

THE IMPORTANCE OF DATA-INFORMED ADVOCACY FOR STATE SYSTEMS

TRANSFORMING NUMBERS INTO NARRATIVES

SHEEO COMMUNITIES OF PRACTICE: STRENGTHENING DATA LITERACY
AMONG HIGHER EDUCATION STAKEHOLDERS (NOVEMBER 7, 2025)

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Data Whisperer



ABOUT ME



Carolyn Sloane Mata

Higher Education Consultant
CM Education Insights & Solution

Director/Coordinator of Data/Research for: NC, SC, GA, TX, OR
independent college associations

10 years as IPEDS Educator for NCES, frequent TRP invitee and
moderator

Led 5 cohorts of the AIR Data Literacy Institute

Coaching CA and HI cross-sector teams for the SHEEO Basic Needs
Academy

Served in IR at multiple institutions

Worked with AIR, Lumina, SHEEO, ECMC, NECHE, and SREB on
data/research projects

Assisted multiple institutions with accreditation self studies

ROADMAP



Current higher education climate



Why data -informed advocacy?



3 key lessons in data-informed advocacy



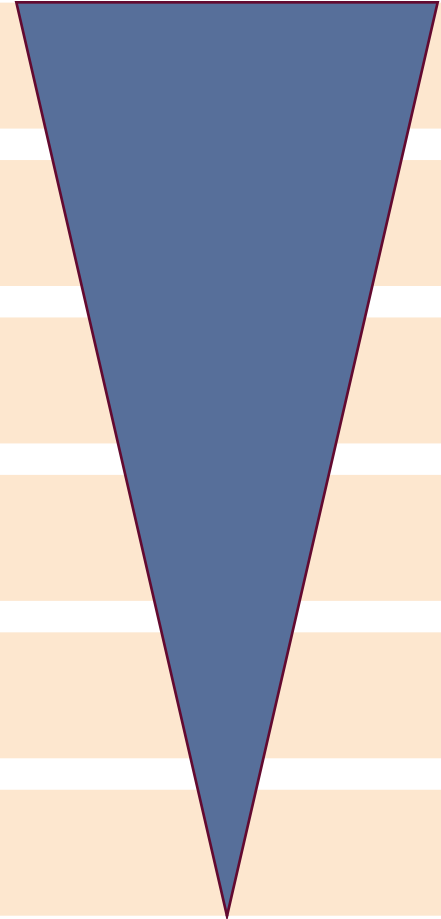
Starting with why and the importance of storytelling



Data that resonate – with examples



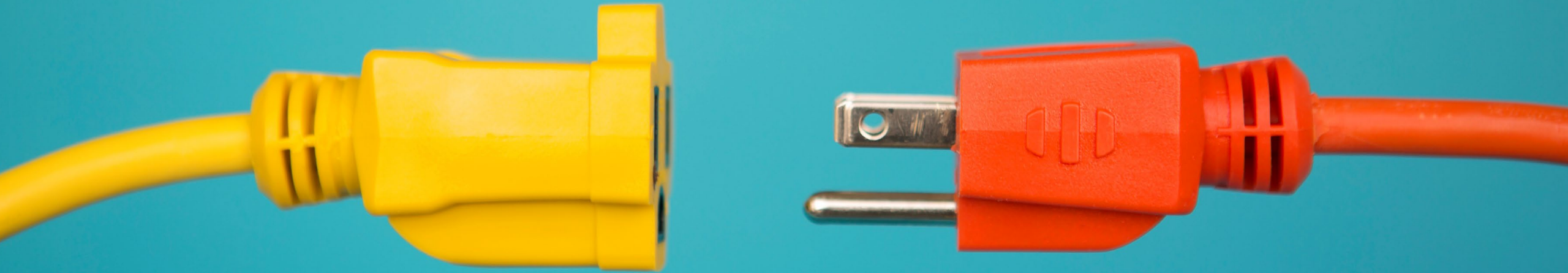
Where's the data?



BIG PICTURE/BIG DATA

"why data" → "how to use it" → "where to find it."

IF THE DATA IS ON OUR SIDE, WHY DO WE STRUGGLE IN GETTING OTHERS TO MAKE THE SAME CONNECTIONS?



THE IMPORTANCE OF DATA-INFORMED ADVOCACY

SPOILER ALERT: GRAPHS DON'T CHANGE MINDS!

WHY INFORMED ADVOCACY?



Increased scrutiny and funding limitations threaten colleges and state systems.



Policymakers need evidence to support higher education initiatives.



Data translates mission into measurable impact.



Advocacy is stronger when rooted in facts and narratives.

3 KEY LESSONS

MANTRAS I REMIND MYSELF IN ADVOCATING FOR HIGHER EDUCATION

LESSON 1: KNOW YOUR AUDIENCE



Tailor your data to what your audience values – same data point, different message.



Legislators may care more about job placement or ROI than academic accolades.



Community leaders might prioritize economic development and local partnerships.

THE AUDIENCE

Legislator (workforce-oriented)

Legislator (budget-conscious)

Governor's policy staff all in on technical/CC

Chamber of Commerce leader (rural area)

WHAT THEY CARE ABOUT

Jobs, local industry alignment, workforce pipelines

ROI, efficient use of state funds, public accountability

Articulation, transfer success

Regional talent retention, skill building, economic impact

HOW TO FRAME

Our graduates are filling your high-demand job needs

We deliver strong outcomes at a reasonable cost to the state

We're part of the pipeline, not the competition

Well-rounded supply the talent that keeps economies strong, largest employers

LESSON 2: START WITH THE “WHY”



Numbers alone
won't move hearts
or budgets



Contextualize every
data point with a
story, trend, or
community impact.



Lead with purpose,
then support with
data.

Data is the *proof*. But your *why* is the point.



The Difference

- a) Our graduation rate is 62%.
- b) Six out of ten students—many of them first-gen or Pell-eligible—are crossing the finish line, entering the workforce, and contributing to our state economy.

THE STATISTIC

42% Pell eligible students

60% of grads stay in state

20% transfer from
community colleges

Average student debt \$7k
below national average

WHY IT MATTERS

Expanding access to
underserved students

Retaining local talent in
workforce

Strong 2- to 4-year
pathways

Lower financial burden on
graduates

THE IMPACT

Upward mobility for families

Boosts state economic
growth

Maximized completions
across systems

Graduates with freedom to
thrive and low default rates



The Difference

- a) 60% of our graduates stay in-state to work.
- b) More than half of students who graduate from our colleges remain in the state. We're not just educating students—we're investing in the local workforce pipeline.

LESSON 3: NOT ALL DATA IS WORTH THE SQUEEZE



Complex data/information can confuse rather than clarify for the audience.

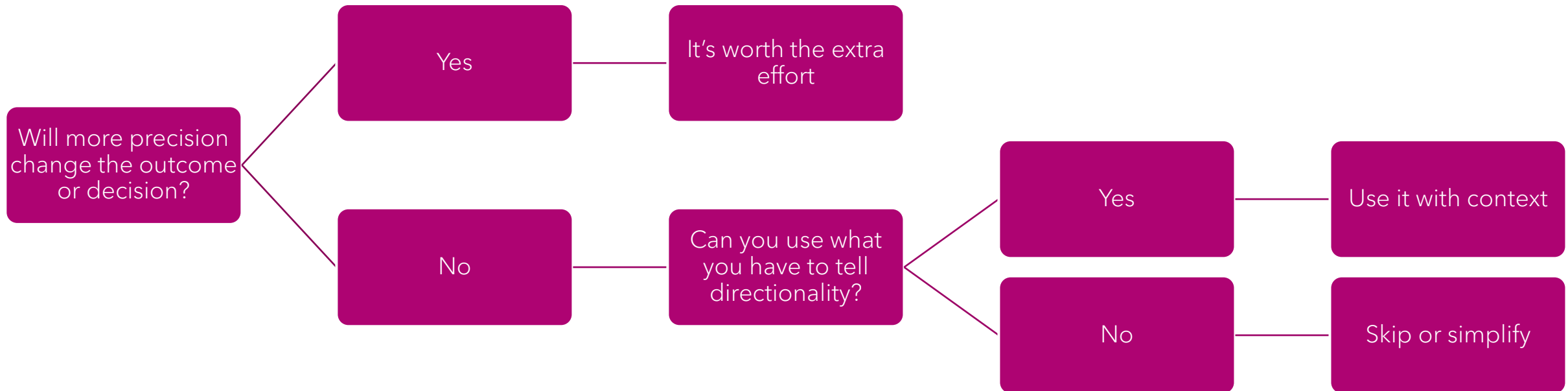


Consider the time and effort required to extract meaningful insights. When is enough, enough?



Focus on data that is timely, accurate, and clearly supports your message.

FLOWCHART: HOW MUCH JUICE TO SQUEEZE?



THE POWER OF “WHY”

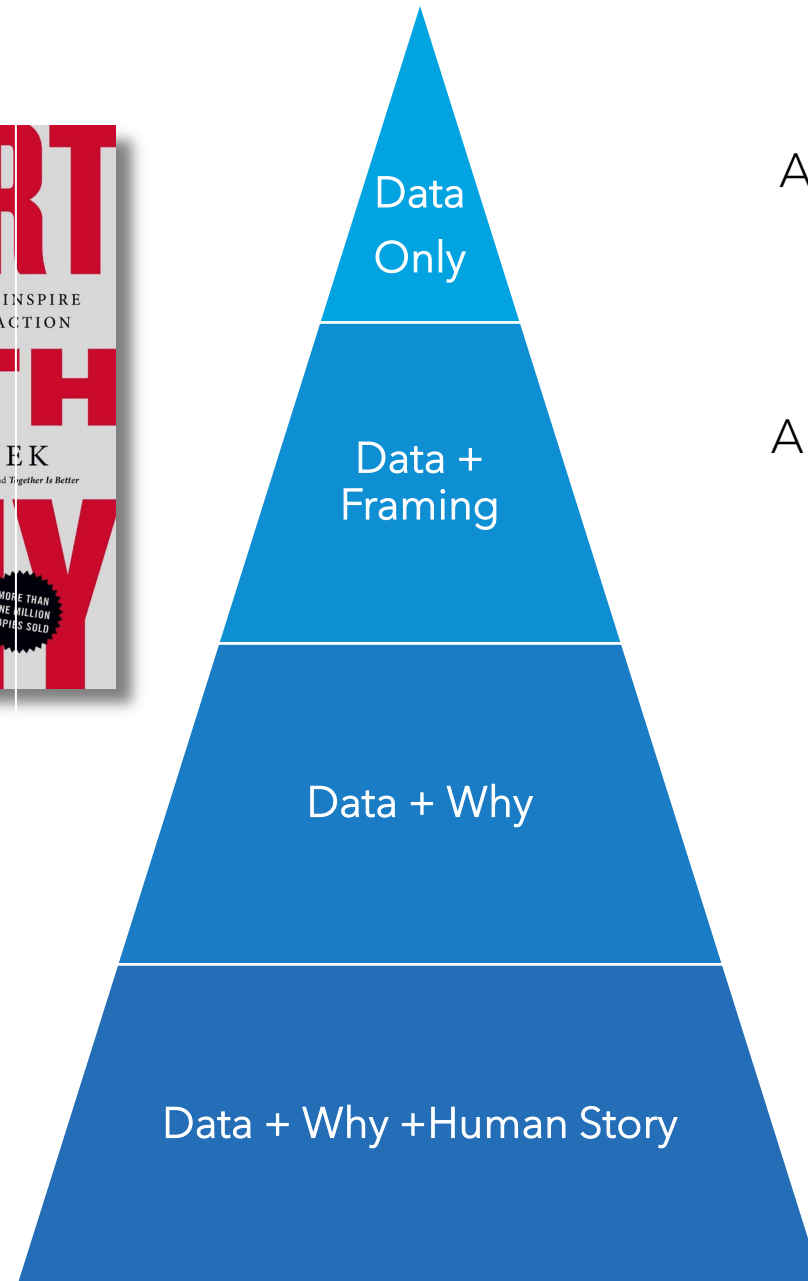
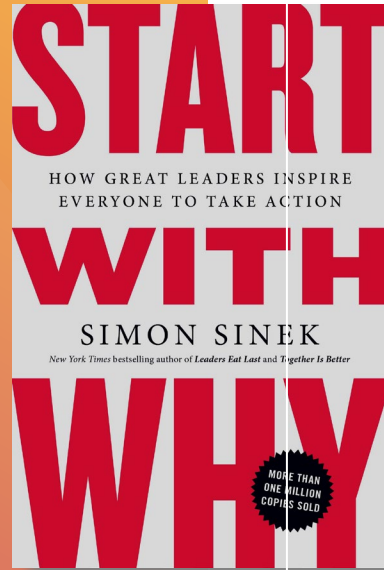
MAKE THE IMPLICIT....EXPLICIT

THE POWER OF 'WHY'

Framing data around values builds emotional connection.

Helps policymakers and the public connect to your institution's mission.

Elevates statistics into a compelling story.



A statistic without a story

A trend with some structure

A value-driven message

The message that moves people

STARTING WITH “WHY”

“People don’t buy what you do—they buy why you do it”

Emotions drive decisions—data justifies them

Purpose > policy details

Start with values, end with validation

WHY DATA MATTERS IN ADVOCACY

01

Data is crucial for highlighting the value of higher education.

02

It helps in crafting narratives that resonate with stakeholders, especially amidst budget challenges.

03

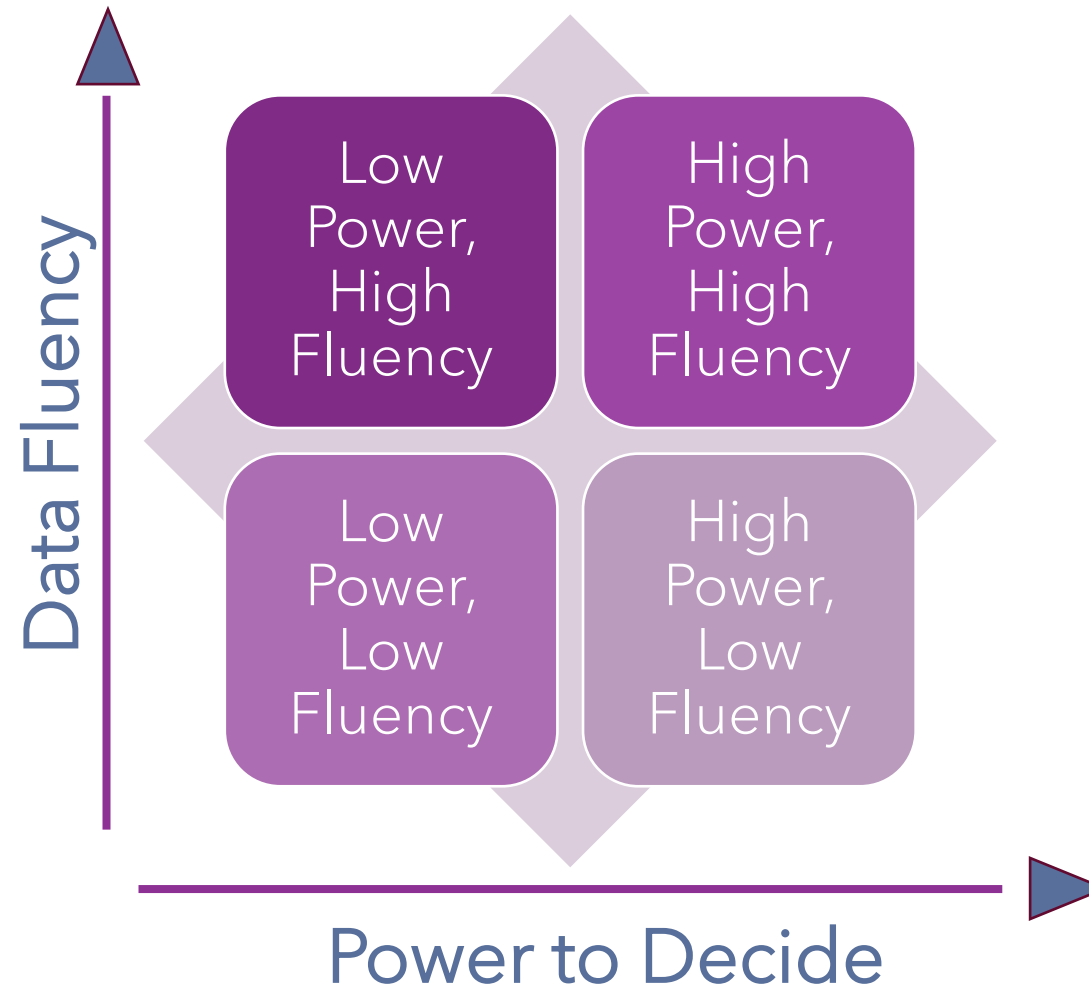
We know our story – they don't.

04

Even when people don't care about data, they care about data.

When do we get in the weeds and when do we fly at 30,000 feet?

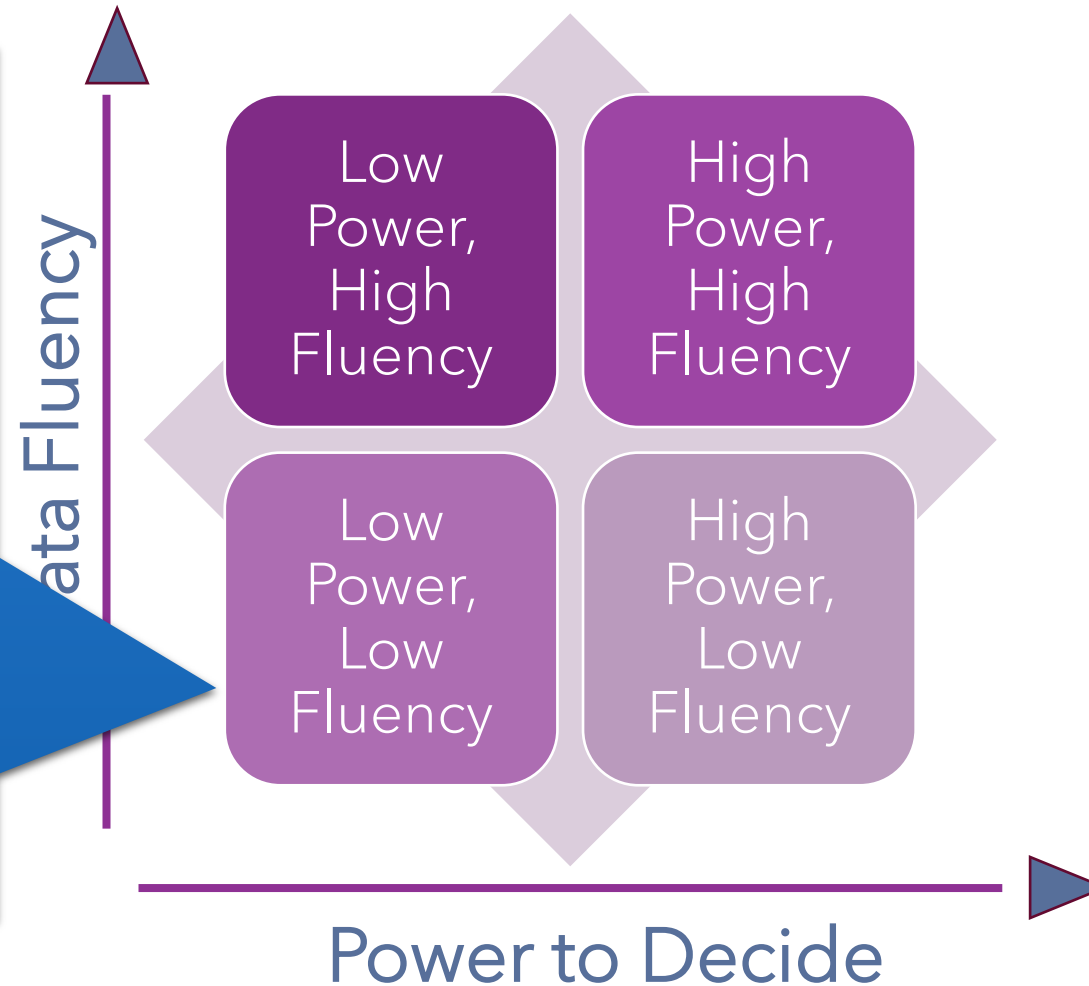
AUDIENCE SEGMENTATION GRID



AUDIENCE SEGMENTATION GRID

Local community leaders and public audiences:

Lead with the story, hook them emotionally, use visuals, short quotes and infographics. Goal is awareness and support.





In Nebraska, three students stood at a crossroads.

Sarah, an in-state student, felt a deep connection to her home in Nebraska. Emily, an out-of-state student from New Jersey, faced the challenge of integrating into a new environment while pursuing her goals. Marcus, hailing from Chicago, Illinois, longed for a new opportunity but wanted to stay in the Midwest.



Check out NSWERS Insights website: <https://insights.nswers.org/>

BENEFITS OF HIGHER EDUCATION

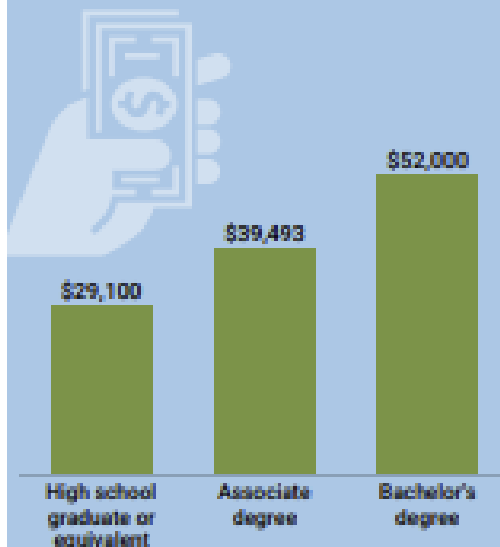
Jessie Bittar, Graduate Research Associate
Philip Wilkinson, Graduate Research Associate

A changing economy, stagnant wages, and increasing college sticker prices have contributed to a growing public perception that a higher education is diminishing in value. In fact, higher education remains a tremendous benefit for students, their local and state communities, and the national and global economy. With over 3.3 million projected high school graduates by 2025–26,¹ the benefits of higher education have the potential to make social mobility a reality for millions of Americans and their communities.

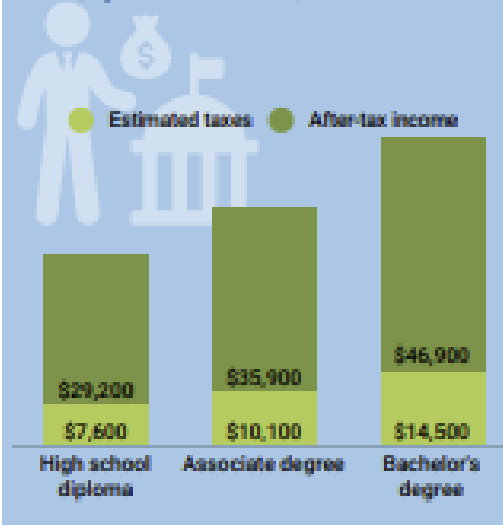
SALARY

College graduates have higher-paying jobs^{1,2}

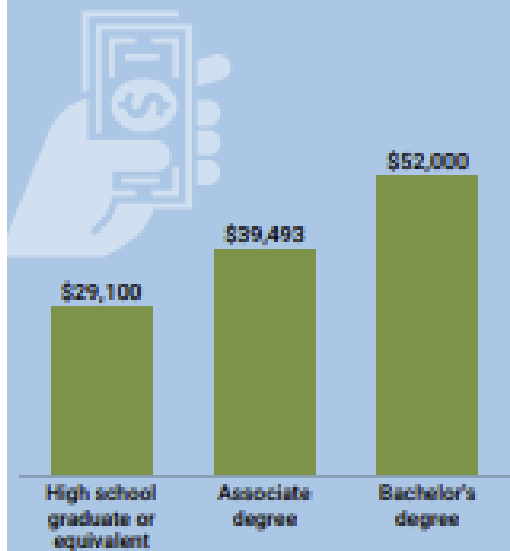
Median Annual Earnings of Adults Ages 25 and Older, by Educational Attainment, 2016



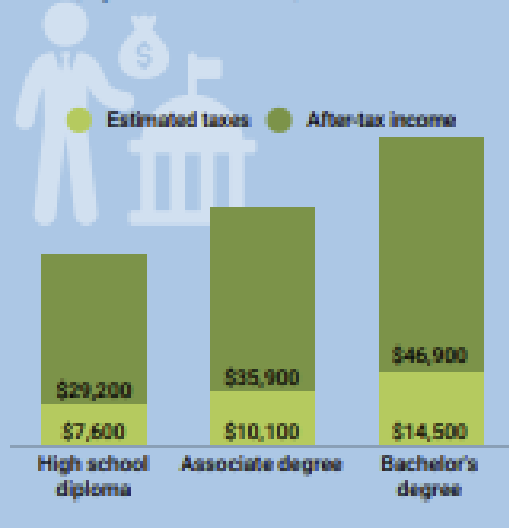
Median Earnings and Tax Payments of Full-Time, Year-Round Workers Ages 25 and Older, by Education Level, 2015



Time, Year-Round Workers Ages 25 and Older, by Educational Attainment, 2016



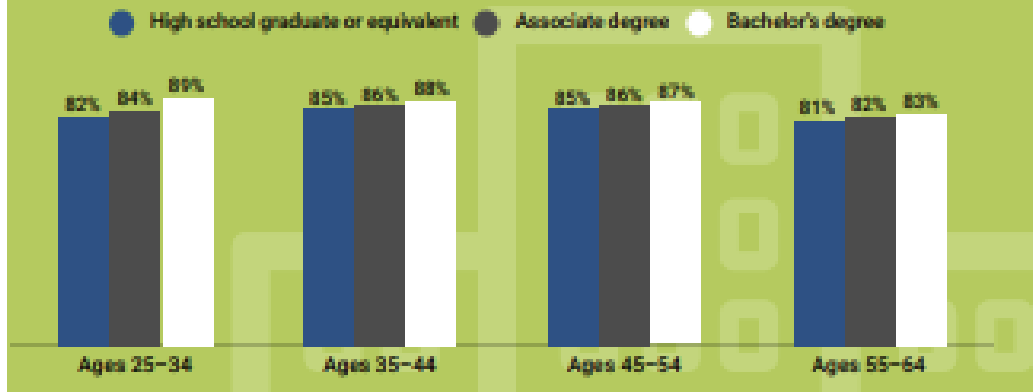
Time, Year-Round Workers Ages 25 and Older, by Education Level, 2015

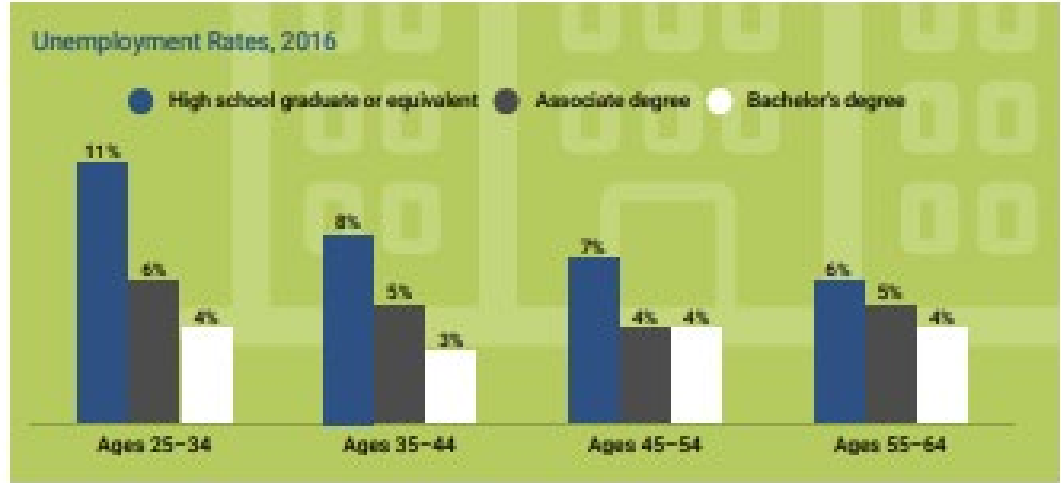


EMPLOYMENT

College graduates are more likely to be employed and work full time¹

Share of Employed Working Full Time, by Age and Educational Attainment, 2016

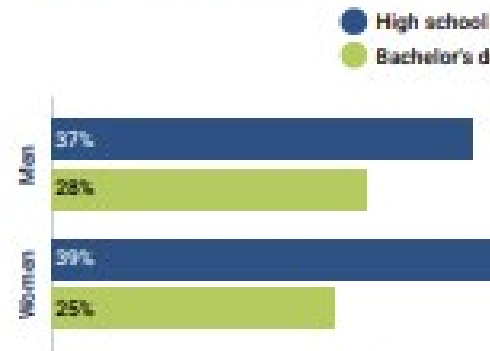




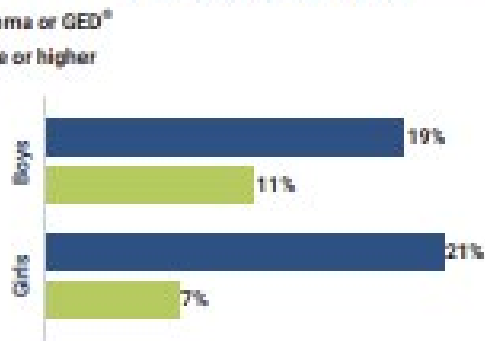
HEALTH

College completion contributes to healthier lives^{3,4}

Obesity Among U.S. Adults Ages 25+, by Gender and Education Level, 2007-2010

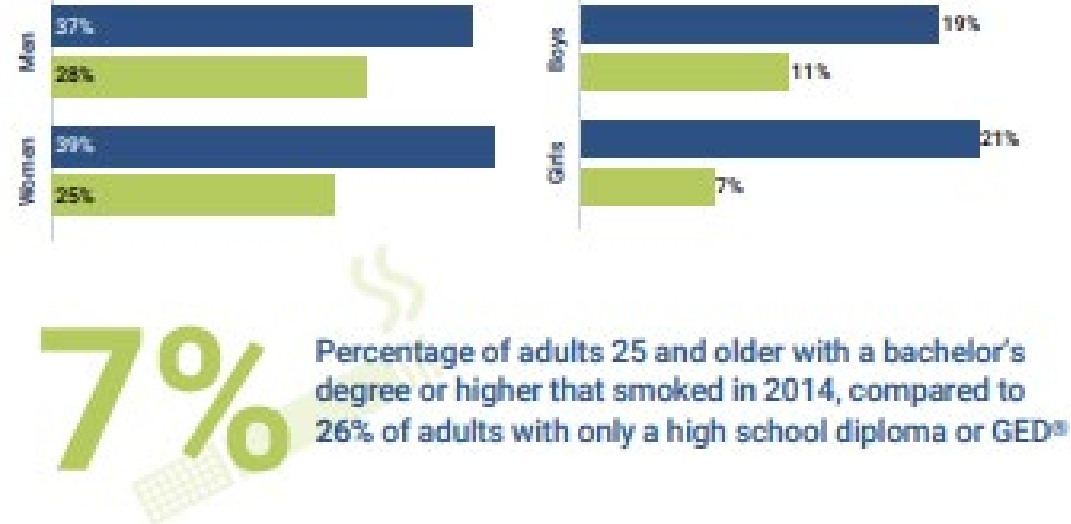


Obesity Among U.S. Children Ages 2-19, by Gender of Child and Education Level of Head of Household, 2007-2010



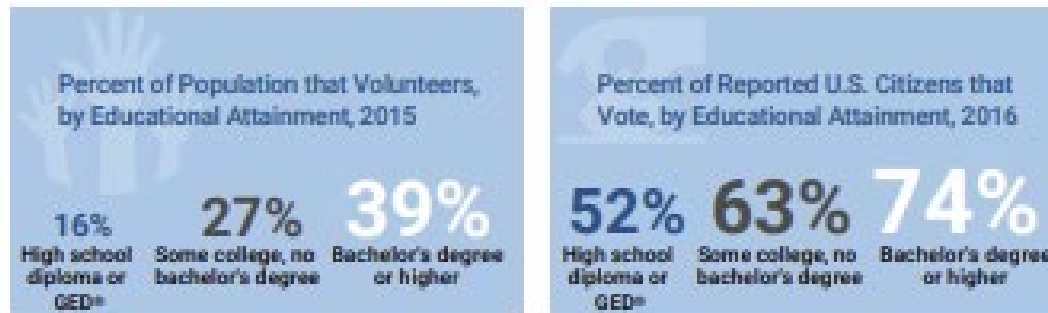
7%

Percentage of adults 25 and older with a bachelor's degree or higher that smoked in 2014, compared to 26% of adults with only a high school diploma or GED®



CIVIC ENGAGEMENT

College graduates are more likely to volunteer and vote^{2, 5}



Note: Figures have been rounded.

Sources:

1. Daphne Lantieri L., Jonathan M. Turk, Megan Taylor, and Hollie M. Chomman. 2011. *Race and Mobility in Higher Education: A Status Report*. Tables 11.4 and 11.11. Washington, DC: American Council on Education.

2. Ida, Jennifer, Miles Pender, and Meredith Walsh. 2016. *Educative Power 2016: The Benefits of Higher Education for Individuals and Society*. Washington, DC: College Board.

3. National Center for Health Statistics (NCHS). *Health, United States 2011*. Tables 21, 26.

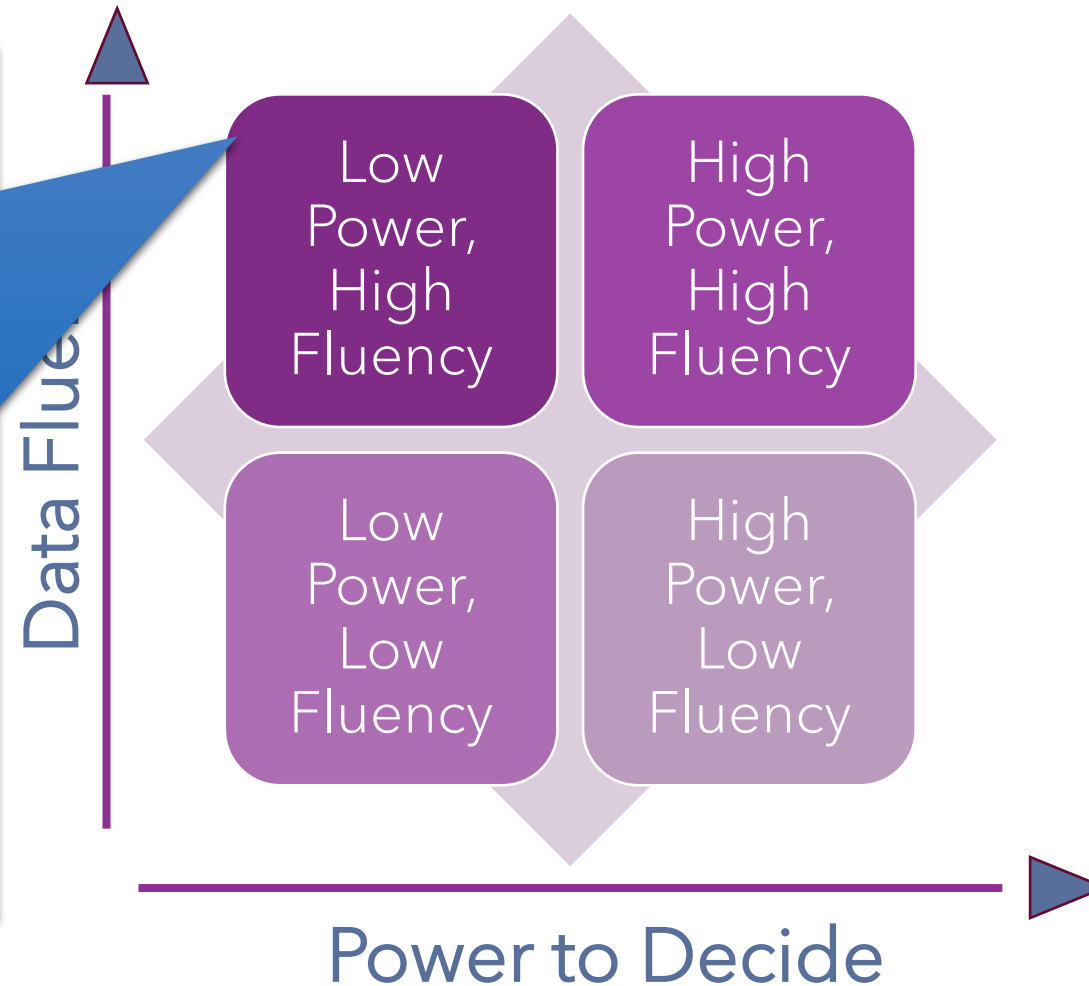
4. National Center for Health Statistics (NCHS). *Health, United States 2010*. Table 26.

5. U.S. Census Bureau. *Current Population Survey*. November 2016.

AUDIENCE SEGMENTATION GRID

Analysts and research partners:

These are your allies – bring them into the fold. Test your message for scrutiny, and use them to help you dig deeper to refine the why.



Engagement Activities (Questions 1-3)

These tables report item-by-item student responses that allow you to examine patterns in student engagement as measured by NSSE. The display can be customized using filters to the left. For more information please visit our website (nsse.indiana.edu) or contact a member of the NSSE team.

Customize your view

Administration year

☒ (All)
☐ 2024
☐ 2023

Class level

☒ First-year
☐ Senior

*most recent admin. only

Filters:

Select subgroups below to filter results on this page.

Student Filters

Major field category

(All) ▼

First-generation status

(All) ▼

Enrollment status

(All) ▼

Race/Ethnicity

(All) ▼

Gender identity

(All) ▼

Institution Filters

Carnegie Class (U.S. only)

(All) ▼

Undergraduate enrollment

(All) ▼

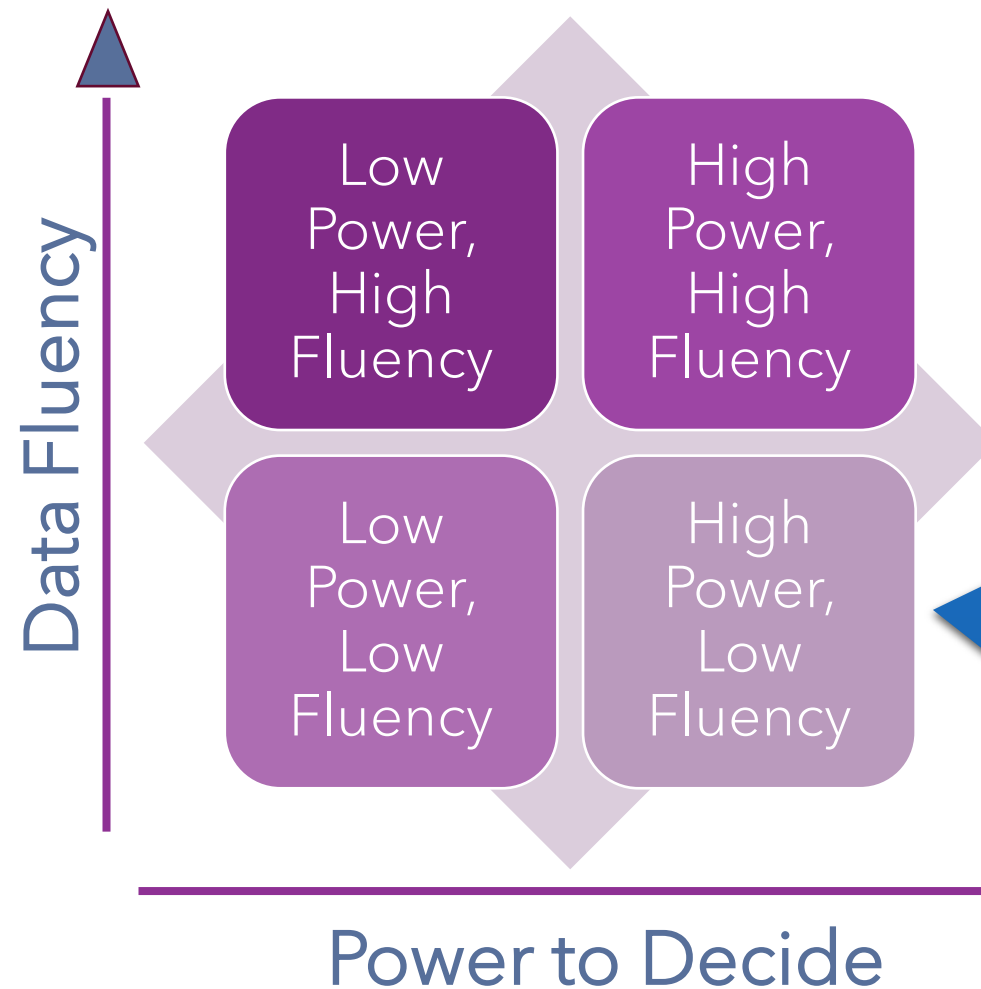
Control (U.S. only)

(All) ▼

During the current school year, about how often have you done the following?

	Very often	Often	Sometimes	Never
Contributed to course discussions	52,261 22%	77,938 33%	95,065 40%	13,926 6%
Asked another student for help	40,802 17%	73,308 31%	94,056 39%	30,321 13%
Explained course material to students	39,084 16%	81,037 34%	94,787 40%	23,031 10%
Prepared for exams with other students	39,553 17%	66,130 28%	83,886 35%	46,968 20%
Worked with other students on coursework	43,939 19%	80,916 34%	83,591 36%	26,846 11%
Gave a course presentation	22,479 10%	49,193 21%	102,227 44%	60,858 26%

AUDIENCE SEGMENTATION GRID



Legislators, trustees, board members:
Avoid charts that need a legend. Use compelling headlines, one big number, and a clear “why this matters to you” message. Let a single chart or stat do the work and make it memorable.

Does the Tuition Equalization Grant Really Make a Difference?

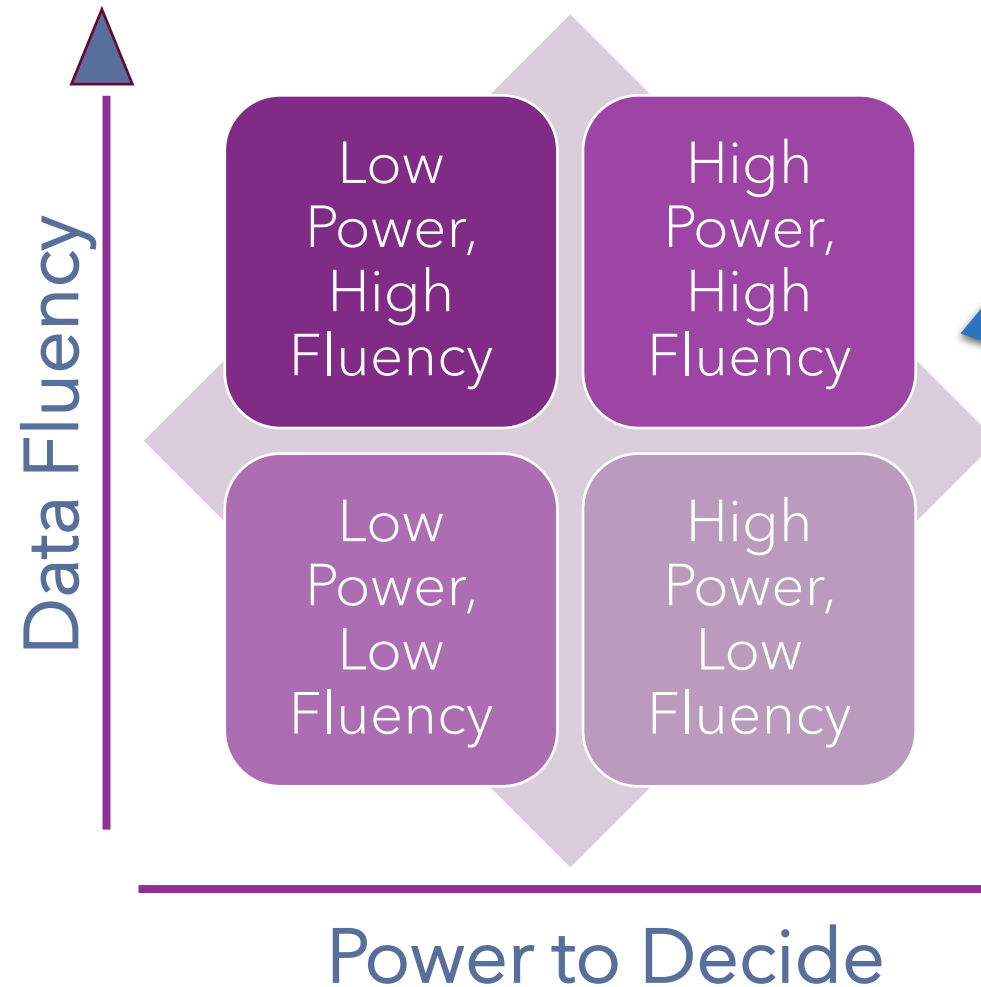


"The Tuition Equalization Grant may only \$750, but to me that is a lot. I am a full-time student taking 15 credit hours a semester, working as a waitress at a local restaurant, and I also have a work-study job. While it would be an understatement to say that life is stressful, I know that if the TEG didn't exist, it would take me months to save up that \$750 from tips. In total, I have received over \$2,000 and I am very thankful. I just want people to know that the money, as small as it may seem, does help students like me that are in need, and that the support is greatly appreciated."



Jamie Ledford
Young Harris College
Student, Waitress, and Taxpayer

AUDIENCE SEGMENTATION GRID



Data-savvy state higher ed official: You can go deeper with data and still make a strong case, use dashboards, comparisons, or ROI analyses, but still: frame it with mission and impact. They want both story and stats.

Data courtesy:

Select Chart to View
Price-to-Earnings-Premium (PEP)

GO

Price-to-Earnings-Premium (PEP)
Select Years Needed to Recoup Costs
5 Years or Less More than 5 Years

Change Institution
Azusa Pacific University



Type of Credential	Field of Study	PEP Years	PEP Years Category	PEP Years Nat Avg	Med Earnings - 5Yr	HS Grad Earn	Earn Diff	# In Earn Cohort	Annual Net Price	Total Net Price	Pct FTFT	Financial Control
Bachelor's Degree	Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing.	0.9	0-1	1.3	\$119,455	\$32,476	\$86,979	351	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Accounting and Related Services.	1.5	1-2	1.7	\$86,401	\$32,476	\$53,925	32	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Computer and Information Sciences, General.	1.6	1-2	1.1	\$83,541	\$32,476	\$51,065	20	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Health Professions and Related Clinical Sciences, Other.	1.7	1-2	1.9	\$78,795	\$32,476	\$46,319	56	\$19,798	\$79,191	75%	Private
Bachelor's Degree	International Business.	1.9	1-2	1.6	\$73,675	\$32,476	\$41,199	17	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Political Science and Government.	1.8	1-2	2.1	\$77,575	\$32,476	\$45,099	36	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Area Studies.	3.0	2-3	2.3	\$59,136	\$32,476	\$26,660	18	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Biology, General.	2.4	2-3	2.3	\$64,981	\$32,476	\$32,505	43	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Business Administration, Management and Operations.	2.1	2-3	2.1	\$69,444	\$32,476	\$36,968	270	\$19,798	\$79,191	75%	Private
Bachelor's Degree	Liberal Arts and Sciences, General Studies and Humanities.	2.9	2-3	3.5	\$59,335	\$32,476	\$26,859	227	\$19,798	\$79,191	75%	Private

WHAT RESONATES?

THE DATA THAT SPEAKS TO MOST AUDIENCES

TYPES OF DATA THAT RESONATE



Enrollment trends and demographic shifts



Student success metrics (retention, graduation rates, completion)



Employment outcomes



Workforce alignment



Access and equity (Pell, first-gen, rural divide)



Savings to the state



Affordability and cost transparency



Institutional and state-level economic impact

WHERE'S THE DATA?

HIDING IN PLAIN SIGHT

Enrollment trends
and demographic
shifts

Student success
metrics (retention,
graduation rate,
completion)

Employment
outcomes

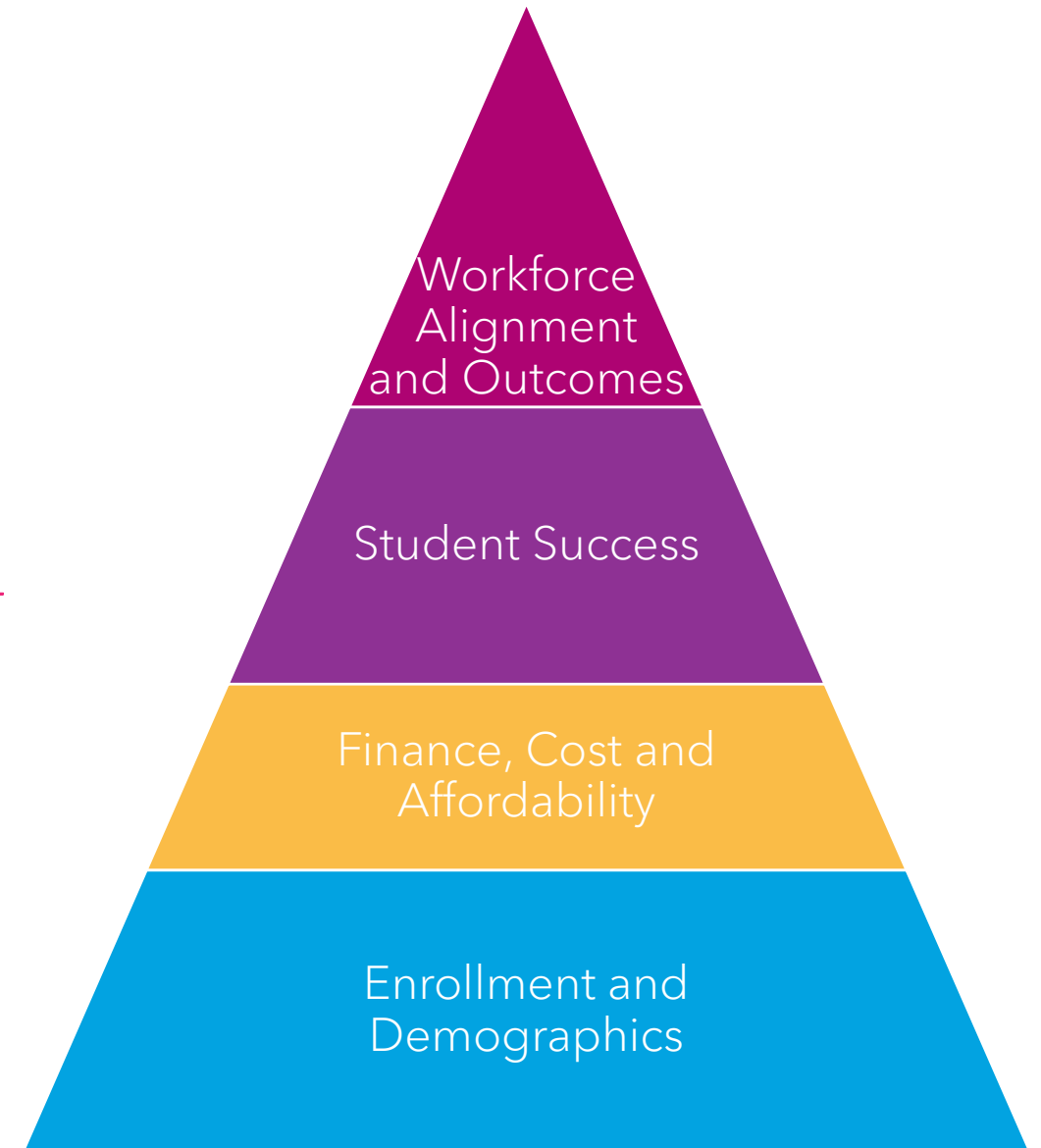
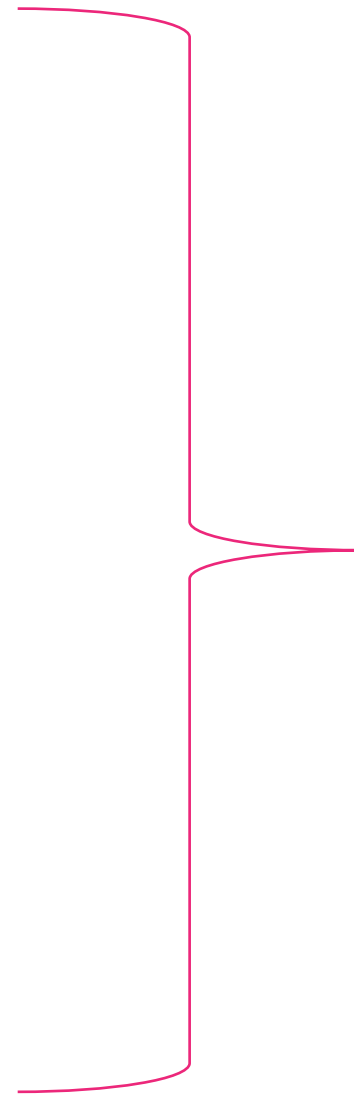
Workforce
alignment

Access and equity
(Pell, first-gen,
locale)

Savings to the
state

Affordability and
cost transparency

Institutional and
state-level
economic impact



ENROLLMENT AND DEMOGRAPHICS

IPEDS/NCES: <https://nces.ed.gov/ipeds/use-the-data>

IPEDS Net Migration:

<https://nces.ed.gov/ipeds/search/viewtable?tableId=36099&returnUrl=%2Fsearch>

WICHE Knocking at the College Door: <https://www.wiche.edu/knocking/>

Census: <https://www.census.gov/topics/education/educational-attainment.html>

Pell Institute: <https://www.pellinstitute.org/>

SHEEO SHEF State Profiles: <https://shef.sheeo.org/state-profile/georgia/>

SREB Fact Book: <https://www.sreb.org/fact-book-higher-education-0>

National Bureau of Economic Research: <https://www.nber.org/>

NCES DataLab: <https://nces.ed.gov/datalab/>

FINANCE, COST AND AFFORDABILITY

State Appropriations: Varies by state

NACUBO: <https://www.nacubo.org/Research/2024/NACUBO-Tuition-Discounting-Study>

NCES DataLab NPSAS: <https://nces.ed.gov/datalab/>

IPEDS: <https://nces.ed.gov/ipeds/use-the-data>

CATC: <https://collegecost.ed.gov/>

FSA Federal Student Aid Data Center: <https://studentaid.gov/data-center>

College Scorecard: <https://collegescorecard.ed.gov/>

TICAS: <https://ticas.org/ourwork/student-debt/>

CollegeBoard: <https://research.collegeboard.org/>

CollegeBoard Trends in College Pricing: <https://research.collegeboard.org/trends/college-pricing>

CollegeBoard Trends in Student Aid: <https://research.collegeboard.org/trends/student-aid>

FSA Data Center: <https://studentaid.gov/data-center>

InformedStates: <https://informedstates.org/data>

College Scorecard: <https://collegescorecard.ed.gov/>

SHEEO SHEF: <https://shef.sheeo.org/data-downloads/>

STUDENT SUCCESS

IPEDS (Graduation Rates & Outcome Measures): <https://nces.ed.gov/ipeds/use-the-data>

National Student Clearinghouse: <https://nscresearchcenter.org/>

NSC PDP: <https://www.studentclearinghouse.org/solutions/ed-insights/pdp/>

College Scorecard: <https://collegescorecard.ed.gov/>

Lumina Foundation Stronger Nation: <https://strongernation.luminafoundation.org/credentials-of-value>

TICAS Quick Facts: <https://ticas.org/wp-content/uploads/2024/08/Postsecondary-Attainment-Quick-Facts-August-2024.pdf>

WORKFORCE ALIGNMENT/OUTCOMES

State high demand job lists – map the SOC code to CIP codes of IPEDS Completions

College Scorecard: <https://collegescorecard.ed.gov/>

Census PSEO: https://lehd.ces.census.gov/data/pseo_experimental.html

State SLDS Systems

Bureau of Labor Statistics: <https://www.bls.gov/oes/tables.htm> and <https://data.bls.gov/oesmap/>

CollegeBoard – Education Pays: <https://research.collegeboard.org/trends/education-pays>

NACE – First Destination Survey

O*Net OnLine: <https://www.onetonline.org/>

Federal Reserve Bank of St. Louis: <https://fred.stlouisfed.org/>

SREB Fact Book on Higher Education: <https://www.sreb.org/fact-book-higher-education-0>

WHAT DOES THIS ALL MEAN?

PUTTING IT ALL TOGETHER

TELL THE STORY

Advocacy = Facts + Framing + Why it Matters

Use data to:

- Clarify your value
- Support your ask
- Humanize your mission

Advocacy works best when:

- You start with why
- You show outcomes
- You center the student/community impact

Data Advocacy Checklist

- ✓ Did I start with "why"?
- ✓ Did I choose the right audience-specific data? Did the juice equal the effort of the squeeze?
- ✓ Did I keep the message visual and digestible? Was it consumable?
- ✓ Did I translate the statistics into impact?
- ✓ Did I tell a story? Did I address what they care about?

OUR VOICE. OUR VALUE. OUR DATA.

Higher education has a powerful story—and the data to prove it.

Our mission-driven education changes lives.

Our graduates fuel state economies and make the American Dream a possibility.

Our institutions are essential.

Let's keep telling that story

—with facts, with clarity, and with the “why” at the forefront.

THANK YOU!

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LinkedIn: <https://www.linkedin.com/in/carolyn-mata-phd-1aa5b023/>