

# **Session 6. Algorithms and Analytics in Service of Institutional Mission**

*A panel discussion with three enrollment managers  
and a long-time consultant*

**CERPP CONFERENCE 2023**

**Standing on Shaky Ground: Leading  
Enrollment Management in 2023**

**February 5 - 7**

**Los Angeles, CA**

# Introduction of Panelists

**Bob Massa** (moderator) – Adjunct Associate Professor, USC Rossier

**Sharon Alston** – Retired (2022) Vice Provost for Undergraduate Enrollment, American University

**Rob Bielby** – Managing Director, Huron Consulting Group

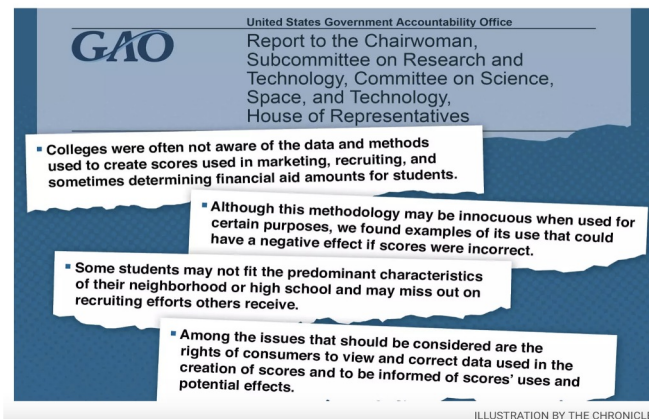
**Cornell LeSane** – Vice President for Enrollment Management, College of the Holy Cross

**Ian Mortimer** – President, Golisano Institute for Business & Entrepreneurship (*formerly V.P. for Enrollment at Rochester Institute of Technology*)

# Setting the Stage

## Congress Should Scrutinize Higher Ed's Use of Predictive Analytics, Watchdog Says

By Dan Bauman | JUNE 3, 2022



### *Chronicle of Higher Education:*

“ ‘Among the issues that should be considered are the rights of consumers to view and correct data used in the creation of scores and to be informed of scores’ uses and potential effects,’ the office recommended.”

“Predictive analytics have been heralded as a means to improve many facets of higher education, like bolstering retention and more equitably apportioning institutional aid, but they are not without their detractors. Concerns for student privacy abound. And critics worry poorly designed or understood models can embed and automate discriminatory behavior across an institution’s operations.”

# Setting the Stage



Claims that the “*prevailing evidence*” suggests that scholarship awards are lower when algorithms are used, because they “*excel at identifying a student’s exact willingness to pay*” to attend a particular institution and that “*colleges should not use predicted likelihood to enroll in either the admissions process or in the awarding of need-based aid,*” and that decisions should be based only on the candidate’s merit.

# Overreaction or Legitimate Concern?

- There are over 2,200 four-year public and private, non-profit colleges and universities in the U.S.
- Just 100 of them have acceptance rates under 31%  
<https://www.educationcorner.com/colleges-with-lowest-acceptance-rates.html>
- Many less selective colleges use analytics and algorithms to secure the numbers and revenue they need to operate, but they are not the focus of the concern.
- The most selective schools are in the hot seat: do they use analytics to fulfill mission or to enhance margin? Can they do both?
- And are we talking about need-based or merit-based grants.... or both?

# Brief Definition and Background

- Predictive analytics consists of algorithms created by using historical data and linking that data to a series of outcomes (*Creusere and Troutman, Business Officer, October, 2018*)
- Requires 3-5 years worth of data upon which to base a model
- Algorithms are built internally if you have staff or by consultants
- Need institutionally owned data in addition to publicly available data
- Important to have the right people from the institution on board– admissions, financial aid, IR. And for retention, also registrar, bursar, residence life.

# The Value of Analytics

*From Gartner Analytics Value Escalator; [www.gartner.com](http://www.gartner.com)*

- What happened? (descriptive)
  - Why did it happen? (diagnostic)
  - What will happen? (predictive)
  - How can we make it happen? (prescriptive)
- 
- Linear models (e.g. regressions) are good at aggregate predictions
  - Non-linear models (e.g. based on AI) can predict individual behavior



# Decision Making Through Analytics

**INSIDE**  
HIGHER ED

## Data's Role in Student and Institutional Success



An Inside Higher Ed webcast  
Wednesday, Nov. 16, 2022  
2 p.m. Eastern

Decision making can be data-driven, data-informed or data-inspired.

*“It doesn’t matter how fancy your artificial intelligence is going to be or your predictive model—at some point, some human person is going to have to decide what to do.”*

(Amelia Parnell in *You are a Data Person: Strategies for Using Analytics on Campus*)



# An Overarching Observation and Question

- So, people are at the core of this issue
- The tools are neither “good” nor “bad;” “constructive” nor “destructive”
- It’s how we use the tools
- A broad question to consider as our discussion ensues:

*Can we address issues of equity and access, along with the need to generate revenue, without new techniques and views?*

*If novelty is not evaluated and contemplated, when it comes to addressing challenges, missions could become compromised from sheer economic realities.*

# Panel discussion points

# Thank You!

Bob Massa: [massarob@usc.edu](mailto:massarob@usc.edu)

Sharon Alston: [sharonmalston@gmail.com](mailto:sharonmalston@gmail.com)

Rob Bielby: [rbielby@hcg.com](mailto:rbielby@hcg.com)

Cornell LeSane: [clesane@holycross.edu](mailto:clesane@holycross.edu)

Ian Mortimer: [imortimer@golisanoinstitute.org](mailto:imortimer@golisanoinstitute.org)

# Q & A

Open for questions, comments,  
concerns .....outrage!