

Transcript

Live Case C-C

01. 00:00:00:28 / 00:00:03:99 - Here we're looking at this body image question that we looked at when we did the
02. 00:00:03:99 / 00:00:05:04 - pie charts and bar charts
03. 00:00:05:04 / 00:00:08:55 - but now we're gonna look at it based upon gender. So we have the gender
04. 00:00:08:55 / 00:00:12:66 - and the body image and we have the responses for females and males. We can
05. 00:00:12:66 / 00:00:16:09 - see that overall we surveyed more females than males.
06. 00:00:16:09 / 00:00:19:78 - Maybe that's the population of that school. Wo we don't
07. 00:00:19:78 / 00:00:21:11 - really know whether
08. 00:00:21:11 / 00:00:24:76 - this was a nice random sample and this is great
09. 00:00:24:76 / 00:00:28:19 - or whether we oversampled females somehow
10. 00:00:28:19 / 00:00:32:39 - in our selection process. But when we look at these numbers it's very
11. 00:00:32:39 / 00:00:35:71 - difficult to compare because they're not equally weighted.
12. 00:00:35:71 / 00:00:39:14 - If we had exactly a thousand in both groups we wouldn't have any trouble.
13. 00:00:39:14 / 00:00:43:32 - So what we really usually want to do is whatever our comparison variable is, so in
14. 00:00:43:32 / 00:00:46:03 - this case our explanatory variable is gender
15. 00:00:46:03 / 00:00:50:17 - and the response variable is body image. So we're saying is there a difference in
16. 00:00:50:17 / 00:00:52:09 - the way men and women think about
17. 00:00:52:09 / 00:00:57:41 - their body. And so we want to compare females to males and that turns into
18. 00:00:57:41 / 00:01:01:03 - comparing in the way that this table is organized row percentages.
19. 00:01:01:03 / 00:01:04:86 - So this one is not calculated, I'm just giving you the answers here
20. 00:01:04:86 / 00:01:09:85 - but the way I calculate the sixty-seven percent by taking how many males 295
21. 00:01:09:85 / 00:01:13:64 - were about right over how many males total 440.
22. 00:01:13:64 / 00:01:16:88 - I'm getting sixty-seven percent of males think they're
23. 00:01:16:88 / 00:01:21:09 - fine, 16 percent of males think they're
24. 00:01:21:09 / 00:01:25:86 - overweight, and 16 percent think they're underweight. And then if we do the same
25. 00:01:25:86 / 00:01:30:18 - thing for the females, interestingly 73.7 think about right
26. 00:01:30:18 / 00:01:33:61 - but more women think they're overweight and underweight.
27. 00:01:33:61 / 00:01:37:10 - So 21 and a half percent of women think they're overweight.
28. 00:01:37:10 / 00:01:41:92 - Only five percent underweight. Very important idea!!
29. 00:01:41:92 / 00:01:45:64 - Calculating row percents. We can do column percent also but in this case it just
30. 00:01:45:64 / 00:01:47:04 - doesn't make any sense.
31. 00:01:47:04 / 00:01:50:53 - Of those who said about right what percent were male, what percent were
32. 00:01:50:53 / 00:01:51:04 - female.
33. 00:01:51:04 / 00:01:54:75 - Yes, it exists but I'm not interested in the outcome of that question.
34. 00:01:54:75 / 00:01:57:81 - This is the same thing as
35. 00:01:57:81 / 00:02:02:89 - conditional probability so when it comes around, come back here,
36. 00:02:02:89 / 00:02:06:85 - the same idea. Of the females what percent
37. 00:02:06:85 / 00:02:11:44 - said they were about right that's going to be conditional probability the
38. 00:02:11:44 / 00:02:14:90 - condition means I know something I know you're female
39. 00:02:14:90 / 00:02:18:93 - so is not really that difficult but when I start throwing probability formulas
40. 00:02:18:93 / 00:02:19:52 - into it
41. 00:02:19:52 / 00:02:23:37 - it'll make it seem more difficult. And we could draw this
42. 00:02:23:37 / 00:02:27:75 - bar chart, if you wanted to, to visualize that difference, and it makes this really
43. 00:02:27:75 / 00:02:30:26 - obvious. We can see that compared to males
44. 00:02:30:26 / 00:02:33:26 - women are much less likely to think they're underweight
45. 00:02:33:26 / 00:02:37:28 - slightly more likely to think they're overweight and the question we might
46. 00:02:37:28 / 00:02:38:39 - have later you know this
47. 00:02:38:39 / 00:02:42:45 - statistically significant will come back in verify that one way or the other.