


Building A Culture of Evidence and Inquiry Through Increasing Data Use



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An Exercise

- ▶ Thinking back about what led you to a career in education, what inspired you to enter into this career?
- ▶ We have found that it is usually related to a connection you had with someone – a family member, a friend, an educator.
- ▶ **Sharing...**

Learning Expectations

- Discover what is meant by *Culture Change*
- Understand principles of good data use
- Understand practices of good data use
- Determine what data your college should focus on in supporting MC's big goal

Culture and Behavior

- The kiss of death...saying you are trying to change culture
- Culture*: the beliefs, customs, arts, etc., of a particular society, group, place, or time
- Behavior*: the way a person or animal acts or behaves

* www.merriam-webster.com/dictionary

Moving to a Culture of Evidence: Applying Theory to Practice

- Psychology
 - Neuroscience
 - Behavioral Economics
- To Influence...

- Analytics
- Human judgment & decision-making
- Organizational habits

Assumptions About Culture of Evidence

Traditional Assumptions

Staff are eager to engage in discussions about student performance

Just knowing there is a problem is enough to make a change

We know how to fix a certain type of problem

Organizations can change practices and policies

Staff are willing and eager to make improvements in student success

Reality

The expression “pulling teeth” comes to mind

There is often disagreement about the extent of a problem

If we did, we would not be in this room

Very difficult to do easily – often takes years (phase-in)

Human nature is to keep things the same



An Exercise

Think about one piece of data that has made a difference in your life.

What was that data?

Sharing...

DENIAL

Sorry, there are no french fries any more...

What?



That's not possible! I just saw a guy walking out this shop with a bag full of french fries!



ANGER

You better hand me your french fries or I'll kick your ass to the moon!



BARGAINING

Come on! I'm sure you have one or two left. Let's just say, I take what's left and I leave, ok?



DEPRESSION

I'll never taste the sweet flavor of french fries again... boooohooo...



ACCEPTANCE

OK... can I have a hamburger then?



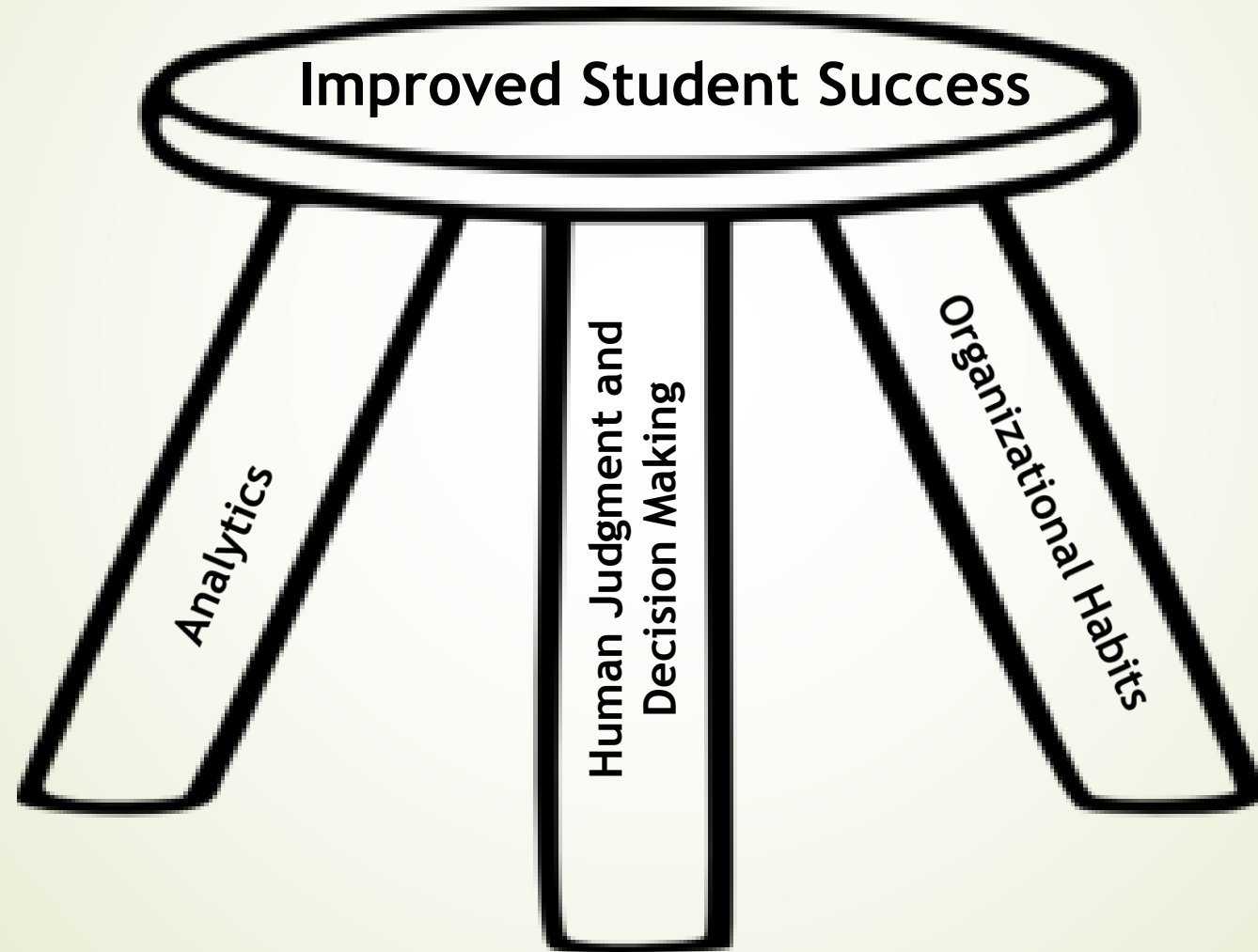
Shock and Denial

Think about how data is currently presented at your college.

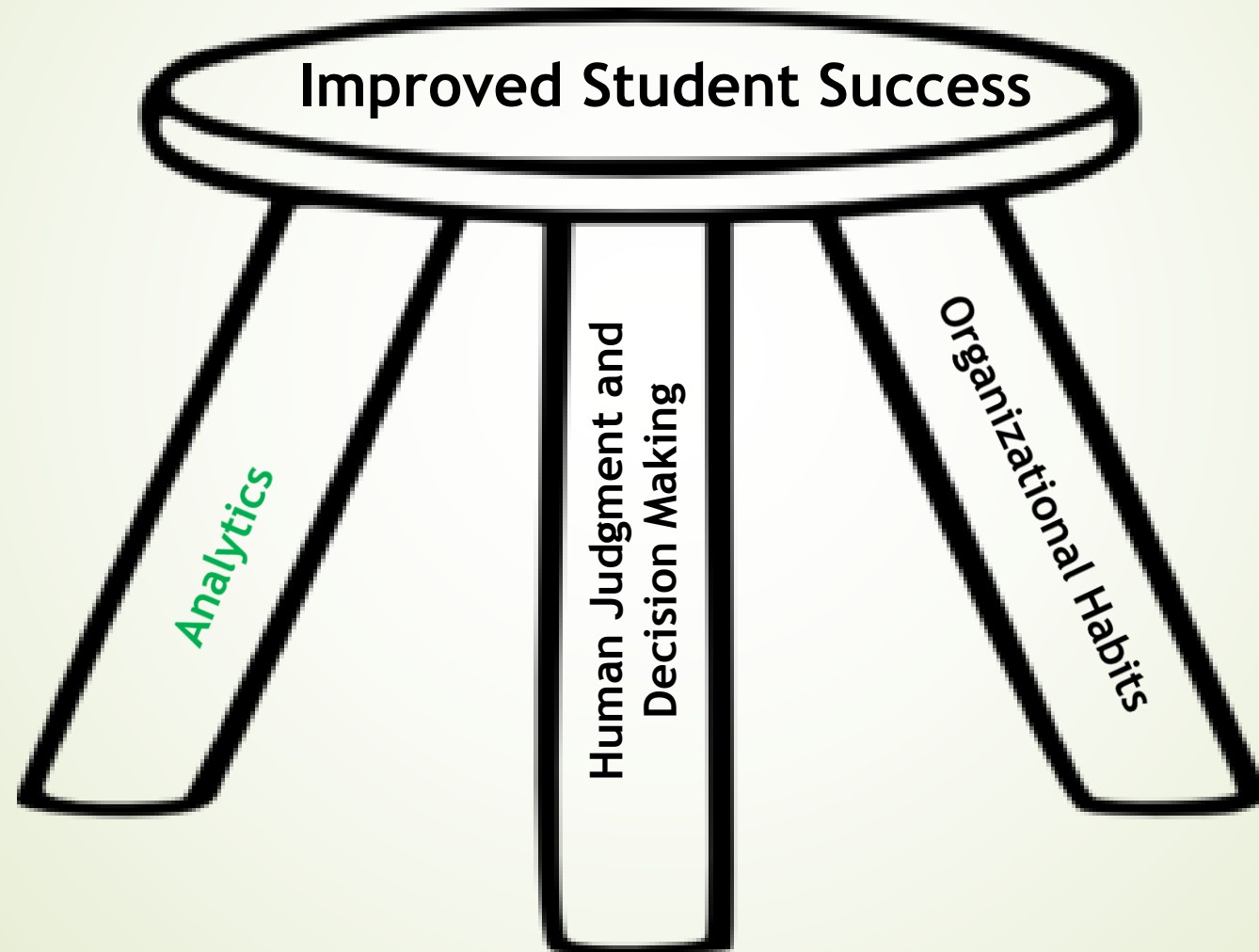
How can you create an environment that sets a positive context for reviewing data?



IEBC's Model



IEBC's Model



Typical Student Tracking Outcomes: The Rational Side of Things

Firefox 1 | FinishWhatYouStart_BrowardCollege... | http://www.aacc.nche.edu/About/completionchallenge/Documents/FinishWhatYouStart_BrowardCollege.pdf

Most Visited | Getting Started | Latest Headlines | 27 / 31 | 139% | Find

College Prep FTIC Students

Fall Term Cohorts

| Milestone/Momentum Point/On-Track Indicator | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Number of Students | 2,557 | 2,719 | 3,102 | 3,159 | 3,185 | 3,268 | 3,237 | 3,448 | 3,409 | 3,588 |
| Completed College Math Credits in First Two Years | 16% | 19% | 22% | 22% | 24% | 23% | 27% | 27% | 27% | |
| Completed College English Credits in First Two Years | 34% | 41% | 47% | 49% | 50% | 50% | 53% | 53% | 57% | |
| Attempted 12 or More Credits in First Term | 40% | 45% | 50% | 49% | 49% | 48% | 49% | 47% | 50% | 50% |
| Earned 12 or More Credits in First Term | 18% | 19% | 24% | 21% | 21% | 26% | 24% | 26% | 27% | 28% |
| Earned General Education Credits in First Term | 28% | 34% | 39% | 42% | 41% | 41% | 41% | 45% | 49% | 51% |
| GPA of 2.5 or Greater in First Term | 36% | 35% | 40% | 38% | 36% | 43% | 40% | 42% | 44% | 47% |
| No Withdrawals or Failures in First Term | 41% | 39% | 44% | 41% | 40% | 47% | 42% | 45% | 45% | 48% |
| No Withdrawals or Repeats in First Year | 41% | 37% | 38% | 41% | 39% | 43% | 43% | 42% | 42% | 44% |
| Earned 12 or more Credits in First Year (Any-level) | 44% | 50% | 56% | 54% | 51% | 55% | 56% | 60% | 63% | 68% |
| Earned 12 or more College Credits in First Year | 19% | 22% | 27% | 28% | 27% | 28% | 33% | 35% | 37% | 42% |
| Earned 30 or more Credits in First Year (Any level) | 5% | 5% | 5% | 5% | 5% | 5% | 6% | 9% | 9% | 11% |
| Earned 30 or more College Credits in First Year | 1% | 1% | 1% | 1% | 1% | 1% | 1% | 2% | 2% | 2% |
| Earned 20 or more Credits in First Year | 24% | 26% | 29% | 27% | 27% | 29% | 32% | 35% | 37% | 41% |
| Earned General Education Credits in First Year | 47% | 53% | 59% | 61% | 60% | 61% | 61% | 65% | 69% | 73% |
| GPA of 3.25 or Greater in First Year | 12% | 10% | 10% | 10% | 9% | 11% | 9% | 10% | 11% | 12% |
| GPA of 2.5 or Greater in First Year | 27% | 26% | 28% | 28% | 26% | 30% | 29% | 33% | 33% | 35% |
| Earned at least 80% of Credits Attempted | 42% | 39% | 44% | 42% | 41% | 46% | 45% | 49% | 49% | 51% |
| Pell Award Recipient in First Year | 28% | 36% | 37% | 36% | 35% | 32% | 32% | 37% | 42% | 57% |
| Retained to 2nd Term | 64% | 70% | 73% | 71% | 70% | 72% | 74% | 76% | 79% | 82% |
| Retained to 2nd Year | 46% | 50% | 53% | 54% | 52% | 52% | 57% | 58% | 62% | |
| Enrolled in First Summer | 29% | 33% | 35% | 34% | 33% | 31% | 34% | 36% | 37% | 44% |
| Enrolled in Second Summer | 22% | 26% | 27% | 27% | 24% | 25% | 30% | 30% | 35% | |
| No Delay in Enrollment | 59% | 63% | 66% | 68% | 70% | 72% | 76% | 78% | 78% | 86% |
| Underrepresented Race or Ethnicity | 56% | 59% | 58% | 61% | 65% | 69% | 69% | 70% | 70% | 75% |
| Foreign Born | 29% | 28% | 28% | 29% | 30% | 29% | 28% | 29% | 28% | 26% |
| First Generation in College | | | | | | | | 37% | 38% | 42% |
| Average number of terms enrolled in First Year | 1.9 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.3 |
| Age 25 or older at start | 23% | 21% | 20% | 16% | 15% | 13% | 12% | 9% | 9% | 12% |
| Female | 56% | 57% | 57% | 57% | 58% | 56% | 55% | 54% | 54% | 56% |

Useless Statistics – but we can't seem to look away...

- ▶ Qatar has the lowest death rate in the world at 1.6 deaths for every 1,000 persons.
- ▶ Couples who marry in January, February and March tend to have the highest divorce rates.
- ▶ On average, 100 people choke to death on ballpoint pens every year.
- ▶ In the United States, at any given moment, there are over two million impaired drivers on the road.
- ▶ Right-handed people live, on average; nine years longer than left handed people.
- ▶ Count the number of cricket chirps in a 15-second period, add 37 to the total, and your result will be very close to the actual outdoor Fahrenheit temperature.

Beyond mandated reporting, only report data if it needed to inform a decision

Leading and Lagging Indicators

- Borrowed from the fields of economics and business
- Leading indicators are in your control and lead to your hoped-for success
- Lagging indicators are affected by what you do to influence your leading indicators
- What is leading and what is lagging depends on where you stand

High School



Community College





Typical Data

Student Data:

- Enrollment rates
- Retention rates
- Course success rates
- Overall course success
- Persistence rates
- Credit milestone attainment
- Completion of develop. ed
- Graduation rates
- Transfer rates

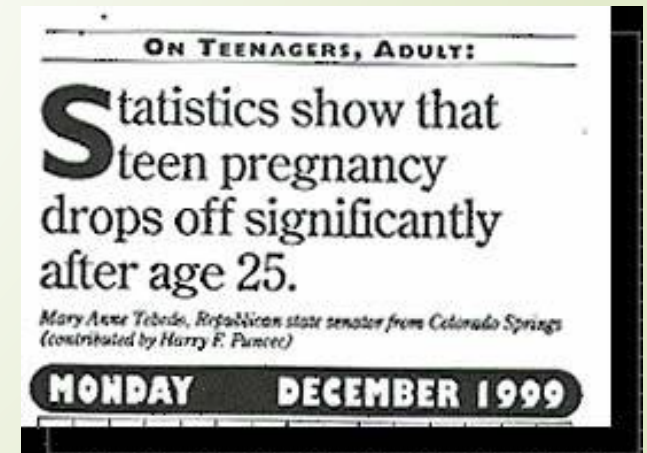
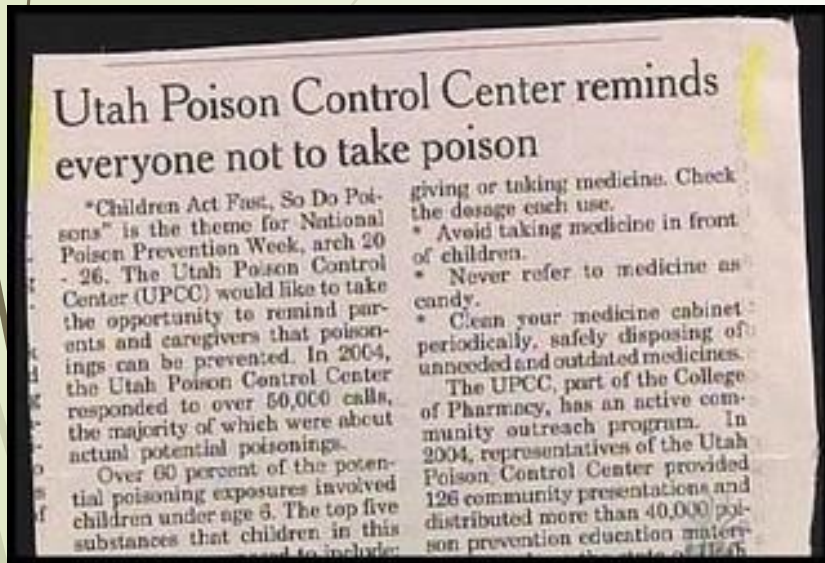
Data Disaggregated by:

- Race/ethnicity
- Gender
- Pell recipient (ever)
- Entering cohort year
- Age

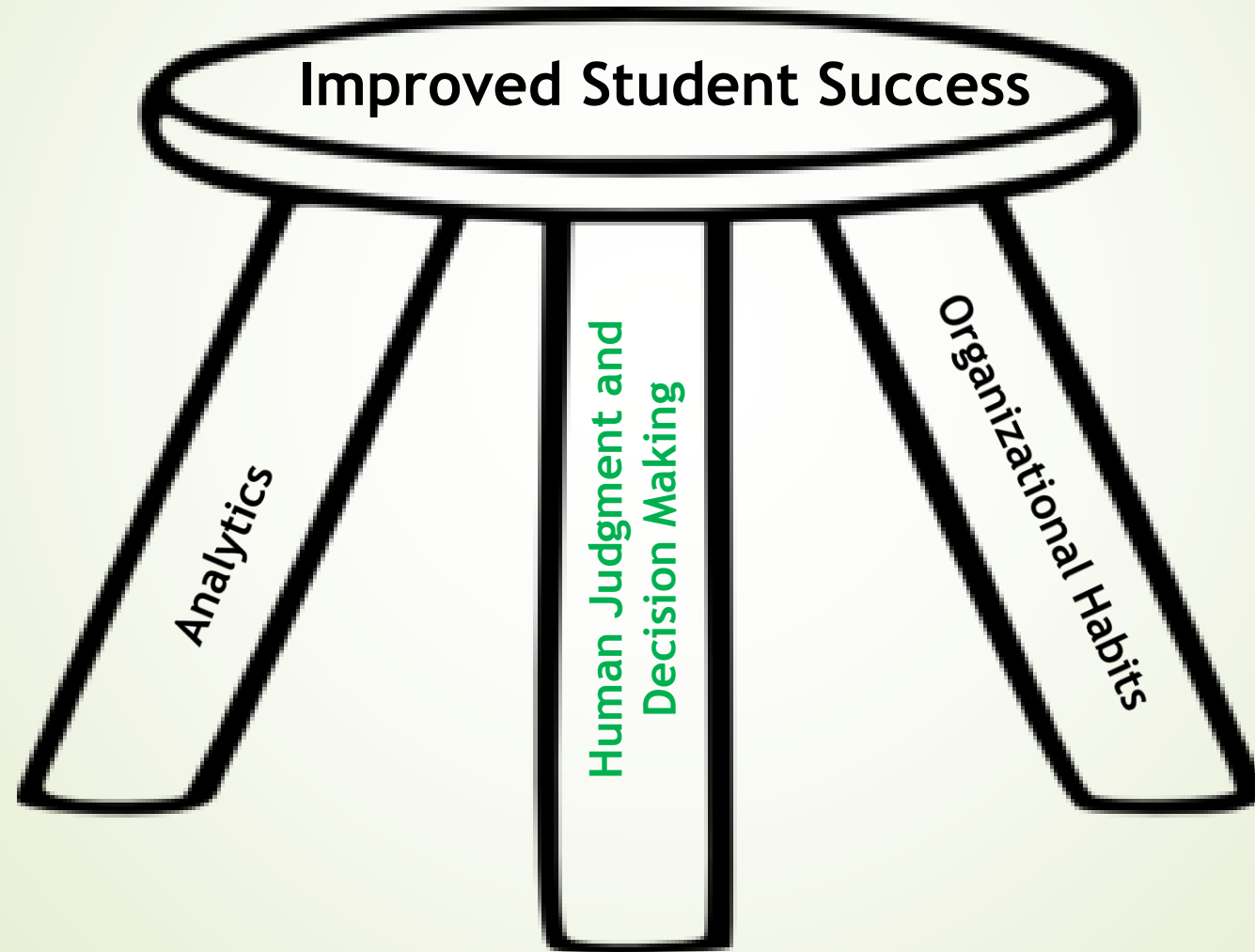
Exercise: What data do you have the power to influence?

Where is the Story?

- Statistics do not matter...it is the story behind the numbers that matter



IEBC's Model



A Quick Test

Here is a simple puzzle. Do not try to solve it but listen to your intuition:

A bat and ball cost \$1.10. The bat costs one dollar more than the ball. How much does the ball cost?



A Quick Test

10¢

The distinctive mark of this easy puzzle is that it evokes an answer that is intuitive, appealing

A Quick Test



The distinctive mark of this easy puzzle is that it evokes an answer that is intuitive, appealing **and wrong!**

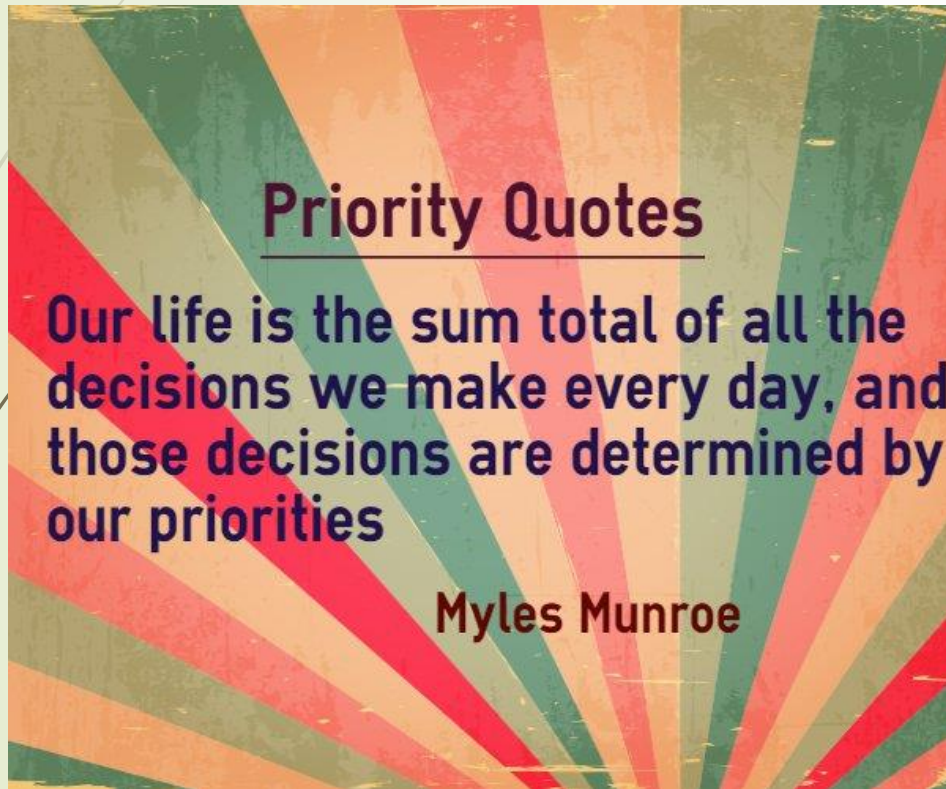
A Quick Test

5¢

The distinctive mark of this easy puzzle is that it evokes an answer that is intuitive, appealing, and wrong.

If the ball costs 10¢, then the total cost will be \$1.20 (10¢ for the ball and \$1.10 for the bat), not \$1.10. The correct answer is 5¢.

Making a Decision



- What decisions need to be made by you and your department?
- What data helps you and your department make a decision?
- How does that data help?

Human Judgment & Decision Making

- Data must be easy to understand
- Messages need to be explicit - What do you want them to take away?
- Chart Title...

Make it Explicit

Chemistry Enrollment by Ethnicity

| | | Year One | Year Two | Year Three |
|------------------|--------|----------|----------|------------|
| African American | Male | 15% | 17% | 16% |
| | Female | 18% | 20% | 18% |
| Hispanic | Male | 16% | 16% | 17% |
| | Female | 15% | 19% | 23% |
| Caucasian | Male | 22% | 25% | 23% |
| | Female | 20% | 19% | 19% |
| Asian | Male | 26% | 24% | 26% |
| | Female | 19% | 22% | 21% |

Make it Explicit

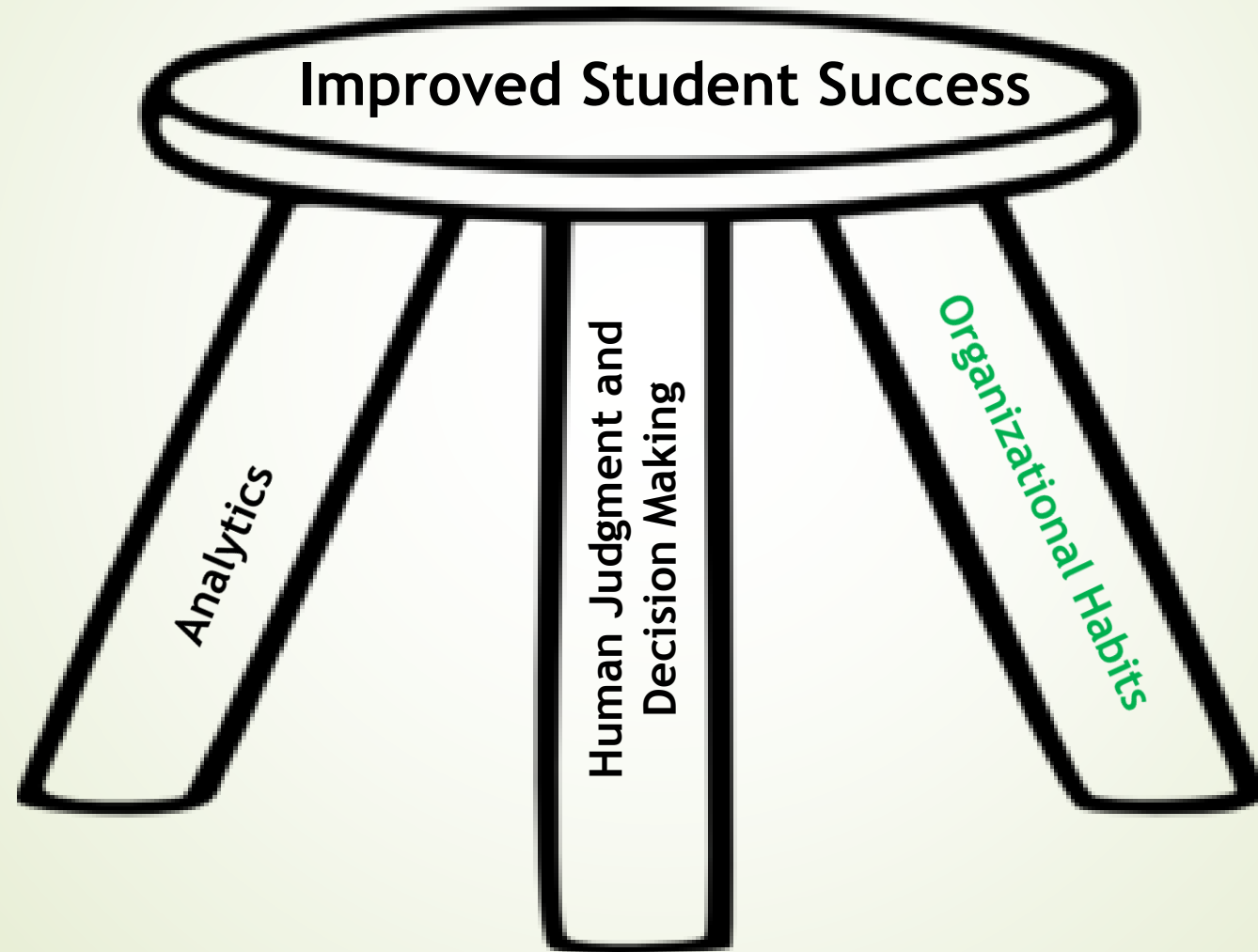
Hispanic Female Chemistry Enrollment Has Increased

| | | Year One | Year Two | Year Three |
|------------------|--------|----------|----------|------------|
| African American | Male | 15% | 17% | 16% |
| | Female | 18% | 20% | 18% |
| Hispanic | Male | 16% | 16% | 17% |
| | Female | 15% | 19% | 23% |
| Caucasian | Male | 22% | 25% | 23% |
| | Female | 20% | 19% | 19% |
| Asian | Male | 26% | 24% | 26% |
| | Female | 19% | 22% | 21% |

The Power of One



IEBC's Model



Habit Loop

THE SATURDAY EVENING POST 77

New Improved Pepsodent Removes FILM Amazingly!

In just 7 days—see a wonderful difference in the brightness of your teeth and the freshness of your breath—or we'll give you

DOUBLE YOUR MONEY BACK!

Run the tip of your tongue over your teeth. If you feel a slippery coating there—You have FILM.

Why FILM must be removed

1. FILM collects stains that make teeth look dull
2. FILM harbors germs that breed bad breath
3. FILM glues acid to your teeth
4. FILM never lets up—it forms continually on everyone's teeth

Now Faster Foaming! New Pepsodent Sweeps FILM Away!

If you yourself don't agree new improved Pepsodent brings a thrilling brightness to your teeth, new freshness to your breath—we'll return twice what you paid! New Pepsodent foams wonderfully—goes to work faster, fighting film and its harmful effects in all these ways: (1) Pepsodent makes short work of the discoloring stains that collect on film. (2) It routs film's "bad breath" germs that cause food particles to decay. (3) Pepsodent's film-removing action helps protect you from acid produced by germs that lurk in film. This acid, many dentists agree, is the cause of tooth decay. (4) Film forms continually. Remove it regularly and quickly with Pepsodent.

Try New Pepsodent now on our double-your-money-back guarantee. No other tooth paste can duplicate Pepsodent's film-removing formula! No other tooth paste contains Itrium—or Pepsodent's gentle polishing agent! Get new fast-foaming Pepsodent with Itrium today. Try it for 7 days. If you're not completely convinced it gives you cleaner breath and brighter teeth, just mail unused portion of tube to Pepsodent, Division Lever Bros. Co., Dept. G, Chicago, Ill.—and you'll receive double your money back, plus postage. Offer expires August 31, 1949. Remember, for the safety of your smile, use Pepsodent twice a day—see your dentist twice a year!

Another Fine Product of
Lever Brothers Company





What is a Habit?

- The Easter ham
- Emerge gradually
- Causes us to act without conscious thought
 - Drilling: Lock that in...
- Difficult to change
- Keystone habits – lead to good habits

What are some of your organization's habits around data?

Changing Habits: What Are Other Colleges Doing?

- ▶ Odessa College
 - ▶ Reviewed data on what they can control – leading indicators
 - ▶ Course retention
- ▶ San Jacinto College
 - ▶ Data on course success
 - ▶ “Just one more” campaign

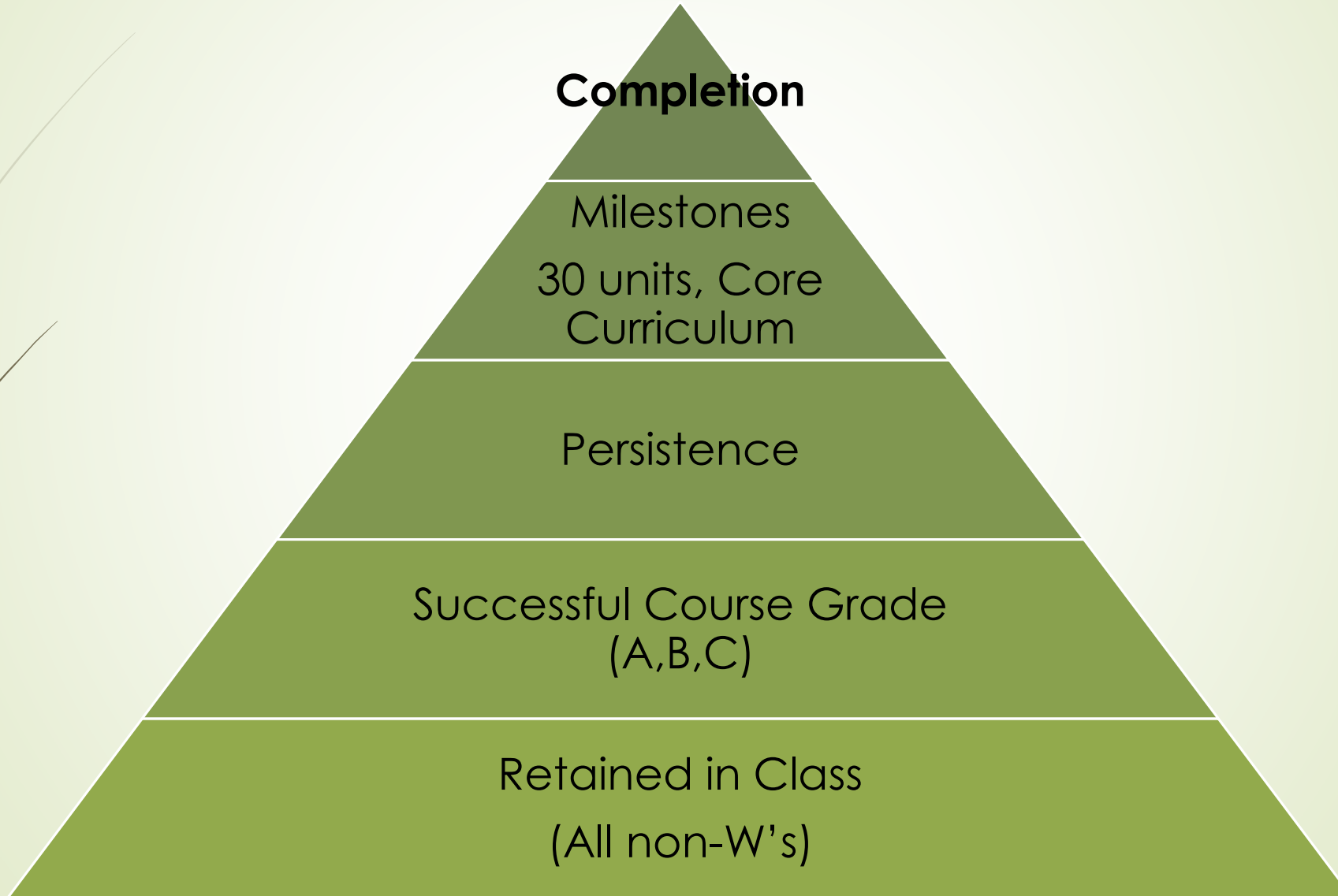
A Note on Celebration

Exercise:

How can you celebrate that you are working to improve student outcomes even though the data is not always positive?

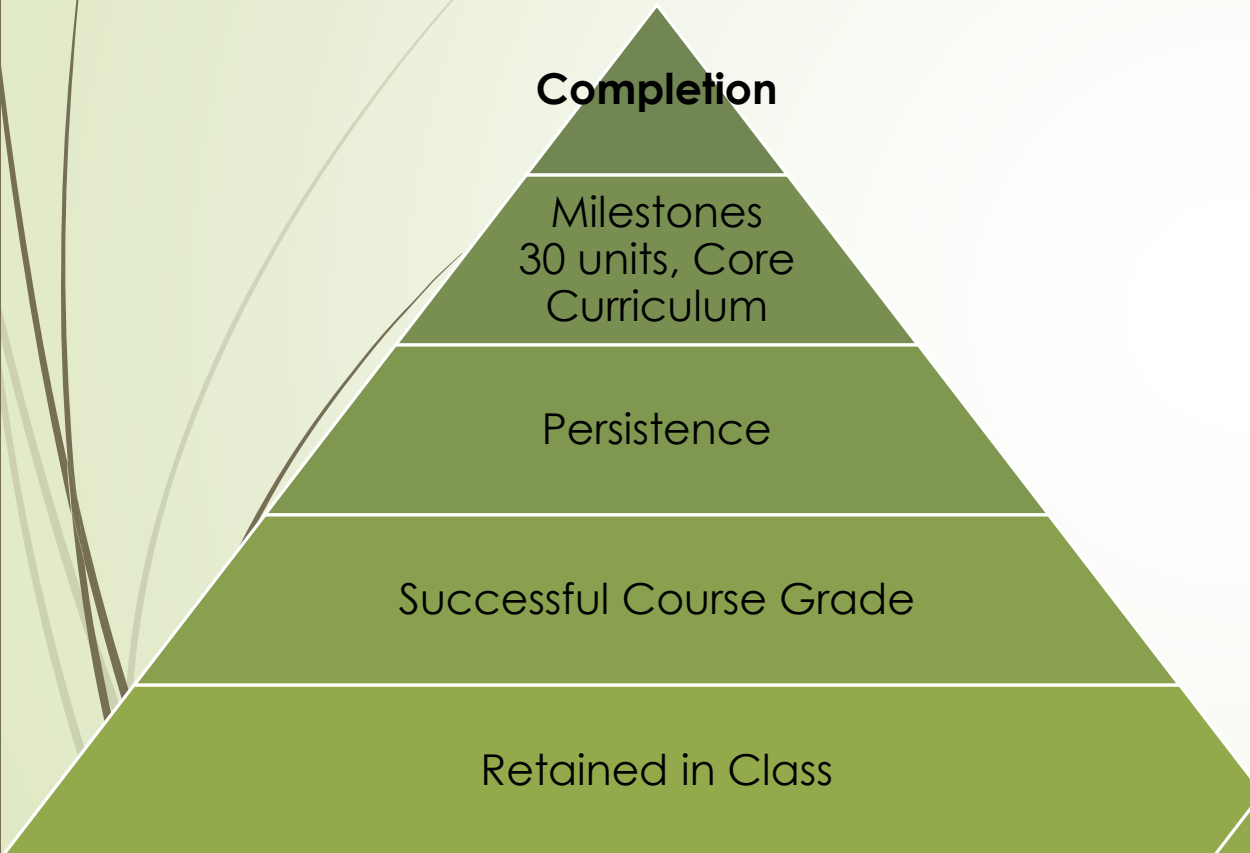


Sample Goal: Leading and Lagging Indicators

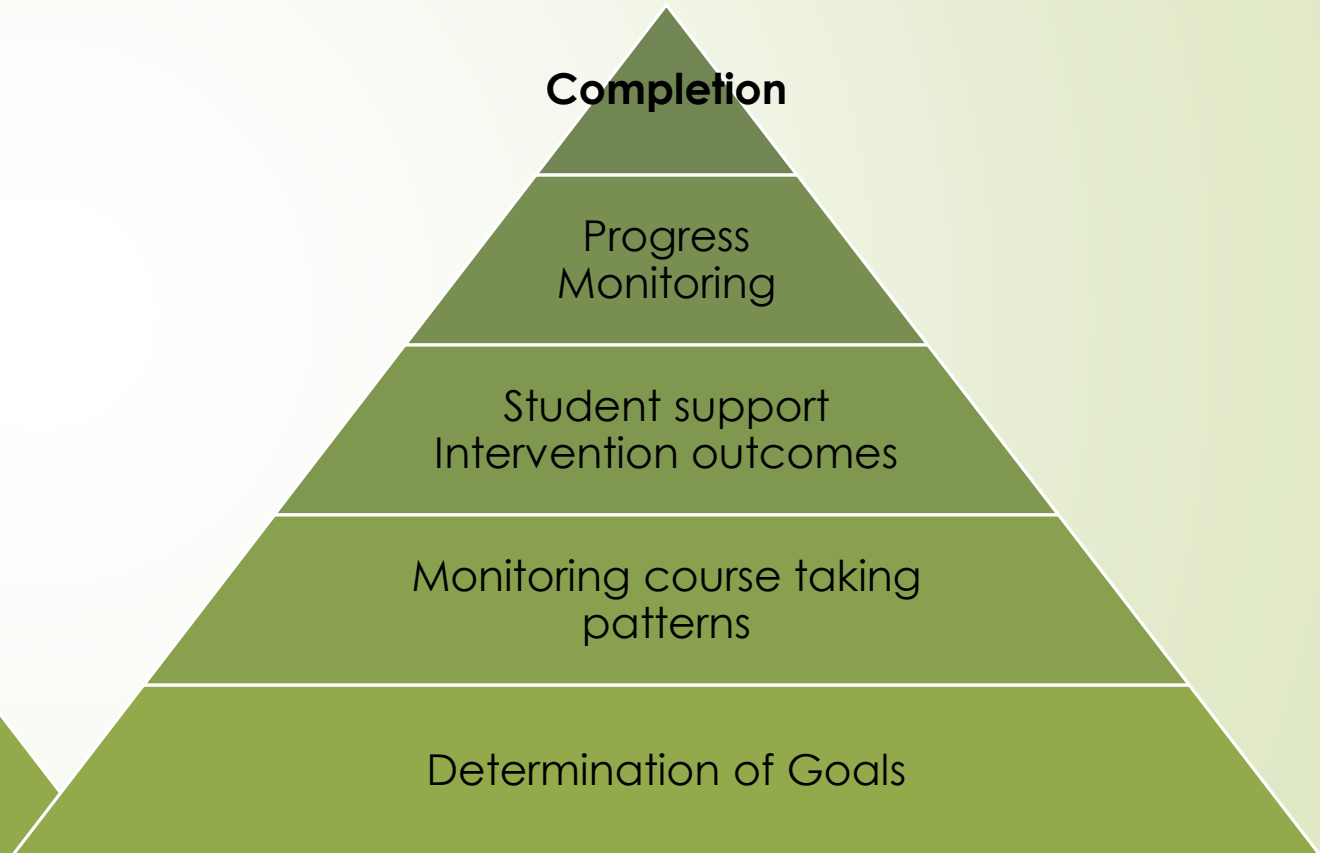


Leading and Lagging Indicators

Academic Outcomes Data



Student Services Data



Suggestions on the Big Goal

“Every Student Completes”

What Changes With a Big Goal?

- Pick the flowers, not the weeds
- Behaviors are oriented to the goal
- Does away with rationalization
- Closes the achievement gap
- Challenges assumptions
- Changes how we view students
- Changes our relationship to students
- Practice for 5 minutes a day this change

How to Get There: Small Steps

- The research is clear, changes are not made by big sweeping proclamations
- Changing behavior is incremental if it is to stick
- It is really about changing habits
- Starts with a clear vision
- Must describe a specific set of goals
- Goals lead to a set of behaviors
- Outcome of the behaviors must be measured (feedback)
 - Collect baseline measures
 - Set targets
 - Note that we talk a lot about a vision and a goal, but we need to focus on the middle:
Project management – how to get there – specific steps
- It will be three steps forward and two steps back – don't lose focus or hope



What Activities in Your Area Would Support a Focus on Completion?

- ▶ Think about the student experience
 - ▶ What does your department do to support student completion?
 - ▶ What data would help you better understand the effect of what you and your department does?
 - ▶ How often would you need that data?
 - ▶ If you had that data, what could you do to improve?
 - ▶ Report out

