

Focus groups and pilot study

The methodology we employ to estimate willingness-to-pay (WTP) has been used many times by researchers in transportation science, environmental economics, and marketing, among other fields. For example, Buchanan, Morey and Waldman.(2002) successfully estimated the WTP for mountain bike trails, and Lazo and Waldman (2009) estimated WTP for improved hurricane warnings.

But of course, the most direct evidence that the WTP for each feature of Internet service can be estimated from this kind of survey comes from our previous work (Savage and Waldman; 2008, 2009). Moreover, the preliminary analysis of the data obtained from the focus groups and pilot study for this project, described below, is very encouraging.

For this project, we have run two different kinds of focus groups, and one pilot study. The first focus group was held in the seminar room of the Economics building at the University of Colorado on October 30, 2009. Five individuals (i.e., barber, mail clerk, restaurant owner, secretary, advanced graduate student) simultaneously took the survey and then discussed its presentation and content in a group setting (including Scott Savage and Don Waldman). The graduate student used the Internet very frequently, while the barber did not have an Internet connection.

The second focus group was facilitated by RRC Associates in Boulder on November 19. The group consisted of five diverse individuals (with respect to age, gender, and Internet experience), who completed the survey sequentially in the presence of a professional facilitator.

In both focus groups, it was clear that the individuals could follow the instructions within the survey, and they had had a very good idea of what they were required to do (e.g., think about Internet service and choose between different Internet service options). Moreover, their choices reflected their preferences for the separate features of Internet access. Most of the feedback in this session concerned the wording of some of the questions and descriptions, and this feedback has already been incorporated into the final draft of the survey.

We also collected 71 observations in a pilot survey conducted on undergraduate students on October 30, 2009. The preliminary analysis of these data (71*8 = 568), reported below in Table 1, show that the estimated marginal utilities, generally, have the right sign and are of plausible magnitudes. The WTP estimates, reported in Table 2, showed that students have high valuations for speed, reliability, and (predictably) for the mobile laptop and movie rental activities. The WTP for the videophone activity has the right economic sign but is not statistically different from zero. Also, given that the sample comprises of 18 to 22 year old students, we observe from the estimates in Table 1 and 2 that the students did not value the telehealth activity.

Overall, the feedback from our focus groups, and the empirical results from the pilot study data, indicate that our methodology, survey and service descriptions do a very nice job of estimating the WTP for the various Internet features and activities. Estimation of the econometric model on the A-B hypothetical choice data and the status quo choice data, and with a larger and more representative sample (n = 4,500), will provide a precise set of results that will be used to examine U.S. demand for Broadband Internet.

Table 1. Probit estimates of A-B model

| Features | MU Estimate | Std. err. | Est./s.e. | Prob. | Gradient |
|---------------|-------------|-----------|-----------|--------|----------|
| cost | -0.0319 | 0.0026 | -12.336 | 0.0000 | 0.0000 |
| speed | -0.7937 | 0.0809 | -9.812 | 0.0000 | 0.0000 |
| reliable | -0.7470 | 0.0758 | -9.859 | 0.0000 | -0.0000 |
| mobile laptop | -0.5073 | 0.1568 | -3.234 | 0.0006 | 0.0000 |
| movie rental | -0.5869 | 0.1743 | -3.367 | 0.0004 | -0.0000 |
| videophone | -0.0439 | 0.1638 | -0.268 | 0.3944 | -0.0000 |
| telehealth | 0.1646 | 0.2042 | 0.806 | 0.2100 | 0.0000 |

Table 2. Willingness to pay for an improvement in the feature/activity

| Feature/activity | WTP | t |
|------------------|---------|------|
| Speed | \$24.90 | 9.81 |
| Reliable | \$23.40 | 9.86 |
| Mobile laptop | \$15.90 | 3.23 |
| Movie rental | \$18.40 | 18.4 |

References

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