

due in 6day 21h

Submission Phase

1. Do assignment ☐ (/introstats-001/human_grading/view/courses/970433/assessments/5/submissions)

Evaluation Phase

2. Evaluate peers  (/introstats-001/human_grading/view/courses/970433/assessments/5/peerGradingSets)

Results Phase

3. See results  (/introstats-001/human_grading/view/courses/970433/assessments/5/results/mine)

☐ In accordance with the Honor Code, I certify that my answers here are my own work, and that I have appropriately acknowledged all external sources (if any) that were used in this work.

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Introduction to the Assignment

Hello everyone! Now that the videos and quizzes are running along smoothly, it's time for your first homework assignment. This assignment asks you to interpret some very special data -- data about you! Specifically, we will investigate data collected from students in this very MOOC, through the pre-course survey (available for viewing [here \(https://spark-public.s3.amazonaws.com/introstats/Assignment1/PreCourseSurvey.pdf\)](https://spark-public.s3.amazonaws.com/introstats/Assignment1/PreCourseSurvey.pdf)) and the background knowledge quiz. You'll have to look through various tables and figures about these data, and answer four different statistical questions about them, using the statistical ideas you have learned in Weeks 1 and 2 of this MOOC.

This assignment is not short, so please budget some extra time for it. (Yes, this is in ADDITION to the usual weekly load of new videos and quiz.) On the other hand, you are allowed just a limited number of words in your responses, so don't go overboard -- just concentrate on the most important points. Remember that your assignment will be viewed and graded by your peers next week. Your solutions do not have to be perfect or entirely complete, they just have to show that you have made a reasonable effort to think about the statistical issues involved. We hope that you will enjoy this assignment, and use it as a way of trying your hand at interpreting the results of a statistical analysis, without worrying TOO much

about the result as long as you make a sincere effort.

Note that this assignment has a **HARD DEADLINE** this coming Sunday (April 28) at 11:59 PM EDT, with no flexibility about that (sorry) because we need to start the peer assessment at that time. If you do not enter work before the submission deadline, you will not receive an evaluation for this assignment, nor will you be allowed to evaluate your classmates' work. So, please get started on this assignment right away, even before viewing the Week 4 videos and quiz (which are not required for this assignment, and which have a later Hard Deadline).

You can create and save multiple drafts any time during the submission process; your draft enters the system to be graded only when you click the "Submit for grading" button. (This means that if you haven't clicked "Submit for grading" by the deadline, your saved draft will not be evaluated, so please be sure to click it!) Even after submitting, you can return to your assignment, make changes and "Re-submit for grading" anytime up until the deadline. You will need to check the box "In accordance with the Honor Code..." to activate the Submit button.

Next week, we will continue with the peer assessment phase of this assignment. You will be asked to review five other students' assignments, and five other students will review your assignment too. Some general information about peer assessment is available [here](http://help.coursera.org/customer/portal/articles/971175-how-do-peer-assessments-work-) (<http://help.coursera.org/customer/portal/articles/971175-how-do-peer-assessments-work->), and we will provide you with more details next week. Remember that you must participate fully in BOTH the assignment AND the peer assessment in order to receive credit for your work.

Background for the Assignment

For this assignment, a simple random sample of 1,500 observations was selected from the 18,462 submissions of at least one of the pre-course survey and background knowledge quiz. Our data are the pre-course survey responses and answers to the background knowledge quiz for these 1,500 observations.

The key pdf document for this assignment is posted [here](https://spark-public.s3.amazonaws.com/introstats/Assignment1/a1plotsandstats.pdf) (<https://spark-public.s3.amazonaws.com/introstats/Assignment1/a1plotsandstats.pdf>). That document gives more information about the data being considered, including five tables and four figures (plots). For this assignment, please use only the information provided in that document. (We won't be providing the data for now, partially because we don't want to disadvantage students who are not learning R, though we might post more details later.)

(As an aside, we note that the background survey also asked for what region of the world you live in. The possible response options were all continents, and several of you told us that where you live wasn't represented. We apologize for that; we simply used the standard Coursera regions, but now we see that they should be appropriately modified and expanded -- which we will do next time. Because of this concern, we decided not to use this question for the assignment. But for those of you who are curious about your fellow students: we have students enrolled from every continent (except Antarctica); 37% of respondents indicated they were from North America, 28% indicated Europe, 22% indicated Asia, 7% indicated South America, 4% indicated Africa, and 3% indicated Australia. And other students told us they were from Central America, New Zealand, and some Pacific islands, too.)

The Actual Assignment

Your assignment is to use the information in the [pdf document](https://spark-public.s3.amazonaws.com/introstats/Assignment1/a1plotsandstats.pdf) (<https://spark-public.s3.amazonaws.com/introstats/Assignment1/a1plotsandstats.pdf>) of tables and figures mentioned

Assignment question 3

(Two quantitative variables)

For this question, we are interested in whether the variables "total number of other MOOCs enrolled in" and "age" are related to the score on the background knowledge quiz. Use Table 1 and Figures 1 and 2 to comment on the relationships you observe. Support your comments by referring to appropriate correlations and features of relevant plots.

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Assignment question 4

To what group of people can you generalize any observations you made about these data? Why?

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