

# [Case study your college week](https://assignbuster.com/case-study-your-college-week/)

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Assignment: Week 2 Stat Case Study Your College Week 2 Stat Case Study This report will examine whether there is an association between gender and job experience for the students. In other words, if students’ gender and their job experience are independent (or dependent). For this purpose, a simple random sample of 100 high school seniors was selected from a large school district. The gender of students was recorded and their response for the question “ Have you ever had a part-time job?” was recorded. If students answered yes to the previous question, their response for the question “ Was your part-time job in the summer only?” was recorded.   
Analysis and Results   
The sample represented male (48%) and female (52%) students approximately equally. Table 1 shows the cross-tabulation of students’ gender and their response on the job experience. About half (52%) of the students said they never had a part-time job. 28% of the students said they had a part-time job during summer only and 20% of the students said they had a part-time job but not only during summer.   
Table 1: Cross-tabulation of student gender and their job experience   
Job Experience   
Student Gender   
Male   
Female   
Total   
Never had a part-time job   
21 (44%)   
31 (60%)   
52 (52%)   
Had a part-time job during summer only   
15 (31%)   
13 (25%)   
28 (28%)   
Had a part-time job but not only during summer   
12 (25%)   
8 (15%)   
20 (20%)   
Total   
48   
52   
100   
Figure 1 shows the job experience for the students based on their gender. As shown in figure 1, there appears that there is an association between gender and job experience for the students.   
Figure 1: Bar chart showing job experience for the students based on their gender   
Figure 2 shows the conditional distribution of job experience for the male students. About 44% of the male students never had a part-time job, about 31% had a part-time job during summer only, and about 25% had a part-time job but not only during summer.   
Figure 2: Conditional distribution of job experience for the male students   
Figure 3 shows the conditional distribution of job experience for the female students. About 60% of the female students never had a part-time job, about 25% had a part-time job during summer only, and about 15% had a part-time job but not only during summer.   
Figure 3: Conditional distribution of job experience for the female students   
Thus, there appears a difference in the conditional distribution of job experience for the male and female students suggesting an association between gender and job experience for the students. In other words, students’ gender and their job experience are not independent.   
Conclusion   
In conclusion, about half of the students never had a part time job and about half of the students had a part-time job. The results indicated that there is an association between gender and job experience for the students.   
Reference   
Lind, D. A., Marchal, W. G., & Wathen, S. A. (2011). Statistical Techniques in Business and Economics (15 ed.). New York: McGraw-Hill Irwin. ISBN: 9780077505011