COWLES COMMISSION DISCUSSION PAPERS, ECONOMICS NO. 2[illegible]

Comments on "Some Experiments in Demand Analysis" by A. R. Prest

By Kenneth J. Arrow

The following comments do not refer to purely statistical questions.

Page 5: A Marshallian demand curve can be determined otherwise than by questionnaires if it is identified by a priori information. (Cf. A. Marshall, Principles of Economics, pp. 109-116.)

Page 6: The aggregation over time or over individuals is even more complicated if we do not assume that the elasticity of demand is constant or at least varies independently of the observed prices. If, as might be expected a priori, there is a positive correlation between elasticity of demand and price, then the use of any simple averaging device will lead to a biased estimation.

Pages 7-8: In effect the author agrees that regression curves are "mongrel" in Marschak's terminology, and are not necessarily demand curves proper.

Pages 9-10: The blurring of the effects of different time lags arises from incomplete specification of the model. It must be agreed, however, that in practice this is probably unavoidable.

Page 10: There appears to be a confusion between parameters and estimates. There should be only one set of parameters and the problem is to choose the best method of estimation.

Page 11, note 69: The statement that statistical analysis can only disprove and never prove cannot be accepted in view of modern theories of statistical inference, especially those of A. Wald ("Foundations of a General Theory of Sequential Decision Functions," Econometrica, Vol. 15, 1947, pp. 279-313).

Pages 12-13: The importance of time as an explanatory variate and the failure to find stable relations in some cases, if confirmed by work with other methods, casts an extremely important light on the usefulness of received economic theory as a basis for econometric investigation. These facts fit in well with the views of Veblen and Mitchell on the instability of the factors usually taken in economic theory as parameters.

Page 13: The qualifications to the use of the elasticity of demand pointed out by the author are fully acknowledged by Marshall (loc. cit)

I wish to thank Mr. M. Friedman for pointing out the relevant passages in Marshall.