

Portland State University

PDXScholar

Winter Symposium

Winter Symposium 2019

Feb 28th, 8:00 AM - 2:00 PM

Program Presentation

Portland State University

Follow this and additional works at: https://pdxscholar.library.pdx.edu/winter_symposium

Let us know how access to this document benefits you.

Portland State University, "Program Presentation" (2019). *Winter Symposium*. 3.
https://pdxscholar.library.pdx.edu/winter_symposium/2019/symposium/3

This Event is brought to you for free and open access. It has been accepted for inclusion in Winter Symposium by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible:
pdxscholar@pdx.edu.



2019 Winter Symposium

What We Know About Student Success

2019 Winter Symposium Agenda

8:45 a.m. – Institutional Data on Student Success
Kathi Ketcheson

9:15 a.m. – Active + Adaptive Courseware
Johannes De Gruyter and Rachel Webb

10:15 a.m. – BREAK

10:30 a.m. – Transfer Student Data and Programming
Jim Hook

2019 Winter Symposium Agenda

11:30 a.m. – Break to Grab Lunch for Presentation

Noon – Student Success in Student Affairs and Underrepresented Student Data/Programs
Michele Toppe and Linda Liu

1:00 p.m. – What Would Catalyze us to be More Effective With Data
Hans VanDerSchaaf and Gwen Shusterman

2:00 p.m. – Closing, Susan Jeffords

Institutional Data on Student Success



Kathi A. Ketcheson, Director/Research Professor
Office of Institutional Research and Planning
February 28, 2019

OIRP Staff

Kathi Ketcheson, Director/Research Professor

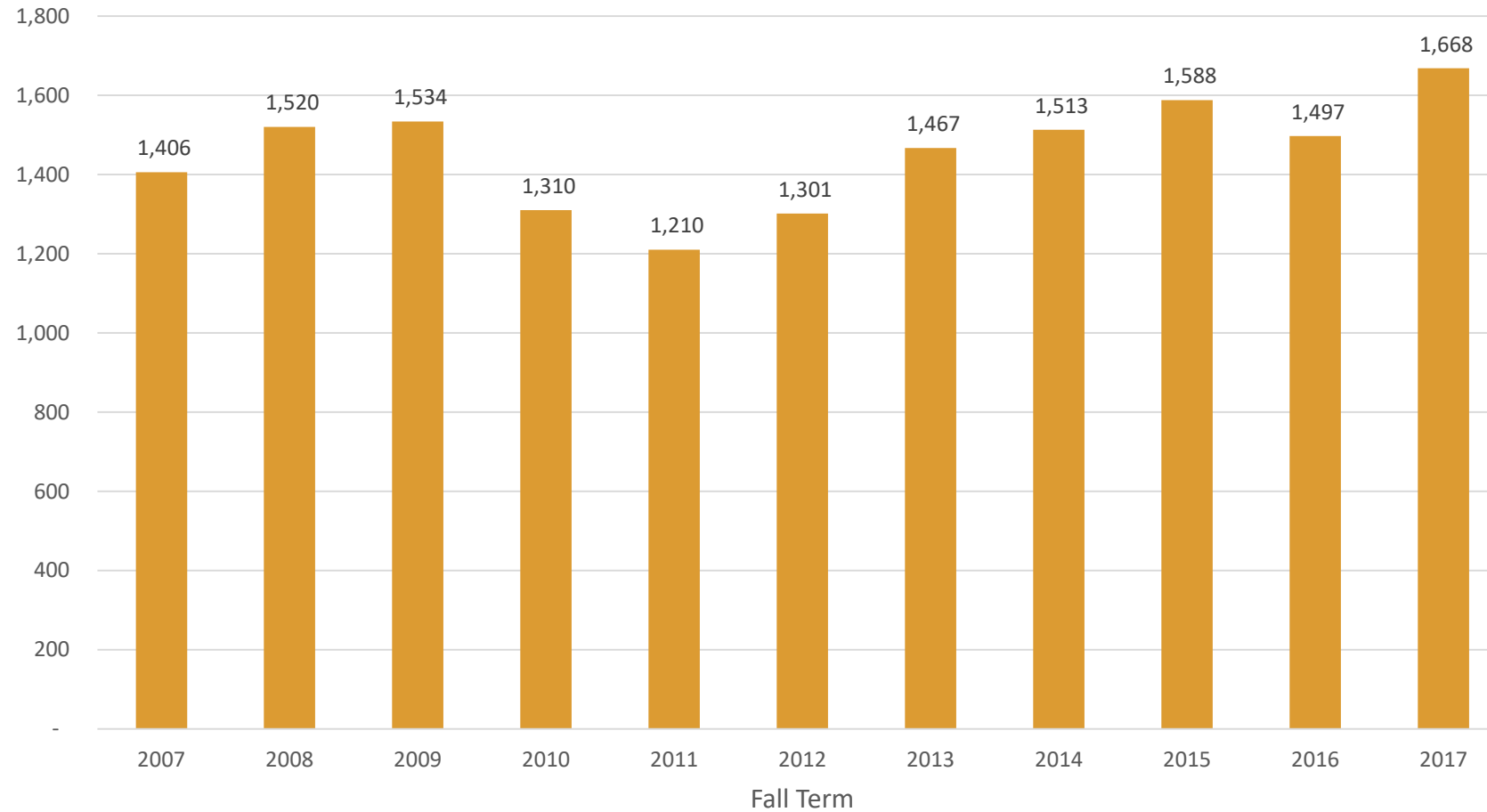
David Burgess, Associate Director

Michael Smith, Senior Research Analyst

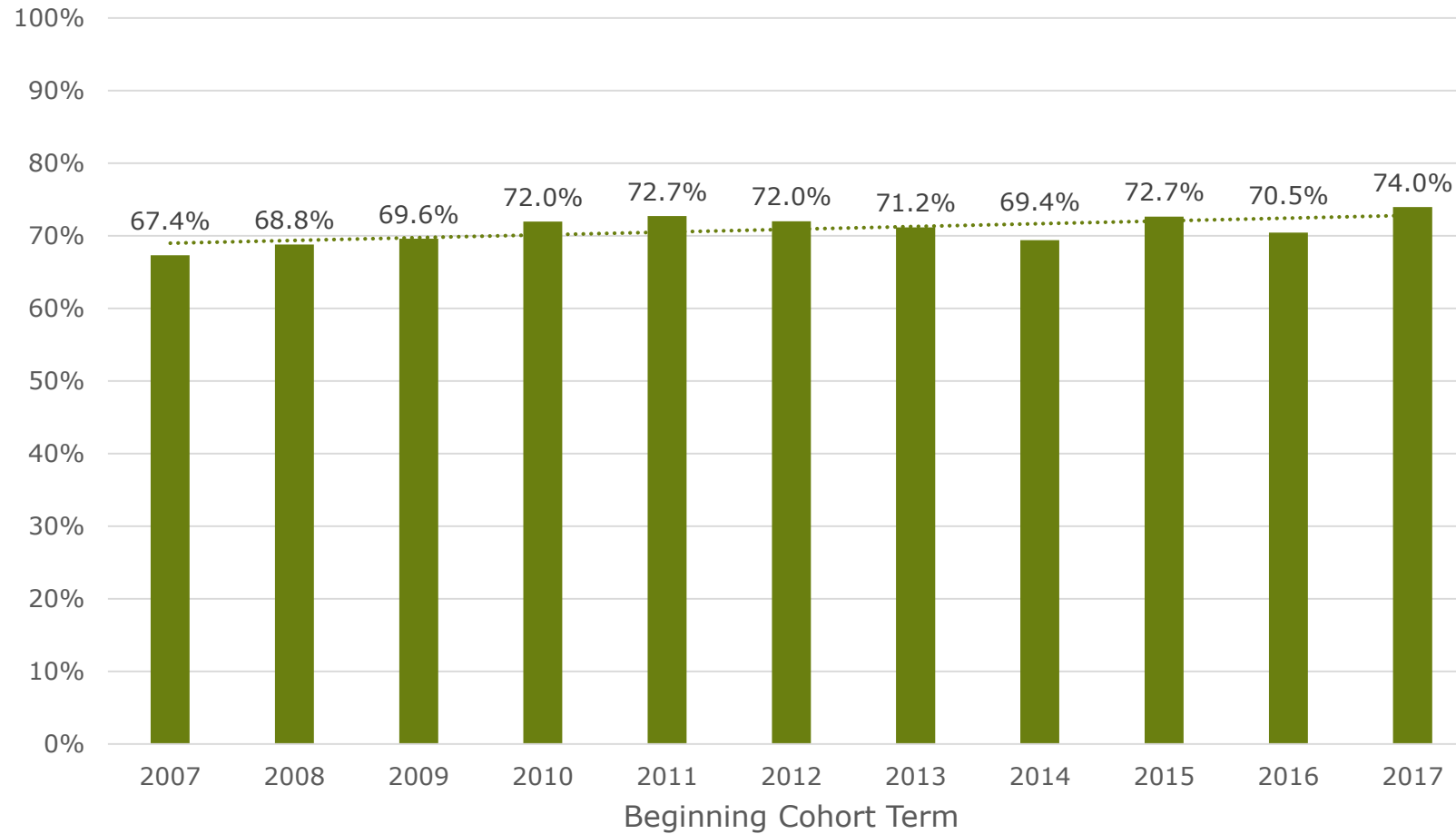
Yang Hu, Institutional Research Analyst

Paul Skomsvold, Institutional Research Analyst

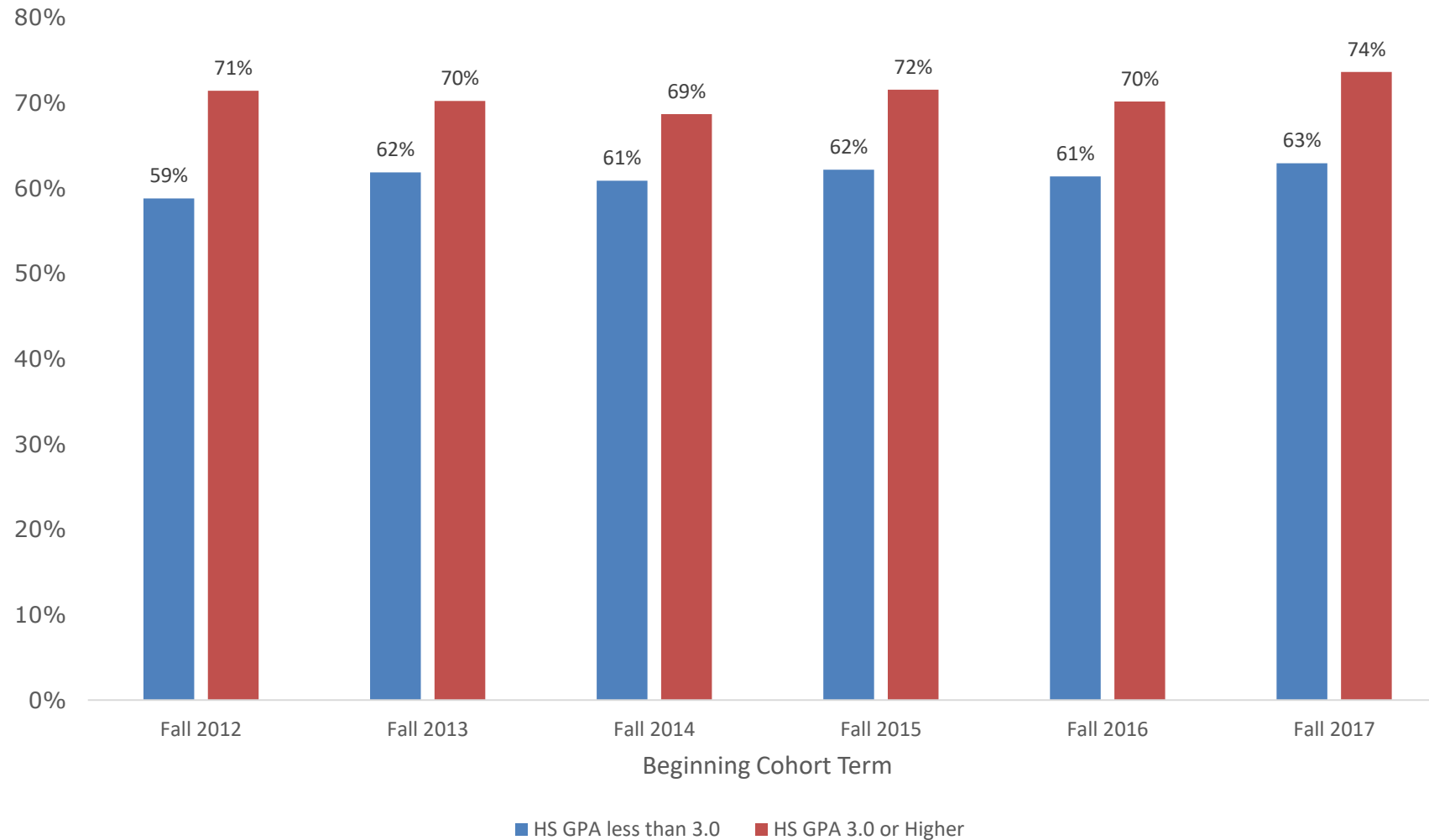
First-Time, Full-Time Freshman Entering Cohorts



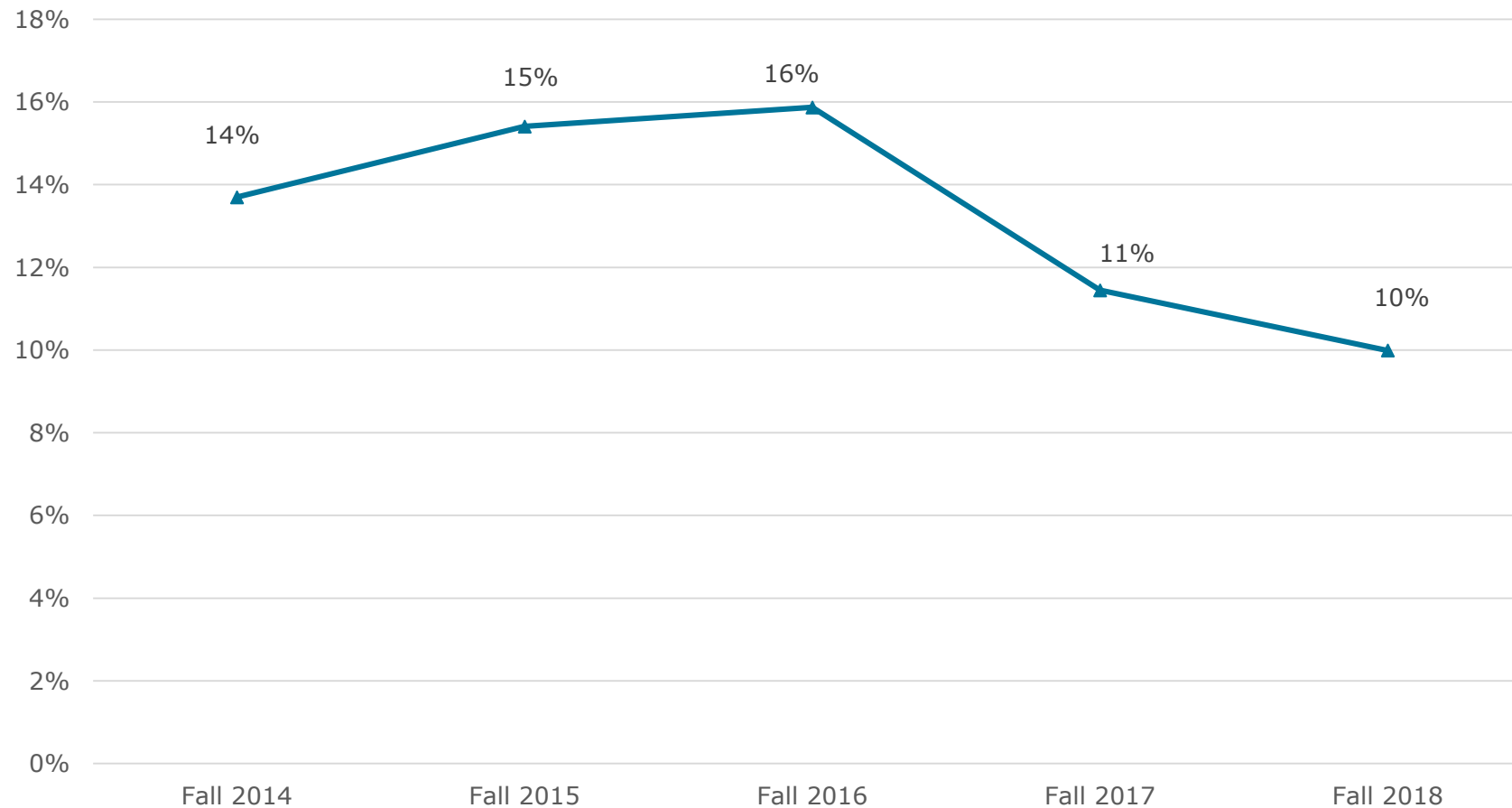
First-Time, Full-Time Freshman Retention



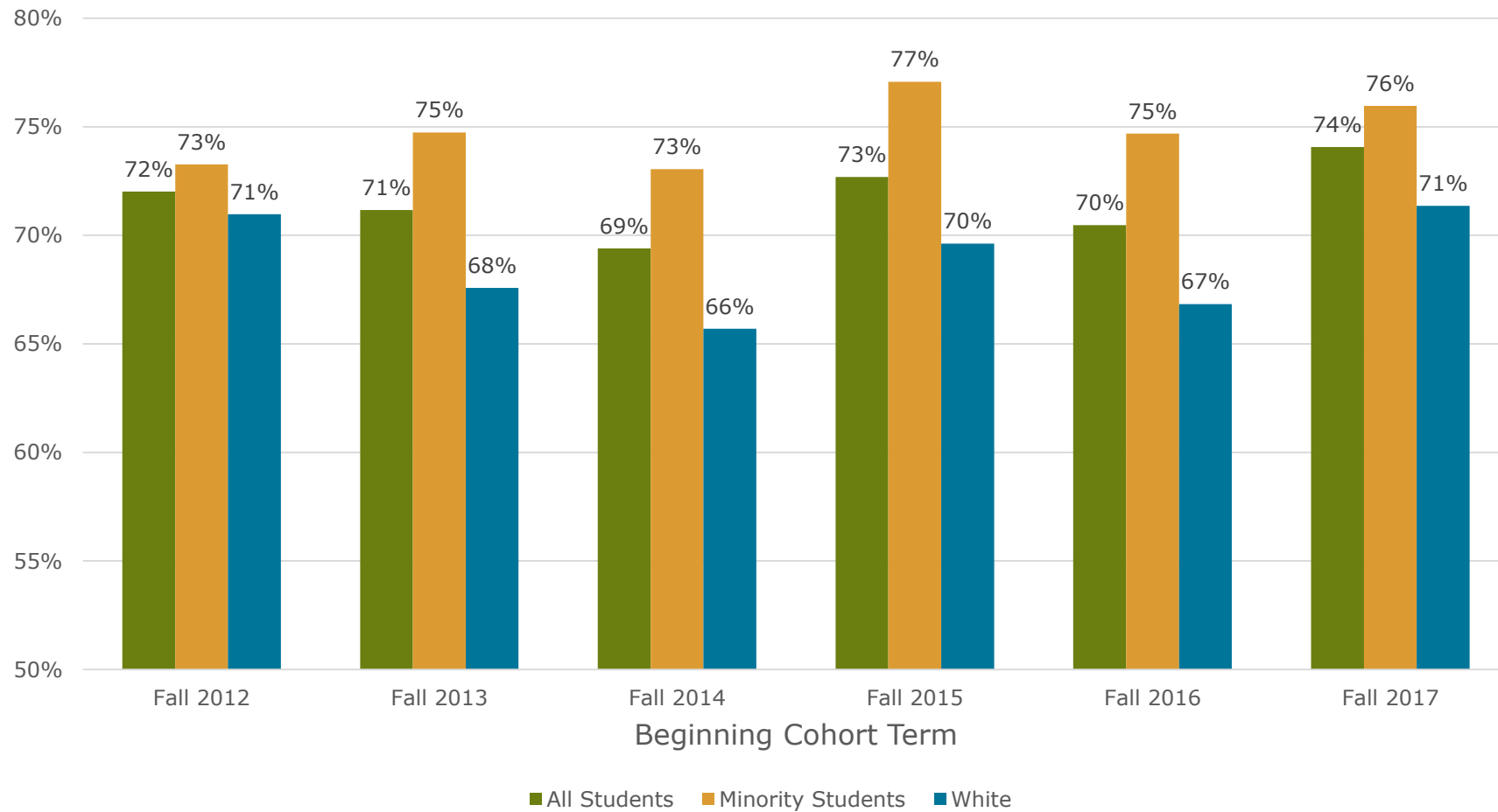
Freshman Retention Rates, by Entering High School GPA



Percentage of First-Time Freshmen with a High School GPA Below 3.0

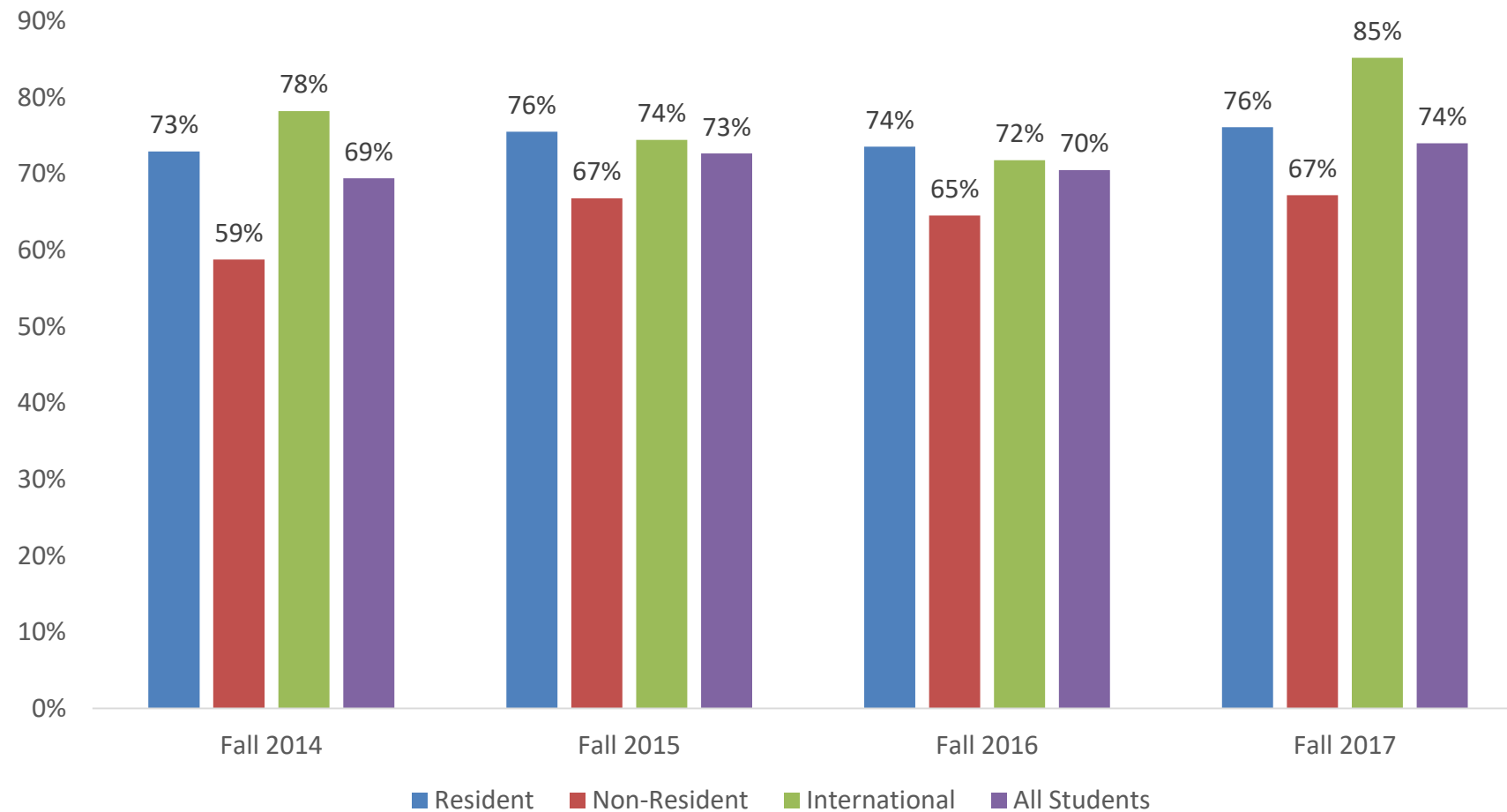


First-Time, Full-Time Freshman Retention Rates, by Race/Ethnicity

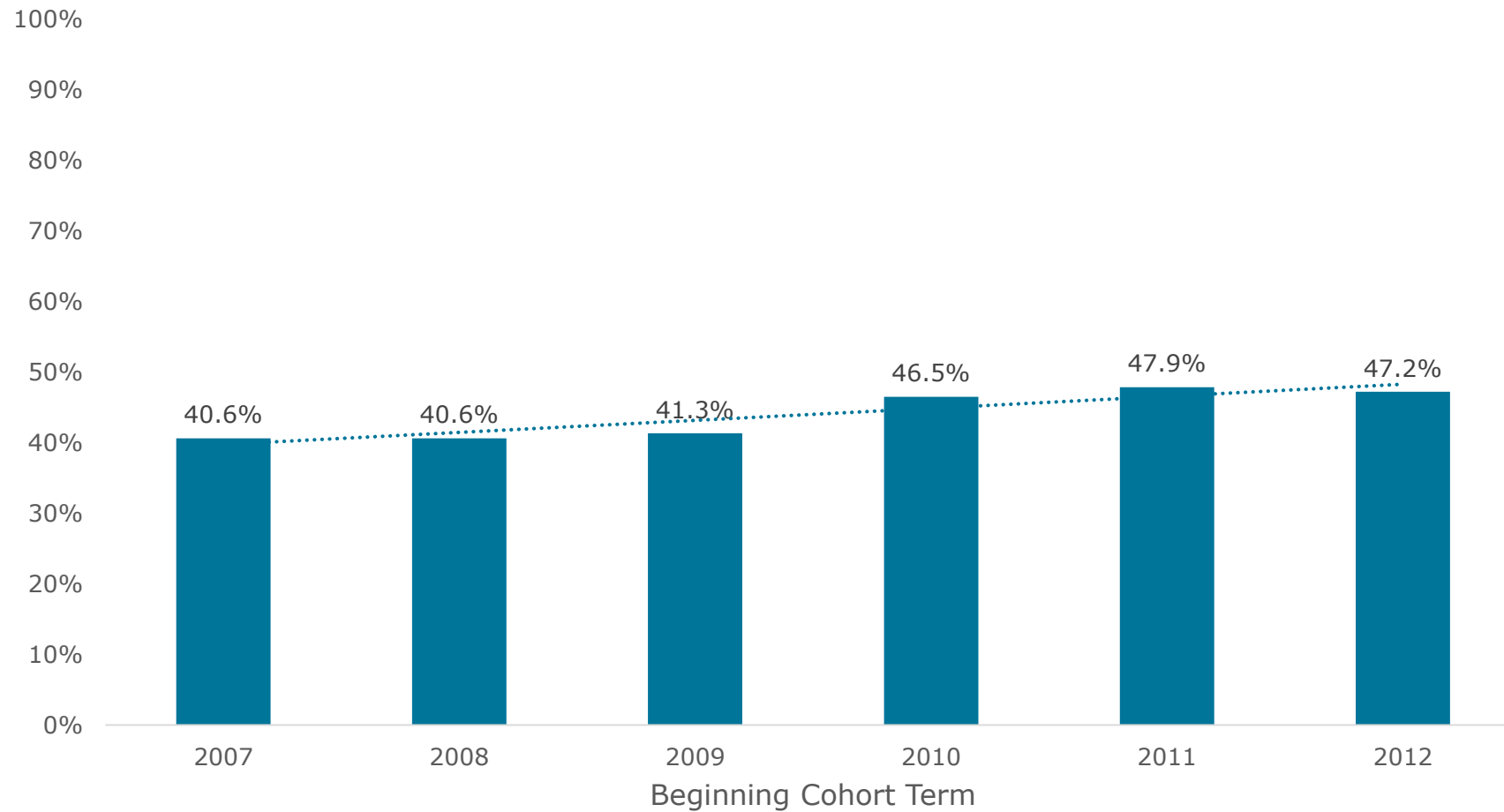


"Minority Students" includes Asian, Black, Hispanic, Native American, Pacific Islander and Multi-racial/ethnic students.
 Note: The following groups were included in the total, but not shown separately: International Students and Declined to Respond/Other.

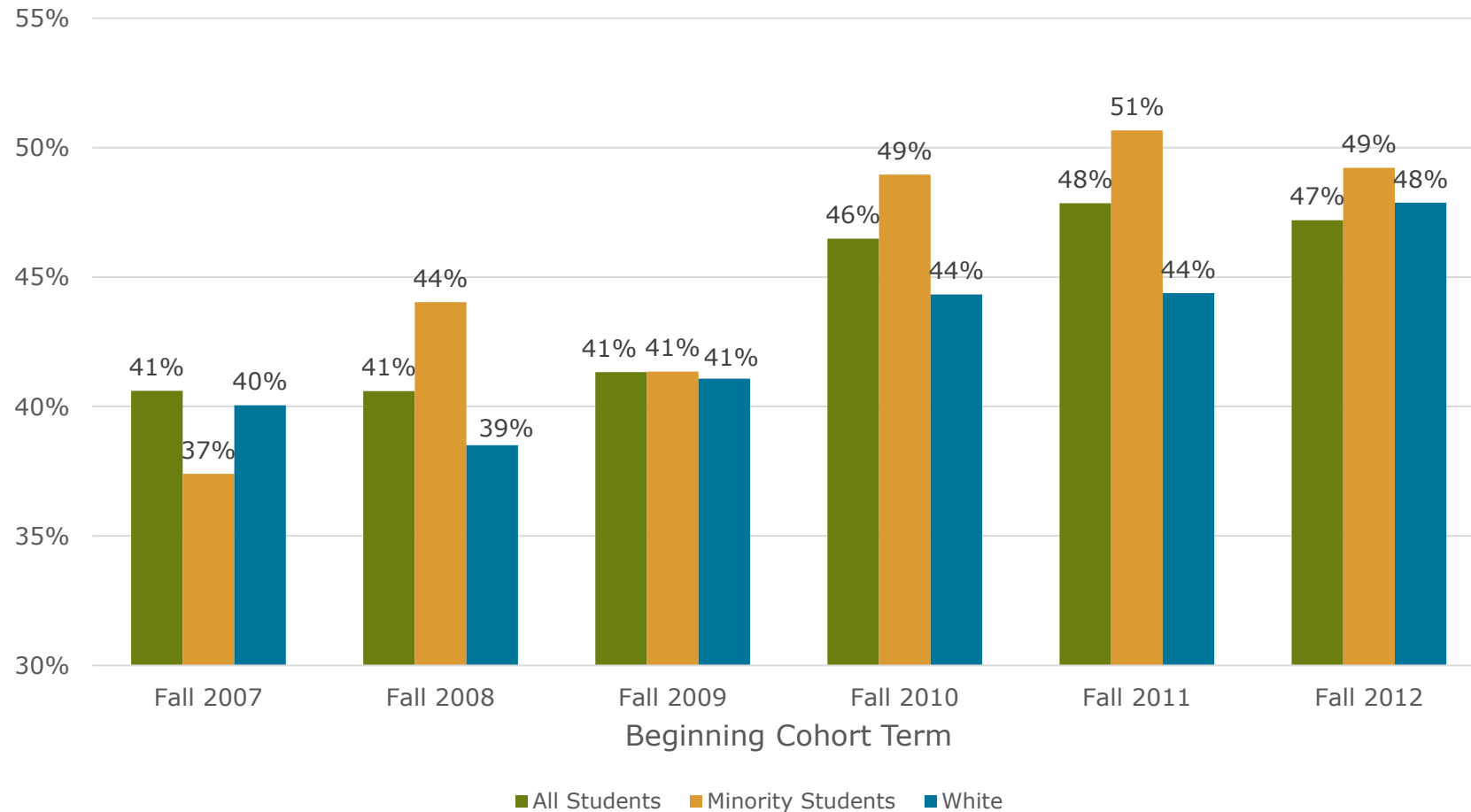
First-time, Full-time Freshman Retention, by Residency



First-Time, Full-Time Freshman 6-Year Graduation Rates

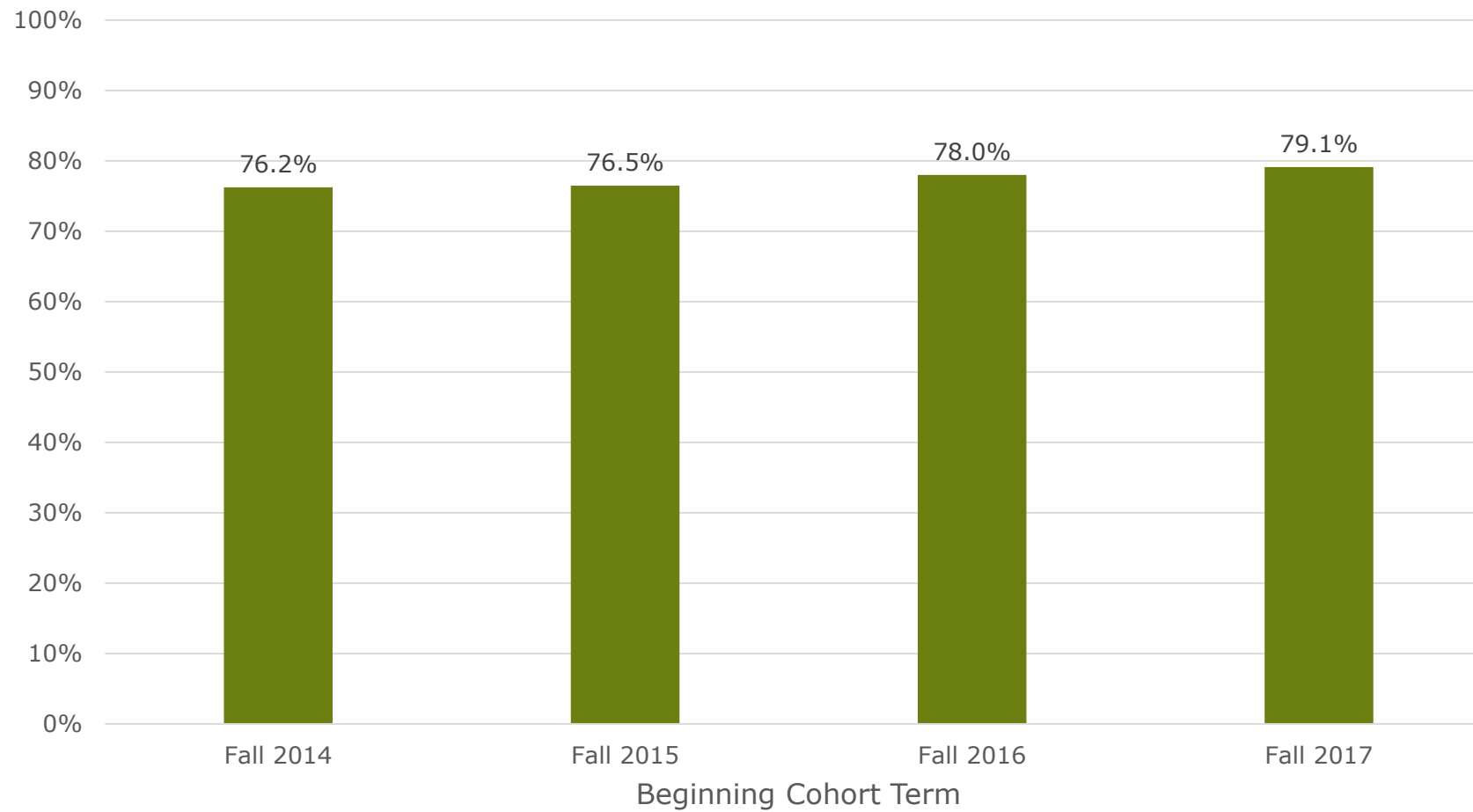


First-Time, Full-Time Freshman Graduation Rates, by Race/Ethnicity



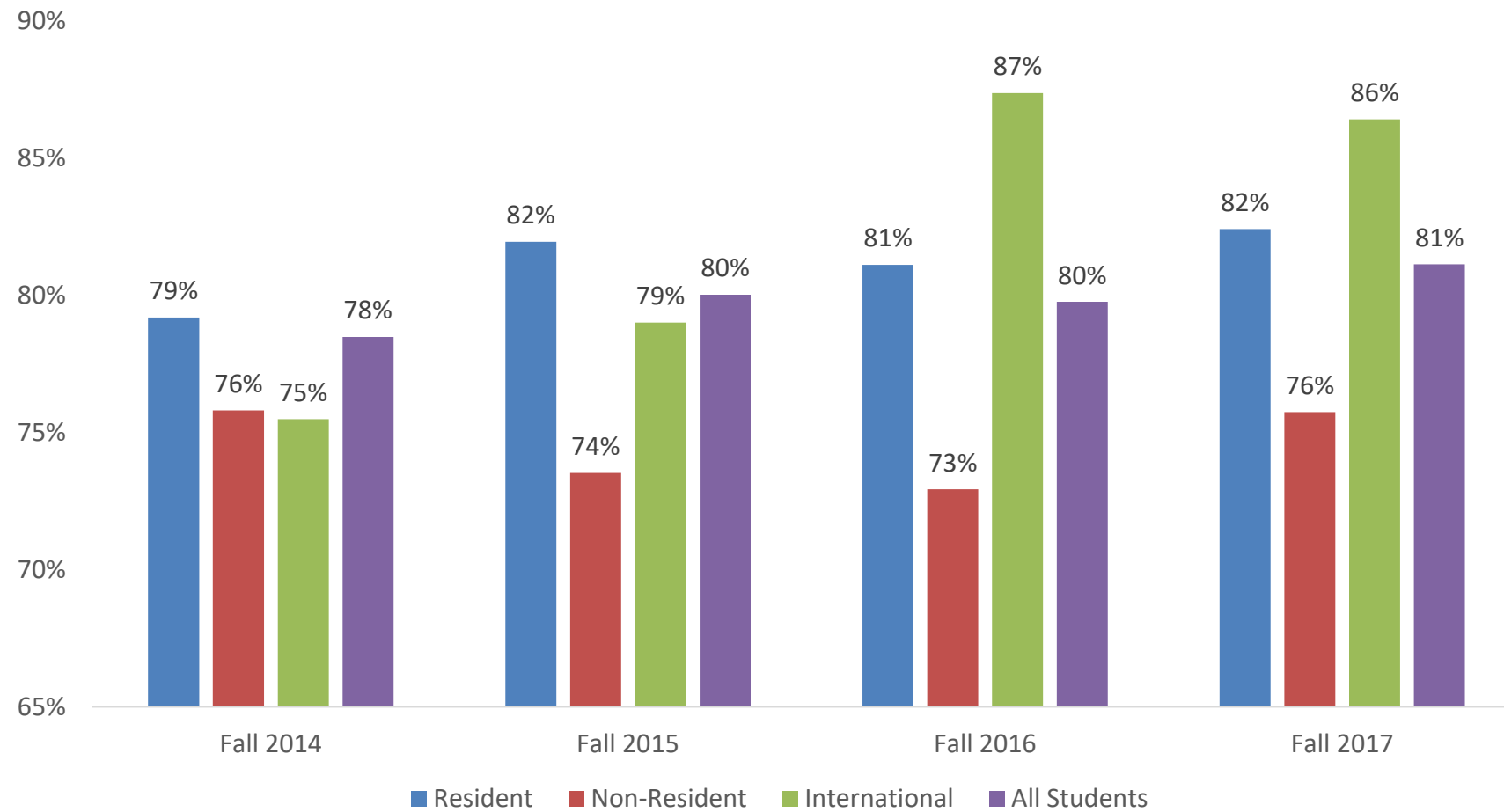
"Minority Students" includes Asian, Black, Hispanic, Native American, Pacific Islander and Multi-racial/ethnic students.
 Note: The following groups were included in the total, but not shown separately: International Students and Declined to Respond/Other.

Retention among New Transfer Students¹

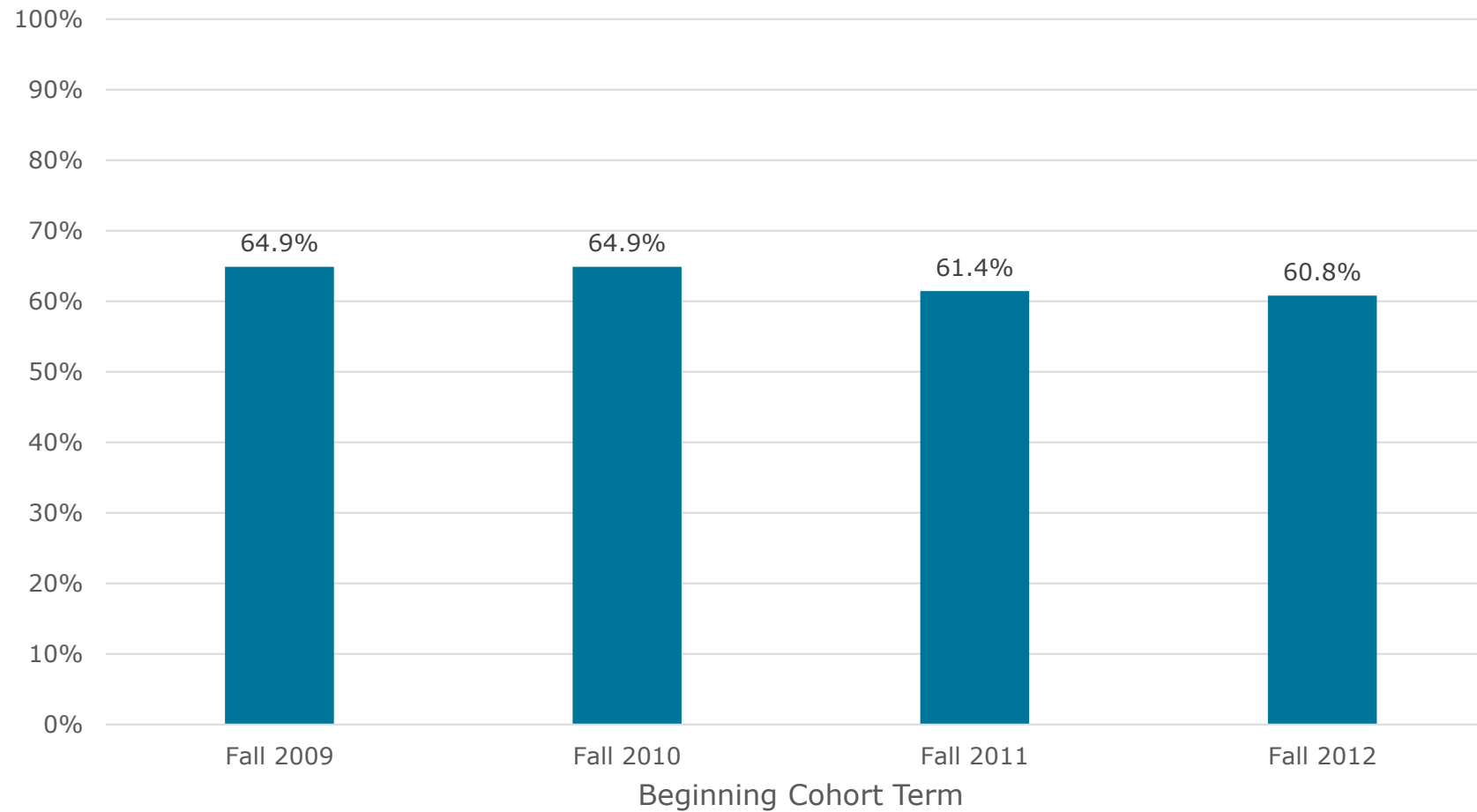


¹Sophomores and Juniors, Full-Time and Part-Time

Full-time New Transfer Student Retention, by Residency

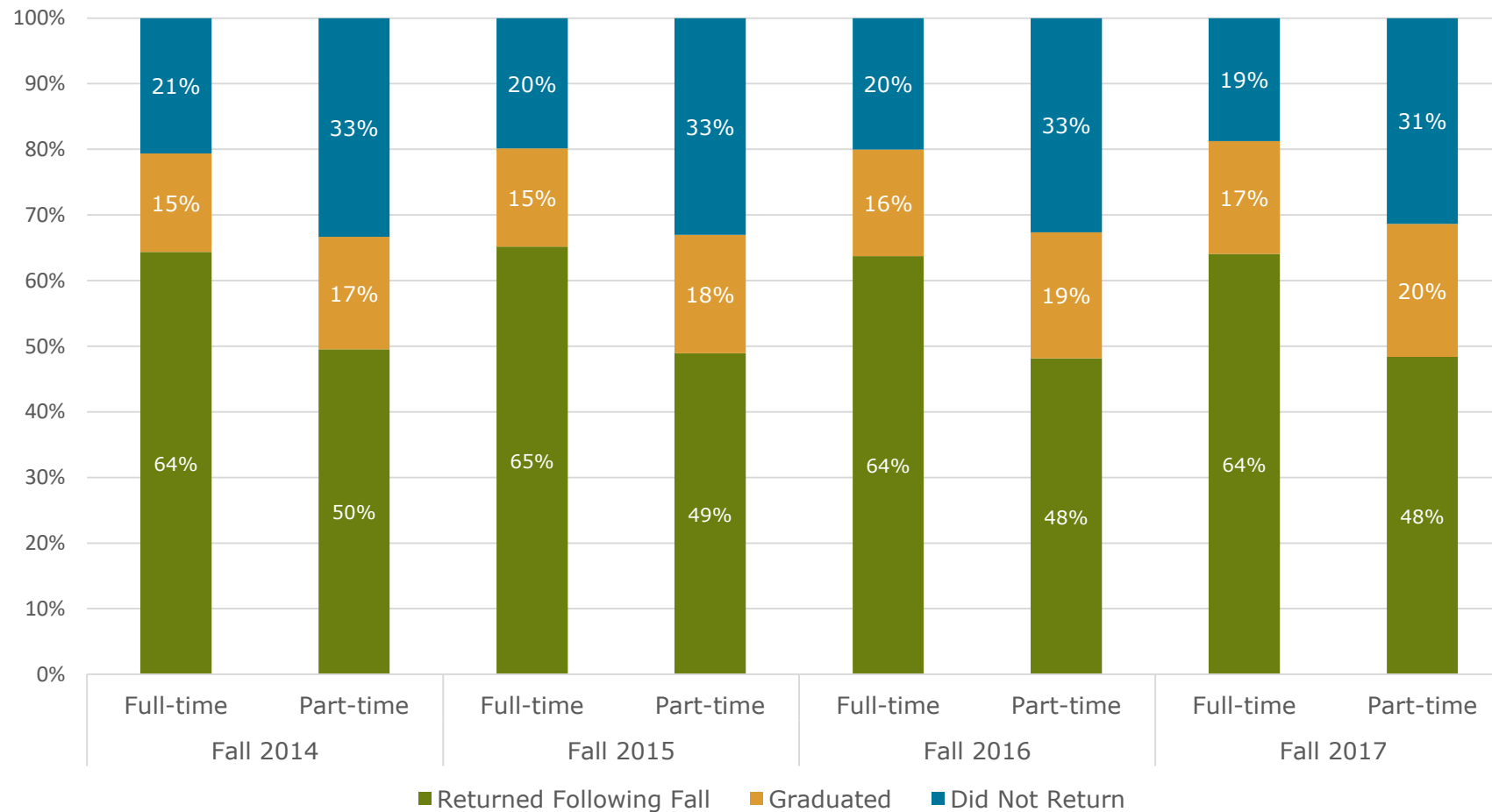


Graduation among New Transfer Students¹



¹Sophomores and Juniors, Full-Time and Part-Time

One-Year Continuation/Graduation among All Degree-Seeking Undergraduates



<http://www.studentachievementmeasure.org/participants/209807>

First-Time Full-Time

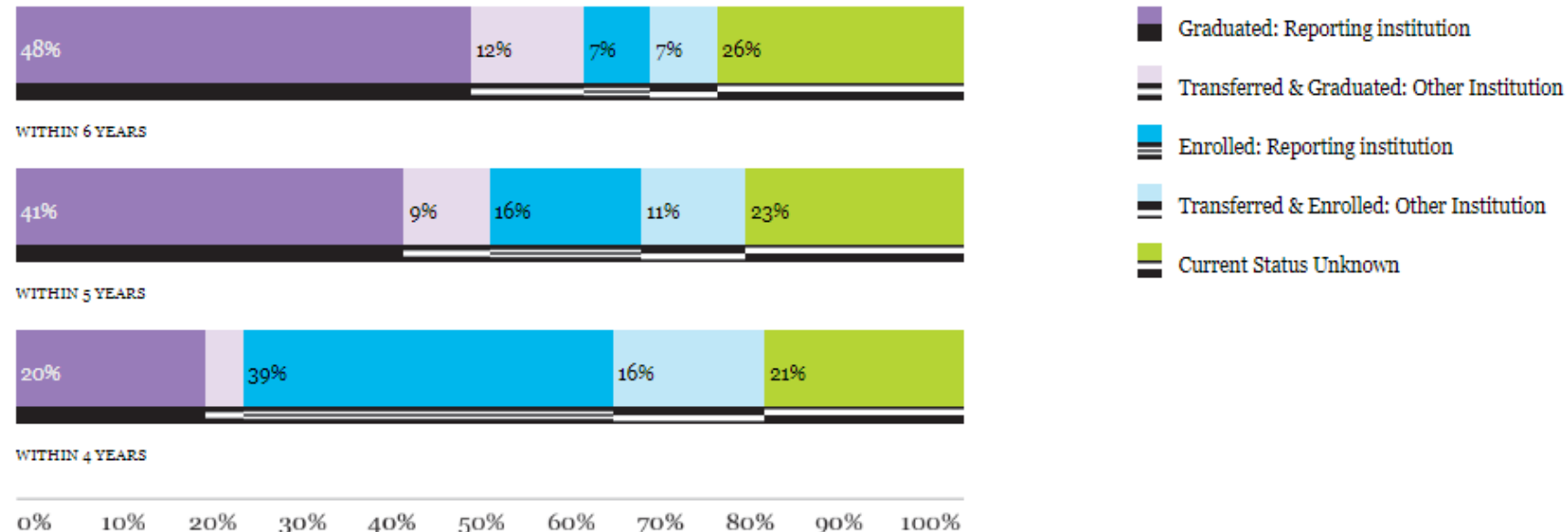


First-Time Full-Time Students Starting Fall 2011



Number of students: 1,211

roll over each bar for detail data



Full-Time Transfer



Full-Time Transfer Students Starting Fall 2011

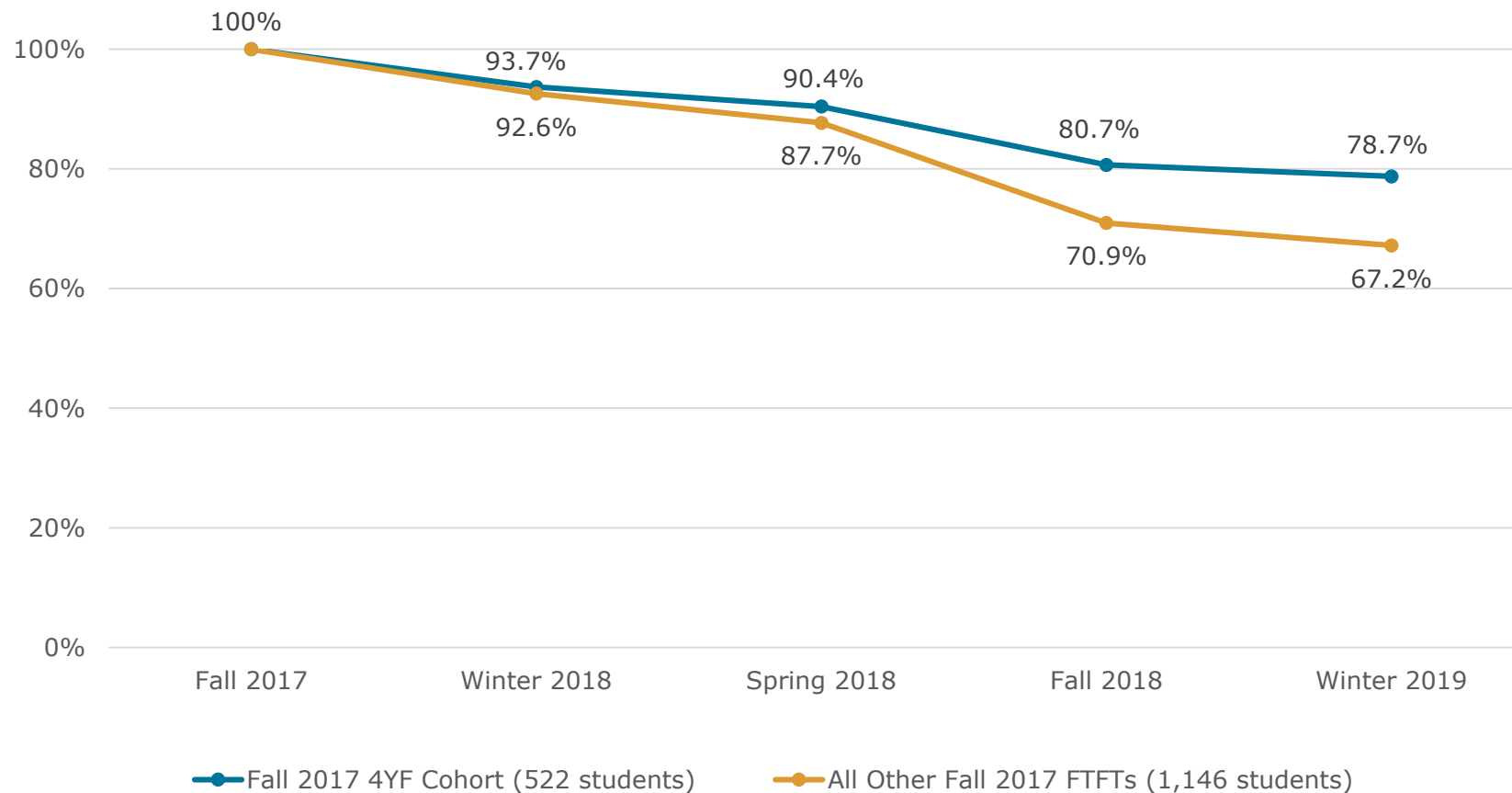


Number of students: 2,148

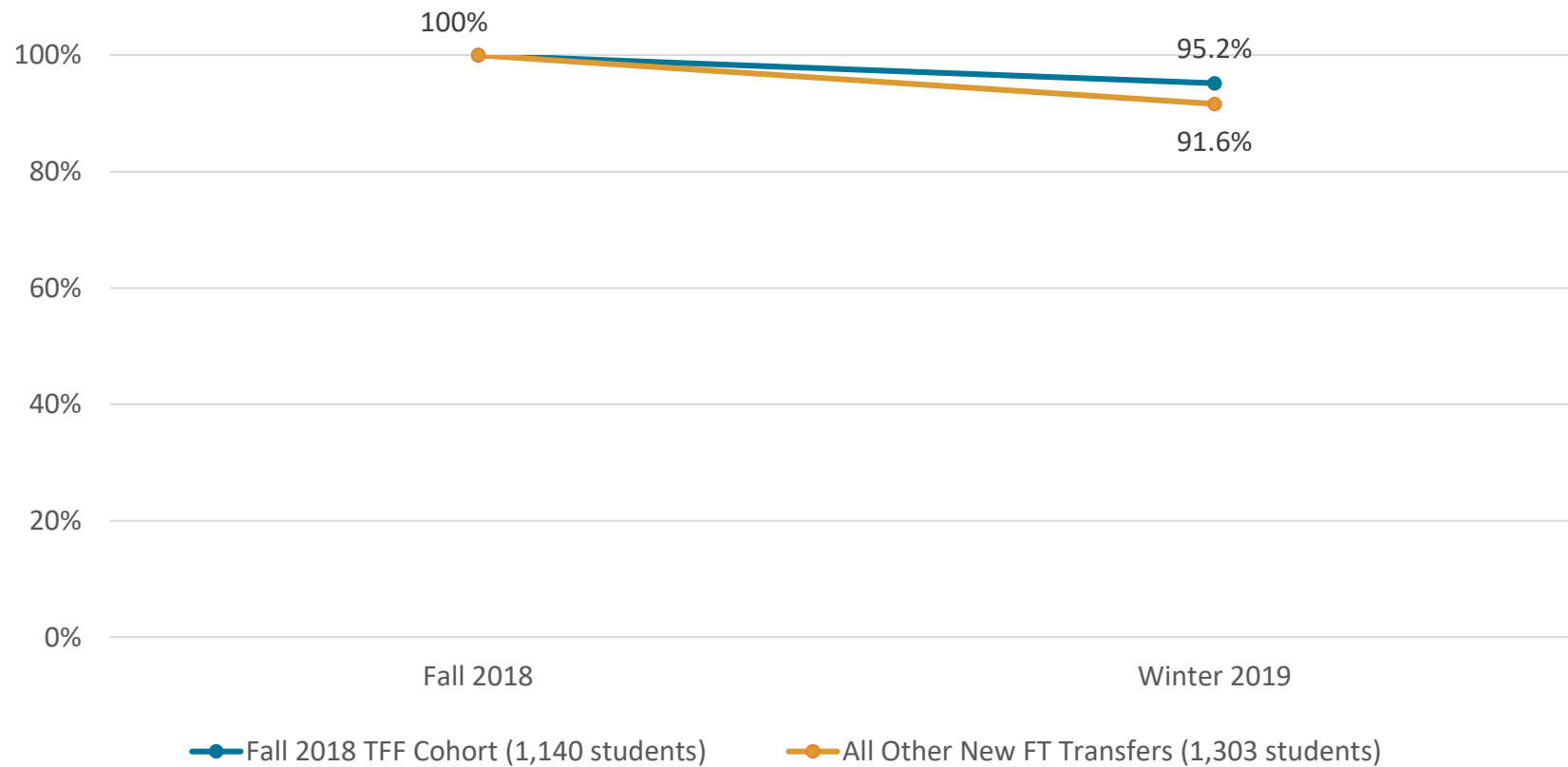
roll over each bar for detail data



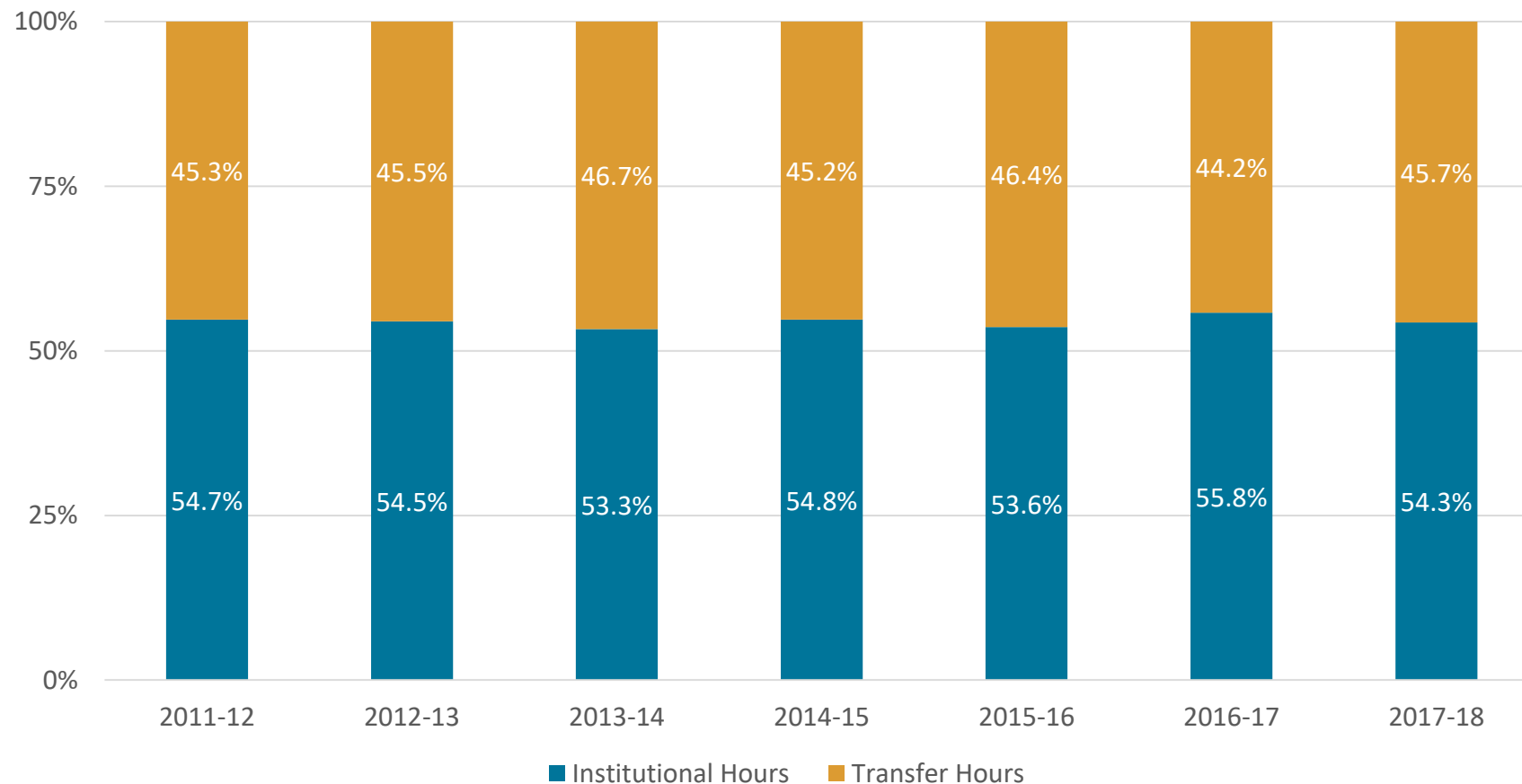
Comparative Persistence of Four Years Free Students



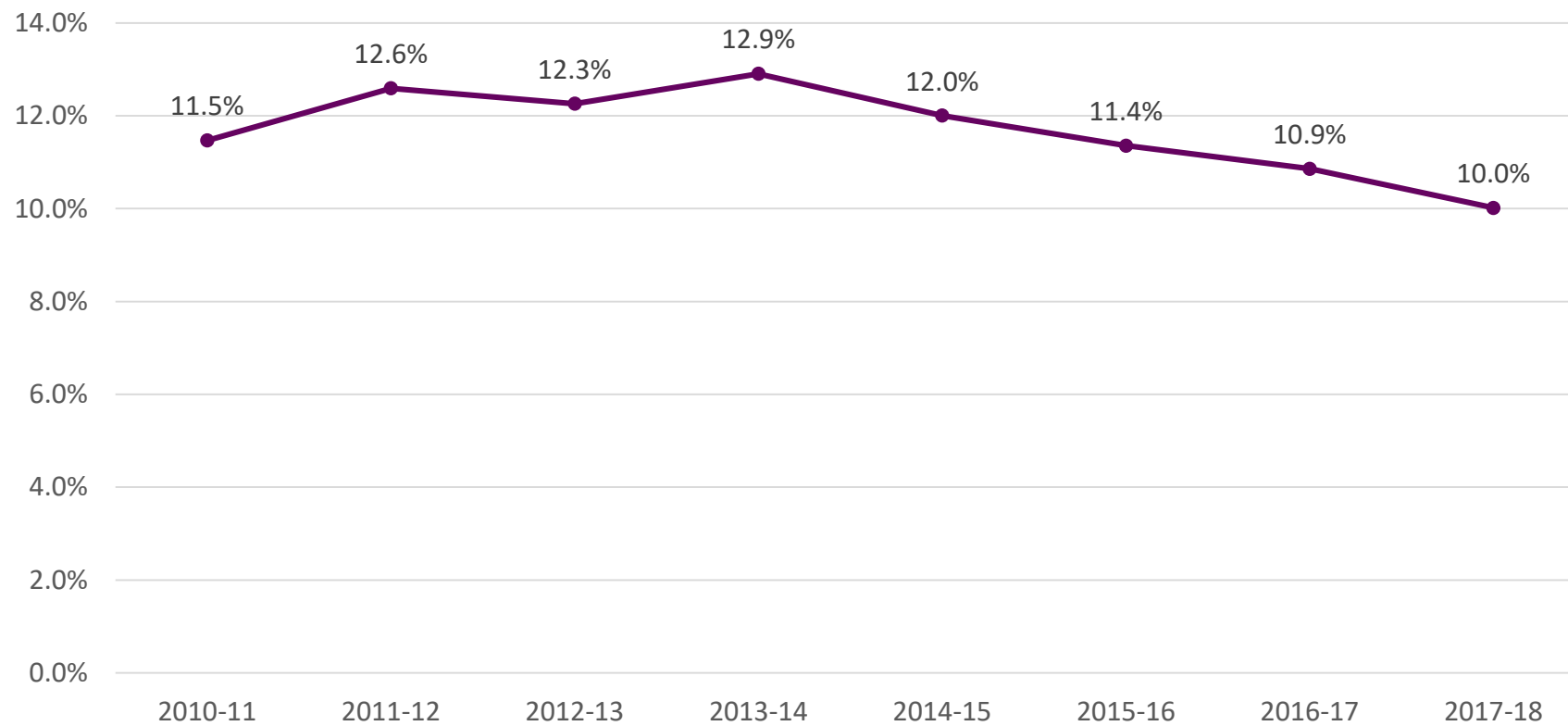
Comparative Persistence of Transfers Finish Free Students



Source of Excessive Credits at Graduation: Graduates with over 240 hours

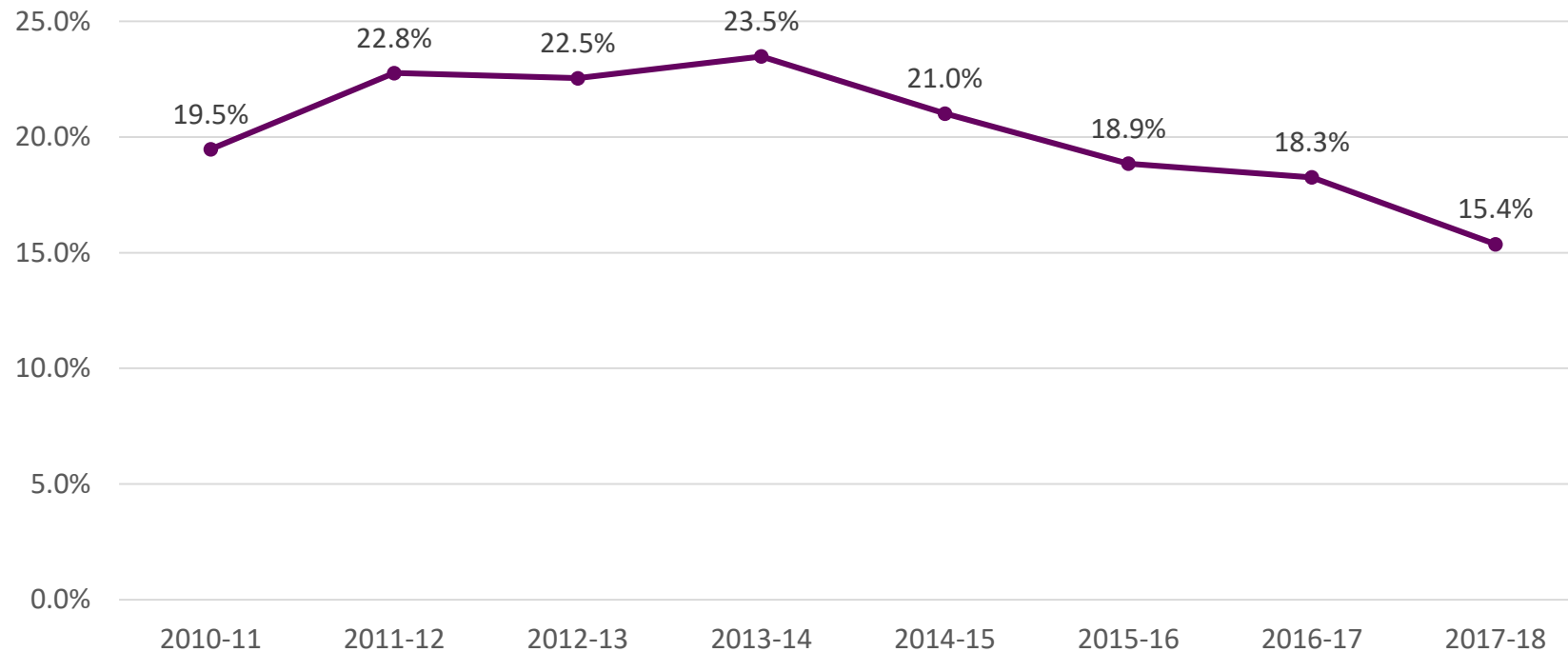


Overall Percentage of Undergraduate DFW



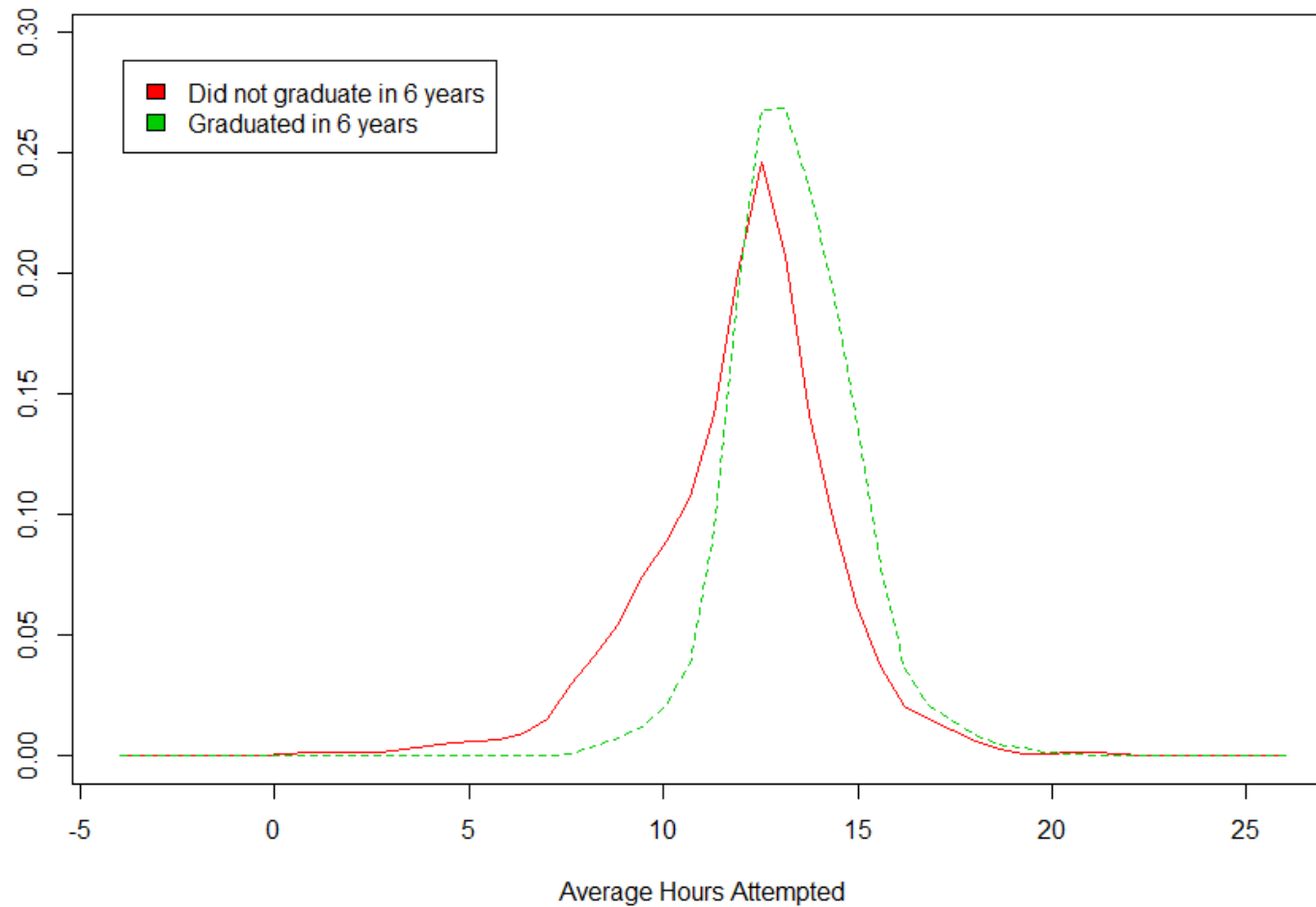
Note: Sections with fewer than 10 enrolled students are excluded.

Proportion of Undergraduate Sections with 20% or more DFWs



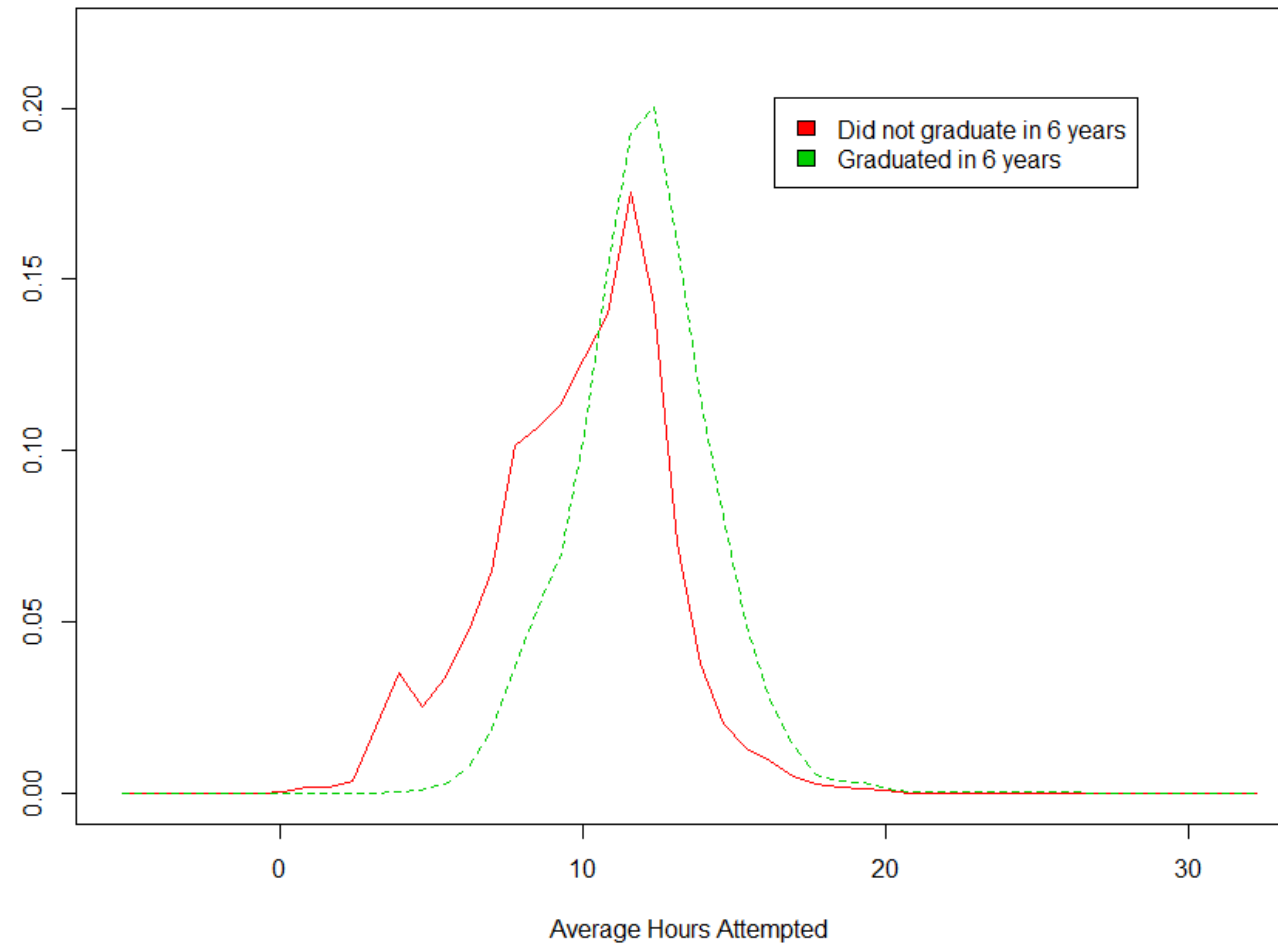
Note: Sections with fewer than 10 enrolled students are excluded.

Fall 2011 Freshman Cohort Average Hours Attempted



Graduates averaged 13.4 hours, Non-graduates averaged 12.0 hours

Fall 2011 Transfer Cohort Average Hours Attempted



Graduates averaged 12.0 hours, Non-graduates averaged 10.0 hours

QUESTIONS?

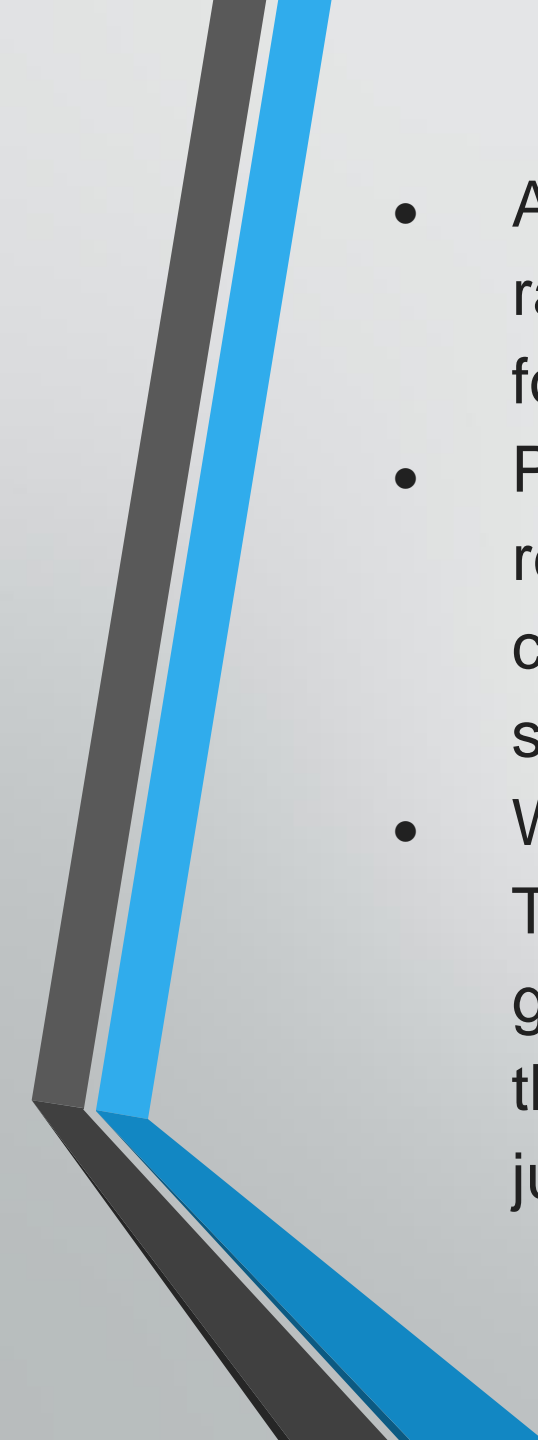
Email:

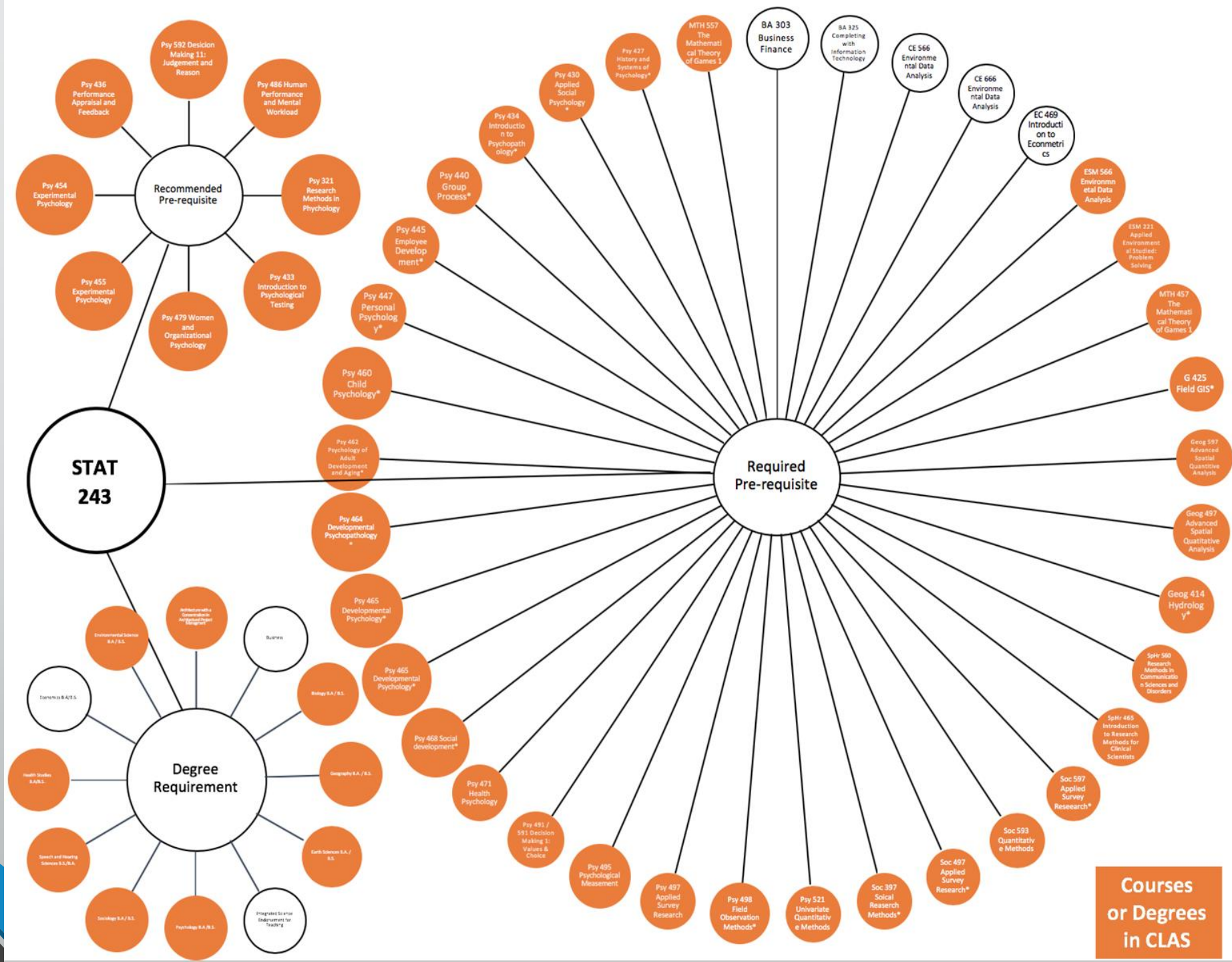
ketchesonk@pdx.edu

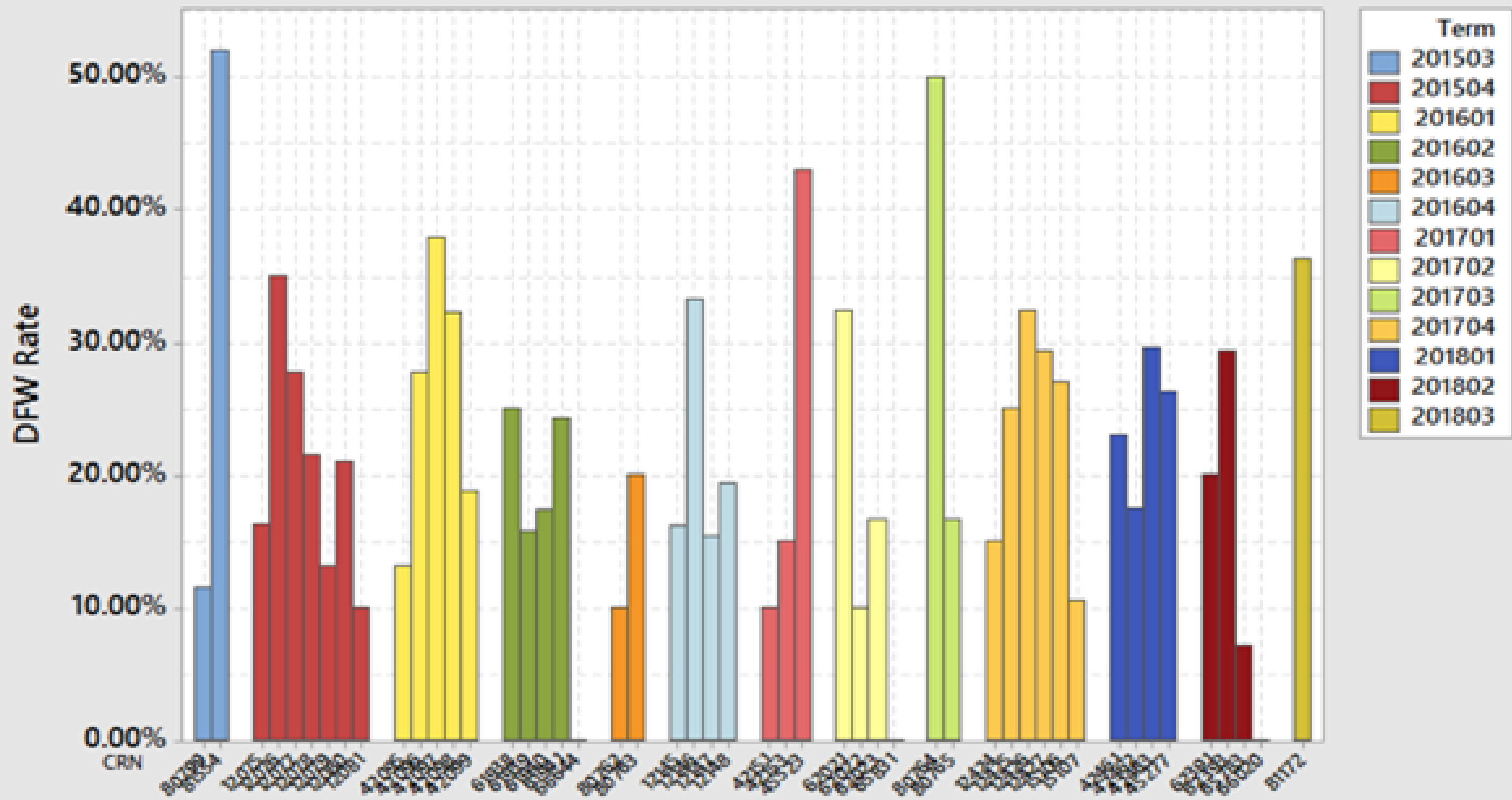


Active & Adaptive

Johannes de Gruyter

- 
- Although more students are seeking college degrees, graduation rates remain low (60% within 6 years at 4-year colleges; much less for community colleges) (NCES).
 - Progression to degree has been linked to semester to semester retention, and retention has been linked to successfully passing courses, especially courses which stand as gatekeepers to further study and progression (Koch & Pisitilli, 2015; Lewis & Terry, 2016).
 - We know that D/F/W rates affect student persistence and retention. This has led us to identify large enrollment, entry level classes – gateway courses – with high DFW rates, and to focus on improving them (Gardner Institute, 2017, Protopsaltis & Baum, 2019). DFW is just a starting point.





	Totals	DFW	DFW(%)
Total Students Per Term	1122	244	21.75%
Age			
Under 21	299	49	16.39%
21-29	702	163	23.22%
30-39	111	28	25.23%
40-49	9	4	44.44%
50+	1	0	0.00%
Race / Ethnicity			
American Indian/ Alaskan Native	5	1	20.00%
Asian	174	27	15.52%
Black or African American	21	6	28.57%
Hispanic or Latino	50	19	38.00%
Native Hawaiian / Pacific Islander	5	0	0.00%
Two or More Races	140	32	22.86%
White	658	138	20.97%
Not reported	69	21	30.43%
Legal Sex			
Female	643	132	20.53%
Male	464	108	23.28%
Not Reported	15	4	26.67%

	Totals	DFW	DFW(%)
Total Students Per Term	126	18	14.29%
Age			
Under 21	34	6	17.65%
21-29	78	12	15.38%
30-39	13	0	0.00%
40-49	1	0	0.00%
50+			
Race / Ethnicity			
American Indian/ Alaskan Native	1	0	0.00%
Asian	18	0	0.00%
Black or African American	4	2	50.00%
Hispanic or Latino	8	2	25.00%
Native Hawaiian / Pacific Islander	3	1	33.33%
Two or More Races	23	5	21.74%
White	62	8	12.90%
Not reported	7	0	0.00%
Legal Sex			
Female	80	13	16.25%
Male	45	4	8.89%
Not Reported	1	1	100.00%

	201504	201601	201602	201603	201604	201701	201702	201703	201704	201801	201802	201803
Instructor 1	1	1	1		1				1			
Instructor 2									1	2	2	1
Instructor 3		1										
Instructor 4							1		1			
Instructor 5										1		
Instructor 6									1			
Instructor 7												
Instructor 8						1						
Instructor 9	1				1	1			1		1	
Instructor 10								1				1
Instructor 11		1										
Instructor 12						1						
Instructor 13		1				1						
Instructor 14						1			2	1	2	
Instructor 15	1											
Instructor 16			1	1								
Instructor 17										1		
Instructor 18												
Instructor 19					2		1					
Instructor 20	1							1				
Instructor 21			1	1		1						
Instructor 22							1		1	1		
Instructor 23	2	1			1						1	
Instructor 24	1	1				1						
Instructor 25				1								
Instructor 26											1	1
Instructor 27									1	1	1	
Instructor 28										1		
Instructor 29			1									
Instructor 30					1					1		
Instructor 31												
Instructor 32							1	1	1			
Instructor 33					1							
Instructor 34					1		1					

Adjunct
GTA
NTTF (Full-time)
Tenure Track

GOING ACTIVE AND ADAPTIVE HELPING STATISTICS STUDENTS SUCCEED

Rachel Webb

Portland State University

Active and Adaptive Grant

The Active + Adaptive model uses personalized learning and courseware in introductory statistics courses delivered in blended learning environments. The goal is to better understand the possibilities this new technology offers, particularly in terms of using live data about student learning to inform in-class activities, student support, and course redesign.

This initiative is supported by a grant from the Association of Public and Land Grant Universities, with funding from the Bill & Melinda Gates Foundation.

CHALLENGES

- Intro Statistics courses have more than 2000 students annually
- Courses are primarily taught by part-time adjuncts and graduate teaching assistants
 - Courses have large fluctuations in DFW rates
 - Inconsistent coverage of content and difficulty level
- Student have a wide range of backgrounds
 - Prerequisite math knowledge
 - 44% of our undergraduates are 1st generation college students
 - Freshmen to Post-Bac
 - Technology and Study Skills
 - Interest
- Current textbook and online homework system is over \$200
- 10-Week course severely restricted contact time with students and rushed content.

WHY USE ACTIVE LEARNING?

- Improves students' ability to retain information.
- Provides students opportunities to exercise critical and creative thinking.
- Students perform better when they participate in the process.
- Encourages other learning styles physical, visual, verbal, or social learner.
- Engages students with the material.
- Peer instruction is one of the best ways to solidify concepts.

"A wealth of research has provided clear evidence that active learning results in **better student performance and retention** [in the first two years of college mathematics] than more traditional, passive forms of instruction alone" (CBMS, 2016).

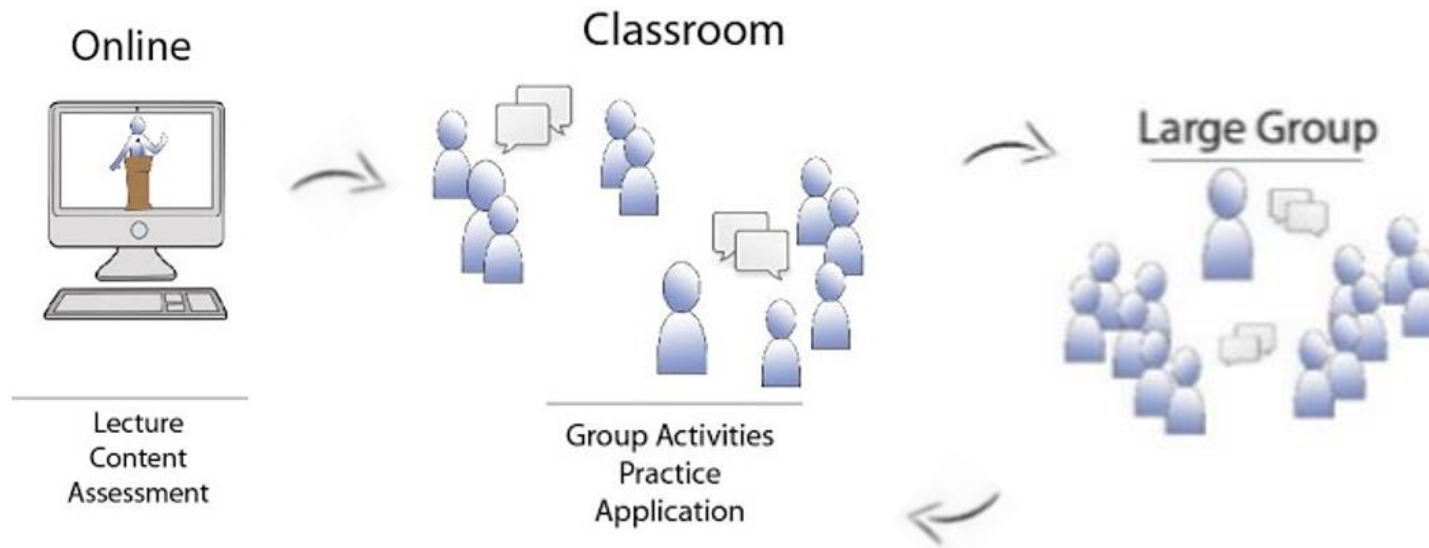
WHY USE ADAPTIVE SOFTWARE?

- Timely intervention to catch students that are failing.
- Opportunities for reinforcing their knowledge acquisition.
- Provides students who fall behind multiple options for getting back on track.
- Takes into account students' prior knowledge.
- Assess student knowledge of a subject in real time.
- Flexibility-Students' move through course at their own pace.

How to blend personalized learning and active learning is an open area of research in mathematics education (Berry, 2018).

CHANGES

- The majority of the lecturing and homework is now done online.
- This frees up classroom time to focus on activities, worksheets and simulations.
- The instructor can use real time data analytics to adapt and change around activities to fit the needs of students as they arise in the classroom.



SOFTWARE

OAI reviewed 19 software programs and narrowed it down to 4 as a first priority for Statistics

- **Acrobatiq**
- Cogbooks
- Fishtree
- Fulcrum Labs
- Junction Education
- Knewton
- LeAP by D2L
- Learning Objectives (Cengage)
- Loudcloud
- **Lumen Waymaker**
- **McGraw-Hill ALEKS**
- McGraw-Hill LearnSmart
- MacMillan Learning Curves
- OLI Carnegie
- OLI Stanford
- Pearson MyLab
- **Realizeit**
- SmartSparrow
- WileyPlus (Orion)

REALIZIT

Students have the ability to choose an alternative path through the content, to attempt new content, or alternatively to review and to practice previous concepts.

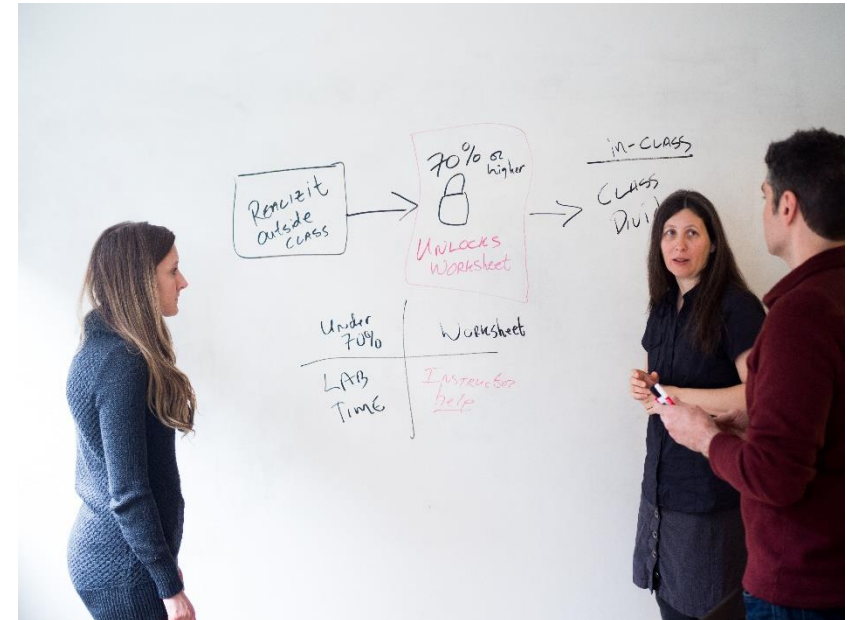
However, the system is structured to optimize learning and to verify learner mastery. Instructors can identify learning objectives for students.

Analytics data provided by the system can improve the faculty member's interaction and intervention with students.

(Howlin & Lynch, 2014)

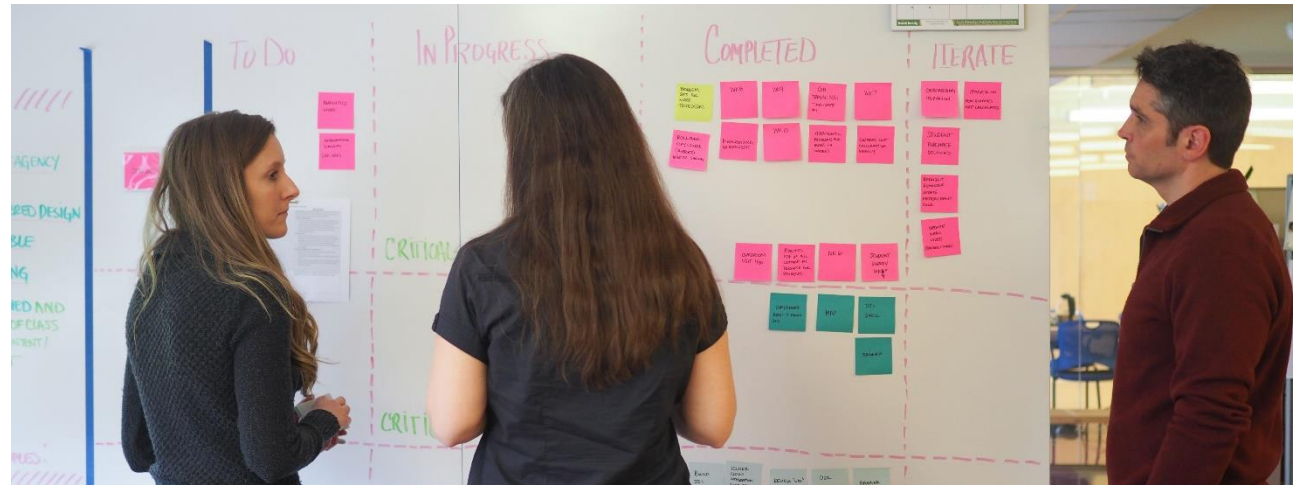
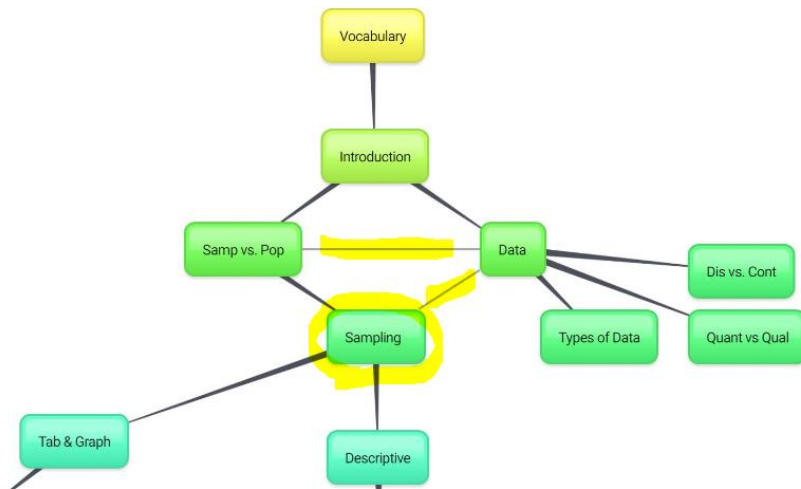
THE PROCESS

- Content is provided in multiple formats to accommodate different learning styles.
- Embedded videos, files and assessment question are within one content page so that students never have to leave the system to access new material.
- Additional units and resources are automatically released after students complete certain milestones in the course content.

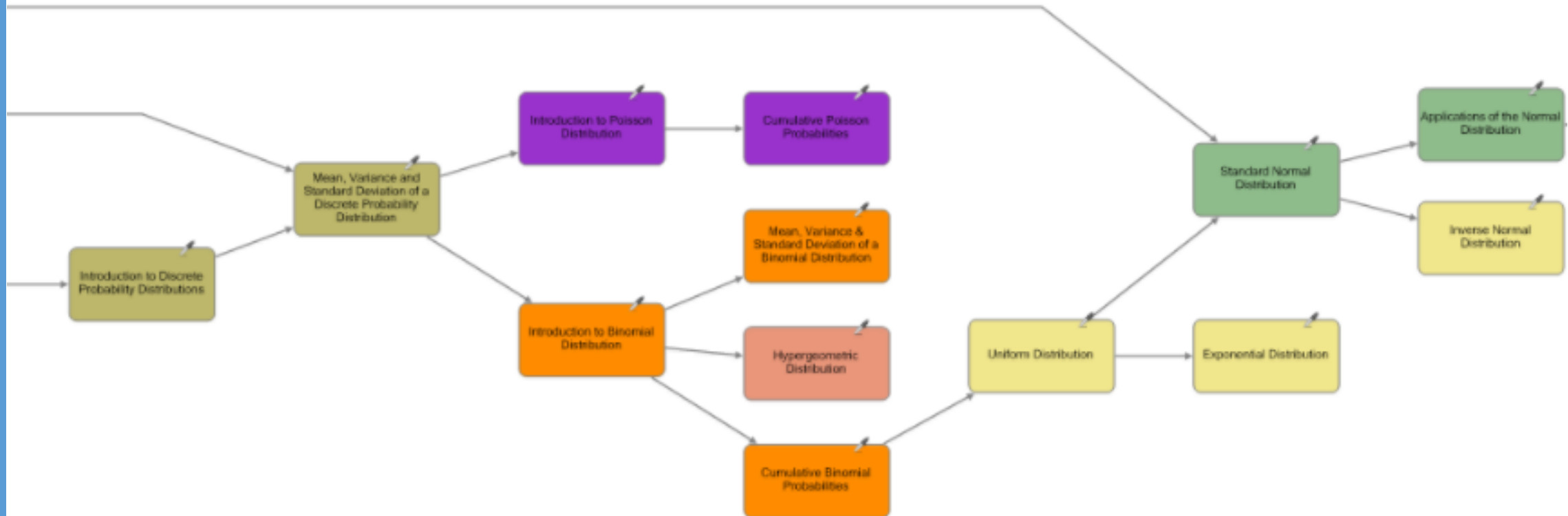


THE PROCESS

- I worked with OAI at a high level approach to plan and reimagine the curriculum to fit this new Active & Adaptive model.
- Key concepts were identified and organizing into a curriculum hierarchy by unit.
- I incorporated my own and other open source material into each unit.
- Further refining of course objectives and corresponding lessons were mapped into a prerequisite network.



Prerequisite Map



STUDENT VIEW IN D2L

Content Activities ▾ People ▾ Grades ▾ Help ▾ Course Admin

Search Topics 🔍

Unit 1-Introduction to Data ▾ [Print](#) [Settings](#)

Add dates and restrictions... Published ▾

Add a description...

[New ▾](#) [Add Link To ▾](#) [Bulk Edit](#)

Table of Contents

- 33
- 7
- 2

Realizeit Homework Unit 1 ▾
External Learning Tool ✓

General Discussion ▾
Discussion Topic ✓

Post questions to this discussion board by selecting the "Start a New Thread" button. I will be moderating this board throughout the term. You may reply to other students' questions if you know an answer. Review the board to see if other students are asking similar questions.

When a student selects the Realizeit Homework Unit 1 link in D2L they are taken directly to the corresponding unit in Realizeit. Links can be set to correspond to chapters, assignments or course level.

Homework & Assessment		4.96 / 20
Realizeit Homework Unit 1	<div></div>	100 / 100 2.5 / 2.5 100 %
Realizeit Homework Unit 2	<div></div>	98.5 / 100 2.46 / 2.5 98.5 %
Realizeit Homework Unit 3	<div></div>	0 / 100 0 / 2.5 0 %

Grades are pushed automatically from Realizeit to the D2L gradebook.

STAT243 / Unit 1

Milestone
Unit 1
Due date: 4/5/2018

What you have done so far

7/7

 You have completed 7 out of 7 activities (100%) in this Milestone.
Knowledge covered

★

 Exemplary
Your Mastery level for the 7 activities that you have completed in this Milestone is 99% — Exemplary.

4 mins
Time spent

What you should do to improve

Practice milestone
This is a great way to improve and build on your existing knowledge. Practice the activities you have already completed.
[Practice milestone](#)

Learning map
Your Learning map for this Milestone contains

Composite Grade is $\frac{1}{2}$ Accuracy and $\frac{1}{2}$ Completion

Your grade in Realizeit is an average of how well you do and how much content you cover

Here is an example:

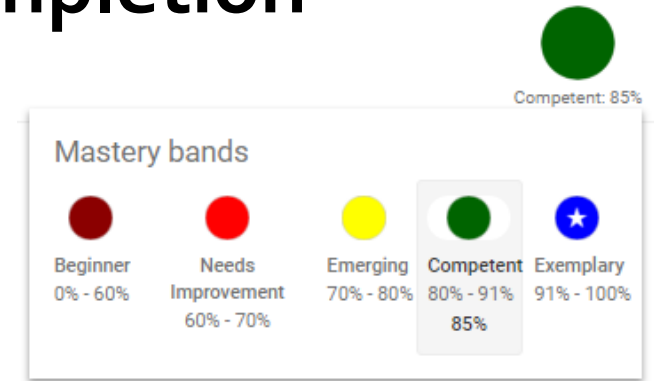
if you get through 90% of the content with a score of 80% correct your grade will be 85% so: $90 + 80 / 2 = 85\%$

Realizeit calls this Completion + Mastery/ 2 = Composite Score

This score gets added into D2L Gradebook

The goal is for you to come to each class with a score of 70% or higher

The purpose of this format is for you to learn the content. You have access throughout the course to revisit content and the opportunity to improve your grade on your Realizeit work.



STUDENT VIEW

Milestone

Unit 3

Due date: 4/16/2018

What you should do first

Determine knowledge

Determine knowledge saves you time by allowing you to move past activities that you already know. This is the best place to start. It's a set of targeted questions to help determine what you already know. This allows you to skip past familiar activities in your learning map.

Determine knowledge

How well do you think that you know the material in Unit 3?

Try your best to answer the questions that follow. It can reduce the amount of work you have to do on your Learning map.

Not at all

Small amount

Reasonable amount

A lot

All of it

Cancel

STUDENT VIEW

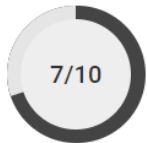
The curriculum is delivered in a modular structures so that students can take alternate paths.

What you have done so far

Covered recently ([hide](#)):

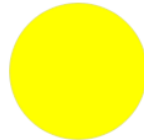
An abandoned lesson on [Variance & Standard Deviation](#), over 5 days ago

An abandoned lesson on [Coefficient of Variation](#), some time ago



Knowledge covered

You have completed 7 out of 10 activities (70%) in this Milestone.



Emerging

Your Mastery level for the 7 activities that you have completed in this Milestone is 73% — *Emerging*.

Spent: 1 hr 51 mins
Left: 1 hr

Time

What you should do next

Revise

Variance & Standard Deviation

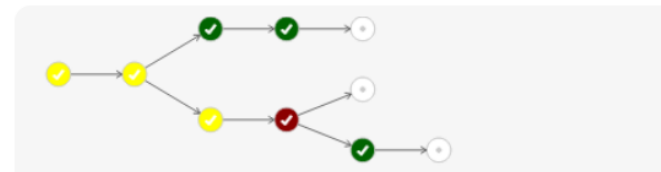
It would be good to do more work on this to improve as you've struggled with this in other places.

Revise

Alternative steps

Learning map

Your [Learning map](#) for this Milestone contains 10 activities.



The learning map allows students to navigate the content in a non-linear path depending on their strengths and weaknesses

STUDENT VIEW

Revise: Statistics vs. Parameters

Lesson path +

- 1. Introduction
- 2. Population
- 3. Sample
- 4. Parameter
- 5. Questions
- 6. Summary

Sample – a subset from the population.



Consider the following three research questions:

1. What is the average mercury content in albacore tuna in the Pacific Ocean?
2. Over the last 5 years, what is the average time to complete a degree for Portland State University under-graduate students?
3. Does a new drug reduce the number of deaths in patients with severe heart disease?

Each research question refers to a target population. In the first question, the target population is all albacore tuna in the Pacific Ocean, and each fish represents a case. Often times, it is too time consuming, too expensive or impossible to collect data for every case in a population. Instead, a sample is taken. A sample represents a subset of the cases and is often a small fraction of the population. We use the lower case n to represent the number of cases in the sample. For instance, 60 albacore tuna in the population might be selected and the mercury level is measured in each fish. The sample average of the 60 fish may then be used to provide an estimate of the population average of all the fish and answer the research question.

Next

Exit

Conditional Probability & Independent Events

Lesson path



Next

Exit

STUDENT VIEW

Match the following 3 graphs with the distribution of the population, the distribution of the sample, and the sampling distribution.

Distribution of the Population		
Distribution of the sample		
Sampling Distribution		

☐ I don't know

Submit answer

Question 2

A store purchases baseball hats from three different manufacturers. In manufacturer A's box there are 12 blue hats, 6 red hats, and 6 green hats. In manufacturer B's box there are 10 blue hats, 10 red hats, and 4 green hats. In manufacturer C's box, there are 8 blue hats, 8 red hats, and 8 green hats. A hat is randomly selected. Given that the hat selected is green, what is the probability that it came from manufacturer B's box? Give answer as a decimal to at least 4 decimal places.

$\times \div \pi \frac{a}{b} a^b ()$

?

Hint

Make a table with the colors as the columns and the manufacturers as the rows. Round answer to 4 decimal places.

☐ I don't know

2 attempts

Hint

You answered 1 out of 1 correctly. Asking up to 5.

Submit answer

Exit

The following data show the height (in inches) of sample of students.

62, 62, 63, 64, 66, 66, 67, 67, 68, 68, 68, 69, 70, 70, 72, 72, 73, 73, 74, 74

The variance of height of these students is inches². (Keep 4 decimal places)

Correct

The standard deviation of height of these students is inches. (Keep 2 decimal places)

Correct

Fill in the blanks of the following statement to interpret standard deviation.

The height of these students spread about inches from the mean height.

Correct

Correct

Show next question

Exit

even done:

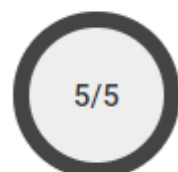
STUDENT VIEW

What you have done so far

The most recent material you've covered includes:

A successfully completed practice run for [Conditional Probability & Independent Events](#), within the last 3 hours

An abandoned lesson on [Counting Rules](#), nearly two weeks ago



Knowledge covered

You have completed 5 out of 5 activities (100%) in this Milestone.



Exemplary

Your Mastery level for the 5 activities that you have completed in this Milestone is 93% – *Exemplary*.

23_{mins}
Time spent

What you should do to improve

Resume

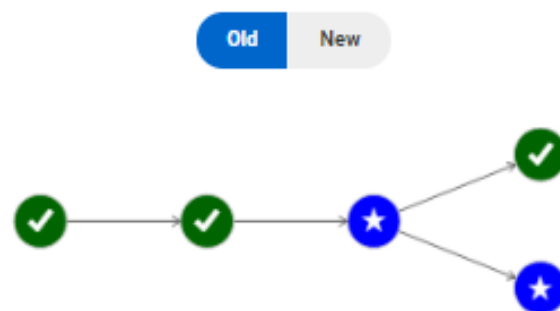
Counting Rules

Now is a good time to continue working on this.

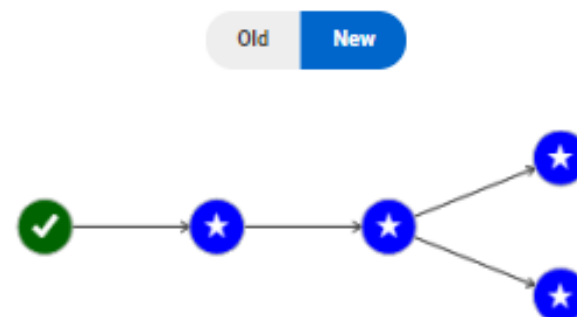
Resume

Alternative step

Your learning map has changed



Your learning map has changed



INSTRUCTOR VIEW

Need To Know

Learning Map

Students

Analytics

> Student performance

> Students knowledge state by activity

> Weaker students (4)

> Specific problems (8)

> Stronger students (7)

INSTRUCTOR VIEW

< Unit 3 - Descriptive Statistics

Due date: 10/18/2018

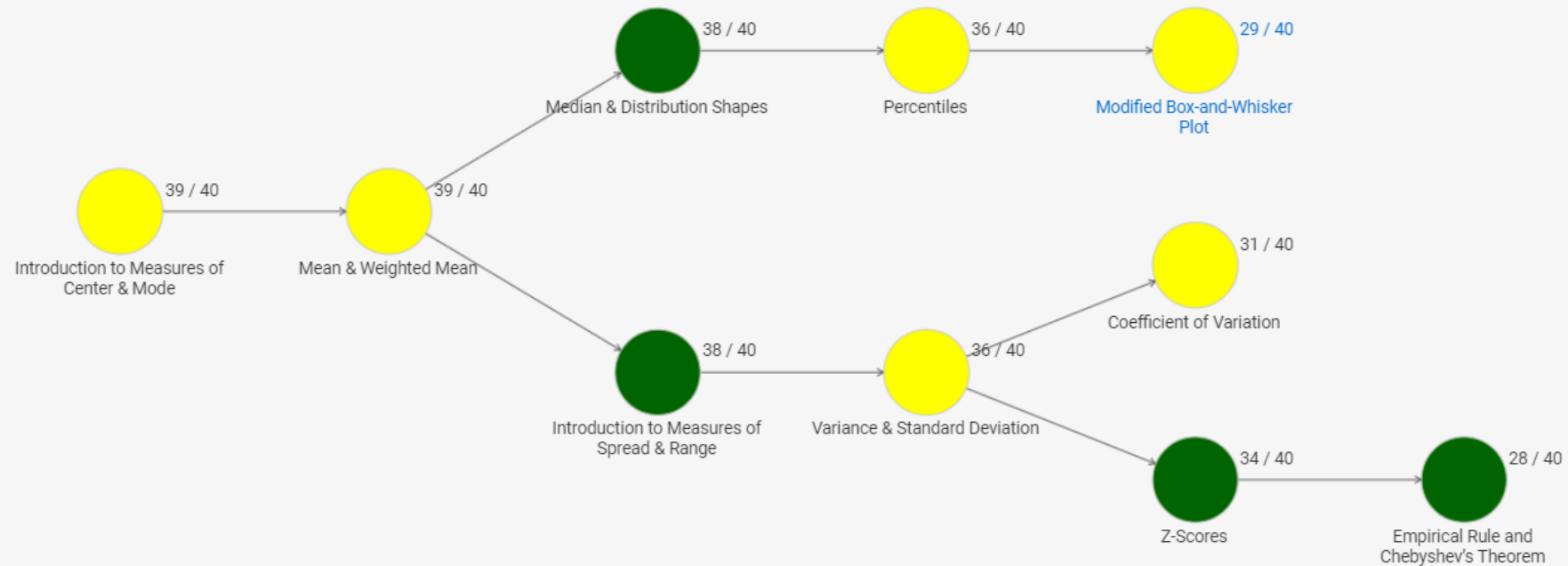


Emerging: 79%



25/40
Students

To Do Need To Know Learning Map Students Analytics

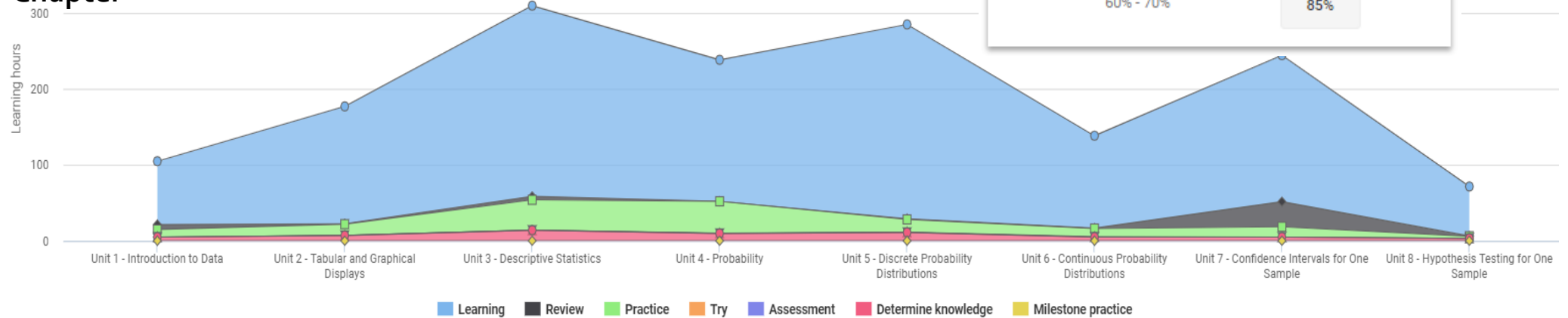


INSTRUCTOR VIEW

10 Week-STAT 243 Spring 2018, n=44

y-axis = Time in hours for the entire class

x-axis = Chapter

















45 students	Unit 1 - Introduction to Data	Unit 2 - Tabular and Graphical Displays	Unit 3 - Descriptive Statistics	Unit 4 - Probability	Unit 5 - Discrete Probability Distributions	Unit 6 - Continuous Probability Distributions	Unit 7 - Confidence Intervals for One Sample	Unit 8 - Hypothesis Testing for One Sample
A								
B-C								
F								

INSTRUCTOR VIEW

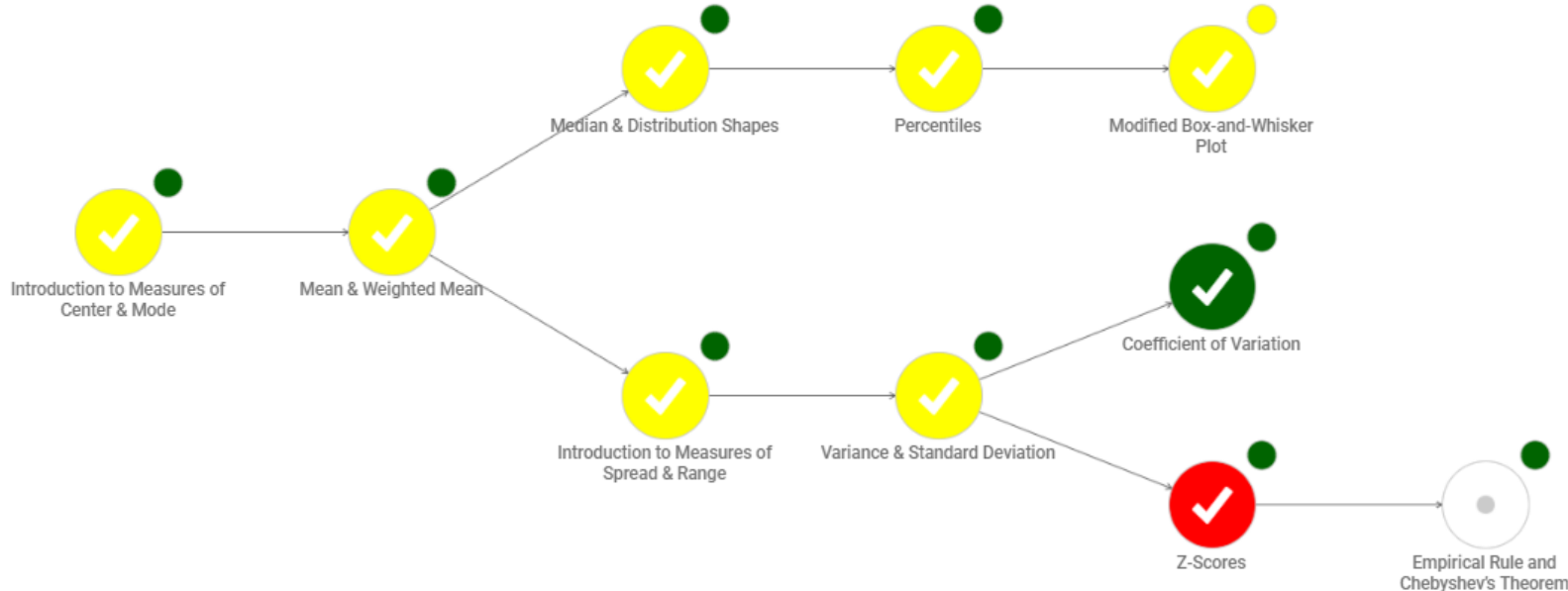
Need To Know Learning Map Students Analytics

▼ Weaker students (4)

Name	Pairing	Last work	Time spent	Est Time left	Knowledge covered	Knowledge state	Composite score
 		Oct 14	7 hrs 12 mins		 Knowledge covered	 Competent: 81%	91%
 		Oct 8	5 hrs 58 mins		 Knowledge covered	 Emerging: 76%	88%
 		Oct 7	2 hrs 16 mins	1 hr 20 mins	 Knowledge covered	 Emerging: 72%	46%
ap 30			3 hrs 36 mins		 Knowledge covered	 Emerging: 77%	89%

Student's Lesson Map









Need To Know Learning Map Students Analytics



INSTRUCTOR VIEW

To Do Need To Know Learning Map Students Analytics

▼ May need intervention (4)

Name	Pairing	Last work	Time spent	Est Time left	Knowledge covered	Knowledge state	Composite score
 [redacted] 		Feb 16	7 hrs 26 mins	20 mins	<div><div></div></div> 7/8 Knowledge covered	<div><div></div></div> Competent: 80%	84%
 [redacted] 		Feb 16	5 hrs 29 mins		<div><div></div></div> 6/8 Knowledge covered	Er	
 [redacted] 		Feb 15	2 hrs 14 mins		<div><div></div></div> 8/8 Knowledge covered	Er	
 [redacted] 		Jan 18	1 hr 8 mins		<div><div></div></div> 8/8 Knowledge covered	Co	

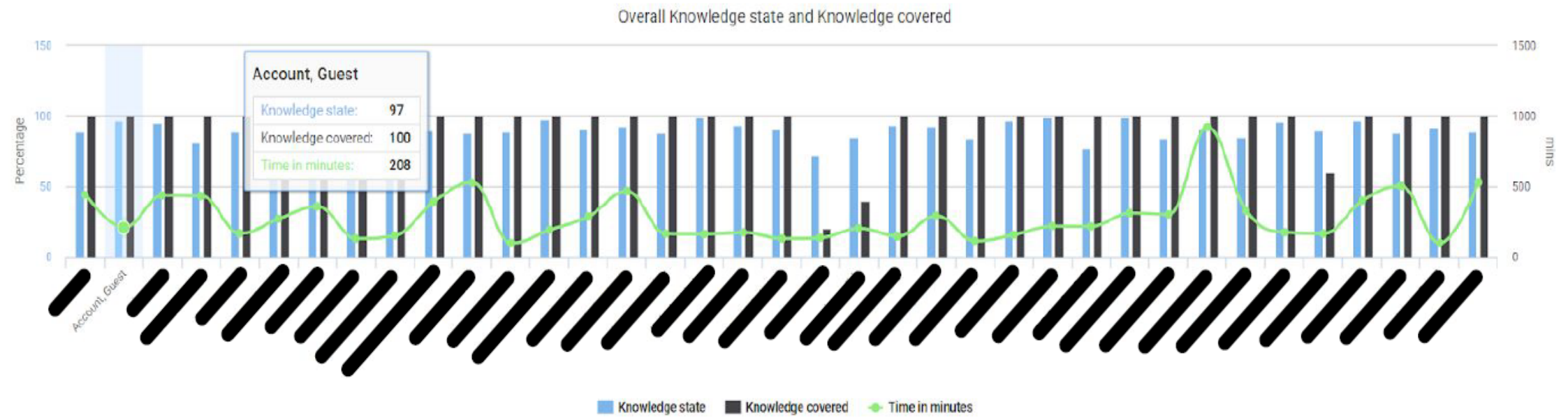
Student by Unit

Milestone	Knowledge state	Knowledge covered	Time spent
Unit 1 - Introduction to Data	<div><div></div></div> Emerging: 77%	<div><div></div></div> 7/7 Knowledge covered	24 mins
Unit 2 - Tabular and Graphical Displays	<div><div></div></div> Emerging: 77%	<div><div></div></div> 10/10 Knowledge covered	2 hrs 28 mins
Unit 3 - Descriptive Statistics	<div><div></div></div> Emerging: 78%	<div><div></div></div> 10/10 Knowledge covered	4 hrs 55 mins
Unit 4 - Probability	<div><div></div></div> Emerging: 78%	<div><div></div></div> 5/5 Knowledge covered	5 hrs 17 mins
Unit 5 - Discrete Probability Distributions	<div><div></div></div> Competent: 80%	<div><div></div></div> 7/8 Knowledge covered	7 hrs 26 mins

INSTRUCTOR VIEW

Need To Know Learning Map Students Analytics

▼ Student performance



ACTIVE LEARNING

- Group Activities and Worksheets
- Tactile-Kinesthetic Learning
- Simulations
- Discourse
- Finding and Using Real Data
- Creative and Analytical Thinking
- Data Visualization and Graphing

GROUP WORKSHEET

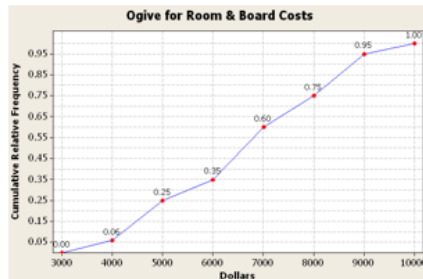
Stat 243 Unit 2-B

Unit 2-B

Name: _____

1. The germination times (in days) for a sample of ten randomly chosen bean seeds are: 8, 12, 7, 9, 14, 15, 13, 11, 10, 15. The germination times (in hours) for a sample of ten randomly chosen poppy seeds are: 49, 56, 72, 60, 58, 70, 65, 52, 56, 57.
 - a) Calculate the coefficient of variation for the bean seed germination times.
 - b) Calculate the coefficient of variation for the poppy seed germination times.
 - c) Which seed has the smallest variation in germination times? Support your answer with statistics.

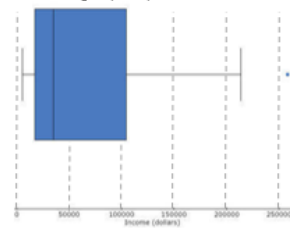
2. Room & Board for selected schools are summarized in the following ogive.



- Find the interquartile range for the cost of room & board.
- Find the 60th percentile.

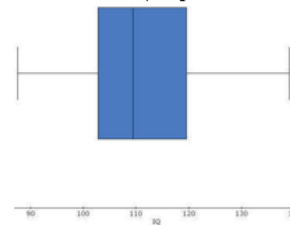
3. What is the difference between a parameter and a statistic? Give an example of each one.

4. The following boxplot represents the annual income of a random sample of adult Americans.



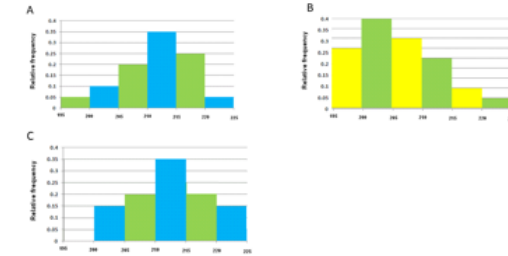
- Determine the shape of the distribution based on the boxplot.
- Approximately what is the range of the income?

5. The boxplot shown represents the IQ scores of a random sample of students enrolled in introductory Statistics at a community college.



- To the nearest whole number, determine the third quartile (Q_3).
- Approximately what is the IQR of the IQ scores?

6. Match the histograms shown to the summary statistics.



	Mean	Median	Standard Deviation
1	212	212	8
2	215	207	15
3	212	214	12

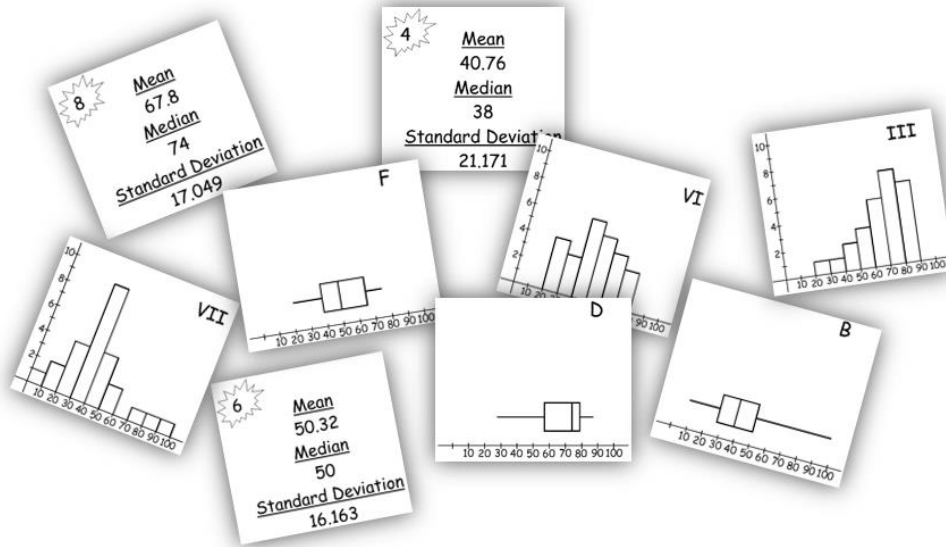
7. Use your calculator to find descriptive statistics for the following data set.

stem	leaf
6	9
7	
8	7 8 8
9	0 6 7
10	0

- What is the value for \bar{x} ?
- What is the value for s^2 ?
- Use the calculator to find the five number summary.
- Make a box plot with outliers.

MATCHING ACTIVITY

<https://nctm.confex.com/nctm/2013AM/webprogram/Handout/Session14574/activities%2olist.pdf>



HTTPS://CREATE.KAHOOT.IT/

Today's temperature is 87°F. What level of measurement is the temperature?



17



Skip

0
Answers



Nominal/Categorical



Ordinal



Interval



Ratio

KAHOOT.IT/

Today's temperature is 87°F. What level of measurement is the temperature?



Full Screen

17



Skip

0
Answers



Nominal/Categorical



Ordinal



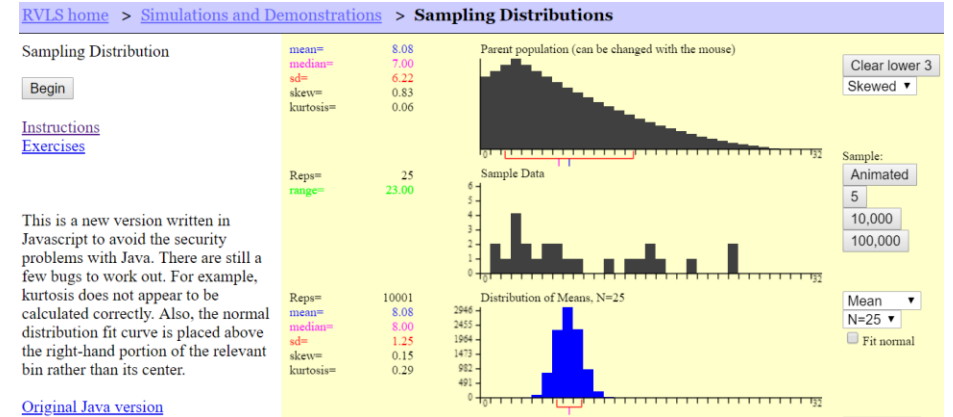
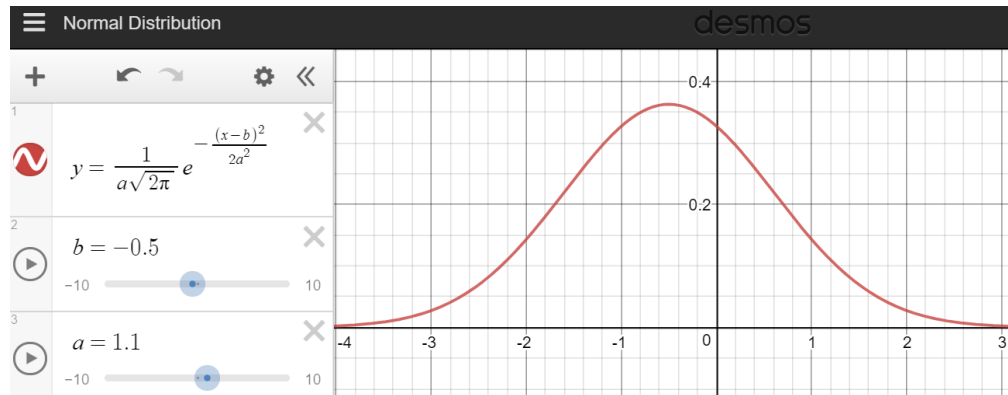
Interval



Ratio

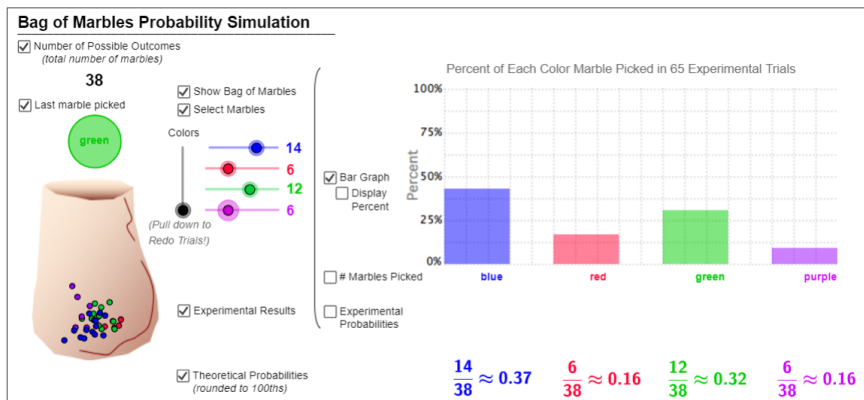
INTERACTIVE SIMULATIONS

[HTTPS://WWW.DESMOS.COM/](https://www.desmos.com/)

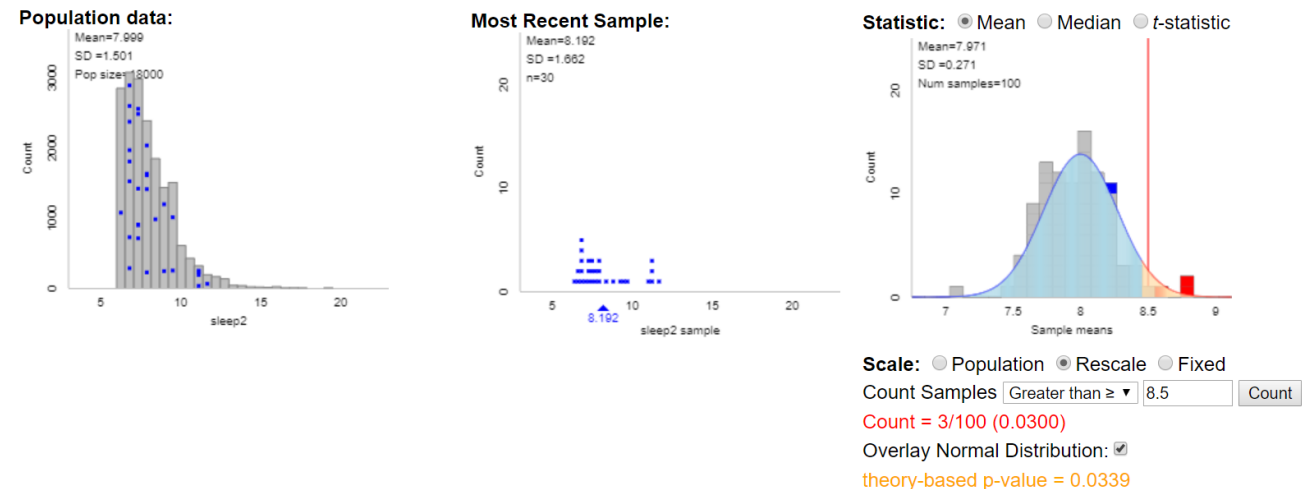


[HTTP://ONLINESTATBOOK.COM/STAT_SIM/INDEX.HTML](http://onlinestatbook.com/stat_sim/index.html)

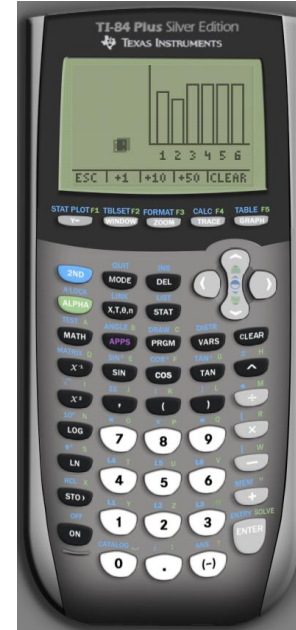
[HTTP://WWW.ROSSMANCHANCE.COM/APPLETS/](http://www.rossmanchance.com/applets/)



[HTTPS://WWW.GEOGEBRA.ORG/](https://www.geogebra.org/)



[HTTPS://EDUCATION.TI.COM/](https://education.ti.com/)



[HTTPS://WWW.RANDOM.ORG/](https://www.random.org/)

Dice Roller

You rolled 2 dice:



[HTTPS://WWW.GAPMINDER.ORG/FOR-TEACHERS/](https://www.gapminder.org/for-teachers/)

Mini Reese's Cup Bag:



Serving: 3 cups (18 servings in the bag)
Sodium: .9g (1.2 packets of salt) (.9 divided by .75 = 1.2)
Sugar: 252g (89 packets of C&H sugar) (252 divided by 2.83 = ~89)



6. Healthy food: banana
Sugar: 14g

Banana Nutrition Facts



Nutrition Facts	
Serving Size 1 Banana, 100 g	
Amount Per Serving	
Calories 105	Calories from Fat 0
Total Fat 0g	
Saturated Fat 0g	0%
Total Fat 0g	0%
Cholesterol 0g	0%
Protein 1.1g	2%
Total Carbohydrate 27g	9%
Dietary Fiber 3g	12%
Sugars 14g	28%
Percent Daily Values are based on a diet of other people's secrets.	
Vitamin A	0%
Vitamin C	0%
Calcium	0%
Iron	0%

You could eat 18 bananas with the same amount of sugar as a bag of mini reese cups!
(252/14 = 18)

8. Calculate the Mean and Standard Deviation of the following:

	Mean	Standard deviation
Calories	1997.6667	1462.0544
Fat	382.1	1215.8559
Cholesterol	0.03167	0.05673
Protein	29.3833	62.9645
Fiber	4.1111	7.2361
Sodium	0.5172	0.7124
Sugar	274.8	193.9083

9.Using Chebyshev's inequality find the lower and upper values that have at least 75% of the data for each of the items above.

PRELIMINARY RESULTS

Fall 2015

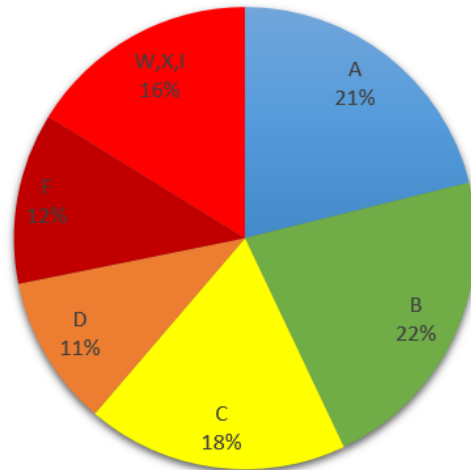
Average Final Exam Score 70%

Lecture Style

ALEKS

Passing Rate 61%

STAT 243 Lecture, n = 142



Winter 2016

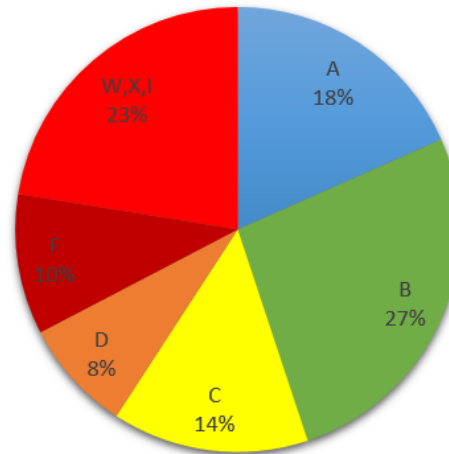
Average Final Exam Score 77%

Lecture Style

ALEKS

Passing Rate 69%

STAT 243 Lecture, n = 49



Spring 2018

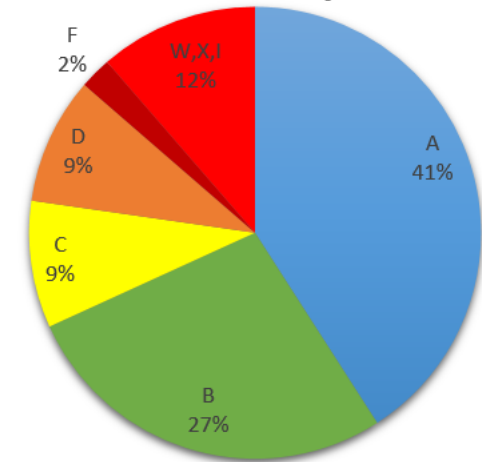
Average Final Exam Score 82%

Active & Adaptive

Realizeit

Passing Rate 77%

STAT 243 Active & Adaptive, n = 44

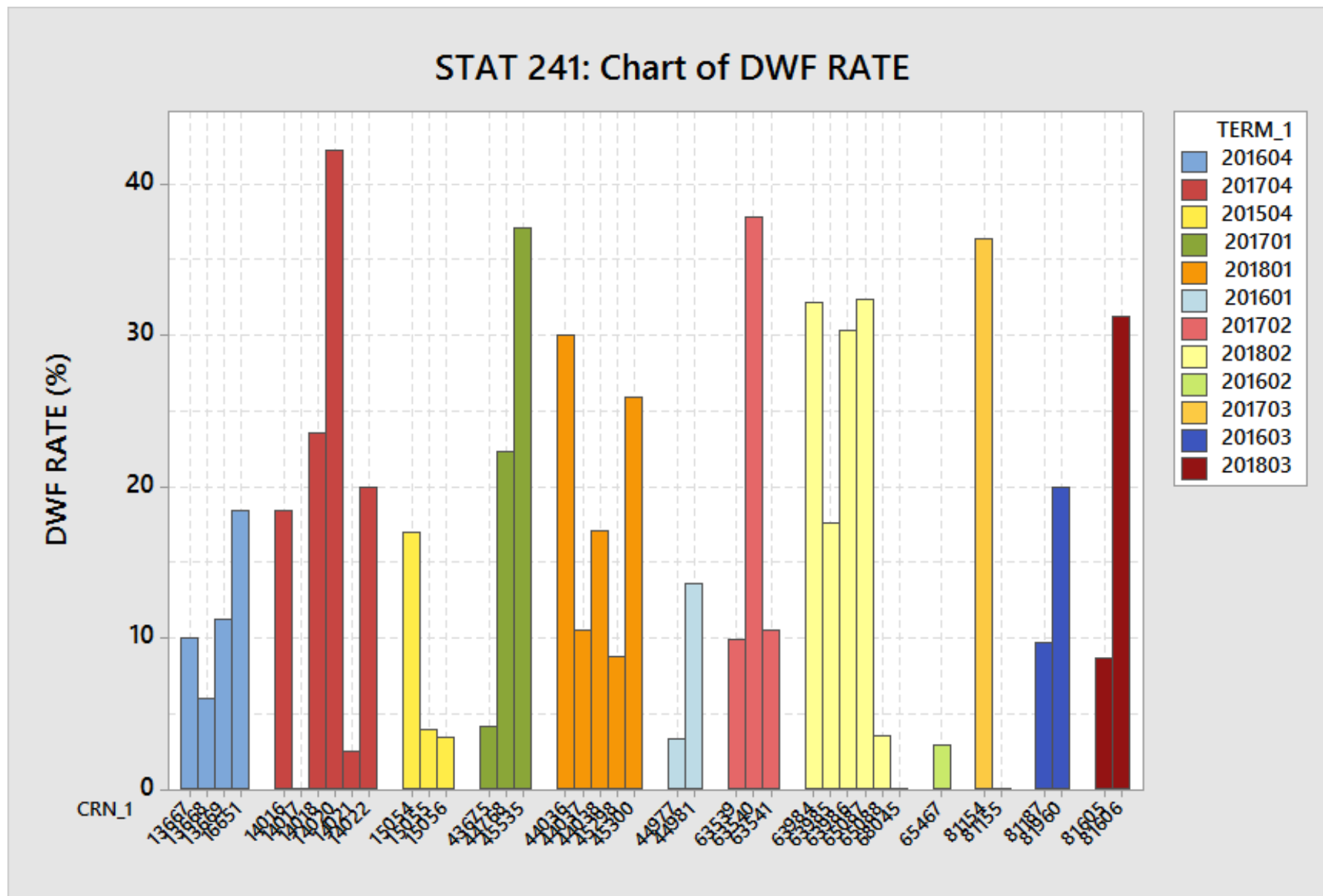


STAT 241 (Business Statistics)

Baseline: STAT 241			
	Totals	DFW	DFW(%)
Total Students Per Term	1731	260	15.02%
Age			
Under 21	749	98	13.08%
21-29	752	124	16.49%
30-39	193	27	13.99%
40-49	51	9	17.65%
50+	13	2	15.38%
Race / Ethnicity			
American Indian/ Alaskan Native	3	0	0.00%
Asian	221	33	14.93%
Black or African American	60	11	18.33%
Hispanic or Latino	104	15	14.42%
Native Hawaiian / Pacific Islander	7	1	14.29%
Two or More Races	240	40	16.67%
White	863	130	15.06%
Not reported	233	30	12.88%
Legal Sex			
Female	778	105	13.50%
Male	921	150	16.29%
Not Reported	32	5	15.63%

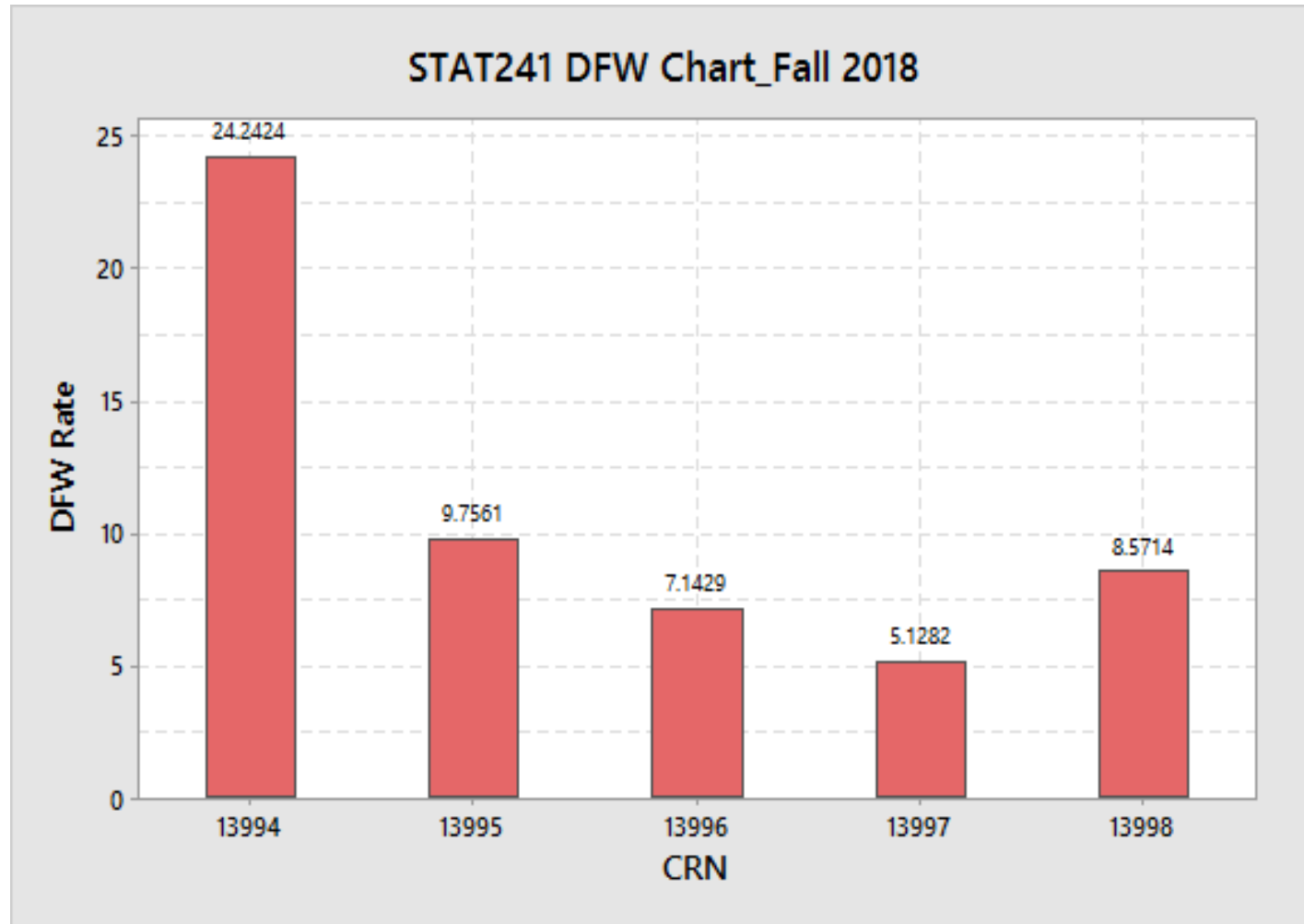
The baseline data for includes the last 3 years, students with X and I grades were removed from the data.

STAT 241 (Business Statistics)



**Non Active &
Adaptive STAT
241 Courses
From 2016-
1018: DFW
Rate ranges
from 0% to 42%**

STAT 241 (Business Statistics)



DFW Rate Baseline:

- Range: 0% to 42%
- Average: 15.02%

A+A Section:

- **ALL Sections**
- DFW Rate 10.53%
- DFW Range: 5.1% to 9.8%
- **13994 ONLINE Section**
- DFW Range (w/Online)
 - 5.1% to 24.2%
- **Significantly** lower than Baseline

The variation between CRNs during Fall 2018 is much less than the variation between CRNs from the baseline data.

STAT 241 (Business Statistics)

Baseline: STAT 241			
	Totals	DFW	DFW(%)
Total Students Per Term	1731	260	15.02%
Age			
Under 21	749	98	13.08%
21-29	752	124	16.49%
30-39	193	27	13.99%
40-49	51	9	17.65%
50+	13	2	15.38%
Race / Ethnicity			
American Indian/ Alaskan Native	3	0	0.00%
Asian	221	33	14.93%
Black or African American	60	11	18.33%
Hispanic or Latino	104	15	14.42%
Native Hawaiian / Pacific Islander	7	1	14.29%
Two or More Races	240	40	16.67%
White	863	130	15.06%
Not reported	233	30	12.88%
Legal Sex			
Female	778	105	13.50%
Male	921	150	16.29%
Not Reported	32	5	15.63%

Fall 2018: STAT 241 (A+A)			
	Totals	DFW	DFW(%)
Total Students Per Term	190	20	10.53%
Age			
Under 21	93	6	6.45%
21-29	79	10	12.66%
30-39	13	3	23.08%
40-49	3	1	33.33%
50+	2	0	0.00%
Race / Ethnicity			
American Indian/ Alaskan Native	0		
Asian	24	3	12.50%
Black or African American	4	0	0.00%
Hispanic or Latino	15	1	6.67%
Native Hawaiian / Pacific Islander	0		
Two or More Races	30	2	6.67%
White	83	11	13.25%
Not reported	34	3	8.82%
Legal Sex			
Female	86	8	9.30%
Male	103	12	11.65%
Not Reported	1	0	0.00%

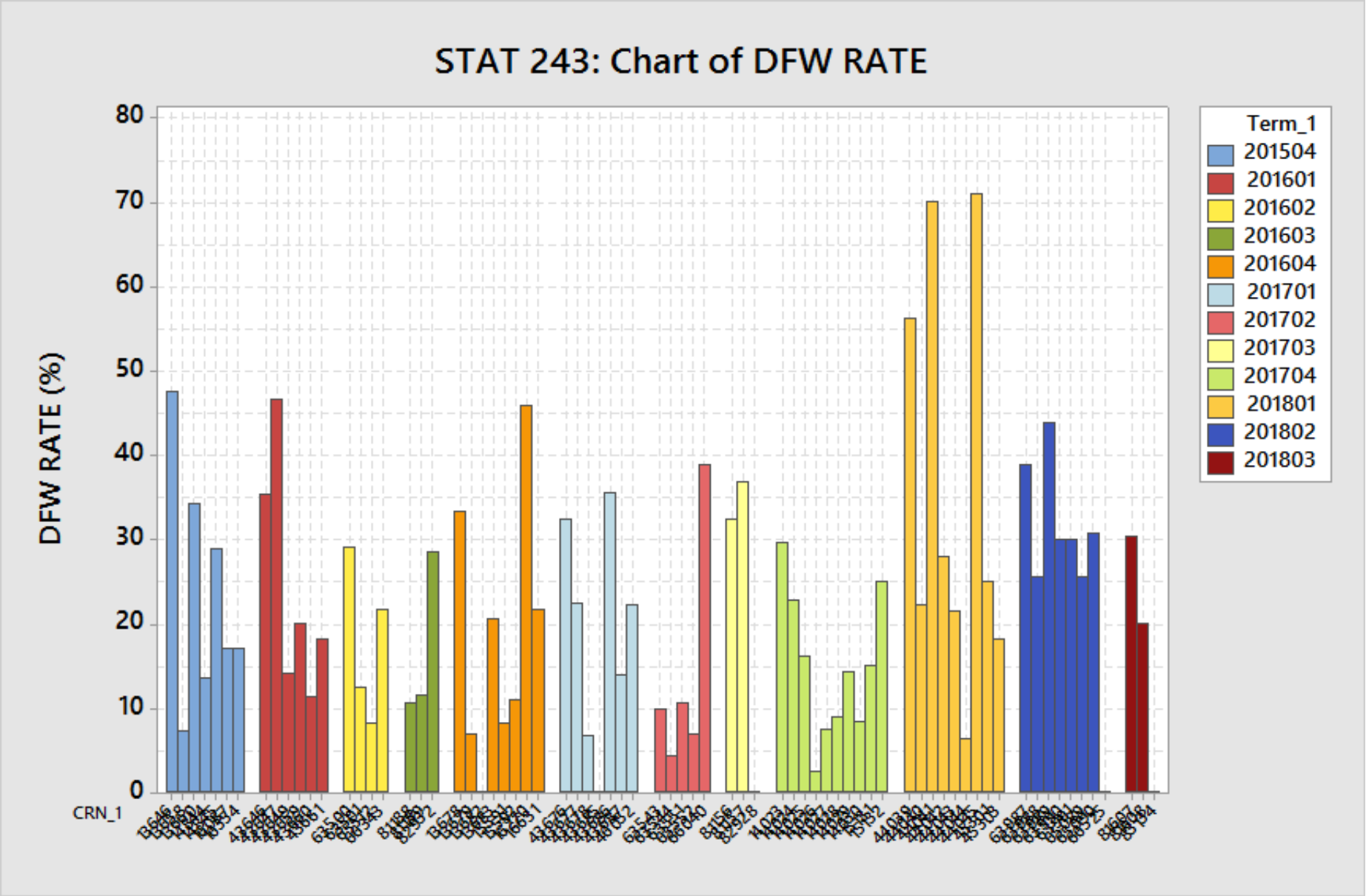
Assuming 90% confidence level, we would expect overall DFW rate to be between 7.1% and 14.9%. Therefore, Fall 2018(A+A) DFW rate is **significantly** different than the baseline.

STAT 243 (Introduction to Probability & Statistics I)

Baseline: STAT 243			
	Totals	DFW	DFW(%)
Total Students Per Term	3224	581	18.02%
Age			
Under 21	1216	196	16.12%
21-29	1590	301	18.93%
30-39	308	52	16.88%
40-49	81	23	28.40%
50+	23	9	39.13%
Race / Ethnicity			
American Indian/ Alaskan Native	22	9	40.91%
Asian	320	39	12.19%
Black or African American	132	38	28.79%
Hispanic or Latino	211	44	20.85%
Native Hawaiian / Pacific Islander	22	2	9.09%
Two or More Races	491	108	22.00%
White	1831	305	16.66%
Not reported	195	36	18.46%
Legal Sex			
Female	2086	380	18.22%
Male	1103	197	17.86%
Not Reported	35	4	11.43%

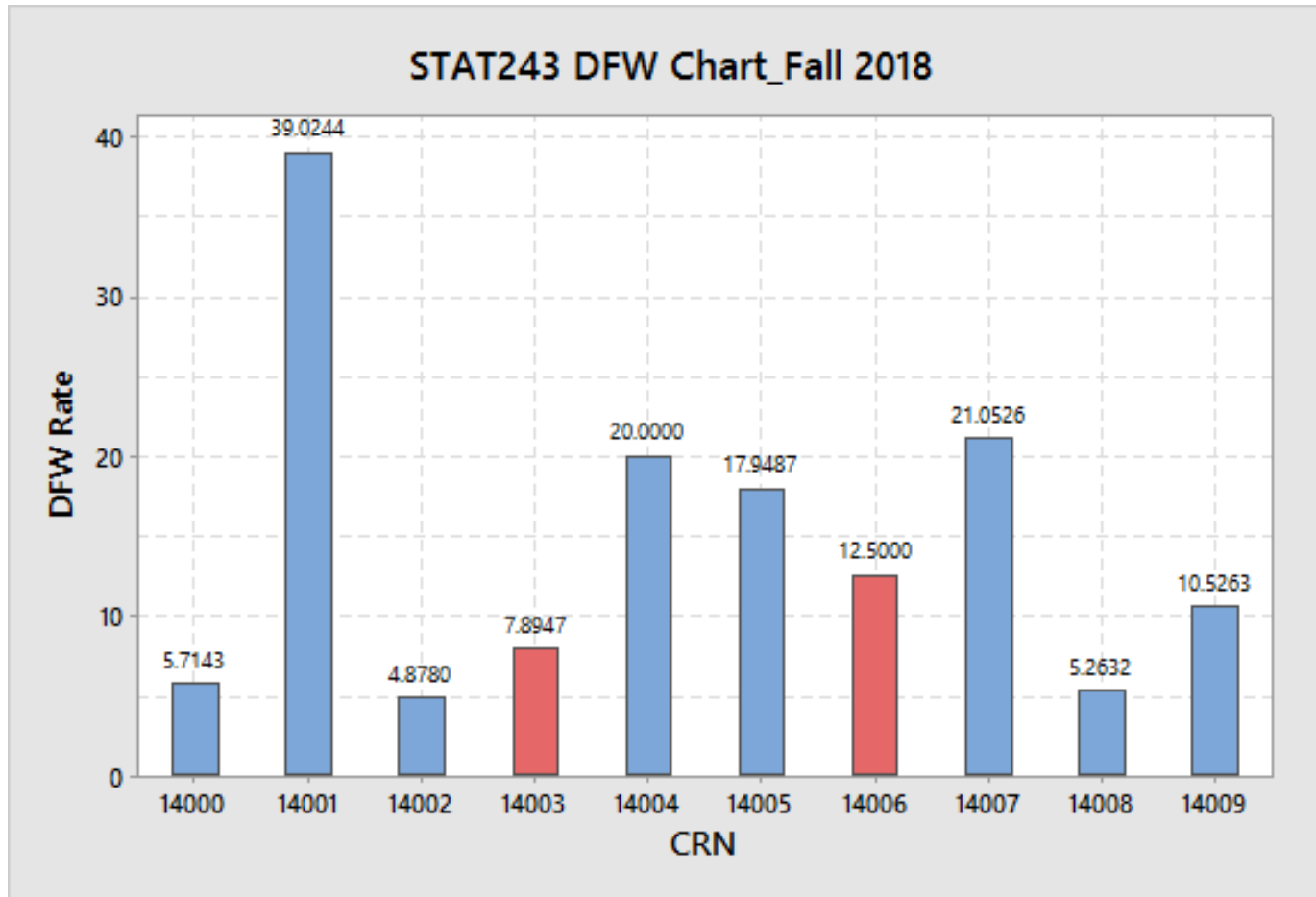
The baseline data for includes the last 3 years, students with X and I grades were removed from the data.

STAT 243 (Introduction to Probability & Statistics I)



Non Active &
Adaptive STAT
241 Courses
From 2016-
1018: DFW
Rate ranges
from 0% to 71%

STAT 243 (INTRO PROB & STAT I)



DFW Rate Baseline:

- Range: 0% to 47%
- Average: 18.02%

A+A Section:

- **14003 & 14006**
- DFW Rate 10.26%
- DFW Range: 7.9% to 12.5%
- **Significantly** lower than Baseline

Non A+A Section:

- Average DFW Rate 15.67%
- DFW Range: 5.2% to 39%
- **NOT** Significantly higher than Baseline.
- 14000: ONLINE section
- 14001: Tenure Professor
- 14002-9: GTAs, Adj. & Inst.

The variation between CRNs during Fall 2018 is similar to the variation between CRNs from the baseline data. However, if we exclude CRN 14001 then the DFW range is much smaller than the baseline.

STAT 243 (Introduction to Probability & Statistics I)

Baseline: STAT 243			
	Totals	DFW	DFW(%)
Total Students Per Term	3224	581	18.02%
Age			
Under 21	1216	196	16.12%
21-29	1590	301	18.93%
30-39	308	52	16.88%
40-49	81	23	28.40%
50+	23	9	39.13%
Race / Ethnicity			
American Indian/ Alaskan Native	22	9	40.91%
Asian	320	39	12.19%
Black or African American	132	38	28.79%
Hispanic or Latino	211	44	20.85%
Native Hawaiian / Pacific Islander	22	2	9.09%
Two or More Races	491	108	22.00%
White	1831	305	16.66%
Not reported	195	36	18.46%
Legal Sex			
Female	2086	380	18.22%
Male	1103	197	17.86%
Not Reported	35	4	11.43%

Fall 2018: STAT 243 (A+A)			
	Totals	DFW	DFW(%)
Total Students Per Term	78	8	10.26%
Age			
Under 21	36	3	8.33%
21-29	36	3	8.33%
30-39	5	2	40.00%
40-49	0		
50+	1	0	0.00%
Race / Ethnicity			
American Indian/ Alaskan Native	1	1	100.00%
Asian	10	0	0.00%
Black or African American	1	1	100.00%
Hispanic or Latino	5	0	0.00%
Native Hawaiian / Pacific Islander	1	1	100.00%
Two or More Races	19	0	0.00%
White	35	5	14.29%
Not reported	6	0	0.00%
Legal Sex			
Female	58	3	5.17%
Male	20	5	25.00%
Not Reported			

Assuming 90% confidence level, we would expect overall DFW rate to be between 5.2% and 17.7%. Therefore, Fall 2018(A+A) DFW rate is **significantly** different than the baseline.

Assuming 90% confidence level, we would expect overall DFW rate to be between 12.3% and 19.5%. Therefore, Fall 2018(Non A+A) DFW rate is NOT significantly different than the baseline.

OFFICE HOURS

Rachel Webb <webbr@pdx.edu>

Sun, Apr 22, 2018 at 7:44 PM

To: [REDACTED] <[REDACTED]>

[REDACTED],

You are really far behind in STAT 243. Can you meet Tuesday before class and see if I can help with getting you caught up? You should be starting Unit 4 tonight, but you are still in Unit 2 material. You should be through all the content below before taking Tuesday's quiz:

[REDACTED] <[REDACTED]>

Mon, Apr 23, 2018 at 12:02 AM

Reply-To: [REDACTED]@pdx.edu

To: Rachel Webb <webbr@pdx.edu>

After reading your email, I have caught up to near the end of unit 3. I will start Unit 4 before Tuesdays class. I am available to meet before class on Tuesday unless you feel that is no longer necessary. Thank you for the nudge to keep going.

Rachel Webb <webbr@pdx.edu>

Tue, Apr 24, 2018 at 11:43 AM

To: [REDACTED]

[REDACTED],

You are always welcome to stop in during office hour. If you are caught up and ready for the quiz then there is no need today.

Rachel

STUDENT RESOURCES

Student and faculty feedback plus insights provided by Realizeit during the initial pilot informed decisions about changes and enhancements to the student experience for subsequent terms

Study Schedule

Past students who received an “A” or “B” worked in Realizeit a minimum of 3 hours a week **before** coming to class

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

30 min
study time
between classes

2.5 hours minimum
study time Friday - Monday
before the following Tuesday's class

Here is a sample overview estimate of **study time needed** each week for this class:

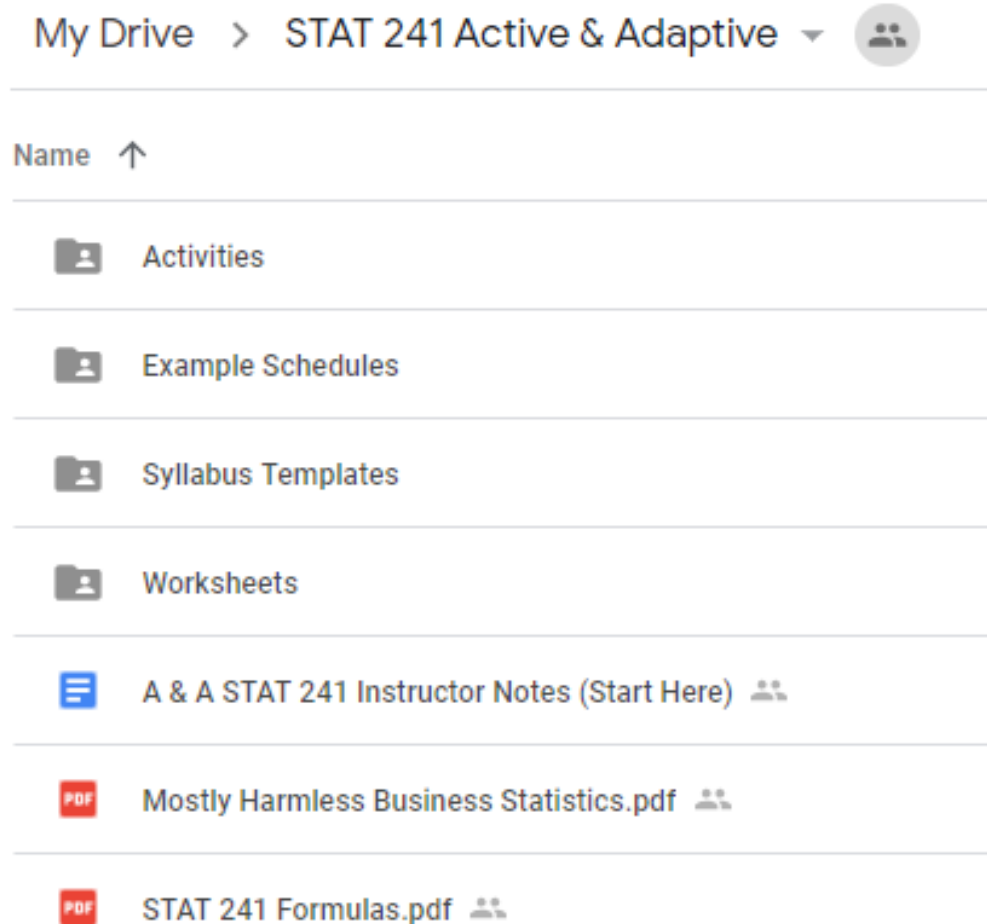
- **3** hours in Realizeit
- **1** hour on other content
- **extra time** to compile notes & studying for exams

Faculty were added to the project to enrich problem bank and algorithmic problem sets.

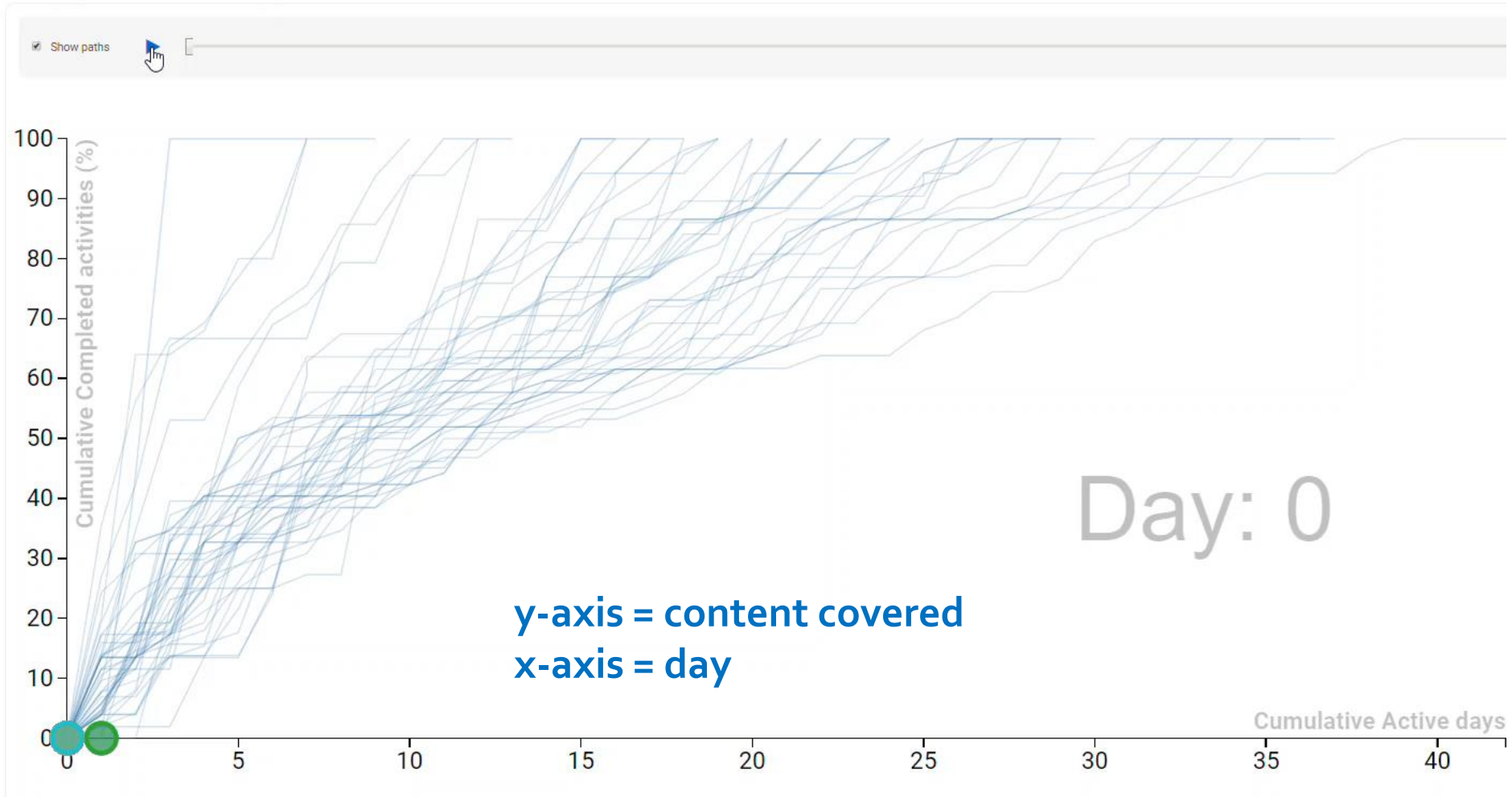
INSTRUCTOR RESOURCES

A Google Drive was shared with faculty with example course material.

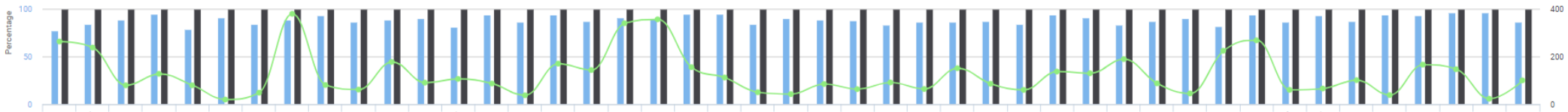
This also revealed the need for a Faculty Guide to help with training new faculty teaching the course.



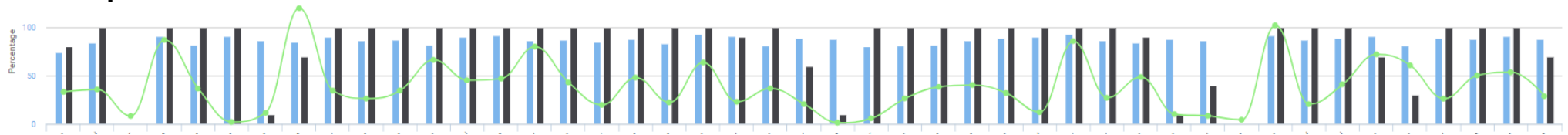
< Replay STAT243: Spring 2018



Chapter 1



Chapter 2



Chapter 3



Spring 2018-STAT 243-Taken at the end of the first week.

Prerequisite Quiz-STAT 243 Winter 2019

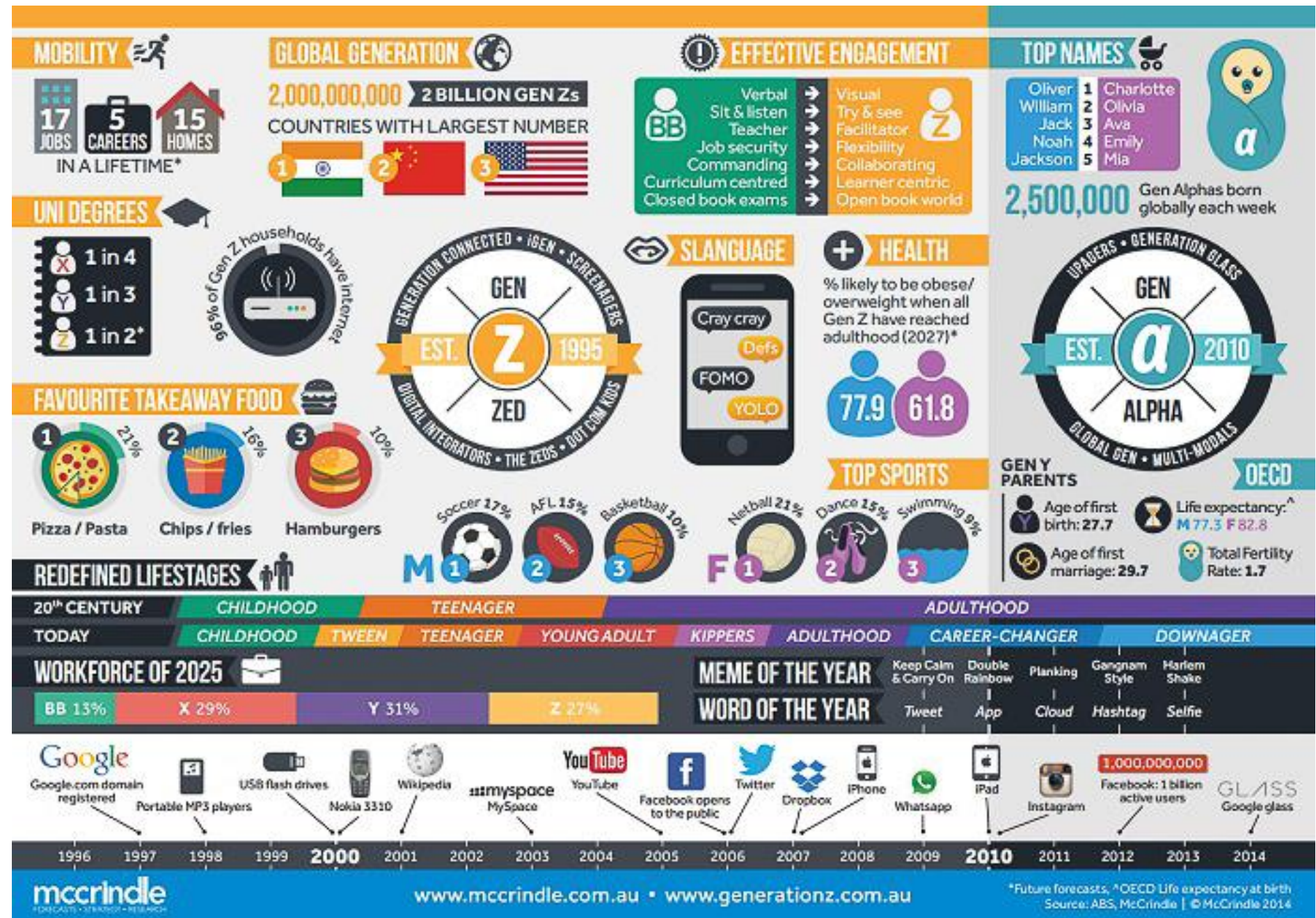
Prerequisite quiz significantly correlated with both Midterm 1 ($r(36) = .70, p < .01$) and Midterm 2 ($r(36) = .60, p < .01$).

Question	Grade	Average Score Attempted	Average Attempts (Regens)
Sigma notation practice for mean (Rachel Webb)	Grade	42%	0.94 (0)
Convert scientific notation into standard decimal notation (negative power of 10)	Grade	56%	0.97 (0)
Use the order of operations to simplify the expression $a - f b - c(d - e) $.	Grade	58%	1 (0)
Negative exponents, convert the form $\frac{2^{-2} + 3^{-2}}{2^{-2} + 3^{-2}}$ is just an order of operation. Order of Operations on more complicated than $\sqrt{(1 - (-1))(17 -$	<div>MyOpenMath Assessment - Google Chrome</div> <div>https://www.myopenmath.com/course/testquestion.php?cid=42...</div> <div>Convert the number into standard decimal notation.</div> <div>0.9537 E -9 = <input type="text"/></div> <div>Show Answer 0.0000000009537</div>		

Who are we teaching?

Are students prepared for class?

Are students getting the support they need?



QUESTIONS?

Rachel Webb

webbr@pdx.edu



2019 Winter Symposium

BREAK

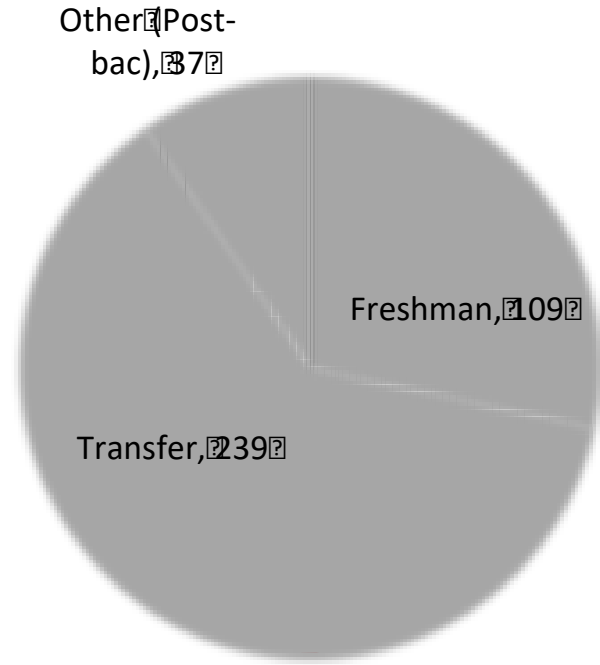
Return in 15 minutes

Focus on Transfer Students

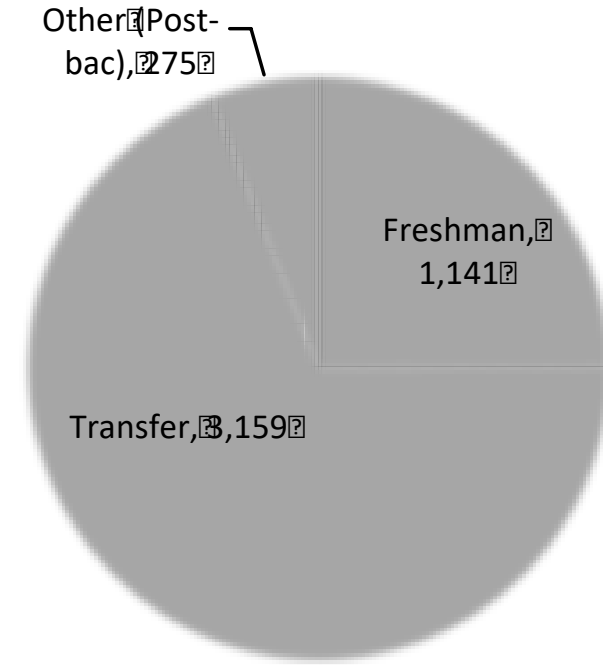
James Hook

Associate Dean, Maseeh College of
Engineering and Computer Science

Where do graduates come from?



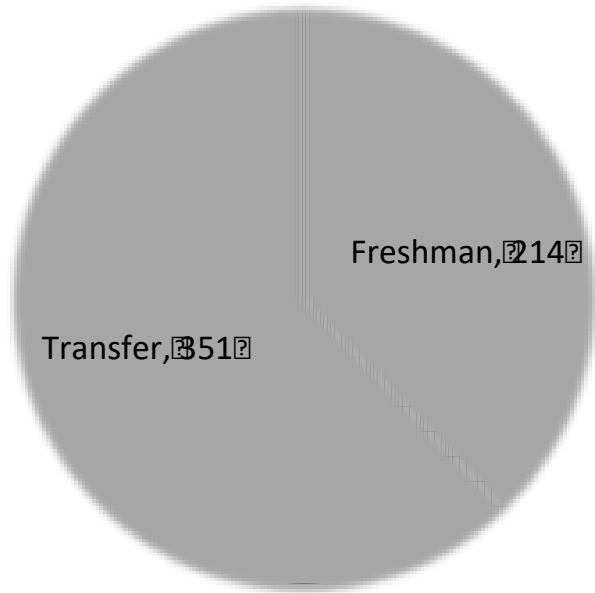
Maseeh College (385)



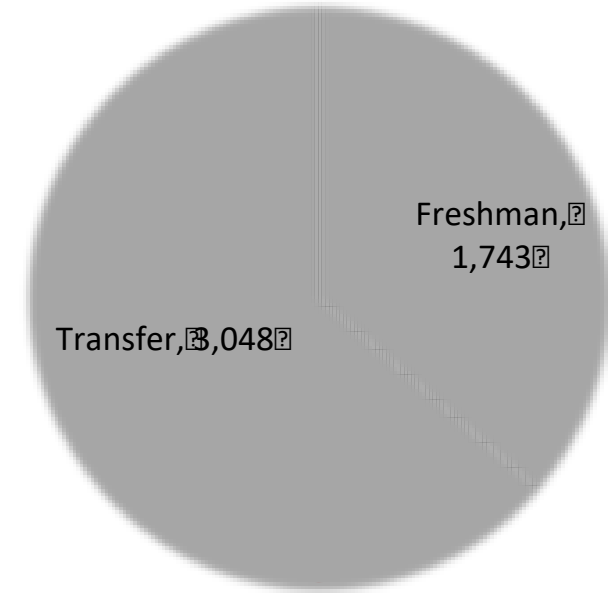
PSU (4,575)

2017-18 Baccalaureate Degrees (OIRP)

New Students Fall 2018



Maseeh College (565)

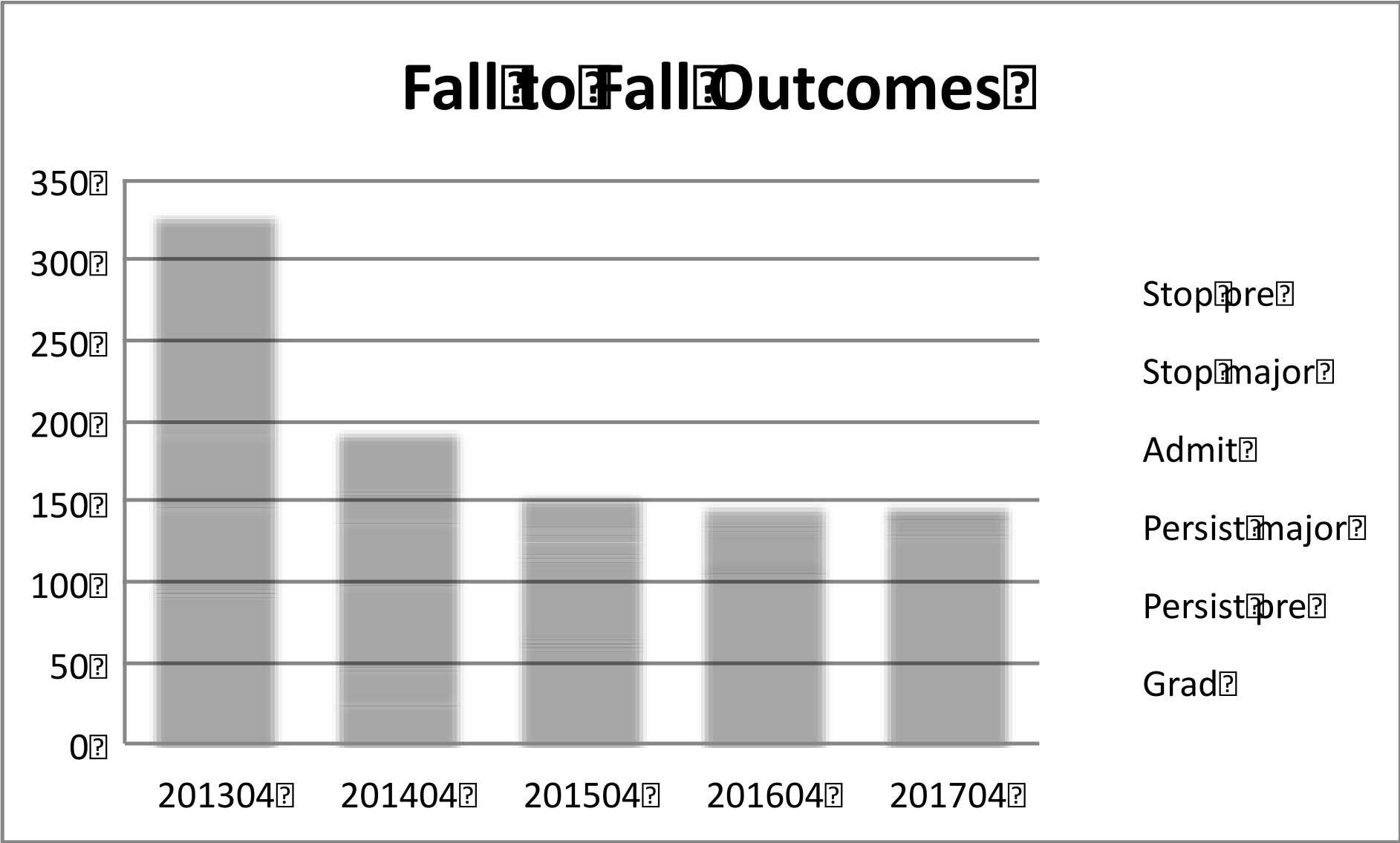


PSU (4,791)

Age and Experience

- Average age of new students
 - Freshman admit: 19
 - Transfer admit: 25

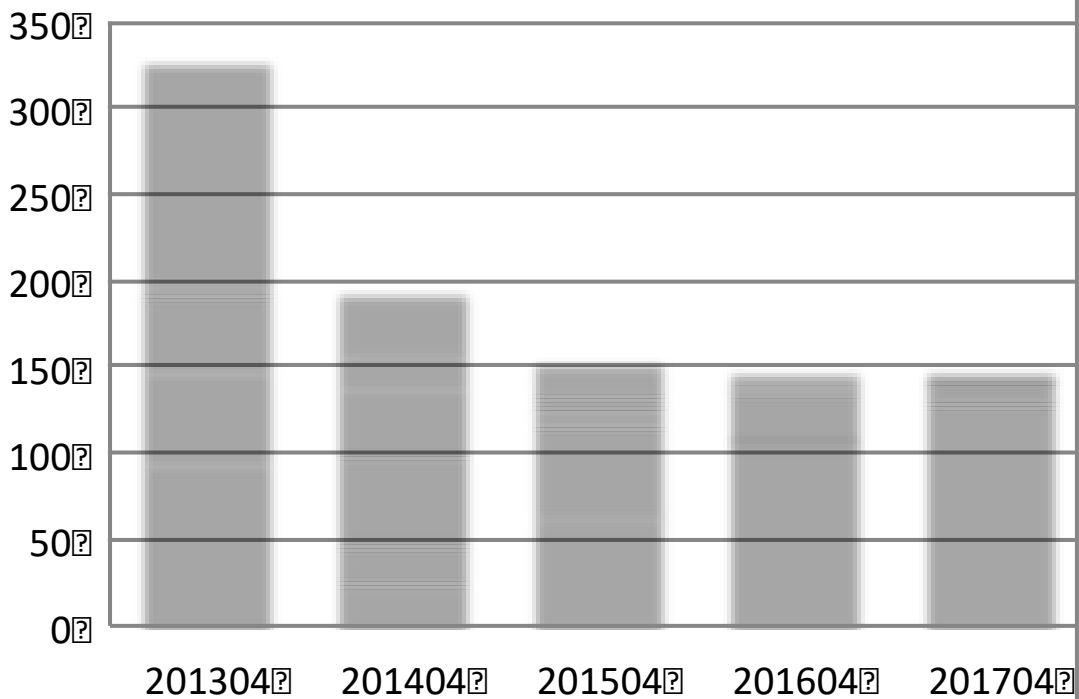
Cohort Progress Fall 2013



Maseeh College all majors; transfer students; Fall 2013 cohort

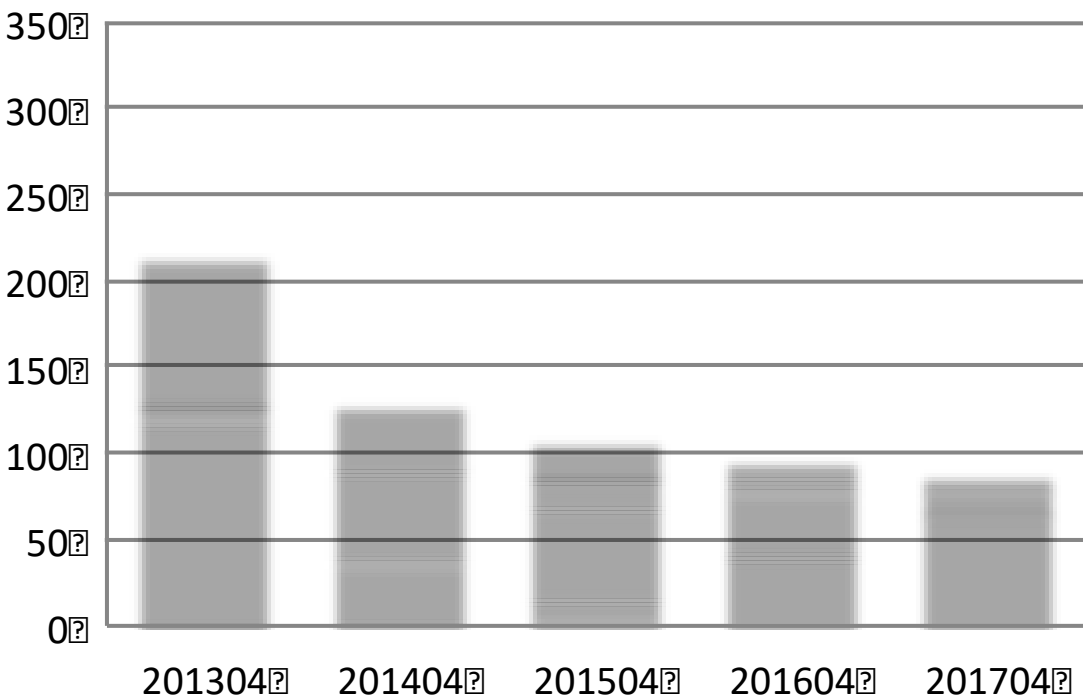
Maseeh College Fall 2013

Fall to Fall Outcomes



Transfer Students

Fall to Fall Outcomes



Freshman Admits

Students persisting in Engineering and Computer Science programs

Stop-pre
Stop-major
Admit
Persist-major
Persist-pre
Grad

Transfer Shock

- Most transfer attrition happens in the first year
- Of the 329 Fall 2013 Maseeh College transfer students
 - 63 left after 1 term
 - 45 more left after 2 terms
 - 26 more did not return the 2nd year

What is the first PSU class?

- First term courses of transfer students with engineering and computer science majors in past year include:
 - CE 111, 112, 115, 211, 212, 315, 321, 324, 325, 345, 361, 371, 399, 410
 - CS 161, 162, 163, 199, 201, 202, 250, 251, 299, 300, 305, 311, 320, 333
 - EAS 211, 212, 215, 407
 - ECE 101, 102, 103, 171, 172, 211, 221, 222, 315, 321, 331, 341, 347, 361, 371
 - ME 120, 213, 240, 250, 313, 320, 321, 350, 370
- In the past year, over 80 classes and labs in the Maseeh College have had a transfer student in their first quarter!

Discussion

1. What challenges do transfer students experience in their first classes at PSU?
2. Do you regularly teach classes that include transfer students in their first term at PSU? How do you know?
3. How can we welcome transfer students in their first class at PSU?
4. What aspects of academic culture do we as faculty assume when we enter the classroom?

Planning

- Transfer students need to understand how classes count towards admission and graduation
- Target institution matters
 - Credit optimal transfer path for Computer Science from Chemeketa to PSU and OSU diverges in 2nd term on Science distribution requirement (not CS content!)
- Community College Students have a goal!
 - We can help them achieve it efficiently

Electrical Engineering General Program

Course plan for students applying for 300-level ECE admission Fall 2019

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING	FALL	WINTER	SPRING
Math & Science Requirements											
Calc I MTH 251	Calc II MTH 252	Calc III MTH 253	Linear Algebra MTH 261	Differ Equations MTH 256	Calc IV MTH 254			Prob/Stat for ECE STAT 351			
Chem CH 221 CH 227			Physics PH 221 PH 214	Physics PH 222 PH 215	Physics PH 223 PH 216						
Engineering/Computer Science Requirements											
Explor Electrical Engr ECE 101	Engr Comput ECE 102	Engr Program ECE 103	Elec Circ I ECE 221 221L	Elec Circ II ECE 222 222L	Elec Circ III ECE 223 223L	Electron I ECE 321 321L	Electron II ECE 322 322L	Junior Elective ECE 3XX	Jr/Sr Elective ECE 3XX ECE 4XX	Jr/Sr Elective ECE 3XX ECE 4XX	Senior Elective ECE 4XX
	Digital Circuits ECE 171	Digital Systems ECE 172 ECE 172L	ECE 211	Proj Dev ECE 212		Signals Systems I ECE 315	Signals Systems II ECE 316	Signals Systems III ECE 317	Ind Des ECE 411	Sr Proj Dev ECE 412	Sr Pr Dev II ECE 413 Prof Prac ECE 424
						Micro Proc ECE 371	Engr E-mag I ECE 331 ECE 331L	Engr E-mag II ECE 332 ECE 332L			
							Power Systems EE 347				
General Education Requirements											
FRESHMAN INQUIRY			SOPHOMORE INQUIRY			JUNIOR CLUSTER					
UNST 1XX	UNST 1XX	UNST 1XX	UNST 2XX	UNST 2XX	UNST 2XX	Private Public Invest EC 314U	UNST Upper Division Cluster	UNST Upper Division Cluster			

Planning

Engineering/Computer					
Explor Electrical Engr ECE 101	Engr Comput ECE 102	Engr Program ECE 103	Elec Circ I ECE 221 221L	Elec Circ II ECE 222 222L	Elec Circ III ECE 223 223L
	Digital Circuits ECE 171	Digital Systems ECE 172 ECE 172L	ECE 211	Proj Dev ECE 212	

- Engineering and Computer Science Programs are Highly Structured
- Few electives
- Lots of credits
- Competitive admission; lots of rules!

PORTLAND STATE UNIVERSITY M
SCIENCE TRANSFER GUIDE: ELE

PSU CLASSES	PCC
MTH 251: calculus 1	MTH 251
MTH 252: calculus 2	MTH 252
MTH 253: calculus 3	MTH 253
MTH 261: linear algebra	MTH 261
MTH 254: calculus 4 (EE only)*	MTH 254
MTH 256: differential equations	MTH 256
CH 221 + 227: chemistry	CH 221
PH 211 (or 221) + 214: physics I	PH 211
PH 212 (or 222) + 215: physics II	PH 213
PH 213 (or 223) + 216: physics III	PH 212
ECE 101 + 102 + 103	ENGR 101 + 114 + CS133U
ECE 171: digital circuits	ENGR 171
ECE 172: digital systems (formerly ECE 271)	ENGR 271
ECE 221: elec circuits 1	ENGR 221
ECE 222: elec circuits 2	ENGR 222
ECE 223: elec circuits 3	ENGR 223
ECE 211, ECE 212	-----
WR 121: college writing	WR 121
COMM 220: public speaking	COMM 111

*for electrical engineering students only, not computer engineering

PSU CLASSES	PCC	CCC	CHEMEK
ECE 171: digital circuits	ENGR 171	ENGR 171	-----
ECE 172: digital systems (formerly ECE 271)	ENGR 271	ENGR 271	-----
ECE 221: elec circuits 1	ENGR 221	ENGR 221	EGR 201
ECE 222: elec circuits 2	ENGR 222	ENGR 222	EGR 202
ECE 223: elec circuits 3	ENGR 223	ENGR 223	EGR 203

MTH 256	MTH 256	MATH 221	MTH 256
CH 221	CH 221	CHEM&141+151	CH 221
PH 211	PH 211	PHYS&241+231	PH 211
PH 212	PH 213	PHYS&242+232	PH 213
PH 213	PH 212	PHYS&241+233	PH 212
CS 161 (or ENGR 102) + ENGR 111 + 112 + CS 162	CS 161 + 162 + GE 101 + 102	ENGR 120 + CSE 121	CS 161 + 162 + GE 102
ENGR 171	-----	ENGR 250	-----
ENGR 271	-----	ENGR 270	-----
ENGR 221	EGR 201	ENGR 204+252+253	EGR 201
ENGR 222	EGR 202	ENGR 204+252+253	-----
ENGR 223	EGR 203	ENGR 204+252+253	-----
-----	-----	-----	-----
WR 121	WR 121	ENGL &101	WR 121
COMM 111	COMM 111	CMST&220	SP 111

Transfer Guides
Support Planning

Discussion

- What resources do students at PCC, Clackamas CC, and Mount Hood CC have to plan courses that help them graduate from your program?
- Do students in your program accidentally take credits that do not help them graduate either before or after they transfer?

Celebrate Partnerships!

- Annual Maseeh College Partner Meeting
- Held for over a decade!
- Organized by Jodi Stiegemeyer, Pathway Director



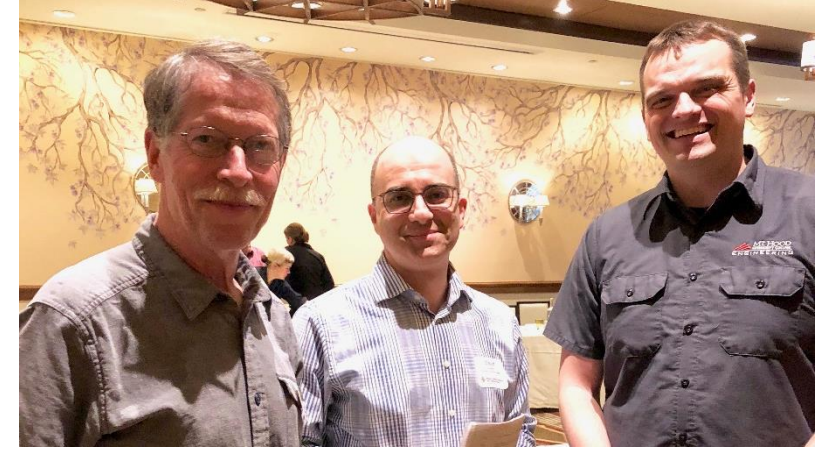
Participants

- Maseeh College dean, chairs, education leaders, key faculty and staff
- Student success team
- Community college partner administrators and faculty
- PSU partners:
 - Admissions
 - Louis Stokes Alliance for Minority Participation (LSAMP) leadership
 - College of Liberal Arts and Sciences
 - STEM Institute



Agenda:

- Updates from PSU and Partners
- Changes to curriculum and admissions practice
- Sharing data
- Sharing concerns
- Action items for articulation maintenance
- Celebrating community and student success



Intervening before transfer

- Prospect Advising
 - Engineering and CS advisors do prospect advising on CC campuses and at PSU
- Louis Stokes Alliance for Minority Participation (LSAMP)
 - Forming cohorts of STEM students at PCC
 - Providing academic and community support; connecting to faculty
- Clackamas Engineering Transfer
 - CCC Professor Eric Lee brings a bus load of students to tour PSU Engineering Building every year
 - Includes panel session with CCC-to-PSU students
- S-STEM (NSF STEM Scholarship grant)
 - Identifying and supporting transfer students
 - Studying and intervening on Transfer Shock

Outreach during transfer

- Annual New Student Welcome in Fall
 - Quarterly welcome events
- New student advising protocols

Support on entry

- Transition programs – Scholars for Success in STEM (S³)
 - Cohort-based model, over 60 students served since 2013
 - 74% PSU 2-year retention rate
 - Annual “bridge” event in fall (advising, STEM project)
 - Bi-monthly meetings & peer mentorship (fall + winter)
 - Scholarships, resume, budgeting workshops
 - Site visits to eBay, Google, Intel, Lam Research



2018 STEM Bridge - Archery Tag



Visit to Google – February 2019

Discussion

- How can we institutionalize welcoming transfer students into our academic programs?
- What are the next steps for my unit?

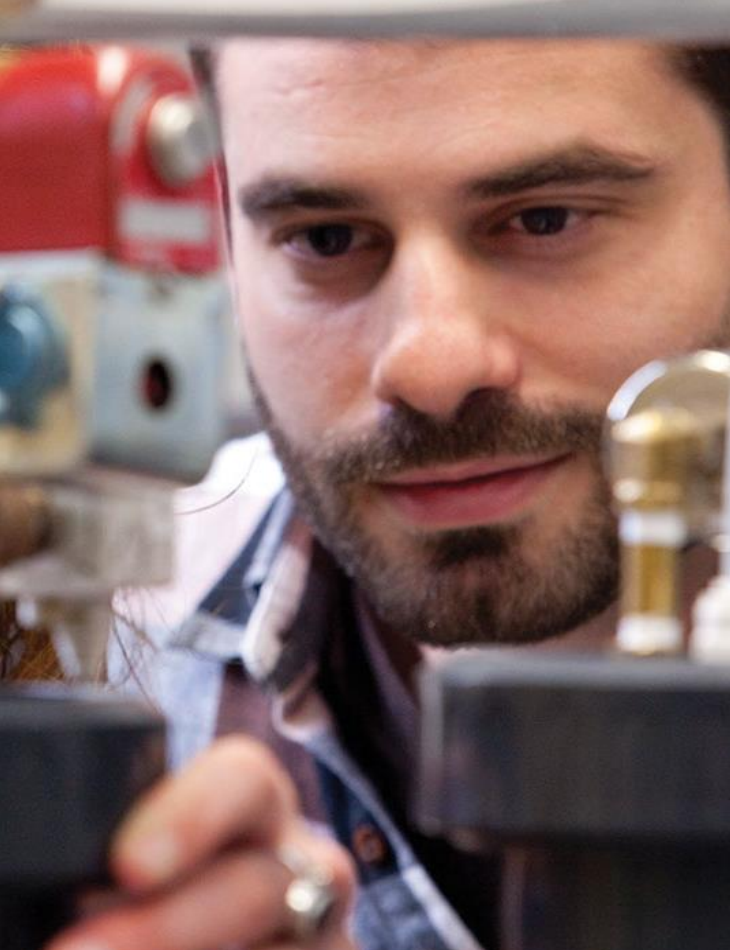
Conclusion

- PSU is central to the most important educational ecosystem in Oregon
- In partnership with providers throughout the community, PSU helps Oregonians achieve economic mobility
- Transfer students are the rule, not the exception

Redefine our Community

A PSU student is a student who wants to
graduate from PSU





2019 Winter Symposium

**Grab Lunch and Return to
Tables for Lunch
Presentation in 30 minutes**

Promising Practices: Utilizing Data to Support Student Access & Success @ PSU

Presented by:

**Michele Toppe, Ed.D.,
Vice Provost for Student Affairs**

**Linda Liu, Program Director,
TRIO-Student Support
Services**



Our Shared Priority: Elevate Student Success

“Improving student success, including raising **retention** and **graduation rates**, is our top priority. To meet the state’s goal of 40 percent of residents with a bachelor’s degree or higher, we must develop and improve pathways to ensure more PSU students earn degrees. We are particularly focused on ensuring all students—graduate and undergraduate—receive a rigorous and enriching academic experience that equips them for success in life and career. We seek to contain education costs. We endeavor to prepare students for a diverse and globally connected world.”

*PSU 2016-2020 Strategic Plan
Goal #1: Elevate Student Success*



A close-up portrait of actor Will Smith, looking slightly to the left with a serious expression. He has short dark hair and a light beard. He is wearing a dark shirt. The background is dark and out of focus.

Can you?

Can you?

PSU Students' Complex Lives



Utilizing Data to Support Student Access & Success @ PSU



Examples of *Retention Interventions* in Student Affairs



C.A.R.E. Team

“Connect the dots” to outreach and support students based on reports of concern from on and off-campus community;

University Housing and Residence Life

High-Impact Practices for students who are faltering such as Academic Connect (Academic Coaching);

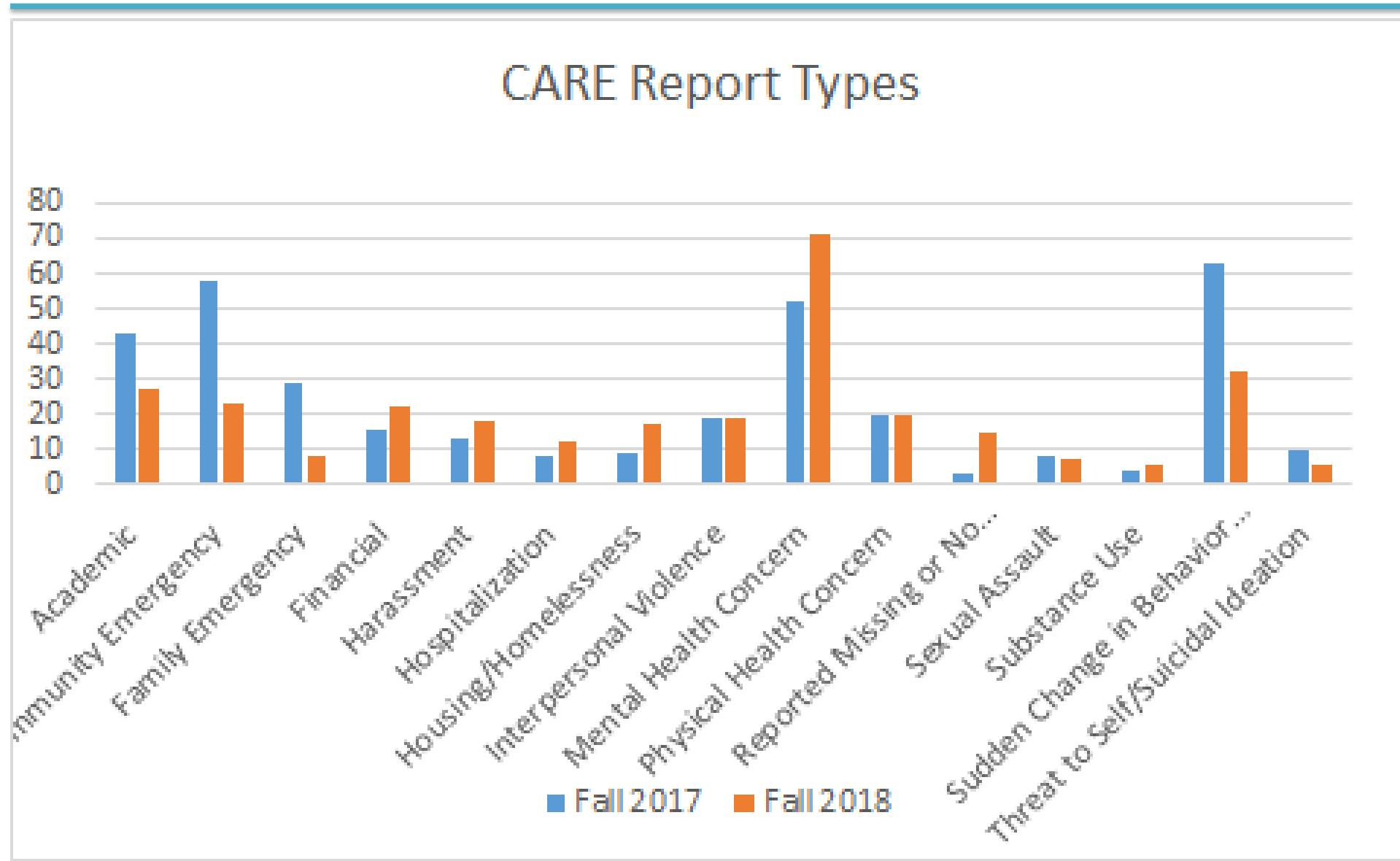
Services for Students with Children

Track academic progress of students who receive the Jim Sells Child Care Grant;

Queer Student Services

Utilize reports from admissions to identify students who might benefit from QSS programs and services.

C.A.R.E. Team: *Retention Interventions*



Examples of *Retention Intervention*: University Success Program in UHRL

UNIVERSITY SUCCESS

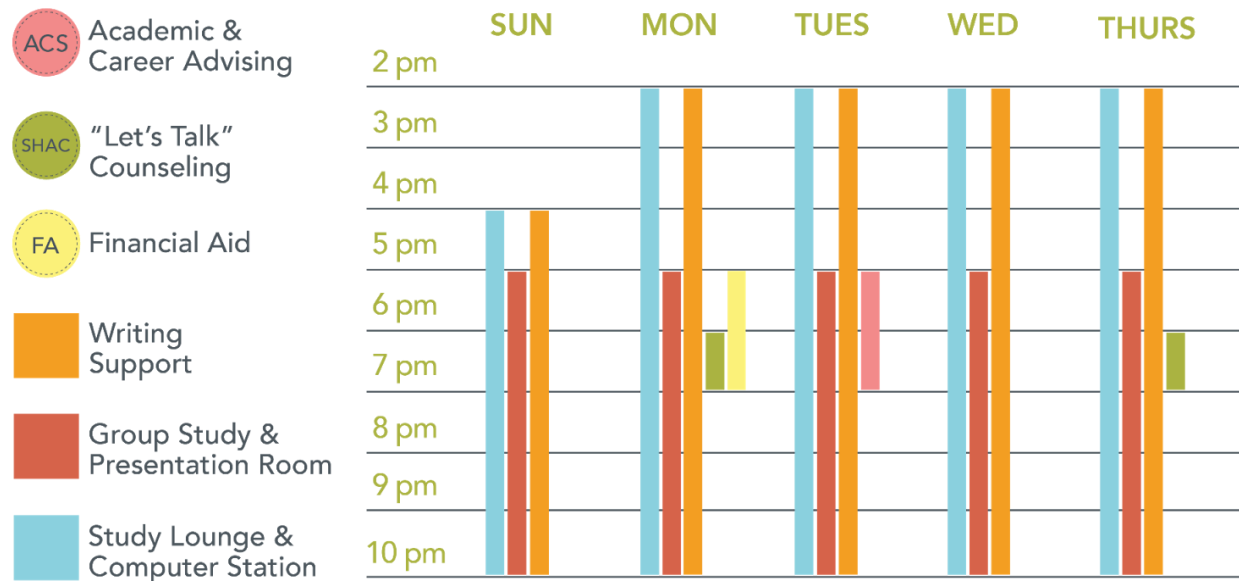
in-hall academic
support centers
for residential students

•Total Visits:

•9,493

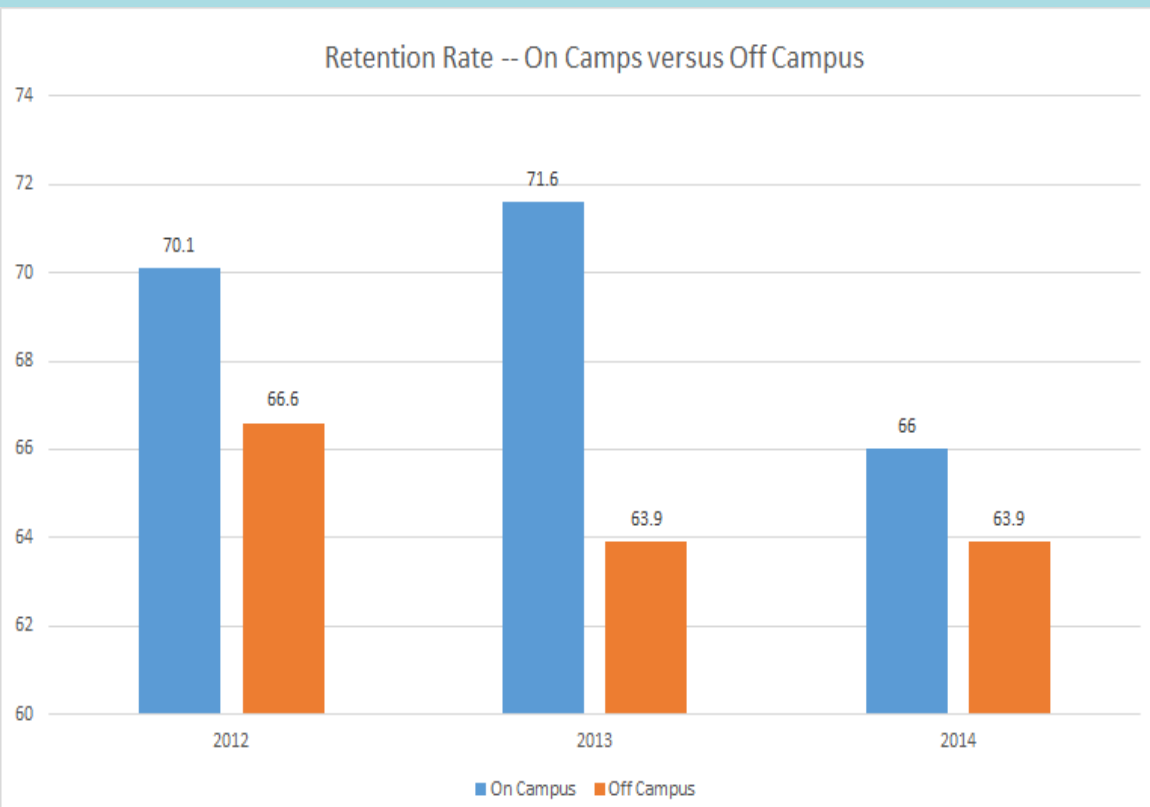
•Services Utilized:

•10,263

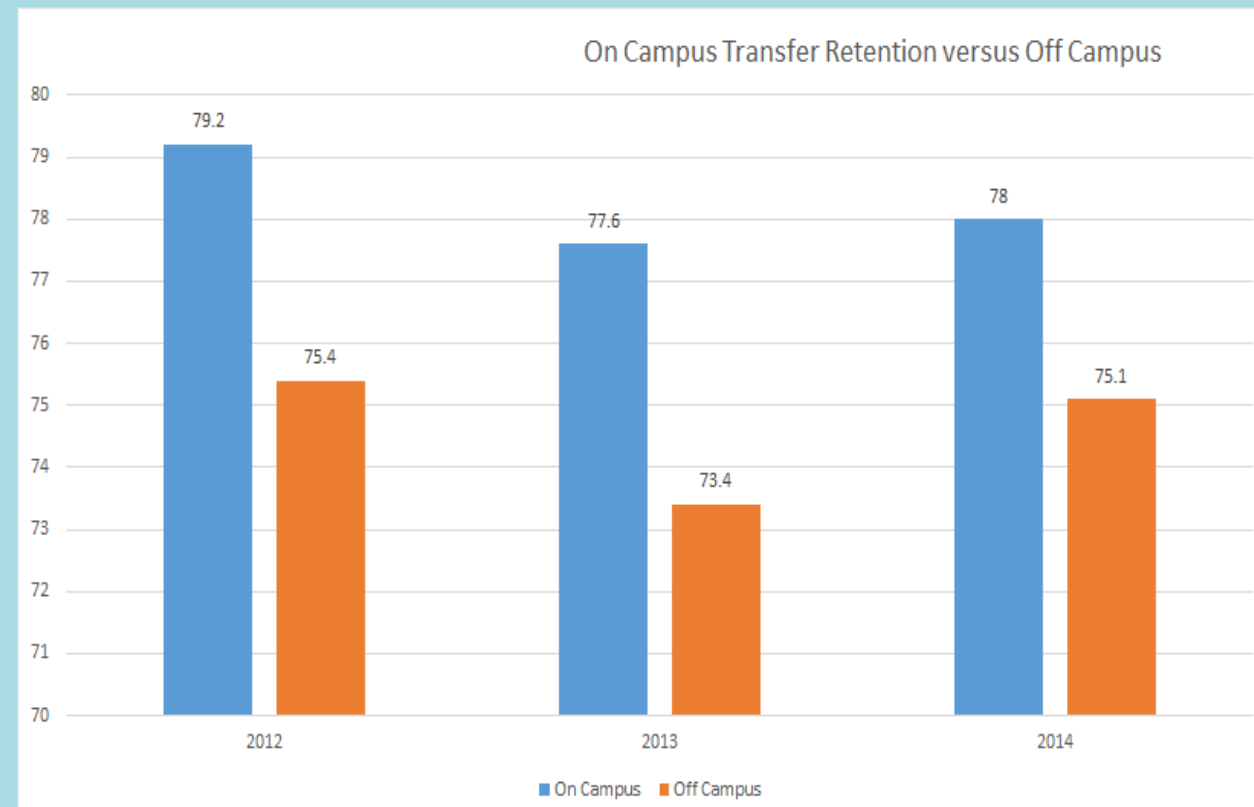


Examples of *Retention Intervention*: University Success Program in UHRL

On Campus 1st Years Retained at Higher Rate than Off Campus



On Campus Transfer Retained at Higher Rate than Off Campus



Retention Intervention: Resource Center for Students with Children

2011 Presidential Study on Students with Children at PSU revealed that almost 25% students at PSU had children of their own

Programs to support this population include:

- Jim Sells Child Care Grants & Ron Ronacher Emergency Loan Fund;
- “Little Vikings” and “Baby Vikings” Short Term Child Care Centers created;
- Lactation spaces, Family Friendly Study Rooms;
- Family Friendly Graduation Ceremony for Students with Children;
- Student Support Specialist position.



Retention Intervention: Queer Student Services

- 2017-PSU began collecting gender and sexuality demographic info (SOGI)
- QRC Launched pilot project to reach out to academically at risk students;
- Used outreach to inform personal outreach by phone, email & in-person;
- Collected feedback from participants in order to improve outreach and support services;
- Future: track graduation rates for LGBT students and develop specialized outreach for students with multiple, intersectional identities.



2018 Summer Retention Institute: Re-Imagining Our Everyday Practices





We hope this resource site provides useful content and guidance for our campus community. Thank you for working with us to provide the kind of ethos of care we know will create a more optimal learning community for our students, staff and faculty.

Topics



Departments



Research and experience have helped us to understand that the dilemmas students face are often best resolved by "connecting the dots"-- using a systems approach to consider the complex web of interconnected factors that might be negatively impacting a student's experience.

This site has been created to assist PSU faculty and staff to more easily access resources, programs and services designed to aid students toward greater personal and academic success. Use the buttons above to open the portals: the "departments" button will connect you to a brief overview of the departments highlighted throughout this site; and the "topics" button leads you to sets of both issues and resource topic areas you will find useful when assisting a student to address multi-dimensional concerns.

All Topics



[Academic Integrity](#)



[Academic Success & Retention](#)



[Classroom Presentations & Trainings](#)



[Deadlines, Petitions, Appeals, Complaints, & Policies](#)



[Disruptive Behavior](#)



[Faculty Opportunities on Campus](#)



[Financial Security, Resources](#)



[Free Speech & Protest Information](#)



[Grades and Grading Policies](#)



[Safety on Campus](#)



[Sexual & Relationship Violence Disclosure](#)



[Student Health & Well-Being](#)



[Student Involvement & Employment Opportunities](#)



[Students in Distress](#)



[Student Records & Privacy - FERPA](#)



[Supporting Transgender, Nonbinary, & Queer Students](#)

DIVERSITY AND MULTICULTURAL STUDENT SERVICES

Linda Liu, Program Director, TRIO
February 28, 2019 Winter Symposium

HISTORY

- DMSS, in some form, has been on the PSU campus for almost 30 years.
- The original 4 departments: Multicultural Retention Services, TRIO Upward Bound, Educational Talent Search, Student Support Services and the Cultural Resource Centers operated as the diversity unit within Enrollment Management and Student Affairs.
- In Fall 2015, we added the Disability Resource Center.
- In Spring 2016, we added the Veterans Resource Center and Student Legal Services, in Fall 2016 we opened the Pan African Commons and the Pacific Islander Asian, and Asian American Student Center.
- In Summer 2018, we became a part of Global Diversity and Inclusion.

Our departments today

Cultural Resource Centers

Disability Resource Center

Multicultural Retention Services

Student Legal Services

TRIO Student Support Services

TRIO Upward Bound and Educational Talent Search

Veterans Resource Center

CORE

- Our core tenets are:
- Equity
- Students first
- The removal of barriers

We are a core unit assisting students outside of the classroom. We focus on retention and student success.

We provide holistic, wrap around advising in our academic units; leadership opportunities, cultural connections, and identity based learning in our centers; and concentrate on the removal of barriers in our service oriented offices.

We provide direct service to students through academic advising, programs and other student supports.

We have 42 full time staff members.

We advised almost 4,000 PSU students and....

In the last year:

We logged 114,000 unique visits in the 5 cultural resource centers, and veterans visited the veterans resource center almost 6,000 times.

In the cultural resource centers, we are seeing a 6.5% increase or an additional 9,200 served in 2018/2019

We hosted 131 events.

We took on 705 legal cases. 93% of student clients report that SLS's assistance enhanced the student's ability to focus on their studies

We brought in \$5.6 million in grant money.

We gave out \$1.4 million in remissions - however, the largest award that we give is \$2,052 per term.

Oregon resident cost of attendance living with a parent is \$16, 605, living on campus is \$26,085. We have a tremendous need for emergency funds to fill the gaps for students. For this scholarship cycle for Diversity Scholars, our typical 300 applications are down to 170 (and we are investigating a number of factors for why)

Since 2003, the Native American Student and Community Center, our only facility, has received \$50,000 from PSU annually. We barely break even every year. We generate the additional revenue through events and services. Last year, the NASCC earned \$53,000 with 416 events, which we use to keep the building open, but we still have a need to raise money every year.

The Disability Resource Center (DRC) has experienced an increase of 15%-20% annually for the last six years with 2,000 students currently registered with the DRC. The largest population are students with mental health diagnoses (approx 60%). Students with invisible disabilities account for approx 96% of all DRC-registered students.

83% of students enrolled in an Multicultural Retention Services first year program have persisted through the first academic year enrolled in the fall 2018 quarter. We have one staff adviser per community (African and African American; Latino/a; Native American and Alaskan Native; Asian & Pacific Islander; and one staff for Diversity Scholars, our largest program ~150 students).

We served over 800 middle/high school students in 2017 – 2018.
In TRIO Talent Search, 144 students (87%) enrolled in college, and 50% of the class of 2012 graduated from college with a BA in 6 years.

In Upward Bound, 97% of seniors enrolled in college, while 50% of the class of 2012 also graduated from college. UB students earned over \$3 million in college scholarships.

TRIO Student Support Services served 278 students. Funded to serve 273.

95.68% of our students persisted fall to fall (they either graduated or came back to school this fall) 266 out of 278

99.63% of our students are in good academic standing. 276 out of 277.

82.50% of our students attain their bachelor's degree within 6 years. 33 out of 40 students.

A sampling of an average day:

Meeting with a prospective student's brother to discuss tuition equity for his sister who is undocumented (this is the 4th meeting).

Spent an hour with a student and her mom via phone, conference calling the IRS to get the right tax documents for work study.

Met with a veteran to get her GI Bill sorted out and then accompanied her to a meeting with her professor about a fall term grade.

Represented a student in court to obtain a restraining order.

Worked with students to plan the film showing: Black Girl in Suburbia and then met with a different group of students to plan Lunar New Year.

Presented to the Psychology department faculty about accommodations and proactive accessibility

Thank you for your time

What would catalyze us to be more effective with data?

Winter Symposium 2019

Hans VanDerSchaaf, Director of Projects

Gwen Shusterman, Professor of Chemistry and STEM Institute Director

Agenda

Framing

Chemistry case studies

Our Lives Lived activity

What would catalyze us to be more effective with data?

What's our story?



Chemistry Case Studies

CH 442 Quantum Mechanics

CH 221 General Chemistry

Pathway Pain Points

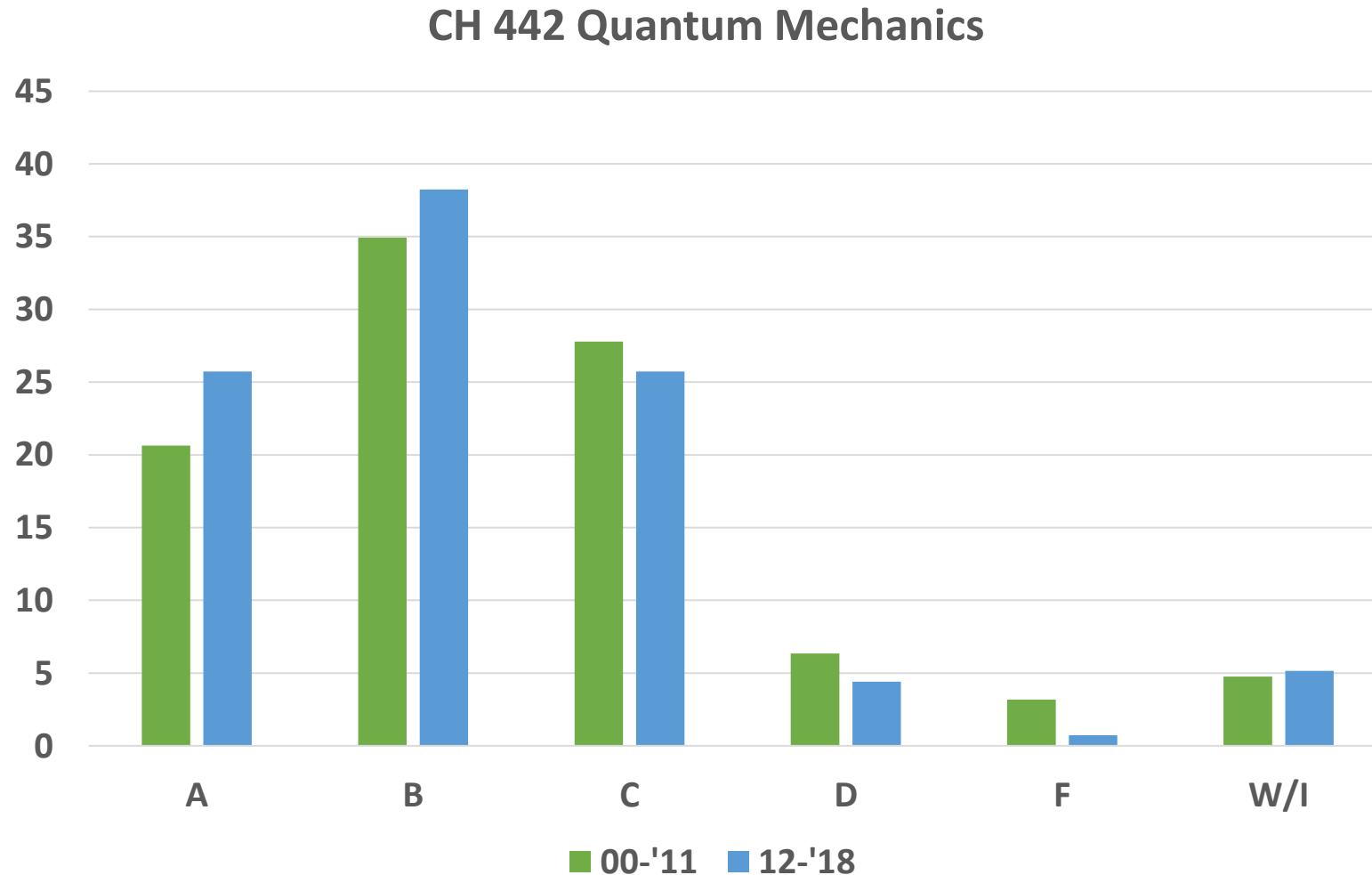
CH 442 – off ramp from the major

- Mathematically and conceptually challenging
- How do we help students reach learning outcomes?
- Can active learning in class help?

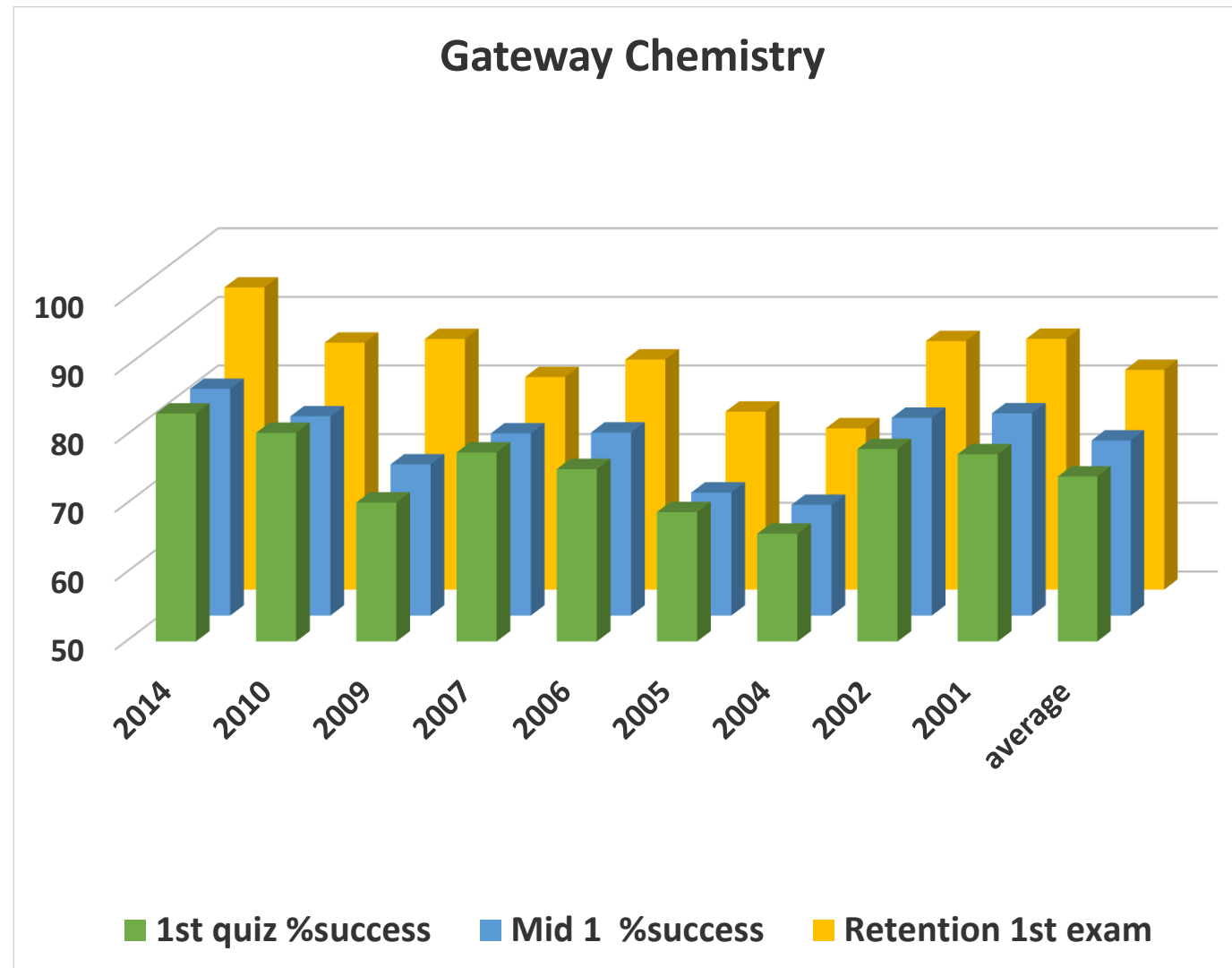
CH 221 – gateway course for many STEM majors

- Identified by CLAS as a high DFW course (2000)
- How do we accommodate range of preparation?
- Can active learning in class help?

In 2012 CH 442 classroom becomes primarily active learning



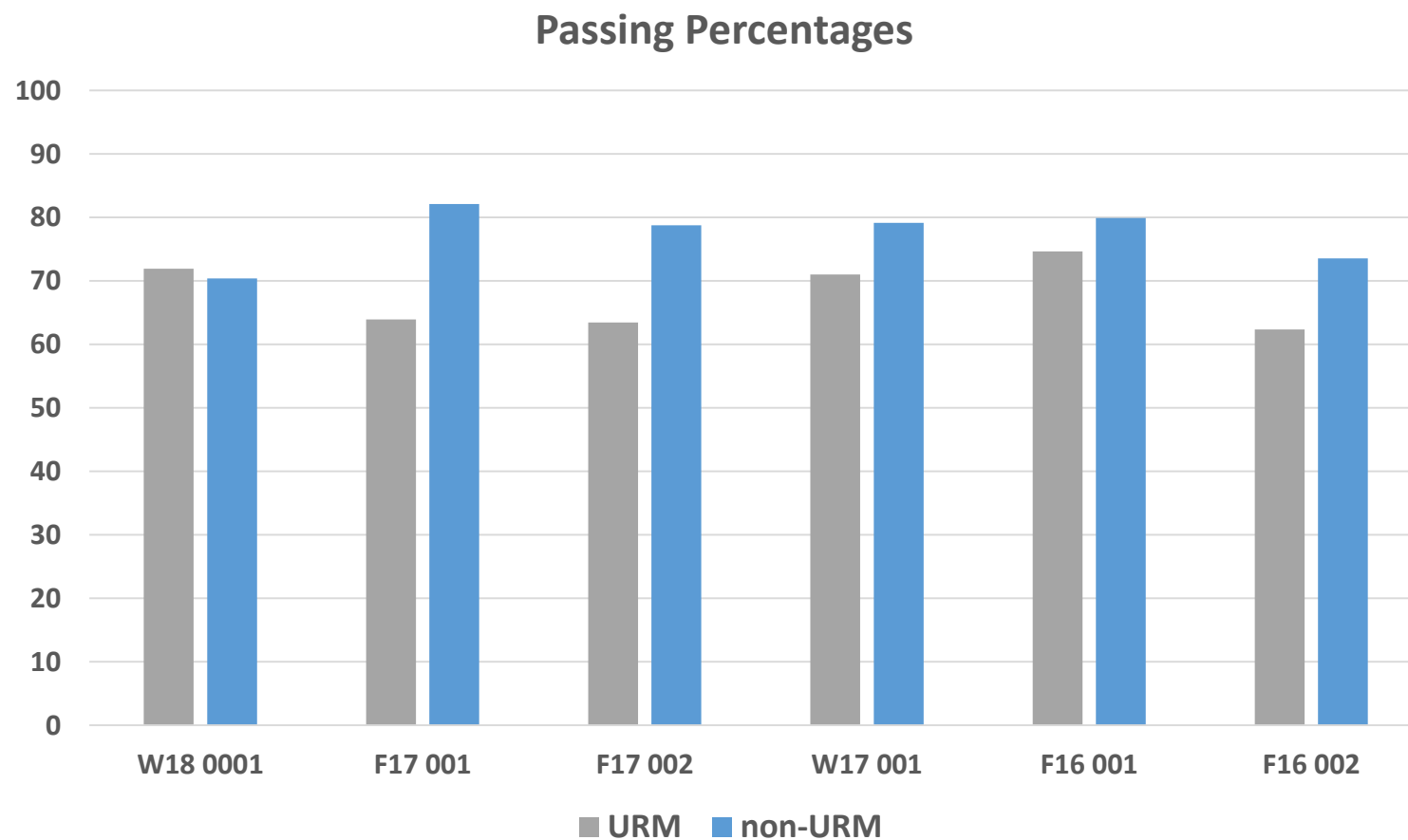
In 2014 CH 221 – new fully active curriculum



Gateway Chemistry Interventions

Adaptive HW

In class active learning



What can we do with data?

Do we have an achievement gap for URM students?

What interventions/strategies may reduce the gap?

What evidence do we want?

Is the data we collect reliable and significant?

How do we know we are asking the right questions?

Our Lives Lived activity

What are the next steps for us to make more evidence-based decisions?

Review of audience-submitted ideas and feedback
(~5 minutes)

Table group discussion (~15 minutes)

- Recorded on sheets on paper (please write legibly)

Reflections (~15 minutes)

- ~ Three groups open to sharing?

Thank you!

Hans VanDerSchaaf, Director of Projects

Gwen Shusterman, Professor of Chemistry and STEM Institute Director



Student Success: Share, Learn, Collaborate

Share student success projects and initiatives, map how these initiatives align with institutional goals, and determine areas for collaboration.

Friday, March 8 from 9:00 a.m. to 11:30 a.m.
Smith Memorial Student Union 327/328/329

RSVP by Tomorrow at <http://bit.ly/oss-mapping>

A student with dark hair, wearing a white t-shirt and blue jeans, is running from left to right. They are carrying a black backpack. Above them is a large, colorful net made of many thin, multicolored strings (yellow, orange, red, blue, green) that create a web-like structure. The background is a plain, light-colored wall.

2019 Winter Symposium

What We Know About Student Success

For the symposium video and information, visit
www.pdx.edu/academic-affairs/winter-symposium-2019