-summer-melt-prevention-program-right-now/>
- <https://www.cappex.com/articles/client-newsletter/freeze-the-summer-melt>