

REPLY TO ROSENZWEIG AND SEIVER

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(1) I am glad to know that more attention is now being paid to viewing family growth as a sequential decision-making process rather than as a one-shot decision problem. I do not think, however, that we have accumulated enough empirical results to make it worthwhile now to attempt to separate the wheat from the chaff.

(2) It is a good idea to question whether the discriminant function approach is appropriate, whether the OLS or the GLS procedure suggested by Goldberger (1964) is valid, and so on, when one attempts to examine the determinants of transition from one parity to the next. I have organized some thoughts on these technical issues, but this is not the place to air them. Several investigators have recently addressed themselves to such questions. Among the works by economists is a monograph by Nerlove and Press (1973), in which the authors clearly bring out the problems involved in applying the OLS and GLS procedures in regression analyses when the dependent variable is dichotomous.

(3) The inference one draws from one's data set obviously depends on the abstract experimental design one superimposes on it (see, e.g., Namboodiri et al., 1975, Chapters 1 and 5). I am not convinced that what I have done in my paper in this respect is inappropriate, given the objective I had in mind, as reflected in the title of the paper. I admit that, since parity is an ordered variable, it is difficult to resist the temptation to treat it as an ordinary regressor whenever interest centers on questions such as whether parity influences the decision to go on to have another child, or whether parity interacts with other determinants

of such decisions. It is a good discipline to remember, however, that, when one elects to treat parity as an ordinary regressor, one has to decide whether parity should be entered in the linear form or in some non-linear (e.g., quadratic, exponential, etc.) fashion. If this matter is left unattended to, the analyst may be criticized for ignoring possible specification error. If there is substantially large specification error in one's model, one may fall into the trap of making misleading inferences about how factors influencing further additions to the family change, if at all, from one parity to another.

(4) I do agree that at some stage or other we should systematically specify the relationship between parity and the influence of various determinants of transition from one parity to the next. I prefer to do this in two steps. First, I would like to identify as completely as I can the determinants of transition or of nontransition from parity n to parity $n + 1$, for $n = 0, 1, \dots$. The dependent variables in this stage of investigation are conditional probabilities of transition from one parity to the next. These may be profitably refined in several ways by making them time contingent. Thus, for example, we may concentrate on the conditional probability of remaining at a given parity over a specified span of time (e.g., 24 months). Once the determinants of these conditional probabilities get translated into parameters of explanatory models, one may move to the second stage and investigate whether the parameters identified in the models show any systematic pattern with parity. Paying too much attention to this latter stage may be unproductive when our ignorance

about the determinants of transition from one parity to the next remains substantial.

(5) With respect to testing statistical significance, I have made a few observations on this issue in my paper (p. 47). They apply not only to discriminant function analysis, but to multiple regression and other types of analyses too.

(6) The hypothesis that different factors come into prominence at successive parities in determining which couples go on to have another child deserves to be subjected to several more empirical tests. Before long I will have something further to report.

(7) Exchanges like this will not be wasted if they turn out to be instrumental in persuading other researchers to look into the issues raised.

REFERENCES

- Goldberger, Arthur S. 1964. *Econometric Theory*. New York: John Wiley and Sons.
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- Nerlove, M., and S. J. Press. 1973. *Univariate and Multivariate Log-Linear and Logistic Models*. Santa Monica: Rand Corporation.