



**BEYOND YOUR TRADITIONAL
PREDICTIVE MODEL:
USING DATA TO GUIDE RECRUITMENT & ENROLLMENT STRATEGIES**

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ABOUT THE UNIVERSITY OF SOUTH CAROLINA

- Flagship campus founded in 1801
- Located in the state capital – Columbia, SC
- 4th fastest growing state flagship - Increasing enrollment & profile
- Fall 2017 freshman applicants: approx. 26,000 (74% increase since 2007)
- Fall 2017 freshman class: approx. 5,800 (59% increase since 2007)
- Total Columbia enrollment: approx. 34,000
- Freshman class residency ratio: 50% in-state and 50% out-of-state

ENROLLMENT SUMMARY 2007 - 2017

	2007	2017	Change
Freshman Applications (Fall Only)	14,769	25,749	+ 74%
Freshman Class (Fall Only)	3,655	5,804	+ 59%
Freshman Class Yield (Fall Only)	41%	31%	- 10%
Average SAT	1185	1254	+ 69 points
Average ACT	25.4	27.3	+ 1.9 points
Freshman Honors Enrollment	288	579	+ 101%
Honors Average SAT	1404	1478	+ 74 points
Capstone Scholars Enrollment	596	1,105	+ 85%
First to Second Year Retention	86.9%	87.9%	+ 1%
4-Year Graduation Rate	53.0%	54.7%	+ 1.7%
6-Year Graduation Rate	72.3%	72.3%	no change

WHAT CHANGED BETWEEN 2007 AND 2017?

Implemented technology to store/retrieve data and track communication/interaction.

- 2006 – Document Imaging
- 2008 – CRM Implementation (EMAS)
- 2013 – ERP/Banner Implementation
- 2013 – Admissions Data Cube and Reporting
- 2016 – Coalition Application Platform
- 2016 – CRM Implementation (Slate)
- 2017 – Slate Application Platform

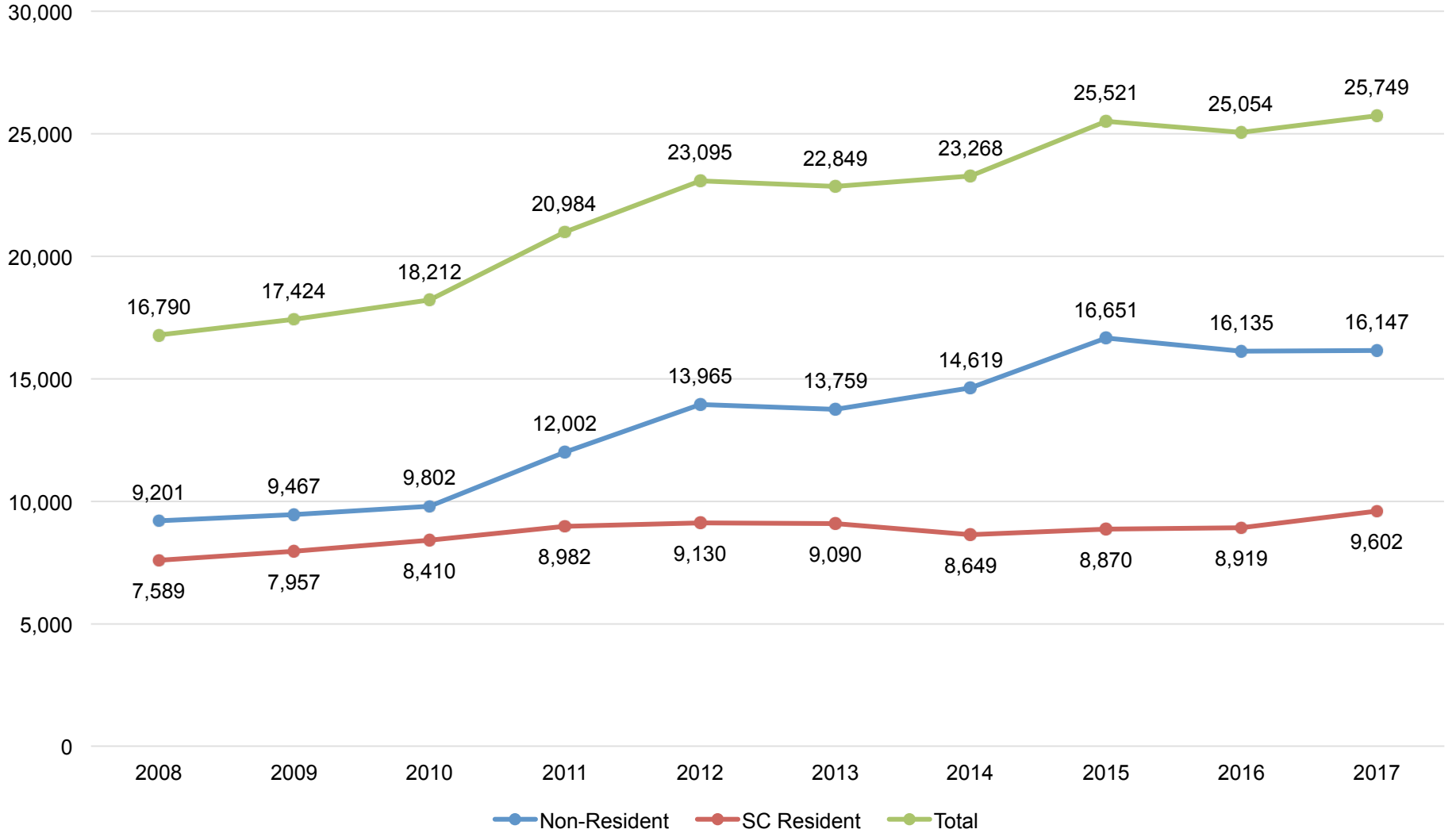
WHAT CHANGED BETWEEN 2007 AND 2017?

Enhanced use of data analytics and market research tools to inform strategy.

- 2005 – First Predictive Model to identify OOS markets
- 2006 – Began using College Board (EPS/Descriptor Plus) and ACT (EIS)
- 2007 – Developed Recruitment Database
- 2008 – Hired Assistant Director for Market Research & Assessment
- 2009 – Built Out Market Segments
- 2010 – Enhanced Territory Analysis (Regional Recruitment) and Special Events
- 2010 – Enhanced Search Campaigns
- 2012 – Expanded Regional Recruitment Initiatives
- 2016 – Built Out Electronic Marketing Communication Plan
- 2017 – Capture Application Model and Enrollment Model

Ongoing cultural shift and investment in resources to support this shift.

10 Year Application Trend



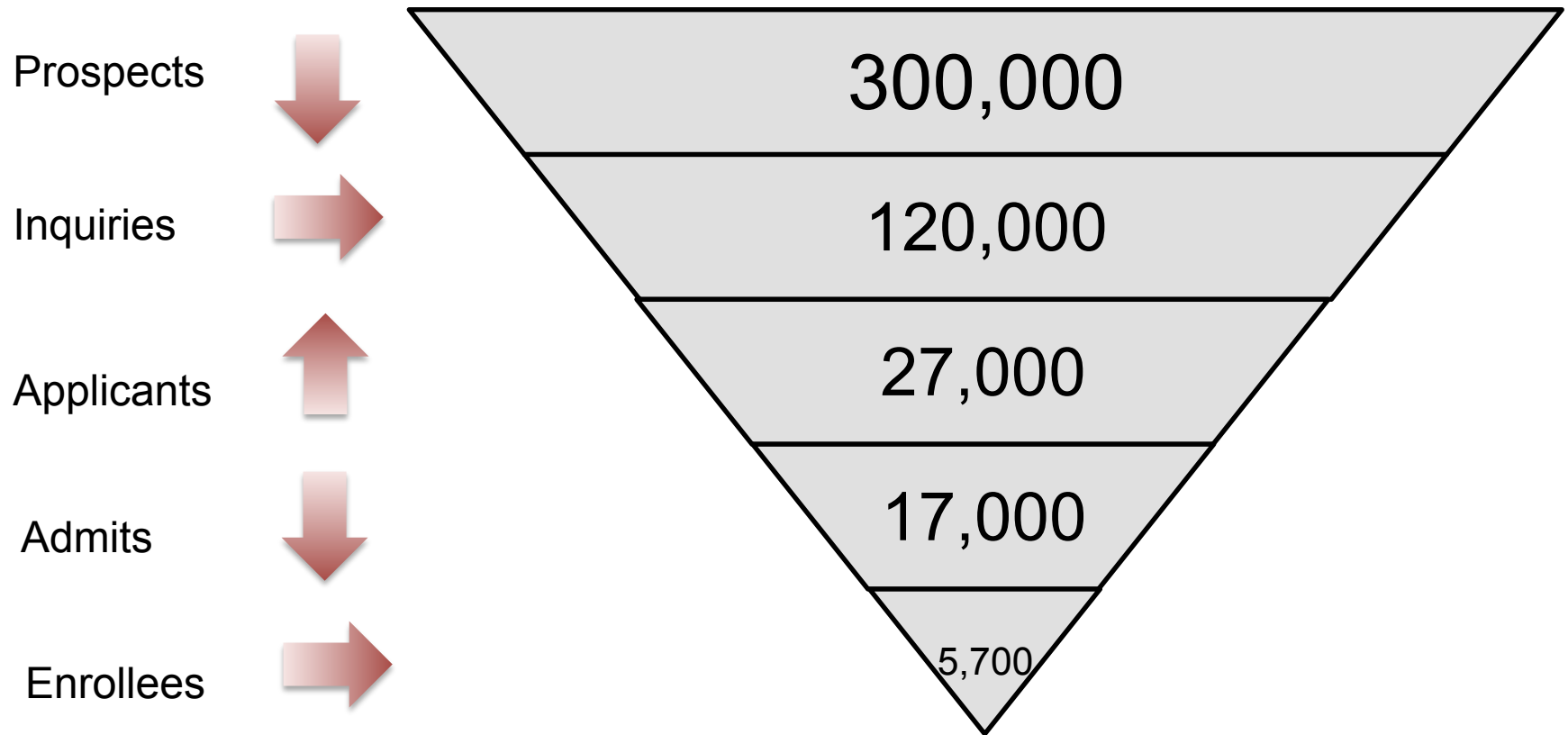
WHAT'S NEXT (2017)?

- Target our marketing and outreach to identify the prospects/inquiries who are most likely to apply
- Redefine what it means to be an inquiry and how we communicate with students/parents
- Mass personalization, personalization, personalization
- Refine our territories using better data
- Identify students who are mostly likely to enroll and use data to better predict yield
- Big data and machine learning – UTILIZE the data we have

ADVANCED DATA MODELS

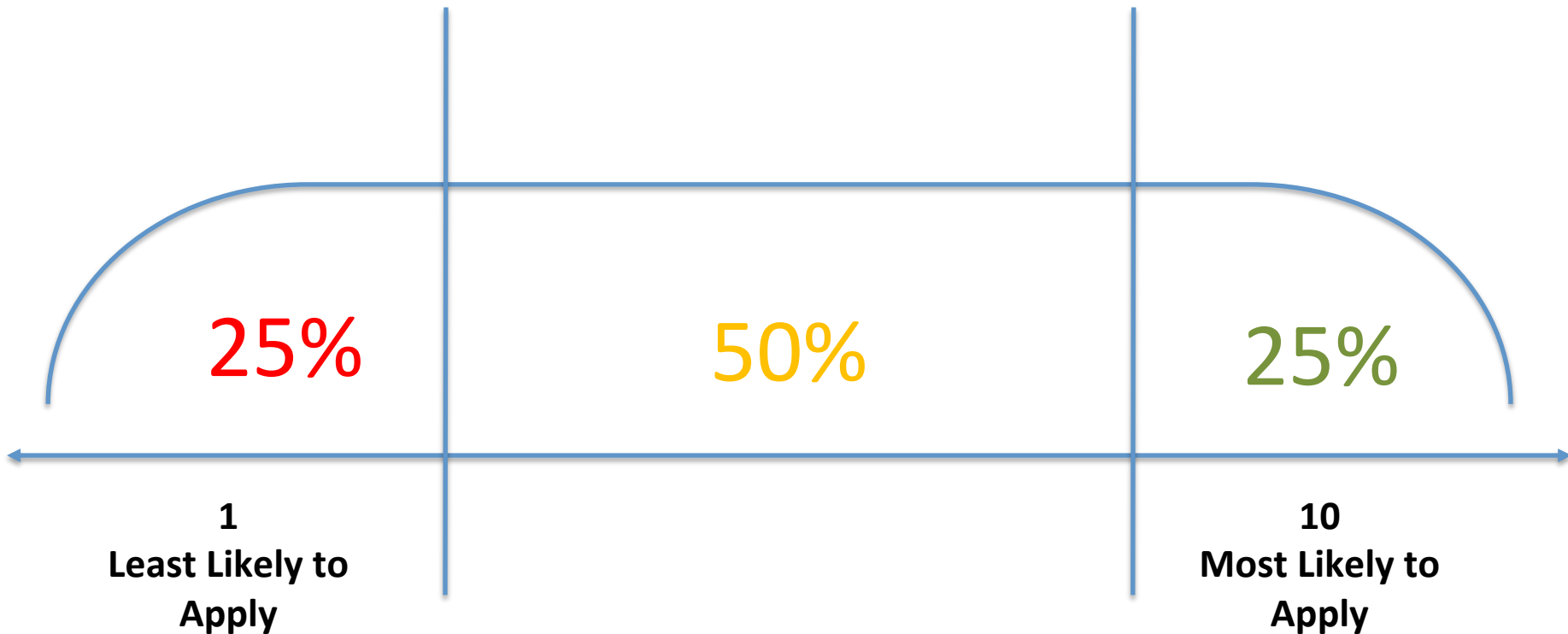
FOCUS AND SEGMENT THE FUNNEL

Hypothetical Admissions Funnel at a Large Public Institution



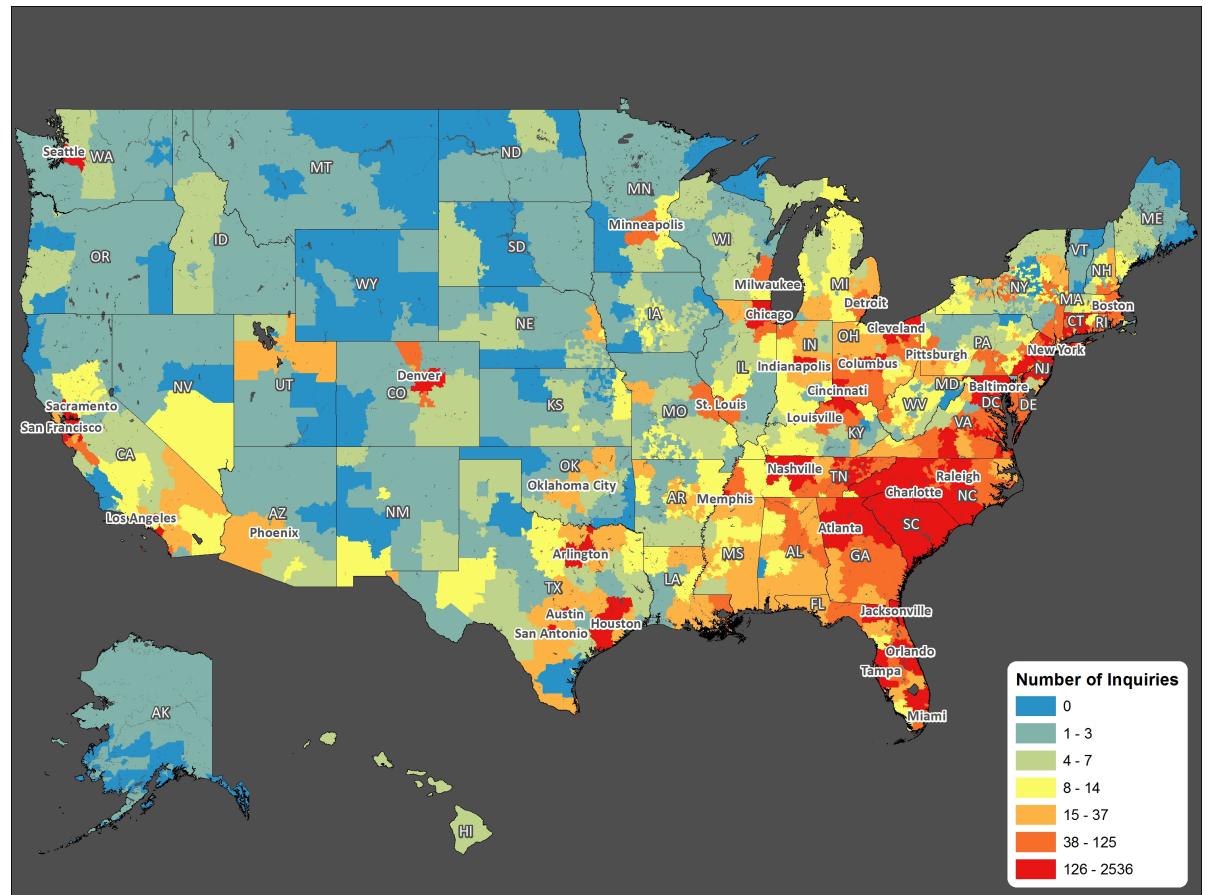
APPLICANT MODEL: VARIABLE MARKETING

Move from One Size Fits All to Variation Based on Quantile

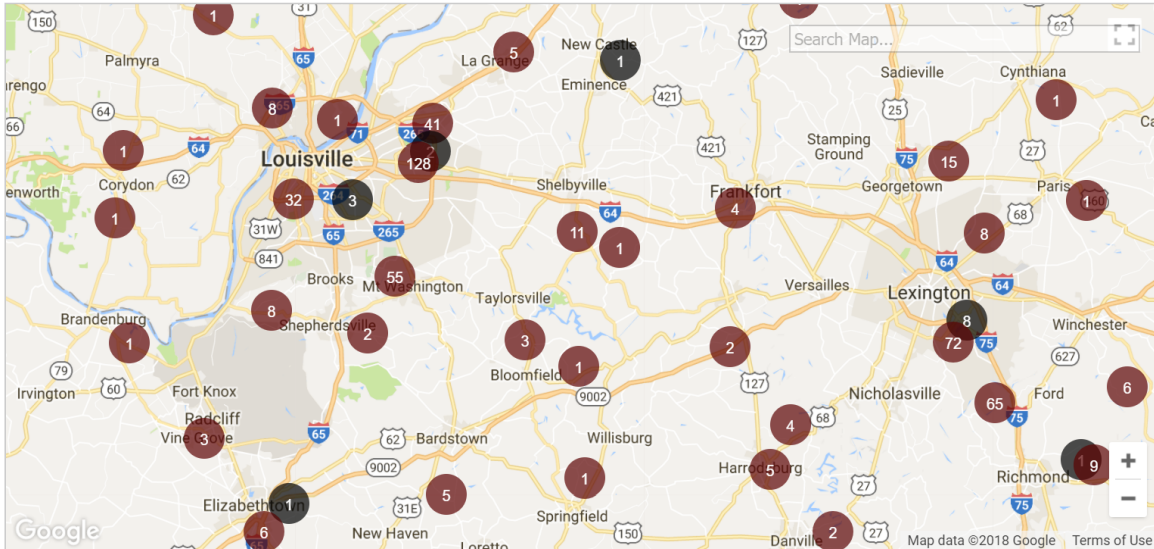


APPLICANT MODEL: TERRITORY MANAGEMENT

- Ensure recruiters are focused on the correct areas.
- Map our inquiries by quantiles to analyze travel and event coverage.



APPLICANT MODEL: INTEGRATION WITH CRM (SLATE)



Markers

- Inquiries 6+ Visits

Overlays

▼

■ Inquiries 6+ Visits

Rows 1-100 of 510 [Prev](#) [Next](#)

Name	Recruitment Term	School 1 Institution	Student Type	Permanent Postal	Inquiry Model Quantile (Most R...
[REDACTED]	Fall 2018	Lafayette Senior High School	Freshman	40513-1739	8
[REDACTED]	Fall 2018	Henry Clay High School	Freshman	40515-5922	7
[REDACTED]	Fall 2018	West Jessamine High School	Freshman	40390-1489	6
[REDACTED]	Fall 2018		Freshman	40324-2639	6
[REDACTED]	Fall 2018	Dupont Manual High School	Freshman	40207-5715	6

ENROLLMENT MODEL DASHBOARD

Envision Financial Aid

Enrollment with Aid Optimization for Faux State University



Model Build Date

Iteration Number

Iteration Date Selected: 2018/02/28
 Iteration Note: Enrollment Predictions 2018

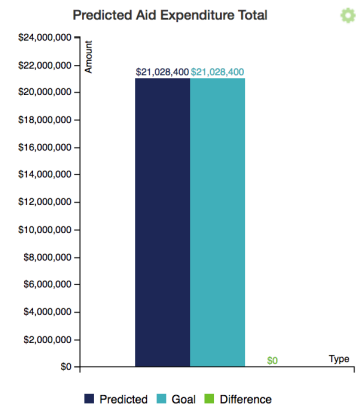
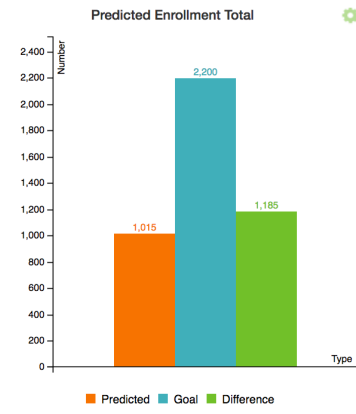
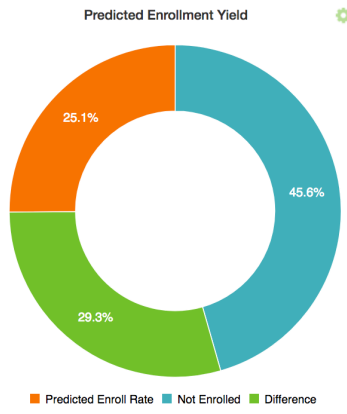
Set Goals to See Expected Difference:

Goal for Number of Enrollments

Goal for Aid Expenditure

[Download Performance Report](#)

Home Automated Aid Optimization Manual Aid Optimization **Group Predictions** Interactive Map Model Performance Feature Importance



Overall Predictions Table

Type	Value
Admitted Students	4,042
Predicted Enrolls	1,015
Predicted Yield	25.1%
Offered Aid Total	\$73,148,079
Predicted Aid Total	\$21,028,446
Predicted Net Revenue	\$17,180,172
Predicted Discount Rate	55%

Group Prediction Table

Group	Subgroup	Predicted	Actual	Predicted_SD	Plus_1_SD	Minus_1_SD
Overall	None	1,015	0	175	1,190	840
Gender	Female	582	0	17	599	565
Gender	Male	433	0	16	449	417
Pincome	High	291	0	13	304	278
Pincome	Low	260	0	13	273	247
Pincome	Middle	322	0	12	334	310
Pincome	Unknown	143	0	10	153	133
Soc	SOC	197	0	11	208	186
Soc	White	818	0	21	839	797



ENROLLMENT MODEL DATA

	A	B	C	D	E	F	G	H
1	predicted	outcome	id	zip	city	state	latitude	longitude
2	0.6	0	657019	77080	Houston	TX	29.816866	-95.52309
3	0.6	0	630804	55324	Darwin	MN	45.057766	-94.40368
4	0.6	0	613937	30090	Marietta	GA	33.952451	-84.54708
5	0.599	0	595856	31629	Dixie	GA	30.802821	-83.69126
6	0.599	0	681856	78835	Burton	TX	30.178439	-96.59109
7	0.599	0	389451	78676	Wimberley	TX	30.022492	-98.13294
8	0.598	0	396145	55009	Cannon Falls	MN	44.493575	-92.89402
9	0.596	0	601591	77022	Houston	TX	29.825176	-95.37798

FINAL THOUGHTS AND QUESTIONS

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