

The Art and Science of Financial Aid: Data is Only Half of the Story



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Things to think about

1. Science first

- Enrollment management data metrics.
- Financial aid scoring.

2. Then art

- Data informed messaging.
- Targeted yield outreach.
- Informed value conversations.



The Science

1

What data do we care about?

Things to consider

- What data points are important?
- How do you measure it?
- Where does it come from?
 - Which source is more relevant/accurate?
- Do you know your data?
 - What's in your admission CRM? Financial aid? Other sources?
 - Does it pass the smell check?

Admitted
Deposit
Net Revenue
Discount Rate
Enrollment Likelihood
Aid Receptivity
Goal

Enrollment management data metrics

Why?

- Data is objective
- Establishes a baseline
- Proactive vs reactive
- Work more efficiently

What?

- Analyze correlations
- Predict/model
- Make it actionable
- Prioritize and follow up

RNL Financial Aid Scoring

Quantifying a student's propensity to enroll

Enrollment likelihood

Financial aid receptivity

Econometric modeling



**Gradient
boosting**



**Supportive vector
machine**



**Adaptive
lasso**



Ensemble



**Neural
network**



**Logistic
regression**

86.8%

of campus partners had a
champion model other than
logistic regression.

The “tournament” approach
allows your data scientist to
identify the most predictive
modeling technique for your
campus based on
your data.

FinAid scoring

Analyzing current class behavior on the fly



Enrollment
likelihood
score



Aid
receptivity



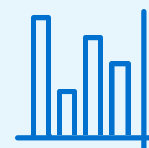
Elasticity



Change
effect



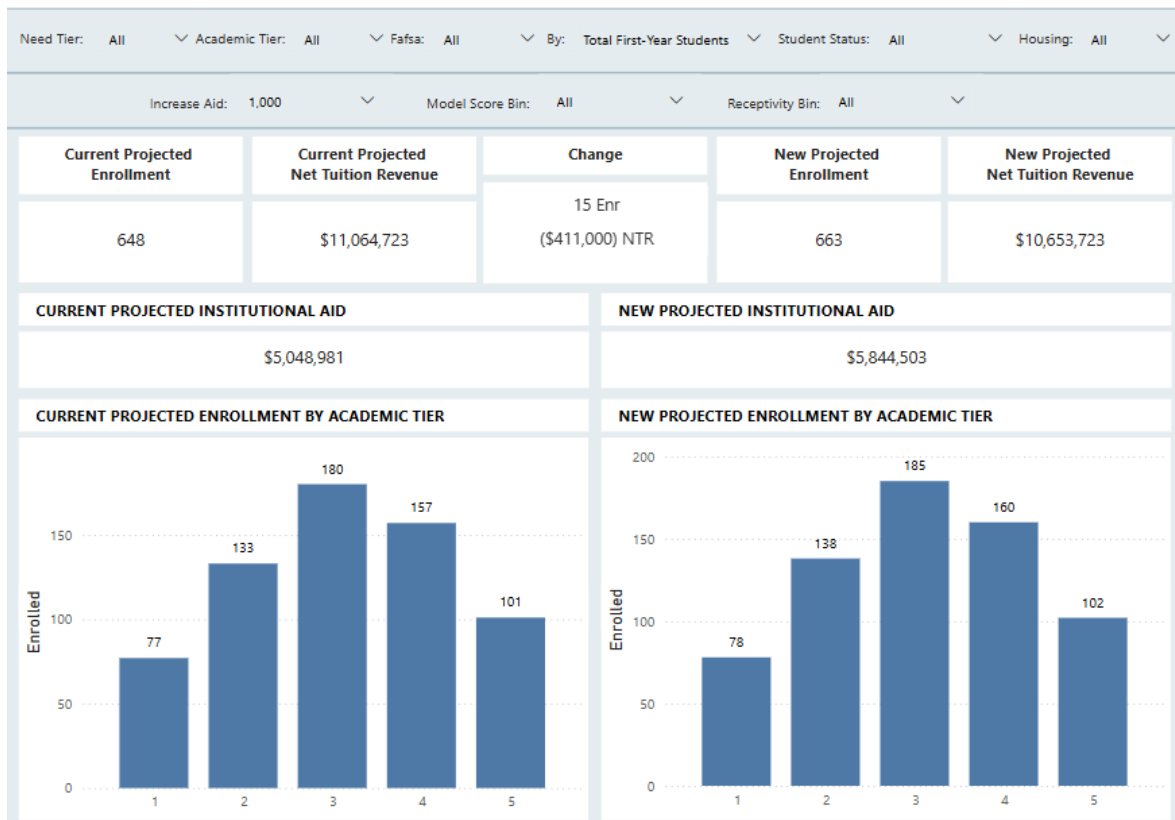
Financial
aid award



Probability

Projection model

Targeting the right students



Individualized scoring

Another metric to qualify students

InstitutionName	StudentId	Enrollment_Likelihood_Score	Enrollment_Likelihood_Bin	FinAid_Receptivity
Lee University	XX8585	0.32	0.31 - 0.40	E
Lee University	X80886	0.88	0.81 - 0.90	B
Lee University	X81853	0.9	0.81 - 0.90	D
Lee University	X6XX82	0.95	0.91 - 1.00	E
Lee University	XX8X90	0.31	0.31 - 0.40	A
Lee University	X80633			
Lee University	X81X18	0.46	0.41 - 0.50	E
Lee University	X81841	0.64	0.61 - 0.70	C
Lee University	X81983	0.28	0.21 - 0.30	E
Lee University	XX422X	0.21	0.21 - 0.30	E
Lee University	XX469X	0.91	0.91 - 1.00	C
Lee University	XX5263	0.32	0.31 - 0.40	E
Lee University	X6X934	0.77	0.71 - 0.80	A
Lee University	X6X950	0.84	0.81 - 0.90	A
Lee University	XXX130	0.69	0.61 - 0.70	C

Insight to the admit pool

Cross referencing with FAFSA filing

Enrollment Likelihood Score		Admitted	Confirmed	Pending	Confirmed & Pending	Yield	Admit FAFSA Filers	Confirm FAFSA Filers
Enrollment Likelihood Score	0.9-1	19	14	3	17	73.7 %	100.0 %	100.0%
	0.8-0.89	33	17	10	27	51.5 %	100.0 %	100.0%
	0.7-0.79	63	28	20	48	44.4 %	96.8 %	100.0%
	0.6-0.69	64	25	27	52	39.1 %	98.4 %	100.0%
	0.5-0.59	97	52	32	84	53.6 %	92.8 %	96.2%
	0.4-0.49	139	50	69	119	36.0 %	92.8 %	98.0%
	0.3-0.39	218	60	120	180	27.5 %	78.0 %	88.3%
	0.2-0.29	237	55	138	193	23.2 %	64.6 %	78.2%
	0.1-0.19	346	48	231	279	13.9 %	50.0 %	87.5%
	0.01-0.09	250	19	188	207	7.6 %	30.8 %	94.7%
Grand Total		1,591	467	855	1,322	29.4 %	67.9 %	91.9%

The Art

2

Lee University

- Lee University is a private non-profit Christian institution located in Cleveland, TN.
- **Distinctives**
 - Our Christ-centered excellence.
 - Our transformational experience found through student engagement.
 - Required study abroad.
 - Faculty engagement.
 - Service learning.
 - Intentional student community development including spiritual life.
- **Enrollment challenges facing Lee University**
 - Free community college and competing state discounts.
 - Declining enrollment.
 - Continuing changes in federal financial aid.
- **Opportunities for growth**
 - We have very established high performing programs and a new Engineering building under construction.
 - Tennessee may be one of the exceptions to the enrollment cliff.



Managing matriculation

Challenges of not having a deposit

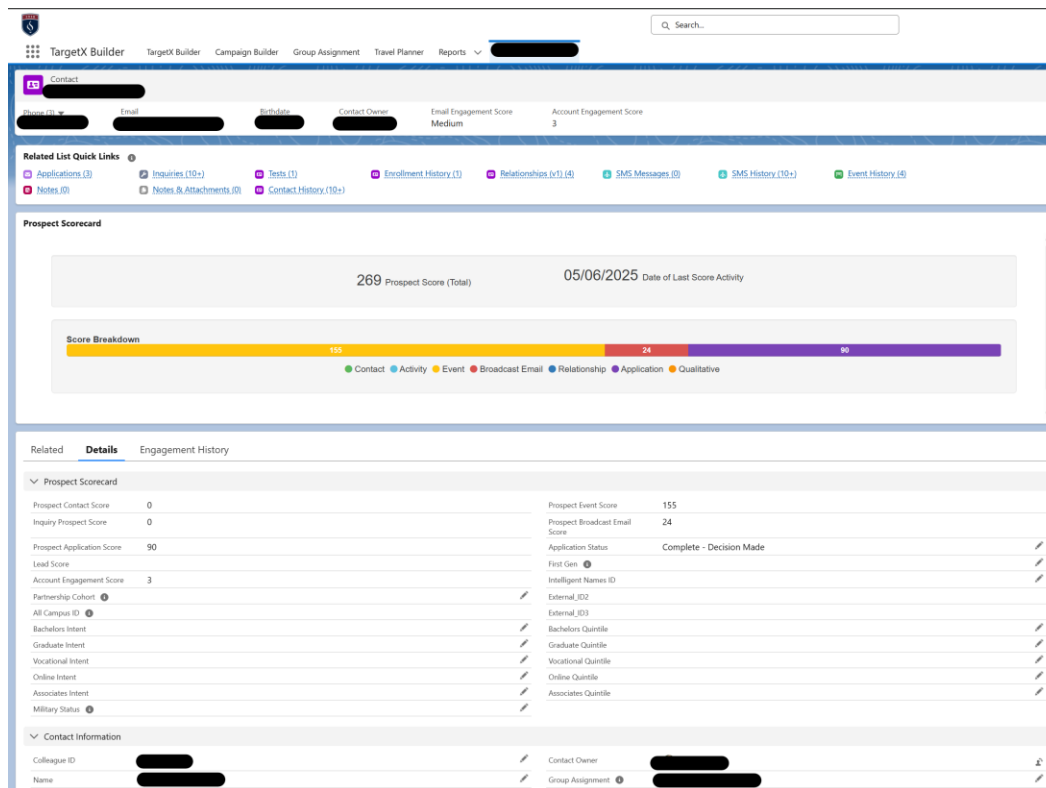
- Guessing isn't knowing.

How to do we guess?

- **Combination of engagement behaviors**
- **Early class selection**
 - Housing deposits.
 - Acceptance of financial aid.
 - Commit to attend.
- **Metrics used to quantify and project enrollments through the cycle**
 - Started to submitted to accepted apps.
 - Projecting is measured based on those engagement behaviors.

Lee Prospect Score

Using admission metrics to qualify students



How do we use scoring?

Probability of enrollment

- How do you use scoring?
 - Validation of **who we think is coming**.
 - Who is net confirmed?
 - What is their probability of enrollment?
 - 100%-50% or below 50%.
 - What is their aid receptivity?
 - A, B, C, D, E.
 - Use the RNL scoring to validate and compliment what we know in our system from current behaviors.



How do we use scoring?

Impact of additional aid

- Validation of who could come if we increased aid slightly.
 - Who is pending?
 - What is their probability of enrollment?
 - 100%-50% or below 50%
 - What is their aid receptivity?
 - A-B.
 - Use the RNL Scoring to determine how much more we should offer to increase probability of matriculating.



How do we use scoring?

Targeted outreach and initiatives

- By assessing net confirmed and pending specific populations they can be pulled for specific messaging to encourage action.
- Utilizing the scoring dashboard to inform financial aid appeal decisions.



Science helps inform art



Thank You!



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