

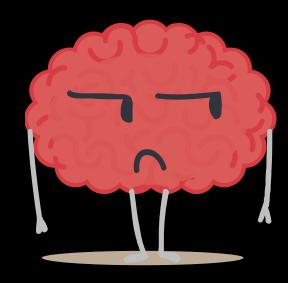


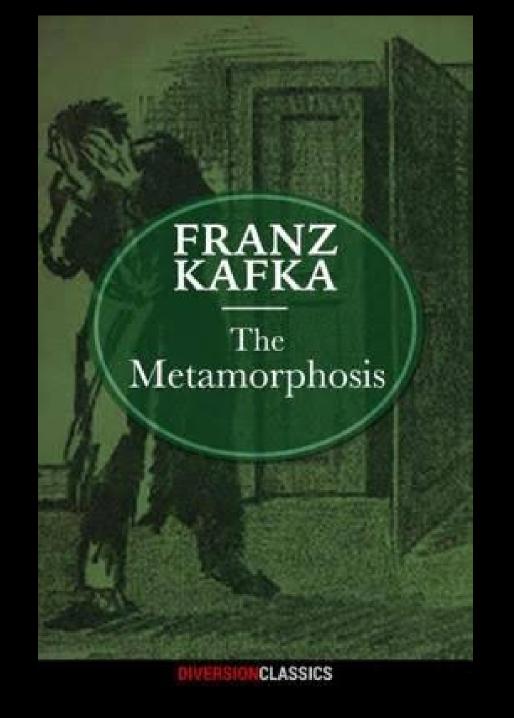
### Data Metamorphosis:

One campus' story how it used data to change and grow

Lisa Castellino, PhD Office of Institutional Effectiveness Humboldt State University

# Not # Not one...









### Graduation Initative 2025

HSU Strategic Plan WSCUC Re-Affirmation Graduation Initiative 2025



# Data Maze

# Data Merge

Strategic Data Repository and IT DW

CSU Data Center

Salt Lake City



OWB tool pulls data from Salt Lake to

HSU staging tables

SQL procedures perform Finance and HR ETL

0

DataStage tool pulls data from Salt Lake

to HSU staging tables

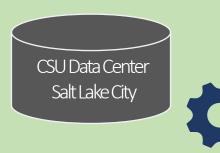
DataStage jobs perform Student ETL



OBI







SQL job perform Student ETL to SDR tables

PL/SQL pulls data from Salt Lake via DB link to staging tables

SQL job from HSU DW (Finance and HR)



Tableau



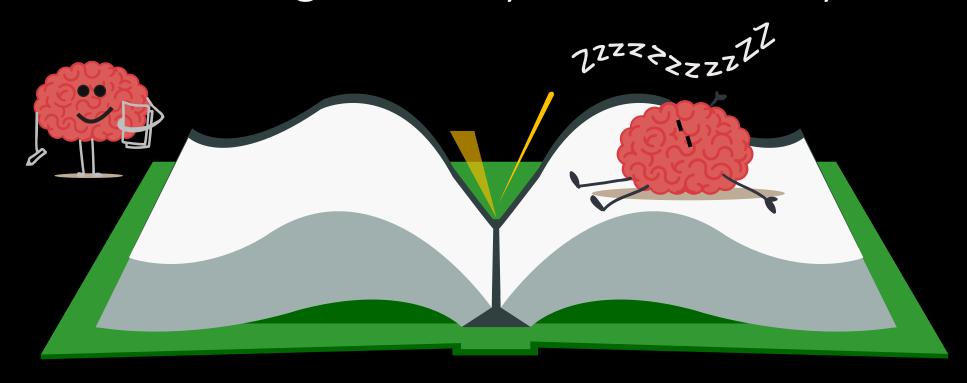




Web-based reports

# Data Storytelling

Using data in ways that tell the story



### First-time Undergrad Student Lifecycle: Mapping the First Year



### What students want

Ability to register for classes they need Faculty and Staff who understand them A safe and welcoming environment Employment opportunities

Around 9.4% change their major their 1st term.



Around 5.6% leave after their 1st term.

Around 8.8% of students change their major their 2nd term.



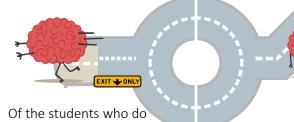
By the end of their 2<sup>nd</sup> term, 24.5% have left HSU.

### Gateway and bottleneck courses

Of the students who do leave their 1st term, 59.1% were on academic probation.



Around 25.7% land on academic probation their 1st term.



Of the students who do land on academic probation their 2nd term, 35.4% leave HSU.

Around 18.5% land on academic probation their 2nd term. An additional 6.3% were disqualified.



### Who our first time UG student is...

44% Represent traditionally underserved populations 24% are First Generation 53% have received a Pell Grant 49% are from southern CA

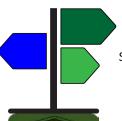
Nearly **nine out of 10** students who apply to HSU end up not enrolling.

### **Challenges** our students face:

Being able to register for the classes they need

61% felt overwhelmed
48.6% reported lack of sleep
12.4% felt they 'did not belong' at HSU

38% worry about getting enough to eat 25.4% worry how they will afford school next year.

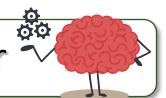


### Around seven out of 10 students return for their 2<sup>nd</sup> year. Average units earned: 27 5.4% considered leaving HSU.

After **ONE** Year.



### First-time Undergrad Student Lifecycle: Facilitating the First Year



First day/week activities aimed at validating, connecting, and early feedback.

Academic depts.
Centers for
Academic Excellence
Retention through
Academic Mentoring
H&RL

Professional Advising Faculty Advising Advising by Student Segment (EOP, Athletes, Vets, etc)

Understand why students leave after their 1<sup>st</sup> term.

Help misdeclared students change their major sooner.

Understanding why students leave after their 2<sup>nd</sup> term.

Help misdeclared students change their major sooner.

EXIT - ONLY

Scheduling: Curricular and co-curricular

Reduce the % of probation leavers after ; their first term.

Reduce the % on academic probation after their 1st term.



Reduce the % of probation leavers after their 2<sup>nd</sup> term.

Reduce the % on academic probation after their 2nd term.

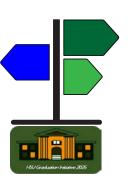
Pre-and Post
Matriculation Activities

Re-imagined onboarding Parent/Family programming ALEX-PPL

**Navigating** challenges:

Student-directed scheduling (u-Direct)

Health & Wellbeing Ambassadors
Peer mentors/ Professional Advisors
SkillShops and Library programming



Long-term Goal: After

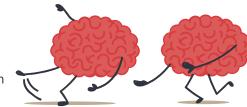
ONE Year

Around **eight out of 10** students return for their 2<sup>nd</sup> year.

Average units earned: 30 Less are considering leaving HSU.

Humboldt State University 2017 Office of Institutional Effectiveness

Recruitment strategies that increase application to enrollment yield.



# Data Context

What are the trends?

### HUMBOLDT STATE UNIVERSITY



Strategic Data Workbook
Office of Institutional Effectiveness

### 2016-2017 Strategic Data Workbook:

Annual Program Review:
Diversity/Enrollment/Student Success
Questions

Version: 1.40.4 (Last updated 3/24/2017)

If you have questions or comments about this workbook, contact Michael Le at 707-826-5489 or Le@Humboldt.edu

### Annual Program Review: Diversity/Enrollment/Student Success Questions

### **About Strategic Data Workbooks**

The Strategic Data Workbook (SDW) project began in fall of 2015 to support HSU's Annual Academic Program Review. In fall of 2016, the project blossomed into a data deployment strategy, which includes several workbooks.

Strategic Data Workbooks are private and located in secure folders (e.g., Network folder or Google Drive) accessed via Lightweight Directory Access Protocol (LDAP) Authentication. While the workbooks were created using Tableau Desktop (paid product), users may download Tableau Reader (free product) to read and interact with the workbooks. Tableau Reader has been added to HSU's trusted software installation sites (PC's use Software Center and Mac's use Self-Service).

### **Privacy Acknowledgement**

Each SDW is a packaged workbook, meaning that the data is included in the file. Level 1 data is never included; however, Level 2 is almost always included. This means that the data file contains private information that should be protected due to legal, ethical, and privacy concerns. As the recipient of this file from Humboldt State University's Office of Institutional Effectiveness, you have permission to access and use this data for your own inquiries but may not publish it or provide it to others who do not have existing permissions.

If you download this file from the secure folder, you are responsible for the secure storage and erasure of this file upon completion of your inquiries. As an agent of HSU, it is your responsibility to read and understand CSU and HSU policies and practices regarding use and storage of this data. As an agent of the CSU, you are required to complete the Data Security & Privacy training every two years.

### Resources

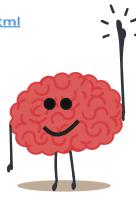
HSU Policy EM:P10-03 HSU Implementation of the CSU Data Classification Standards http://www.humboldt.edu/policy/PEMP10-03HSU-Implementation-CSU-Data-Classification-Standards

More Information about SDW's

http://www2.humboldt.edu/irp/Dashboards/StrategicDataWorkbooks/sdw\_info.html

CSU Data Security & Privacy Training

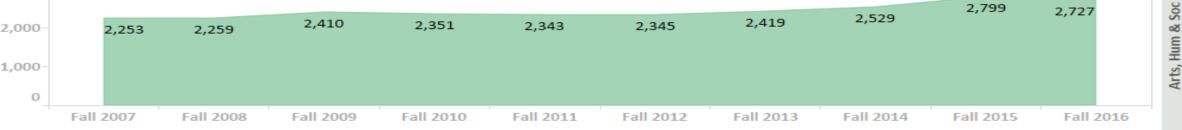
https://training.humboldt.edu/content/data-security-privacy



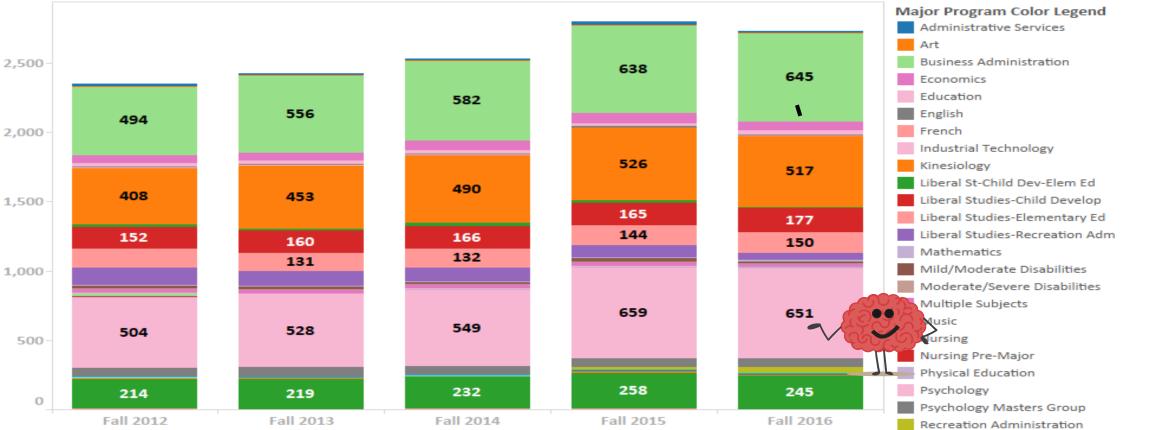
### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 1. Describe enrollment trends in your program, major(s), FTES, and retention/graduation rates.

### 10-year Overall Headcount Enrollment



### 5-year Overall Headcount Enrollment by Major Program



ΑU ANTH ART COMM CRGS EC **ENGL ENST** GEOG HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL CHEM CS **ENGR** ESM FISH FWM **GEOL** MATH NS OCN PHYX WLDF AΤ BUS CD ECON **EDUC** KRA LSEE NURS PSYC SW

Major Program All

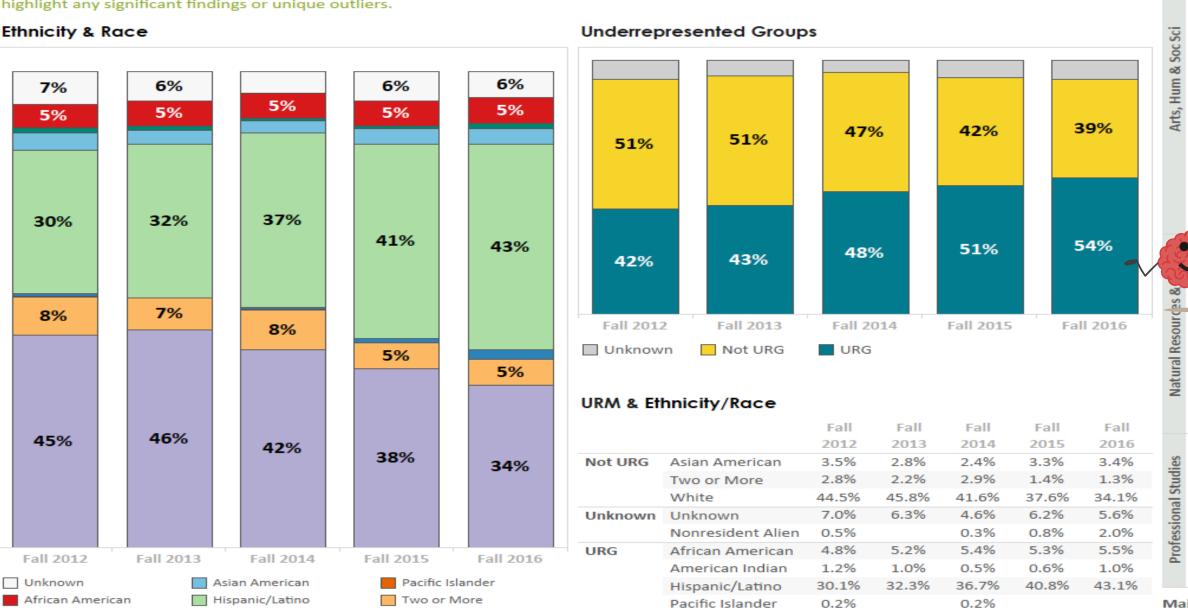
American Indian

Nonresident Alien

White

### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 2. Describe trends in the composition of your majors (such as diversity, level of college preparedness, time to degree etc.). Please highlight any significant findings or unique outliers.



ANTH ART COMM CRGS EC **ENGL ENST GEOG** HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC FISH **GEOL** MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS PSYC SW Major Program

5.4%

4.0%

4.2%

4.5%

5.3%

Two or More

ΑU



Eligible

Unknown

Percent

Percent

Headcount

31.5%

105

18.5%

31.6%

84

14.0%

31.8%

72

11.7%

29.7%

89

12.3%

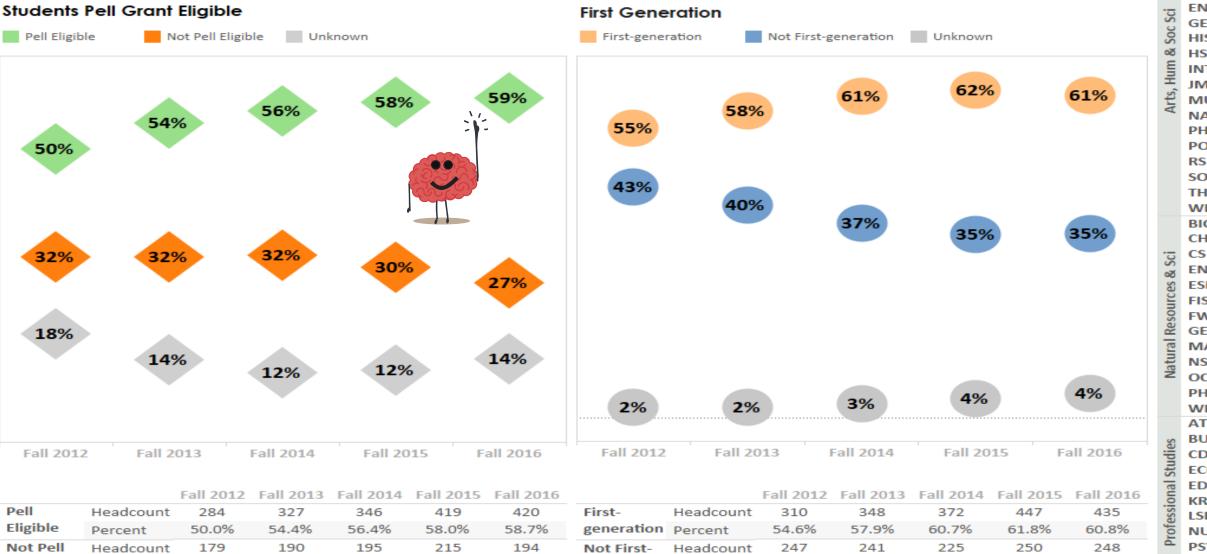
27.1%

101

14.1%

### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 2. Describe trends in the composition of your majors (such as diversity, level of college preparedness, time to degree etc.). Please highlight any significant findings or unique outliers.



generation Percent

Headcount

Percent

Unknown

43.5%

11

1.9%

40.1%

12

2.0%

36.7%

16

2.6%

34.6%

26

3.6%

34.7%

32

4.5%

ART COMM CRGS EC **ENGL ENST** GEOG HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL CHEM CS **ENGR ESM** FISH **FWM** GEOL MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS **PSYC** SW

ΑU

ANTH

Major Program

College Level Ready

Needed Math Only

### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 2. Describe trends in the composition of your majors (such as diversity, level of college preparedness, time to degree etc.). Please highlight any significant findings or unique outliers.

First-time Undergraduate	e Students			Sci	
Fall 2013	Fall 2014	Fall 2015	Fall 2016	Arts, Hum & Soc Sci	
College Level Ready 44% (n=45)	College Level Ready 50% (n=53)	College Level Ready 46% (n=61)	College Level Ready 51% (n=49)		
Needed Math Only 26% (n=27)	Needed Math Only 25% (n=26)	Needed Math Only 24% (n=32)  Needed English and Math 22% (n=29)	Needed English and Math 27% (n=26)	Natural Resources & Sci	
Needed English and Math 22% (n=22)	Needed English and Math 15% (n=16) Needed English Only 10% (n=10)	Needed English Only 8% (n=10)	Needed Math Only 19% (n=18)	Professional Studies	
	College Level Ready 44% (n=45)  Needed Math Only 26% (n=27)  Needed English and Math	College Level Ready 44% (n=45)  Needed Math Only 26% (n=27)  Needed Math Only 25% (n=26)  Needed English and Math 22% (n=22)  Needed English and Math 15% (n=16)  Needed English Only	College Level Ready 44% (n=45)  College Level Ready 50% (n=53)  College Level Ready 46% (n=61)  Needed Math Only 26% (n=27)  Needed Math Only 25% (n=26)  Needed English and Math 22% (n=22)  Needed English and Math 15% (n=16)  Needed English Only Needed English Only	Needed Math Only   26% (n=27)   Needed English and Math   22% (n=22)   Needed English Only   Needed English	

Needed English and Math

Needed English Only

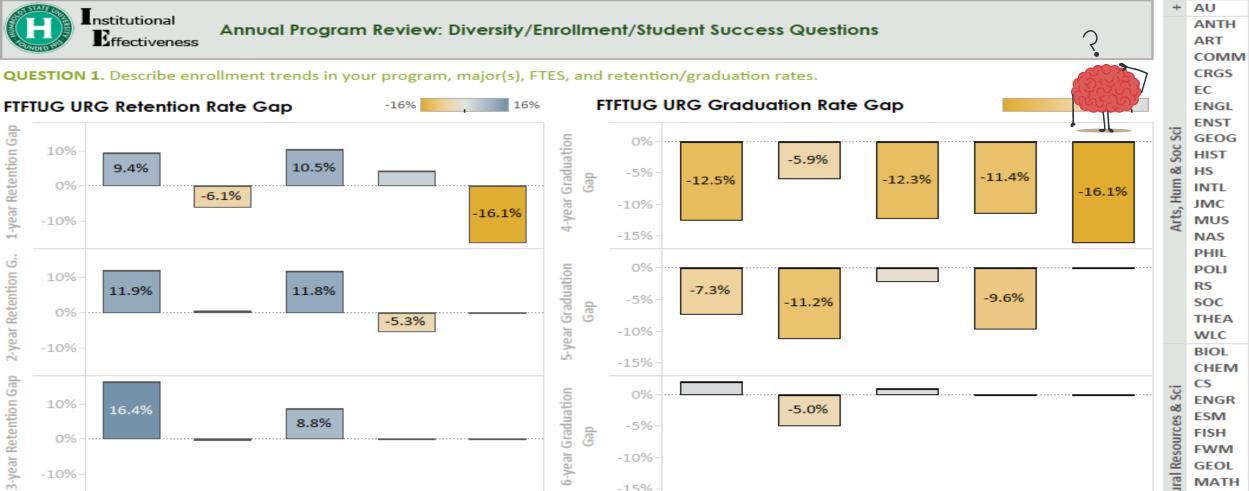
ΑU ANTH ART COMM CRGS EC **ENGL ENST** GEOG HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL **CHEM** CS **ENGR** ESM FISH **FWM** GEOL MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS **PSYC** SW

lajor Program ΑII

# Data Effectiveness

Finding out what works; and what doesn't





Graduated in 6 years

43.8%

-10%-			8.8%	<u> </u>			year Graduat Gap	-5%			-5.0%					
Fall 201	2011 Fai	II 2012	Fall 201	3 Fall	2014	Fall 2015	-9	-15%	Fall 2	2008	Fall 2009	Fall	2010	Fall 201	L <b>1</b> Fa	l 2012
UG Retention		aduation 2008	n Rates		_	esentec 2010	d Group		-	Non-U	RG Stud		Fall	2014	Fall	2015
	Not URG	URG	Not URG	URG	Not URG	URG	Not URG	URG	Not	URG	Not		Not	LIDG	Not	
							UKG		URG	OKG	URG	URG	URG	URG	URG	URG
count	32	24	47	36	41	36	45	46	URG 30	46	URG 41	55	URG 39	68		URG 81
count ned for 1 year		24 66.7%	47 63.8%	36 69.4%		36 75.0%									URG	
	56.3%				41		45	46	30	46	41	55	39	68	URG 38	81
ned for 1 year	56.3% s 53.1%	66.7%	63.8%	69.4%	41 78.0%	75.0%	45 66.7%	46 76.1%	30 80.0%	46 73.9%	41 65.9%	55 76.4%	39 69.2%	68 73.5%	URG 38	81
ned for 1 year ned for 2 years	56.3% s 53.1% s 43.8%	66.7% 62.5%	63.8% 57.4%	69.4% 58.3%	41 78.0% 73.2%	75.0% 61.1%	45 66.7% 53.3%	46 76.1% 65.2%	30 80.0% 73.3%	46 73.9% 73.9%	41 65.9% 53.7%	55 76.4% 65.5%	39 69.2%	68 73.5%	URG 38	81
															URG	

NS OCN PHYX WLDF AT BUS CD ECON **EDUC** KRA LSEE NURS PSYC

SW



PSYC 242 Intro Psych Research Design

PSYC 300 Psychology of Women

QUESTION 3. Describe trends in overall course success rates for service courses as well as major courses. Please highlight any notable findings or

Annual Program Review: Diversity/Enrollment/Student Success Questions

opportunities for improvement you see in the coming year. If trends have been stable over time, to what do you attribute that stability? Instructor Level Course Success Success Rate

87% (n=77)

92% (n=12)

88% (n=69)

87% (n=87)

86% (n=81)

81% (n=83)

79% (n=68)

70% (n=64)

### Acad. Year Term Course Course Title PSYC 100 Psych of Critical Thinking 71% (n=59) 2014-15 Spring 2015 74% (n=73) 2015-16 Spring 2016 2016-17 65% (n=120) Fall 2016 PSYC 104 Intro Psychology 2014-15 Fall 2014 82% (n=234) Spring 2015 80% (n=186) 2015-16 Fall 2015 85% (n=267) 83% (n=206) Spring 2016 2016-17 Fall 2016 80% (n=242) PSYC 236 Choices & Changes in Sexuality 2015-16 Fall 2015 88% (n=42) 2016-17 Fall 2016 83% (n=23) PSYC 240 Understanding Research in 2015-16 Fall 2015 85% (n=34) Psyc Spring 2016 82% (n=38) Fall 2016 94% (n=54) 2016-17 PSYC 241 Intro Psych Statistics 2014-15 89% (n=61) Fall 2014 86% (n=58) Spring 2015 2015-16 81% (n=70) Fall 2015 Spring 2016 86% (n=76) 2016-17 Fall 2016 82% (n=72)

Fall 2014

Fall 2015

Fall 2016

Fall 2014

Spring 2015

Spring 2016

Spring 2015

Summer 2014

2014-15

2015-16

2016-17

2014-15

**Data Filters** (Filters apply to all GREEN tabs) Minimum Count From 1 Success Rate 0% to 100% Academic Year Multiple values Course ΑII Course ID All Course Unit Value ΑII Delivery Mode Face-to-face **Primary Instructor** 

100%

Soc

ENST **GEOG** HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL CHEM CS **ENGR** ESM FISH **FWM** GEOL MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS PSYC SW

ΑU

ANTH

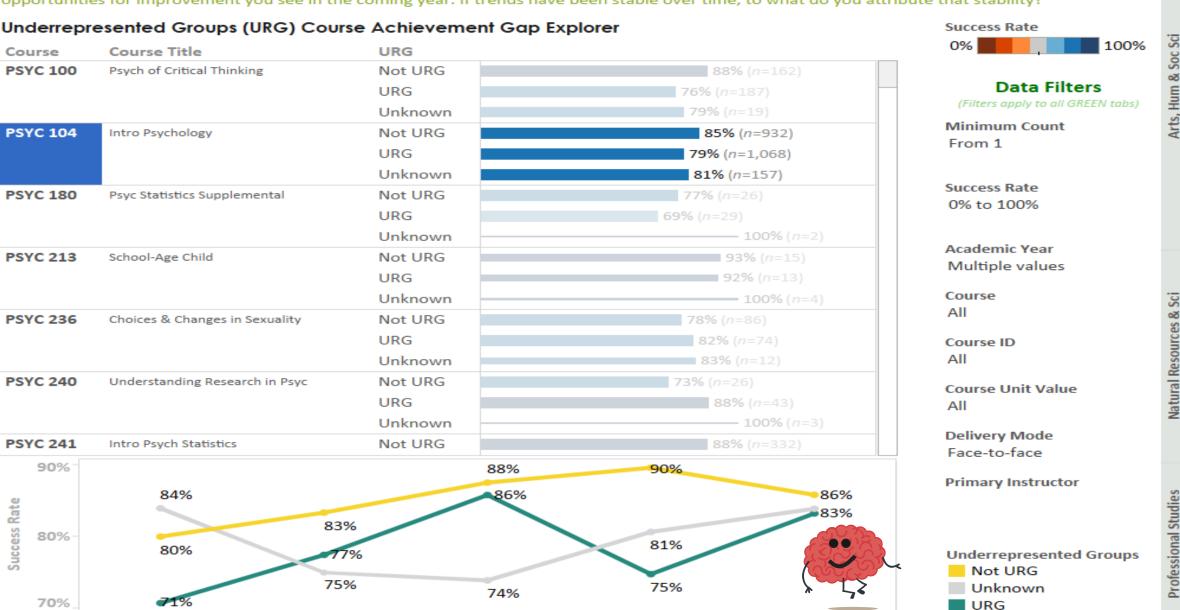
ART COMM

CRGS EC

**ENGL** 

### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 3. Describe trends in overall course success rates for service courses as well as major courses. Please highlight any notable findings or opportunities for improvement you see in the coming year. If trends have been stable over time, to what do you attribute that stability?



2014-15

2015-16

2013-14

2012-13

ΑU ANTH ART COMM CRGS EC **ENGL** ENST **GEOG** Soc HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL CHEM CS **ENGR** ESM FISH **FWM** GEOL MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS

PSYC

SW

2007-08

65% (n=20)

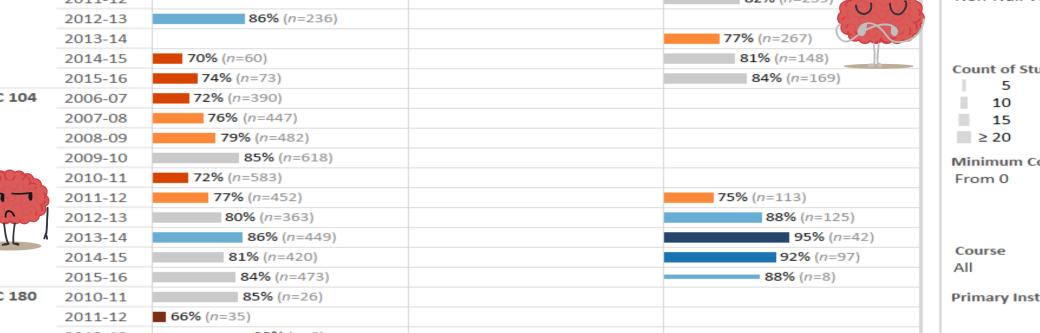
### Annual Program Review: Diversity/Enrollment/Student Success Questions

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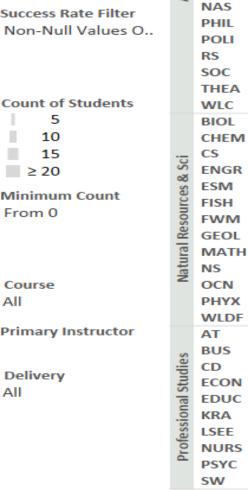
### Academic Year Face-to-Face, Hybrid, and Online Course Success ΑII Course Acad. Year Face-to-face Hybrid Online **PSYC 100** 2006-07 80% (n=207) 80% (n=299) 2007-08 Success Rate 85% (n=210) 2008-09 100% 65% 83% (n=276) 2009-10







	2014-15	<b>70%</b> (n=60)	81% (n=148)	
	2015-16	74% (n=73)	84% (n=169)	Count of Students 5
PSYC 104	2006-07	72% (n=390)		10
	2007-08	76% (n=447)		15
	2008-09	<b>79%</b> (n=482)		<b>≥ 20</b>
	2009-10	85% (n=618)		Minimum Count
(0.37	2010-11	72% (n=583)		From 0
	2011-12	77% (n=452)	75% (n=113)	
	2012-13	80% (n=363)	88% (n=125)	
1	2013-14	86% (n=449)	95% (n=42)	
	2014-15	81% (n=420)	92% (n=97)	Course
	2015-16	84% (n=473)	88% (n=8)	All
PSYC 180	2010-11	85% (n=26)		Primary Instructor
	2011-12	■ 66% (n=35)		
	2012-13	88% (n=8)		Delivery
	2013-14	86% (n=14)		All
PSYC 200	2006-07	82% (n=78)		
	2007-08	<b>77%</b> (n=74)		
PSYC 213	2006-07	78% (n=32)		



ΑU

ANTH

ART COMM

CRGS

**ENST** 

**GEOG** 

HIST

INTL

JMC

MUS

HS

EC **ENGL** 

### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 3. Describe trends in overall course success rates for service courses as well as major courses. Please highlight any notable findings or opportunities for improvement you see in the coming year. If trends have been stable over time, to what do you attribute that stability?

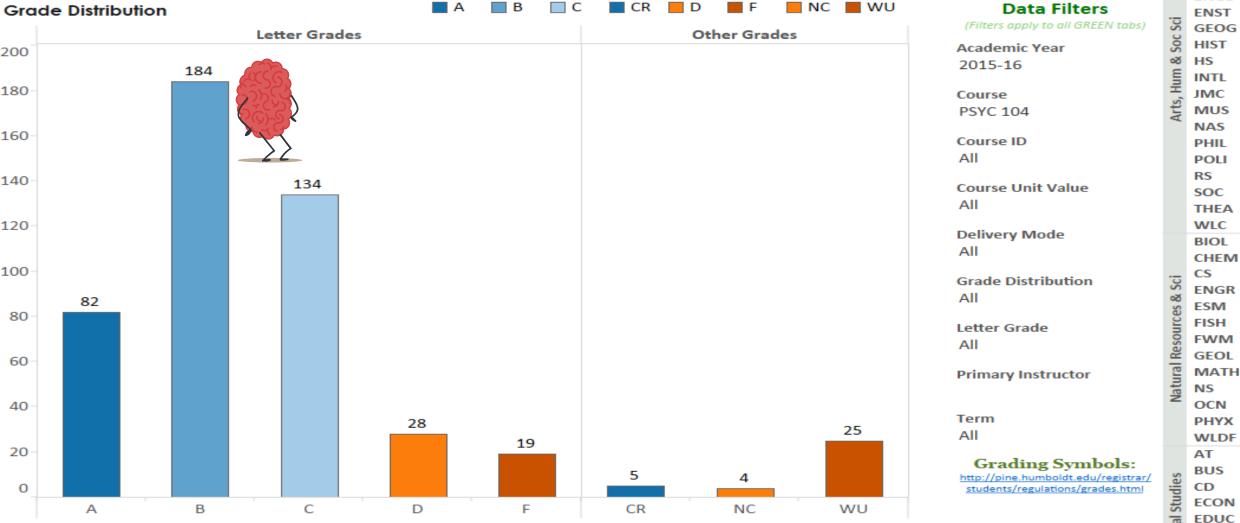
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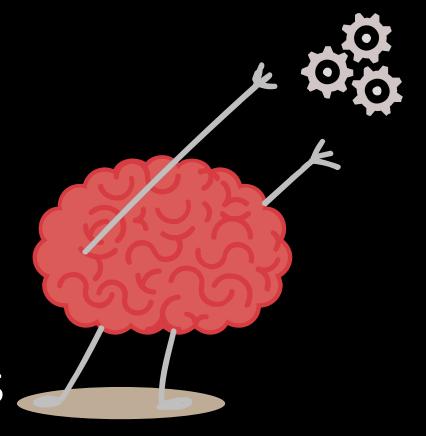
ART COMM



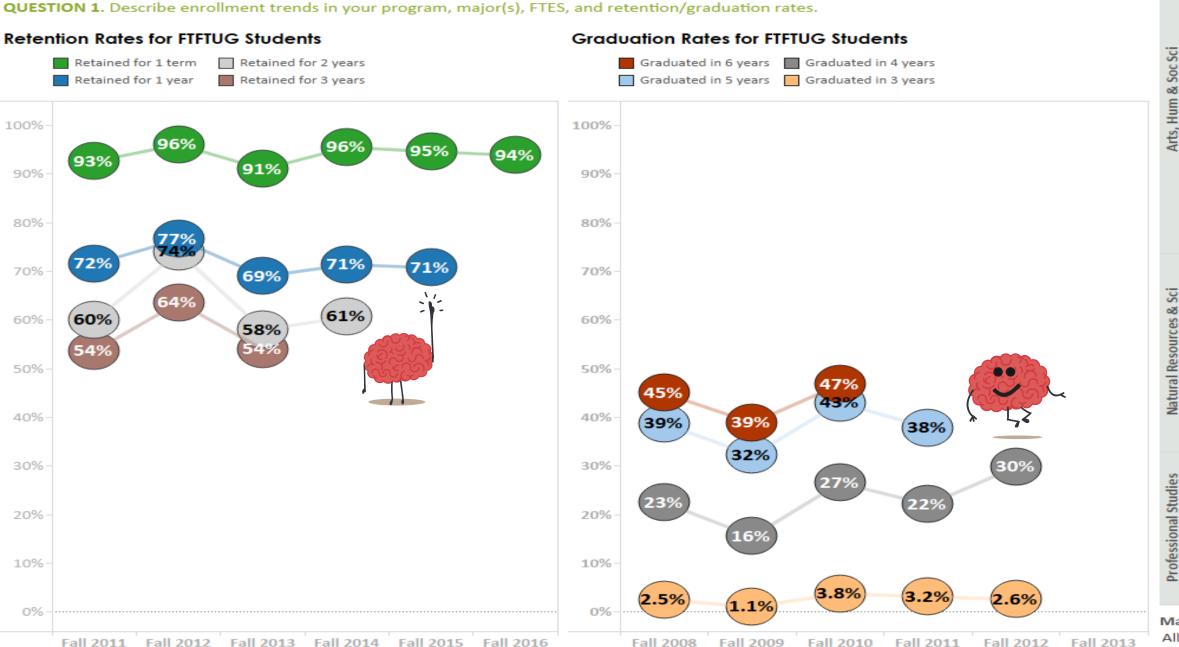
20-						28	19		5	4	25	5	http://p	ading Synine.humboldt.	.edu/registrar/	tudies	WLDF AT BUS CD
	Α		В	C		D	F	C	R	NC	W	U				nal Stu	
Grad	e Distrib	ution Ta	ble													ssion	
		Α	Α-	B+	В	B-	C+	C	C-	D+	D	F	CR	NC	WU	rofe	
Count		74	8	37	125	22	36	87	11	9	19	19	5	4	25	五	PSYC
Percer	nt Across	15.4%	1.7%	7.7%	26.0%	4.6%	7.5%	18.1%	2.3%	1.9%	4.0%	4.0%	1.0%	0.8%	5.2%		SW

# Data Focus

Creating and monitoring targets



### Annual Program Review: Diversity/Enrollment/Student Success Questions



AU ANTH ART COMM CRGS EC **ENGL** ENST GEOG HIST HS INTL JMC MUS NAS PHIL POLI RS SOC THEA WLC BIOL CHEM CS **ENGR** ESM FISH **FWM GEOL** MATH NS OCN PHYX WLDF AT BUS CD **ECON EDUC** KRA LSEE NURS **PSYC** SW

Major Program All

### Annual Program Review: Diversity/Enrollment/Student Success Questions

ΑU

ANTH

ART COMM CRGS

EC **ENGL** 

HS INTL

JMC

MUS

NAS

PHIL

POLI

SOC

THEA WLC BIOL

CHEM CS **ENGR** 

**ESM** FISH FWM

GEOL MATH NS

OCN

BUS CD **ECON** 

**EDUC** KRA LSEE

NURS **PSYC** SW

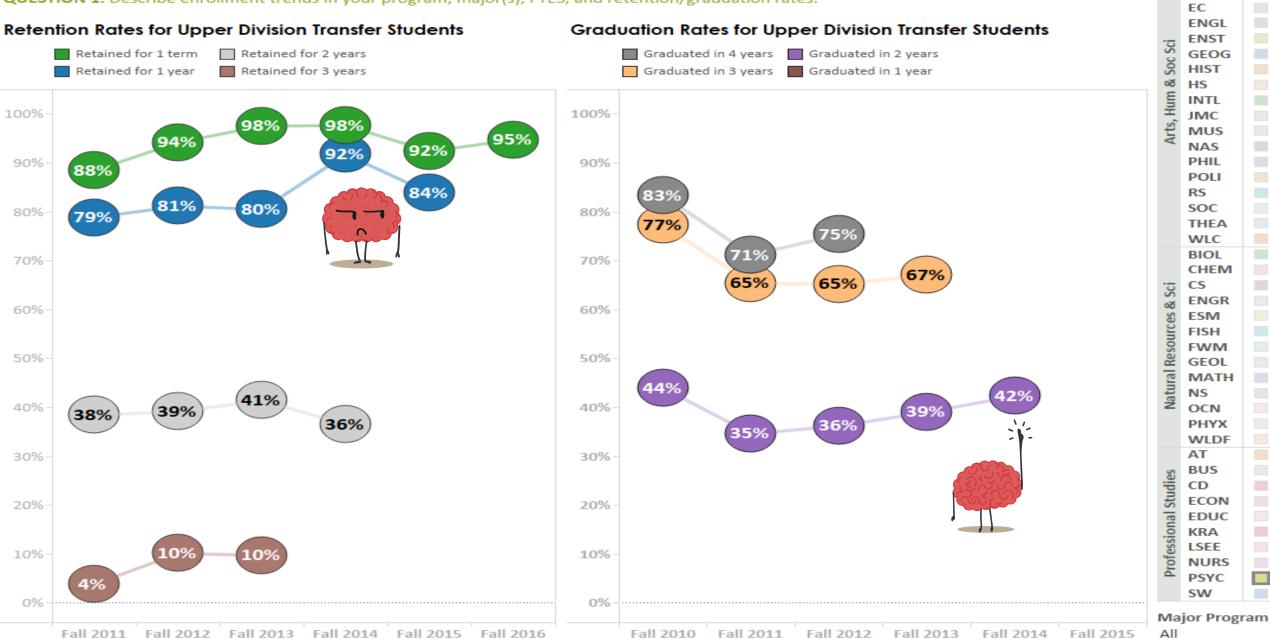
PHYX WLDF AT

RS

ENST

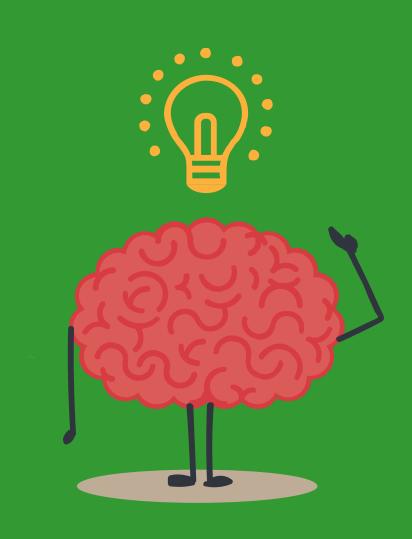
GEOG HIST

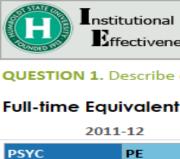
QUESTION 1. Describe enrollment trends in your program, major(s), FTES, and retention/graduation rates.

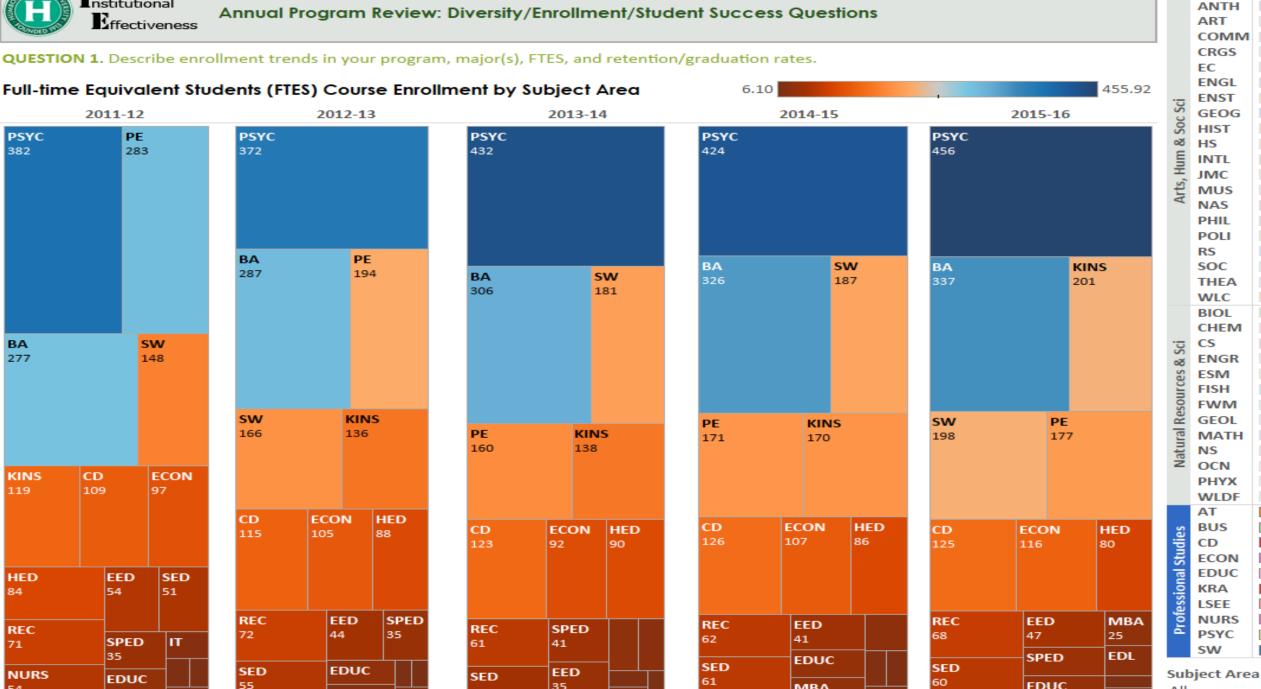


# Data Investment

How data are used to understand ROI







35

ΑU

EDUC

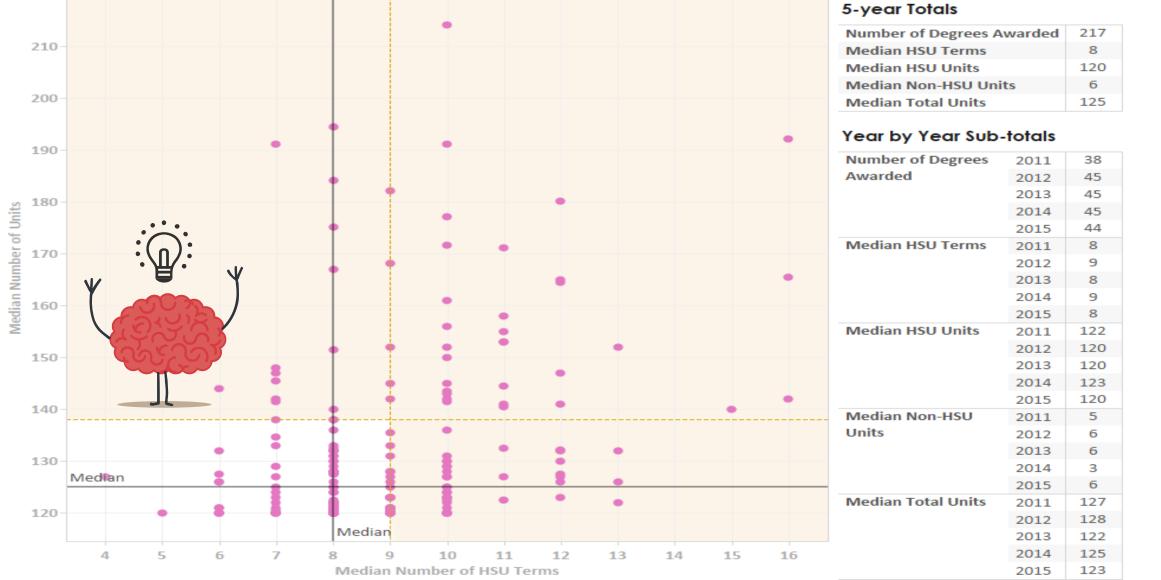
MBA



### Annual Program Review: Diversity/Enrollment/Student Success Questions

QUESTION 2. Describe trends in the composition of your majors (such as diversity, level of college preparedness, time to degree etc.). Please highlight any significant findings or unique outliers.

### Median Units and HSU Terms to Degree for FTUG Students

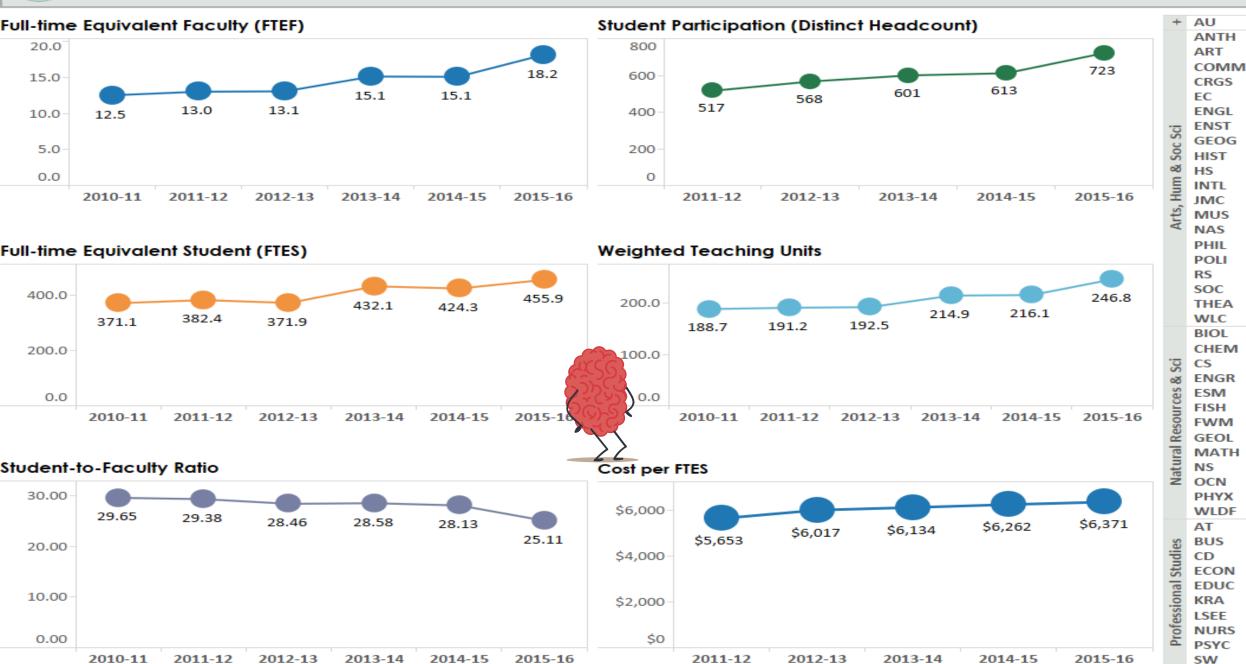


+	AU	
	ANTH	
	ART	
	COMM	
	CRGS	
	ENGL	
	GEOG	
S	HIST	
So	INTL	
Ę	JMC	
五	MUS	
Irts	NAS	
4	PHIL	
	POLI	
	RS	
	SOC	
	THEA	
	WLC	
	BIOL	
	CHEM	
Sci	CS	
nd	ENGR	
S	ESM	
o n	FISH	
eso	FWM	
~	GEOL	
n.	MATH	
Nat	OCN	
	PHYX	
	WLDF	
	AT	
S	BUS	
ndi	CD	
St	<b>ECON</b>	
ona	EDUC	
SSi	KRA	
ofe	NURS	
P	PSYC	
	SW	

Major Progra..



### **Resource Review Workbook**

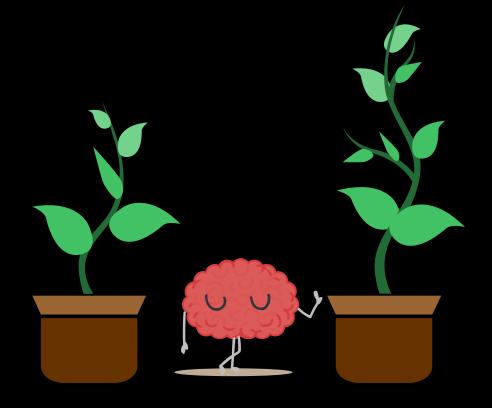


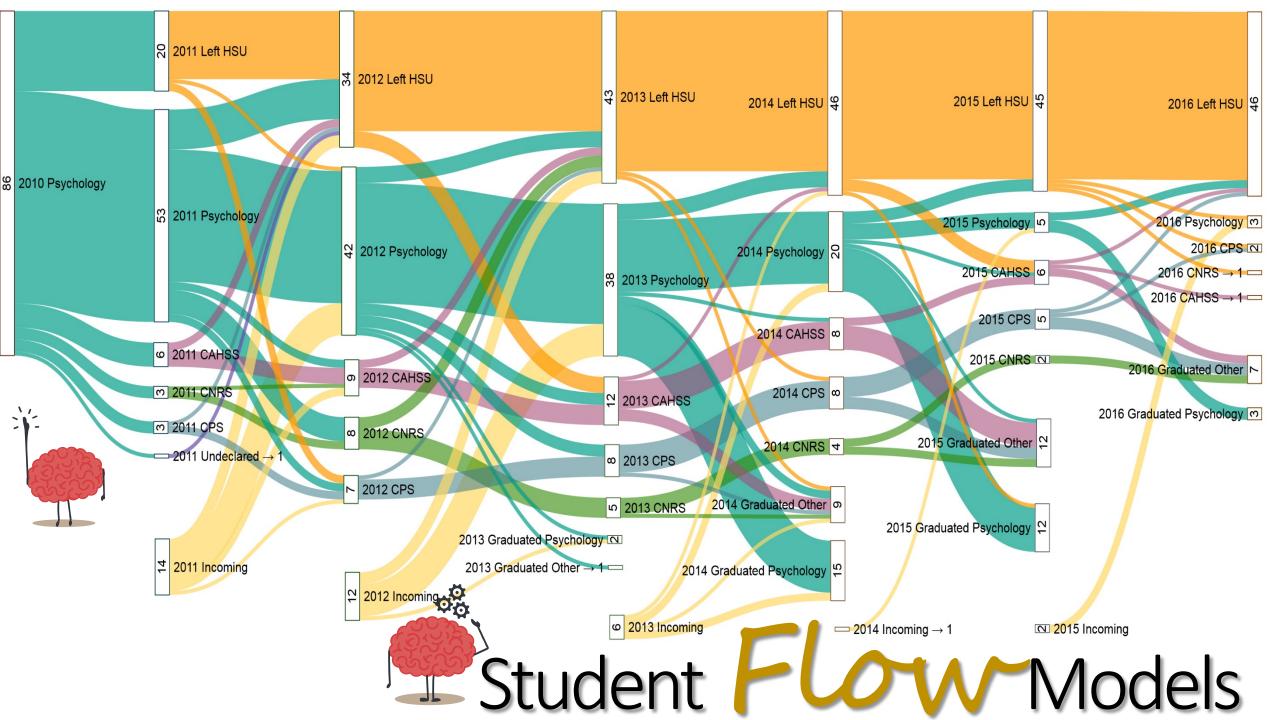
# Data Growth

the future of analytics for HSU OIE









### White glove service



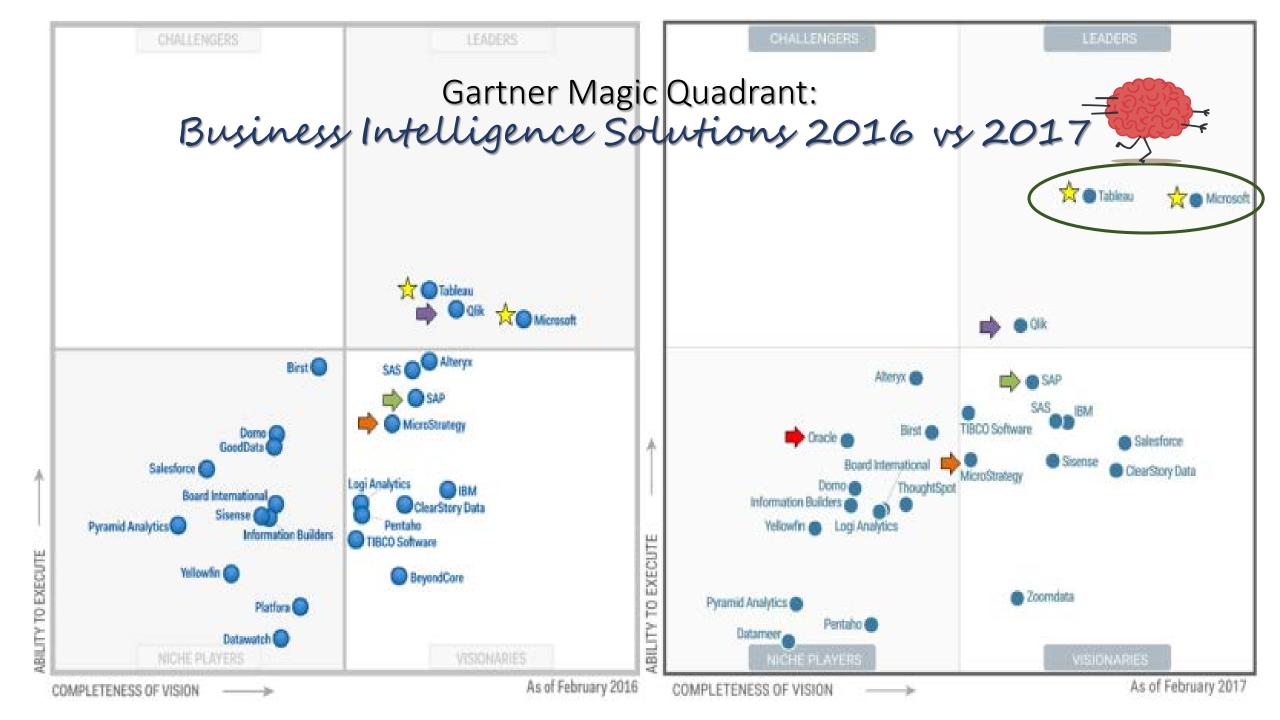


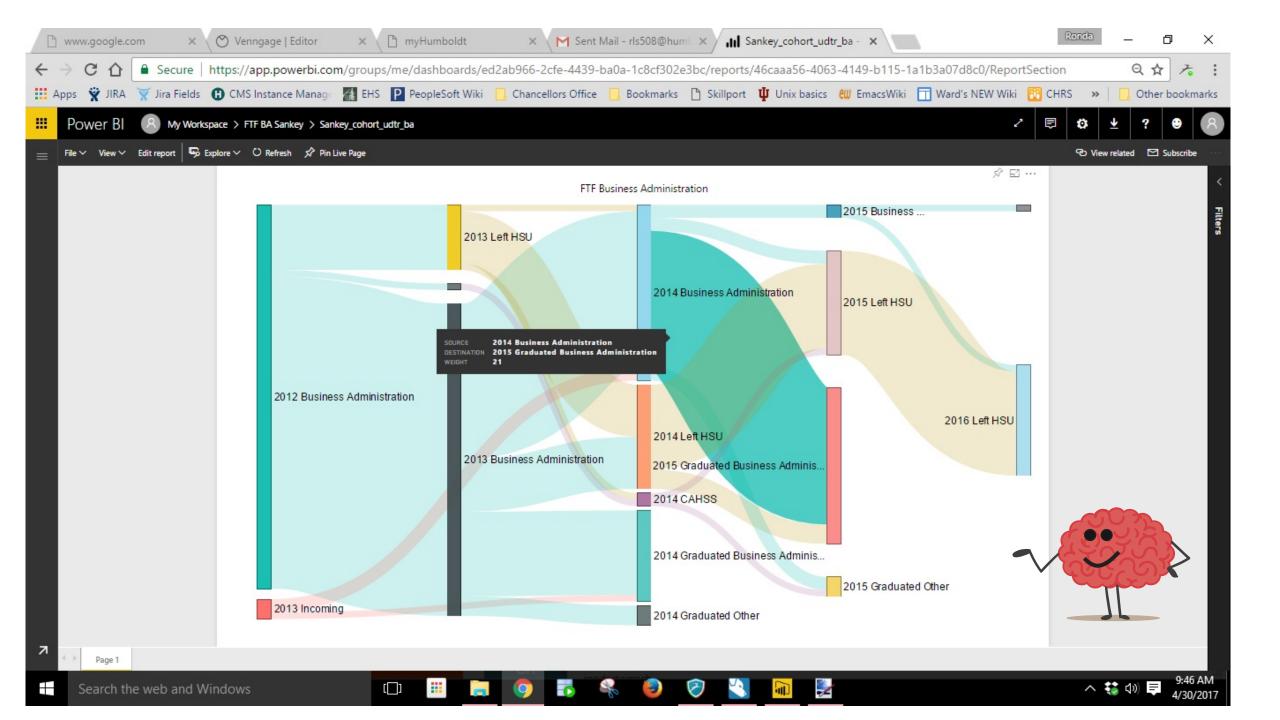
### Self-paced Tutorial service

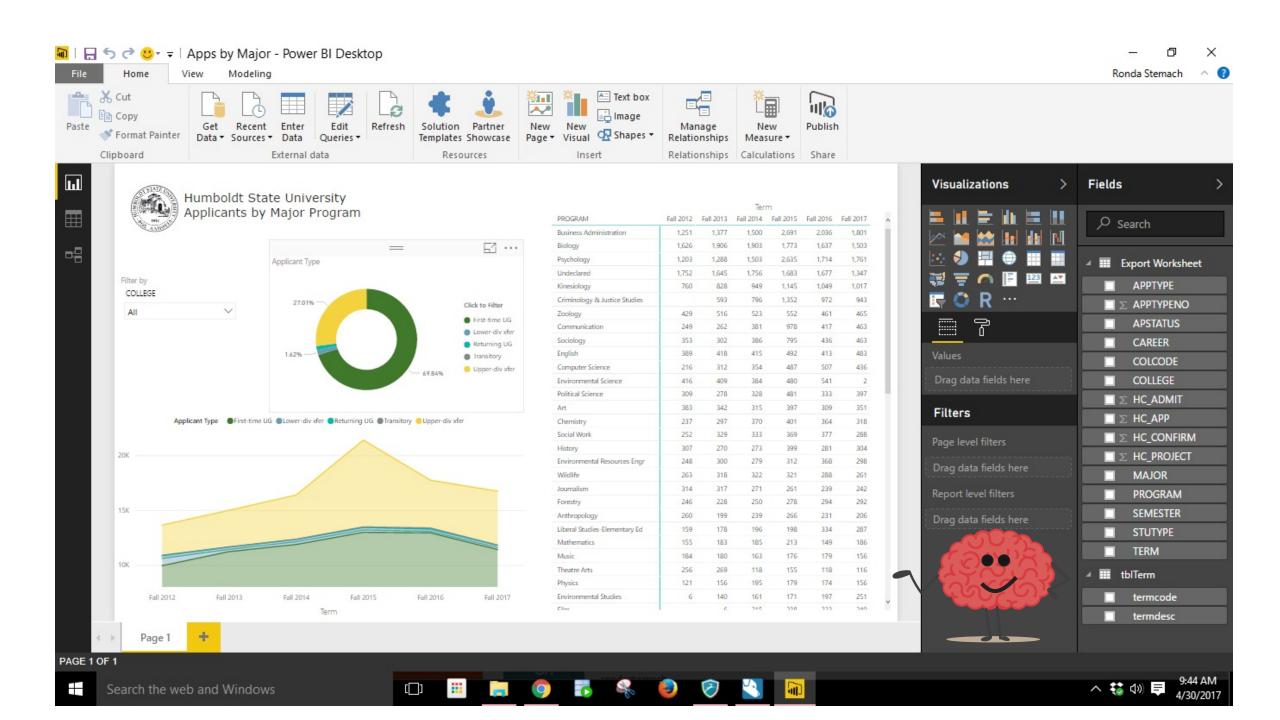


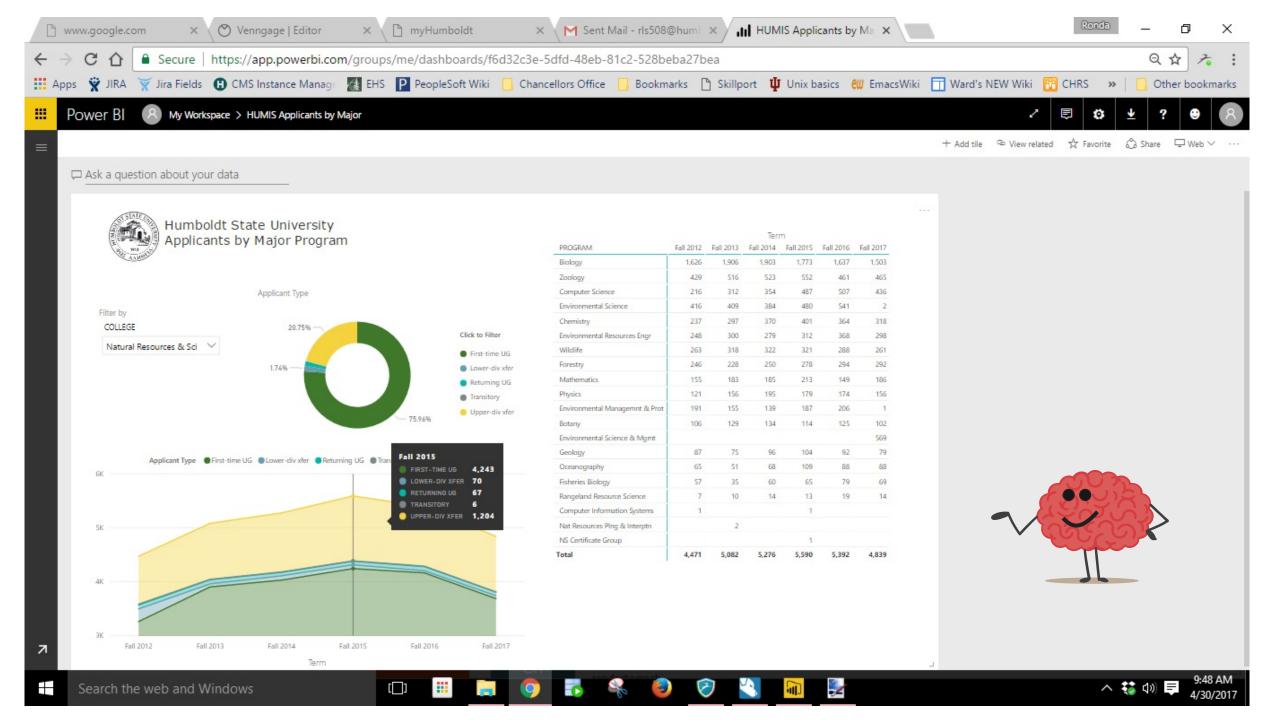








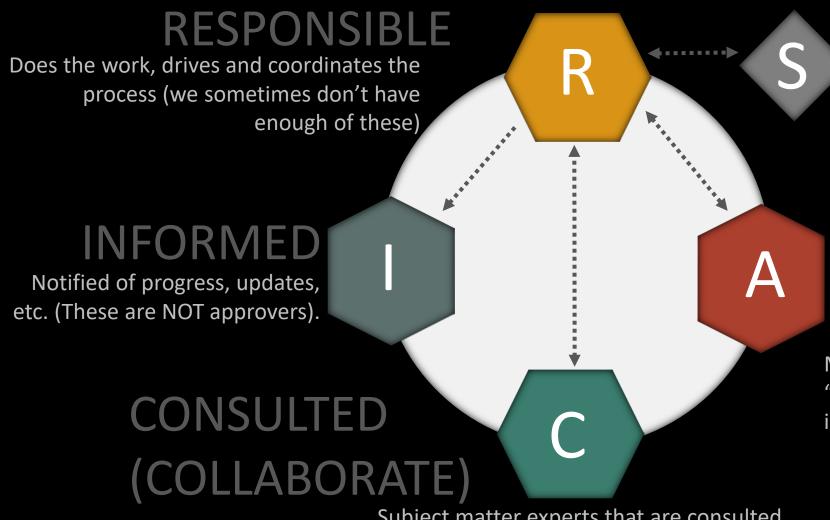




# Data Planning

Using data to responsibly plan

### RESPONSIBILITY BASED PLANNING



### **SUPPORTERS**

Provide logistical support for the work. (we sometimes don't have enough of these)

## ACCOUNTABLE (APPROVER)

Makes decisions, says "yes" or "no" (Some people think they are in this role or want to be)

Subject matter experts that are consulted regarding the process (these are NOT approvers & we have LOTS of these)

