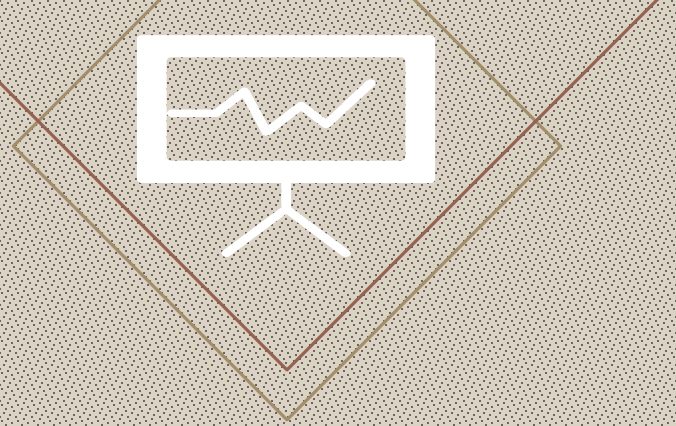


Utilizing Institutional Data, Collaboration & Interactive Dashboards in Bridging Gaps

Heidi M. Carty, Ph.D., Research Analyst IV, IR
University of California, San Diego

CAIR Conference– Using Data for Advocacy, October 29, 2021, Lake Tahoe

Outline:

Common areas and goals of collaboration

Importance of being Student-Centered

Areas of study and analysis

Annual student success studies – academic progress, graduation rates & time-to-degree

How dashboards promote data-driven decision-making

What we need to know from and how to interpret small samples (n < 10)

Know your audience – protecting student privacy (masking cells < 10)

Goals of Collaboration

- Collaboration between IR and other units allow assessment experts, departmental analysts, and leadership a unique opportunity to discuss data together allowing for a more insightful analysis of the data to uncover emerging trends, equity gaps, and other areas of strengths and weaknesses.

- Institutions are collecting large amounts of data from multiple sources, which provide opportunities for rich analyses to support students from all backgrounds (Frost, Strom, Downey, Schultz, & Holland, 2010).

- Focus is also on creative analytics with an emphasis on uncovering areas to help students succeed by identifying potential areas where progress is not advancing (Parnell, Jones, Wesaw, Brooks, 2018).

- The specific type of data gathered for this collaboration include academic progress and success of undergraduate students as measured by term academic outcomes, degree completion (graduation rates) and time-to-degree. We also administer several surveys.

- Determine areas to reduce duplicate work to utilize resources more efficiently across departments.

Importance of being Student-Centered

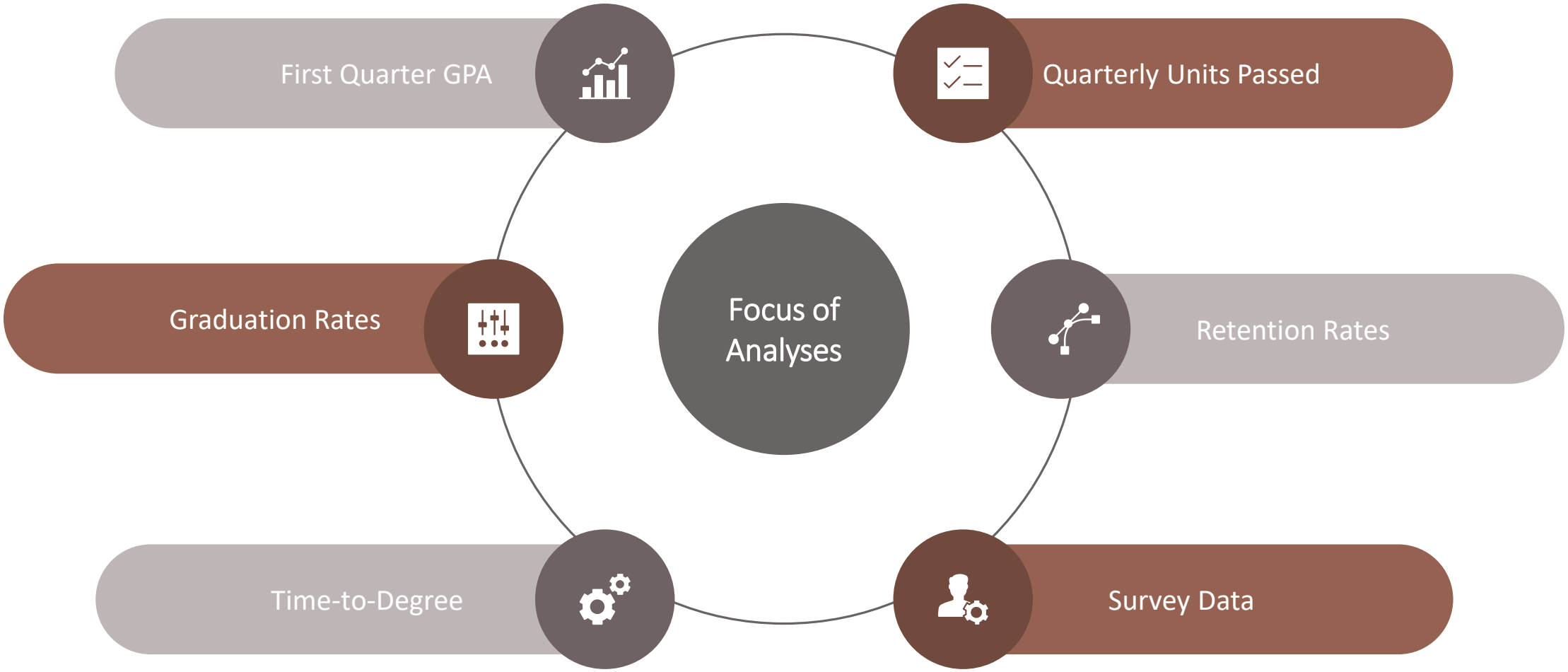
A student-centered data-data driven institution is characterized by:

- Focusing on student-ready approaches. The effective use of data is key to this endeavor.
- Uses data effectively. Advisers, support staff and faculty must be trained to have deeper conversations with students based on the data insights.
- Some conversations re academic issues may involve students not accessing the support and resources needed to achieve academic success (e.g., navigating financial aid).
- Staff also need to be trained to create opportunities for collaborative decision-making with students, rather than making decision on their behalf.

Areas of Study & Analysis

- Collaborative studies of students' academic progress and success are the largest type of data project (Frost, Strom, Downey, Schultz, & Holland, 2010)
- Other common studies and analysis involve annual student success studies (cohort analyses)
- First-year students, transfer students, and first-generation students are the leading groups of focus for data studies (Parnell, Jones, Wesaw, Brooks, 2018)

Student Outcomes



Student Outcome Examples

Cohort Analysis

Establish incoming student cohorts. Determine participation including level of participation in programs for compare & contrast analyses

Survey Data

Collect incoming baseline perception data (e.g., UCUES, FTFY Survey), individual program surveys/focus group data

Academic Progress

Quarterly outcome data (average GPA, disaggregated GPA (<2.0 in-progress group, units passed)

Retention & Grad Rates Time-to-Degree

Outcome statistics as measured by overall retention and graduation rates by disaggregated groups and time-to-degree

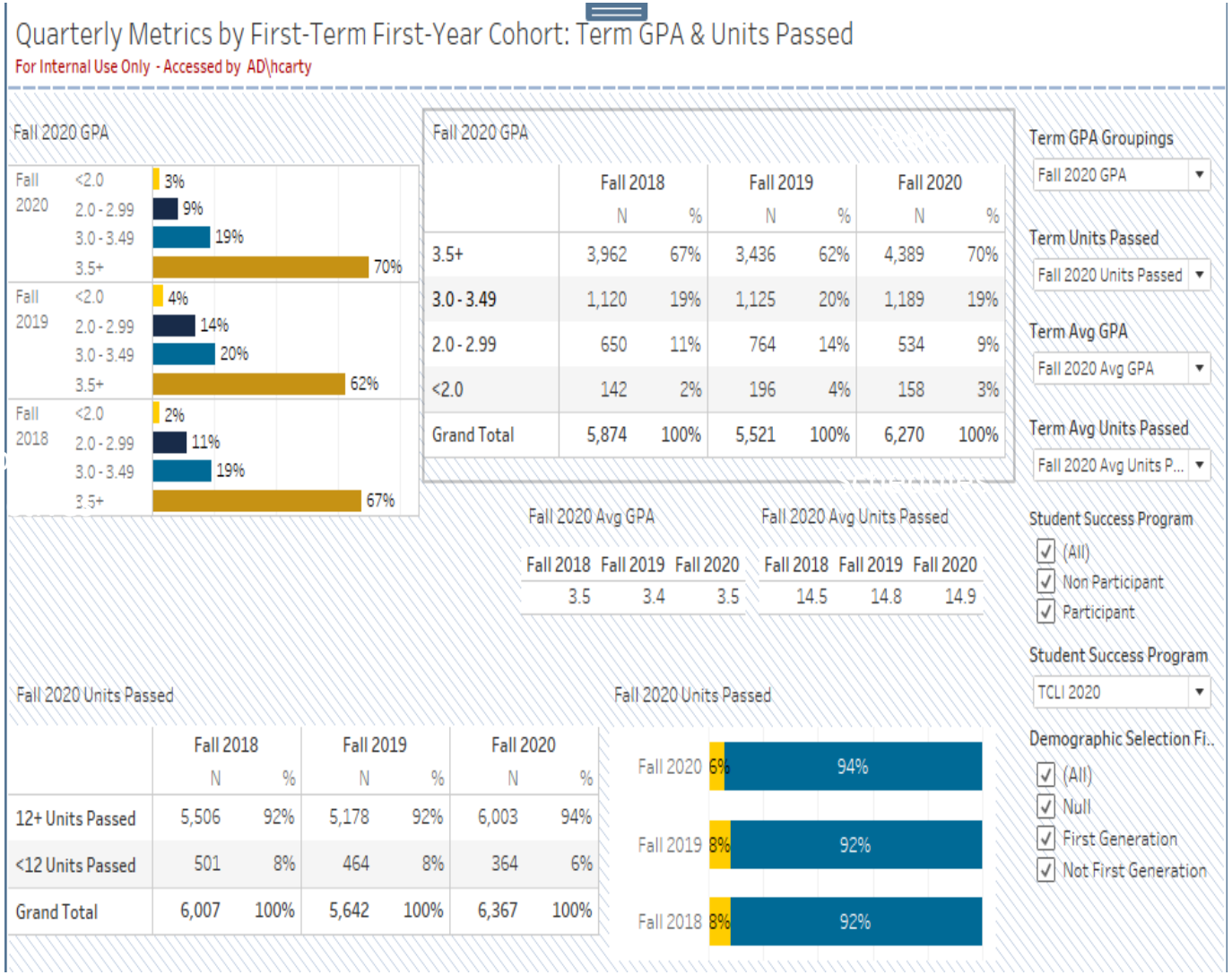
Exit & Alumni Surveys

Solicit feedback on exit surveys designed to measure school and program satisfaction. What are areas of improvement? What worked?

Internal Dashboards

Demonstration of Dashboards

- First-Time First-Year Quarterly Academic Outcome Data by Cohort
- Capturing Student Success Program Participants
- Transfer Student Quarterly Academic Outcome Data by Cohort
- Concerns about generalizability with small N
- Learning about areas of need for “at-promise” students when N is small
- Protecting Student Privacy by restricting data



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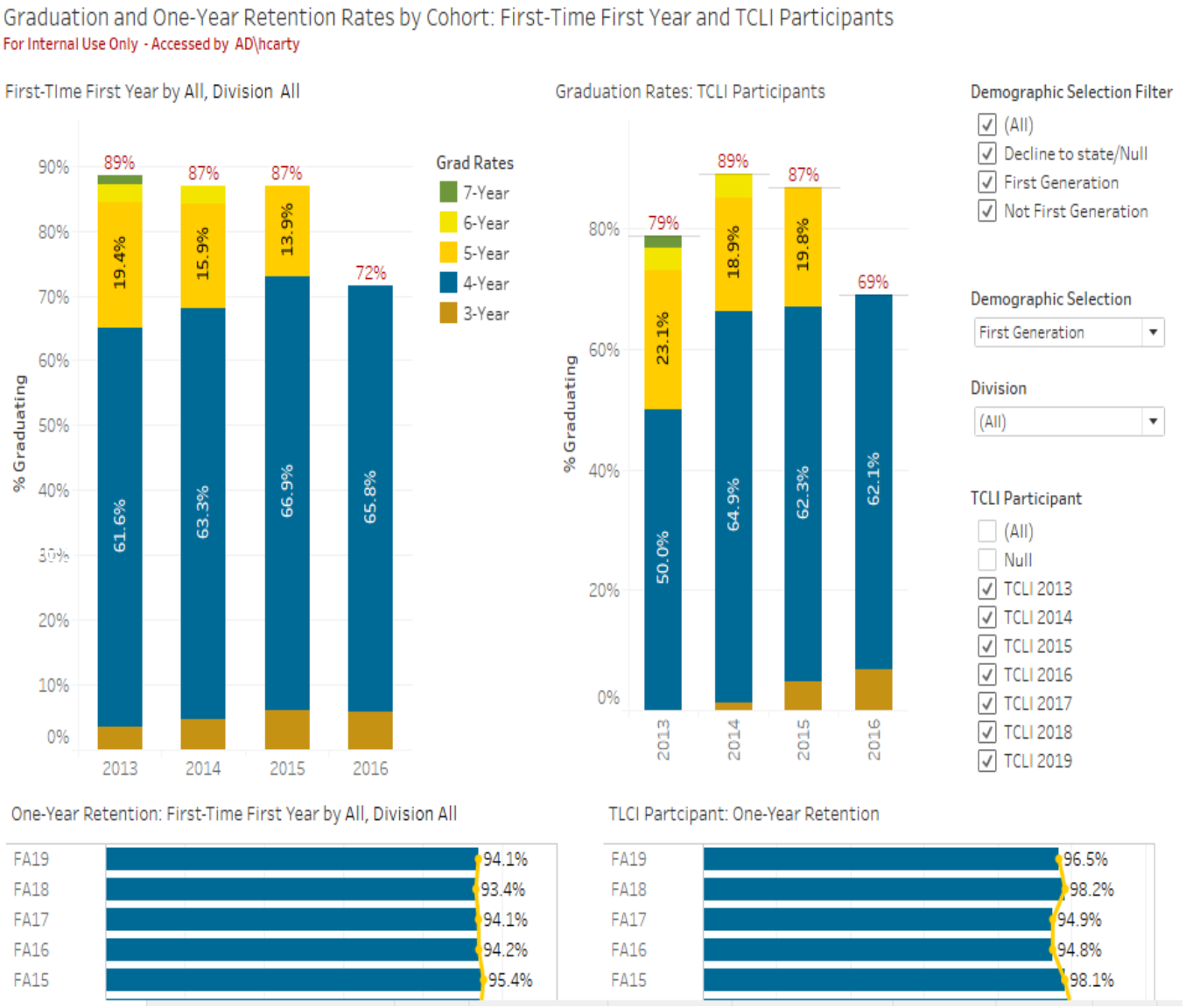

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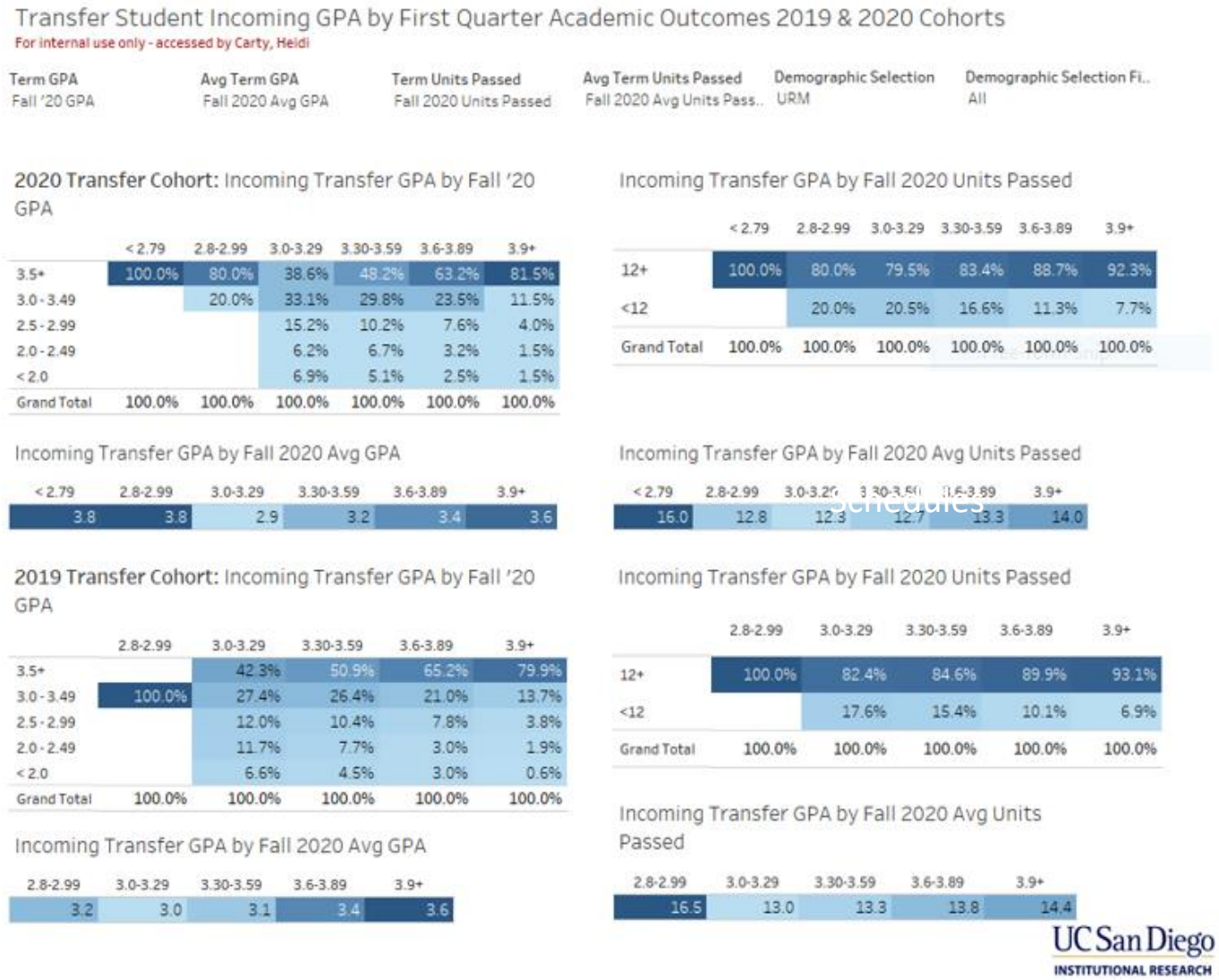

Transfer Student Incoming GPA by First Quarter Academic Outcomes 2019 & 2020 Cohorts

For internal use only - accessed by Carty, Heidi

Term GPA	Avg Term GPA	Term Units Passed	Avg Term Units Passed	Demographic Selection	Demographic Selection Fi..
Fall '20 GPA	Fall 2020 Avg GPA	Fall 2020 Units Passed	Fall 2020 Avg Units Pass..	URM	All

2020 Transfer Cohort: Incoming Transfer GPA by Fall '20 GPA

	< 2.79	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
3.5+	100.0%	80.0%	38.6%	48.2%	63.2%	81.5%
3.0 - 3.49		20.0%	33.1%	29.8%	23.5%	11.5%
2.5 - 2.99			15.2%	10.2%	7.6%	4.0%
2.0 - 2.49			6.2%	6.7%	3.2%	1.5%
< 2.0			6.9%	5.1%	2.5%	1.5%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Incoming Transfer GPA by Fall 2020 Units Passed

	< 2.79	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
12+	100.0%	80.0%	79.5%	83.4%	88.7%	92.3%
<12		20.0%	20.5%	16.6%	11.3%	7.7%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Incoming Transfer GPA by Fall 2020 Avg GPA

< 2.79	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
3.8	3.8	2.9	3.2	3.4	3.6

Incoming Transfer GPA by Fall 2020 Avg Units Passed

< 2.79	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
16.0	12.8	12.3	12.7	13.3	14.0

2019 Transfer Cohort: Incoming Transfer GPA by Fall '20 GPA

	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
3.5+		42.3%	50.9%	65.2%	79.9%
3.0 - 3.49	100.0%	27.4%	26.4%	21.0%	13.7%
2.5 - 2.99		12.0%	10.4%	7.8%	3.8%
2.0 - 2.49		11.7%	7.7%	3.0%	1.9%
< 2.0		6.6%	4.5%	3.0%	0.6%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Incoming Transfer GPA by Fall 2020 Units Passed

	2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
12+	100.0%	82.4%	84.6%	89.9%	93.1%
<12		17.6%	15.4%	10.1%	6.9%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Incoming Transfer GPA by Fall 2020 Avg GPA

2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
3.2	3.0	3.1	3.4	3.6

Incoming Transfer GPA by Fall 2020 Avg Units Passed

2.8-2.99	3.0-3.29	3.30-3.59	3.6-3.89	3.9+
16.5	13.0	13.3	13.8	14.4

UC San Diego INSTITUTIONAL RESEARCH

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Protecting Student Privacy

- Impose restrictions on data as needed by consumer group
- Masking/Hiding counts < 10
- Utilizing parameters to allow filtering of one demographic at a time
- Including messaging about internal use only along with user’s name (accessed by)

Tableau – Masking < 10 Counts

Tableau parameter syntax examples:

- Create calculated field to only show counts > 10
  (IIF(COUNT([StudentID])>=10, COUNT([StudentID]),NULL))

- Depending on need for masking, another option instead of doing countd(StudentID) is to create count(People over > 0)
  IIF(COUNT([StudentID])>=0, COUNT([StudentID]),NULL)

- The underlying field “People over > 0” can be changed to only provide counts over a specific number without having to make changes to each worksheet/calculation

- One can create a parameter allowing you to with switch between the two levels (> 10 or > 0). You can hide the parameter from the end user to strategically engage as needed.

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Questions?

Thank you for attending.

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