

# LEARNING ANALYTICS

## with Library Instruction Data and Student Data

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### LEARNING ANALYTICS

USU Libraries has an on-going learning analytics project combining library instruction data with student data.

We are examining connections between:

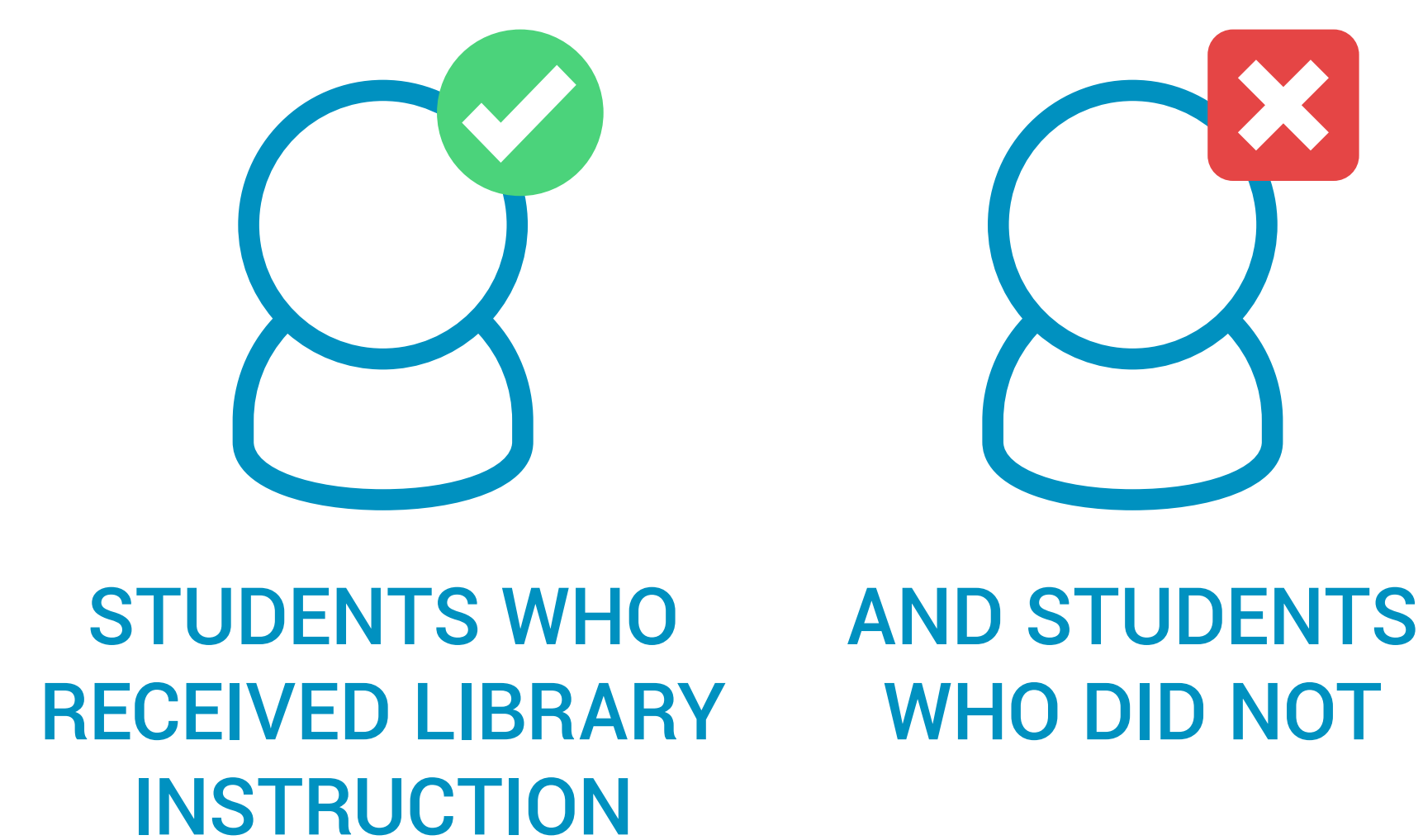
- when and how often students receive library instruction during their college career
- student GPA and retention

### METHODOLOGY

We collaborated with the university's Analysis, Assessment, and Accreditation office (AAA). AAA used the library's instruction data, which includes course numbers and terms, and connected this data about library instruction to the corresponding student data from the university database (Banner).

Data were de-identified and aggregated in accordance with IRB requirements.

Using instruction data from 2014 – 2019, the data set includes:



Using Tableau dashboards, we can compare groups of students and the overall GPAs of each group. We can also filter by:



Our goal is to compare potential connections between library instruction and success measures within specific groups.

### RESEARCH IMPETUS & QUESTIONS

Our study adapted and replicated a multi-institutional Greater Western Library Alliance (GWLA) assessment.

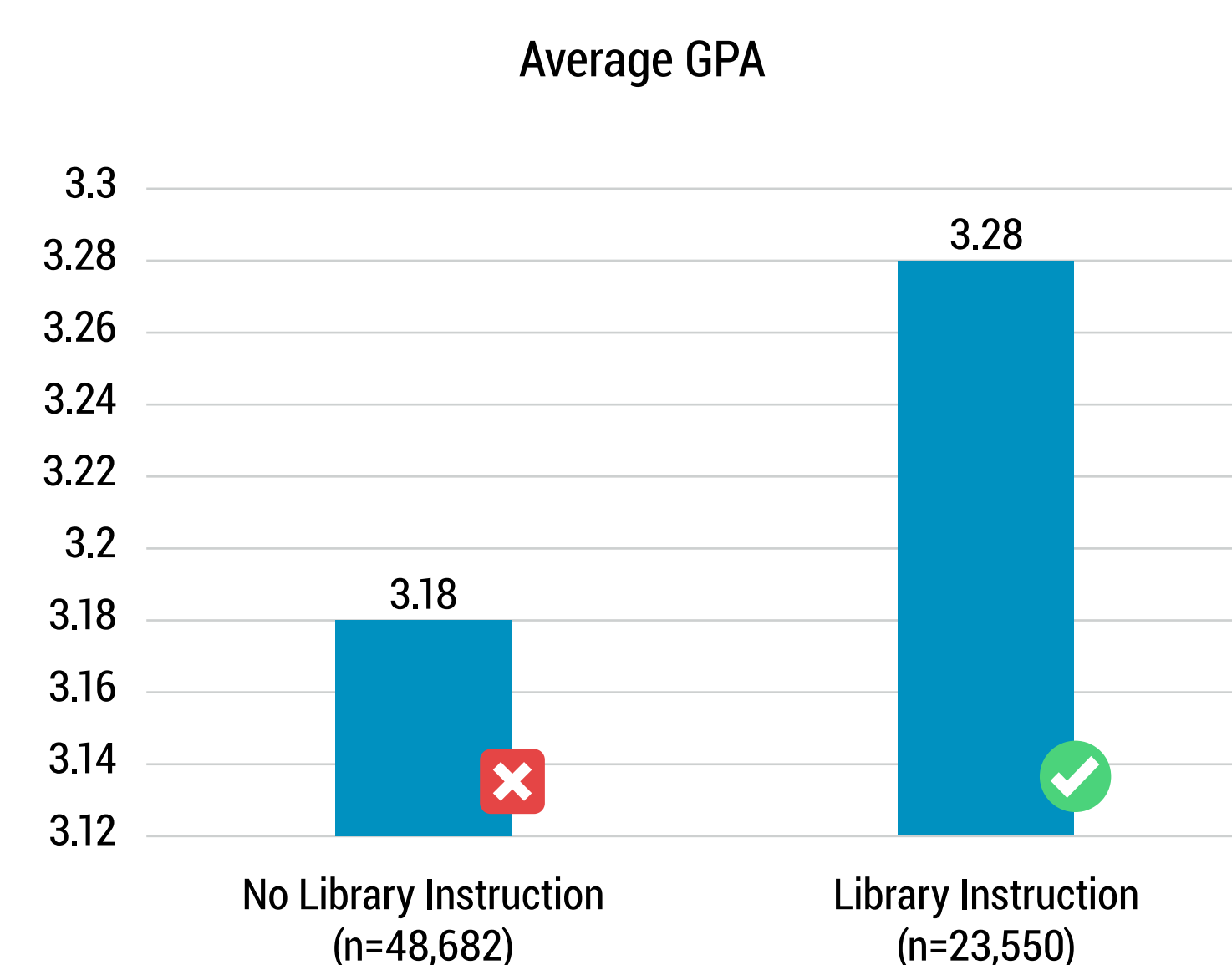
GWLA Research Questions:

- 1 What effect does library instruction have on the retention of college students?
- 2 What effect does library instruction have on the academic success of college students, as measured by GPA?
- 3 What is the impact of specific library instruction methods on the retention and academic success of college students?

We wanted to look at students' entire experience with library instruction, including upper division courses. This additional research question involves evaluating how the timing of library instruction across a student's university curriculum might be correlated (or not) to success and retention.

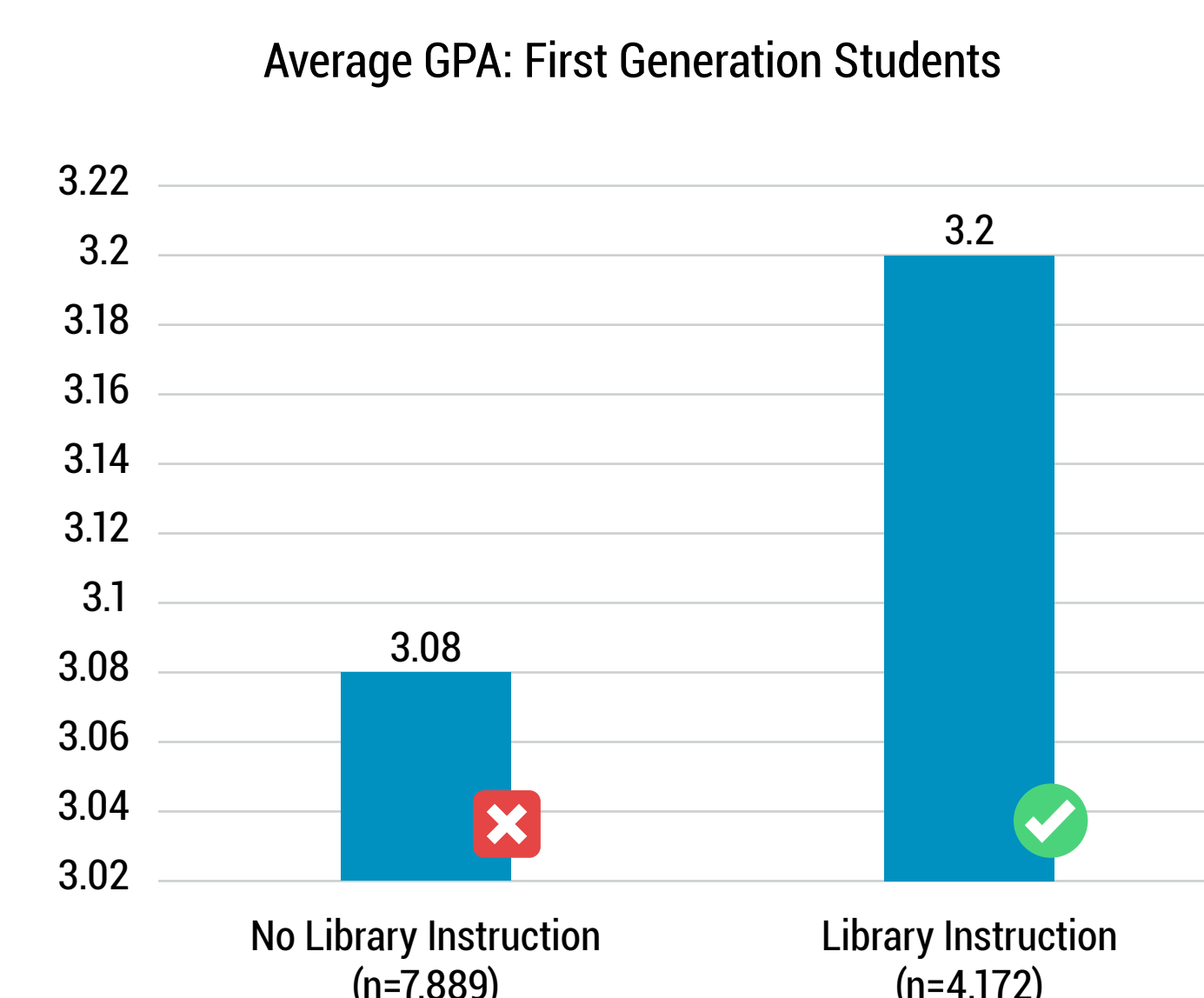
#### MAJOR FINDING #1

Students who received library instruction showed a 3% GPA increase more than those who did not.



#### MAJOR FINDING #2

First-year generation students who received library instruction experienced a 4% GPA increase.

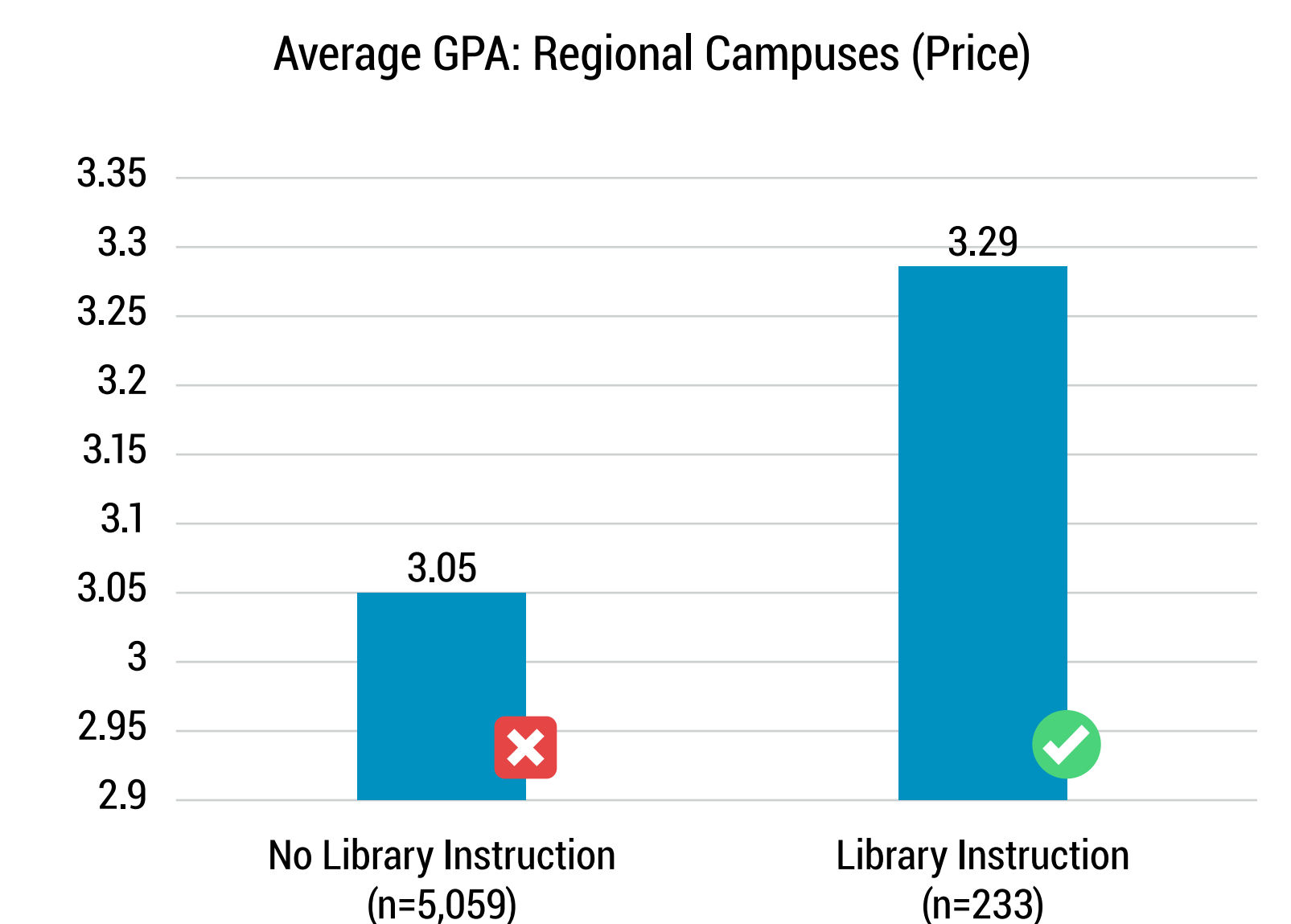


### PRACTICAL IMPLICATIONS

- Enable libraries to demonstrate library impact with stakeholders on campus.
- Engage in conversations about ways to improve the impact and timing of library instruction with specific colleges or programs.
- Gather powerful data for accreditation agencies.
- Model of collaboration with assessment offices outside the library.
- Within limitations, learning analytics can improve the ability of the library to tie library instruction to success factors often included in university mission statements (student success and retention), or provide a starting point for conversations about how to increase the reach and impact of library instruction.

#### MAJOR FINDING #3

Up to 8% GPA increase for some regional campus students compared with students who did not receive library instruction.



#### MAJOR FINDING #4

History department students who received library instruction experienced a 4% GPA increase.

