REVIEWER’S COMMENTS ON "UNIVERSAL SERVICE IN TENNESSEE: A PRE-COMPETITION, PRE-LIFELINE ASSESSMENT"

The objective of this paper is to develop an empirical model to explain the penetration rate or the percentage of households that subscribe to telephone service. The author creates some confusion initially by seeming to make a distinction between universal service and the penetration rate. In the introductory section of the paper the author points out some disagreement over the meaning of universal service. One paper cited observes that universal service might not “mean a goal of a phone in everybody’s home … .” But the empirical study presented uses the penetration rate as the dependent variable. This apparent contradiction is ignored after the introductory section of the paper.

The author goes to considerable length to justify the selection of the data utilized and the time period but this discussion does not enlighten the reader. It would be sufficient to describe the nature of the data with a simple explanation that 1990 Census block data best suit the investigation.

Regarding the discussion of the variables in the empirical model, the author often engages in speculation about the possible influence of the variables. This discussion should begin with economic theory. Otherwise the justification for including variables should be limited to some justification for the inclusion of the variable. Also the author occasionally asserts that one variable is more important than another. Unfortunately, the methodology used in the study does not test for that possibility.

Another econometric problem arises with the test of significance for the variable measuring the number of households in the Census block. Since the variable HOUSEHLD and its square are both included in the model a t-test of individual coefficients is not appropriate. The author should do a joint hypothesis test if both HOUSEHLD and HOUSESQR.

In the discussion of the empirical results, the author raises the interesting point with regard to connection fees. The estimated coefficient is significant at the .05 level. However, the author notes that relatively few local exchanges charge a connection fee and suggests that with so few observations of the variable that the results might somehow be suspect. In fact, the strength of the findings adds conviction to the conclusion that connection fees reduce the penetration rate.

A similar situation arises in the discussion of use of the estimated value of the price of residential telephone service, PPRICE. After providing reasonable justification for using a two-step estimation procedure, the author then raises questions about that decision. When the estimation results fail to produce a significant result, the author suggests that a specification problem exists. The variable should not have been used if there were legitimate concerns about its construction.

One final point of confusion, the author reports very small elasticities with respect to connection fees. Then in the conclusion, the author observes that the connection fee is an important factor in explaining the penetration rate. This apparent anomaly may be due to the points chosen for estimating the elasticity. The sample means or even two-standard errors above the sample means is not point at which the connection fee poses an obstacle. Intuitively, connection fees are likely to reduce penetration rates for low-income households.