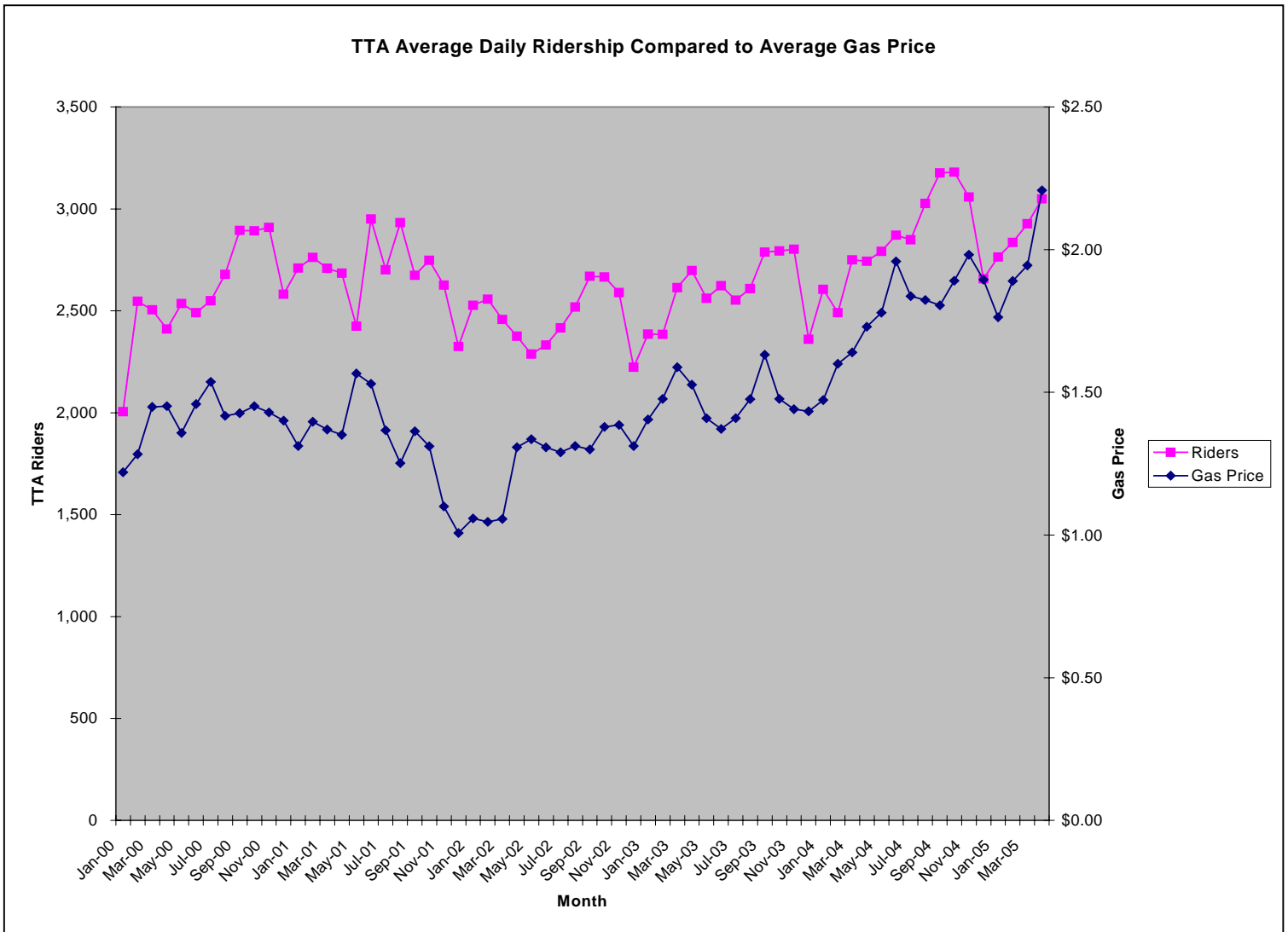


TTA Bus Ridership Analysis Brief

Comparison of Average Daily Ridership to Average Gasoline Prices (January 2002 – April 2005)

Triangle Transit Authority staff has updated its analysis of average daily bus ridership since January 2000, comparing it to average conventional retail gas prices in the Southeast (source: Energy Information Association of the US Department of Energy). The comparison found an important and statistically significant positive correlation between TTA bus ridership and the previous month's gas prices. Over the 10-month period from July 2004 through April 2005, as gasoline prices rose 20%, TTA average daily ridership grew by over 10% compared with the previous year.

While it is certain that there are numerous other factors that are correlated with TTA ridership levels (including regional employment levels, TTA service hours, marketing campaigns, etc.), this analysis provides compelling evidence that gas prices do influence the commuting habits of Triangle residents.



Methodology

Average daily TTA ridership figures for each month from January 2000 through April 2005 were regressed against average conventional retail gas prices in the Lower Atlantic states (as defined by US Department of Energy) for the first week of each month between December 1999 through March 2004. We assumed that there would be a one-month lag in the change in gasoline price and the change in bus ridership. With 64 observations, the Gas Price coefficient is 6.56 (meaning that for every 10-cent rise in gas price, TTA saw approximately 66 additional passenger boardings per day the following month.) The t-statistic for this coefficient is 6.95 indicating a statistically significant correlation between these two variables. The R² value was .438 indicating that 43.8% of the variation in TTA ridership can be explained by the variation in the previous month's gas price.