

Engaging Faculty in FirstGen Student Success by Using Data

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University of Nebraska-Lincoln

Nebraska's land-grant

Public research university

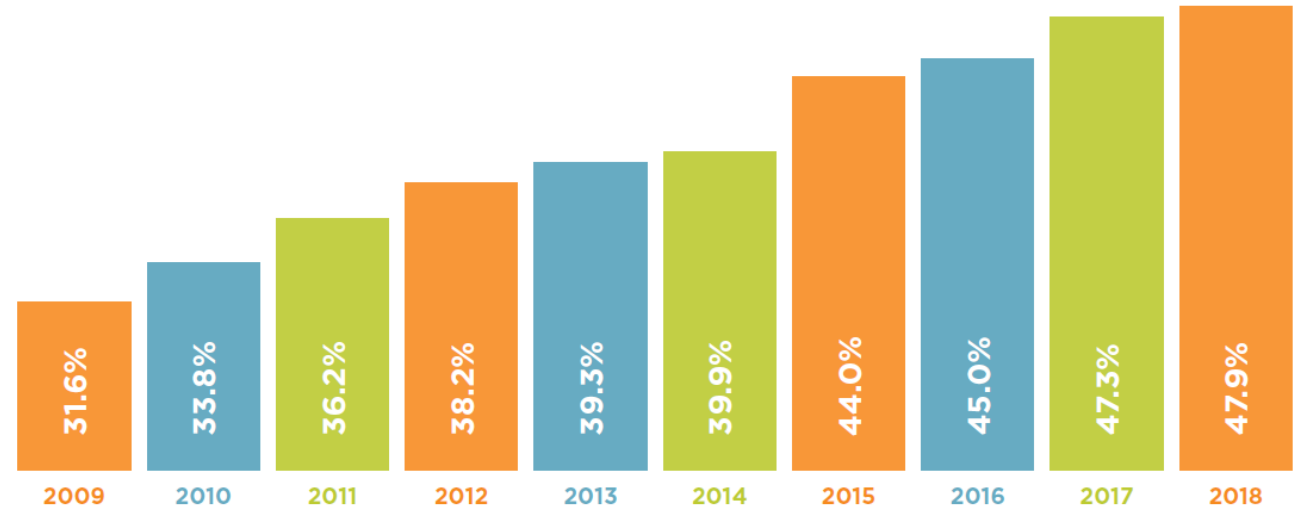
21,000+ undergraduates

- 69% Nebraskans
- 25% First-generation
- 24% Low-income



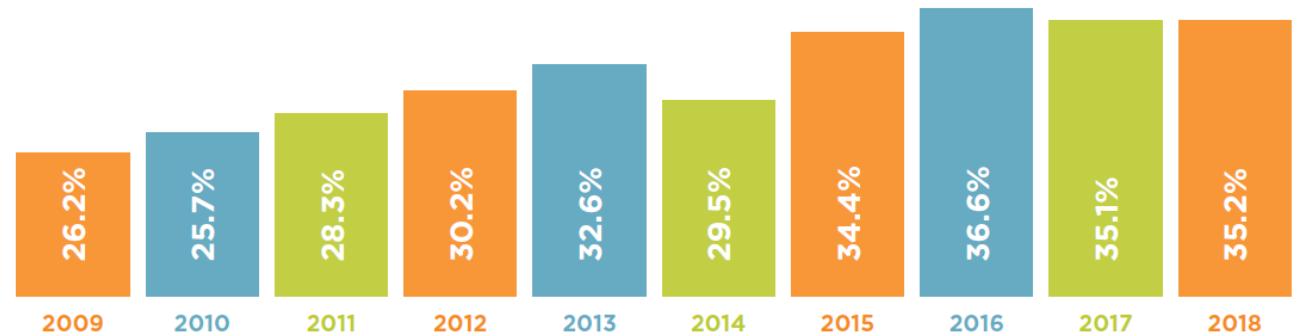
Four-year Graduation Rates

All Students



UNL-only four-year graduation rate for fall 2009-2018 cohorts (2013-2022 graduation years respectively)

FirstGen Students



First-generation four-year graduation rates for 2009-2018 cohorts (2013-2022 graduation years respectively)

UNL Data on First- Gen Students

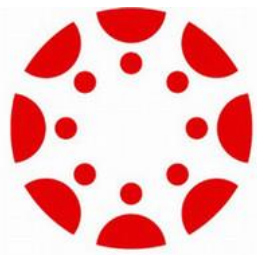
- Retention
- Degree Completion
- Graduation Rates
- Earned Credit Hours
- Cumulative GPA
- Enrollment Holds
- Percentage 15/30/60 credits
- Career Fair engagement
- Survey for 1st-year & transfer
- Graduating Senior survey
- First Destination Survey
- Orientation engagement
- Advising engagement
- Internship participation
- Undergrad research participation
- Academic Resource Center Usage

Language and Culture



- First Husker
 - Early Move In Dates
 - Support for Academic Success Coaches
- First Generation Nebraska
 - Experiential Learning Scholarships
- Faculty and Staff
 - Share your stories
 - Buttons
 - First-Generation Advisory Board





Canvas



Course Insights

- UNL created
- LTI
- In every course
- Tableau-based

Spring 2026

Home

Announcements

Syllabus

Modules

Assignments

Quizzes

People

Pages

Grades

Instructor Course
Evaluations

Course Insights

Course Analytics

Ally Course
Accessibility Report

Outcomes

Discussions

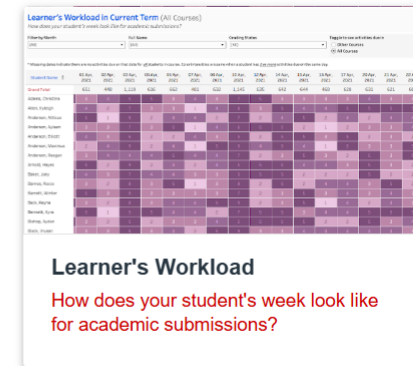
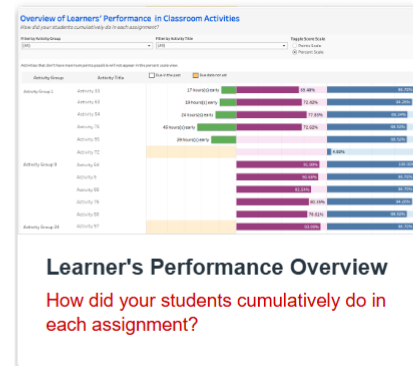
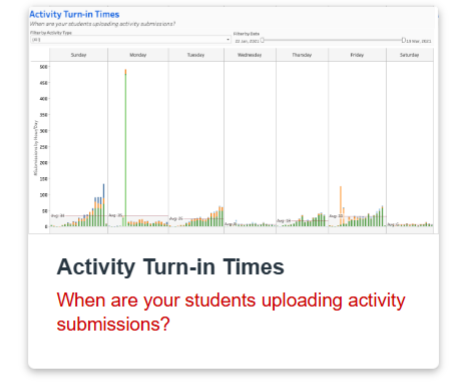
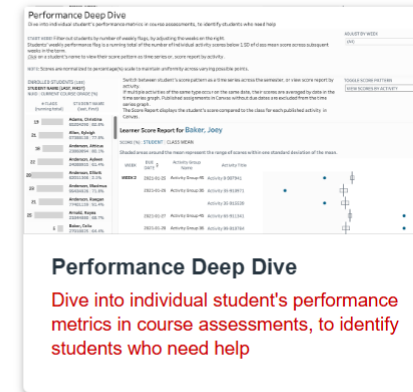
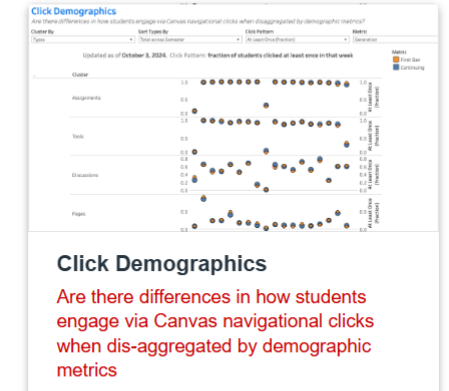
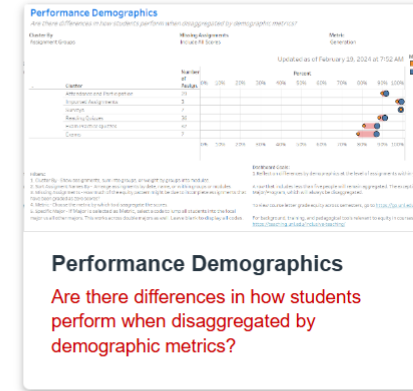
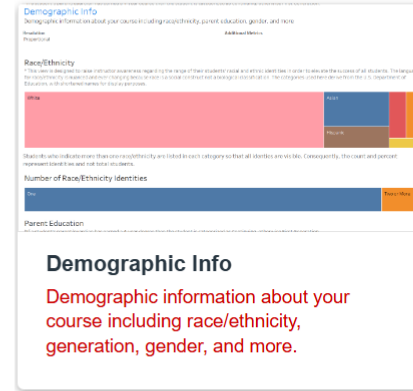
Rubrics

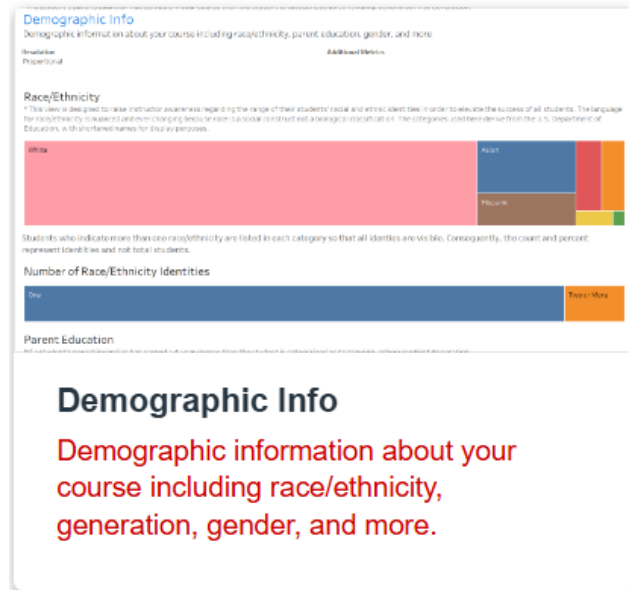
Files

Collaborations

Settings

Course Insights





Demographic Info

Additional Metrics

Neighborhood Index	
State Residency	
Starting Status	
Rural/Urban	
Country of Origin, non-U.S.	
Dis/ability	
Class Standing	
Year at UNL	
College of Student	

- Who is in my class?
 - Parent Education
 - Race/Ethnicity
 - Gender

Parent Education

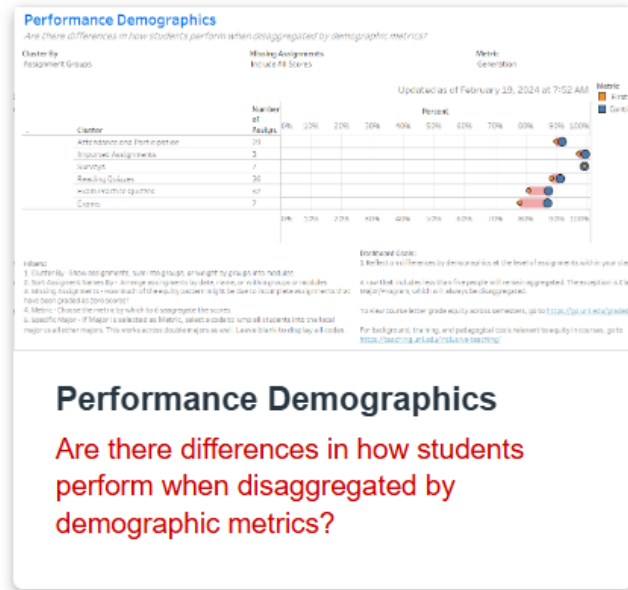
*If a student's parent/guardian has earned a 4-year degree then the student is categorized as Continuing, otherwise First Generation.

Continuing

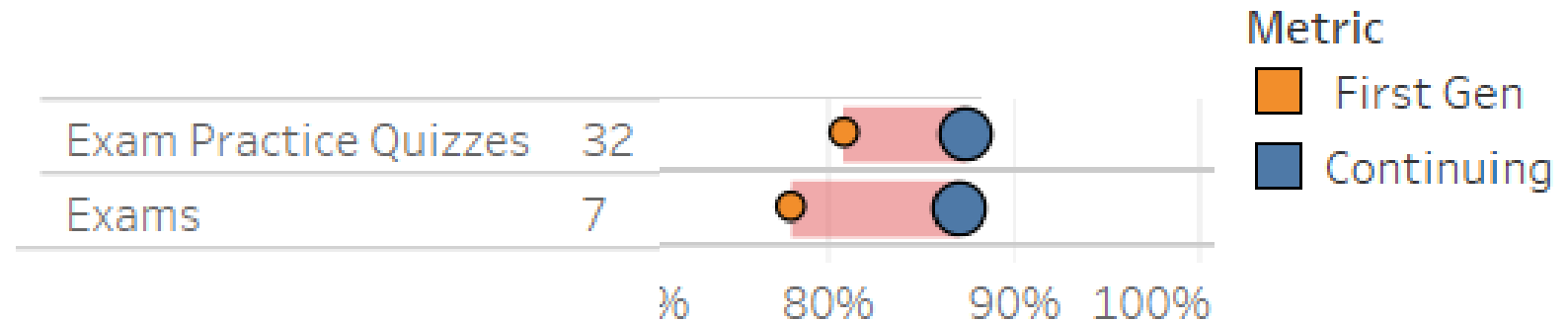
First Gen



Parent Education: First Gen
Count: 31
Enrollments in Gap: 22.9%



Performance Demographics



- Assignment, Assignment Group, or Module average grade disaggregated by demographic metric

Sort Assig...

Due Date

Due Date

Name

Group

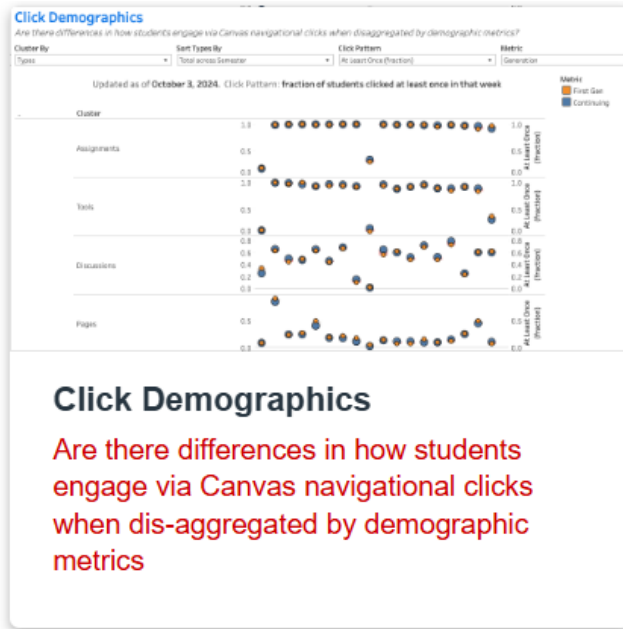
Module

Missing As...

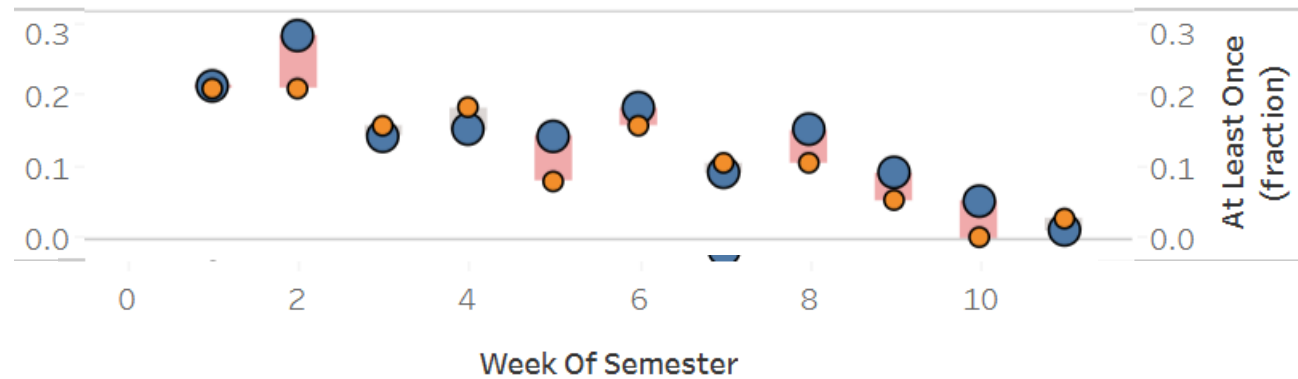
Include All Scores

Include All Scores

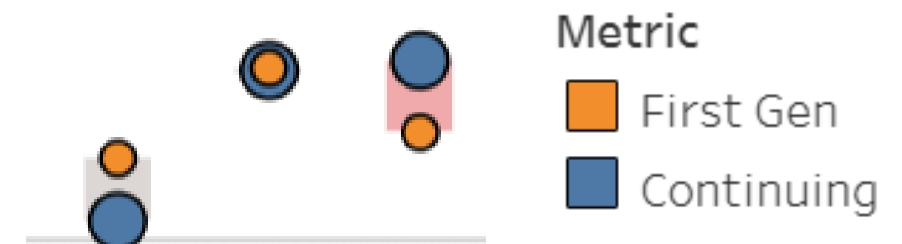
Remove Zero Scores



Click Demographics



- Cluster By
 - Names of each resource,
 - Types (i.e. Tools, Files, Pages, etc)
 - Modules
- Click Pattern
 - At Least Once (fraction)
 - Clicks
 - Viewing Times (minutes)



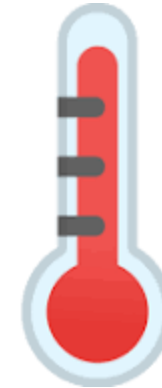
“pink” if matches institutional pattern for:
race/ethnicity, first gen, gender

Dashboards for Reflection

1. See it



2. Feedback on change



Feed faculty curiosity

Dashboards For Action

Demographic Blind

Note: be aware that is rounding the average to an integer

Low-Click Learners

Student's Weekly Click Metrics

INSTRUCTION DATES: 01-12-2026 TO 05-08-2026 | # ENROLLED: 136

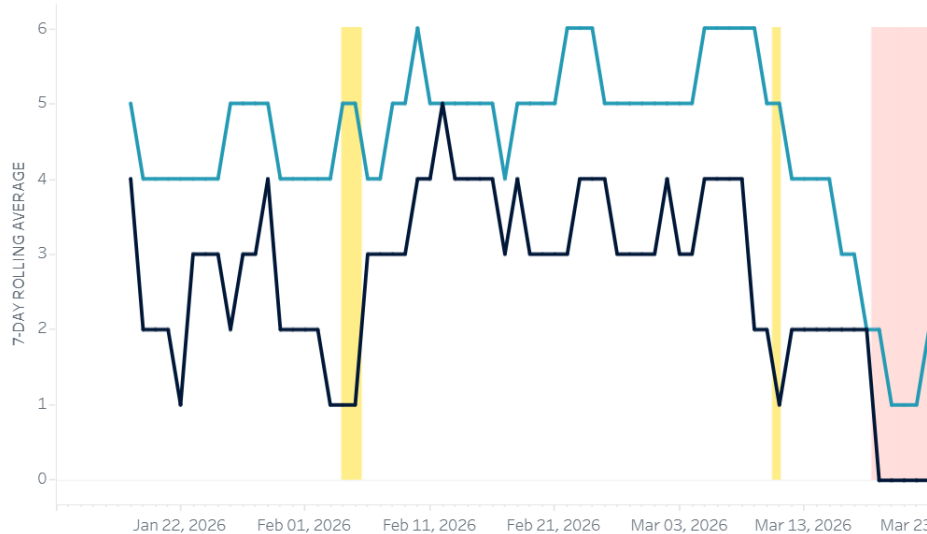
STUDENT WEEKLY AVERAGE NAVIGATIONS LESSER THAN 25% OF CLASS AVERAGE? **YES** | NO

CURRENT SCORE WEEK1 WEEK2 WEEK3 WEEK4 WEEK5 WEEK6 WEEK7 WEEK8 WEEK9 WEEK10 WEEK11

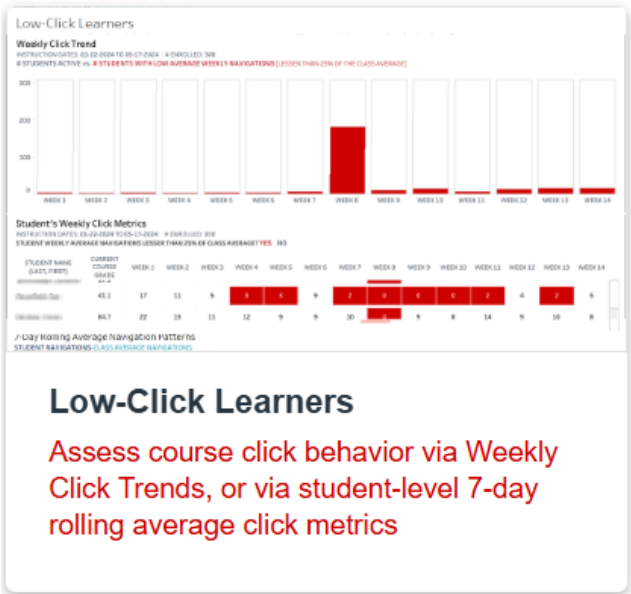
33.8	4	3	2	1	2	1	1	4	1	0	0
34.7	4	2	2	2	1	1	2	2	0	0	1
43.9	3	2	2	1	1	1	0	2	1	0	0

7-Day Rolling Average Click Patterns

STUDENT CLICKS-CLASS CLICKS



- Individually Identified



Forthcoming: Course Schedules of Students

Students' Schedules for Spring 2026

Click or Ctrl-Click to select multiple slots (Space or Ctrl-Space)

	MON	TUES	WED	THURS	FRI
8:00 AM		5		4	
8:30 AM	21	21	24	23	19
9:00 AM	21	21	24	24	19
9:30 AM	52	52	55	49	48
10:00 AM	51	52	54	49	48
10:30 AM	62	48	63	46	57
11:00 AM	59	46	60	43	57
11:30 AM	59	45	61	50	61
12:00 PM	59	43	61	48	62
12:30 PM	19	46	31	42	19
1:00 PM	19	46	31	42	18
1:30 PM	38	44	43	35	28
2:00 PM	38	37	40	32	26
2:30 PM	99	44	32	36	3
3:00 PM	99	45	32	35	3
3:30 PM	16	28	40	23	15
4:00 PM	16	32	45	23	15

Schedules with Conflicts

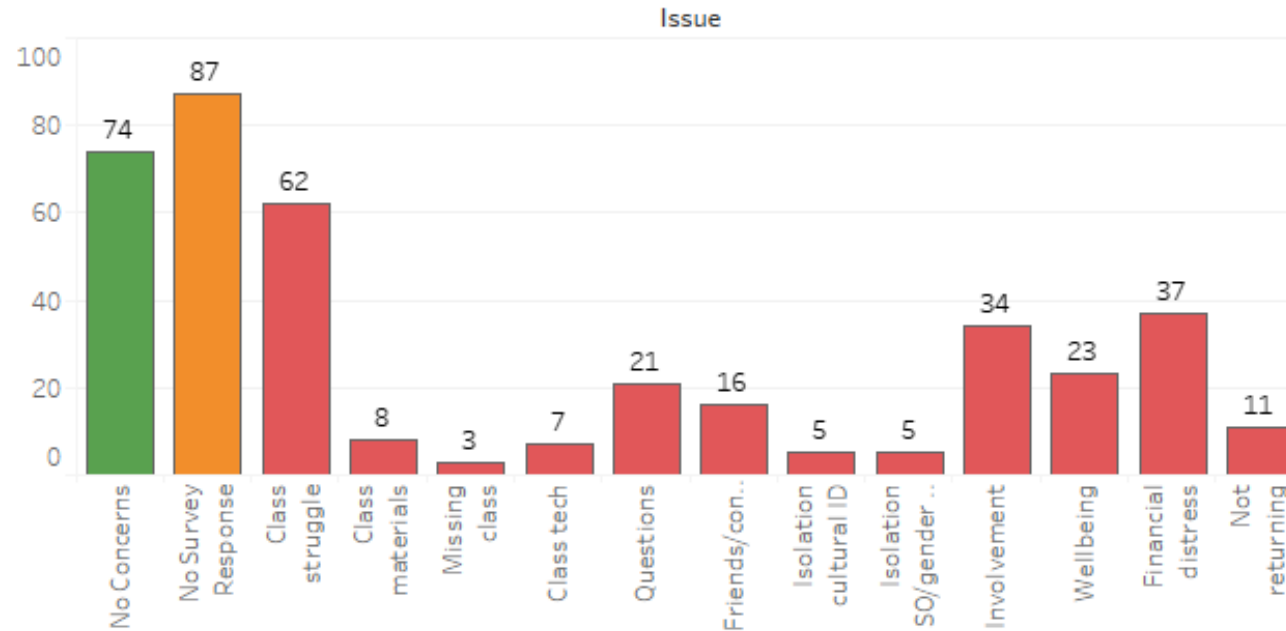
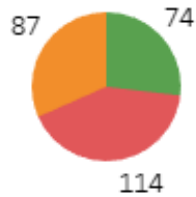
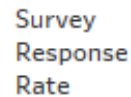
Students: 24 with conflicts for all selected times.

	MON	TUES	WED	THURS	FRI
8:00 AM					
8:30 AM	4	2	4	3	4
9:00 AM	4	2	4	3	4
9:30 AM	15	11	15	11	15
10:00 AM	15	11	15	11	15
10:30 AM	14	9	13	9	13
11:00 AM	14	10	13	9	13
11:30 AM	15	10	15	10	16
12:00 PM	15	10	15	10	16
12:30 PM	4	10	9	12	3
1:00 PM	4	10	9	12	3
1:30 PM	7	15	7	10	2
2:00 PM	7	10	6	8	2
2:30 PM	24	24	7	9	1
3:00 PM	24	24	7	8	1
3:30 PM	7	24	14	9	6
4:00 PM	7	24	15	9	6

For access, complete <http://go.unl.edu/powertraining>

Husker POWER List for Instructors

Download Student List



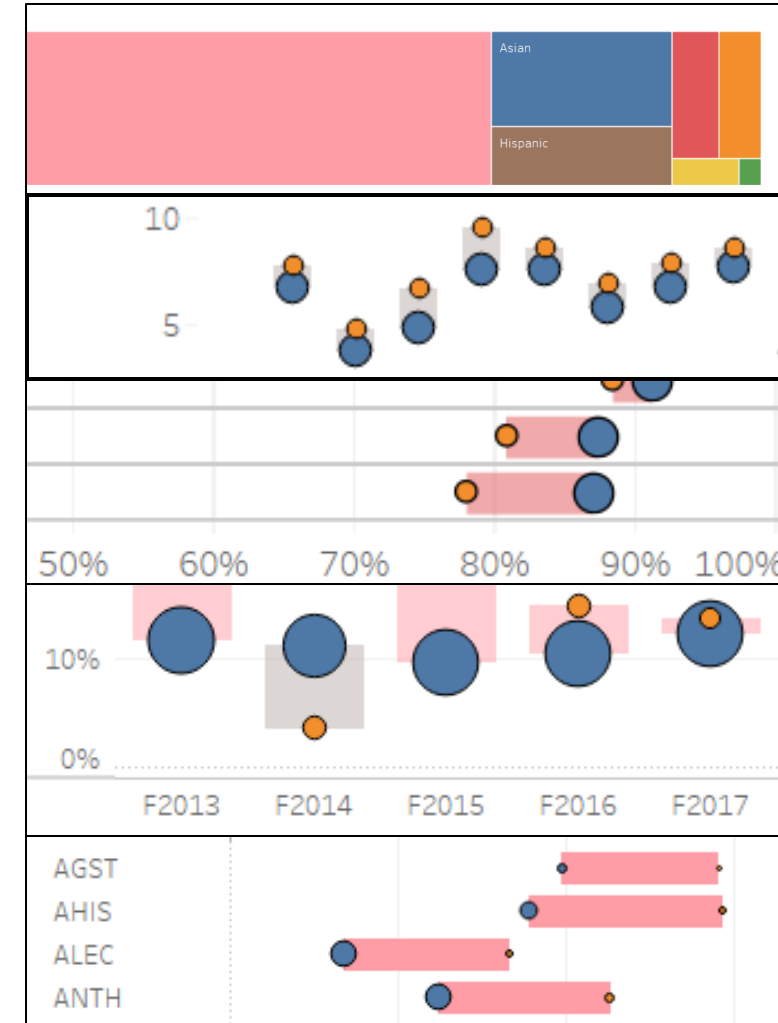
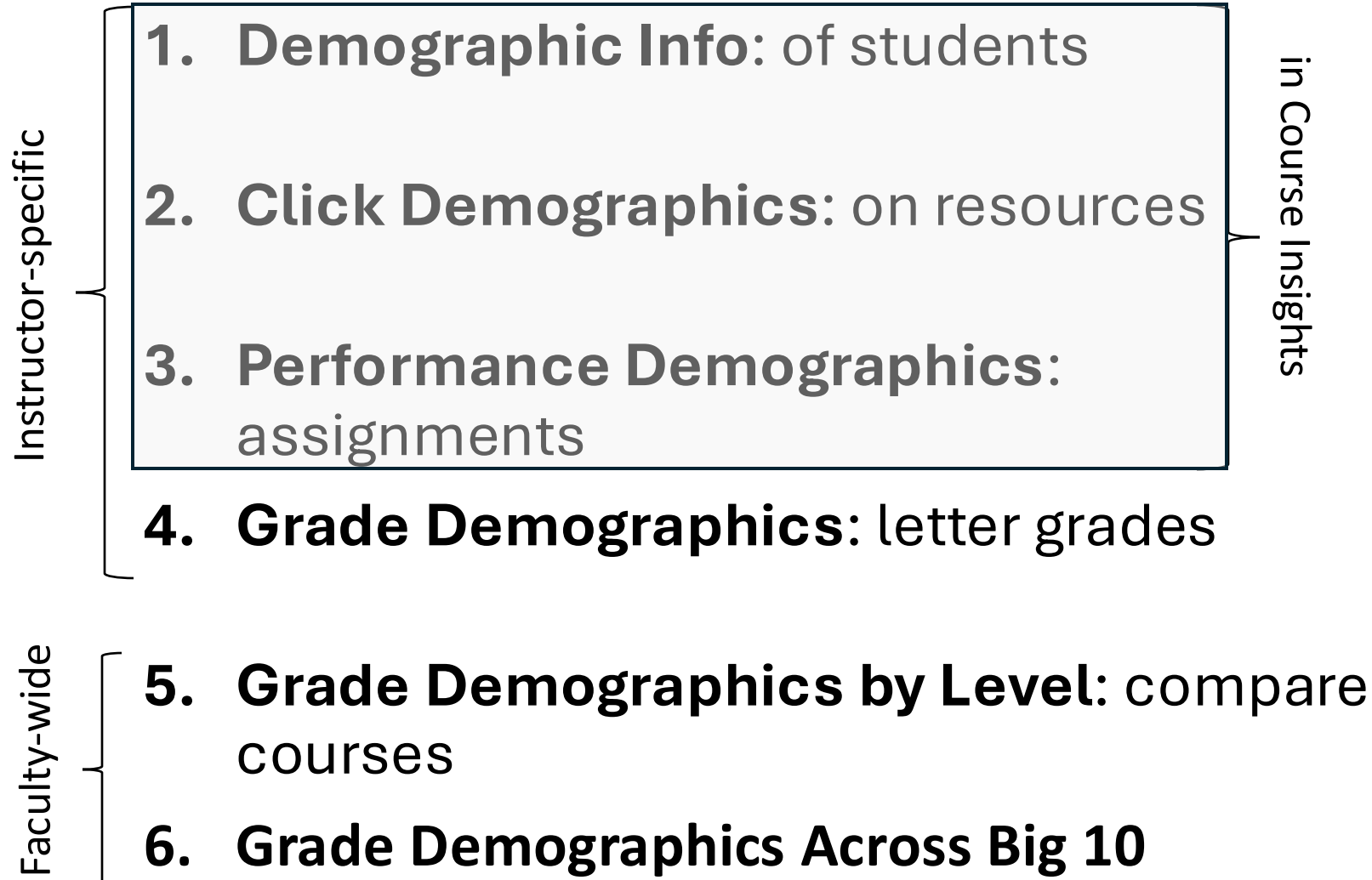
Name	Email								
Student Andrew Joseph	andrewj@students.unl.edu		●						
Student Michael Joseph	michaelj@students.unl.edu	●							
Student Ian Taylor	iant@students.unl.edu			●					●
Student Jagger Lee	jaggerl@students.unl.edu			●				●	
Student Joseph Brown	josephb@students.unl.edu		●						
Student Marcus Robert Wilson	marcusr@students.unl.edu	●							
Student Danya Marguerite	danya@students.unl.edu	●							
Student Austin Tyler	austint@students.unl.edu	●							
Student Taylor Lynn	taylorl@students.unl.edu	●							
Student Haley Marie	haleym@students.unl.edu			●					
Student Charles	chase@students.unl.edu			●				●	●

Dashboards For Context

Across Courses with Demographics

Organized around a question: as an instructor, how do I help all student succeed?

UNL Course Demographics Suite



#4) Grade Demographics For Instructors: grades across semesters

1) To start, choose course...

<https://go.unl.edu/gradedemographics>

Course
LIFE 121

Grades
DFW

Combine Semesters for less noise.

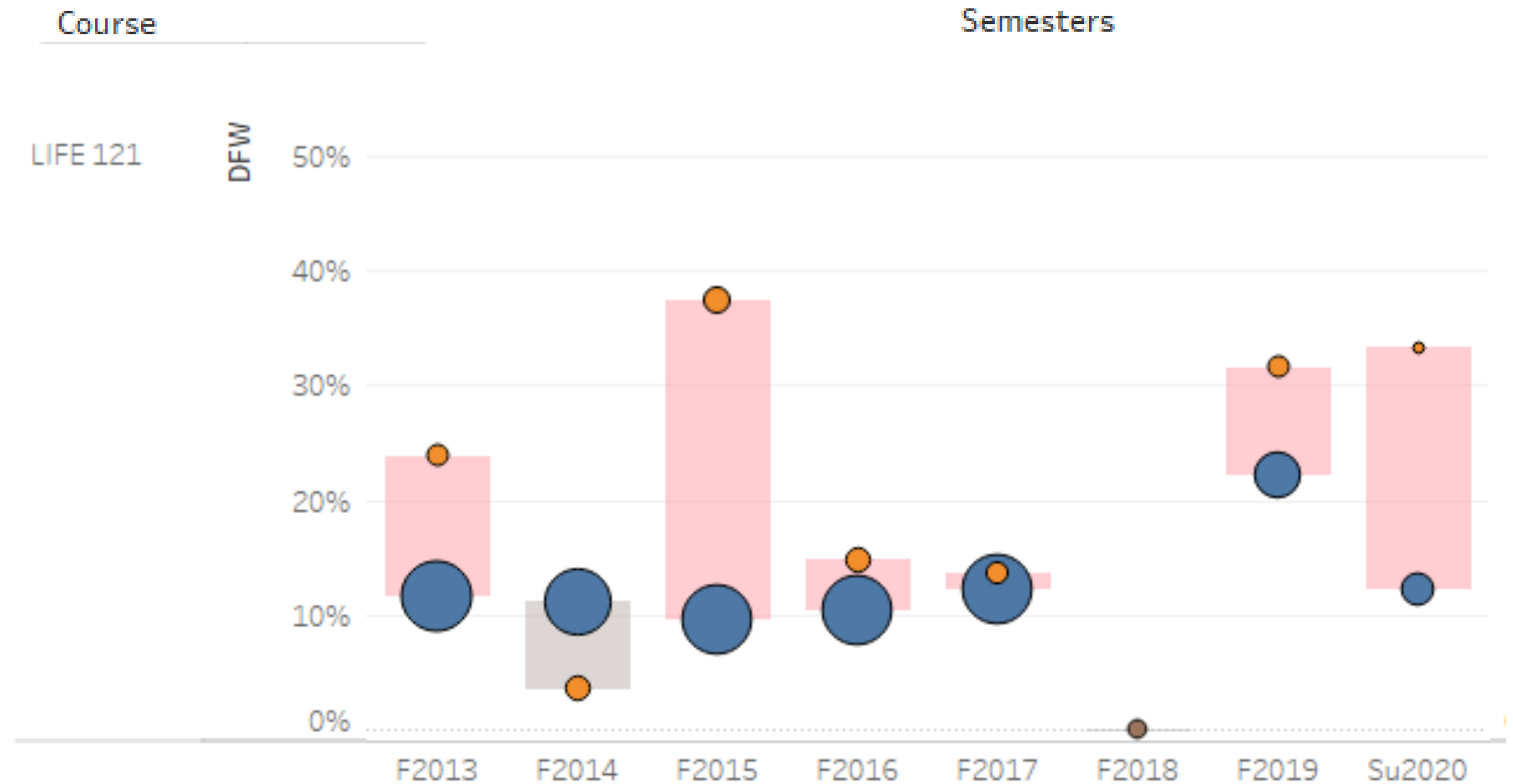
Combine Semesters
1

Metric
Race/Ethnicity

Second Metric
None

■ Aggregated
■ Underrepresented
■ Represented

Grade Demographics Across Semesters



Note: remains aggregated if less than 5 students in a category

#5) Grade Demographics By Levels: course grades viewable by community

1) Choose viewing Level..

Level
Subject
(click a row to view Across Years)
(College: All)

<https://go.unl.edu/gradedemographicsbylevel>

Grade Demographics Comparison by Race/Ethnicity for **Fall 2020 - Spring and Summer 2023**

Select Academic Years by Spring of Calendar Year
2021 to 2023
and Null values

College*
All

Subject*
All


*Click to Reset Filters if changing back to higher Level.

Career
Undergraduate

Course Type
Multiple values

ACE
No Filter

Mode
All

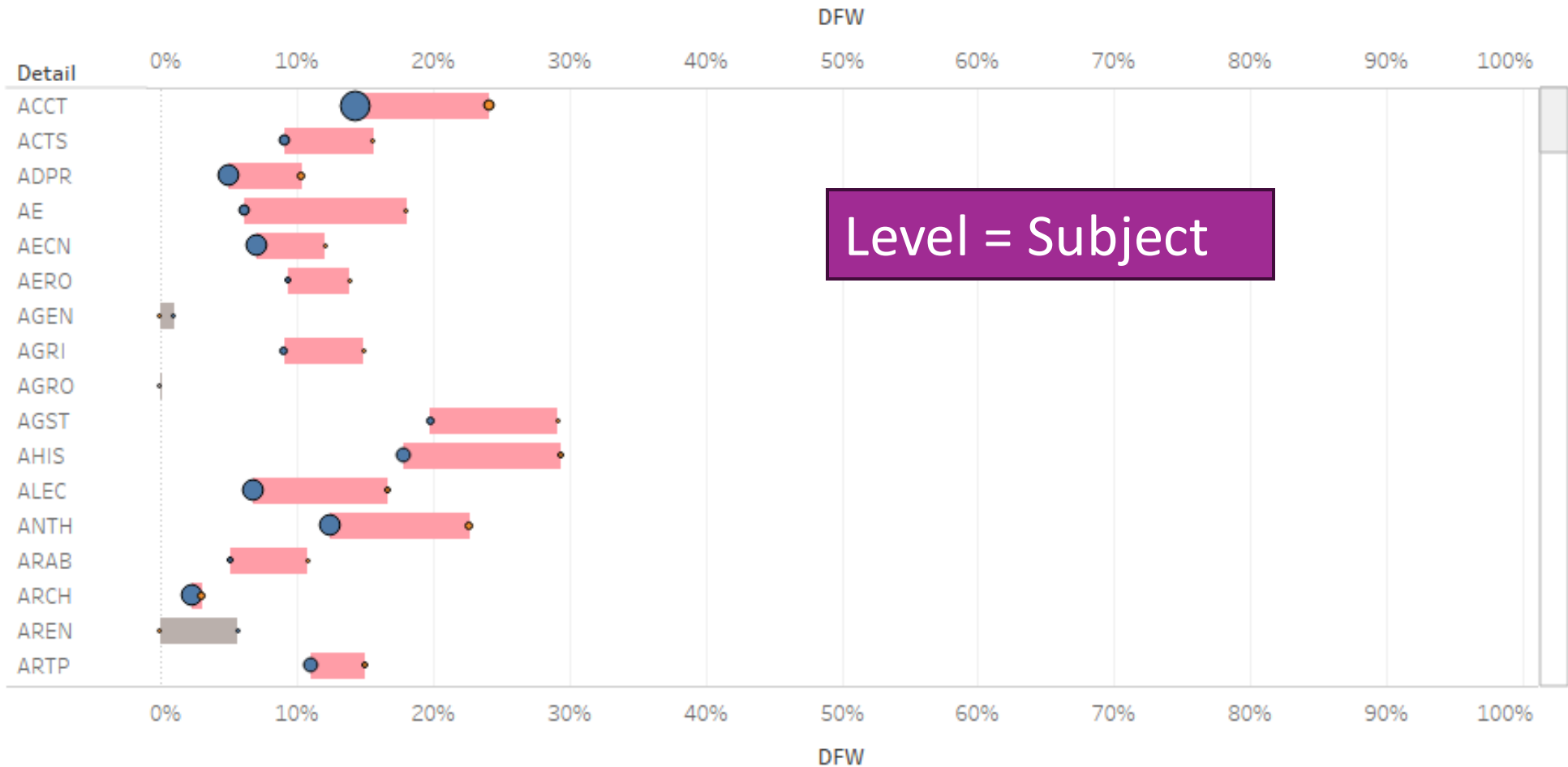
Grades
DFW

Sort By
Alphabetical

Metric
Race/Ethnicity

Second Metric
None

-  Underrepresented
-  Represented
-  Aggregated



[Return to Comparison](#)

Grade Demographics Across Years by Gender-Generation for **1XX** ([select by clicking on a row in Comparison](#))
(*College: All, Subject: MATH*)

Career
Undergraduate

Course Type
Multiple values

ACE
No Filter

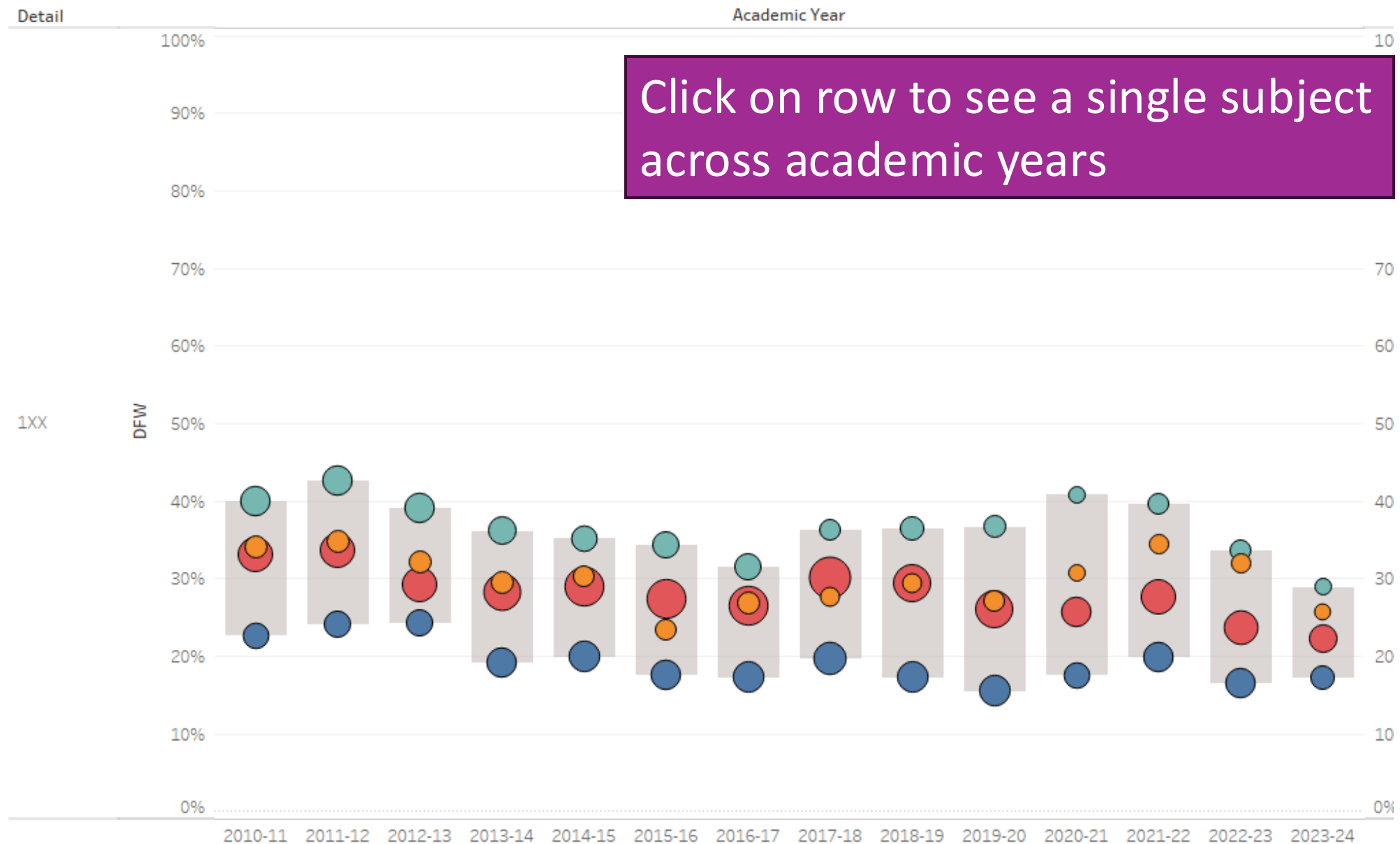
Mode
In-person

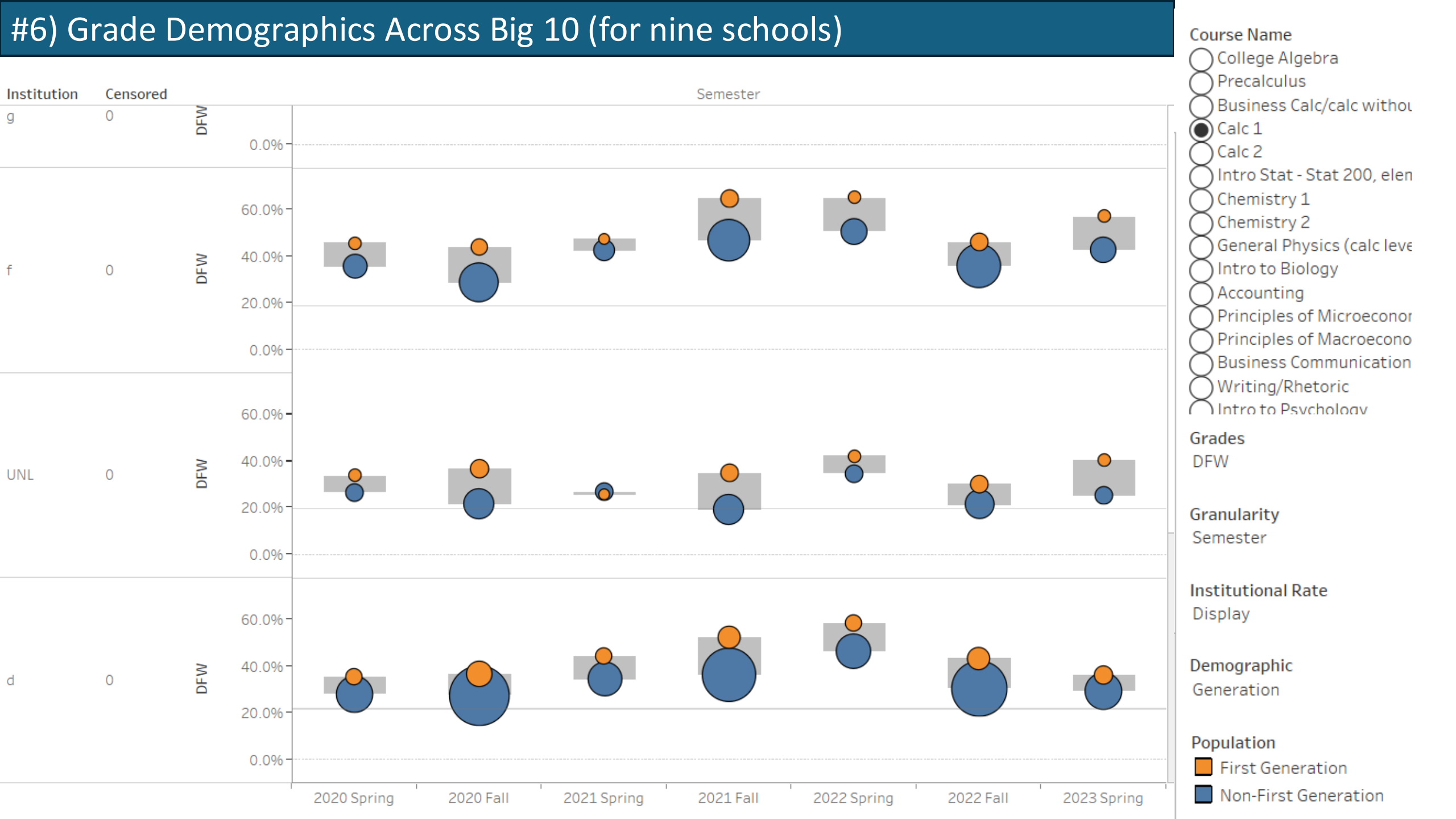
Grades
DFW

Metric
Gender

Second Metric
Generation

Female-Continuing
Female-First Gen
Male-Continuing
Male-First Gen



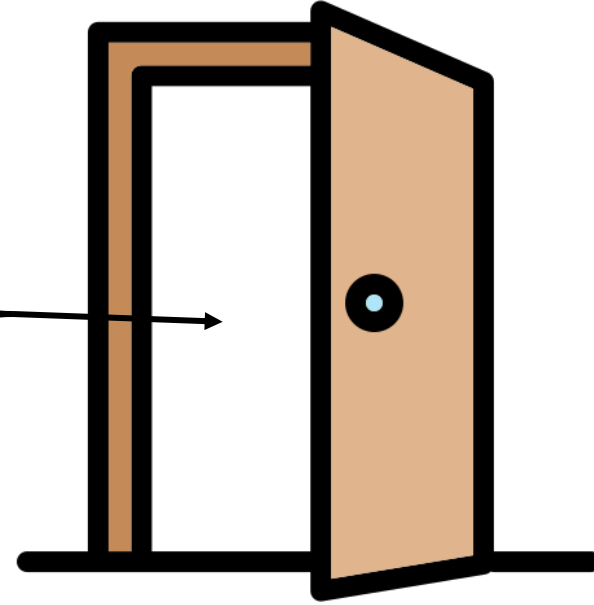


Who?

Access for Instructors

At Nebraska

- 1) Demographic Info
- 2) Click Demographics
- 3) Performance Demographics
- 4) Grade Demographics
- 5) Grade Demographics by Level
- 6) Grade Demographics Across Big 10



Graduate Teaching Assistants:

#1-#4) Have to request Tableau Account

#5-#6) No direct access

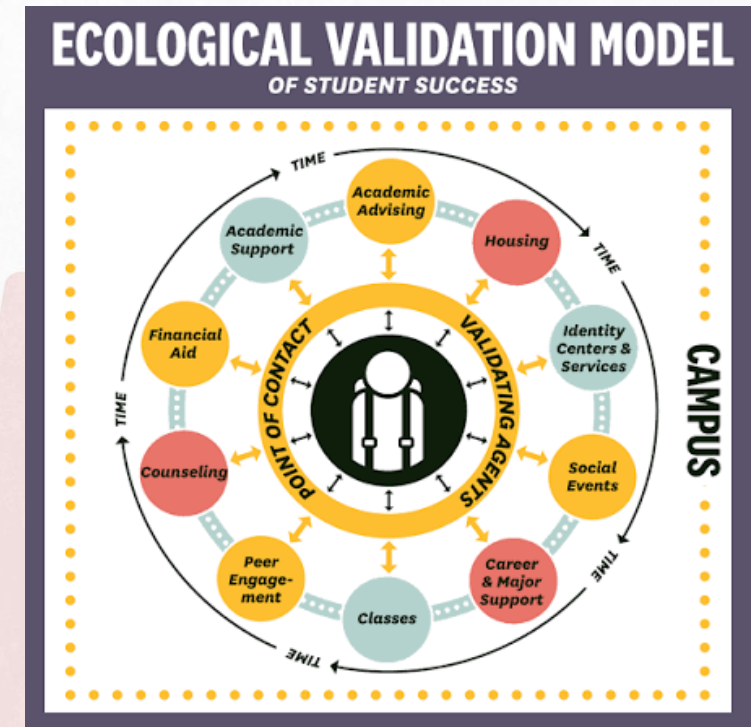
Dashboards For Support

Support from Staff



Academic Navigator Team

- Outreach to students showing signs of falling off track
- Utilize Leading Indicator Data
 - Math Course Readiness
 - Holds
 - Unenrolled
 - Referrals
 - Last Canvas Login
- *Ecology of Validation* in their approach



Performance Outliers:

highlights students with Canvas Scores less than 50% of section average

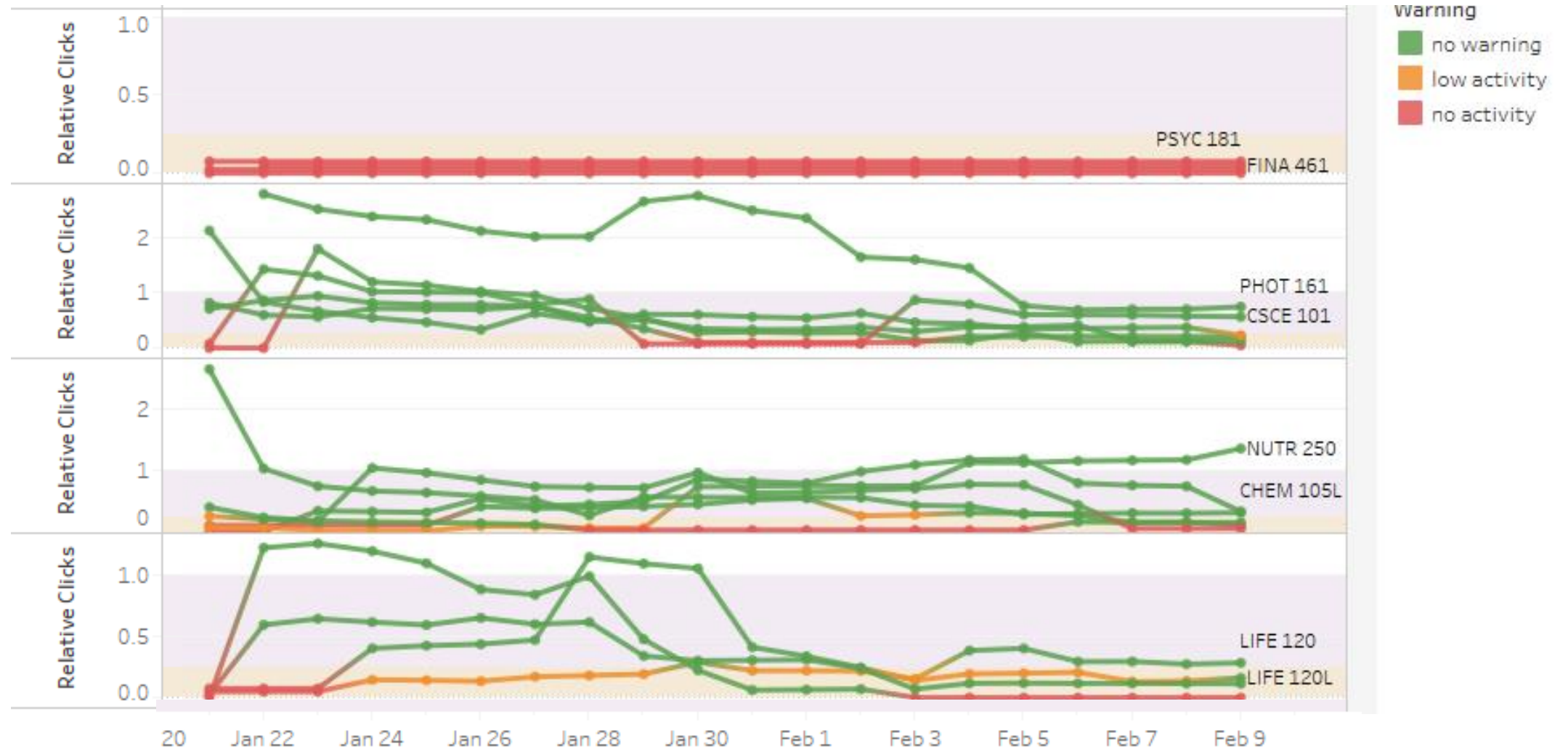
Struggling Students as of April 30, 2025 at 4:59 PM

Red if student grade is lower than 50% of the class average. Otherwise yellow if student grade is lower than a Canvas Score of 66.6

		Course	Type	Canvas Score	Graded Assign, %	Graded with Zero %	Assign. Past Due %	Average Past Due for All Students %	Class with Score Greater than Student %	Total Enrolled Credits	
Student A		LIFE-121L-114	Laboratory	95.8	31	0	0	0.0	48%	15	
		CHEM-109A-1..	Lecture	63.1	17	0	0	0.0	75%	15	
		EAEP-101-001	Lecture	99.5	20	0	0	0.0	6%	15	
		LIFE-121-020	Lecture	66.5	14	0	0	0.0	77%	15	
		ASCI-210-001	Lecture	96.6	47	0	0	0.0	35%	15	
		CHEM-109L-405	Laboratory	99.4	10	0	0	0.0	7%	15	
Student B		JOMC-131-005	Lecture	7.1	15	10	0	0.0	95%	9	
		JOMC-101-001	Lecture	27.6	6	4	0	0.0	99%	9	
		JOMC-130-950	Lecture	28.4	32	21	0	0.0	98%	9	
		JOUR-200A-004	Lecture	31.6	69	30	0	0.0	84%	9	
		JOMC-197-009	Laboratory	85.0	1	0	0	0.0	96%	9	

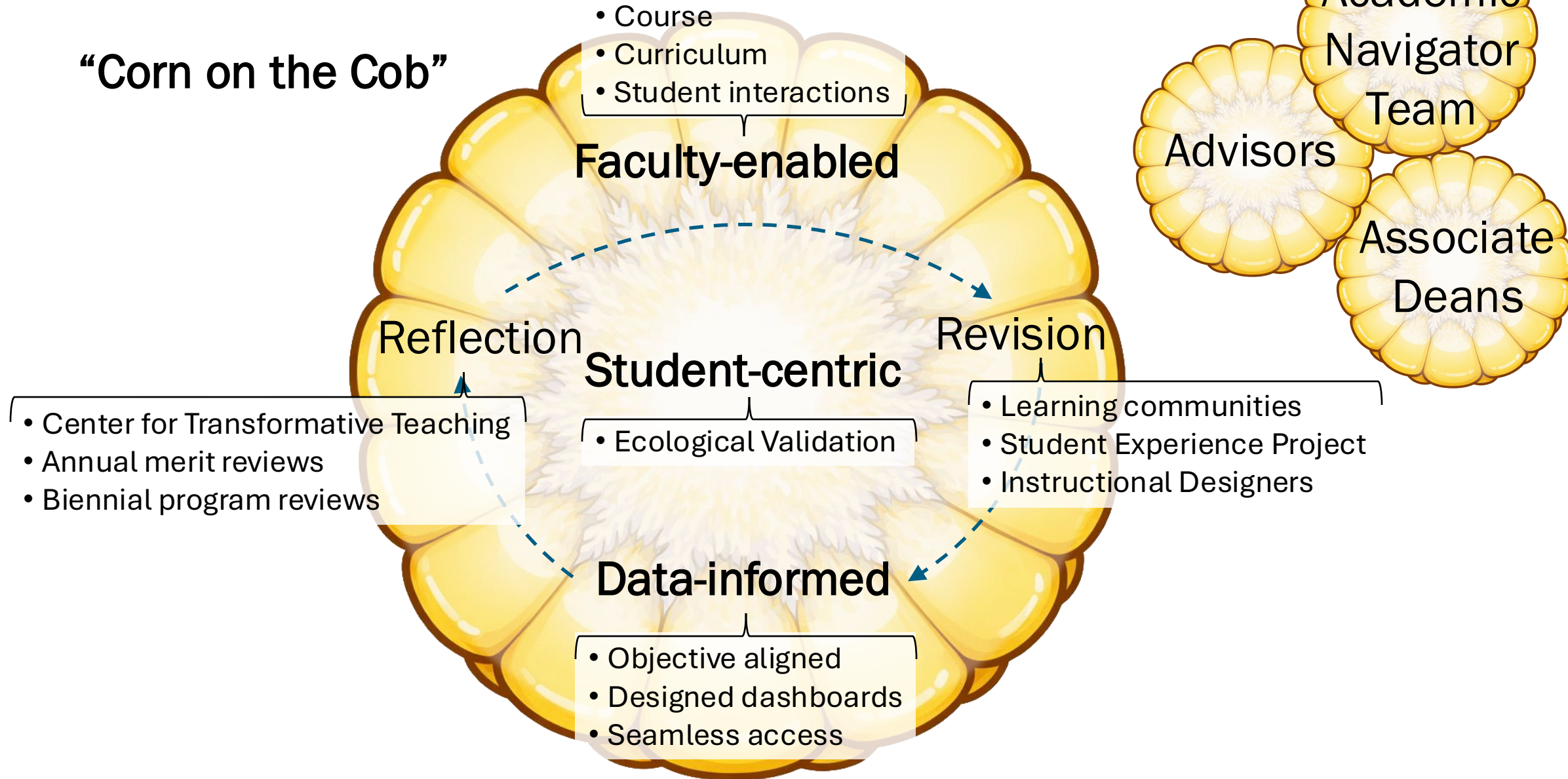
Click Outliers:

highlights students with Canvas Navigational Clicks less than 25% of section average



Conceptual Model of Undergraduate Analytics

“Corn on the Cob”





Key Administrative Enablers



**Senior Associate Vice Chancellor &
Dean of Undergraduate Education:** Amy Goodburn



University Registrar: Steve Booton



Chief Information Officer: Heath Tuttle (now at Buffalo)



Director of Institution Effectiveness & Analytics:
Jason Casey



Director of Student Info System & App Dev:
Casey Nugent



Director of Center for Transformative Teaching:
Nick Monk (now at Brown)



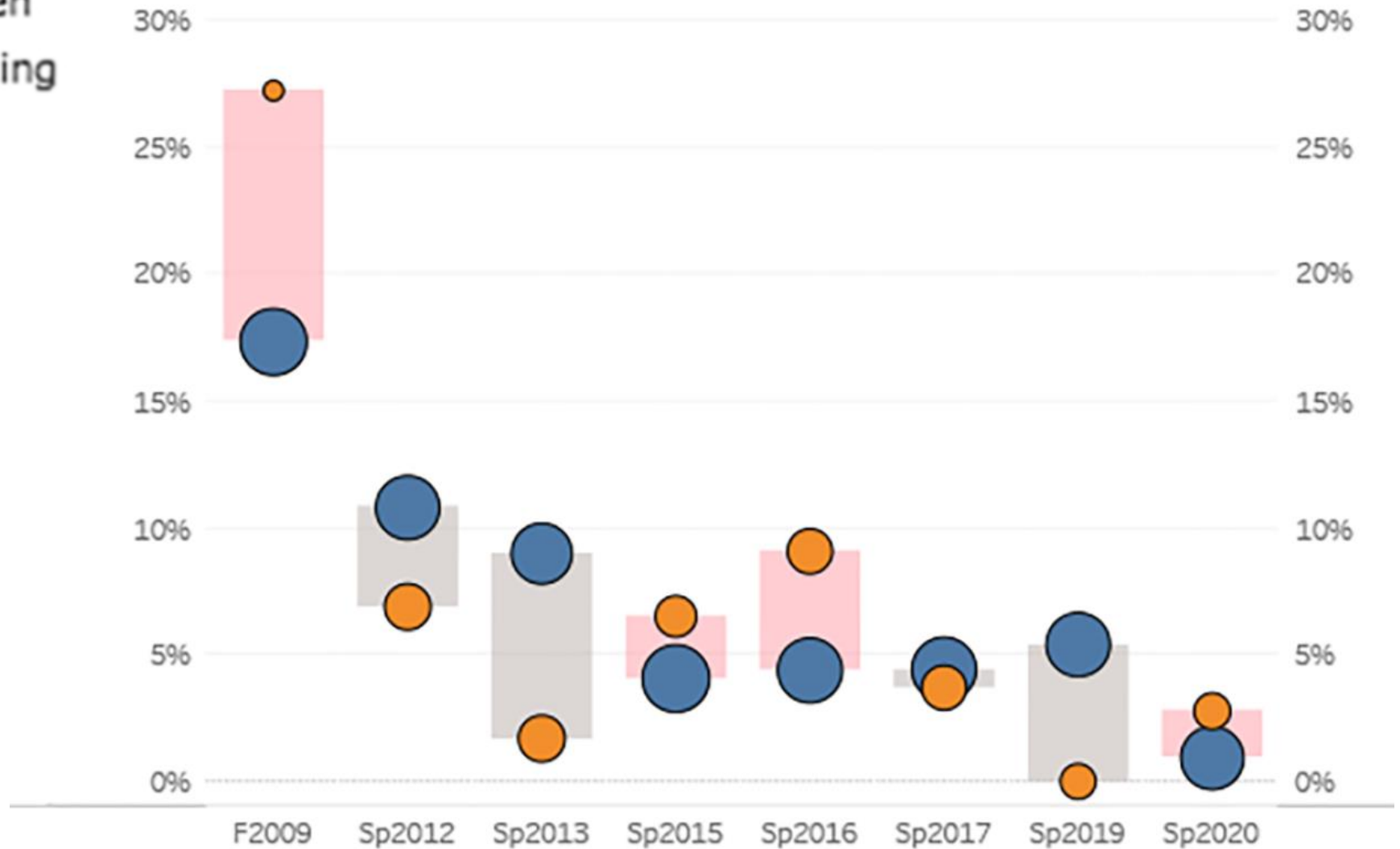


Case Study: Karrie Weber

Generation

- First Gen
- Continuing

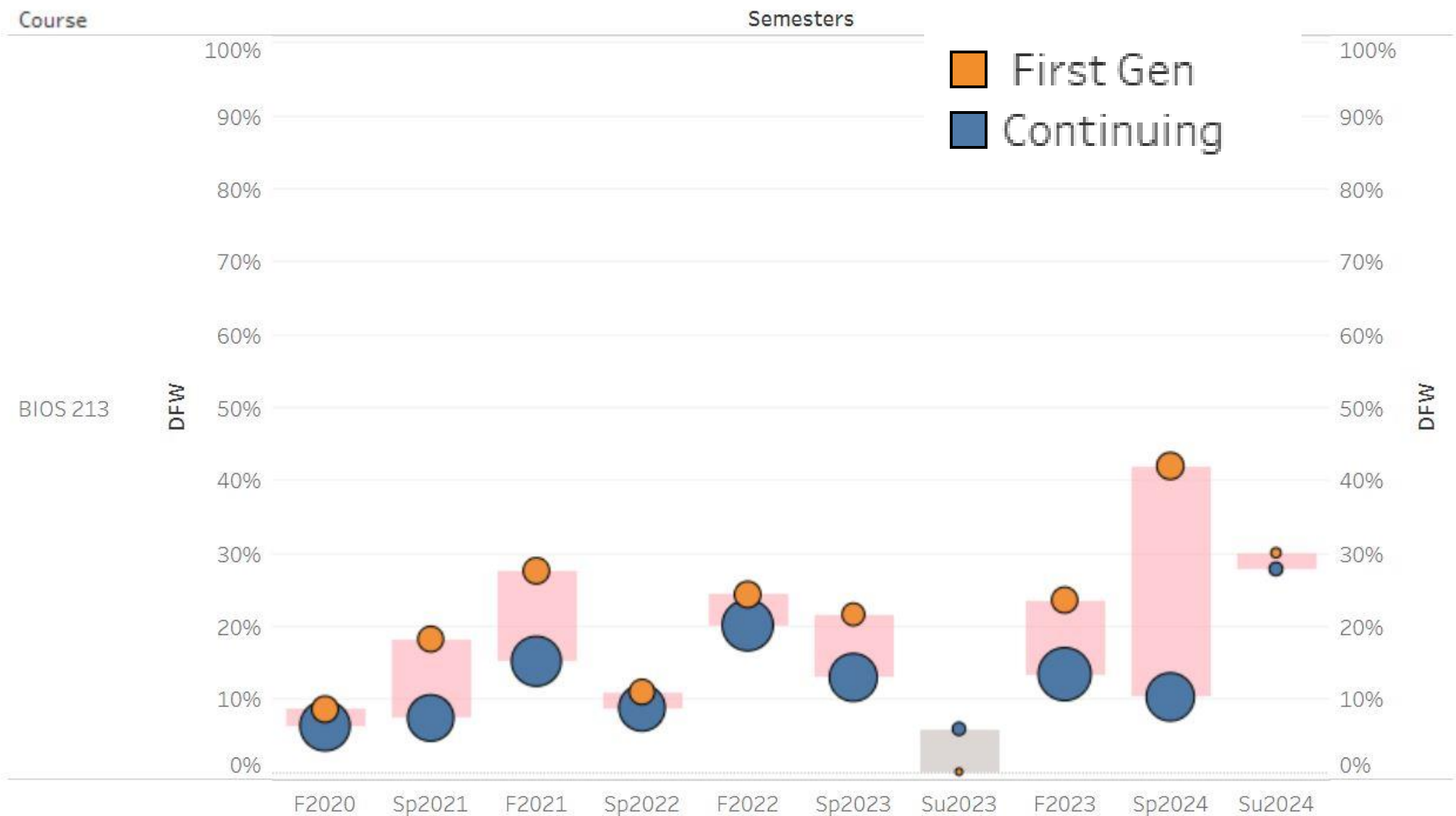
BIOS 312
DFW



1. BioTeams:
Peer-lead study groups

Case Study: Kim Hansen

Grade Demographics Across Semesters



Utility and Scope

<https://go.unl.edu/undergraduateanalytics>



- Analytics can be useful in identifying situations which... could use additional support
- Undergraduate analytics data should not be used in isolation to determine an instructor's merit increase... as such processes can erode the trust necessary for instructor engagement.
- Rather than reduce the complexity of teaching and learning to a metric,... expand the scope of self-reflection and the tools for pedagogical action.

Skills & Knowledge



A

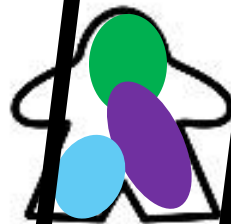
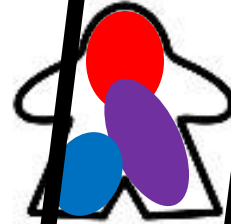
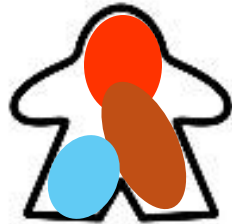
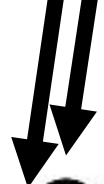
B

C

Letter Grades

Demographics

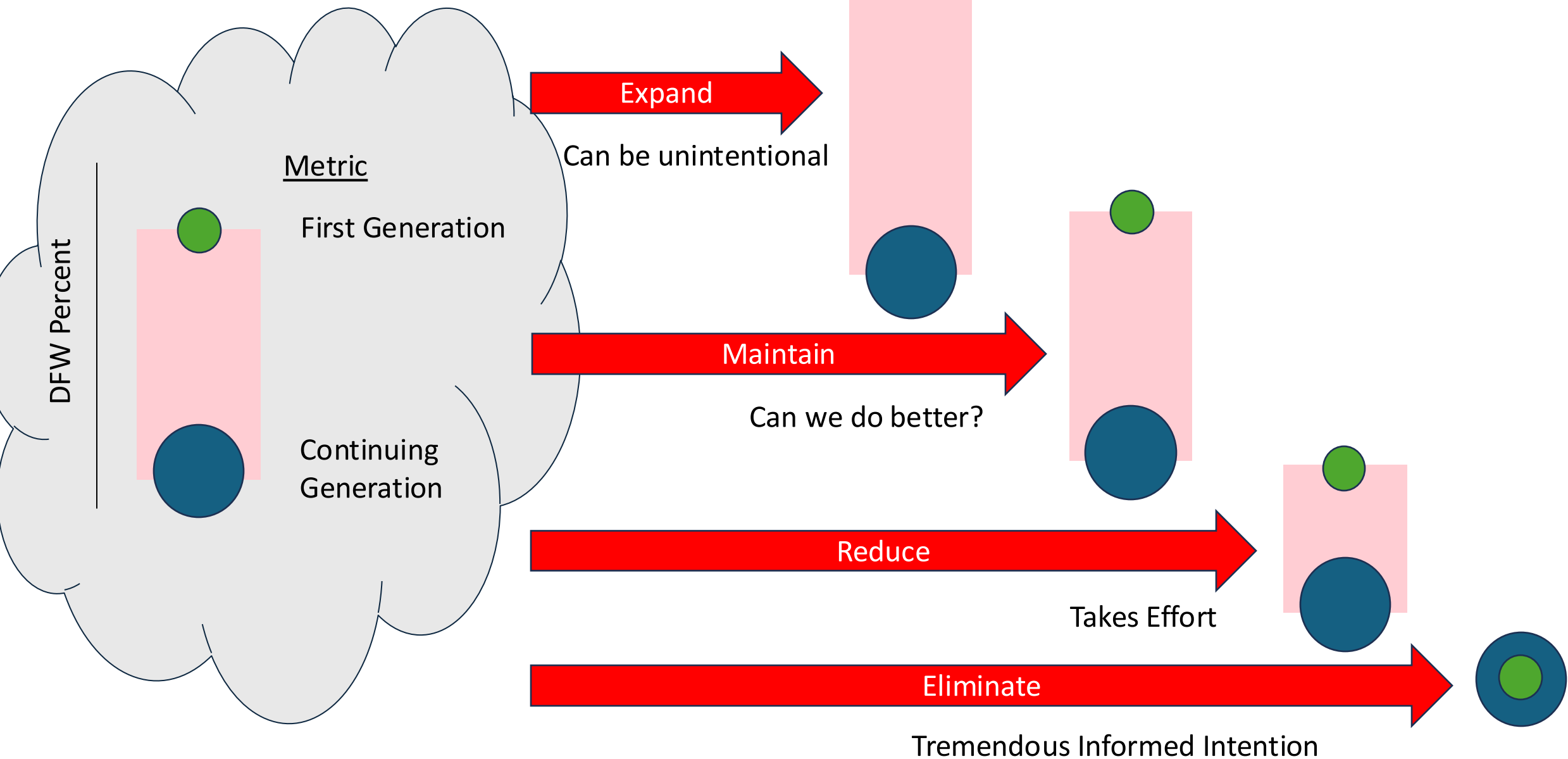
Person

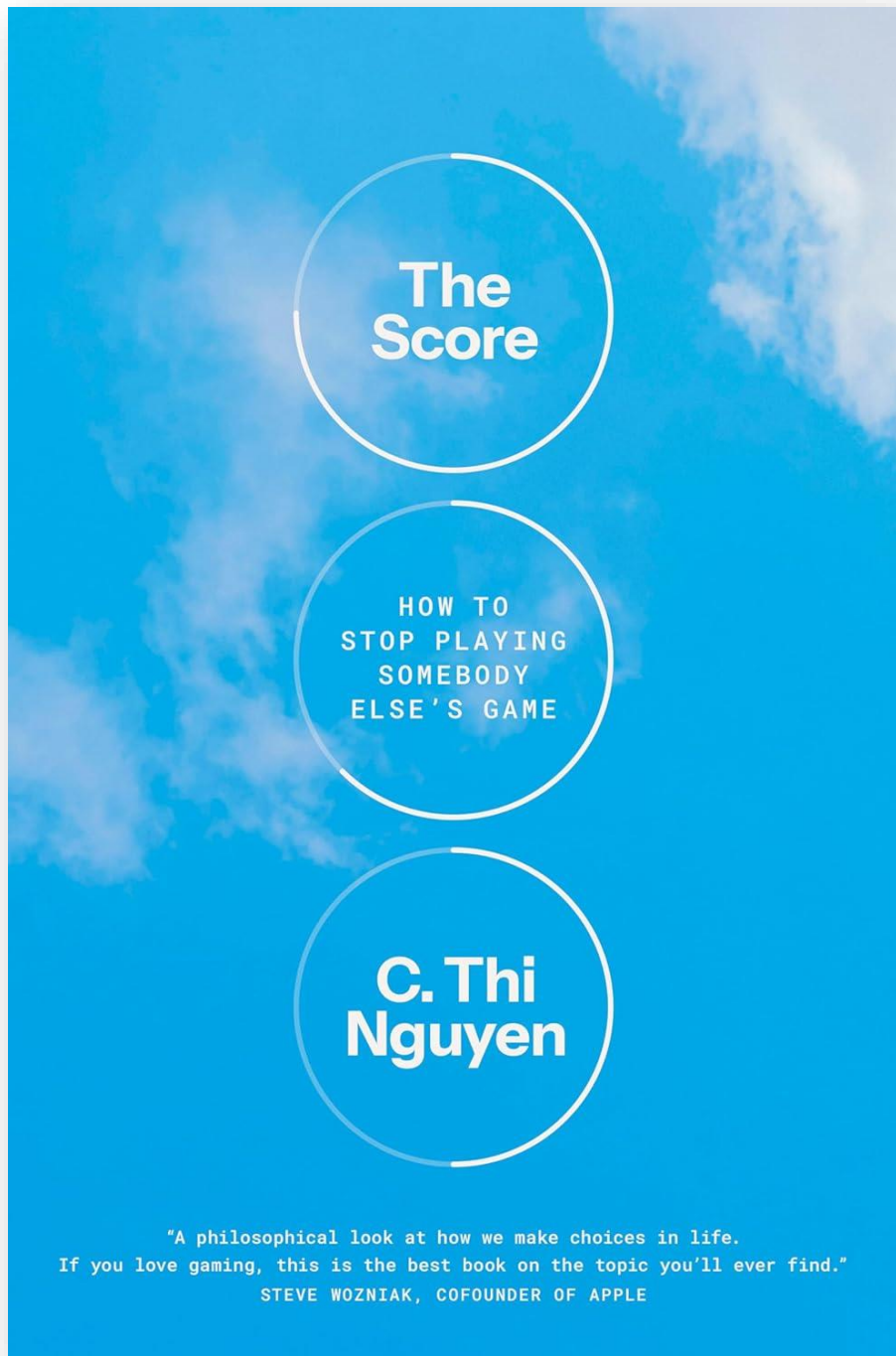


Associated with Demographic
(Leg)

Prior Demographic Differences
unknown

Our Course's Demographic Differences





Metrics vs Games

- Value Capture
- Striving Play

“If You Build It They Will Come” - No



- Campus-wide Workshops
- Departmental Seminars
- Faculty Meeting Presentations
- Newsletters / Emails
- More...

I ILLINOIS



NYU

UNIVERSITY OF
Nebraska
Lincoln



RUTGERS



University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

UCI

University of
California, Irvine



unizin



CHAPMAN
UNIVERSITY



TEXAS
The University of Texas at Austin

- Data Access and Efficiency
- Community and Sharing Culture

Colorado
State
University


WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON


PennState

IOWA

M
UNIVERSITY OF
MICHIGAN

UF
UNIVERSITY of
FLORIDA

Ψ
INDIANA
UNIVERSITY

M
UNIVERSITY OF MINNESOTA

Open Source Option

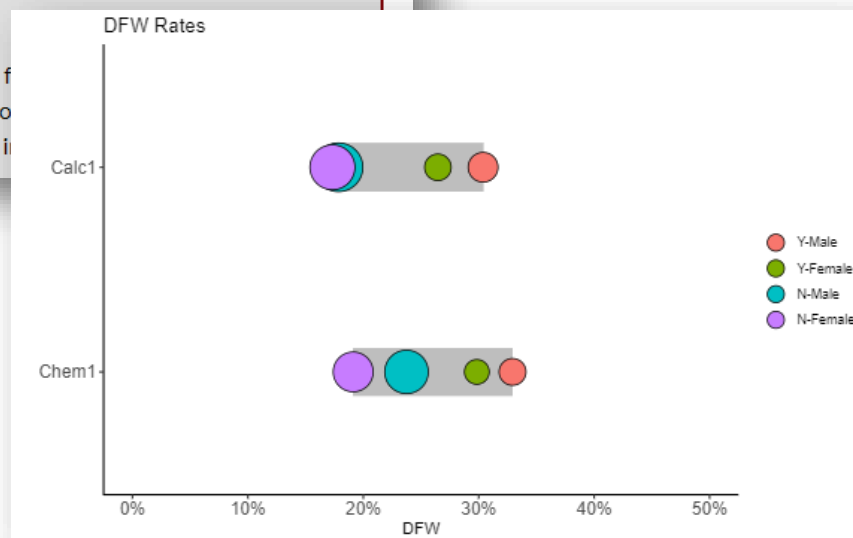
Grade by Demographics Report

- <https://github.com/cbrassil2/GbyD>

Combined Demographics

Guiding questions:

- How do combinations of demographics affect student success? Does each factor have a unique interaction such that the response of one factor is smaller or larger based on the other?
- Mouse over the circles to consider the percentage of student enrollments in each demographic combination.



Funded by



Howard Hughes
Medical Institute

In Use by

THE
UNIVERSITY
OF RHODE ISLAND

UNIVERSITY OF
Nebraska
Lincoln

Inspired by



SEISMIC
Collaboration

Sloan Equity and Inclusion in STEM Introductory Courses

Overcoming Faculty Skepticism

- Demonstrate Benefits
 - 1) Build prototype dashboards
 - 2) Iterate dashboards based on feedback
 - 3) Trial with Faculty Learning Communities
 - 4) Discuss data governance
- AAUP mixers over wine
- Faculty Senate presentations

