

29TH ANNUAL

SEM

STRATEGIC ENROLLMENT
MANAGEMENT CONFERENCE



OPERATIONAL
EFFICIENCY



INSTITUTIONAL
WELLNESS



STUDENT
SUCCESS

Grow Your **Enrollment**.
Develop Your **Career**.

November 3-6, 2019
Hilton Anatole • Dallas, Texas

Use of Data and Data Analysis

Janet Ward, AACRAO Senior Consultant

Sunday, November 3, 2019

1:00 – 3:45 PM

Session ID: 6489

Learning Outcomes

Data management principles and core enrollment concepts:

- Understand sound data management principles, which are essential for enrollment modeling

Interactive session - models:

- Ability to manipulate the model(s) for own institutional purposes

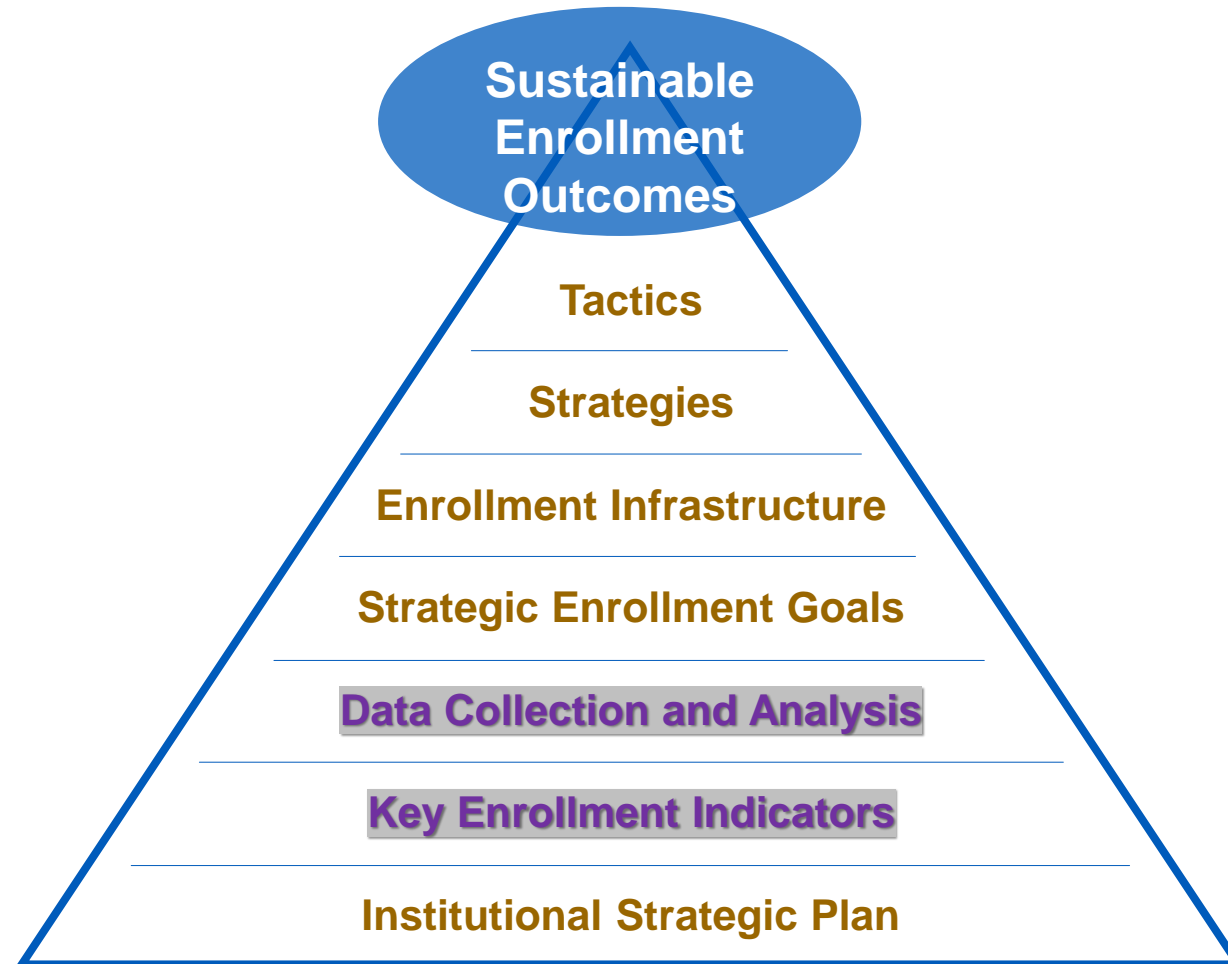


Enrollment Concepts & Data Management Principles

*...a collaborative
process*

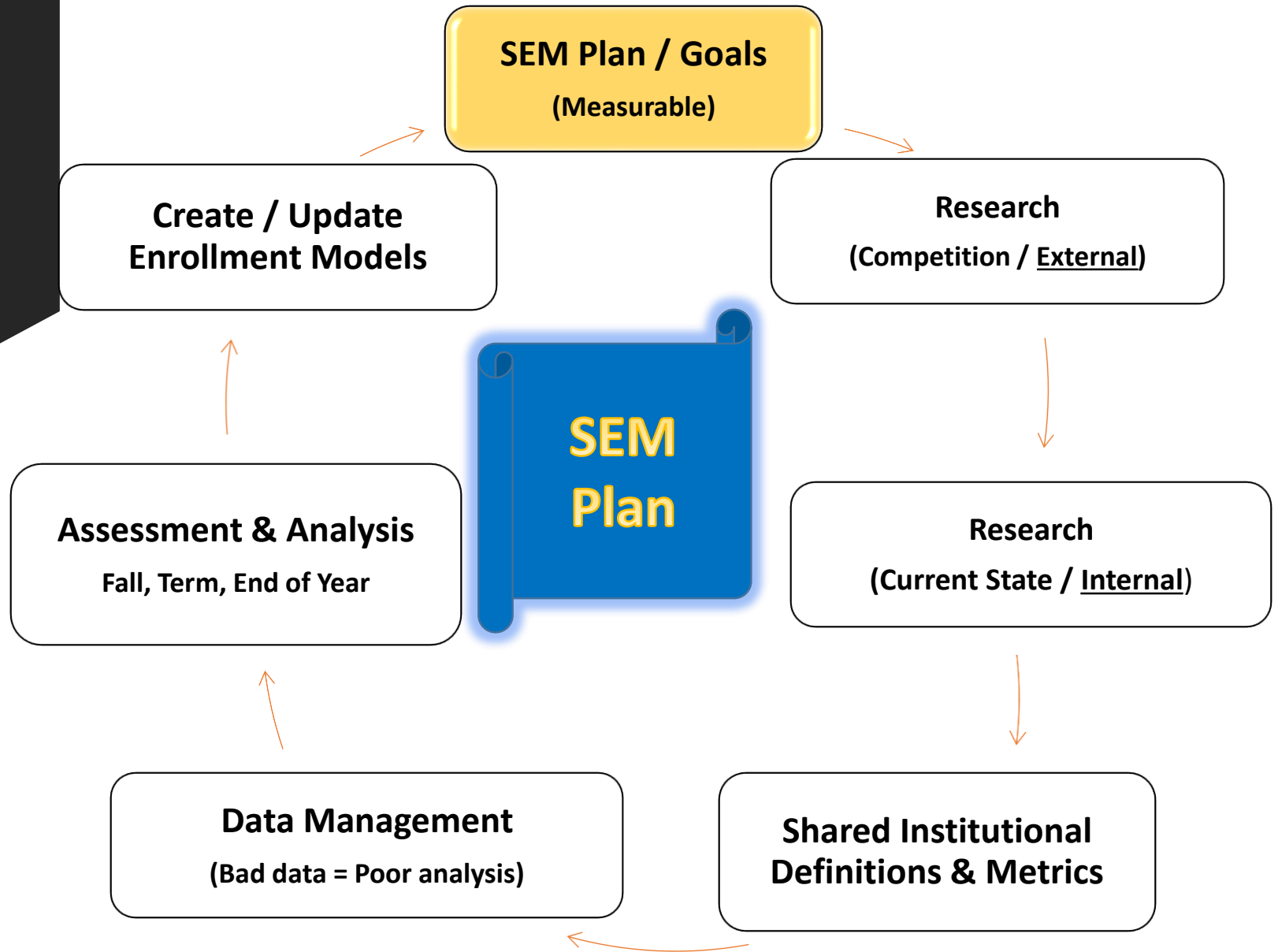
SEM Planning Framework

At what tier is your institution?



Bontrager/Green

Enrollment
Planning,
Research and
Building Models
... a process



Meta Data Dictionary Example

Action Step: Insert the thumb drive and click on Excel titled...

Meta Data Dictionary - example

Name



1.AACRAOSEM2019.Use of Data & Data Analysis



2.Handout.Special Program ProjModel.AACRAO SEM2019-JWard



1.Handout.Projection Models.AACRAO SEM2019-JWard



Data Legend-example.SEM2019-JWard



MetaDataDictionary.ACexample.SEM2019-JWard



SEM Reports-example master list.AACRAO SEM 2019.JWard

	A	B	C	D	E	F	G	H	I
1	Example -- Meta Data Dictionary					Last Revised: Set date (should review/revise annually)			
2	SR Leader Met	Term	Externally Defined Field	Dimension	Definition	Source of Definition	Link(s)	Office - Annual Review	Last Revised
3	Y	Admit Rate - Undergraduate	Common Data Set	Admissions	Admitted students divided by completed applications.	Common Data Set		Institutional Research	10/6/06
4		Admitted student		Admissions	Applicant who is offered admission to a degree or certification program at SPU.	Admissions Office		Institutional Research	8/26/04
5		Class rank		Admissions	The relative numerical position of a student in his or her graduating class, as reported by the high school.	Admissions Office		Institutional Research	8/26/04
6		Completed Applications	IPEDS	Admissions	An individual who has fulfilled the institution's requirements to be considered for admission (including payment or waiving of the application fee, if any) and who has been notified of one of the following actions: admission, denial, placement on waiting list, or application withdrawn (by applicant or institution).	IPEDS		Institutional Research	8/26/04
7		Confirmed Student		Admissions	An admitted undergraduate student who has not cancelled his or her admission and who has done one or more of the following: made an advance payment, registered for or participated in Orientation/New Student Advising (NSA), or registered for all classes. On an individual basis, a few additional non-cancelled admits may be considered confirmed.	Admissions Office		Institutional Research	9/26/14
8		Decisoned Student		Admissions	A student about whom an Admission decision has been made. The possible decisions are Admission, Denial, Waitlisting, and Cancellation.	Admissions Office		Institutional Research	9/6/12

Goal Setting and Data Analysis ... a process

Step 1

First step, identify business question and goals to be addressed by analysis:

What is strategic to know to achieve:

- Institution's strategic plan mission
- SEM plans goals
- Enrollment management unit(s) goals

What is important to:

- Senior administration leaders
- Academic leaders
- Enrollment leaders / unit heads

What do you need to know and when ...

WHAT

Key Performance Indicators

1. New Student Profile
2. Conversion programs
3. Totals: headcounts, credit counts. And, by Sub-sets
4. Institutional Financial Aid Expenditure. Sub-sets
5. Net Revenue / Affordability
6. Student Success (retention, degree completion). Sub-sets
7. Competition

WHEN

Benchmarks / Data Snapshots

1. Weekly
2. Bi-Weekly
3. Monthly
4. Term Census – Start
5. Term Census – Close
6. Annually at Fall Census
7. End of Year

SEM Report Plan – example:

Do you have a SEM reporting plan?

Report Title	Data Source(s)	Frequency	Delivery
Academic Program Capacity Analysis Report	ERM	Ad-hoc	Dec
Admission Comparison Report	Enrollment RX	Weekly	Dec – Aug
Admission Yield "By the Numbers" Report	Banner	Annually	Nov
Annual ERM Unit Goals	ERM	Annually	Aug
Annual Program Inventory	ERM	Annually	Dec
Annual Report: SEM Recruitment Council: Activities, Progress and Recommendations	ERM	Annually	Aug
Annual Report: SEM Retention and Student Success Council: Activities, Progress and Recommendations	ERM	Annually	Aug
Board of Trustees: Freshman Net Revenue and Discount Rate	ERMS	Annually	Dec
Classroom/Lab and Seat Utilization	R-25	Semester	Nov, Mar
Competitor Analysis and Enrollment Trends	MODHE	Annually	Feb
Dashboard by School and/or Program	OIR, Banner	Weekly	varies
Early Registration Report	Cognos, Banner	Weekly	Nov – Jan, May – Aug
Enrollment Diversity Plan	ERM	Annually	Aug
ERM Communication Annual Completed Project Sample Book	ERMC	Annually	Aug

[Example available on thumb drive](#)

Questions to be addressed – at each stage:

Growth year to year

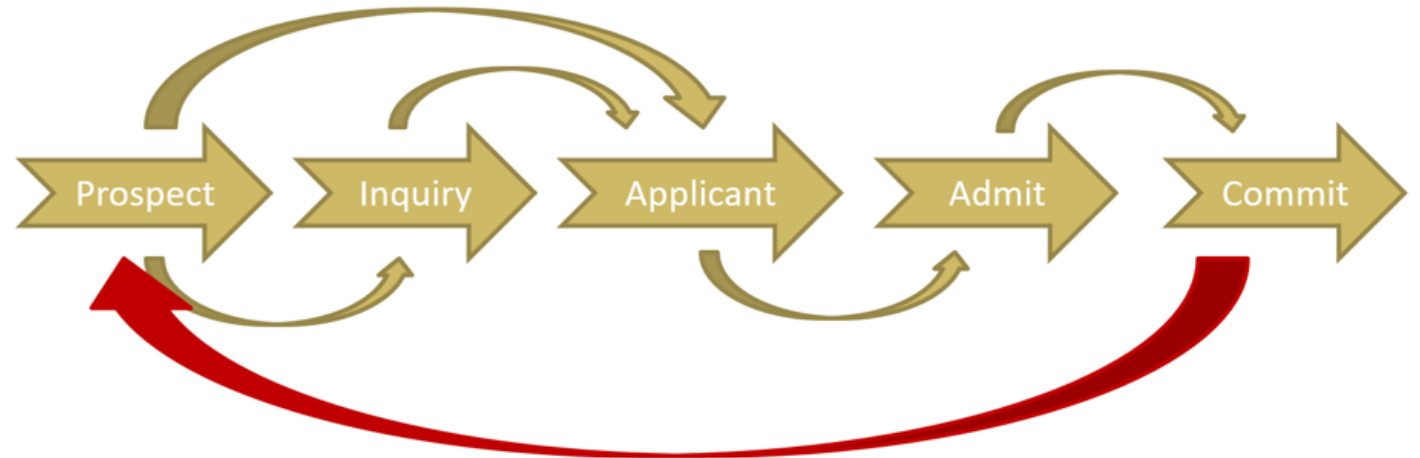
Conversion rates

Sub-group analysis (e.g. based on SEM plan mix goals, socio economic, etc.)

Explain significant changes

Document annually – what planned to achieve based on strategy vs. outcomes

Understand where you are losing students between initial interest and matriculation



New Student Studies

What are some
of the
enrollment
questions?

What data is
needed?

What do/might we know about prospects?

- Home address/zip/postal code
- Major/interests
- High school/transfer school
- GPA – self-reported
- Institutional preference data

What more do we know about applicants?

- Test scores (if used)
- GPA – actual
- AP or college credit results
- Financial position from FAFSA (Filer vs. Non-filer)
- Alumni relationships
- Non-cognitive variables (motivation, support, etc.)

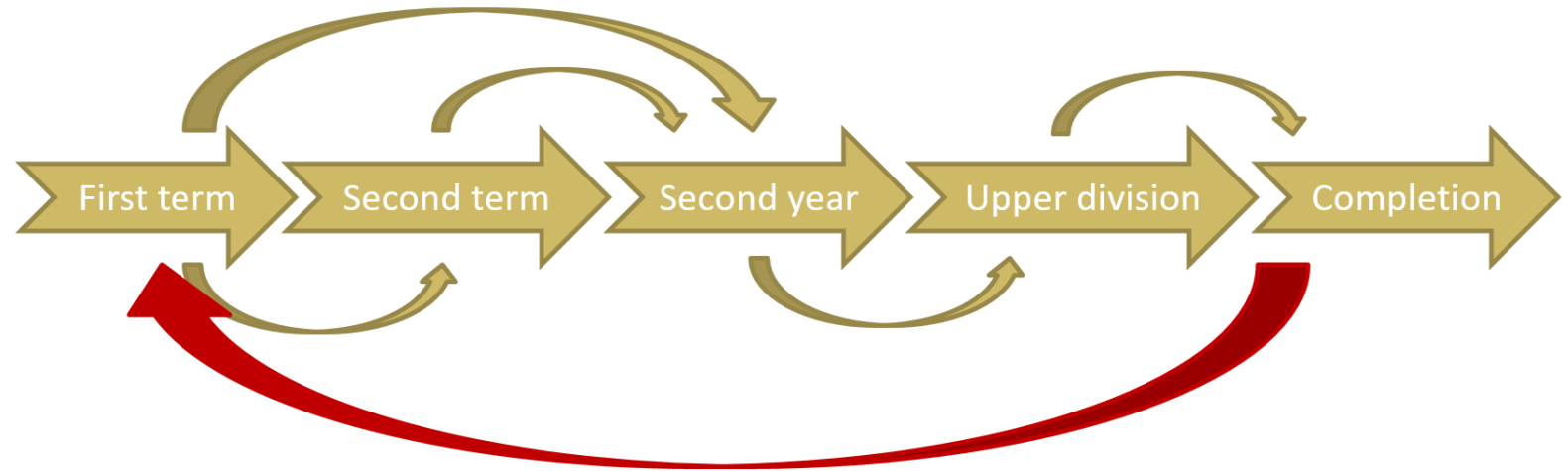
Questions to be addressed – at each stage:

Conversion rates by cohort

Sub-group analysis for SEM target groups (e.g. SEM plan's mix goals, socio economic, etc.)

Explain significant changes -- **Why did some students leave or stay in greater percentages?** *Look at quantitative and qualitative data.*

Understand where you are losing students between matriculation and completion



Retention Studies

Key Performance Indicators and Instruments for Retention Audit ... data gathering examples

1. Freshmen to sophomore persistence rate
2. Fall2 to fall3 persistence rate
3. Four-year, five-year and six-year graduation rate
4. Students leaving identified on early warning system
5. Withdrawal surveys & interviews
6. Non-returning follow-up telephone surveys
7. Academic profile, specifically GPA, course work completed, and ACT/SAT scores.
8. Academic profile coupled with financial need profile (PELL eligible, various need levels, no FASFA filed).
9. Student satisfaction levels
10. Faculty evaluations and At-Risk Student Warnings
11. Stop-out Rate: Students who withdraw and return

Core
Assessments
... examples
*Knowing why
students
chose your
campus,
stayed or left*

New Student Survey (prior to start of classes)

Withdrawal Survey (prior to cancelling classes)

Phone/Email Survey of Non-Returning Students (2-4 weeks prior to start of term)

Student Satisfaction Survey (all returning students)

Graduating Student Survey (prior to commencement or within the first six months after graduating)

Goal Setting and Data Analysis

Step 2

To build confidence in data analysis, need to create data legend focused on addressing business questions.

Collaboration of key stakeholders essential.

- List data elements required
- Clarify definitions and metrics
- Identify data source (system, table, field)
- Data categorization or transformation to improve analysis
 - Transform -- birthdate data changed to age at entrance
 - Categorize -- based on ACT and HS-GPA combo, set quartiles
- Key constituents must approve legend before data extraction begins

Data Legend Example

Action Step: Insert the thumb drive and click on Excel titled

Data Legend-example

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1		AACRAO Consulting						
2		DATA LEGEND -- example			Include a statement about focus of the analysis	Date: (Last updated)		
4		<i>Decision: What do you want to know about student enrollment (business questions) and then build list of data elements and sources to answer your questions.</i>						
5		<i>Example: Data is based on what was known at Fall Census (10th day) for new admits.</i>						
8					<i>Note: If Code and its explanation does not fit within this explanation column, Institution to add code/explanation worksheet to this file</i>			
9	Col	Data Group	Column Header	Format	Explanation	Notes	Source System	
10		Demographic and ID information -- new students						
11	A		Term/Year	Text	Example: F16, F15, F14		<i>In order to replicate study, need to identify in this column where each item (A, B, C, etc.) came from (system/data table).</i>	
12	B		ID number	Text	System generated number and is different from Student ID			
13	C		Gender	Text	M, F, T or other			
14	D		lpeds_ethnic	Text				
15	E	<i>Transforms Data</i>	Regroup_ethnic	Text	Takes IPEDS data and reorganizes into useful groups for analysis --1Non U.S. Citizen; 2Race Unknown; 3U.S. Minorities, 4White			
16	F		Home City	Text				
17	G		Home State	Text				
18	H		Home zip	Text				
19	I		Home County	Text				

Data Legend process ...

Create data sections, such as:

- Demographic .. Information that rarely changes
- Admissions application or database
- Financial aid application or database
- Enrolled student information
 - Cohort, Term/Year, Student type specific, etc.

In modeling, you are looking for patterns of behaviors based on reported data

No data is extracted for data analysis until there is approval of data legend

Goal Setting and Data Analysis

Step 3

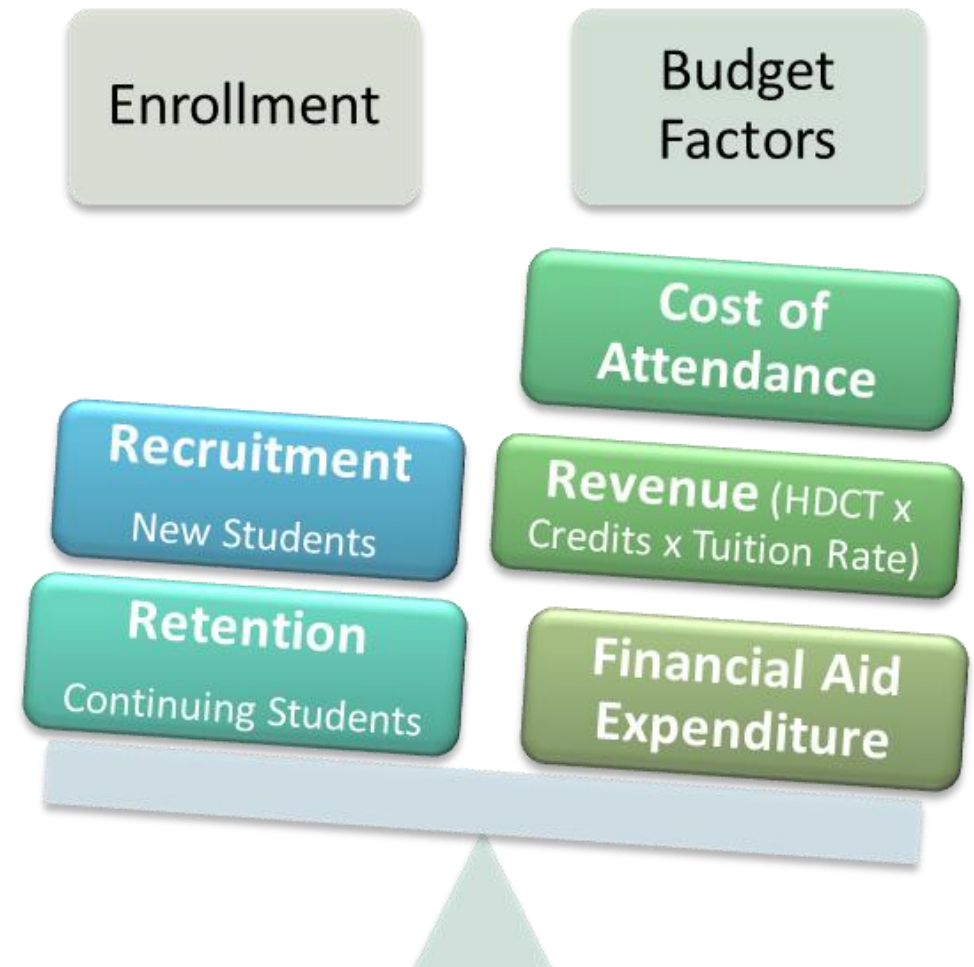
Create database for analysis – ensure Key Performance Indicators are included.

- Validate data for completeness and accuracy
Bad Data In = Poor Data; results in inaccurate analysis
Data extraction and validation is an iterative process
- Data used to support Trend Analysis and Predictive Analytics

Time consuming process; consider resources required to sustain process

Goal Setting and Data Analysis- Recap

1. Identify business questions and goals
2. Create data legend to address questions.
3. Create data set; ensure KPI's are included.
- 4. Data segmentation** – start with macro, then identify sub-sets.
- 5. Build baseline year** and track trends overtime.





Enrollment Projections / Models

*...begin with the end in
mind*

Enrollment Projections are tied to:



Understanding **primary drivers** that impact enrollment & revenue outcomes



Understanding how **new tactics deployed** influence trends lines and future projections



Using **information to influence** future strategy & decisions



Refining models to adjust for changes in enrollment plan, strategies and/or goals









Analyzing current trends to project future

Interactive Session – Enrollment Models

*Please stay with
me....*

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Q&A and Follow-up

Janet Ward, AACRAO Senior Consultant

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Please complete the session evaluation using the AACRAO mobile app.

