

will a flexible work schedule result in positive benefits for the both employer and employee/ Is a more rested employee, who spends less time commuting to and from work, likely to be more efficient and take off sick leave and personal leave? A report on the benefit of flexible work schedule looked at the records of  $n = 11$  employees who worked in a satellite office in a country health department in Illinois under a 4-day workweek schedule. Employees worked a conventional work week in year 1 and a 4-day work week in year 2. Some statistics for these employees are shown below

| Empl | Personal leave |        | sick leave |        |
|------|----------------|--------|------------|--------|
|      | year 2         | year 1 | year 2     | year 1 |
| 1    | 26             | 33     | 30         | 37     |
| 2    | 18             | 37     | 61         | 45     |
| 3    | 24             | 20     | 59         | 56     |
| 4    | 19             | 26     | 2          | 9      |
| 5    | 17             | 1      | 79         | 92     |
| 6    | 34             | 2      | 63         | 65     |
| 7    | 19             | 13     | 71         | 21     |
| 8    | 18             | 22     | 83         | 62     |
| 9    | 9              | 22     | 35         | 26     |
| 10   | 36             | 13     | 81         | 73     |
| 11   | 26             | 18     | 79         | 21     |

1. A 4-day work week ensure that employees will have one more day that need not be spent at work. One possible result is a reduction in the average number of personal leave days taken by employees on a 4-day work schedule. Do the data indicate that this is the case? Use the p-value approach in testing to reach your conclusion
2. A 4-day work week Schedule might also have an effect on the average number of sick leave days employees takes. Should a directional alternative be used in this case . Why?
3. Construct a 95% confidence interval to estimate the average difference in days taken in for sick leave between these 2 years. What do you conclude about the difference between the number of sick leave days for these the two work schedules.

What is the advantages of the 4-day week schedules