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Dear Matthew

Comments on New Materials Related to the “Empirics of Business Data Services”

On July 1 you invited me to review and comment on some new materials made available after the reviews of Professor Rysman’s “Empirics of Business Data Services” report. These materials reflect changes made by cable companies to the data supplied, and some additional analysis that followed issued raised in two referee reports, including my own. Further revisions were provided on July 12. I have reviewed these materials, although in less detail than my review of the original Rysman study. I have a few comments that I am happy to place in the record.

- (1) Clustering of standard errors: in my initial report I argued that it was important to check that the statistical significance of the regression results was robust to the “clustering” of standard errors, because it was plausible that some common unobserved factors affect the prices charged by incumbent carriers in nearby buildings, which would mean that the observations were not truly independent of each other. I tentatively suggested the clustering at the census block level might be appropriate.

The results in the staff memorandum show that clustering at the block level can increase standard errors substantially (for example by a factor of 2 or 3) although this does not change whether the coefficients of interest are statistically significance, at the 5% level, in most cases. While this is comforting in one sense, it would not be unreasonable for someone to argue that if allowing for clustering at the block level has such a large effect on standard errors, then it is possible that widening the geography even further, for example, to the tract level, might further increase the standard errors and start to change the significance of more coefficients.

- (2) Cable facilities: I like the fact that the FCC staff have included new measures of cable presence, measured in a variety of ways, in a new analysis. One might have argued that these connections could provide some substitute competition to the type of “facilities based building measure” that was included in the previous regressions, especially as it seems that this often reflects actual connections rather than the ability to easily provide a connection. Depending on the correlation of the cable presence measures and the previous measure, one could have imagined that this might affect the estimates in different directions.

The new results themselves are a little bit hard to interpret, partly because there are so many regressions, and partly because these results might also be affected if the clustering was broadened. We seem to see a slightly different pattern for different types of service. For high-bandwidth connections there seems to be some evidence that the cable presence

measures reduce prices, and more restrictive measures of that competition seem to reduce prices slightly more (e.g., Table 3.1a). For DS-3 we see some large price-reducing effects of DOCSIS 3.0 availability. But the effects seem to come primarily from “price cap 1” areas where some of the estimates are very large indeed. In my original report I suggested that some measure of plausibility of price effects might come from engineering estimates of costs. Apparently this is not possible, so I do not have any clear basis to disagree with the staff assessment that such large effects are likely to be picking up something else. A simple analysis of summary statistics (whether in terms of demographics, business density, types of customers, and factors that might affect costs of service) might be useful to understand what is going on here.

I hope that these comments are useful.

Yours sincerely

A handwritten signature in black ink that reads "A.T. Sweeting". The signature is written in a cursive style with a large, sweeping flourish at the end of the name.

Andrew Sweeting