

UC MERCED DATA RELATED TO FIRST SEMESTER ACADEMIC STANDING AND GATEWAY COURSES IN WHICH STUDENTS MOST OFTEN STRUGGLE

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Workshop on First Year Student Success
June 23, 2016

Today I will present data compiled by the Academic Policy Study Group that focuses on why the first semester is so important for new first year students at UC Merced. Note that there will be some opportunities during the presentation for you to discuss your thoughts about the data with another person at your table. However, because I have a lot of information that I'd like to share in a limited amount of time, I ask that you hold comments and discussion about the data to those moments in the presentation. That being said, if you have a clarification question during the presentation that will help you better understand the data, please raise your hand and I'll do my best to answer your question during the presentation so that the data is clear.

Presentation Overview

- Barriers to student success investigated by the Academic Policy Study Group
 - *Courses with high D, F, or W (withdraw) and repeat rates*
 - *Impacts of repeated courses on student success*
 - *Prevalence and impacts of academic and special probation on student success*
 - *Summary and closing comments on the importance of first semester student success*

2

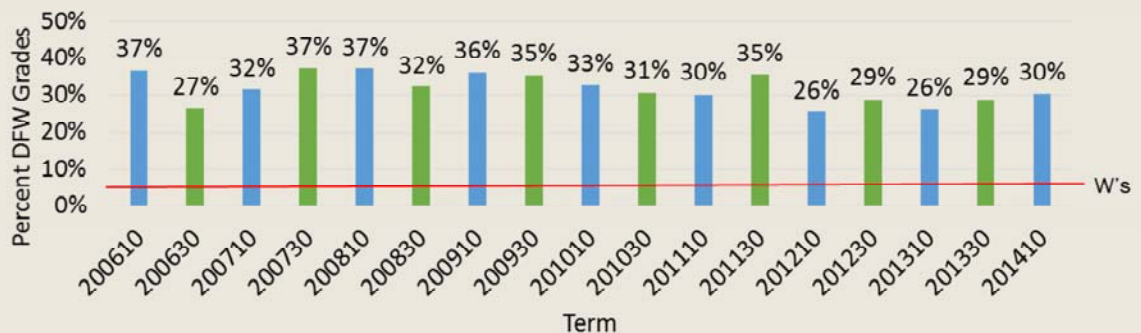
As I discuss this data, I'll be highlighting how the it suggests the importance of the first semester.

Note that DFW grades are included together because all three mean that a student did not pass the course.

Transition: First, we wanted to understand the magnitude of the problem of D, F, and W (withdrawal) rates. That is, how often do students receive DFWs in their courses?

DFW rates accounted for 26-37% of total Fall/Spring course enrollments

Figure 1: Percent of Total Course Fall and Spring Enrollments that Resulted in Ds, Fs, or Withdrawals by Term



Note: 10 suffix denotes spring (blue bars); 30 suffix denotes fall (green bars); Freshmen and Transfer students included

3

Note: analyses included data from Fall 2005 to Spring 2014 entering freshmen and transfer students. When I use the word “term” I am referring to a semester.

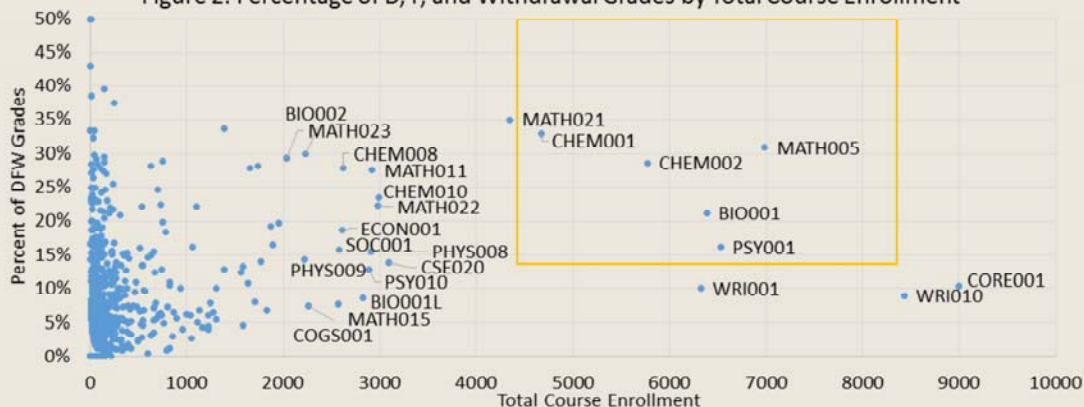
Orientation to the figure: the x axis is the term and y axis is the percent of enrollments that term that resulted in a DFW grade. For example, in 200930, which is fall 2009, 35% of all course enrollments for that semester resulted in a DFW grade. Importantly, this does not refer to the percent of students who received a DFW grade, but rather the percent of courses in which a DFW grade was received. So this means that students who received multiple DFWs were included in the counts multiple times.

Summary of findings: We found that DFW rates are a problem, and specifically that between 1/4 to 1/3 of course enrollments in any given term resulted in a DFW. Importantly, we also found that D and F grades account for the majority of DFW grades. That is, W grades typically accounted for less than 5% of enrollments in a given term (see the red line).

Transition: next we wanted to know in what courses students most often receive DFWs. And this is where the importance of the first semester and first year begins to be apparent...

Courses with highest enrollments and DFW rates: many are “gateway” courses

Figure 2: Percentage of D, F, and Withdrawal Grades by Total Course Enrollment



Note: Freshmen and Transfer students included; Fall 2005 to Spring 2014

4

Orientation to figure: This figure identifies the courses in which students most often received DFW grades between Fall 2005 and Spring 2014. The x axis represents the total number of enrollments for a given course between Fall 2005 to Spring 2014. The y axis represents the percent of those enrollments that resulted in a DFW grade. And the dots represent individual courses. For example, of the approximately 7000 MATH005 (pre-calc) course enrollments, 31% resulted in a D, F, or W grade. The yellow box is meant to draw attention to courses in which D, F, and W grades occurred 16% or more if the time and also had high enrollments (above 4,000 students).

Summary: Importantly, many of the high enrollment courses with a high percentage of D, F, or W grades are prerequisites or foundational lower division courses (i.e., gateway courses) to more advanced courses that students often take early in their academic careers, particularly in the first term. Thus, delays in completing these courses because a student earned a DFW will have downstream effects on time to degree. Many of these courses are taken in the first semester and the first year, which suggests the critical nature of success in these first year courses.

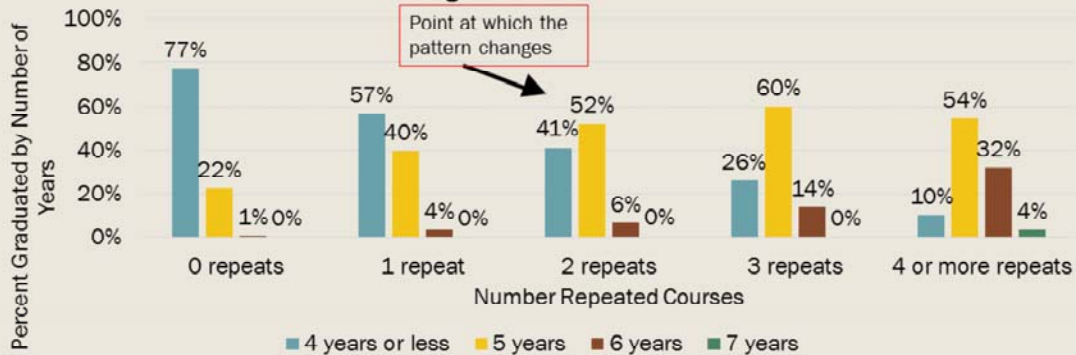
Though not pictured on this slide, we also looked at courses that students tend to repeat the most to support the idea that receiving a DFW in these courses would lead

to repeating them. In support of this idea, we found that the courses that students repeat three or more times tend to be the same courses in which students are most likely to receive D, F, and W grades, including MATH005 and CHEM002, which are in the yellow box. So DFWs in these courses do lead to repeats.

Transition: next I'll share what we know about the impact of repeats on time to degree, which reinforces the idea that it is really important that students are successful in these courses the first time they take them.

Course repetition delays time to degree for grads: 2 or more repeats is problematic

Figure 3: Association Between Number of Repeated Courses and Time to Degree for Graduates



Note: only Freshmen are included

5

Note: only Freshmen (not Transfer students) were included in this analysis.

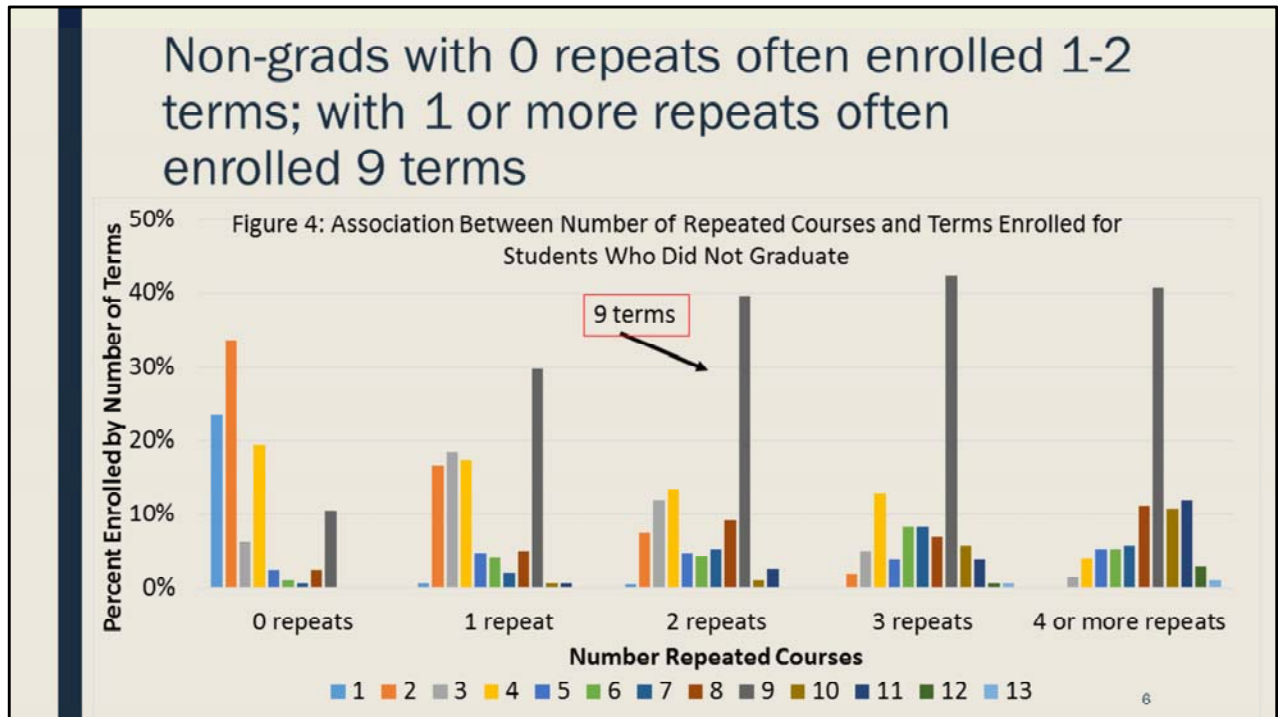
We also wanted to know what impact course repetition has on time to degree. So this figure focuses on students who graduated from UCM and how long it took them to graduate.

Orientation to figure: On the x-axis are the number of **unique** course repeats and on the y-axis is the percent of students who graduated within each timeframe. The timeframes are represented by the colored bars: 4 years or less, 5 years, 6 years, and 7 years. For example, of the students who had 0 repeats, 77 graduated in 4 years or less and the rest took 5 years or more.

Summary: As you can see, 2 unique course repeats tended to be the tipping point at which students were more likely to graduate in 5 years than in 4 years. Also importantly, even one repeat decreased the percent of students graduating in 4 years or less by 20% (77% for 0 repeats and 57% for 1 repeat).

Transition – because this figure only focuses on students who eventually graduated, next we wanted to focus on students who did not graduate. Next we examined the

relationship between the number of repeats and the number of semesters enrolled for students who hadn't graduated.



Orientation to figure: The x axis is the number of unique course repeats: 0 to 4 or more. The y axis is the percent of students enrolled for a particular number of terms, which are represented by the bars. That is, the bar colors indicate the number of semesters enrolled: from 1 to 13 semesters. For example, of students who had 1 repeat but who had not yet graduated, most (about 30%) were enrolled 9 terms (dark gray bar). When I say had not graduated, I mean either those who left UC Merced without graduating *or* were still enrolled/persisting as of summer 2014.

Summary: Course repetition also affected the number of terms enrolled for students who had not graduated. Of students who had 1 repeat or more but who had not yet graduated, most (30% or more) were enrolled 9 terms (dark gray bar). Most students who did not graduate and repeated 0 courses were enrolled for 2 terms (orange bar). This suggests two distinct student groups— those who did not persist at UC Merced and those who persisted for 4 years or more but did not yet earn a degree.

Note the importance of the first term and first year. 23% of students with 0 repeats were only enrolled for one term – it is possible that this group of students didn't perform well in their courses during this first semester and did not return for a second semester. For the second group – those who did not graduate and repeated at least

one course – many still had not graduated after 9 semesters perhaps due to delays in time to degree due to unsuccessful early course attempts. This explanation is speculation, but based on the data presented earlier, these are possible interpretations.

Small group activity 1 – 2 minutes

- Turn to a partner and talk about
 - *One thing that surprised you*
 - *One thing you want to know next*
- Write down your responses on your agenda/worksheet to share later

7

Now I'd like to give you an opportunity to think about the data on DFW grades, course repeats, and time to degree I've presented and discuss it with someone else from your table. So we're going to do a brief group activity. For the next two minutes, I'd like you to turn to a partner at your table and talk about: (1) one thing that surprised you about the data that I presented and (2) one thing that you want to know next. Please write down your responses to these questions on **worksheet section 1** in your packets.

Transition: Next we talk about probation, with a particular focus on students who are placed on academic or special probation at the end of their first term. But before sharing the data I want to give a brief overview of our Academic Standing Policy to frame the discussion, as some of you may be more familiar than others this policy.

Brief Overview of Academic Standing Policy

Good Standing = semester and cumulative GPA 2.0 or higher

Academic Probation (P1) = semester or cumulative GPA under 2.0; however,

Subject to Academic Dismissal (SAD)

P1 for two or more semesters and cumulative GPA under 2.0, or Semester GPA under 1.5 and cumulative GPA under 2.0

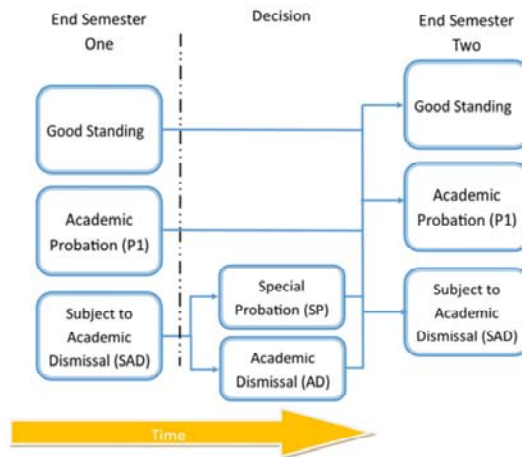
→ If appeal is successful:

Special Probation (SP) – requires a contract and monitoring

→ If no appeal or not successful:

Academic Dismissal (AD)

Reinstatement possible



8

Note that I'll use acronyms/codes as I share the data: P1 for academic probation, SP for special probation, and AD for academic dismissal. I'm using these acronyms/codes because they are the codes used by our Student Information System, Banner.

Orientation to picture: The figure is intended to represent the fluid nature of a student's academic standing. First I'm going to focus on the different academic standing statuses and then I'll explain how the status that a student currently holds can change over time.

To begin, let's imagine that we have a new student and that it is the end of that student's first semester. Review of: good standing, academic probation, and subject to academic dismissal criteria. If a student is SAD, that student is invited to submit an appeal. If s/he does not appeal, s/he is academically dismissed. For students who appeal, as a result of that appeal, a student is either placed on special probation or is academically dismissed. Note that I'm not going to focus on reinstatement, but it is possible for a student who was dismissed to be reinstated.

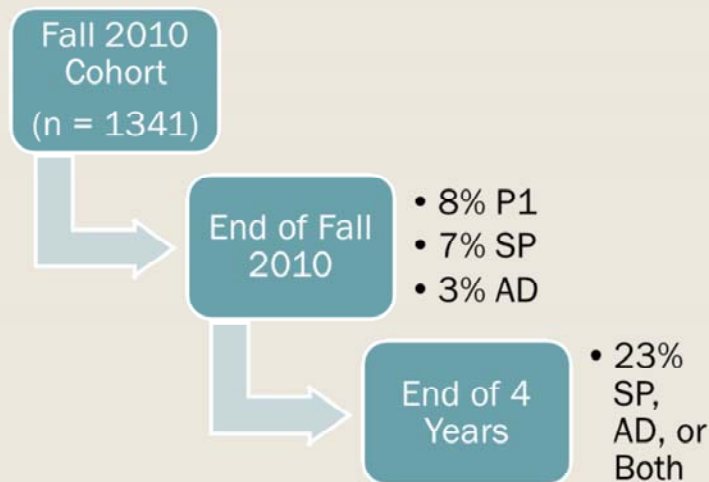
So as you can see, a student's academic standing at the end of semester 1 can be very different from his/her academic standing at the end of semester 2 and later. For

example, a student could start out subject to academic dismissal at the end of semester 1, could be placed on special probation, and later could be placed on academic probation at the end of semester 2. That same student could later be placed in good standing if s/he gets back on track academically.

Are there any clarification questions about academic standing?

Transition: As with DFW rates, we first wanted to get an idea of how many students are placed on any type of academic probation, particularly in the first term.

How many students affected by poor academic standing?



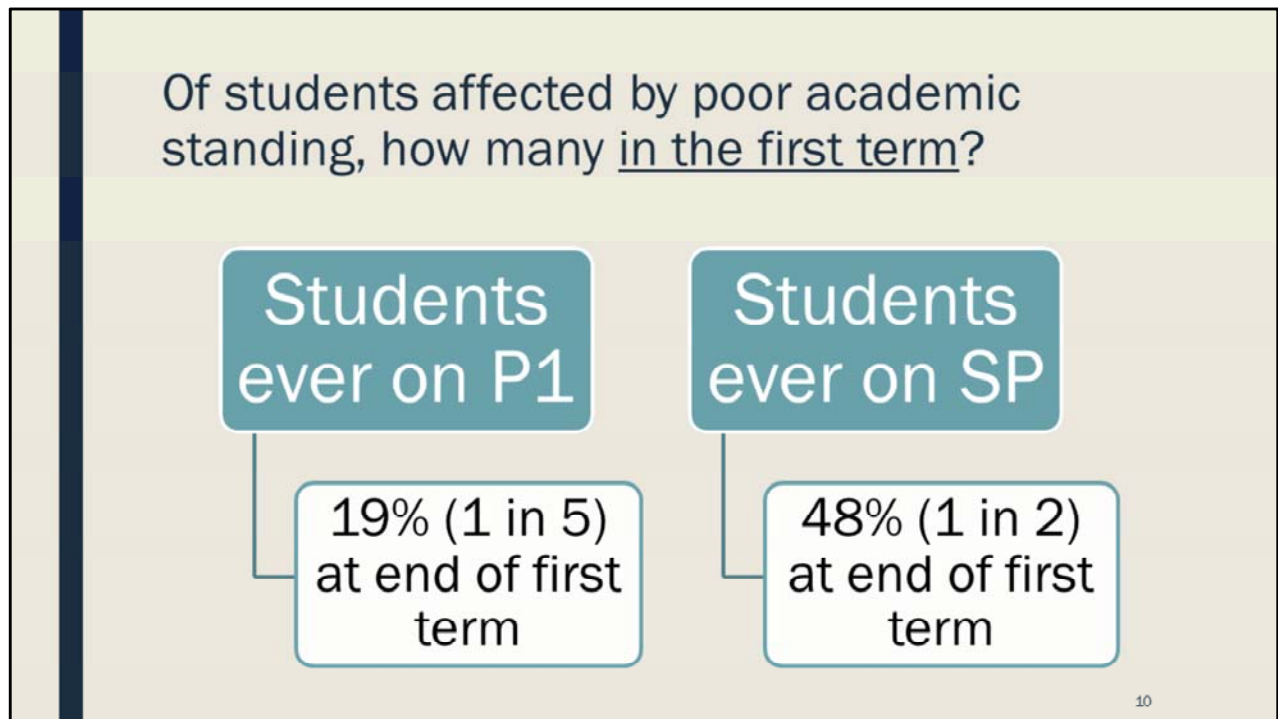
This graphic shows the percent of students who were placed on academic probation (P1), special probation (SP), or were academically dismissed (AD) as a result of their first semester. Note that we focused on the fall 2010 freshmen cohort because this sample of students had 4 years to graduate when these analyses were performed after the summer of 2014. Thus, analyses involving graduation rates, which I'll get to later, considered only 4 year graduation rates.

From the figure, 8% were P1, 7% were SP, and 3% were AD at the end of their first semester. Collectively, that is 18%, or about 1 in 5, of students.

By the end of 4 years, 23% of the students from this 2010 entering freshmen cohort had either been placed on SP, had been AD, or both. Excluding academic probation, again, nearly 1 in 5 had been SAD and as a result had been placed on SP or AD after 4 years at UCM.

Summary: This information is meant to convey that a rather large proportion of students are in poor standing or dismissed either in their first semester (about 1 in 4) or at some point in their 4 years at UCM. This reinforces the idea that the first semester is very important to student success.

Transition: next we wanted to look only at students who were ever placed on probation and when that first occurred.



This graphic shows the number of students affected by poor academic standing in their first term. Again, the focus is on the Fall 2010 entering freshmen cohort.

Of all freshmen from this cohort who were ever placed on academic probation (P1) sometime between 2010 and 2014, for 1 in 5 this happened at the end of their first term. Very importantly, this does NOT mean that 19% of students from this cohort were placed on P1 at the end of their first term – instead it focuses on the smaller subset of students from this cohort of students who were placed on P1 at some time between 2010 and 2014 and examines whether this happened in the first semester.

Of all freshmen from this cohort who were ever placed on special probation (SP) sometime between 2010 and 2014, for 1 in 2 this happened at the end of their first term, which is a very high number.

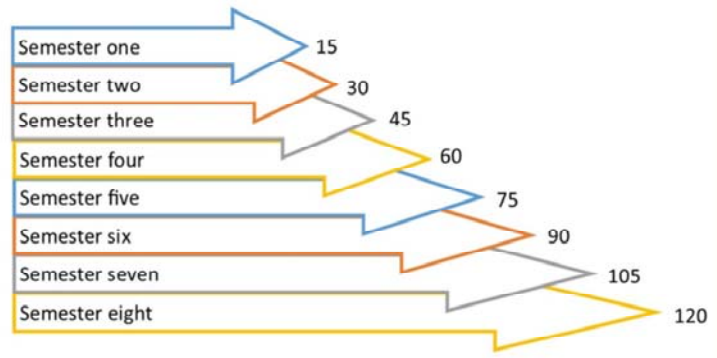
Summary: These data emphasize the importance of the first semester, particularly for students placed on SP.

Transition: next we wanted to examine how being in poor academic standing affects

students' ability to make timely progress toward a degree and to graduate. First, I'll talk about timely progress, and to begin I'll provide a brief overview of the UC Merced Normal Progress to Degree Policy for context.

Normal Progress to Degree Policy

- Student expected to complete degree in 8 semesters
- Need to accumulate about 15 units per semester to achieve 120 required units in 8 semesters



11

Students are generally expected to complete their degrees in 8 semesters; to achieve the 120 units needed during that time they should complete an average of 15 units per semester, as shown in the figure.

On the following slides, when I say that a student didn't make timely progress, this means they hadn't completed the number of units they were supposed to have completed at various time points and so is not on track for a timely graduation. For example, a student who didn't complete 30 units needed by the end of semester 2 would be considered to not be making timely progress.

Transition: how are academic and special probation related to timely progress? I'll start with academic probation.

How is Academic Probation (P1) Related to Timely Progress to Degree?

- Students complete fewer credits in terms that result in probation
 - Continue to lag behind, particularly when this happens early
- Impact of P1 in **first semester** on student success:
 - At risk of SAD, most often in semester 2
 - 32% (1 in 3) were eventually placed on SP
 - 41% (2 in 5) were eventually AD
 - Don't make timely progress to degree
 - *If persist, are behind (some caught up by end of 6th semester)*

12

First, unsurprisingly, the first term that a student goes on probation is a term in which that student earns less than the expected number of units. So, if a student first goes on academic probation as a result of semester 1, that student tends to earn less than the 15 units expected during that term. This makes sense because it is likely that a student earned a DFW in one or more courses, such that those units could not be counted toward the number of units earned. Further, when this happens in an early semester such as semester 1, students tend to lag behind for several semester in the number of credits expected for timely progress.

Second, it is clear that for academic probation, the timing of when a student first goes on academic probation is very important. If it happens in a student's first semester, that has a negative impact on whether a student remains at UCM (at risk of SAD), and for those who do persist, for their ability to make timely progress.

These negative outcomes stemming from academic probation in the first semester are very logical because probation status is determined by GPA. So students who have a problematic term early on (e.g., in term 1) are particularly affected because their GPAs are based on fewer courses. So it will take their GPA, and thus their academic standing, longer to recover, if they persist and recovery occurs at all.

Transition: next, I discuss special probation.

How is Special Probation (SP) Related to Timely Progress to Degree?

- Students complete fewer credits in terms that result in probation
 - Continue to lag behind, particularly when this happens early
- Impact of SP in **first semester** on student success:
 - Less important than with P1, possibly due to subsequent AD
- Impact of SP **any semester** on student success:
 - Greater risk of AD (32-43%) compared to non-SP students (10%)
 - AD most often occurred semester following first SP semester (32-35%)
 - *E.g., if student SP in term 1, AD most likely in term 2*

13

Note: for percentage ranges, this is a range across semesters (considers timing of going on SP)

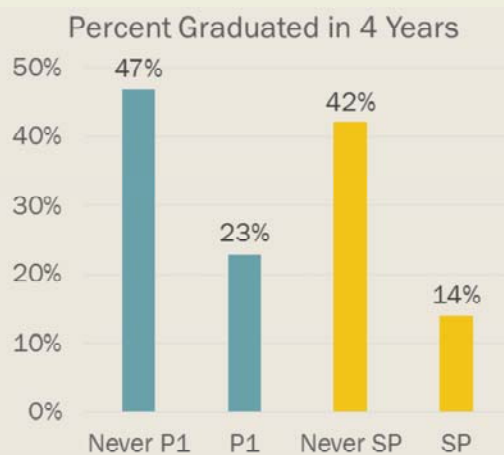
First, just like academic probation, the first term that a student goes on probation is a term in which that student earns less than the expected number of units. So, if a student first goes on academic probation as a result of semester 1, that student tends to earn less than the 15 units expected during that term.

Second, unlike Academic Probation, for which the first semester is really important, the first semester alone is less important for students placed on Special Probation. But that is only because **every semester** is important for SP students. They have a greater risk on being AD compared to students who were never SP. And when AD occurs, it often occurs the semester immediately following their first SP semester. That is, if a student was first placed on SP in semester 1, if AD occurs for that student it is most likely to occur in semester 2.

Transition: We've discussed the relationship between probation and timely progress to degree. In my final data slide I'll describe the relationship between probation and graduation in 4 years.

How are Academic (P1) and Special (SP) Probation Related to 4 Year Graduation?

- Semester first placed on P1 or SP NOT related to graduation
 - *P1 & SP in term 1 may slow progress, but can catch up to graduate*
- P1 students less likely to graduate in four years
 - *61% still persisting into 9th semester*
- SP students less likely to graduate in 4 years
 - *34% persisting into 9th semester*



14

The timing of when a student was first placed on P1 or SP was **not** important for whether the student graduated in 4 years. But...

For students who were ever placed on P1, they were less likely to graduate in 4 years (23%) compared to non-P1 students (47%) (blue bars in figure). However, though P1 students were less likely to have graduated in 4 years, 61% were still persisting such that they could eventually graduate.

For students who were ever placed on SP, they were also less likely to graduate in 4 years (14%) compared to non-SP students (42%) (yellow bars in figure). However, unlike P1 students, only 34% of SP students were still persisting such their potential to eventually graduate was much lower.

So in sum, trying to help ensure that our students are not placed on probation, in addition to improving timely progress to degree, also increases the chances that they will graduate in 4 years.

Small group activity 2 – 2 minutes

- Turn to a partner and talk about
 - *One thing that surprised you*
 - *One thing you want to know next*
- Write down your responses on your agenda/worksheet to share later

15

As before, now I'd like to give you an opportunity to think about the data on academic and special probation I've presented and discuss it with someone else from your table. So we're going to do the same brief group activity. For the next two minutes, I'd like you to turn to a partner at your table and talk about: (1) one thing that surprised you about the data that I presented and (2) one thing that you want to know next. Please write down your responses to these questions on **worksheet section 2** in your packets.

Summary

- It is important that students are successful the first time they attempt a course, particularly gateway courses
- Probation
 - *Students who go on probation (P1 or SP) in the first term are not likely to make timely progress to degree or to graduate in 4 years.*

16

With regards to the data, it really demonstrates the importance of first term. During this time, students are learning about their skills and abilities and about how they fit in at UCM. Probation in the first term could send message that they are less likely to be successful compared to later semesters when they may feel more confident. It also has a very negative impact on their GPA.

Remaining Questions and Comments?

- Burning questions
 - *Review your notes from the small group activities*
 - *What came up in your conversations that you have a question about?*
- Link to next segment in agenda – the goals are:
 - *Share how, in your role, you support our students in their first semester*
 - *Gain a broader understanding of UCM programming that supports first year student success*
 - *Identify overlap and uniqueness in UCM programming*

17

Now I'd like you to reflect back on those conversations you had about the data during the presentation. Are there any burning questions that you'd like to ask? I'll take as many questions as I can depending on time remaining and you can feel free to reach out to me later if you have other questions.

Also, in thinking about the next topic of discussion on our agenda, which is a discussion of the programming that supports first year students, given the data, we'd like you to be thinking about your own role in supporting our students in their first semester.

Thank you!