



## **LEARNING CHALLENGES LEADERBOARD:** Introduction to Statistics

### **Where do students struggle the most?**

This Learning Challenge Leaderboard identifies the hardest learning outcomes, according to aggregated nationwide student data from Lumen's Waymaker courseware. Because Waymaker course materials are open educational resources (OER), we can apply a continuous improvement process to make them better and better at supporting student learning.

### **Using the Leaderboard**

Using RISE analysis, the Leaderboard determines which outcomes students found most difficult, and where the current content is least helpful at supporting learning. Of the hundreds of skill-level outcomes in a Waymaker course, the five most difficult are listed in order of difficulty.

### **Help Improve Learning by Improving OER**

Lumen's RISE and Shine initiative invites faculty members to collaborate with us to improve student learning by revising OER content, learning design, and assessments.



## LEARNING CHALLENGES LEADERBOARD

Introduction to Statistics	Average Score on Aligned Assessments (as Z Score)	Average Views of Aligned OER (as Z Score)	RISE Distance
1. From a research question, determine the goal of a statistical study.	-0.425	2.973	3.003
2. From a description of a statistical study, determine the goal of the study.	-0.375	2.973	2.997
3. Use a five-number summary and a boxplot to describe a distribution.	-0.622	1.275	1.419
4. Use mean and median to describe the center of a distribution.	-0.685	1.204	1.386
5. For a linear relationship, use the least squares regression line to model the pattern in the data and to make predictions.	-0.632	0.800	1.020

### Explore OER Course Materials

Find OER designed to improve learning for Statistics and many other college subjects in Lumen's public catalog: [lumenlearning.com/courses](https://lumenlearning.com/courses)

Join the conversation about continuous improvement. Share ideas, new or revised OER to improve learning.

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Improve OER.  
Improve learning.