Lesson 13: Inference for Two Means (Independent Samples)

Preparation

## Solutions

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| Problem | Part | Solution |
| 1 | - | There is no pairing between the two groups. Group 1 does not determine Group 2. |
| 2 | - | Chart |
| 3 | A | Is there a difference between the mean wages of BYU-Idaho male students and female students? |
| 3 | B |  |
| 4 | - | Students from one of the Math Department professor’s classes took a survey which asked how much they make as an hourly wage. |
| 5 | - | -Males: , ,  - Females: , ,  - You should also include two histograms here, one for the men and one for the women. Hist |
| 6 | A | Independent Samples Hypothesis test |
| 6 | B | -The sample size is large for each sample so we can assume normality. - It was not a simple random sample. |
| 6 | C |  |
| 6 | D |  |
| 6 | E | , , |
| 6 | F | fail to reject the null hypothesis |
| 6 | G | We have insufficient evidence to say that there is a difference between wages of male and female BYU-Idaho students. |
| 6 | H | (-0.176, 4.529) or (-4.529, 0.176) |
| 6 | I | -We are 95% confident that the true difference in mean wages between women and men at BYU-Idaho is somewhere between $-0.18 and $4.53, or $-4.53 and $0.18. - We can also see that there is insufficient evidence using the confidence interval method because zero is included in our confidence interval. |
| 7 |  | Answers may vary |