

Stats Support 5: Lecture 6

Practice questions

Will be taken up in Stats Support on Fri February 14th – at 1130 in W170 and 230 in LH101. Remember you do not need to complete the questions to attend this portion of stats support.

From previous weeks: We created a 'happiness scale' out of various attitude and emotion questions on a survey administered to 10000 auto workers in a large auto-factory in Ontario. The scale ranges from 0 - 50 (50 would be perfect happiness). The auto workers had a mean of 30.3 and a standard deviation of 4.2 points.

1. We have a subgroup of high-paid floor managers ($n=372$) with a mean happiness score of 29.2 points. Are these managers happier than all workers?
2. We have a subgroup of married workers ($n=5327$), 29% of whom scored above 35 points. Do married workers differ from all workers in their propensity to score in this range?

What happens if we repeat these questions with an alpha of .01 or .1 instead of .05 (note it only changes one piece of step 3 and none of the math).

What would need to change in Q1 if $n=37$? What about if $n=53$ in Q2?

**This question relates to adjustments for small samples (t-tests). Note not all students will have been exposed to this material yet - some classes will cover this adjustment next week*

**its very important that we start to understand the steps of the 5 step hypothesis testing method generally, as well as being able to produce the One-Sample Case Test specifically, while using the 5 step method. There is a template of memorisable components that must always be included, and that we will review and discuss during this session.*