

Dana Center  
**Mathematics**  
PATHWAYS

# CSU EO 1110 First Term Reflections: Promoting Continuous Improvement

Long Beach, California  
February 1, 2019

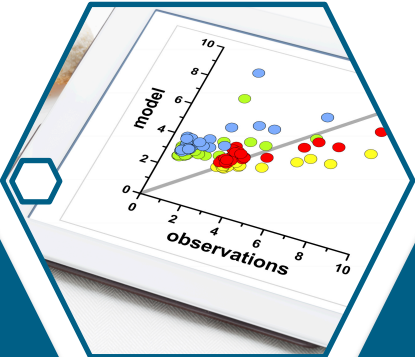


# February 1, 2019

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- 8:20 Lessons Learned
- 9:30 Data and Equity
- 11:30 Lunch and Breakouts
- 1:30 Continuous Improvement



Cell Phones,  
Tablets,  
Laptops

Self Care

Parking Lot

Active  
"Classroom"  
Behaviors



## Group Norms

**Make equity central.**

**Focus on fulfilling our charge.**

**Seek clarification in language and ideas to increase understanding.**

**Understand that those who work, learn.**

**Look for solutions, not blame.**

**Focus on systems, not people.**

**Recognize that everyone has expertise.**

**Be honest.**

**Share talk time.**

# Facilitators

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**Dr. Martha Ellis**, Director of Higher Education Strategy, Policy, and Services, Charles A. Dana Center

**Dr. Desiree Zerquera**, Assistant Professor, Department of Leadership Studies, University of San Francisco

**Dr. Archie P. Cubarrubia**, Vice President for Policy and Advocacy, Partners for College Affordability and Public Trust

# About the Dana Center

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— Equity — Access — Excellence —

2018

# Who is in Attendance?

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Please stand up if you are ...

- An Administrator
- A Math Faculty
- An English Faculty
- A Director of Advising
- A Student Services Leader
- An Institutional Researcher
- A Course Lead
- A Faculty Development Lead
- A Registrar

# Meeting Outcomes

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## Participants will:

- Supported continuous improvement of redesigned supported courses by participating in structured discussions among campus teams.
- Shared lessons learned from the first term of implementation and plans for ongoing development and alignment of co-requisite and learning support associated with credit-bearing courses.
- Analyzed course-level data to identify areas of success and needed improvement.
- Selected methods for using course-level data to achieve equity goals.



## Outcomes Cont.

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- Examined engagement of stakeholders through cross-campus coordination and administrative support.
- Shared strategies for ensuring high-quality instruction and providing professional learning opportunities for lecturers, graduate teaching assistants and tenure-track faculty.
- Reevaluated vision and plan for implementation and continuous improvement.

# Completion and Equity

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CSU Graduation 2025 Initiative lays out ambitious goals for increasing degree attainment and achieving equitable outcomes.

Placement and remediation reform are essential components to reaching these goals.



# Lessons Learned, Progress Planned

## Campus goal statements for First Year EO 1110 Implementation



Examples from Math/QR (at least two tracks), Composition, and one or more from Advising, Student Services, Leadership Team, etc., telling us:

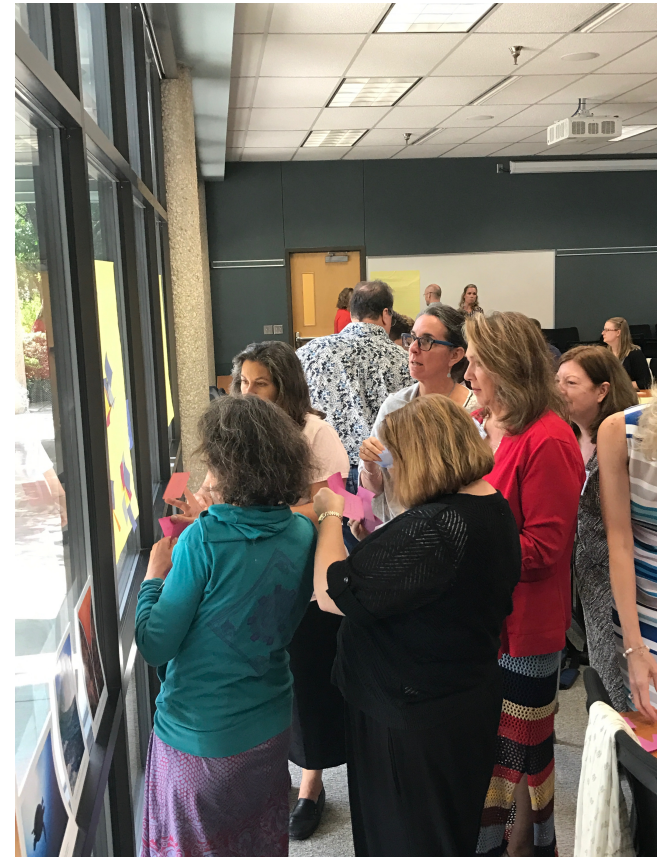
- i. What did you put in place? What happened?
- ii. What did you learn?
- iii. How do you know? What will you revise, expand, for the spring? Or next fall?
- iv. How will you know if the change is successful?

# Gallery Walk

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As you rotate with your campus team:

- Record ideas that resonate with *you* based on your role on your campus team
- As a team, identify ideas that you are excited about or want to learn more about



# Data and Equity: What's the Connection

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## Participants will:

- Demonstrate understanding of the difference between “autopsy data” and actionable, just-in-time data;
- Cite examples of how other institutions have used actionable, just-in-time data to improve student success; and
- Use the concepts presented in the workshop to reflect on how best to use their data to set and achieve campus equity goals aligned with Graduation Initiative 2025.



# **Leveraging Actionable Data to Achieve Graduation Initiative 2025 Equity Goals**

## Session Description

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- Campus teams will examine campus and course-level data collected in the fall term to connect EO 1110 course performance to campus GI 2025 equity goals.
- Strategies for collecting, disseminating, and using actionable data by multiple stakeholder groups to improve practice will be presented.



# Learning Outcomes

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After completion of this workshop, participants will:

- Demonstrate understanding of actionable data
- Cite examples of how institutions can use actionable data to improve student success
- Use the concepts presented in the workshop to reflect on how best to use their data to set and achieve campus equity goals aligned with Graduation Initiative 2025

# Agenda

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- Introductions
- Framing
- Focusing on Actionability
- Campus Team Time
- Data Show and Tell



# Introductions

# Facilitator



## Archie P. Cubarrubia, Ed.D.

- Vice President for Policy and Advocacy, Partners for College Affordability and Public Trust
- Vice Provost for Institutional Effectiveness, Miami Dade College
- Senior Analyst and Team Leader, U.S. Department of Education

# Facilitator



## Desiree D. Zerquera, Ph.D.

- Assistant Professor, Department of Leadership Studies, University of San Francisco
- Coach, Achieving the Dream
- Senior Research Associate, Division of Institutional Research, Planning, and Effectiveness, Broward College
- Acting Director, Institute of Hispanic-Latino Cultures, University of Florida
- Visiting Assistant Director for Research, Center for Postsecondary Research, Indiana University



# Framing

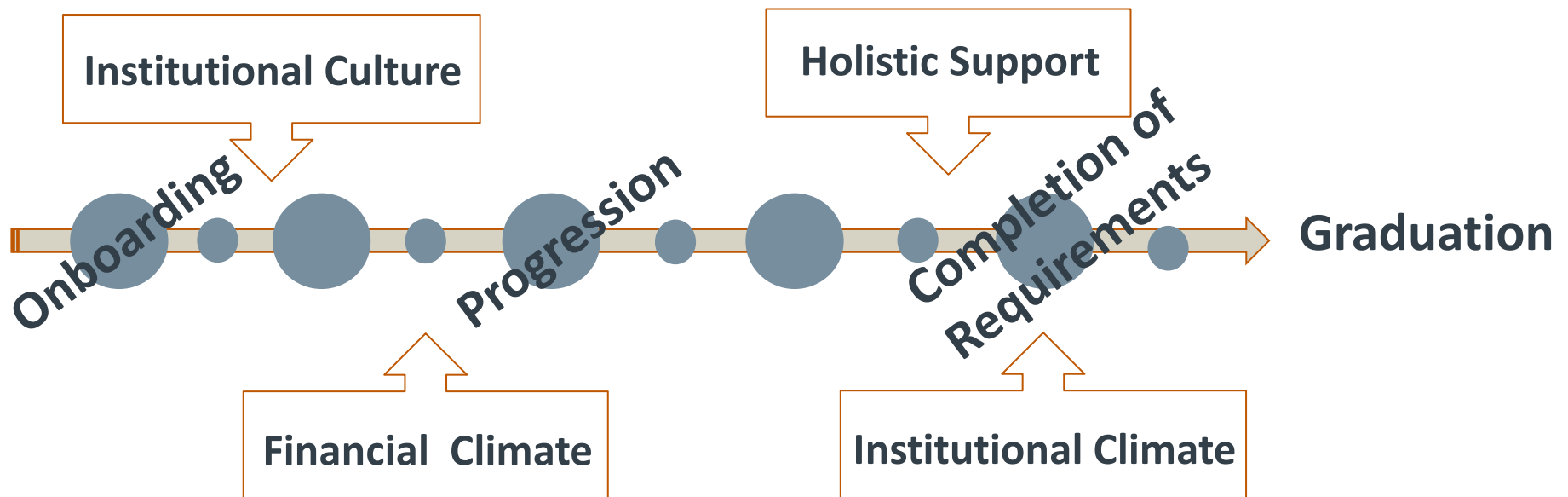
# Assumptions

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- We Know What We're Trying to Do
  - Setting and achieving equity goals using data
    - Graduation Rate Goals
    - Elimination of Equity Gaps for URMs and Pell-eligible Students
- We Know How We'll Meet Our Goals for 2025 and Beyond
  - Establishing, scaling, and institutionalizing practices that contribute to student success
    - First-term success
    - Persistence
  - Creating an infrastructure to ensure continuous improvement
  - Identifying and addressing systemic barriers that impede success of students from marginalized backgrounds

# How Do We Improve Graduation Rates?

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# How Do We See Improvements in Graduation Rates?

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## Mathematically

- Graduation Rate Formula
  - Numerator
  - Denominator
  - Cohorts

## Strategically

- Lead Measures
  - Retention Rate
    - Fall to Spring
    - Fall to Fall
  - Credit Accumulation
  - Completion of Course Sequences
  - Others?

# Centering Equity in Our Data Lenses

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- Foreground and center *underserved* populations
- Place institutional responsibility at the core of the work
- Commit to anti-deficit framing of data outcomes and analyses
- Reflective questions to ask
  - What could *we* be doing differently?
  - Who are *our* least served populations?
  - Who have *we* failed to graduate?

# Applying an Equity Lens in our Practice

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- Determine identities and groups for consistent disaggregation
- Center a focus on the value of each data point
- Situate *numbers* in context
- Explore alternative ways of conducting and presenting analyses
- Include broad audience in data collection and interpretation
- Consider who is and who isn't captured in the data
- Be Critical: Data aren't smart, YOU are



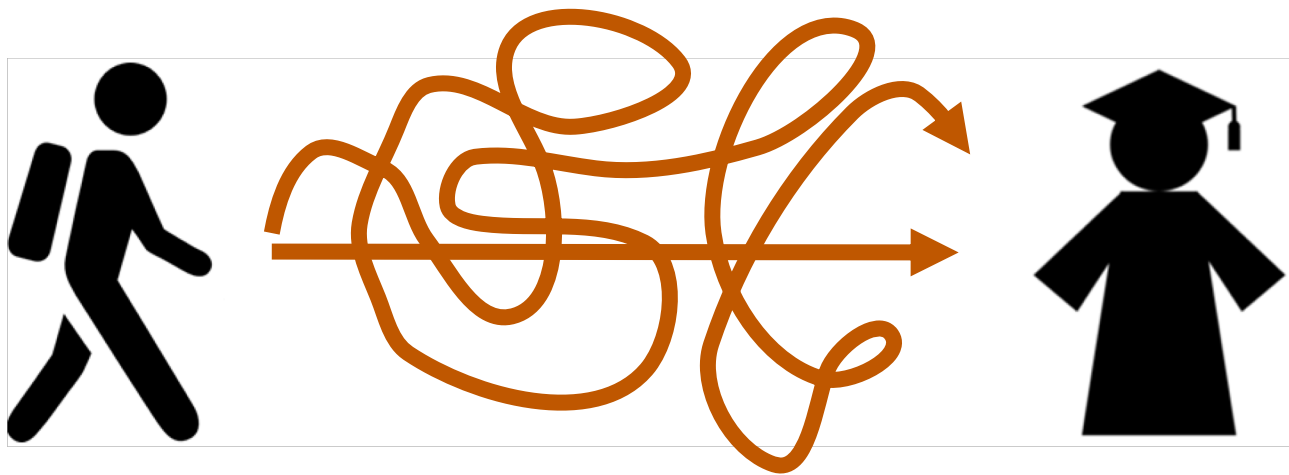
**Data are not neutral.**



# Focusing on Actionable Data

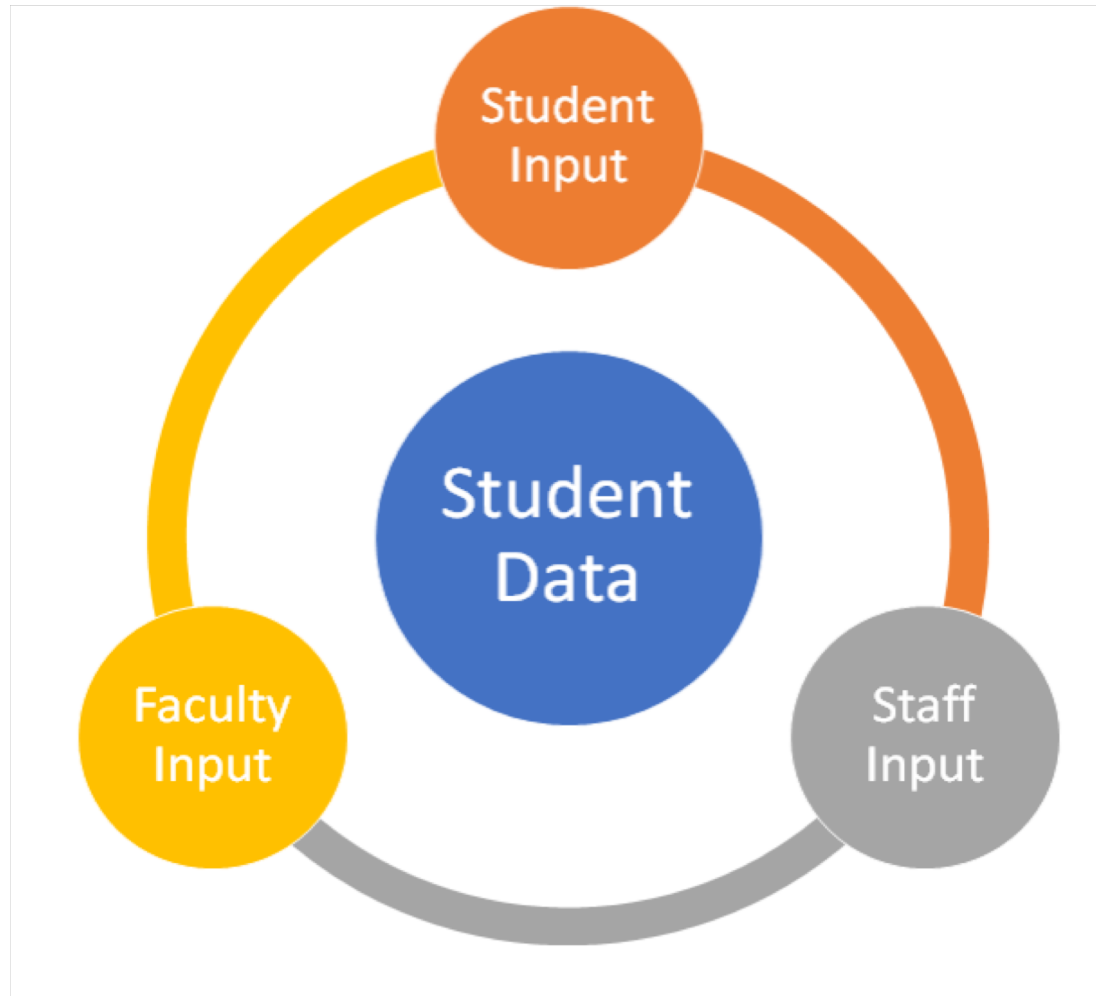
# Student Data Life Cycle

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# Student Data Life Cycle

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# Levels of Disaggregation

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- 
- System
  - Campus
  - Academic school
  - Academic program
  - Course
  - Faculty
  - Chair
  - Dean
  - Residence hall (if applicable)
  - Student
  - Others?

- Which groups do you want to focus on?
- How do you identify them in the data?
- What data do you need but don't yet collect?
- How do systems of inequity play out differently at these different levels?




# Strategy: Your Institution's Data Governance

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- Who owns the data?
  - Who is responsible for the data?
  - Who “touches” the data?
  - Who uses the data?
- 
- Where do you fit in?
  - How do equity & inequity shape how data are viewed at your institution?

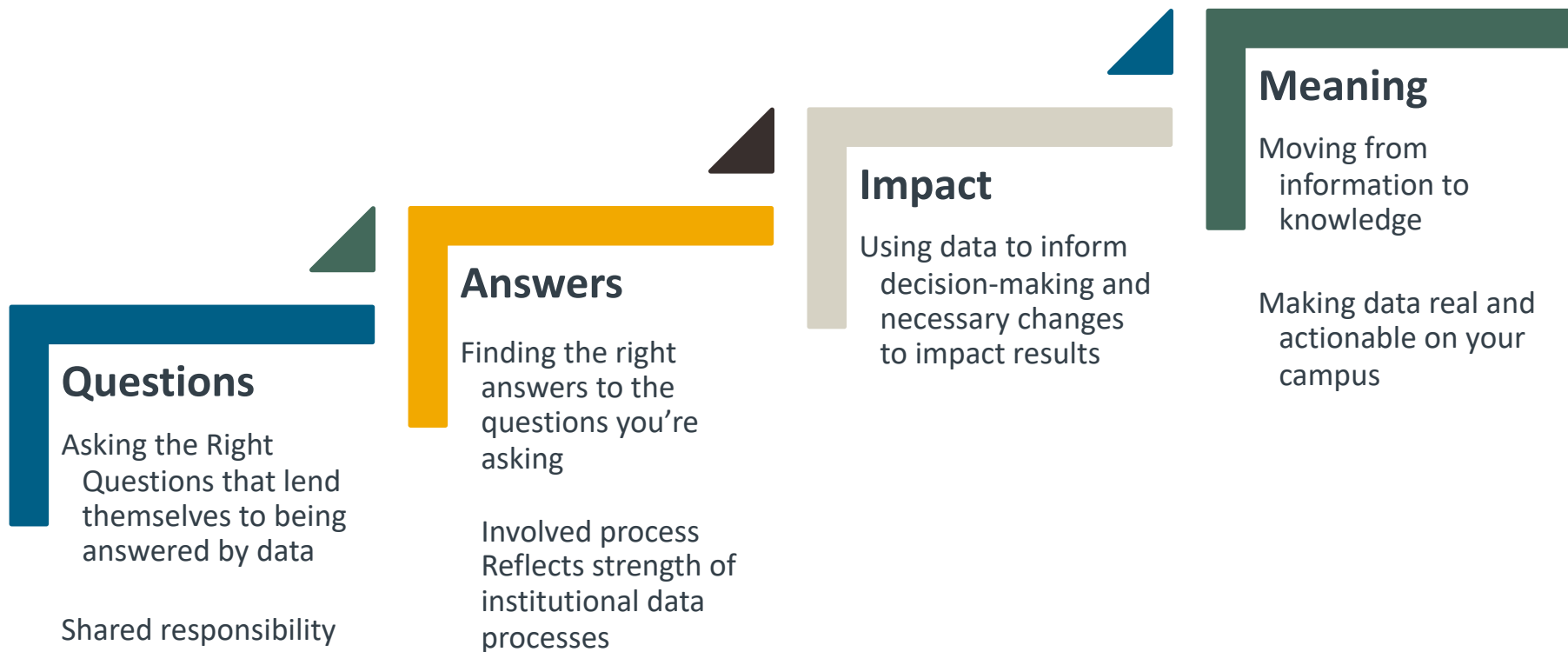
# Mechanics: Your Institution's Data Processes

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- How and when are data collected?
  - How and when are data cleaned?
  - How and when are data extracted?
  - How and when are data concatenated?
  - How and when are data analyzed?
  - How and when are data disseminated?
  - How and when are data used?
- 
- Where do you fit in?
  - How do equity & inequity shape how data are processed?

# Culture: Capacity to Use Data to Inform Change

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# “Autopsy” Data

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- What are “autopsy” data?
  - Examples
    - Fact Books
    - End-of-year Reports
- What are characteristics of “autopsy” data?
  - Typically summative
  - Refers to past cohorts

# Importance and Limitations

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- Importance
  - Impacts
  - Trends & Relationships
  - Predictions
  - Goal Posts
  - From a Critical Equity Perspective
- Limitations
  - Timeliness
  - Relevance
  - Can silence individual student experience

# Increasing Actionability

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- How can we increase the actionability of “autopsy” data?
  - Implications for data collection
  - Implications for data analysis
  - Implications for data dissemination
  - Implications for organizational processes to plan for and incorporate data
  - Implications for organizational processes to recognize systemic barriers data identify
  - Implications for data use

# “Just-in-Time” Data

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- What are “just-in-time” data?
  - Examples
    - Course-level Data
      - Learning Management System
      - Artifacts
    - Activity Data
- What are characteristics of “just-in-time” data?
  - Typically formative
  - Reflect milestones and momentum indicators along students’ pathway

# Importance and Limitations

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- Importance
  - Monitor performance while we can still intervene
    - What can we change right now based on “just-in-time” data?
  - Trends & Relationships
  - Predictions
  - From a Critical Equity Perspective
- Limitations
  - Have to determine **exact** data points needed
  - Can feel like data overload if not integrated into processes
  - Can contribute to deficit lenses if not situated appropriately



# Increasing Actionability

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- How can we increase the actionability of “just-in-time” data?
  - Implications for data collection
  - Implications for data analysis
  - Implications for data dissemination
  - Implications for organizational processes to plan for and incorporate data
  - Implications for organizational processes to recognize systemic barriers data identify
  - Implications for data use

# Examples: Campus-level Data

## CSU Peer Benchmarking

4-Year Graduation Rates

for

Pomona

2008

entering freshman cohort

CSU Peer Comparisons

Historical Trends

Projected Trends

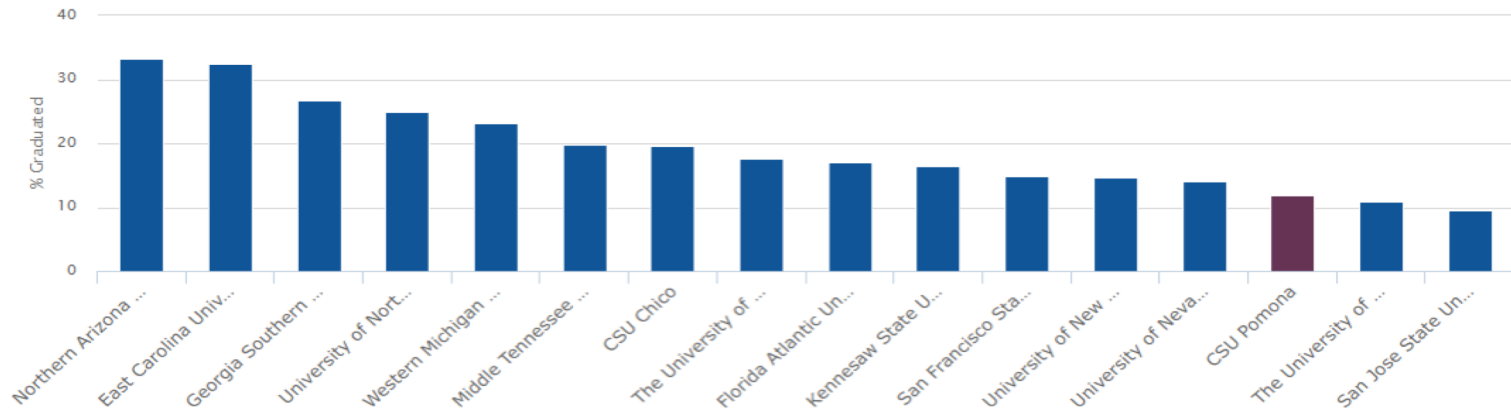
Chart Explanations

Data Tables

Methodology

### 4-Year Graduation Rate for First-Time, Full-Time Freshmen

2008 Cohort



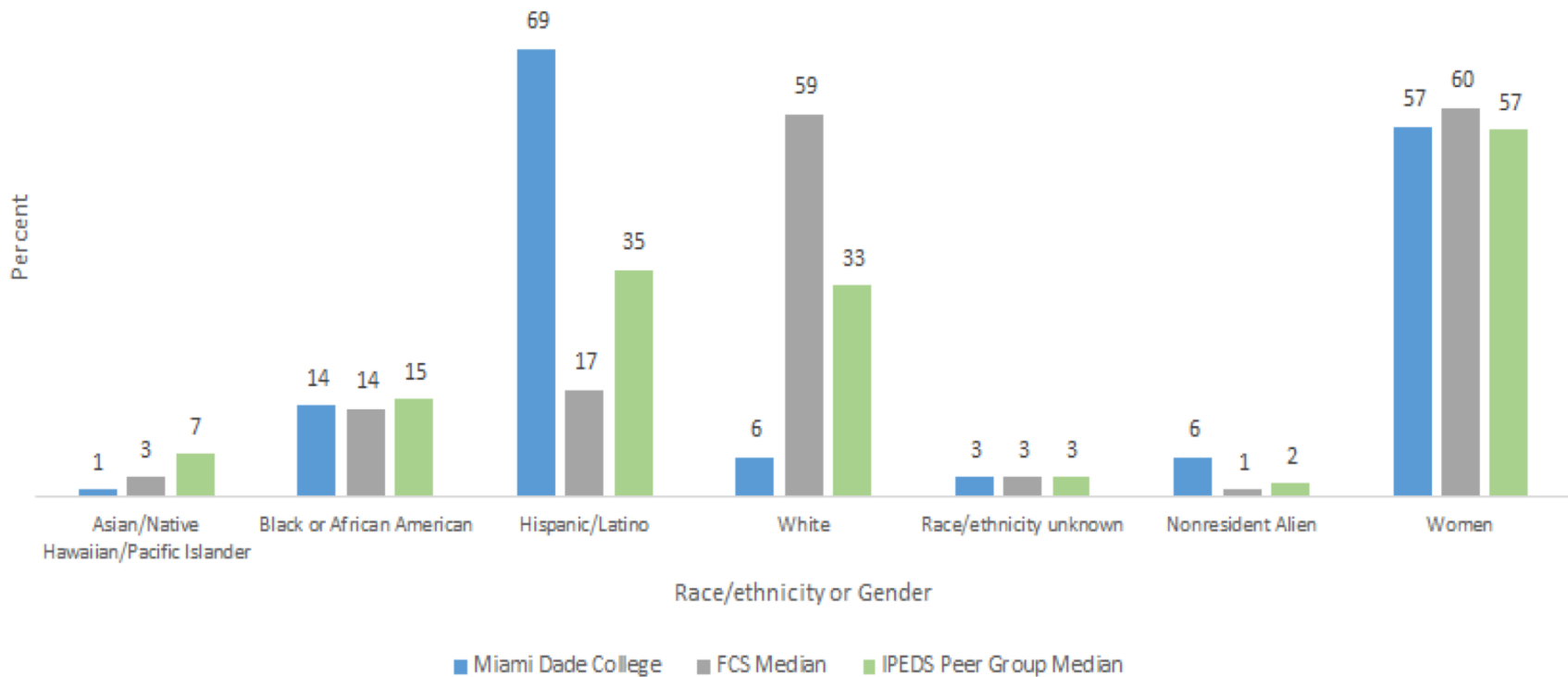
Peer institutions are selected based on the methodology developed by College Results Online (for details [click here](#)).

## CSU Peer Benchmarking

<http://dashboard.csuprojects.org/csu-peers/barchart3.html#chart>

# Examples: Campus-level Data

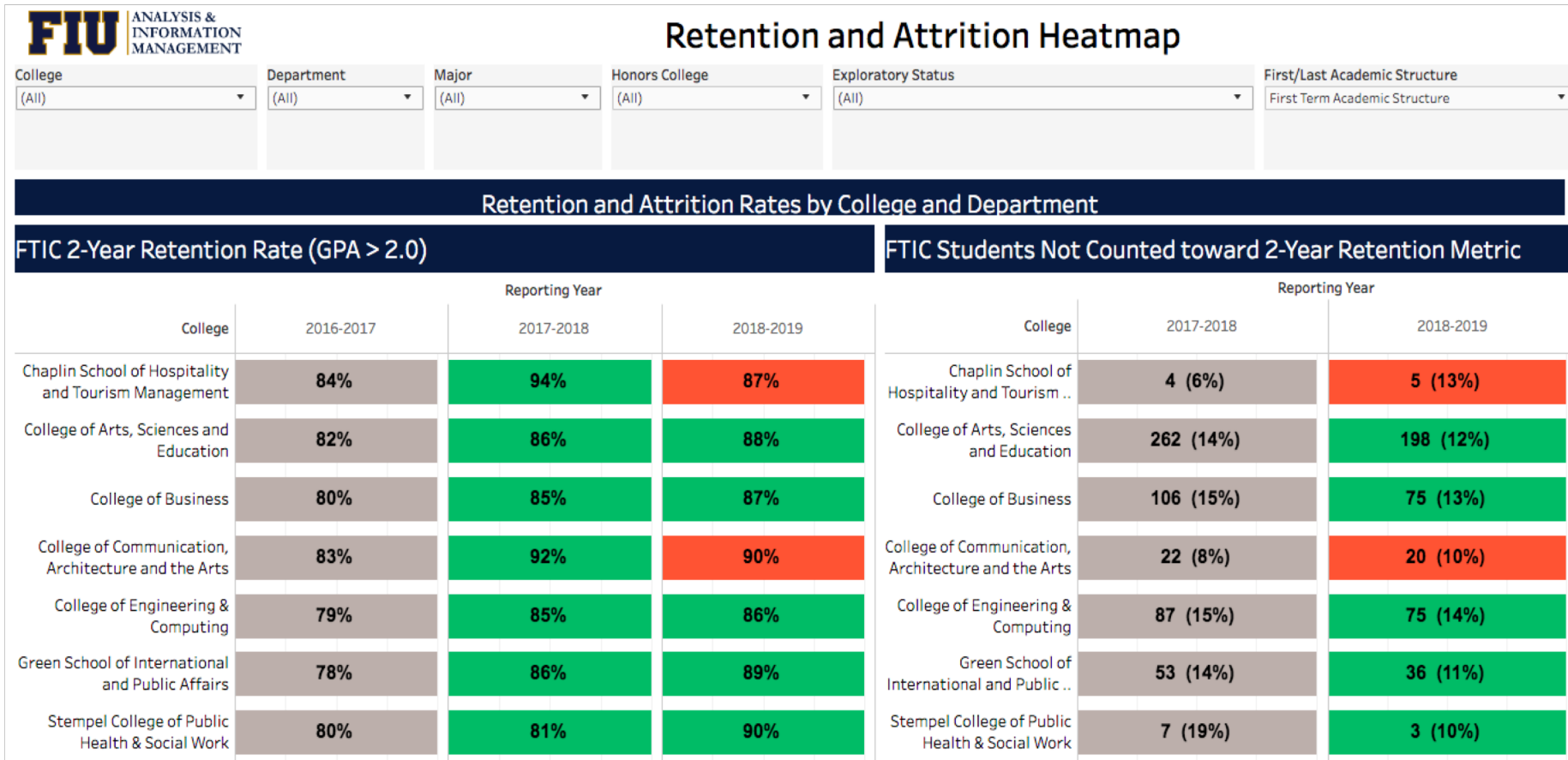
Figure 2. Percent of all students enrolled, by race/ethnicity, and percent of students who are women: Fall 2016



## IPEDS Graduation Rate Data

<https://nces.ed.gov/collegenavigator/>

# Examples: Campus-level Data



Florida International University Accountability Dashboards

<https://aim.fiu.edu/dash/>

# Examples: Course-level Data

The screenshot displays the Florida Department of Education's EdStats portal. The page title is "Florida College System Developmental Education Courses". The navigation menu includes "Introduction", "State Level", "College Level", "Compare All Colleges", "Build Your Own Table", "Accountability Report", and "Build Your Own Florida Map". The current view is "State Level" for "Fall" semester, "Math" subject. The data is presented as a table showing the number of students enrolled and the percentage of students who achieved a grade of C or above for the years 2014-15, 2015-16, and 2016-17, broken down by race and co-requisite status.

Year		2014-15			2015-16			2016-17	
		# Students Enrolled	# Students (Grade C and Above)	% Students (Grade C and Above)	# Students Enrolled	# Students (Grade C and Above)	% Students (Grade C and Above)	# Students Enrolled	# Students (Grade C and Above)
Strategy	Race								
	1-White	554	335	60.5%	529	347	65.6%	336	222
	2-Hispanic	755	519	68.7%	1,430	1,142	79.9%	332	237
	3-Black	432	235	54.4%	561	366	65.2%	166	82
	4-Two or More Races	50	34	68.0%	44	25	56.8%	42	28
	Co-requisite								
	5-Asian	34	29	85.3%	35	24	68.6%	32	27
	6-American Indian	**	**	**.*	**	**	**.*	**	**
	7-Pacific Islander	**	**	**.*	**	**	**.*	**	**

## Florida's PK-20 Education Information Portal

<http://edstats.fldoe.org/>

Developmental education course performance by course modality and student characteristics

# Examples: Course-level Data

Table 1. MAT1033 Course Performance, by Redesign Status and Session Code: Fall 2016 vs. Fall 2017

Redesign Status and Session Code	Fall 2016			Fall 2017		
	Number of Sections	Sum of Headcount	(A+B+C)/ Headcount	Number of Sections	Sum of Headcount	(A+B+C)/ Headcount
<b>Redesigned</b>	<b>80</b>	<b>2,578</b>	<b>63.5%</b>	<b>99</b>	<b>2,984</b>	<b>61.7%</b>
16W	80	2,578	63.5%	99	2,984	61.7%
<b>Traditional</b>	<b>156</b>	<b>4,470</b>	<b>56.0%</b>	<b>205</b>	<b>5,214</b>	<b>55.2%</b>
16W	90	2,830	56.1%	122	3,666	52.6%
12W	13	366	47.8%	16	282	48.9%
14W	3	59	40.7%	4	125	53.6%
8W1	7	139	71.9%	7	139	66.2%
8W2	40	981	56.4%	49	852	66.0%
WKD	3	95	65.3%	7	150	60.0%
<b>Grand Total</b>	<b>236</b>	<b>7,048</b>	<b>58.7%</b>	<b>304</b>	<b>8,198</b>	<b>57.5%</b>

Note: Figures may change based on the date data are pulled

Source: MDC Institutional Research analysis using OBIEE data retrieved 11/16/17 and 01/30/18

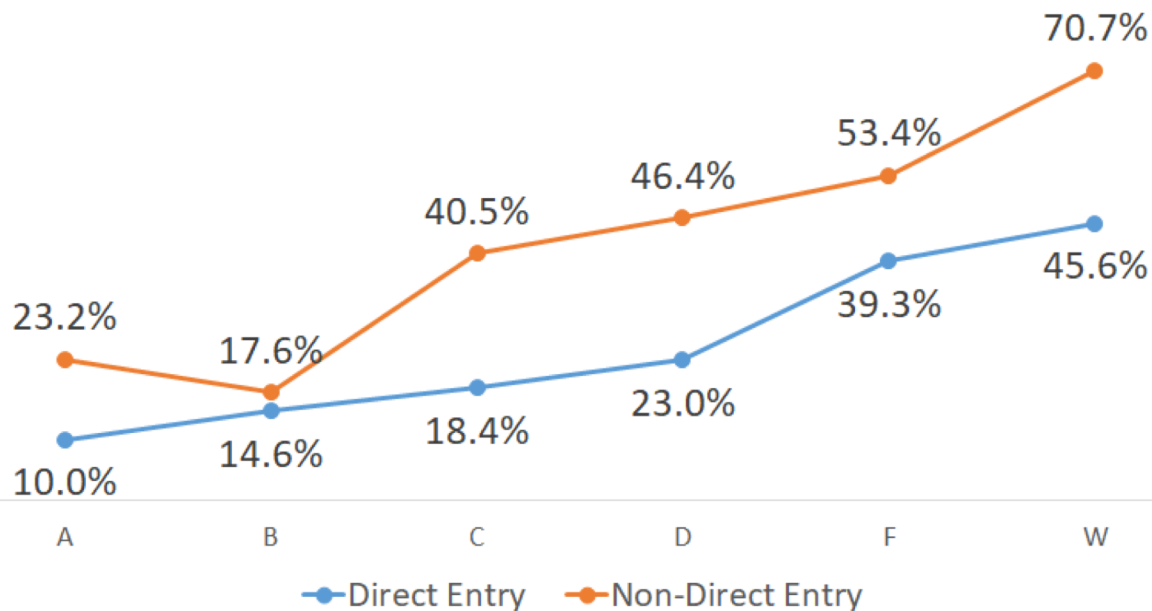
Institutional analyses of administrative and/or survey data

Gateway course performance based on course attributes

# Examples: Course-level Data

## Institutional analyses of administrative and/or survey data

Risk of Fall-to-Fall Attrition of Fall 2016 FTIC Students,  
by MAT1033 Grade



- Relationship between
  - Course performance and success in subsequent courses
  - Course performance, retention rate, and graduation rate
- Course performance and progression

# Examples: Student-level Data

Figure 1. Enrollment intensity of Fall 2016 FTIC degree/certificate-seeking students through Spring 2018 (January 15, 2018)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Figure 1. Enrollment intensity of Fall 2016 FTIC degree/certificate-seeking students through Spring 2018 (January 15, 2018)											
2												
3	<b>Fall 2016</b>			<b>Spring 2017</b>			<b>Fall 2017</b>			<b>Spring 2018</b>		
4	FT	6,568		FT	4,633		FT	3,049		FT	2,209	
5										PT	656	
6										Not Enrolled	184	
7												
8							PT	932		FT	227	
9										PT	519	
10										Not Enrolled	186	
11												
12							Not Enrolled	652		FT	24	
13										PT	61	
14										Not Enrolled	567	
15												
16				PT	1,344		FT	349		FT	178	
17										PT	134	
18										Not Enrolled	37	
19												
20							PT	583		FT	73	
21										PT	338	
22										Not Enrolled	172	
23												
24							Not Enrolled	412		FT	11	
25										PT	46	
26										Not Enrolled	355	
27												
28				Not Enrolled	591		FT	56		FT	23	
29										PT	20	
30										Not Enrolled	13	
31												
32							PT	74		FT	9	

Institutional analyses of administrative and/or survey data

Enrollment intensity analysis



# Examples: Student-level Data

## Institutional analyses of administrative and/or survey data

### Predictors of success

Status of Fall 2016 FTIC Students as of Fall 2017

Enrollment Intensity and Entry Type	Grand Total	Returned or Graduated		Did Not Return or Graduate	
<b>Grand Total</b>	<b>10,401</b>	<b>7,280</b>	<b>70.0%</b>	<b>3,121</b>	<b>30.0%</b>
<b>Full-time</b>	<b>6,640</b>	<b>5,131</b>	<b>77.3%</b>	<b>1,509</b>	<b>22.7%</b>
Direct	5,597	4,486	80.2%	1,111	19.8%
Non-Direct	1,043	645	61.8%	398	38.2%
<b>Part-time</b>	<b>3,761</b>	<b>2,149</b>	<b>57.1%</b>	<b>1,612</b>	<b>42.9%</b>
Direct	2,596	1,634	62.9%	962	37.1%
Non-Direct	1,165	515	44.2%	650	55.8%

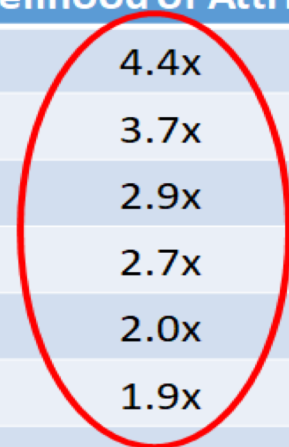
# Examples: Student-level Data

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## Institutional analyses of administrative and/or survey data

### Predictors of success

	Likelihood of Attrition
Enrolled but not pass any English in first term	4.4x
Did not enroll in any Math in first term	3.7x
Enrolled but not pass any Math in first term	2.9x
Did not enroll in any English in first term	2.7x
Withdrew from one or more courses in first term	2.0x
Attended part-time	1.9x
High school of GPA of 3.0 or lower	1.9x
Out-of-state resident	1.8x
Black, non-Hispanic	1.5x
Pell Grant recipient	1.4x
Male	1.3x



# Creating an Infrastructure for Continuous Improvement

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- Why is it important to create an infrastructure of continuous improvement?
- How do we create it?
  - Clear and shared equity-centered understanding of what “continuous improvement” means at your institution
  - Expectation that continuous improvement is everyone’s job
  - Dedicated time and resources
  - Environment that facilitates iteration and informed risk-taking
  - Cadence of accountability
  - Culture of curiosity



# Campus Team Time

## Understanding Our Students

- Which student population(s) are we better at supporting?
- Which student population(s) do we continue to struggle in serving and supporting to completion?
- At what points during the semester do we risk losing the most students?

## Understanding Our Data Needs

- What data will help inform how best to intervene with these students?
- What data do we need to leverage students' strengths and facilitate on-time completion?
- How can we improve our data governance, processes, and capacity to do this work more effectively and efficiently?

## Understanding My Role

- What is my role in improving the actionability of data to help us move the needle toward GI 2025?
- What one thing will I do differently re: data when I get back to campus?



# Data Show and Tell

# Data Show and Tell

0:20

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Share how you are currently using or plan to use campus-, course-, or student-level EO 1110 data to achieve your institution's GI 2025 goals

What are you most excited about?

What questions do you have for the group's input?



# Wrap Up



# Contact

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Archie P. Cubarrubia  
archie.cubarrubia@gmail.com

Desiree D. Zerquera  
ddzerquera@usfca.edu

# Lunch

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**Take lunch into break-out rooms.**

# Roadmap to Continuous Improvement

## Feedback

- students
- faculty
- advising
- registrar
- academic support
- leadership

## Revisions

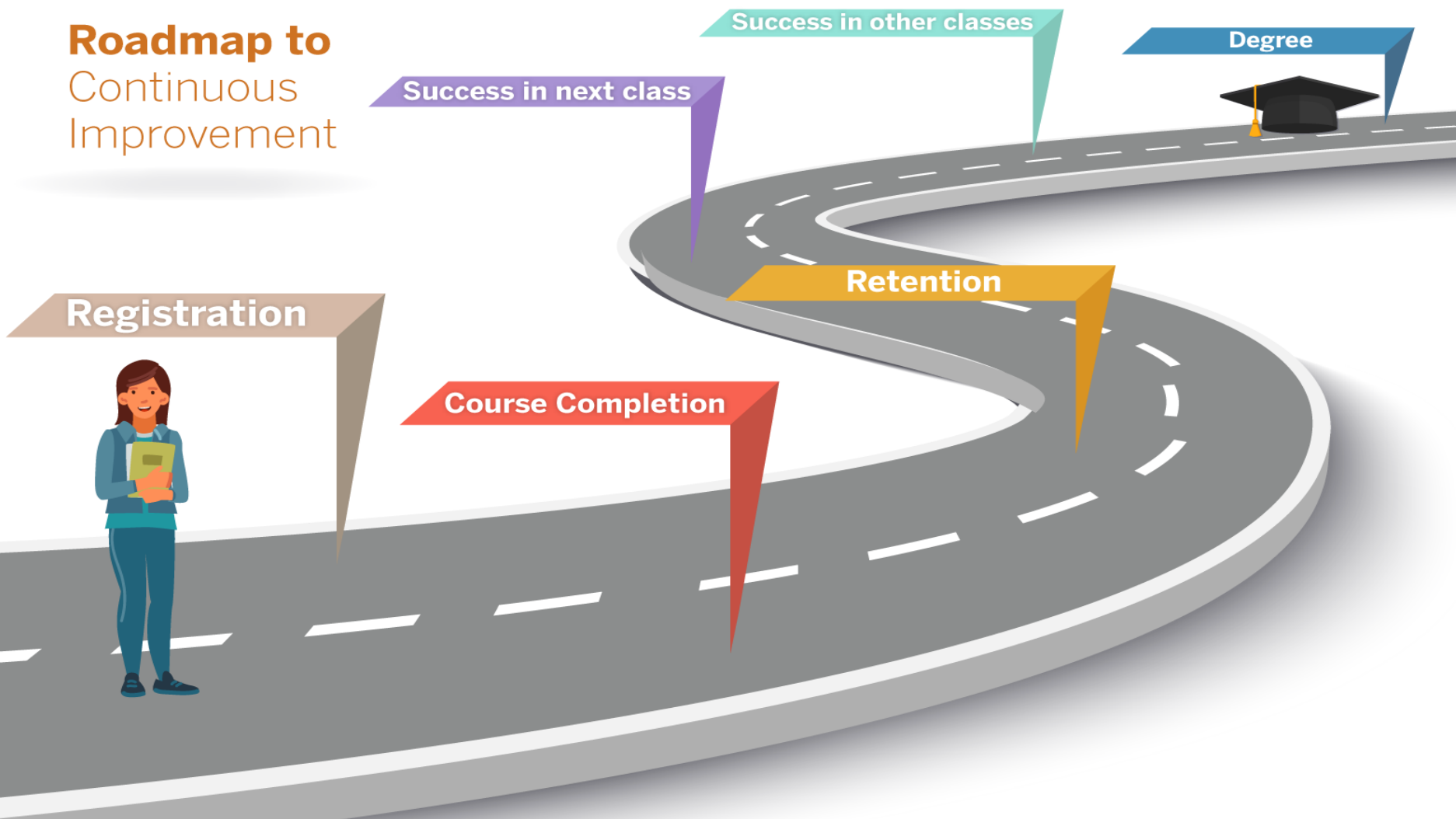
## Implementation 2.0

## Planning

## Implementation 1.0

# Milestones for Continuous Improvement

## Roadmap to Continuous Improvement



Registration



Course Completion

Success in next class

Retention

Success in other classes

Degree



# Revisiting Continuous Improvement Plans and Next Steps

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- 1:30 Update Plans
- 2:30 Spring Check-Ins
- 2:45 Action Steps and Evaluation



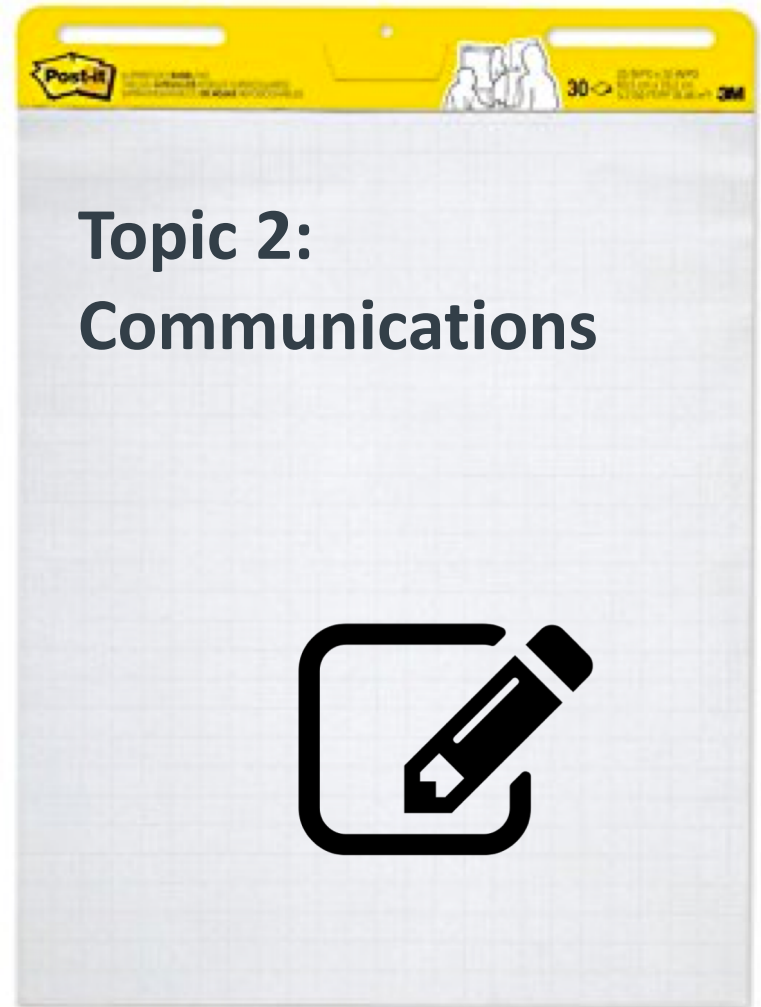
# Concerns and Strategies

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- What are your teams top 2 concerns for the spring?
- Which of these would most benefit from strategizing with other campus teams?

# Spring Check-In Calls

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# Revisiting the Continuous Improvement

## Institutional Continuous Improvement Planning Template

*This plan is for the campus leadership team. It shall form a basis for the Zoom check-in conversations to be held during the fall and spring semesters. Although not required, campuses may wish to share the plan with the facilitators participating in the check-in.*

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**With your leadership team, identify your Executive Order 1110 implementation vision statement.**

**Institutional Vision Statement for Executive Order 1110 Implementation:**

**With your leadership team, identify your Year One Executive Order 1110 implementation goal statement**

**Goal Statements for Year One of Executive Order 1110 Implementation:**

By Fall 2019, our institution will:

- —
- —
- —
- —

On the next two pages, you will identify key actions and deliverables to achieve the goals listed above.

Institutional Continuous Improvement Planning Template

### **Targets**

- What milestones are required to meet your year-one goals?

### **Deliverables**

- What needs to be developed? Who will develop it?

### **Data collection**

- What data will be collected? Who will be responsible for collecting it? When will the data be collected?

### **Check-ins**

- When will the data be reviewed? Who will review it and note progress to the team?

### **Adjustments**

- How will it be decided what adjustments to make?

### **Communications**

- How will information be disseminated?
- How will progress be communicated and success celebrated? When will this be done? Who will organize this?



# Revisiting the Pre-Mortem Analysis

## Anticipating Challenges Pre-mortem Analysis

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Assume that, five years from now, you have failed to achieve your transformational goals. Identify on the chart below the likely major causes of that "mortality." Consider what specifically might happen that could derail the effort and conduct a "pre-mortem." A *pre-mortem* is a way to anticipate challenges and to come up with strategies to navigate around them. For each cause, delineate specific leadership strategies you will employ to anticipate and avert or address the challenges.

Cause of "Mortality"	Leadership Strategies	Actions to Mitigate Risk

08/2016

**What other individuals/groups need to be engaged in the discussions?**

**What do we need to know that we do not know now? How will we get that information?**

# Looking at Data

## **PART ONE - Course Completion Data from Fall 2018**

For each of the tables below, please enter the requested information. If you do not have the information, enter "NA." You may wish to make multiple copies of the second table to include all courses.

	Math/QR Entry-Level Courses	Composition Entry-Level Courses
Number of Fall 2018 First Time Freshmen		
Number enrolled in such course without support		
Percentage of FTF		
Number enrolled in such course with support		
Percentage of FTF		
Number not enrolled in such course, and in Category I		
Percentage of FTF		
Number not enrolled in such course, and not in Category I		
Percentage of FTF		

	<i>Examples of courses</i>				
Course	<i>STA 101: Business Statistics (without support)</i>	<i>STA 102: Business Statistics (with pre-coll coreq)</i>	<i>MAT 102 Math for All (2<sup>nd</sup> sem)</i>	<i>ENG 101: Composition (without support)</i>	<i>ENG 102: Stretch Composition</i>
Fall 2018 Enrollment in Course					
Number of A – C- Grades					
Percentage of enrollment in course					
Number of A – D- Grades					
Percentage of enrollment in course					

# Team Time: Refining Implementation

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## Guiding Questions

- What works well right now?
- Which adjustments will improve implementation in the short term?
- What about the long term?
- What resources are required to implement these adjustments, and who should be involved?
- What else should we consider as we think about version 2.0?

## Next Steps

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- Report out one action step your leadership team plans to take.
- Fill out your evaluation form.

# Other Resources

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## CSU Collaboration Spaces

- <http://tiny.cc/csu-teams>
- <http://tiny.cc/csu-math>
- <http://tiny.cc/csu-english>

## Calendar

- [www.calstate.edu/professional-development-calendar](http://www.calstate.edu/professional-development-calendar)

Recordings and resources are linked to event listings in the archive.

## Contact Information

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- Dr. Emily Magruder, Director, CSU Institute for Teaching and Learning, at [emagruder@calstate.edu](mailto:emagruder@calstate.edu)  
562-951-4752
- Dr. Zulmara Cline, Co-director, CSU Center for Advancement of Instruction in Quantitative Reasoning at [zcline@calstate.edu](mailto:zcline@calstate.edu)  
562-951-4778
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# Contact Information

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- Paula Talley, Manager, Professional Learning, Higher Education Strategies, Policy, and Systems
- General information about the Dana Center  
[www.utdanacenter.org](http://www.utdanacenter.org)
- DCMP Resource Site  
[www.dcmathpathways.org](http://www.dcmathpathways.org)
- To receive monthly updates about the DCMP, contact us at  
[dcmathpathways@austin.utexas.edu](mailto:dcmathpathways@austin.utexas.edu)

# About the Dana Center

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The **Charles A. Dana Center** at The University of Texas at Austin works with our nation's education systems to ensure that every student leaves school prepared for success in postsecondary education and the contemporary workplace. Our work, based on research and two decades of experience, focuses on K–16 mathematics and science education with an emphasis on strategies for improving student engagement, motivation, persistence, and achievement.

We develop innovative curricula, tools, protocols, and instructional supports and deliver powerful instructional and leadership development.



The University of Texas at Austin  
**Charles A. Dana Center**

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