

# [2001 and 2005 database for virginia hospitals essay](https://assignbuster.com/2001-and-2005-database-for-virginia-hospitals-essay/)

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2001 and 2005 Database for Virginia Hospitals   
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Statistical tests conducted examined changes in 11 variables for the years 2001-2005 occurred in Virginia’s hospitals. The observations were made with the help of t-test of paired two samples for means. A t-test statistical significance indicates whether the difference between average values of the two groups reflects a difference in the populations from which the two samples were taken. A conclusion about statistical significance is made on the basement of the sample size, the size of the difference between average values of the groups, p-value, and the standard deviations of the groups. As the size of the populations is unknown, the conclusions related statistical significance of t-test will be made based on the difference between average values, the standard deviation, and p-value. Summary of statistical significance of t-tests are shown in the Table 1.

The results of t-tests conducted for total operating expense, net charity care, working hours, payroll expenses, bad debt expenses, and staffed beds appeared to be insignificant (Table 1). High levels of p-value observed for these variables means that the probability of its random emerging is relatively high that not allow a researcher to apply the results of these statistical tests to the general population. On the contrary, the results of t-tests obtained for Medicare days, Medicaid days, total surgeries, outpatients and emergency visits can be considered statistically significant taking into account low p-value. Thus, the results of t-tests conducted for these variables can be applied to the general population.   
For example, the sharp increase in total operating expense in 2005 in comparison to 2001 does not mean the increase of operating expenses for all hospitals located in Virginia. The same implications are relevant for other variables displayed insignificance of t-test. On the contrary, increase in average number of Medicare days, Medicaid, and other variables displaying significance of t-test can be considered relevant for the general population.

## References

Witte, Robert S. and Witte, John S. Statistics. 9th ed. New York: John Wiley & Sons.