This research brief examines the implementation of the First Year Early Alert Pilot Project in the fall 2022 semester at UC Merced and is a companion to the spring 2022 brief. The project identifies for intervention students who have late or missing submissions across their courses (Submission Alert) or a lack of engagement with the LMS (Activity Alert). In doing so, it complements the support faculty provide in their individual courses. Though a relatively small proportion of students met the intervention criteria, meeting alert criteria was associated with receiving at least one poor mid-semester grade and with ending the term in poor academic standing, particularly for Activity Alerts. Improving student outcomes may better support first-year students and improve campus retention rates. Making the most of this early alert resource will require robust campus partnerships and support.

Canvas Early Alert Pilot Background
At the start of the 2020 COVID-19 pandemic, we initiated a pilot project to leverage CatCourses (our Learning Management System – LMS) data to identify first year students who might need intervention to help them succeed academically. Intervention was coordinated by the Division of Undergraduate Education and facilitated by the Bobcat Advising Center. It took several semesters for reliable implementation. This brief examines fall 2022.

Alert Definitions & Interventions
For most weeks of the semester, we identified for intervention first year students with two patterns of LMS activity:

- Submission Alert – the student had a late or missing assignment, quiz, or discussion post in three or more courses. Students with one submission alert in a given week were sent an email with available resources; those who received submission alerts in four or more weeks were contacted by an academic advisor.
- Activity Alert – the student did not interact with the LMS. Students with any number of activity alerts in a given week were contacted by an academic advisor.

Fall 2022 Alert Activity & Intervention
- Submission Alert - 142 (6%) first year students had a Submission Alert at least one time during the semester.
- Activity Alert – 51 (2%) first year students had an Activity Alert at least one time during the semester.

Only 1 student met the criteria for both alert types indicating that they likely capture different aspects of the academic and/or personal challenges faced by students.

Alerts Predict Poor Mid-Semester Grades
From Fig 1, 49% of students who received at least one Submission Alert and 92% of the students who received at least one Activity Alert prior to mid-semester received at least one poor mid-semester grade in that term. By comparison, 40% of all students, 40% of students who did not receive a Submission Alert, and 40% of students who did not receive an Activity Alert received a poor mid-semester grade (not pictured). Overall, 32% of students who received a poor mid-semester grade ended the term in poor academic standing.

Activity Alerts Predict Poor Academic Standing
From Fig 1, 15% of students who received a Submission Alert and 55% of students who received an Activity Alert ended the term in poor academic standing. By comparison, 14% of all students, 14% of students who did not receive a Submission Alert, and 13% of students who did not receive an Activity Alert ended the term in poor standing (not pictured). Future work will examine intervention effectiveness.

Conclusions
Students who receive Activity Alerts are less likely to be academically successful than their peers who do not alert. The picture is less clear for students who receive Submission Alerts. These findings highlight the need for effective support and intervention strategies, particularly for students with Activity Alerts. Though relatively few students alerted, analyses by IRDS indicate that every 20 students retained improves our overall retention rate by 1%, underscoring the value of this project.